

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 3769911
Sunset - Lot 9 - Fairground Farms

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Albermarle,NC).

Pages or sheets covered by this seal: I62301366 thru I62301389

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



December 1, 2023

Gilbert, Eric

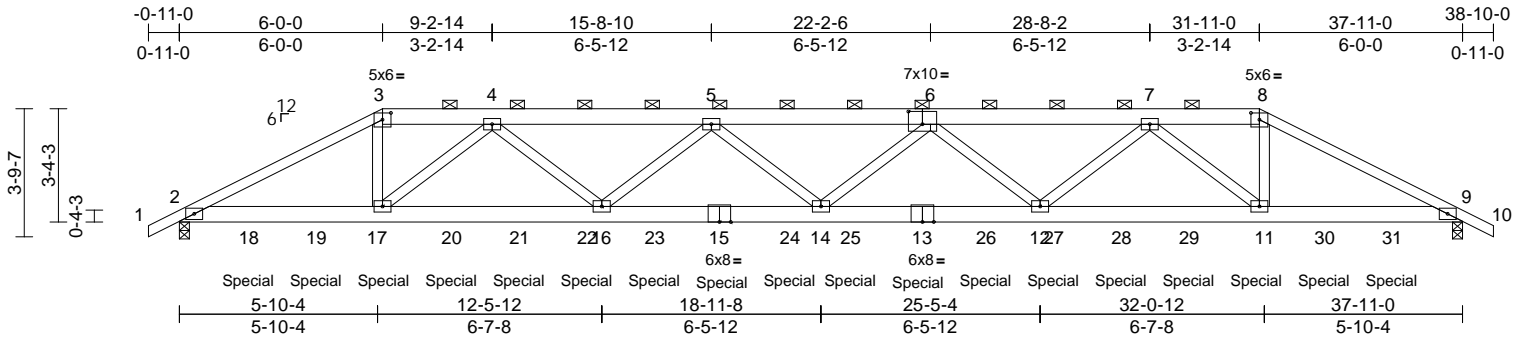
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 3769911	Truss A01G	Truss Type Hip Girder	Qty 1	Ply 3	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301366
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:16
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Page: 1



Scale = 1:68.1

Plate Offsets (X, Y): [3:0-3-0,0-2-7], [6:0-5-0,0-4-8], [8:0-3-0,0-2-7]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.38	14-16	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.58	14-16	>779	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.51	Horz(CT)	0.11	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 685 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 6-8,6-3:2x6 SP No.2
 BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS
 WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-8.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 9=0-3-8
 Max Horiz 2=49 (LC 16)
 Max Uplift 2=603 (LC 9), 9=603 (LC 8)
 Max Grav 2=4364 (LC 34), 9=4364 (LC 34)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/51, 2-3=-8773/1285, 3-4=-7638/1138, 4-5=-13225/1999, 5-7=-15079/2275, 7-8=-7638/1138, 8-9=-8773/1285, 9-10=0/51
 BOT CHORD 2-17=-1125/7821, 16-17=-1604/10843, 14-16=-2177/14565, 12-14=-2164/14565, 11-12=-1576/10843, 9-11=-1098/7821
 WEBS 3-17=-536/3719, 8-11=-536/3719, 5-16=-1795/306, 5-14=-102/738, 6-14=-102/738, 7-12=-498/3192, 7-11=-4217/693, 4-17=-4217/693, 6-12=-1795/306, 4-16=-498/3192

NOTES

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Web 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof live load of 23.1 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP 2400F 2.0E or DSS crushing capacity of 660 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 603 lb uplift at joint 9 and 603 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 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) 370 lb down and 59 lb up at 2-0-12, 250 lb down and 28 lb up at 4-0-12, 243 lb down and 61 lb up at 6-0-12, 243 lb down and 61 lb up at 8-0-12, 243 lb down and 61 lb up at 10-0-12, 243 lb down and 61 lb up at 12-0-12, 243 lb down and 61 lb up at 14-0-12, 243 lb down and 61 lb up at 16-0-12, 243 lb down and 61 lb up at 18-0-12, 243 lb down and 61 lb up at 19-10-4, 243 lb down and 61 lb up at 21-10-4, 243 lb down and 61 lb up at 23-10-4, 243 lb down and 61 lb up at 25-10-4, 243 lb down and 61 lb up at 27-10-4, 243 lb down and 61 lb up at 29-10-4, 243 lb down and 61 lb up at 31-10-4, and 250 lb down and 28 lb up at 33-10-4, and 370 lb down and 59 lb up at 35-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



December 1, 2023

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH 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)



818 Soundside Road
 Edenton, NC 27932

Job 3769911	Truss A01G	Truss Type Hip Girder	Qty 1	Ply 3	Sunset - Lot 9 - Fairground Farms I62301366 Job Reference (optional)
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:16
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Page: 2

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-66, 3-8=-66, 8-10=-66, 2-9=-20
Concentrated Loads (lb)
Vert: 13=-243 (B), 17=-243 (B), 11=-243 (B), 15=-243 (B), 18=-370 (B), 19=-250 (B), 20=-243 (B), 21=-243 (B), 22=-243 (B), 23=-243 (B), 24=-243 (B), 25=-243 (B), 26=-243 (B), 27=-243 (B), 28=-243 (B), 29=-243 (B), 30=-250 (B), 31=-370 (B)

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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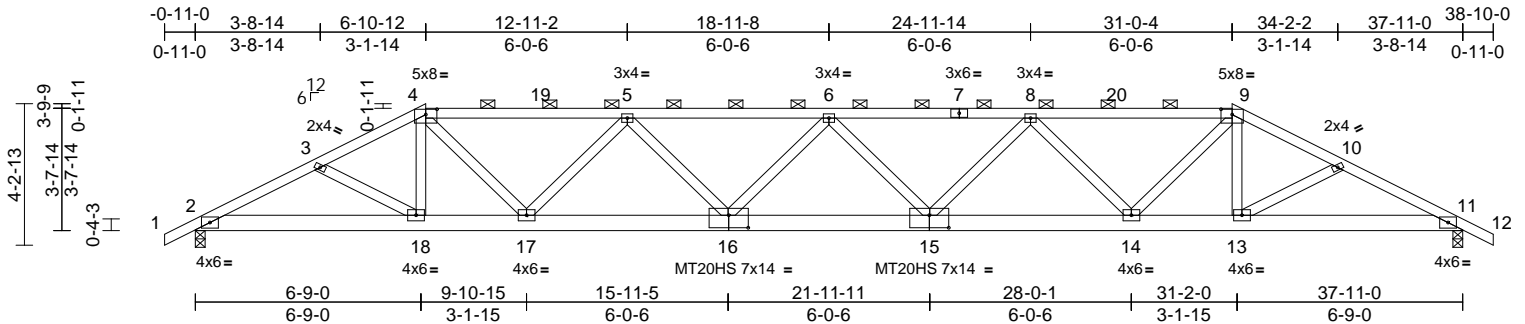
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A02	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301367
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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Page: 1



Scale = 1:68.9

Plate Offsets (X, Y): [4:0-4-0,0-1-15], [9:0-4-0,0-1-15], [15:0-7-0,0-4-8], [16:0-7-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.48	15-16	>949	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.72	15-16	>627	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.14	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 219 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS
BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-12 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=-55 (LC 13)
Max Uplift 2=-77 (LC 9), 11=-77 (LC 8)
Max Grav 2=1976 (LC 34), 11=1976 (LC 34)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/51, 2-3=-3996/211, 3-4=-3975/211, 4-5=-4747/266, 5-6=-6261/350, 6-8=-6261/350, 8-9=-4747/266, 9-10=-3975/212, 10-11=-3996/212, 11-12=0/51
BOT CHORD 2-18=-185/3529, 17-18=-160/3578, 14-17=-358/6555, 13-14=-128/3578, 11-13=-153/3529
WEBS 4-18=0/272, 9-13=0/272, 4-17=-115/1739, 5-17=-1645/180, 5-16=0/598, 6-16=-434/93, 6-15=-434/93, 8-15=0/598, 8-14=-1645/180, 9-14=-115/1739, 3-18=-345/113, 10-13=-345/113

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP 2400F 2.0E or DSS crushing capacity of 660 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 2 and 77 lb uplift at joint 11.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



December 1, 2023

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/TPH 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)

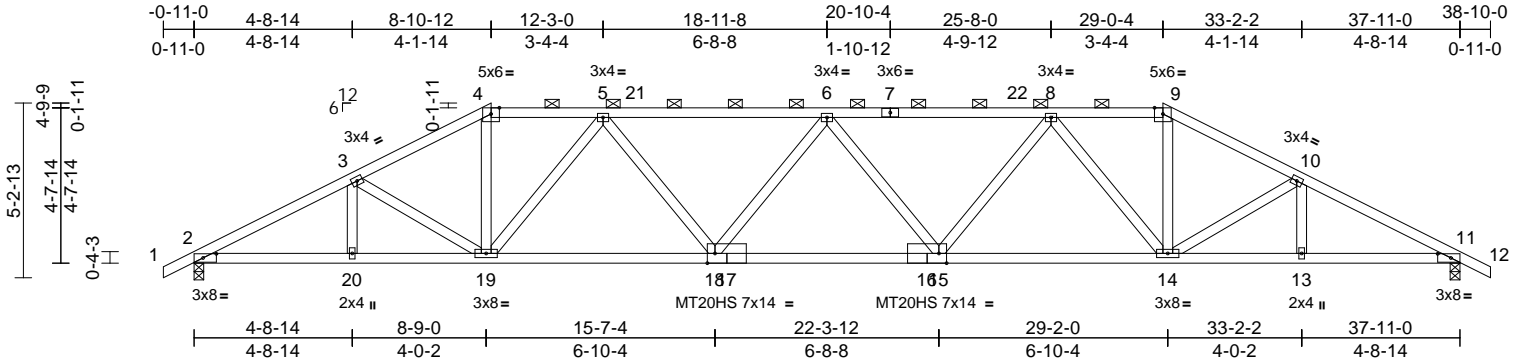
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A03	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301368
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

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Page: 1



Scale = 1:69

Plate Offsets (X, Y): [2:0-4-12,0-1-8], [11:0-4-12,0-1-8], [15:0-2-12,Edge], [17:0-2-12,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.40	15-18	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.64	15-18	>705	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.20	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 198 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 7-9,7-4:2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-9-1 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 4-9.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 11=0-3-8
 Max Horiz 2=-69 (LC 17)
 Max Uplift 2=-46 (LC 9), 11=-46 (LC 8)
 Max Grav 2=1822 (LC 34), 11=1822 (LC 34)

FORCES

(lb) - Maximum Compression/Maximum Tension

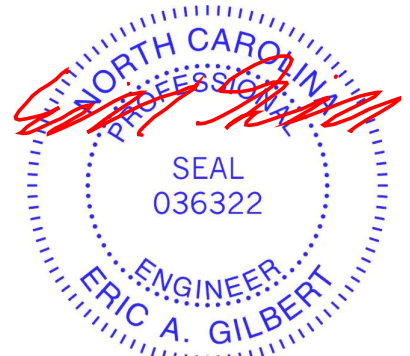
TOP CHORD 1-2=0/44, 2-3=-3610/125, 3-4=-3459/162, 4-5=-3045/153, 5-6=-4408/212, 6-8=-4408/212, 8-9=-3045/153, 9-10=-3459/162, 10-11=-3610/126, 11-12=0/44
 BOT CHORD 2-20=-113/3166, 19-20=-113/3166, 18-19=-179/3998, 15-18=-209/4713, 14-15=-138/3998, 13-14=-70/3166, 11-13=-70/3166
 WEBS 4-19=-35/1372, 9-14=-35/1372, 5-19=-1531/159, 5-18=-6/673, 6-18=-501/111, 6-15=-501/111, 8-15=-6/673, 8-14=-1531/159, 3-19=-546/107, 3-20=0/152, 10-14=-546/108, 10-13=0/152

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 2 and 46 lb uplift at joint 11.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



December 1, 2023

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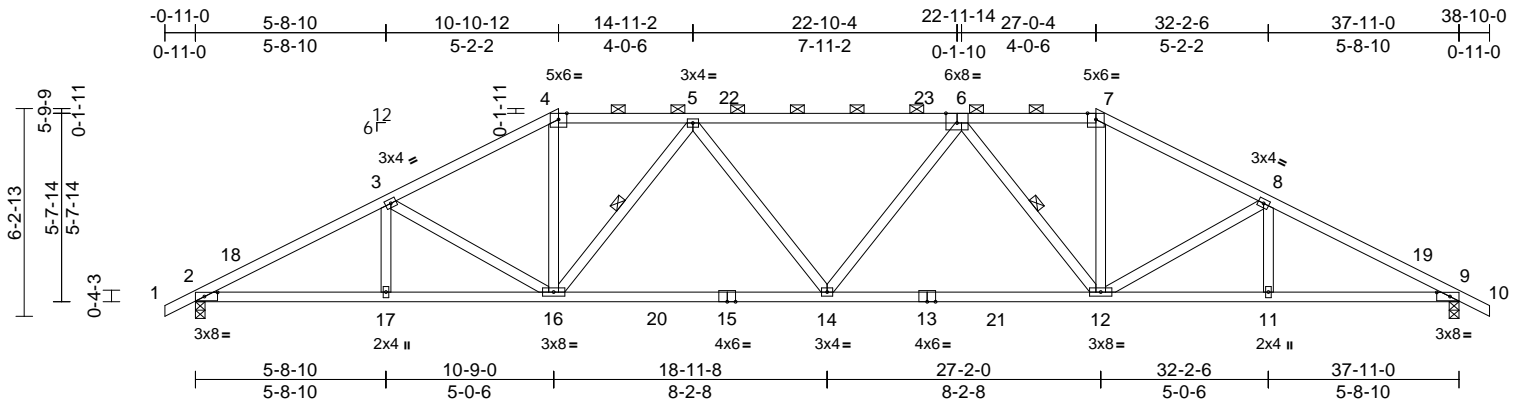
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A04	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301369
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:20
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Page: 1



Scale = 1:69.1

Plate Offsets (X, Y): [2:0-4-12,0-1-8], [6:0-4-0,Edge], [9:0-4-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.28	14	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.52	12-14	>875	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.19	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
												Weight: 198 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-4:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS, 6-7:2x4 SP No.1
BOT CHORD 2x4 SP No.2 *Except* 15-13:2x4 SP No.1
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 5-16, 6-12

REACTIONS
(size) 2=0-3-8, 9=0-3-8
Max Horiz 2=-83 (LC 13)
Max Uplift 2=-43 (LC 12), 9=-43 (LC 13)
Max Grav 2=1956 (LC 35), 9=1956 (LC 35)

FORCES
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-3431/64, 3-4=-3027/108, 7-8=-3027/108, 8-9=-3431/65, 9-10=0/44, 4-5=-2656/107, 5-7=-3423/110
BOT CHORD 2-17=-63/2932, 16-17=-63/2932, 14-16=-105/3360, 12-14=-75/3357, 11-12=-9/2932, 9-11=-9/2932
WEBS 3-17=0/203, 3-16=-751/130, 4-16=-6/1163, 7-12=-5/1159, 8-12=-752/131, 8-11=0/203, 5-16=-1154/150, 5-14=-11/246, 6-14=-10/247, 6-12=-1149/148

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 2 and 43 lb uplift at joint 9.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60



December 1, 2023

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/TPI 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)



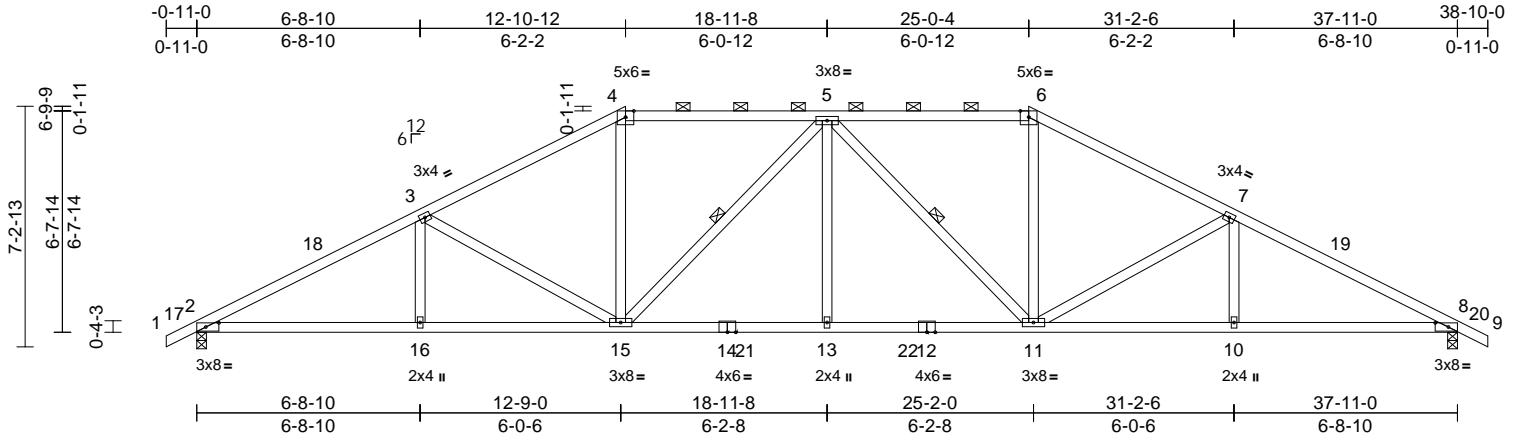
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A05	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301370
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:20
ID:pBoPM18KAxi0KZ22uZOI?mySSuo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCoI7J4zJC?f

Page: 1



Scale = 1:69.3

Plate Offsets (X, Y): [2:0-4-12,0-1-8], [8:0-4-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.22	13	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.38	13-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.16	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 202 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1 *Except* 14-12:2x4 SP No.2
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-2-12 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-15, 5-11

REACTIONS

(size) 2=0-3-8, 8=0-3-8
Max Horiz 2=-97 (LC 13)
Max Uplift 2=-61 (LC 12), 8=-61 (LC 13)
Max Grav 2=2085 (LC 35), 8=2085 (LC 35)

FORCES

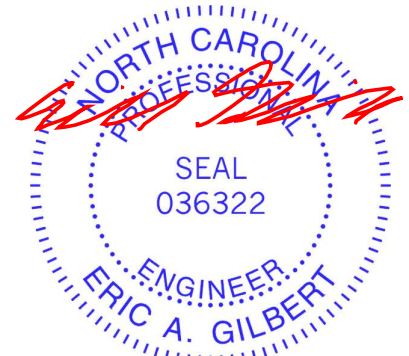
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-3712/69, 3-4=-2774/56, 4-5=-2317/78, 5-6=-2317/78, 6-7=-2774/56, 7-8=-3712/69, 8-9=0/44
BOT CHORD 2-16=-79/3169, 15-16=-79/3169, 13-15=-2/2726, 11-13=-2/2726, 10-11=0/3169, 8-10=0/3169
WEBS 3-16=0/273, 3-15=-959/147, 4-15=0/772, 5-15=-660/92, 5-13=0/300, 5-11=-660/91, 6-11=0/772, 7-11=-959/148, 7-10=0/273

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust)
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 2 and 61 lb uplift at joint 8.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



December 1, 2023

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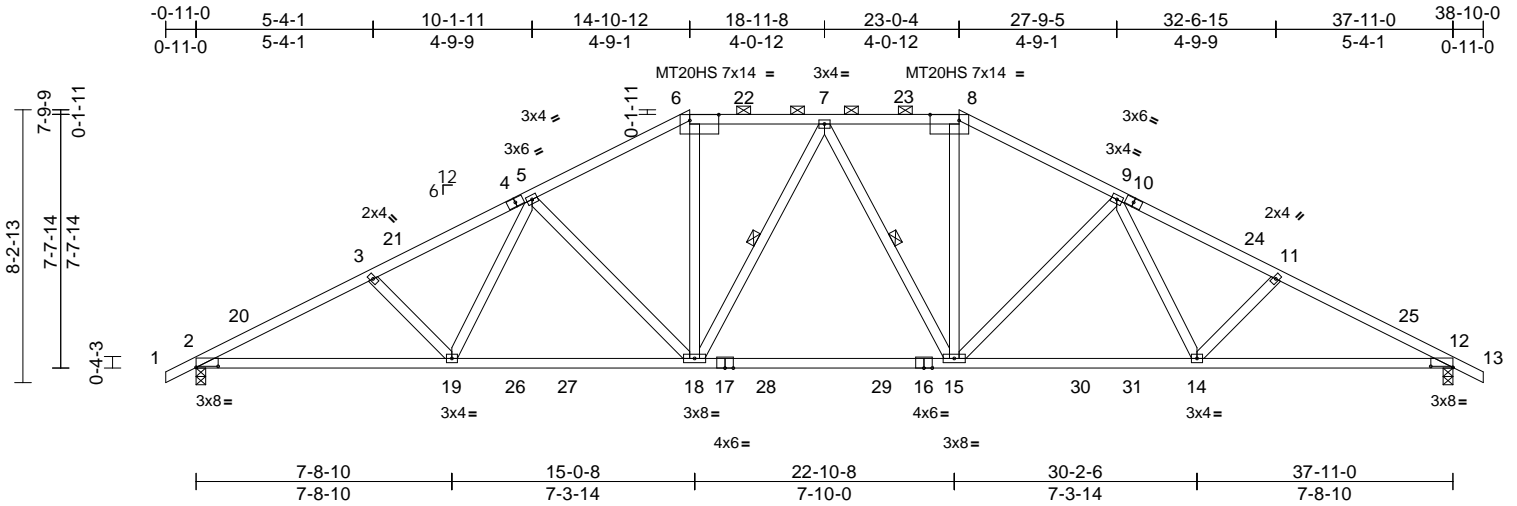
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A06	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301371
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:21
ID:7MIKXsrjWm0oHUTBHIRMMySStu-RfC?PsB70Hq3NSgPqL8w3uTXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:69.5

Plate Offsets (X, Y): [2:0-8-0,0-0-6], [6:0-10-8,0-2-2], [8:0-10-8,0-2-2], [12:0-8-0,0-0-6]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.30	15-18	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.51	15-18	>892	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.17	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 213 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1 *Except* 17-16:2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-0-11 oc purlins, except 2-0-0 oc purlins (3-8-5 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-18, 7-15

REACTIONS (size) 2=0-3-8, 12=0-3-8
Max Horiz 2=-112 (LC 17)
Max Uplift 2=-76 (LC 12), 12=-76 (LC 13)
Max Grav 2=2150 (LC 35), 12=2150 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-4033/122, 3-5=-3676/111, 5-6=-2740/86, 6-7=-2365/100, 7-8=-2365/100, 8-9=-2740/86, 9-11=-3676/111, 11-12=-4033/123, 12-13=0/44
BOT CHORD 2-19=-153/3496, 18-19=-56/2944, 15-18=0/2410, 14-15=0/2944, 12-14=-41/3496
WEBS 6-18=0/861, 8-15=0/861, 7-18=-343/99, 7-15=-343/99, 3-19=-462/136, 5-19=-8/553, 5-18=-861/145, 9-15=-861/145, 9-14=-8/553, 11-14=-462/137

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 2 and 76 lb uplift at joint 12.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



December 1, 2023

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI 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)

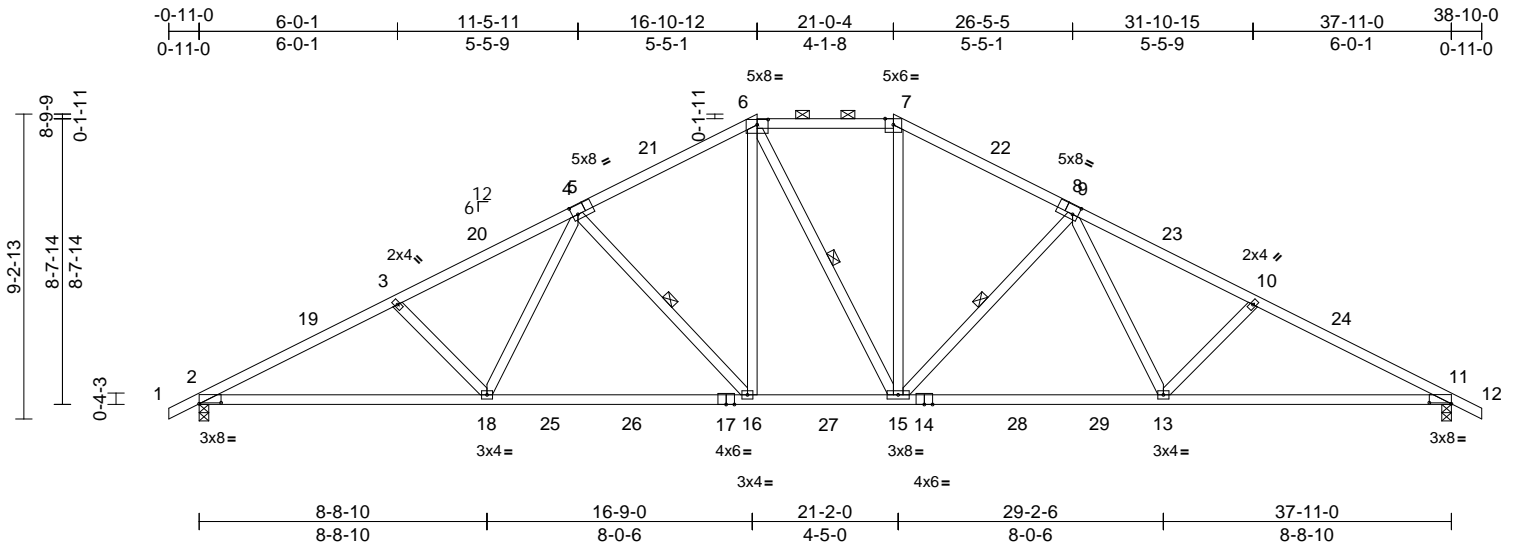
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A07	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301372
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:22
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Page: 1



Scale = 1:69.8

Plate Offsets (X, Y): [2:0-8-0,0-0-6], [5:0-2-0,0-3-4], [6:0-4-0,0-1-15], [8:0-2-0,0-3-4], [11:0-8-0,0-0-6]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.31	16-18	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.51	16-18	>885	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.18	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 212 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1 *Except* 17-14:2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-7-7 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-15, 4-16, 9-15

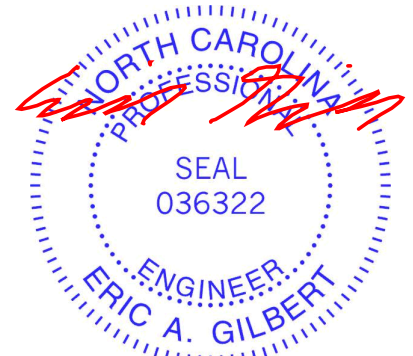
REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=-126 (LC 17)
Max Uplift 2=-90 (LC 12), 11=-90 (LC 13)
Max Grav 2=2214 (LC 35), 11=2214 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-4205/151, 3-4=-3842/137, 4-6=-2813/118, 6-7=-2378/133, 7-9=-2815/118, 9-10=-3842/138, 10-11=-4204/152, 11-12=0/44
BOT CHORD 2-18=-186/3661, 16-18=-77/3053, 15-16=0/2376, 13-15=0/3053, 11-13=-61/3660
WEBS 6-16=-49/838, 6-15=-229/234, 7-15=-11/838, 3-18=-500/156, 4-18=-5/615, 4-16=-982/161, 9-15=-979/161, 9-13=-5/613, 10-13=-500/156

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 2 and 90 lb uplift at joint 11.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60



December 1, 2023

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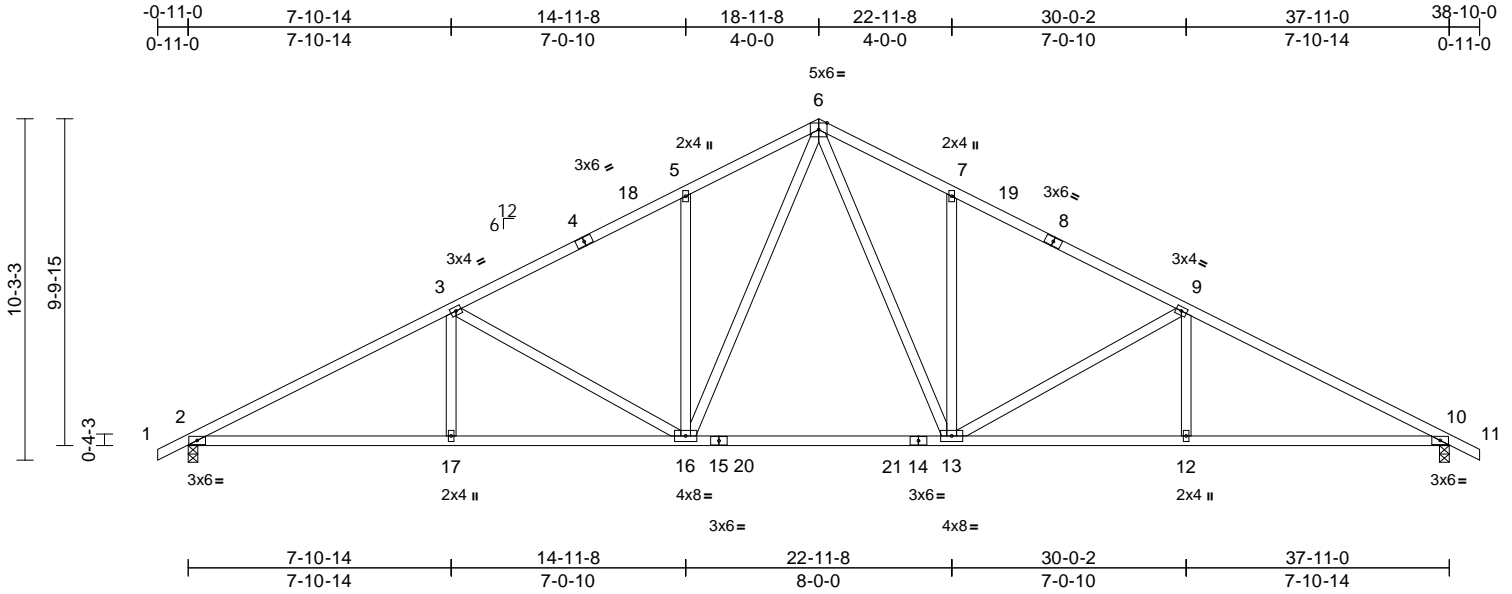
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A08	Truss Type Common	Qty 6	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301373
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:22
ID:PrXPdG5yJ6hDMAfivD7xWySSn6-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.29	13-16	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	Vert(CT)	-0.51	13-16	>879	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.15	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S							
BCDL	10.0									Weight: 208 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2 *Except* 4-1,8-11:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 2-4-4 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
REACTIONS	(size) 2=0-3-8, 10=0-3-8
	Max Horiz 2=-141 (LC 17)
	Max Uplift 2=-101 (LC 12), 10=-101 (LC 13)
	Max Grav 2=1692 (LC 1), 10=1692 (LC 1)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/44, 2-3=-3039/153, 3-5=-2316/139, 5-6=-2272/235, 6-7=-2272/235, 7-9=-2316/139, 9-10=-3039/153, 10-11=0/44
BOT CHORD	2-17=-185/2612, 16-17=-185/2612, 13-16=0/1595, 12-13=-44/2612, 10-12=-44/2612
WEBS	6-16=-169/1100, 6-13=-169/1100, 3-16=-743/164, 3-17=0/318, 5-16=-502/167, 7-13=-502/166, 9-13=-743/164, 9-12=0/318

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

- Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
 - 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 2 and 101 lb uplift at joint 10.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



December 1, 2023

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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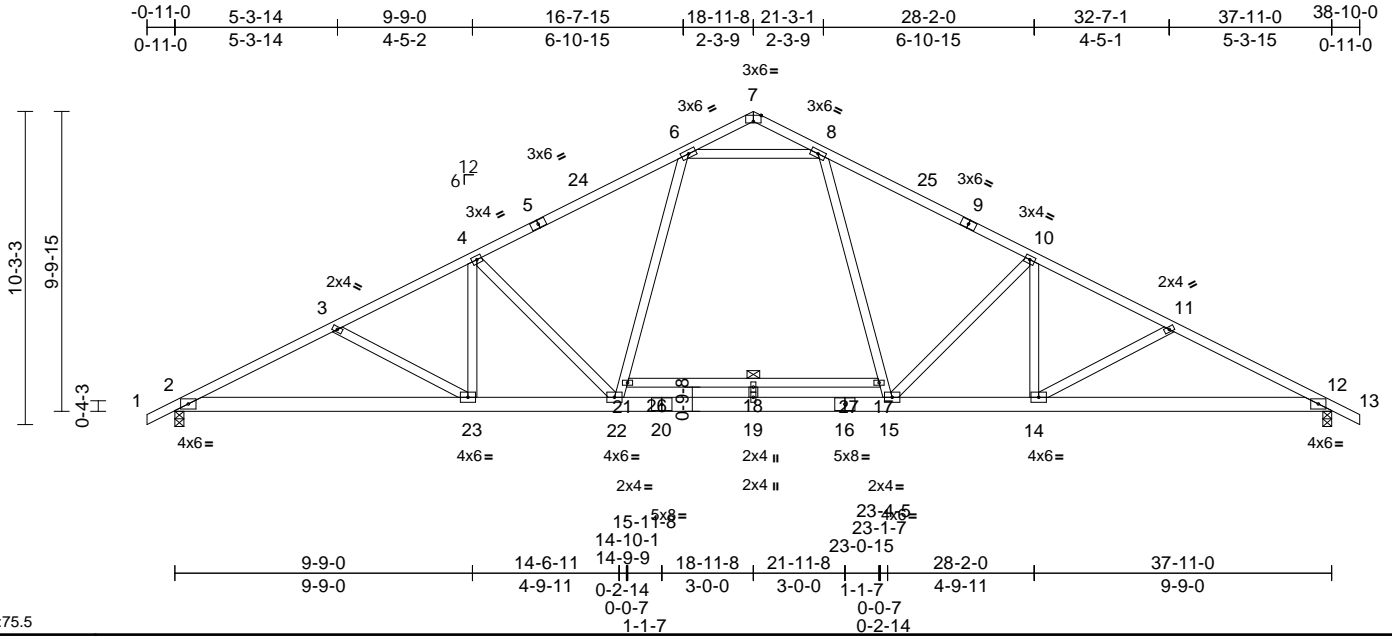
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A09	Truss Type Common	Qty 4	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301374
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:23
ID:SdbWcG?7Y920mCawK02eCLySSjL-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCdoi7J4zJC?f

Page: 1



Scale = 1:75.5

Plate Offsets (X, Y): [7:0-3-0,Edge], [11:0-0-0,0-0-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.35	14-15	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.47	17	>961	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.08	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 246 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS
- BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS *Except* 21-17:2x4 SP No.2
- WEBS 2x4 SP No.3
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 3-4-7 oc purlins.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 17-21
- REACTIONS** (size) 2=0-3-8, 12=0-3-8
Max Horiz 2=-141 (LC 13)
Max Uplift 2=-50 (LC 12), 12=-50 (LC 13)
Max Grav 2=1777 (LC 1), 12=1777 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/51, 2-3=-3307/88, 3-4=-3011/46, 4-6=-2660/27, 6-7=-53/73, 7-8=-54/73, 8-10=-2660/27, 10-11=-3011/47, 11-12=-3307/89, 12-13=0/51
- BOT CHORD 2-23=-148/2886, 22-23=-45/2652, 19-22=0/2082, 15-19=0/2082, 14-15=0/2652, 12-14=-8/2886, 18-21=-9/7, 17-18=-9/7
- WEBS 10-14=-30/407, 4-23=-30/407, 21-22=0/794, 6-21=0/867, 8-17=0/867, 15-17=0/794, 6-8=-2121/119, 4-22=-859/223, 10-15=-859/223, 18-19=-250/0, 3-23=-302/119, 11-14=-302/119

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP 2400F 2.0E or DSS crushing capacity of 660 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 2 and 50 lb uplift at joint 12.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 1, 2023

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

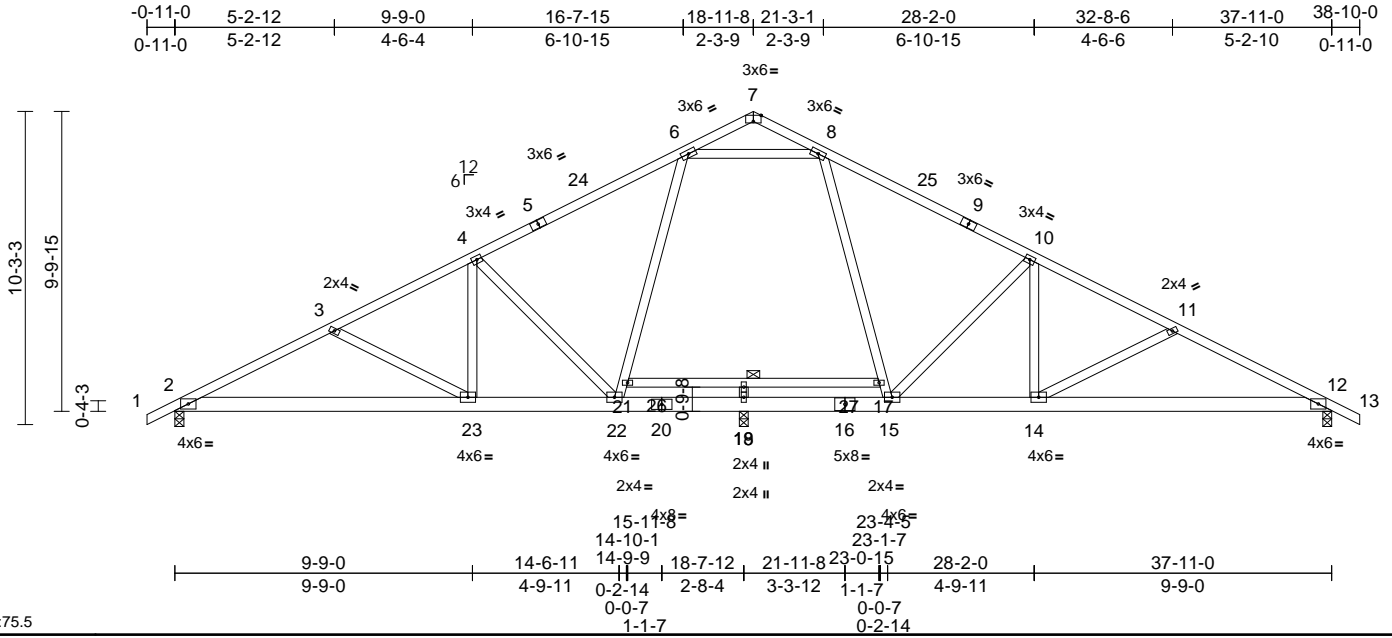
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A10	Truss Type Common	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301375
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:23
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Page: 1



Scale = 1:75.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.36	14-15	>630	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.47	14-15	>490	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.05	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 246 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
 BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS *Except*
 21-17:2x4 SP No.2
 WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or
 2-4-4 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
 bracing. Except:
 6-0-0 oc bracing: 17-21

REACTIONS

(size) 2=0-3-8, 12=0-3-8, 19=0-3-8
 Max Horiz 2=-141 (LC 13)
 Max Uplift 2=-87 (LC 12), 12=-113 (LC 13)
 Max Grav 2=1337 (LC 1), 12=1378 (LC 20),
 19=1086 (LC 4)

FORCES

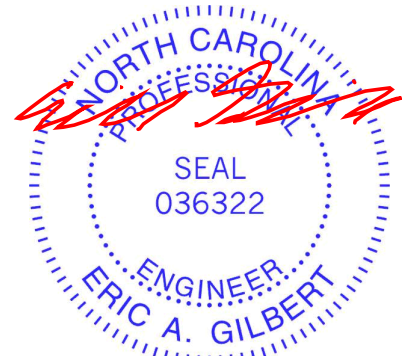
(lb) - Maximum Compression/Maximum
 Tension
 TOP CHORD 1-2=0/51, 2-3=-2365/168, 3-4=-2037/124,
 4-6=-1452/188, 6-7=-52/80, 7-8=-50/89,
 8-10=-1469/153, 10-11=-2162/181,
 11-12=-2461/226, 12-13=0/51
 BOT CHORD 2-23=-221/2046, 22-23=-115/1769,
 19-22=0/1146, 15-19=0/1146,
 14-15=-24/1895, 12-14=-132/2127,
 18-21=-6/9, 17-18=-6/9
 WEBS 10-14=-3/573, 4-23=-18/582, 21-22=-7/238,
 6-21=0/271, 8-17=0/276, 15-17=-10/250,
 18-19=-332/0, 6-8=-1233/239,
 4-22=-1013/212, 10-15=-1019/197,
 3-23=-313/120, 11-14=-305/122

NOTES

1) Unbalanced roof live loads have been considered for
 this design.

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust)
 Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat.
 II; Exp B; Enclosed; MWFRS (envelope) exterior zone;
 cantilever left and right exposed ; Lumber DOL=1.60
 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber
 DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground
 snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15
 Plate DOL=1.15); Category II; Exp B; Partially Exp.;
 Ct=1.10
- 4) Unbalanced snow loads have been considered for this
 design.
- 5) This truss has been designed for greater of min roof live
 load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on
 overhangs non-concurrent with other live loads.
- 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 20.0psf
 on the bottom chord in all areas where a rectangle
 3-06-00 tall by 1-00-00 wide will fit between the bottom
 chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP 2400F 2.0E or DSS
 crushing capacity of 660 psi.
- 9) Provide mechanical connection (by others) of truss to
 bearing plate capable of withstanding 87 lb uplift at joint
 2 and 113 lb uplift at joint 12.
- 10) This truss is designed in accordance with the 2015
 International Residential Code sections R502.11.1 and
 R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 1, 2023

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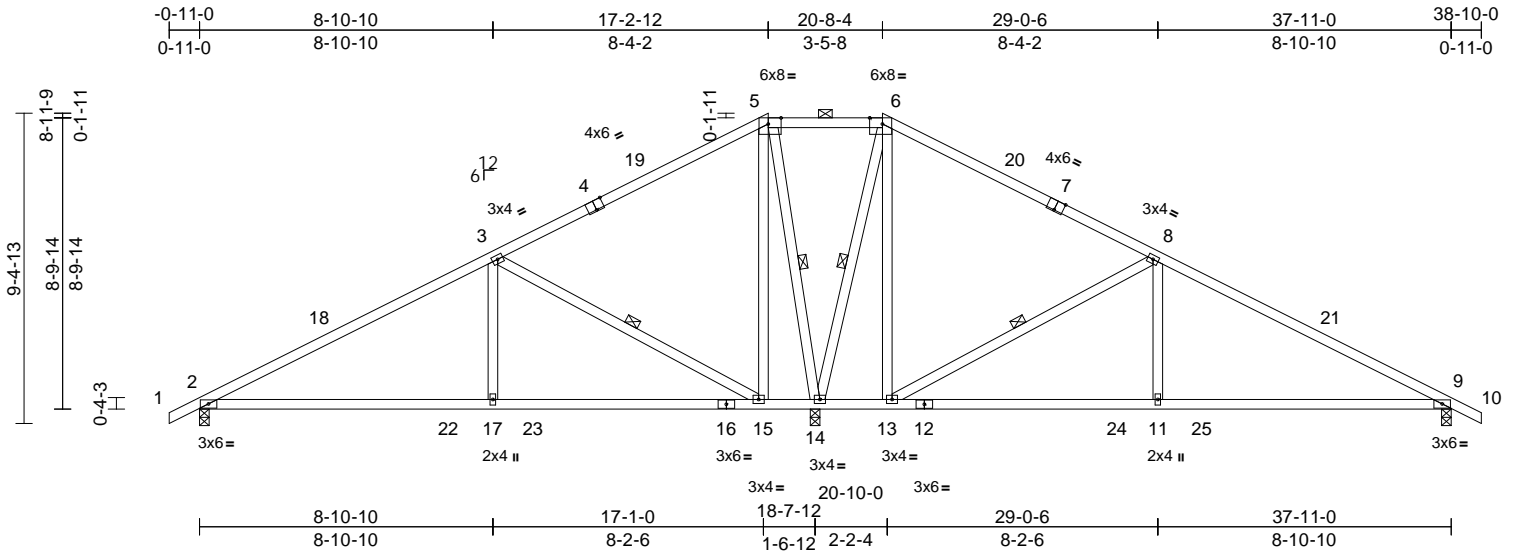
818 Soundside Road
 Edenton, NC 27932

Job 3769911	Truss A11	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301376
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:24
ID:oZbyzopCWexvMzGARqfCfZySSbr-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:69.8
Plate Offsets (X, Y): [4:0-3-0,Edge], [5:0-4-10,Edge], [6:0-4-10,Edge], [7:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.14	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.32	9-11	>713	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											

Weight: 211 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 5-6:2x4 SP No.2, 4-1,7-10:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 5-6. Rigid ceiling directly applied or 6-0-0 oc bracing.
BOT CHORD
WEBS 1 Row at midpt 3-15, 8-13, 5-14, 6-14

REACTIONS
(size) 2=0-3-8, 9=0-3-8, 14=0-3-8
Max Horiz 2=-128 (LC 13)
Max Uplift 2=-77 (LC 12), 9=-104 (LC 13), 14=-29 (LC 12)
Max Grav 2=749 (LC 35), 9=794 (LC 35), 14=2907 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-903/98, 3-5=0/761, 5-6=0/783, 6-8=0/662, 8-9=-1000/157, 9-10=0/44
BOT CHORD 2-17=-114/702, 15-17=-114/702, 14-15=-547/163, 13-14=-455/133, 11-13=-40/781, 9-11=-40/781
WEBS 3-17=0/388, 3-15=-1402/197, 5-15=0/699, 6-13=-4716, 8-13=-1395/197, 8-11=0/388, 5-14=-1408/63, 6-14=-1428/44

NOTES
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 2, 104 lb uplift at joint 9 and 29 lb uplift at joint 14.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



December 1, 2023

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH 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)

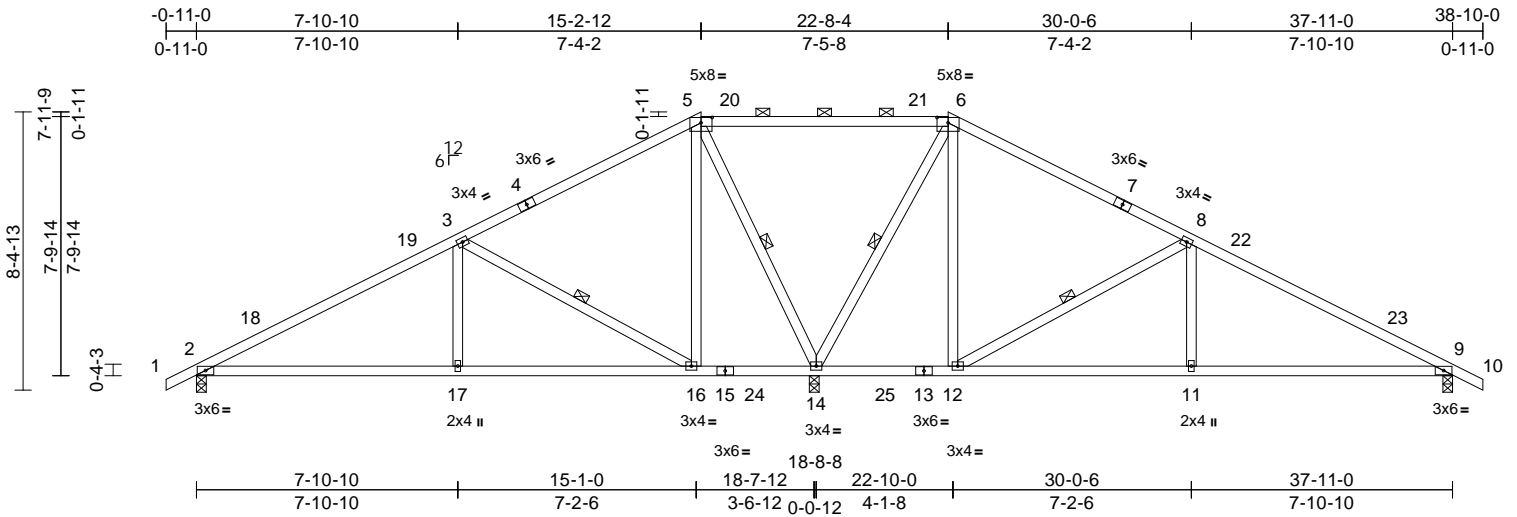
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A12	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301377
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:24
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Page: 1



Scale = 1:69.6

Plate Offsets (X, Y): [5:0-4-0,0-1-15], [6:0-4-0,0-1-15]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.09	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.21	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 202 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS *Except* 4-5,6-7:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-15 oc purlins, except 2-0-0 oc purlins (9-0-8 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-16, 5-14, 6-14, 8-12

REACTIONS (size) 2=0-3-8, 9=0-3-8, 14=0-3-8
Max Horiz 2=-114 (LC 13)
Max Uplift 2=-73 (LC 12), 9=-98 (LC 13), 14=-10 (LC 12)
Max Grav 2=772 (LC 35), 9=809 (LC 35), 14=2740 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-946/94, 3-5=-42/565, 5-6=0/1004, 6-8=-104/484, 8-9=-1025/149, 9-10=0/44
BOT CHORD 2-17=-107/749, 16-17=-107/749, 14-16=-390/164, 12-14=-317/109, 11-12=-42/801, 9-11=-42/801
WEBS 3-17=0/342, 3-16=-1260/174, 5-16=-13/697, 5-14=-1476/85, 6-14=-1481/57, 6-12=-10/703, 8-12=-1257/173, 8-11=0/341

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 2, 10 lb uplift at joint 14 and 98 lb uplift at joint 9.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60



December 1, 2023

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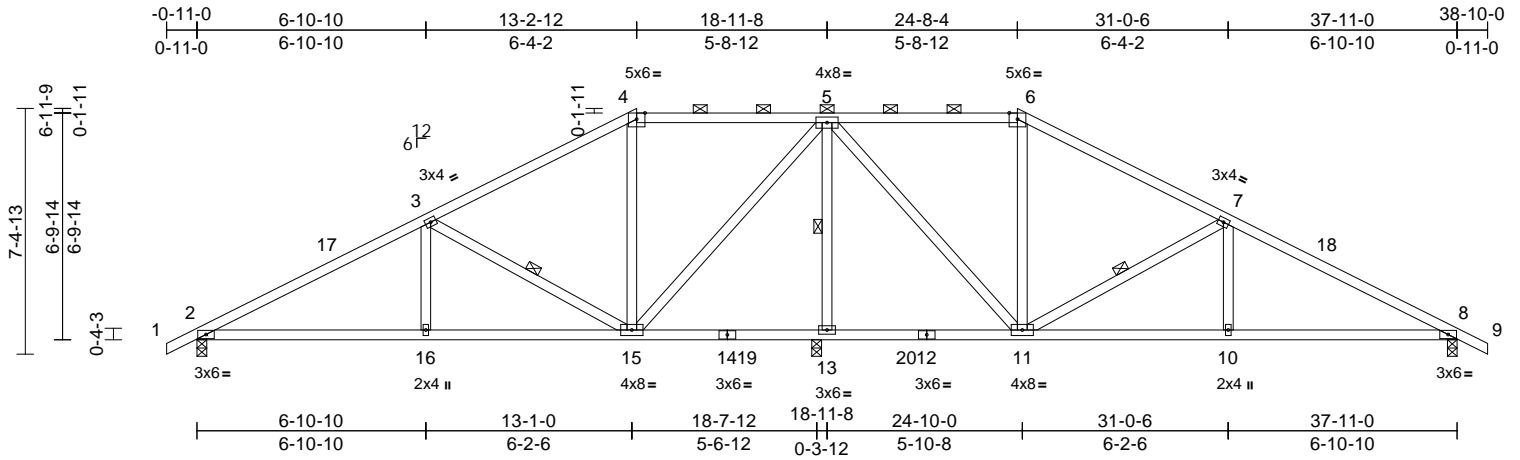
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A13	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301378
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:25
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Page: 1



Scale = 1:69.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.08	2-16	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.16	2-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 204 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 4-6:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-12 oc purlins, except 2-0-0 oc purlins (3-1-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-15, 5-13, 7-11

REACTIONS (size) 2=0-3-8, 8=0-3-8, 13=0-3-8
Max Horiz 2=-100 (LC 13)
Max Uplift 2=-76 (LC 12), 8=-95 (LC 13)
Max Grav 2=968 (LC 35), 8=968 (LC 35), 13=2240 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-1333/102, 3-4=-415/87, 4-5=-240/108, 5-6=-240/146, 6-7=-415/129, 7-8=-1333/144, 8-9=0/44
BOT CHORD 2-16=-109/1055, 15-16=-109/1055, 13-15=-737/105, 11-13=-737/105, 10-11=-46/1055, 8-10=-46/1055
WEBS 3-16=0/290, 3-15=-1078/150, 4-15=-328/44, 5-15=-59/1286, 5-13=-2104/44, 5-11=-33/1286, 6-11=-328/37, 7-11=-1078/149, 7-10=0/290

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 2 and 95 lb uplift at joint 8.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60



December 1, 2023

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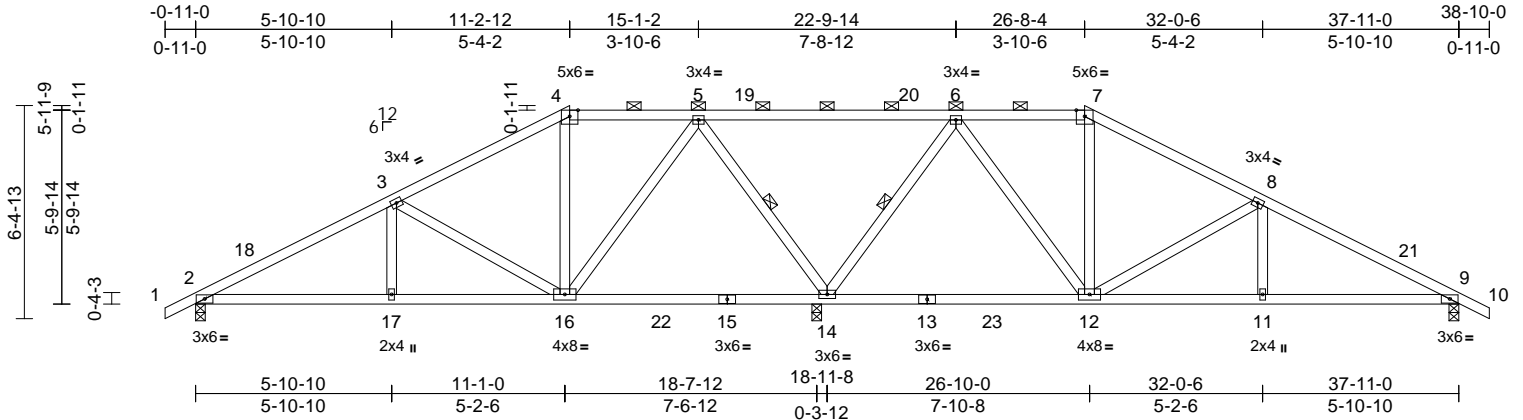
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A14	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	I62301379
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:25
ID:NvqgiM?YR0jeWns7rNUCVpYSS5K-RfC?PsB70Hq3NSgPqL8w3ulTXbGKwRCDoi7J4zJC7f

Page: 1



Scale = 1:69.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.06	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.13	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 200 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-7:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-10 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-14, 6-14

REACTIONS (size) 2=0-3-8, 9=0-3-8, 14=0-3-8
Max Horiz 2=-86 (LC 13)
Max Uplift 2=-70 (LC 12), 9=-85 (LC 13), 14=-33 (LC 9)
Max Grav 2=928 (LC 35), 9=928 (LC 35), 14=2387 (LC 34)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-1208/93, 3-4=-479/76, 4-5=-313/94, 5-6=0/1018, 6-7=-313/123, 7-8=-479/109, 8-9=-1208/126, 9-10=0/44
BOT CHORD 2-17=-96/983, 16-17=-96/983, 14-16=-342/111, 12-14=-342/71, 11-12=-40/983, 9-11=-40/983
WEBS 3-17=0/223, 3-16=-877/131, 4-16=-191/28, 7-12=-191/27, 8-12=-877/130, 8-11=0/223, 5-16=-17/928, 5-14=-1351/107, 6-14=-1351/95, 6-12=0/928

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
 - 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 2, 33 lb uplift at joint 14 and 85 lb uplift at joint 9.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60



December 1, 2023

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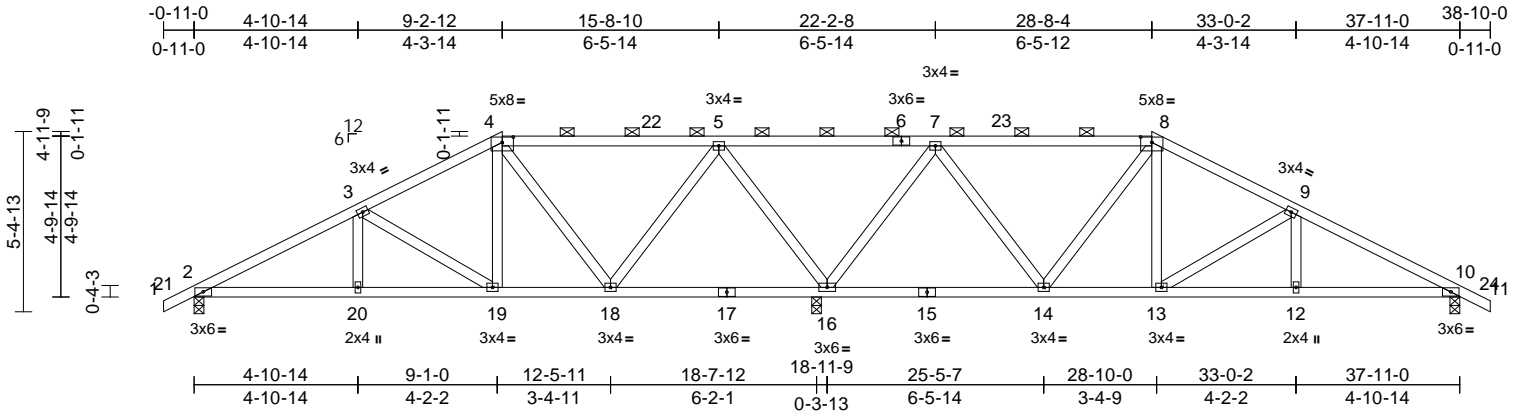
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A15	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301380
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:26
ID:muQgbixTemhw2CHz4MkGQ1ySRvo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:69

Plate Offsets (X, Y): [4:0-4-0,0-1-15], [8:0-4-0,0-1-15]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.03	2-20	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.06	14-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.03	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 200 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-6,6-8:2x4 SP No.1
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-8.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-18,14-16.

REACTIONS

(size) 2=0-3-8, 10=0-3-8, 16=0-3-8
 Max Horiz 2=-71 (LC 17)
 Max Uplift 2=-63 (LC 12), 10=-74 (LC 13), 16=-88 (LC 9)
 Max Grav 2=915 (LC 35), 10=915 (LC 35), 16=2583 (LC 34)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/44, 2-3=-1252/76, 3-4=-645/73, 4-5=-226/58, 5-7=0/994, 7-8=-225/86, 8-9=-644/98, 9-10=-1251/101, 10-11=0/44
 BOT CHORD 2-20=-76/1020, 19-20=-76/1020, 18-19=-18/471, 16-18=-391/82, 14-16=-391/55, 13-14=0/471, 12-13=-27/1019, 10-12=-27/1019
 WEBS 4-19=-13/410, 8-13=-12/410, 4-18=-623/52, 5-18=0/753, 5-16=-1500/123, 7-16=-1499/114, 7-14=0/754, 8-14=-623/38, 3-19=-688/96, 3-20=0/205, 9-13=-688/95, 9-12=0/205

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 2, 88 lb uplift at joint 16 and 74 lb uplift at joint 10.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



December 1, 2023

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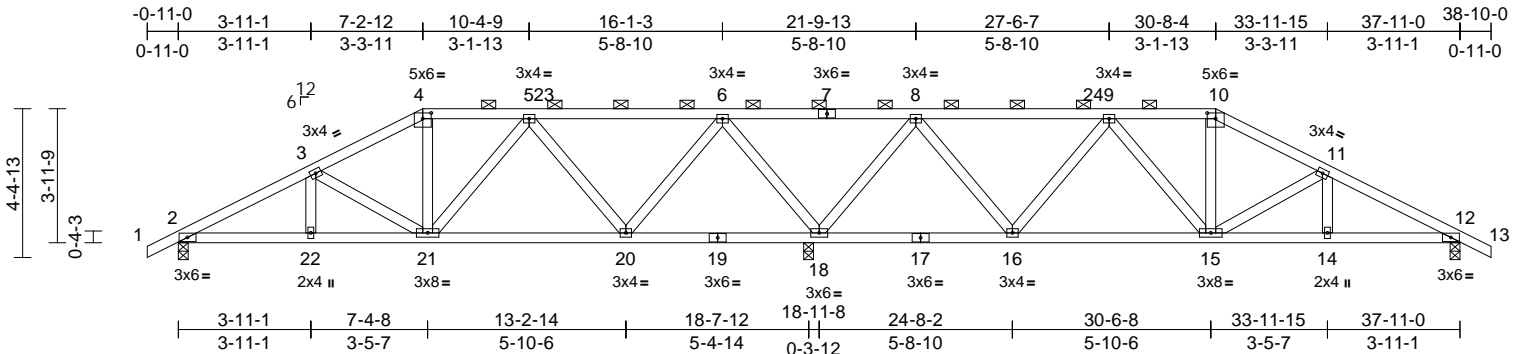
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss A16	Truss Type Hip	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301381
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:27
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Page: 1



Scale = 1:68.2

Plate Offsets (X, Y): [4:0-3-0,0-2-0], [10:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.03	20-21	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.07	20-21	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.03	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0										Weight: 197 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-0-1 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 4-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-20,16-18.

REACTIONS

(size) 2=0-3-8, 12=0-3-8, 18=0-3-8
Max Horiz 2=-58 (LC 17)
Max Uplift 2=-52 (LC 12), 12=-60 (LC 13), 18=-135 (LC 9)
Max Grav 2=880 (LC 35), 12=880 (LC 35), 18=2755 (LC 34)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/44, 2-3=-1234/56, 3-4=-782/58, 4-5=-682/59, 5-6=-239/48, 6-8=-28/1307, 8-9=-239/64, 9-10=-682/72, 10-11=-782/68, 11-12=-1234/73, 12-13=0/44
BOT CHORD 2-22=-55/1010, 21-22=-55/1010, 20-21=-49/670, 18-20=-388/56, 16-18=-388/38, 15-16=-27/670, 14-15=-12/1010, 12-14=-12/1010
WEBS 4-21=0/179, 10-15=0/179, 5-21=-2/344, 5-20=-702/76, 6-20=0/846, 6-18=-1669/139, 8-18=-1669/133, 8-16=0/846, 9-16=-702/70, 9-15=0/344, 3-21=-507/83, 3-22=0/131, 11-15=-507/83, 11-14=0/131

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 2, 135 lb uplift at joint 18 and 60 lb uplift at joint 12.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



December 1, 2023

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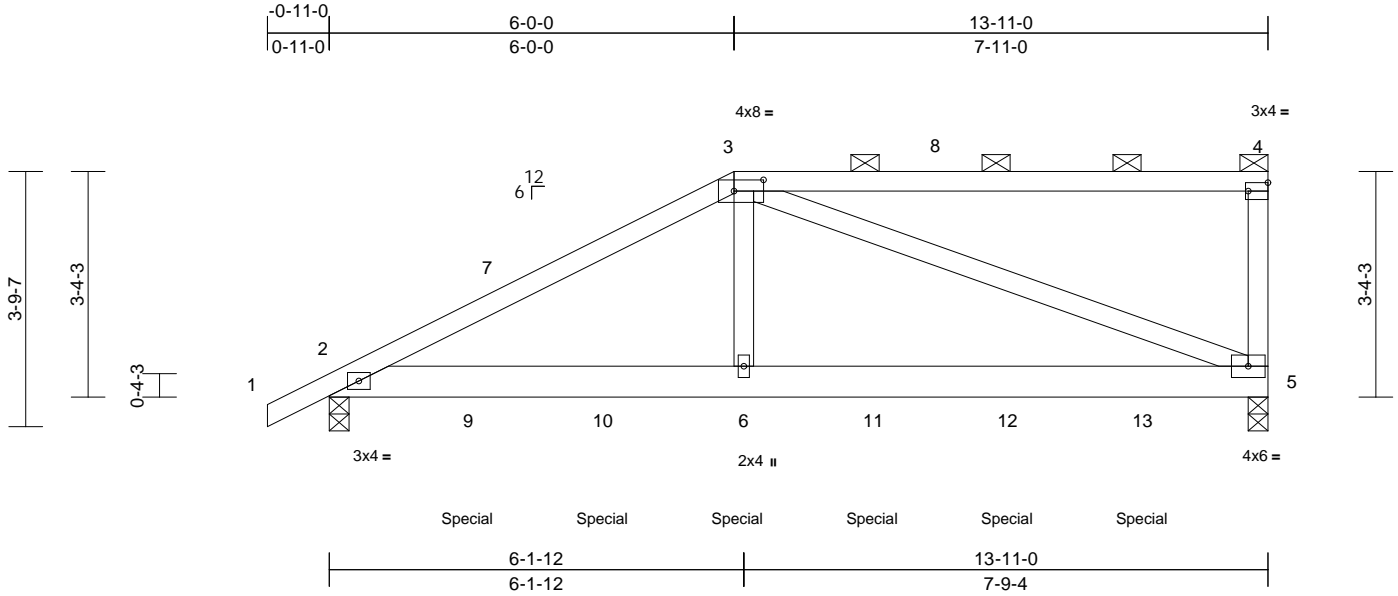
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss B01G	Truss Type Half Hip Girder	Qty 1	Ply 2	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301382
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:27
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Page: 1



Scale = 1:34.2
Plate Offsets (X, Y): [3:0-5-4,0-2-0], [4:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.06	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.11	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.57	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 151 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5=0-3-8
Max Horiz 2=112 (LC 47)
Max Uplift 2=-191 (LC 12), 5=-227 (LC 9)
Max Grav 2=1672 (LC 32), 5=1553 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/51, 2-3=-2297/302, 3-4=-179/31, 4-5=-439/84
BOT CHORD 2-6=-288/2015, 5-6=-294/2073
WEBS 3-6=-135/1242, 3-5=-2028/287

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web 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.

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 227 lb uplift at joint 5 and 191 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) 370 lb down and 59 lb up at 2-0-12, 250 lb down and 28 lb up at 4-0-12, 243 lb down and 61 lb up at 6-0-12, 243 lb down and 61 lb up at 8-0-12, and 243 lb down and 61 lb up at 10-0-12, and 243 lb down and 61 lb up at 12-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-66, 3-4=-66, 2-5=-20
Concentrated Loads (lb)
Vert: 6=-243 (F), 9=-370 (F), 10=-250 (F), 11=-243 (F), 12=-243 (F), 13=-243 (F)



December 1, 2023

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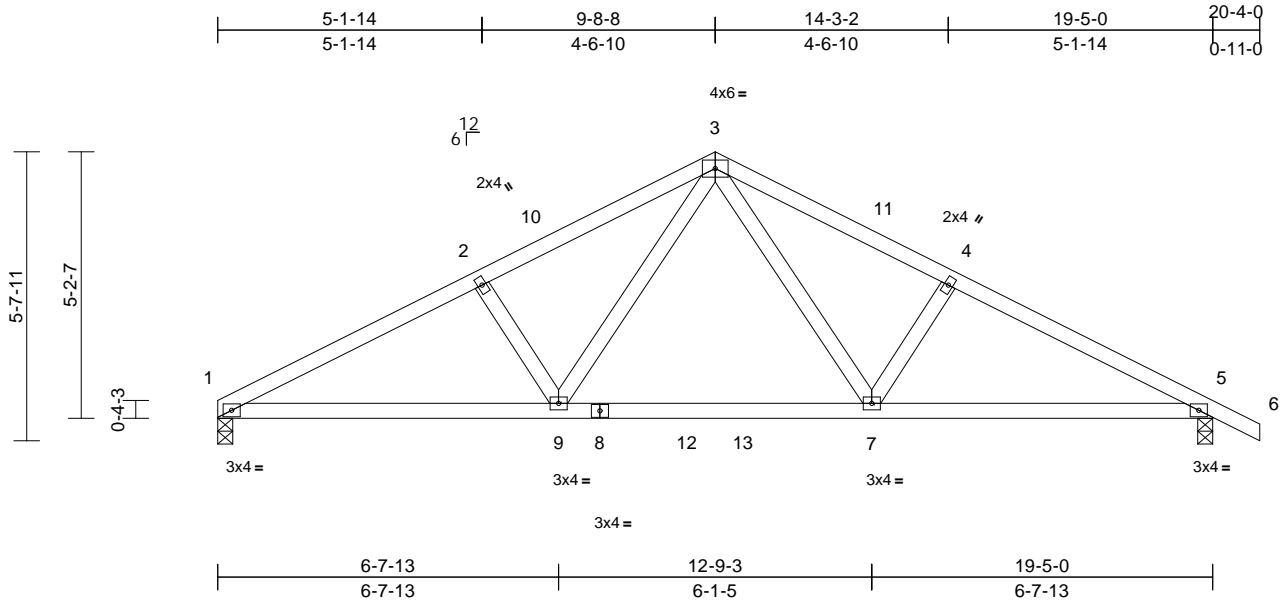
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss C01	Truss Type Common	Qty 3	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301383
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:28
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Page: 1



Scale = 1:45

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.06	1-9	>999	240	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.14	1-9	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.03	5	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S							
BCDL	10.0									Weight: 88 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-5-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=0-3-8, 5=0-3-8
Max Horiz 1=-81 (LC 17)
Max Uplift 1=-42 (LC 12), 5=-60 (LC 13)
Max Grav 1=822 (LC 1), 5=897 (LC 1)

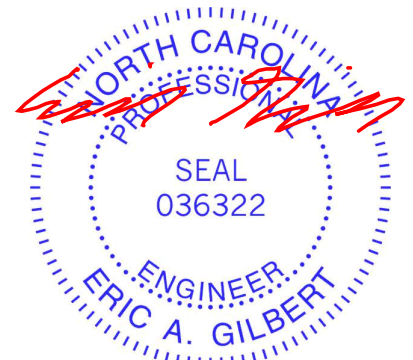
FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1420/88, 2-3=-1261/102, 3-4=-1254/99, 4-5=-1428/85, 5-6=0/44
BOT CHORD 1-9=-91/1217, 7-9=0/809, 5-7=-11/1207
WEBS 3-9=-52/505, 3-7=-49/487, 2-9=-339/143, 4-7=-324/139

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.

- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1 and 60 lb uplift at joint 5.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



December 1, 2023

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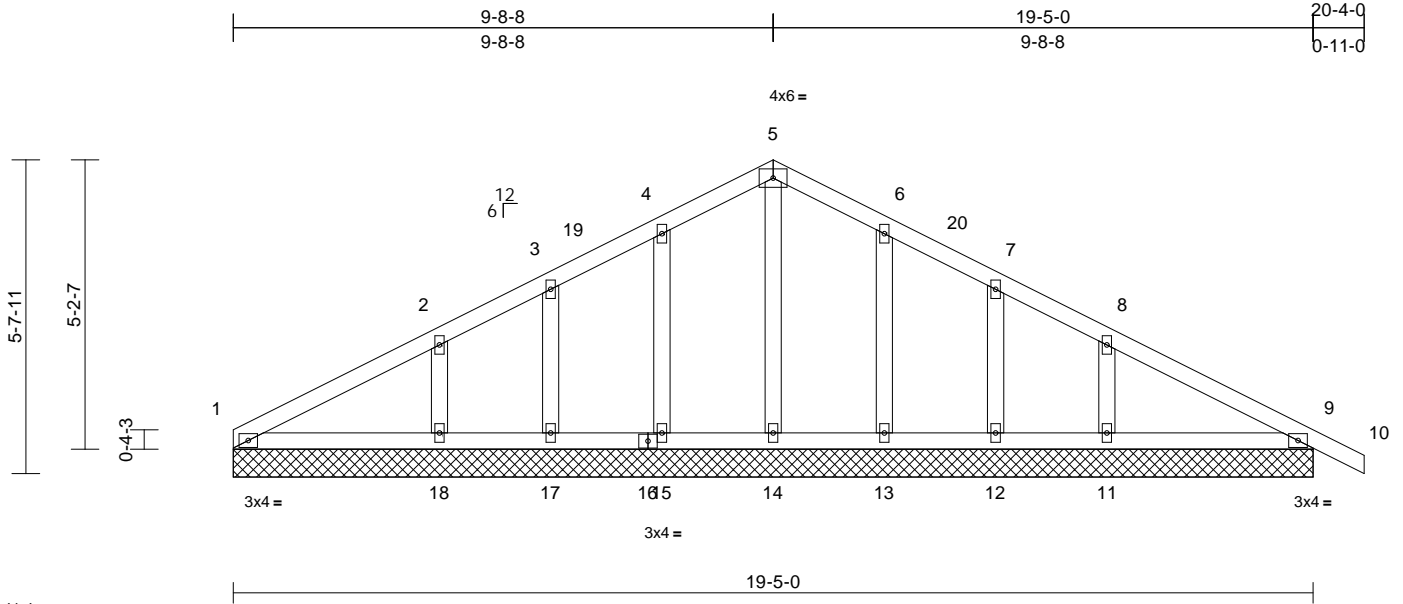
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss C02	Truss Type Common Supported Gable	Qty 1	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301384
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:28
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Page: 1



Scale = 1:41.4

Loading (psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0										Weight: 94 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS (size)
1=19-5-0, 9=19-5-0, 11=19-5-0,
12=19-5-0, 13=19-5-0, 14=19-5-0,
15=19-5-0, 17=19-5-0, 18=19-5-0
Max Horiz 1=-81 (LC 13)
Max Uplift 1=-5 (LC 13), 9=-14 (LC 13),
11=-60 (LC 13), 12=-25 (LC 13),
13=-38 (LC 13), 15=-39 (LC 12),
17=-22 (LC 12), 18=-66 (LC 12)
Max Grav 1=136 (LC 1), 9=207 (LC 1),
11=310 (LC 1), 12=119 (LC 20),
13=237 (LC 20), 14=217 (LC 25),
15=245 (LC 19), 17=116 (LC 19),
18=326 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-85/71, 2-3=-60/69, 3-4=-41/87,
4-5=-57/108, 5-6=-56/102, 6-7=-39/63,
7-8=-56/37, 8-9=-72/47, 9-10=0/43
BOT CHORD 1-18=-2/71, 17-18=-2/71, 15-17=-2/71,
14-15=-2/71, 13-14=-2/71, 12-13=-2/71,
11-12=-2/71, 9-11=-2/71
WEBS 5-14=-112/0, 4-15=-199/64, 3-17=-96/41,
2-18=-239/103, 6-13=-191/63, 7-12=-98/44,
8-11=-226/96

NOTES
1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1, 39 lb uplift at joint 15, 22 lb uplift at joint 17, 66 lb uplift at joint 18, 38 lb uplift at joint 13, 25 lb uplift at joint 12, 60 lb uplift at joint 11 and 14 lb uplift at joint 9.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 1, 2023

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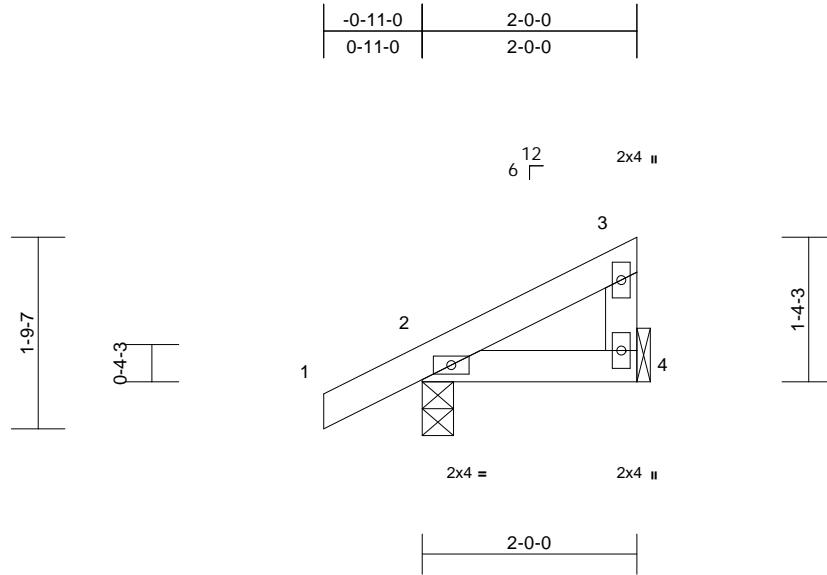
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss J01	Truss Type Jack-Closed	Qty 6	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301385
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:28
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	0.00	2-4	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	2-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 9 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS (size) 2=0-3-8, 4= Mechanical
Max Horiz 2=44 (LC 12)
Max Uplift 2=-20 (LC 12), 4=-11 (LC 12)
Max Grav 2=170 (LC 18), 4=62 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-36/15, 3-4=-44/22
BOT CHORD 2-4=0/0

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 4 and 20 lb uplift at joint 2.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



December 1, 2023

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818 Soundside Road
Edenton, NC 27932

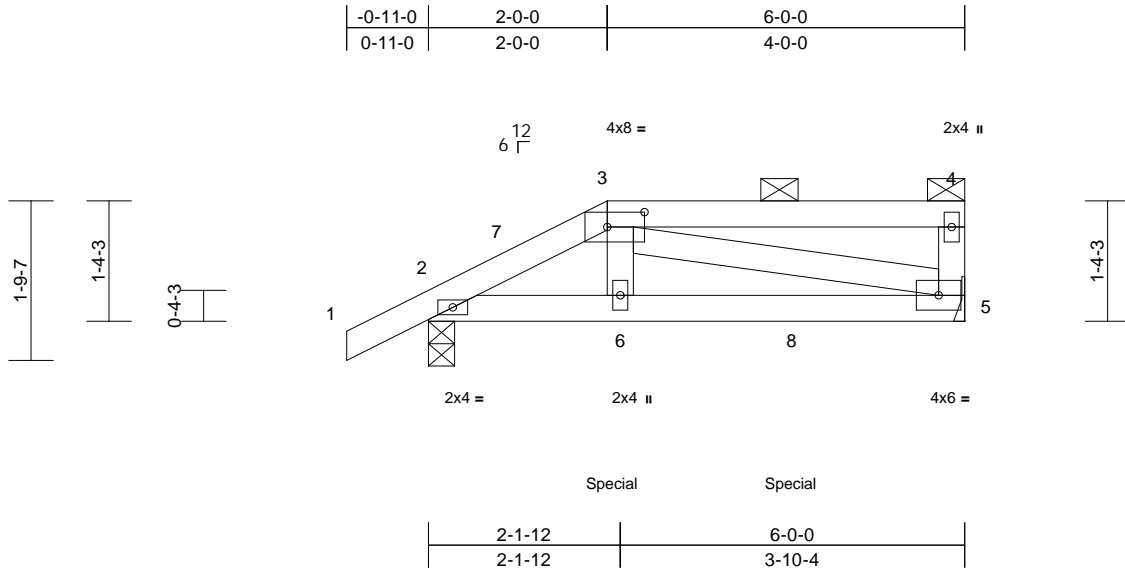
Job 3769911	Truss J02G	Truss Type Half Hip Girder	Qty 3	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	I62301386
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:29

Page: 1

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Scale = 1:25.8

Plate Offsets (X, Y): [3:0-5-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.01	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.02	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
										Weight: 27 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 5= Mechanical
 Max Horiz 2=47 (LC 12)
 Max Uplift 2=-45 (LC 12), 5=-47 (LC 9)
 Max Grav 2=442 (LC 32), 5=390 (LC 31)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/44, 2-3=-522/57, 3-4=0/0, 4-5=-213/40
 BOT CHORD 2-6=-55/436, 5-6=-55/455
 WEBS 3-6=0/167, 3-5=-471/57

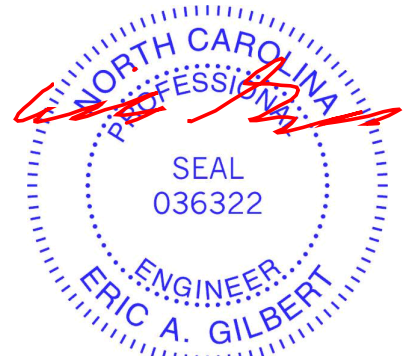
NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.

- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 5 and 45 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) 42 lb down and 23 lb up at 2-0-12, and 42 lb down and 23 lb up at 4-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-3=-66, 3-4=-66, 2-5=-20
 Concentrated Loads (lb)
 Vert: 6=-42 (B), 8=-42 (B)



December 1, 2023

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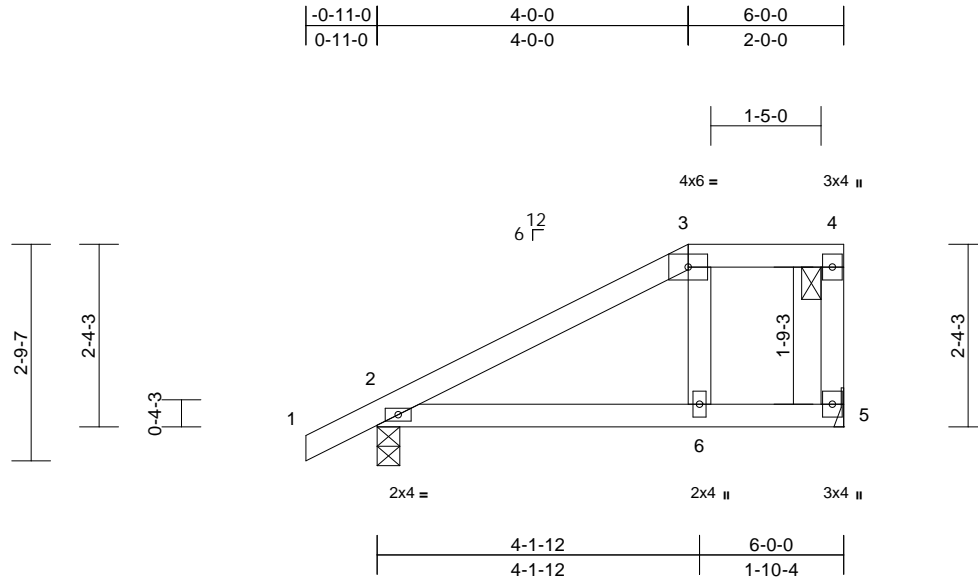
818 Soundside Road
 Edenton, NC 27932

Job 3769911	Truss J03	Truss Type Half Hip	Qty 3	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301387
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:29
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.05	2-6	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.08	2-6	>828	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0										Weight: 26 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5= Mechanical
Max Horiz 2=79 (LC 12)
Max Uplift 2=-28 (LC 12), 5=-16 (LC 9)
Max Grav 2=478 (LC 32), 5=270 (LC 31)

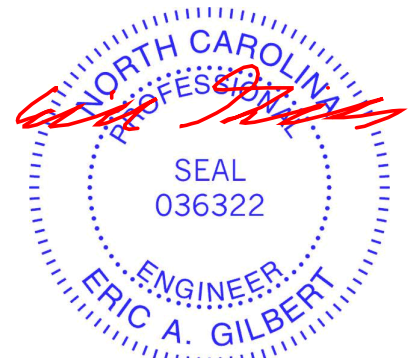
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-251/0, 3-4=-117/9,
4-5=-159/16
BOT CHORD 2-6=-13/124, 5-6=-9/117
WEBS 3-6=-98/54

- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 5 and 28 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

NOTES

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.



December 1, 2023

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



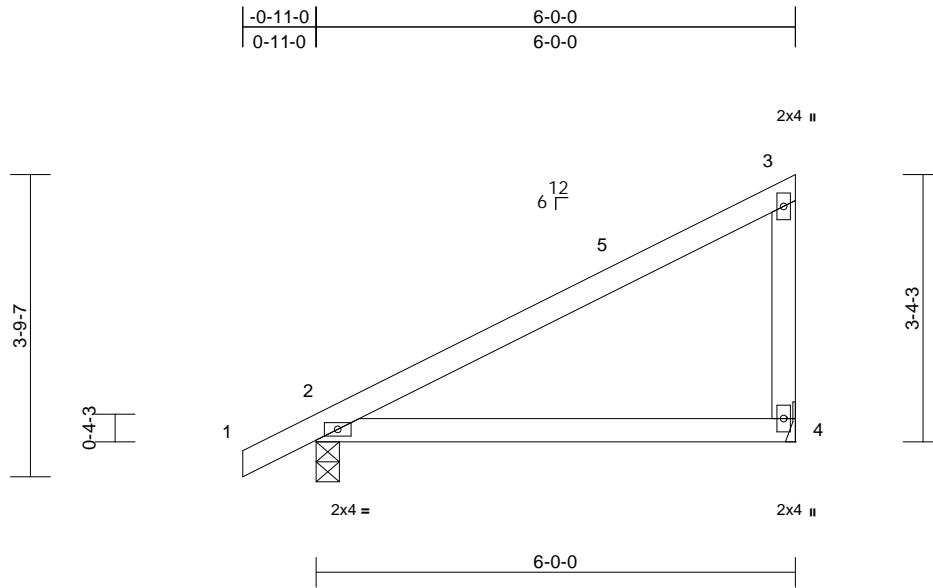
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss J04	Truss Type Jack-Closed	Qty 18	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301388
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:30
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Page: 1



Scale = 1:28.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.06	2-4	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.13	2-4	>538	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 25 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING

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

REACTIONS

(size) 2=0-3-8, 4= Mechanical
Max Horiz 2=109 (LC 12)
Max Uplift 2=-19 (LC 12), 4=-49 (LC 12)
Max Grav 2=328 (LC 19), 4=263 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/44, 2-3=-88/74, 3-4=-206/83
BOT CHORD 2-4=0/0

NOTES

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust)
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
 - 7) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
 - 8) Refer to girder(s) for truss to truss connections.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 4 and 19 lb uplift at joint 2.
 - 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



December 1, 2023

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

ENGINEERING BY
TRENCO
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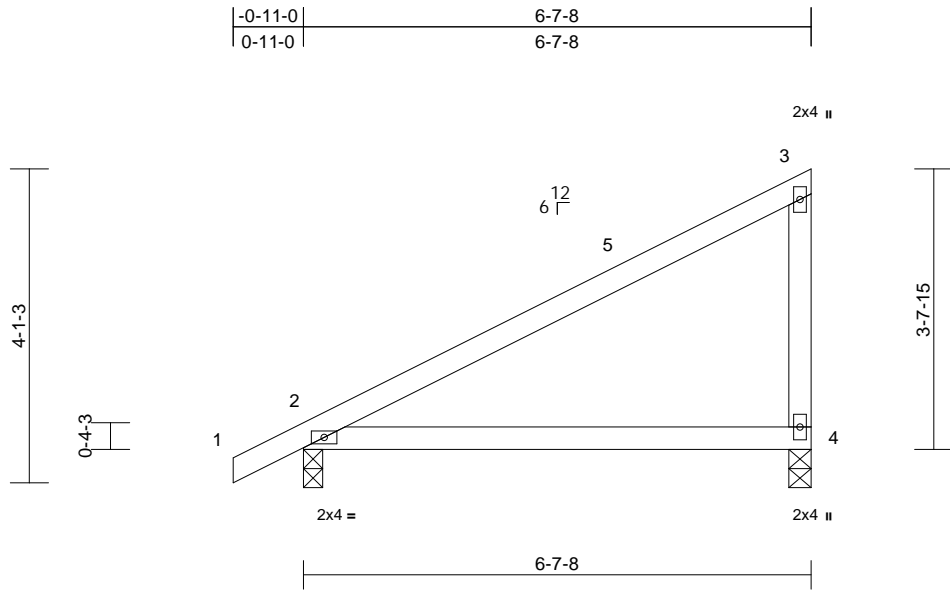
818 Soundside Road
Edenton, NC 27932

Job 3769911	Truss M01	Truss Type Monopitch	Qty 3	Ply 1	Sunset - Lot 9 - Fairground Farms Job Reference (optional)	162301389
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Nov 30 13:42:30
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Page: 1



Scale = 1:30.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.10	2-4	>780	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.20	2-4	>390	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 27 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING

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

REACTIONS

(size) 2=0-3-0, 4=0-3-8
Max Horiz 2=120 (LC 12)
Max Uplift 2=-19 (LC 12), 4=-54 (LC 12)
Max Grav 2=355 (LC 19), 4=297 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/44, 2-3=-97/83, 3-4=-234/93
BOT CHORD 2-4=0/0

NOTES

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
 - 7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 4 and 19 lb uplift at joint 2.
 - 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



December 1, 2023

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818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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



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

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

PLATE SIZE

4 X 4

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

LATERAL BRACING LOCATION



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

BEARING

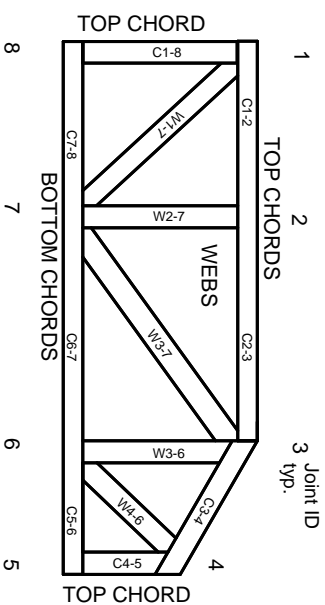


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: 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/TP1 section 6.3. These truss designs rely on Lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

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