Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	A	Common	1	1	Job Reference (optional)	I59456629

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:48 Page: 1
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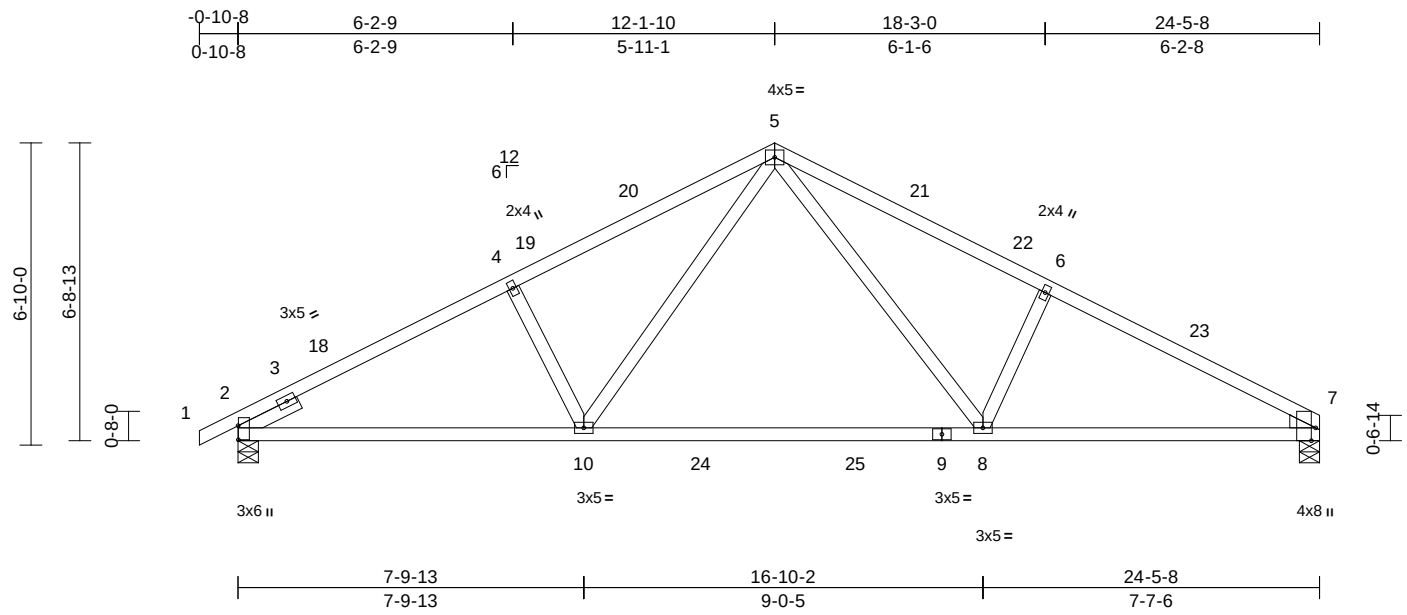


Scale = 1:52.1

Plate Offsets (X, Y): [2:0-3-13,0-0-1], [7:0-3-8,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)	-0.27	8-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.46	8-10	>640	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.05	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 115 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Right: 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

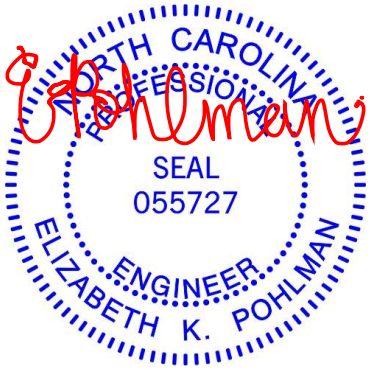
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 7=0-5-8
Max Horiz 2=109 (LC 18)
Max Uplift 2=-110 (LC 14), 7=-94 (LC 15)
Max Grav 2=1132 (LC 5), 7=1088 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-4=-1775/247, 4-5=-1666/281, 5-6=-1740/295, 6-7=-1846/254
BOT CHORD 2-10=-185/1538, 8-10=-53/1016, 7-8=-159/1602
WEBS 4-10=-397/196, 5-10=-93/721, 6-8=-424/201, 5-8=-108/782

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 9-1-10, Exterior(2R) 9-1-10 to 15-1-10, Interior (1) 15-1-10 to 21-5-8, Exterior(2E) 21-5-8 to 24-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 2. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	A1	Common	10	1	Job Reference (optional)	I59456630

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:50 Page: 1
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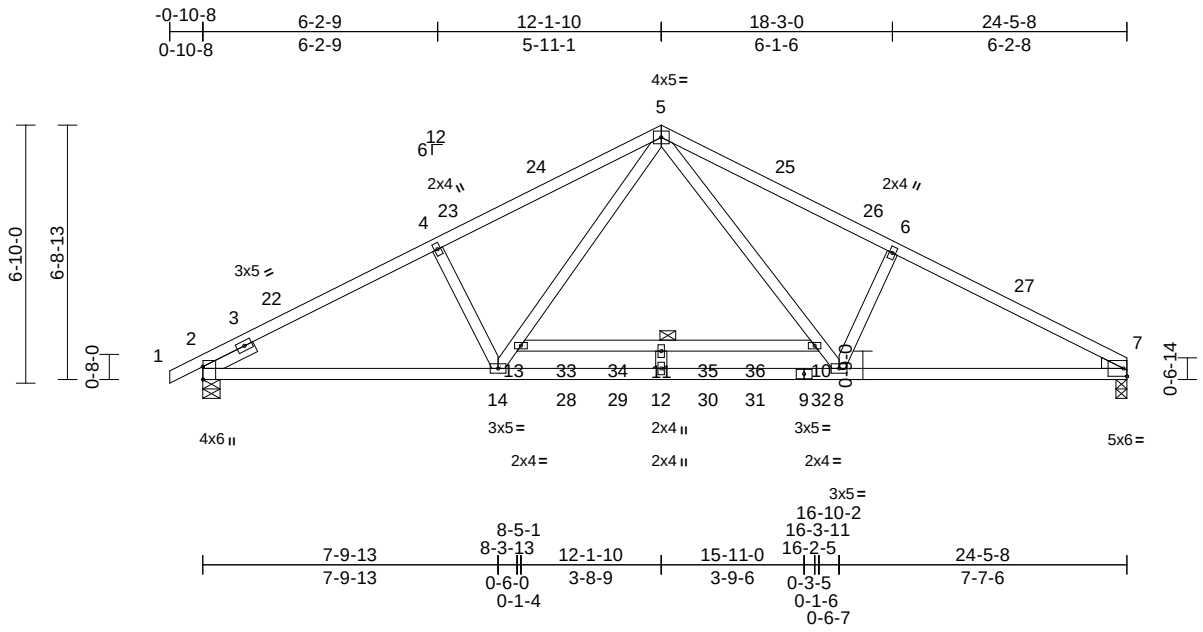


Scale = 1:61

Plate Offsets (X, Y): [2:0-4-1,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	0.80	Vert(LL)	-0.31	10-11	>932	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.70	10-11	>422	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.06	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 127 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1 *Except* 13-10:2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Right: 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

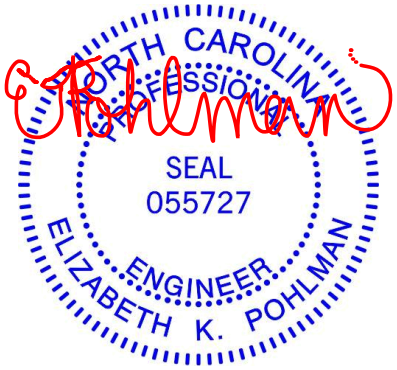
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
4-7-0 oc bracing: 10-13

REACTIONS (size) 2=0-5-8, 7=0-3-8
Max Horiz 2=109 (LC 18)
Max Grav 2=1384 (LC 5), 7=1340 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-4=-2303/0, 4-5=-2194/0, 5-6=-2283/0, 6-7=-2390/0
BOT CHORD 2-14=-57/1998, 12-14=0/1479, 8-12=0/1479, 7-8=0/2078, 11-13=-158/0, 10-11=-158/0
WEBS 4-14=-369/220, 13-14=0/800, 5-13=0/1005, 5-10=0/1072, 8-10=-10/864, 6-8=-401/221, 11-12=-39/23

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 9-1-10, Exterior(2R) 9-1-10 to 15-1-10, Interior (1) 15-1-10 to 21-5-8, Exterior(2E) 21-5-8 to 24-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) 200.0lb AC unit load placed on the bottom chord, 12-1-10 from left end, supported at two points, 5-0-0 apart.
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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	A2	Roof Special	8	1	Job Reference (optional)	I59456631

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:51 Page: 1

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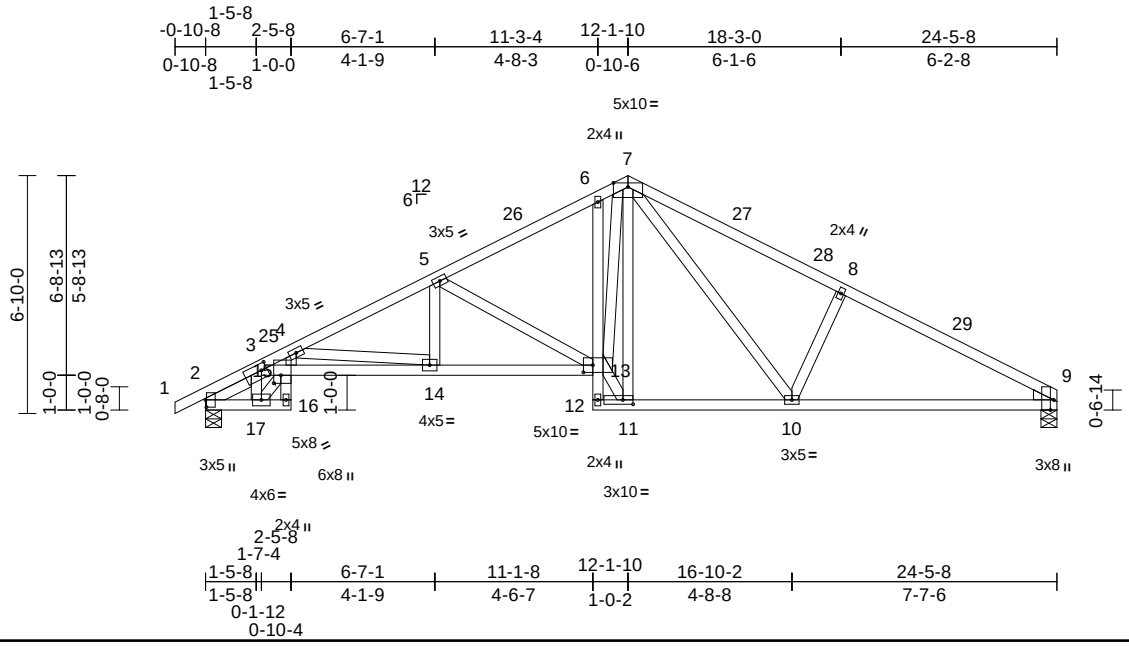

Scale = 1:66.2

Plate Offsets (X, Y): [2:0-2-8,0-0-5], [3:0-2-0,0-2-4], [9:0-3-8,Edge], [11:0-3-8,0-1-8], [13:0-3-4,0-2-8], [15:0-2-12,0-2-8]

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	0.82	Vert(LL)	-0.14	14-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.27	14-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.18	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 148 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 16-15,6-12:2x4 SP No.3, 3-13:2x4 SP No.1
WEBS 2x4 SP No.3
WEDGE Right: 2x4 SP No.3
SLIDER Left 2x4 SP 2400F 2.0E -- 1-5-14

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
9-2-3 oc bracing: 14-15
6-0-0 oc bracing: 12-13.

REACTIONS (size) 2=0-5-8, 9=0-5-8
Max Horiz 2=109 (LC 18)
Max Uplift 2=-110 (LC 14), 9=-94 (LC 15)
Max Grav 2=1066 (LC 21), 9=1008 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-650/81, 3-4=-3912/462, 4-5=-2201/295, 5-6=-1452/259, 6-7=-1316/290, 7-8=-1576/302, 8-9=-1703/260
BOT CHORD 2-17=-180/1184, 16-17=-30/178, 15-16=-8/102, 3-15=-290/2172, 14-15=-464/3249, 13-14=-198/1957, 12-13=-66/0, 6-13=-202/160, 11-12=-27/151, 10-11=-44/959, 9-10=-165/1468
WEBS 7-11=-812/54, 11-13=-26/1261, 7-10=-135/590, 7-13=-151/1507, 8-10=-422/197, 5-13=-866/171, 5-14=0/400, 3-17=-1515/234, 15-17=-277/1846, 4-15=-77/932, 4-14=-1305/268

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 9-1-10, Exterior(2R) 9-1-10 to 15-1-10, Interior (1) 15-1-10 to 21-5-8, Exterior(2E) 21-5-8 to 24-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	A3	Half Hip	1	1	Job Reference (optional)	I59456632

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:51 Page: 1
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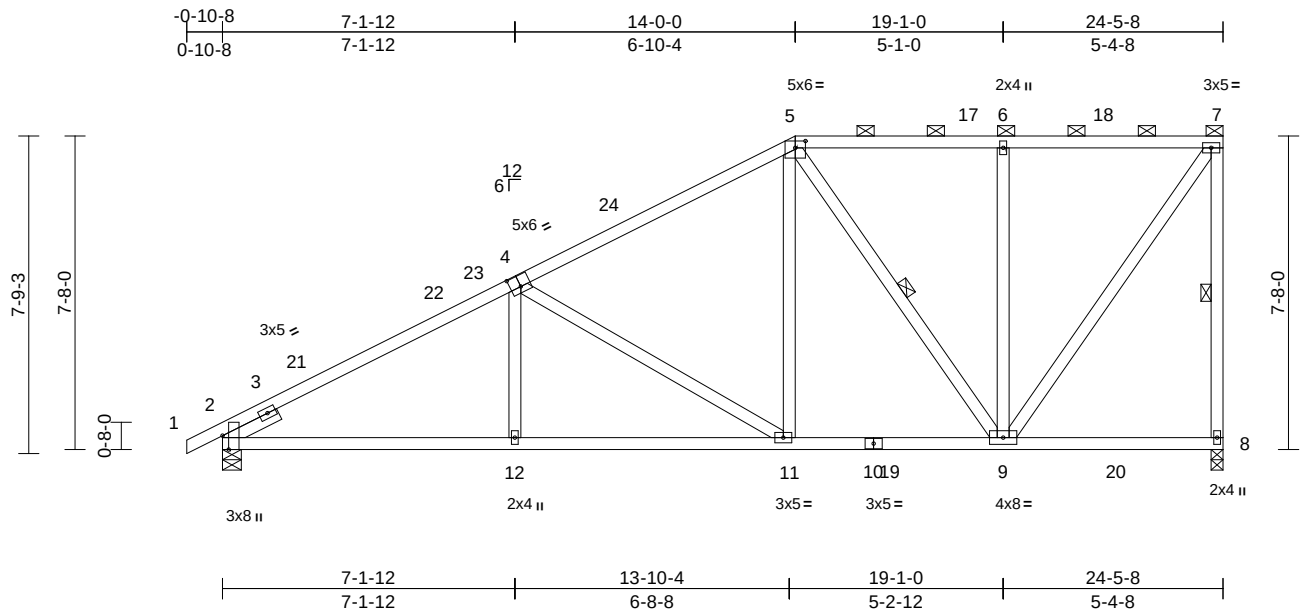


Scale = 1:56.3

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

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	0.86	Vert(LL)	-0.10	11-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.18	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 153 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

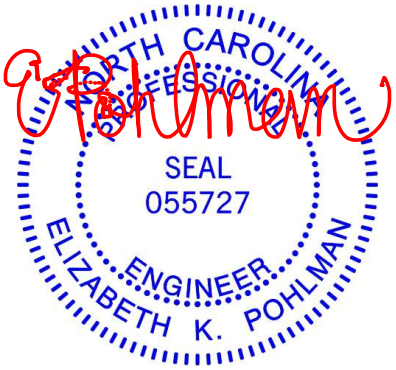
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-8, 5-9

REACTIONS (size) 2=0-5-8, 8=0-3-8
Max Horiz 2=279 (LC 13)
Max Uplift 2=-142 (LC 14), 8=-139 (LC 11)
Max Grav 2=1156 (LC 38), 8=1179 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 5-6=-659/188, 6-7=-659/188, 7-8=-1071/157, 1-2=0/23, 2-5=-1789/217
BOT CHORD 2-12=-253/1545, 11-12=-238/1540, 9-11=-157/904, 8-9=-93/133
WEBS 4-12=0/269, 4-11=-740/192, 5-11=-23/621, 5-9=-570/106, 6-9=-529/156, 7-9=-137/1122

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 9-9-1, Exterior(2R) 9-9-1 to 18-2-15, Interior (1) 18-2-15 to 21-3-12, Exterior(2E) 21-3-12 to 24-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 2. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	A4	Half Hip	1	1	Job Reference (optional)	I59456633

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:52 Page: 1
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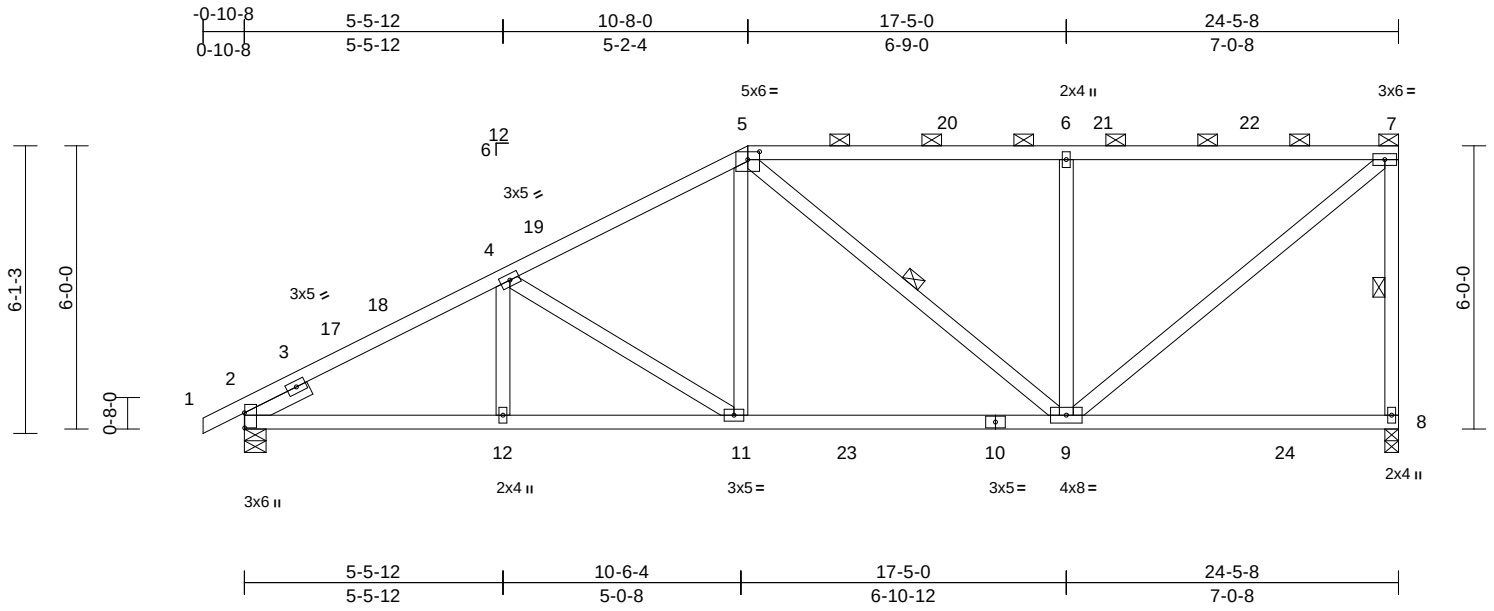

Scale = 1:48.8

Plate Offsets (X, Y): [2:0-3-13,0-0-1], [5:0-3-0,0-2-0]

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	1.00	Vert(LL)	-0.09	9-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.16	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 141 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-4 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-8, 5-9

REACTIONS (size) 2=0-5-8, 8=0-3-8
Max Horiz 2=217 (LC 13)
Max Uplift 2=-143 (LC 14), 8=-146 (LC 11)
Max Grav 2=1150 (LC 38), 8=1241 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-4=-1789/224, 4-5=-1359/205, 5-6=-1115/189, 6-7=-1115/189, 7-8=-1122/177
BOT CHORD 2-12=-229/1543, 11-12=-229/1543, 9-11=-185/1188, 8-9=-69/105
WEBS 4-12=0/163, 4-11=-524/135, 5-11=0/517, 5-9=-358/79, 6-9=-704/201, 7-9=-172/1414

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-5-1, Exterior(2R) 6-5-1 to 14-10-15, Interior (1) 14-10-15 to 21-3-12, Exterior(2E) 21-3-12 to 24-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 2. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	A5GR	Half Hip Girder	1	1	Job Reference (optional)	I59456634

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:53 Page: 1
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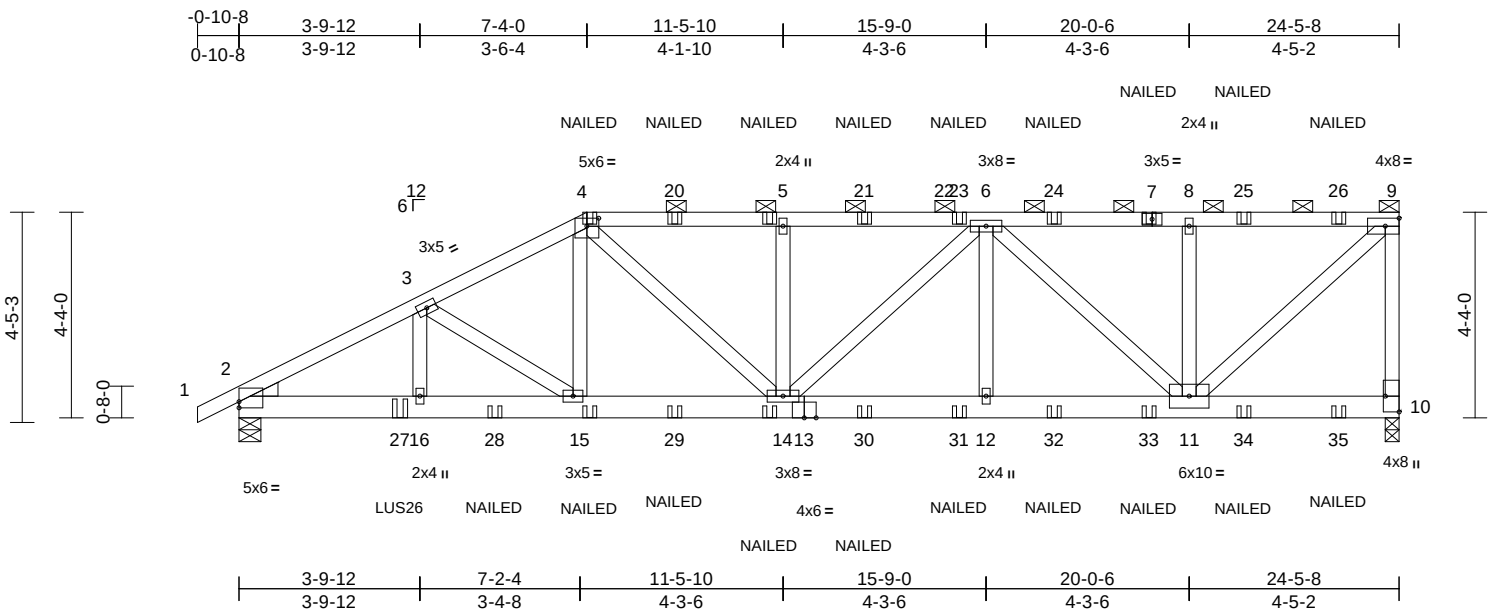


Scale = 1:48.6

Plate Offsets (X, Y): [2:Edge,0-1-9], [4:0-3-0,0-2-0], [10:Edge,0-3-8]

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	0.87	Vert(LL)	-0.13	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.21	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.05	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 164 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except* 13-10:2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 14-4,14-6,11-6,11-9:2x4 SP No.2
WEDGE Left: 2x4 SP No.3

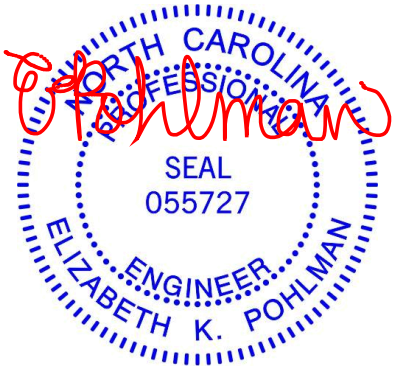
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-11-11 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-2 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 7-7-3 oc bracing.

REACTIONS (size) 2=0-5-8, 10=0-3-8
Max Horiz 2=152 (LC 11)
Max Uplift 2=-547 (LC 12), 10=-643 (LC 9)
Max Grav 2=1963 (LC 34), 10=2010 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-3183/955, 3-4=-2869/951, 4-5=-3065/1014, 5-6=-3065/1014, 6-8=-1846/604, 8-9=-1846/604, 9-10=-1922/639
BOT CHORD 2-16=-868/2770, 15-16=-868/2770, 14-15=-854/2540, 12-14=-952/2858, 11-12=-952/2858, 10-11=-42/49
WEBS 3-16=-4/95, 3-15=-339/99, 4-15=-97/512, 4-14=-268/727, 5-14=-593/264, 6-14=-122/347, 6-12=0/245, 6-11=-1377/453, 8-11=-613/277, 9-11=-792/2475

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
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 2-00-00 wide will fit between the bottom chord and any other members.
8) H10A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent at 3-4-12 from the left end to connect truss(es) to front face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
15) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-60, 4-9=-60, 10-17=-20
Concentrated Loads (lb)
Vert: 7=-116 (F), 15=-33 (F), 14=-33 (F), 4=-116 (F), 5=-116 (F), 20=-116 (F), 21=-116 (F), 23=-116 (F), 24=-116 (F), 25=-116 (F), 26=-116 (F), 27=-259 (F), 28=-130 (F), 29=-33 (F), 30=-33 (F), 31=-33 (F), 32=-33 (F), 33=-33 (F), 34=-33 (F), 35=-33 (F)



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	AGE	Common Supported Gable	1	1	Job Reference (optional)	I59456635

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:54 Page: 1
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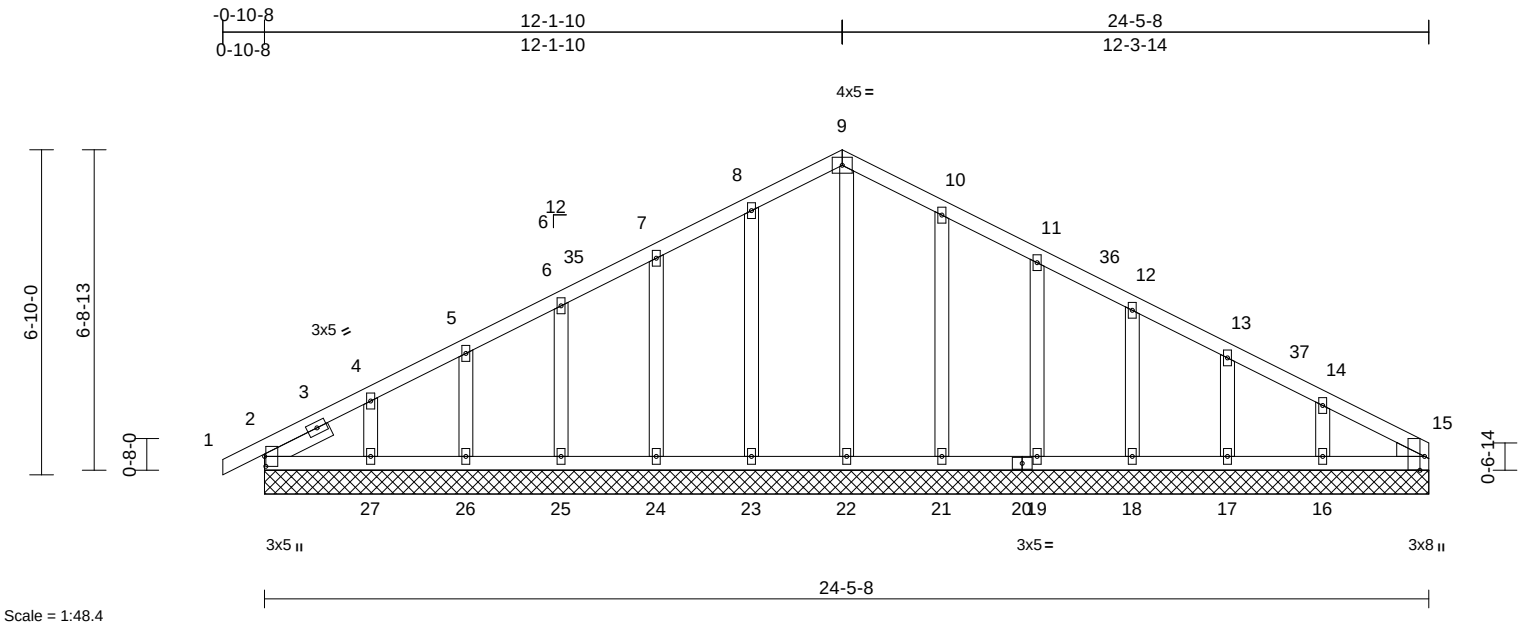


Scale = 1:48.4

Plate Offsets (X, Y): [2:0-2-8,0-0-5], [15:0-3-8,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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 139 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE Right: 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

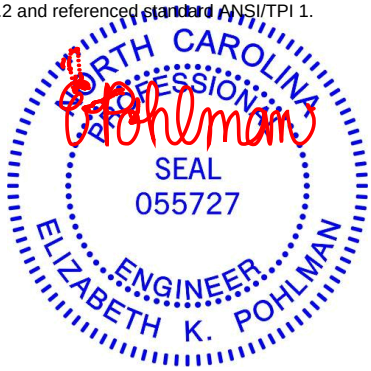
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=24-5-8, 15=24-5-8, 16=24-5-8, 17=24-5-8, 18=24-5-8, 19=24-5-8, 21=24-5-8, 22=24-5-8, 23=24-5-8, 24=24-5-8, 25=24-5-8, 26=24-5-8, 27=24-5-8, 28=24-5-8, 32=24-5-8
Max Horiz 2=109 (LC 18), 28=109 (LC 18)
Max Uplift 2=-13 (LC 15), 16=-69 (LC 15), 17=-37 (LC 15), 18=-45 (LC 15), 19=-44 (LC 15), 21=-46 (LC 15), 23=-42 (LC 14), 24=-45 (LC 14), 25=-46 (LC 14), 26=-35 (LC 14), 27=-78 (LC 14), 28=-13 (LC 15)
Max Grav 2=151 (LC 1), 15=84 (LC 1), 16=191 (LC 35), 17=152 (LC 1), 18=175 (LC 22), 19=225 (LC 22), 21=251 (LC 22), 22=152 (LC 27), 23=239 (LC 21), 24=231 (LC 21), 25=178 (LC 21), 26=156 (LC 1), 27=175 (LC 34), 28=151 (LC 1), 32=84 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/23, 2-4=-116/48, 4-5=-86/55, 5-6=-65/78, 6-7=-54/101, 7-8=-65/147, 8-9=-82/189, 9-10=-82/190, 10-11=-63/144, 11-12=-52/98, 12-13=-47/53, 13-14=-59/17, 14-15=-78/24
BOT CHORD 2-27=-24/91, 26-27=-24/91, 25-26=-24/91, 24-25=-24/91, 23-24=-24/91, 22-23=-24/91, 21-22=-24/90, 19-21=-24/90, 18-19=-24/90, 17-18=-24/90, 16-17=-24/90, 15-16=-24/90
WEBS 9-22=-112/14, 8-23=-198/72, 7-24=-191/80, 6-25=-138/78, 5-26=-119/72, 4-27=-124/112, 10-21=-211/78, 11-19=-185/79, 12-18=-133/77, 13-17=-117/76, 14-16=-130/124

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-2-12, Exterior (2N) 2-2-12 to 9-1-10, Corner(3R) 9-1-10 to 15-1-10, Exterior(2N) 15-1-10 to 21-5-8, Corner(3E) 21-5-8 to 24-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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 2-00-00 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 2, 42 lb uplift at joint 23, 45 lb uplift at joint 24, 46 lb uplift at joint 25, 35 lb uplift at joint 26, 78 lb uplift at joint 27, 46 lb uplift at joint 21, 44 lb uplift at joint 19, 45 lb uplift at joint 18, 37 lb uplift at joint 17, 69 lb uplift at joint 16 and 13 lb uplift at joint 2.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 12,2023

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A
23060130-01	AGE	Common Supported Gable	1	1	I59456635
					Job Reference (optional)

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	B	Monopitch	3	1	Job Reference (optional)	I59456636

Carter Components (Sanford), Sanford, NC - 27332,

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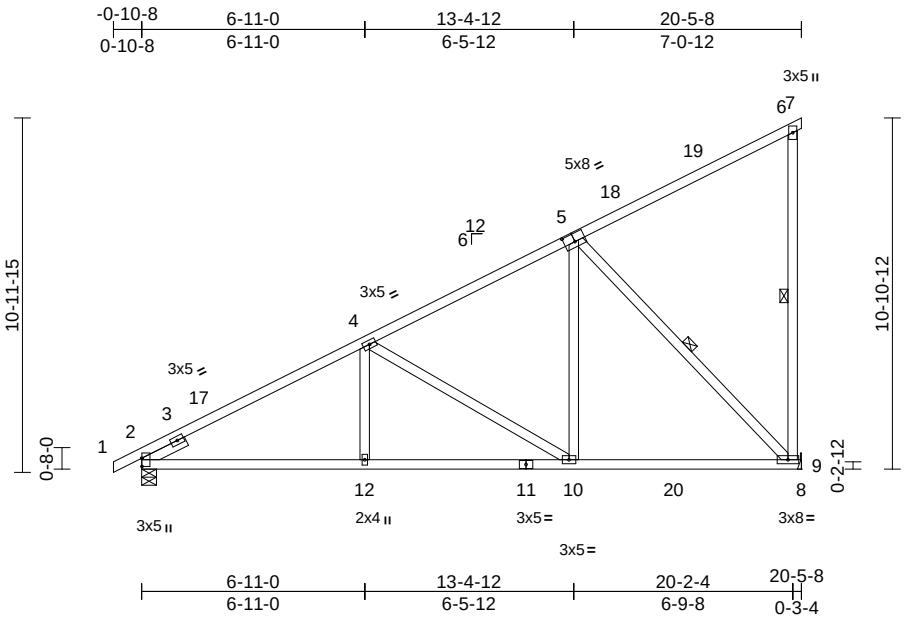
Page: 1



Scale = 1:71.5

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

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	0.87	Vert(LL)	-0.09	9-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.16	9-10	>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	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 124 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 6-9:2x4 SP No.2
SLIDER	Left 2x4 SP No.3 -- 1-6-0

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.
WEBS	1 Row at midpt 6-9, 5-9

REACTIONS (size) 2=0-5-8, 9= Mechanical
Max Horiz 2=388 (LC 14)
Max Uplift 2=-44 (LC 14), 9=-231 (LC 14)
Max Grav 2=934 (LC 5), 9=1050 (LC 5)

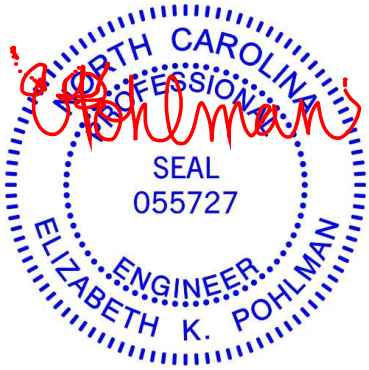
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/23, 2-4=-1334/20, 4-6=-812/112, 6-7=-12/0, 6-9=-309/105
BOT CHORD	2-12=-397/1138, 10-12=-313/1138, 9-10=-159/673, 8-9=0/0
WEBS	4-12=0/253, 4-10=-560/178, 5-10=0/579, 5-9=-946/225

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 17-5-8, Exterior(2E) 17-5-8 to 20-5-8 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 9.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	B1	Monopitch	2	1	Job Reference (optional)	I59456637

Carter Components (Sanford), Sanford, NC - 27332,

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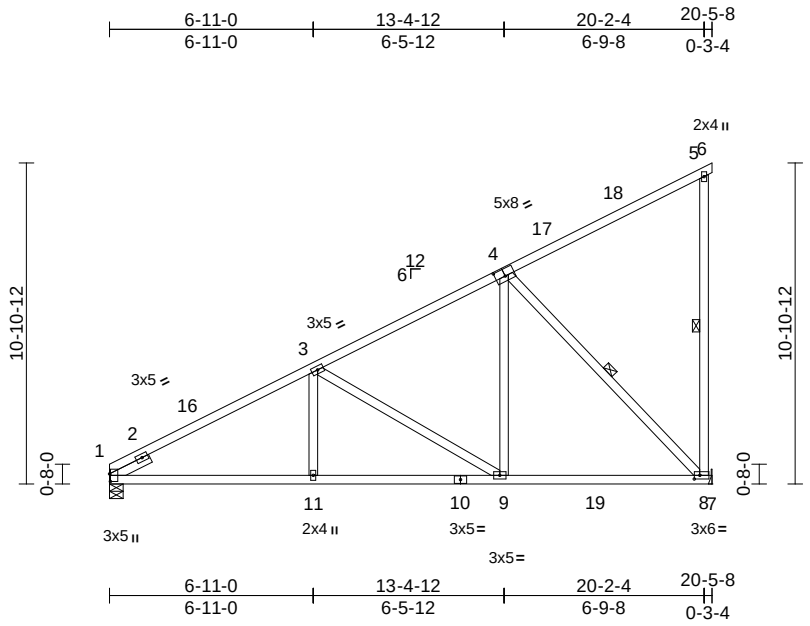


Scale = 1:78.2

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

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	1.00	Vert(LL)	-0.11	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.19	8-9	>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	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 122 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 5-8:2x4 SP No.2
SLIDER	Left 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 5-8, 4-8

REACTIONS (size) 1=0-5-8, 8= Mechanical
Max Horiz 1=375 (LC 14)
Max Uplift 1=-27 (LC 14), 8=-231 (LC 14)
Max Grav 1=888 (LC 5), 8=1044 (LC 5)

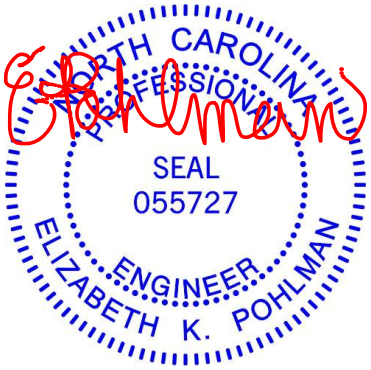
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-3=-1333/21, 3-5=-814/89, 5-6=-12/0
BOT CHORD	1-11=-408/1138, 9-11=-314/1138, 8-9=-161/676, 7-8=0/0
WEBS	3-11=0/251, 5-8=-291/100, 4-9=0/590, 4-8=-973/231, 3-9=-557/177

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 17-5-8, Exterior(2E) 17-5-8 to 20-5-8 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 8.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	B2	Monopitch	9	1	Job Reference (optional)	I59456638

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 E May 25 2023 Print: 8.630 E May 25 2023 MiTek Industries, Inc. Wed Jul 12 10:12:08 Page: 1
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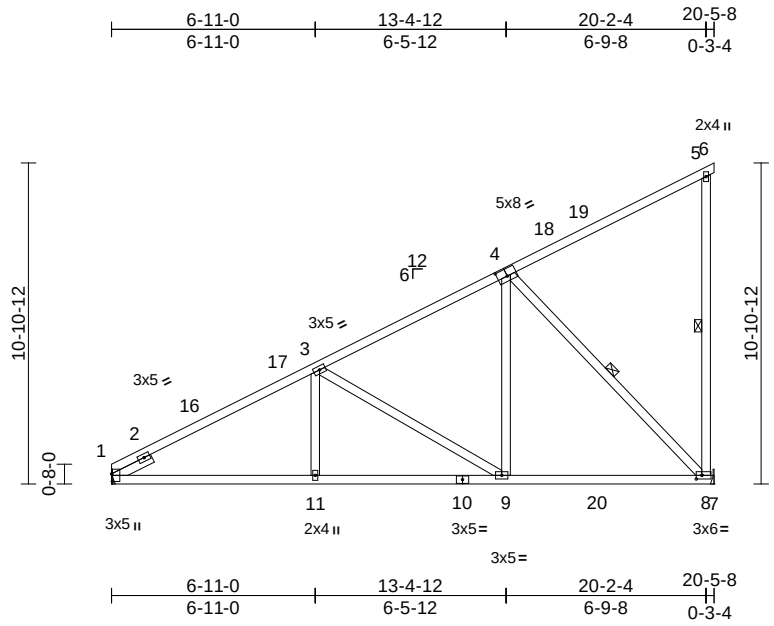


Scale = 1:78.2

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

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	1.00	Vert(LL)	-0.11	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.19	8-9	>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	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 122 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 5-8:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0

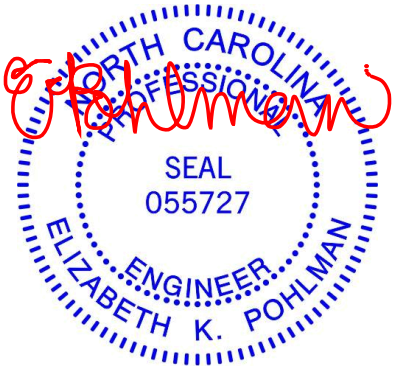
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-8, 4-8

REACTIONS (lb/size) 1=807/ Mechanical, 8=829/ Mechanical
Max Horiz 1=294 (LC 14)
Max Uplift 8=-98 (LC 14)
Max Grav 1=888 (LC 5), 8=1044 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-689/0, 2-16=-1333/0, 16-17=-1272/0, 3-17=-1218/0, 3-4=-814/0, 4-18=-147/7, 18-19=-64/18, 5-19=-57/89, 5-6=-12/0
BOT CHORD 1-11=-341/1138, 10-11=-201/1138, 9-10=-201/1138, 9-20=-104/676, 8-20=-104/676, 7-8=0/0
WEBS 3-11=0/251, 5-8=-291/92, 4-9=0/590, 4-8=-973/149, 3-9=-557/127

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 16-2-9, Exterior(2R) 16-2-9 to 20-5-8 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 98 lb uplift at joint 8.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	B2GE	Monopitch Supported Gable	1	1	Job Reference (optional)	I59456639

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:56 Page: 1
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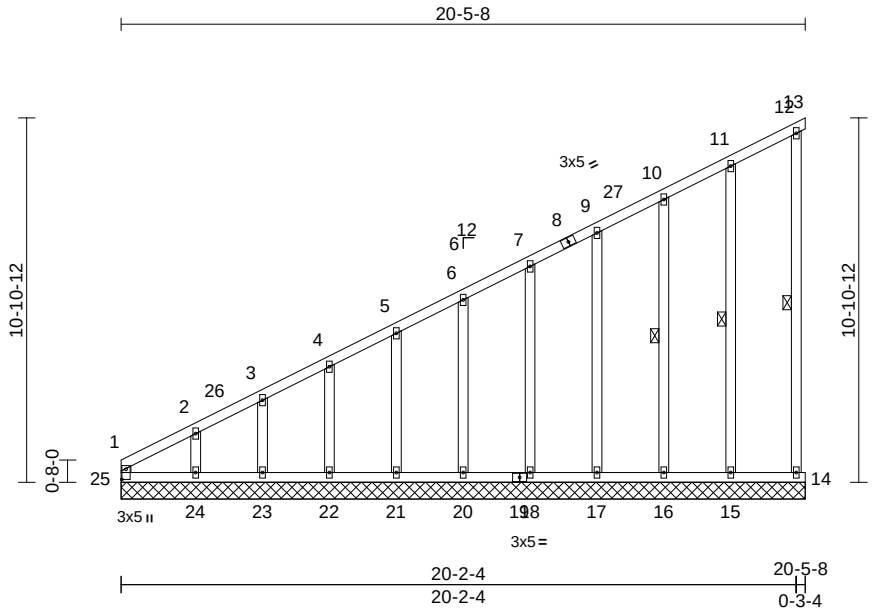


Scale = 1:68.9

Plate Offsets (X, Y): [25:0-3-11,0-1-8]

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	-0.02	13	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 150 lb	FT = 20%

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

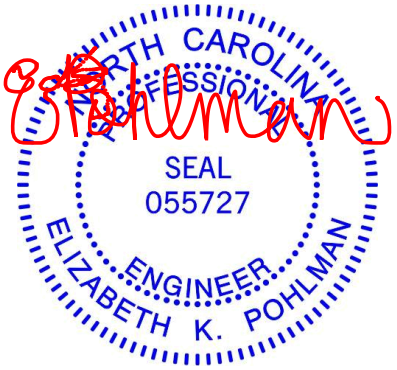
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 12-14, 10-16, 11-15

REACTIONS (size) 13=20-5-8, 14=20-5-8, 15=20-5-8, 16=20-5-8, 17=20-5-8, 18=20-5-8, 20=20-5-8, 21=20-5-8, 22=20-5-8, 23=20-5-8, 24=20-5-8, 25=20-5-8
Max Horiz 25=367 (LC 14)
Max Uplift 13=-9 (LC 14), 14=-20 (LC 14), 15=-44 (LC 14), 16=-45 (LC 14), 17=-43 (LC 14), 18=-44 (LC 14), 20=-44 (LC 14), 21=-42 (LC 14), 22=-53 (LC 14), 23=-9 (LC 14), 24=-174 (LC 14)
Max Grav 13=18 (LC 20), 14=102 (LC 20), 15=252 (LC 20), 16=225 (LC 20), 17=171 (LC 20), 18=160 (LC 1), 20=161 (LC 20), 21=160 (LC 1), 22=162 (LC 20), 23=153 (LC 20), 24=186 (LC 1), 25=265 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-25=-223/75, 1-2=-498/193, 2-3=-398/159, 3-4=-360/145, 4-5=-311/125, 5-6=-265/107, 6-7=-219/89, 7-9=-173/71, 9-10=-126/53, 10-11=-80/43, 11-12=-50/26, 12-13=-6/7, 12-14=-86/33
BOT CHORD 24-25=-1/1, 23-24=-1/1, 22-23=-1/1, 21-22=-1/1, 20-21=-1/1, 18-20=-1/1, 17-18=-1/1, 16-17=-1/1, 15-16=-1/1, 14-15=-1/1
WEBS 6-20=-120/80, 5-21=-120/79, 4-22=-121/84, 3-23=-116/60, 2-24=-136/201, 7-18=-120/80, 9-17=-131/80, 10-16=-186/79, 11-15=-208/85

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 20-5-8 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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 2-00-00 wide will fit between the bottom chord and any other members.
11) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 13, 20 lb uplift at joint 14, 44 lb uplift at joint 20, 42 lb uplift at joint 21, 53 lb uplift at joint 22, 9 lb uplift at joint 23, 174 lb uplift at joint 24, 44 lb uplift at joint 18, 43 lb uplift at joint 17, 45 lb uplift at joint 16 and 44 lb uplift at joint 15.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	C	Common	6	1	Job Reference (optional)	I59456640

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:56 Page: 1
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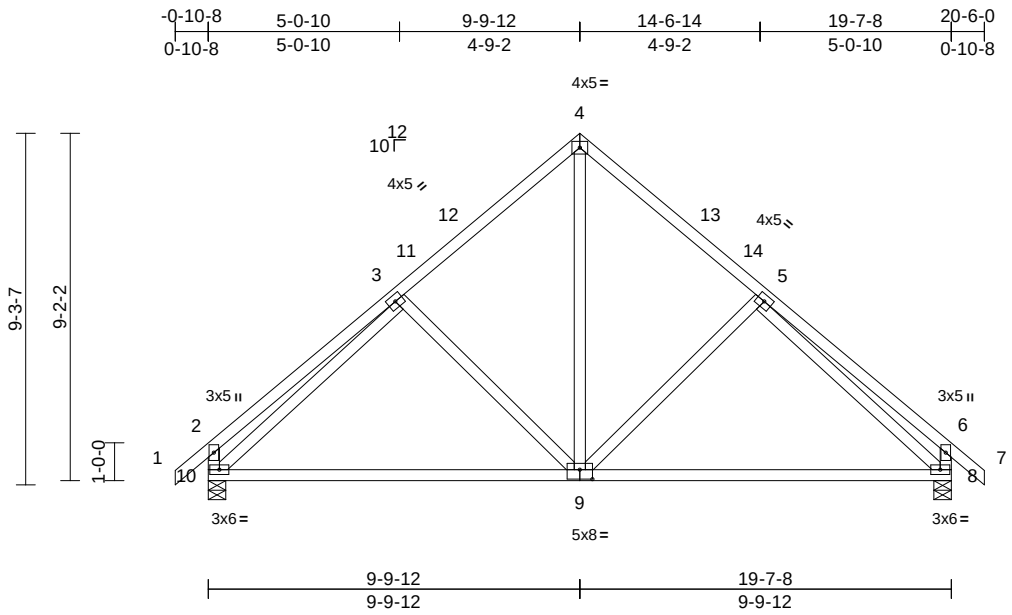


Scale = 1:60.9

Plate Offsets (X, Y): [9:0-4-0,0-3-0]

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	0.49	Vert(LL)	-0.17	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.34	8-9	>673	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 124 lb	FT = 20%

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

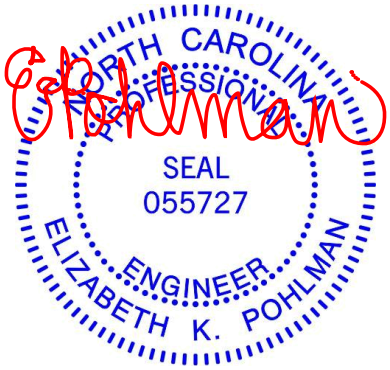
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-5-8, 10=0-5-8
Max Horiz 10=-236 (LC 12)
Max Uplift 8=-73 (LC 15), 10=-73 (LC 14)
Max Grav 8=883 (LC 22), 10=883 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-365/131, 3-4=-756/158, 4-5=-756/158, 5-6=-365/130, 6-7=0/39, 2-10=-380/143, 6-8=-379/143
BOT CHORD 8-10=-99/651
WEBS 4-9=-82/512, 5-9=-259/212, 3-9=-259/212, 3-10=-665/53, 5-8=-665/53

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-9-12, Exterior(2R) 6-9-12 to 12-9-12, Interior (1) 12-9-12 to 17-6-0, Exterior(2E) 17-6-0 to 20-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 8. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	CGE	Common Supported Gable	1	1	Job Reference (optional)	I59456641

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:57 Page: 1

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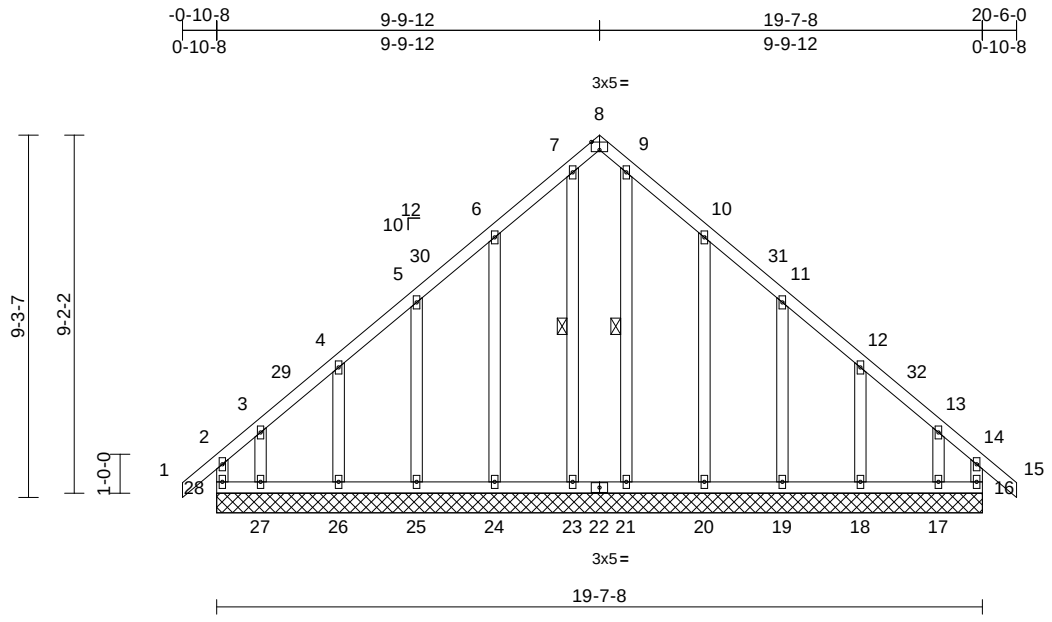


Scale = 1:59.1

Plate Offsets (X, Y): [8:0-2-8,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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	16	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 143 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	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 6-0-0 oc bracing.
WEBS	1 Row at midpt 7-23, 9-21

REACTIONS (size) 16=19-7-8, 17=19-7-8, 18=19-7-8, 19=19-7-8, 20=19-7-8, 21=19-7-8, 23=19-7-8, 24=19-7-8, 25=19-7-8, 26=19-7-8, 27=19-7-8, 28=19-7-8

Max Horiz 28=-236 (LC 12)

Max Uplift 16=-102 (LC 13), 17=-187 (LC 15), 18=-67 (LC 15), 19=-75 (LC 15), 20=-98 (LC 15), 24=-97 (LC 14), 25=-76 (LC 14), 26=-66 (LC 14), 27=-199 (LC 14), 28=-147 (LC 12)

Max Grav 16=190 (LC 15), 17=186 (LC 13), 18=175 (LC 25), 19=179 (LC 22), 20=264 (LC 22), 21=197 (LC 22), 23=197 (LC 21), 24=264 (LC 21), 25=179 (LC 21), 26=173 (LC 28), 27=212 (LC 12), 28=228 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-28=-169/107, 1-2=0/39, 2-3=-210/178, 3-4=-126/128, 4-5=-105/109, 5-6=-82/157, 6-7=-119/260, 7-8=-88/182, 8-9=-88/182, 9-10=-119/260, 10-11=-65/157, 11-12=-75/83, 12-13=-96/97, 13-14=-190/137, 14-15=0/39, 14-16=-144/76

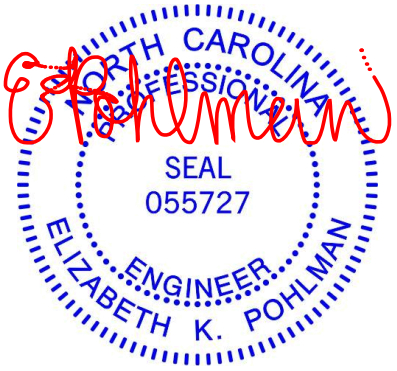
BOT CHORD 27-28=-112/179, 26-27=-112/179, 25-26=-112/179, 24-25=-112/179, 23-24=-112/179, 21-23=-112/179, 20-21=-112/179, 19-20=-112/179, 18-19=-112/179, 17-18=-112/179, 16-17=-112/179

WEBS 7-23=-165/14, 9-21=-165/14, 6-24=-222/139, 5-25=-140/102, 4-26=-136/113, 3-27=-130/145, 10-20=-222/139, 11-19=-140/103, 12-18=-137/112, 13-17=-120/139

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-9-12, Corner(3R) 6-9-12 to 12-9-12, Exterior (2N) 12-9-12 to 17-6-0, Corner(3E) 17-6-0 to 20-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * 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 2-00-00 wide will fit between the bottom chord and any other members.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 28, 102 lb uplift at joint 16, 97 lb uplift at joint 24, 76 lb uplift at joint 25, 66 lb uplift at joint 26, 199 lb uplift at joint 27, 98 lb uplift at joint 20, 75 lb uplift at joint 19, 67 lb uplift at joint 18 and 187 lb uplift at joint 17.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	CJ1	Jack-Open Structural Gable	1	1	Job Reference (optional)	I59456642

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:57
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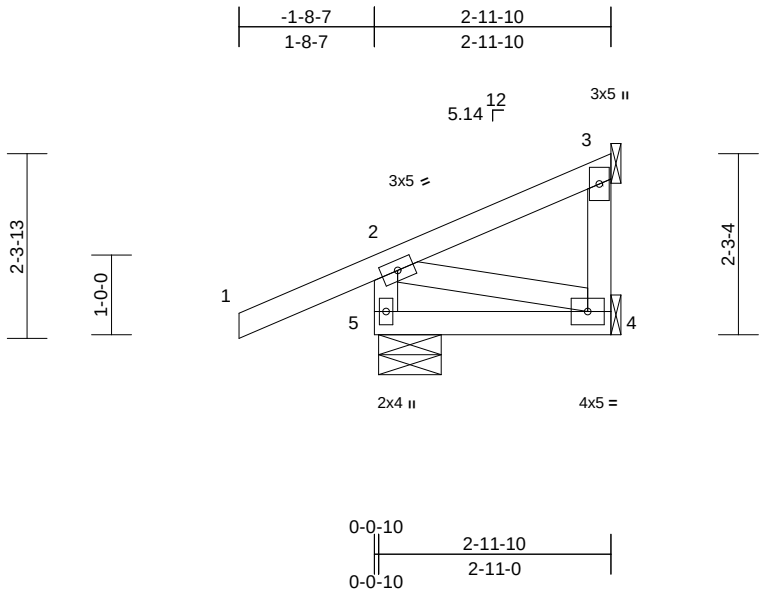

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 19 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 2-11-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-9-7
Max Horiz 5=86 (LC 13)
Max Uplift 3=-22 (LC 11), 4=-2 (LC 11), 5=-58 (LC 10)
Max Grav 3=64 (LC 21), 4=54 (LC 7), 5=377 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/67, 2-3=-71/54, 3-4=0/0, 2-5=-350/247
BOT CHORD 4-5=-82/78
WEBS 2-4=-54/104

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 4.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 3. This connection is for uplift only and does not consider lateral forces.
10) One RT8A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	EGE	Common Supported Gable	1	1	Job Reference (optional)	I59456643

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:01:58 Page: 1
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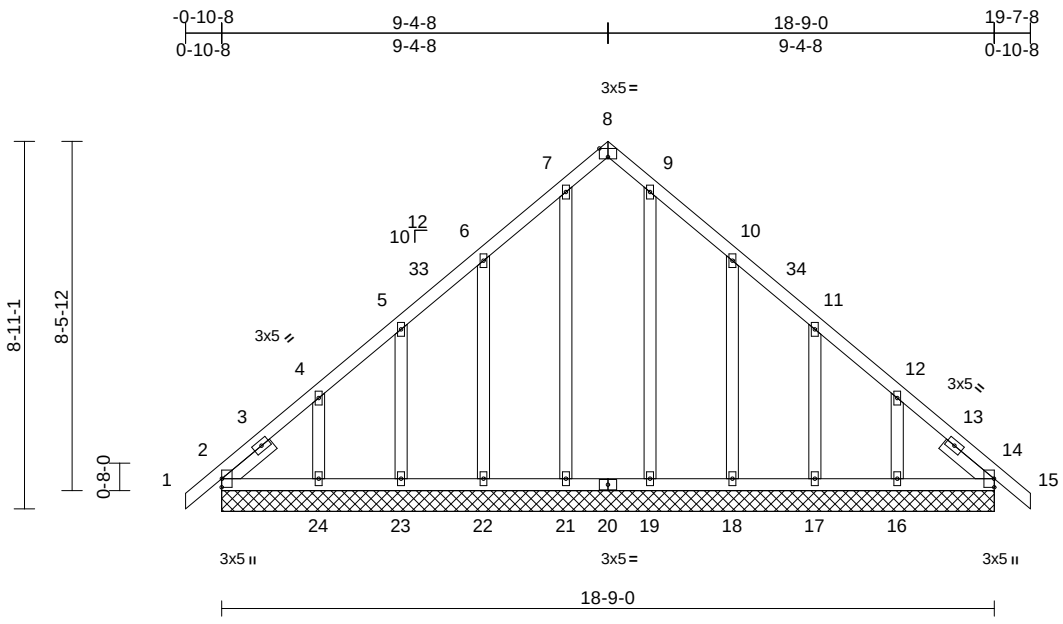


Scale = 1:55.9

Plate Offsets (X, Y): [8:0-2-8,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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 127 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

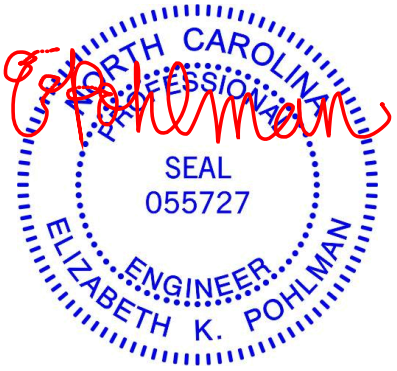
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=18-9-0, 14=18-9-0, 16=18-9-0, 17=18-9-0, 18=18-9-0, 19=18-9-0, 21=18-9-0, 22=18-9-0, 23=18-9-0, 24=18-9-0, 25=18-9-0, 29=18-9-0
Max Horiz 2=201 (LC 13), 25=201 (LC 13)
Max Uplift 2=-25 (LC 10), 14=-2 (LC 11), 16=-136 (LC 15), 17=-56 (LC 15), 18=-102 (LC 15), 21=-3 (LC 11), 22=-98 (LC 14), 23=-55 (LC 14), 24=-139 (LC 14), 25=-25 (LC 10), 29=-2 (LC 11)
Max Grav 2=203 (LC 26), 14=191 (LC 27), 16=215 (LC 25), 17=164 (LC 22), 18=256 (LC 22), 19=214 (LC 22), 21=214 (LC 21), 22=256 (LC 21), 23=164 (LC 21), 24=218 (LC 24), 25=203 (LC 26), 29=191 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-4=-245/139, 4-5=-148/94, 5-6=-108/70, 6-7=-106/88, 7-8=-82/91, 8-9=-82/91, 9-10=-106/88, 10-11=-85/39, 11-12=-127/63, 12-14=-223/113, 14-15=0/34
BOT CHORD 2-24=-84/253, 23-24=-84/253, 22-23=-84/253, 21-22=-84/253, 19-21=-84/253, 18-19=-84/253, 17-18=-84/253, 16-17=-84/253, 14-16=-84/253
WEBS 7-21=-174/28, 9-19=-174/5, 6-22=-215/140, 5-23=-128/96, 4-24=-155/155, 10-18=-215/140, 11-17=-128/96, 12-16=-152/155

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-4-4, Exterior(2N) 2-4-4 to 6-4-4, Corner(3R) 6-4-4 to 12-4-12, Exterior(2N) 12-4-12 to 16-4-12, Corner(3E) 16-4-12 to 19-7-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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 2-00-00 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 2, 2 lb uplift at joint 14, 3 lb uplift at joint 21, 98 lb uplift at joint 22, 55 lb uplift at joint 23, 139 lb uplift at joint 24, 102 lb uplift at joint 18, 56 lb uplift at joint 17, 136 lb uplift at joint 16, 25 lb uplift at joint 2 and 2 lb uplift at joint 14.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	EGR	Common Girder	1	2	Job Reference (optional)	I59456644

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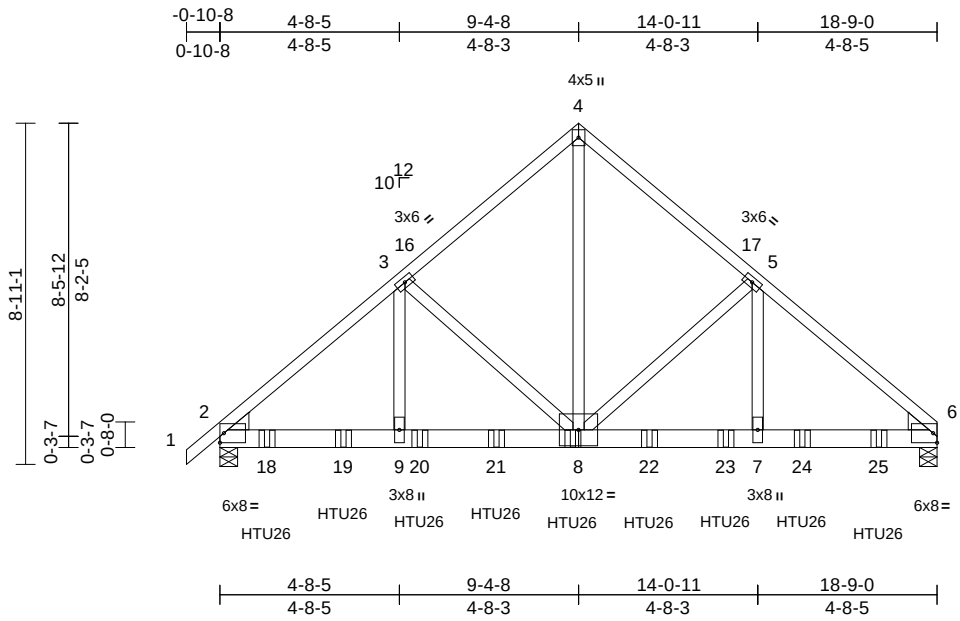

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.08	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.14	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.94	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 251 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

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

REACTIONS (size) 2=0-5-8, 6=0-5-8
Max Horiz 2=195 (LC 11)
Max Uplift 2=-128 (LC 12), 6=-109 (LC 13)
Max Grav 2=4704 (LC 5), 6=4550 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-5543/158, 3-4=-3868/197, 4-5=-3868/197, 5-6=-5566/157
BOT CHORD 2-9=-191/4274, 7-9=-157/4274, 6-7=-71/4222
WEBS 4-8=-141/4542, 5-8=-1808/193, 5-7=0/2026, 3-8=-1784/190, 3-9=0/1994

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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 2. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-2-12 from the left end to 17-2-12 to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-60, 4-6=-60, 10-13=-20
Concentrated Loads (lb)
Vert: 8=-813 (B), 18=-813 (B), 19=-813 (B), 20=-813 (B), 21=-813 (B), 22=-813 (B), 23=-813 (B), 24=-813 (B), 25=-813 (B)

NORTH CAROLINA PROFESSIONAL SEAL 055727 ENGINEER ELIZABETH K. POHLMAN
July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	F	Common	4	1	Job Reference (optional)	I59456645

Carter Components (Sanford), Sanford, NC - 27332,

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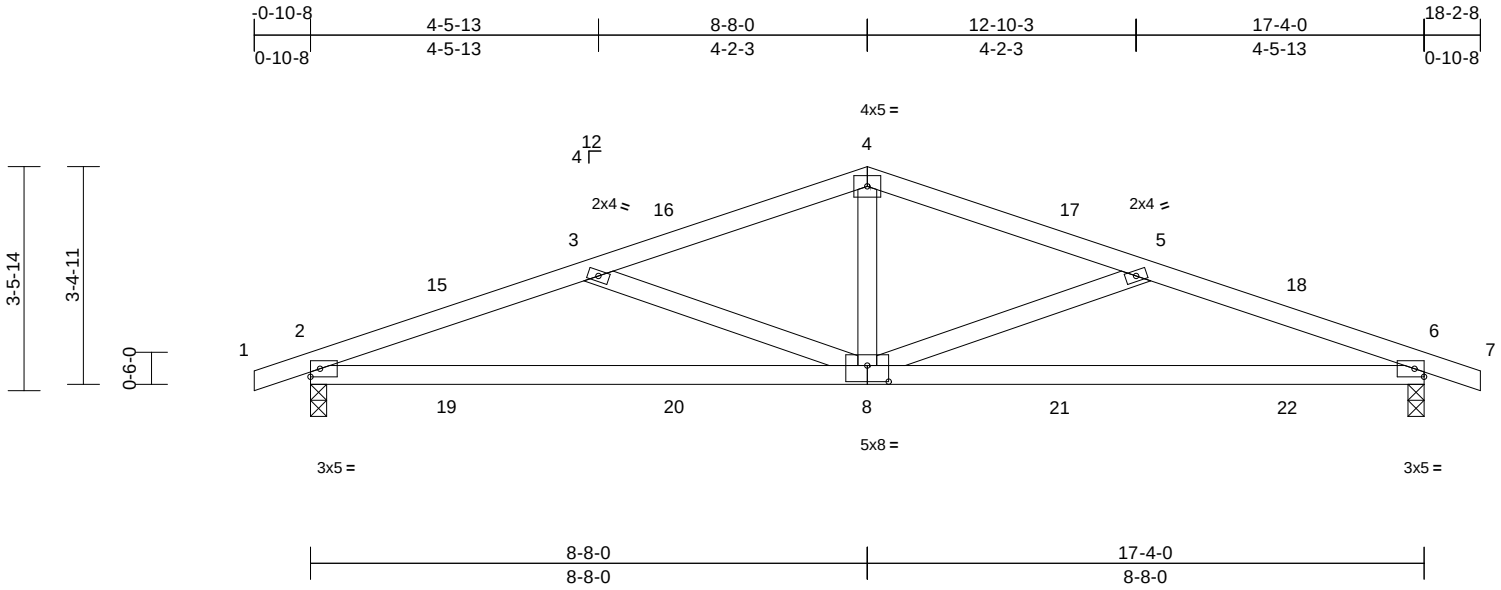

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Plate Offsets (X, Y): [8:0-4-0,0-3-0]

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	0.39	Vert(LL)	0.22	8-11	>949	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.19	8-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 73 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 4-4-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-7-0 oc bracing.

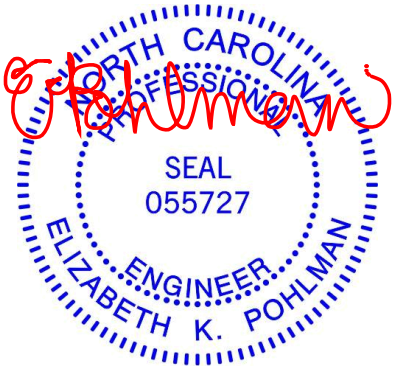
REACTIONS (size) 2=0-3-0, 6=0-3-0
Max Horiz 2=-50 (LC 19)
Max Uplift 2=-266 (LC 10), 6=-266 (LC 11)
Max Grav 2=816 (LC 21), 6=816 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-1656/1476, 3-4=-1134/1295, 4-5=-1134/1295, 5-6=-1656/1476, 6-7=0/17
BOT CHORD 2-6=-1340/1528
WEBS 4-8=-655/461, 5-8=-547/253, 3-8=-547/253

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 5-8-0, Exterior(2R) 5-8-0 to 11-8-0, Interior (1) 11-8-0 to 15-2-8, Exterior(2E) 15-2-8 to 18-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	FGE	Common Supported Gable	1	1	Job Reference (optional)	I59456646

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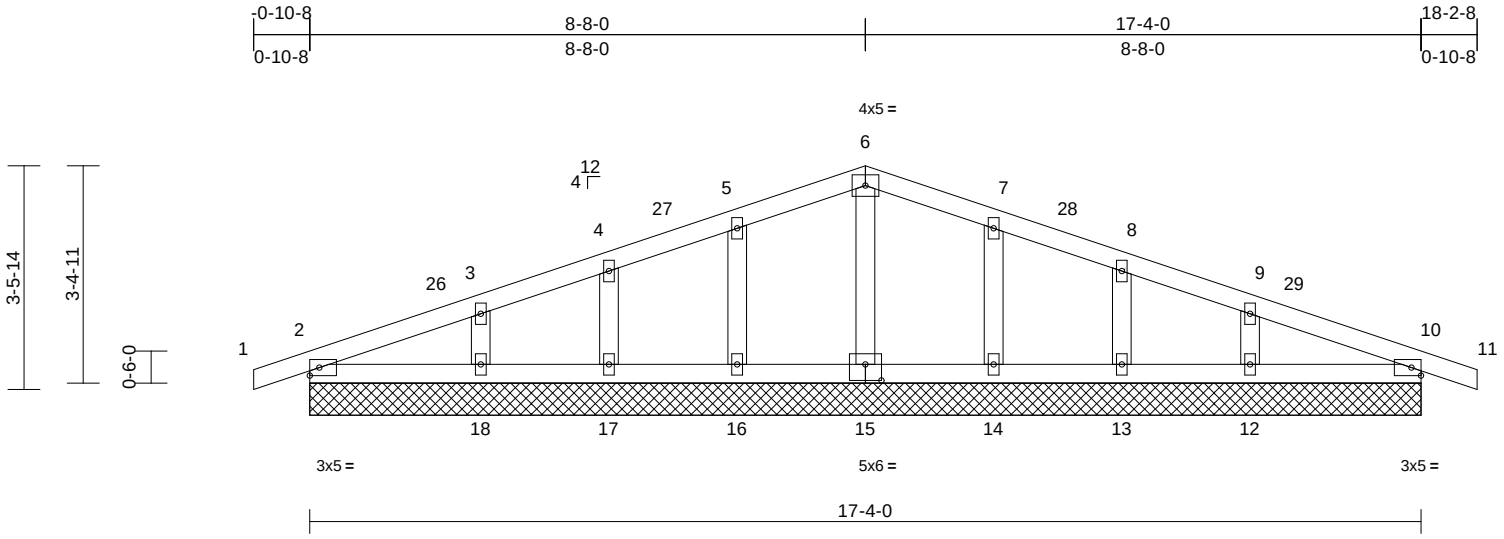


Scale = 1:35.9

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

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 74 lb	FT = 20%

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

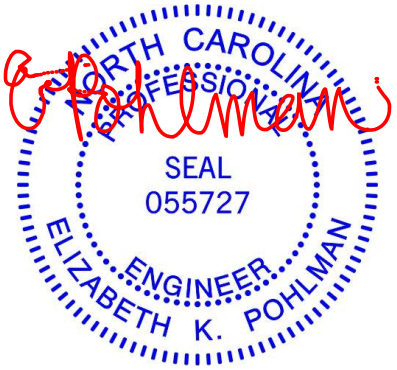
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=17-4-0, 10=17-4-0, 12=17-4-0, 13=17-4-0, 14=17-4-0, 15=17-4-0, 16=17-4-0, 17=17-4-0, 18=17-4-0, 19=17-4-0, 23=17-4-0
Max Horiz 2=-50 (LC 19), 19=-50 (LC 19)
Max Uplift 2=-38 (LC 10), 10=-45 (LC 11), 12=-46 (LC 15), 13=-31 (LC 11), 14=-38 (LC 15), 16=-38 (LC 14), 17=-30 (LC 10), 18=-49 (LC 14), 19=-38 (LC 10), 23=-45 (LC 11)
Max Grav 2=160 (LC 1), 10=160 (LC 1), 12=249 (LC 22), 13=203 (LC 22), 14=235 (LC 22), 15=135 (LC 21), 16=235 (LC 21), 17=203 (LC 21), 18=249 (LC 21), 19=160 (LC 1), 23=160 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-60/34, 3-4=-51/47, 4-5=-49/78, 5-6=-53/121, 6-7=-53/121, 7-8=-49/78, 8-9=-51/43, 9-10=-48/34, 10-11=0/17
BOT CHORD 2-18=-22/45, 17-18=0/45, 16-17=0/45, 14-16=0/45, 13-14=0/45, 12-13=0/45, 10-12=-18/45
WEBS 6-15=-96/12, 5-16=-193/109, 4-17=-170/86, 3-18=-190/104, 7-14=-193/109, 8-13=-170/86, 9-12=-190/104

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-8-0, Corner(3R) 5-8-0 to 11-8-0, Exterior(2N) 11-8-0 to 15-2-8, Corner(3E) 15-2-8 to 18-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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 2-00-00 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 2, 45 lb uplift at joint 10, 38 lb uplift at joint 16, 30 lb uplift at joint 17, 49 lb uplift at joint 18, 38 lb uplift at joint 14, 31 lb uplift at joint 13, 46 lb uplift at joint 12, 38 lb uplift at joint 2 and 45 lb uplift at joint 10.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	G	Common	2	1	Job Reference (optional)	I59456647

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:00
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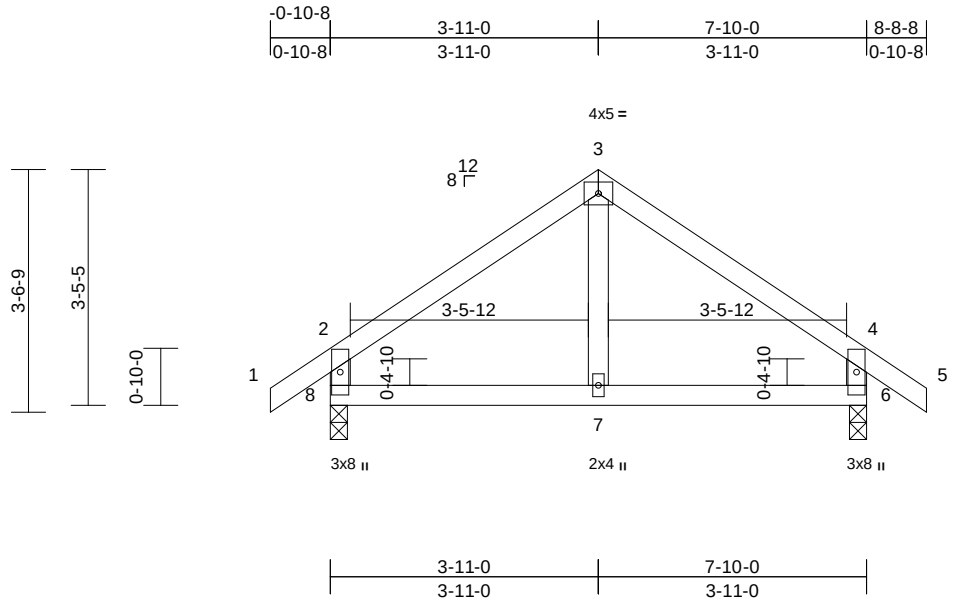


Scale = 1:33.7

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	0.36	Vert(LL)	0.01	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.01	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 35 lb	FT = 20%

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

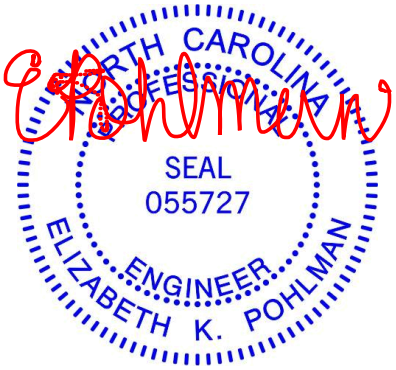
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-0, 8=0-3-0
Max Horiz 8=96 (LC 13)
Max Uplift 6=-44 (LC 15), 8=-44 (LC 14)
Max Grav 6=497 (LC 22), 8=497 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/57, 2-3=-358/322, 3-4=-358/321, 4-5=0/57, 2-8=-454/309, 4-6=-454/307
BOT CHORD 7-8=-119/196, 6-7=-119/196
WEBS 3-7=-224/148

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 5-8-8, Exterior(2E) 5-8-8 to 8-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	G1	Common	1	1	Job Reference (optional)	I59456648

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:00 Page: 1
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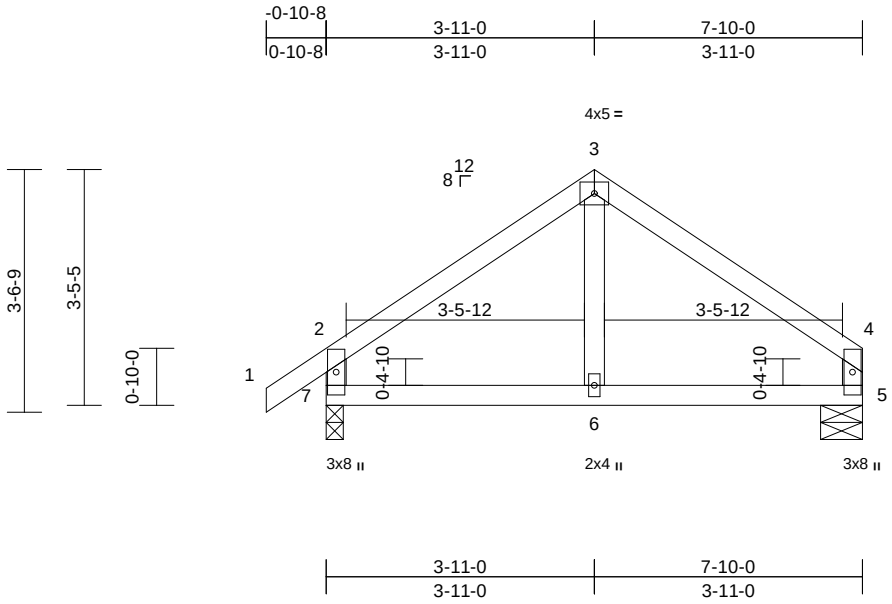

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	0.02	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 33 lb	FT = 20%

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

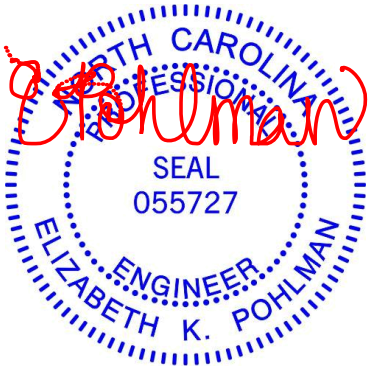
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=0-7-5, 7=0-3-0
Max Horiz 7=91 (LC 11)
Max Uplift 5=-24 (LC 15), 7=-44 (LC 14)
Max Grav 5=387 (LC 22), 7=442 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-352/323, 3-4=-359/318, 2-7=-399/309, 4-5=-341/243
BOT CHORD 6-7=-167/205, 5-6=-167/205
WEBS 3-6=-217/144

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 4-8-4, Exterior(2E) 4-8-4 to 7-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
9) One RT8A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	GGE	Common Supported Gable	1	1	Job Reference (optional)	I59456649

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:01 Page: 1
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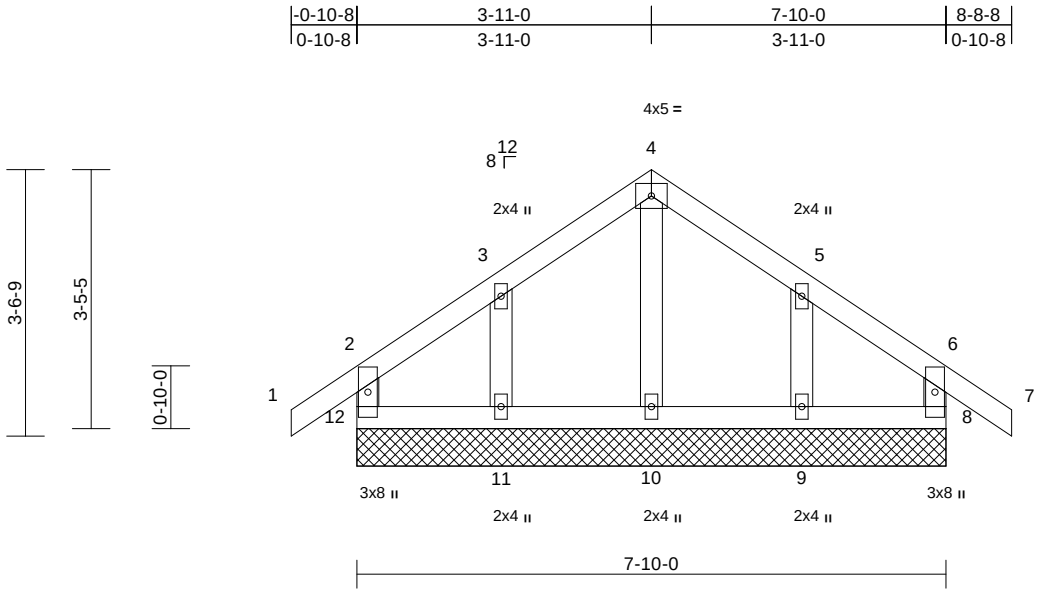

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 39 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 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 6-0-0 oc bracing.

REACTIONS (size) 8=7-10-0, 9=7-10-0, 10=7-10-0, 11=7-10-0, 12=7-10-0
Max Horiz 12=96 (LC 13)
Max Uplift 8=-26 (LC 14), 9=-69 (LC 15), 11=-70 (LC 14), 12=-29 (LC 15)
Max Grav 8=211 (LC 22), 9=230 (LC 22), 10=174 (LC 22), 11=230 (LC 21), 12=211 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-12=-193/164, 1-2=0/57, 2-3=-52/62, 3-4=-76/155, 4-5=-76/156, 5-6=-45/60, 6-7=0/57, 6-8=-193/160
BOT CHORD 11-12=-44/85, 10-11=-44/85, 9-10=-44/85, 8-9=-44/85
WEBS 4-10=-134/0, 3-11=-193/143, 5-9=-193/148

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 1-11-0, Corner(3R) 1-11-0 to 5-11-0, Corner(3E) 5-11-0 to 8-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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 2-00-00 wide will fit between the bottom chord and any other members.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 12, 26 lb uplift at joint 8, 70 lb uplift at joint 11 and 69 lb uplift at joint 9.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	GGR	Common Girder	1	2	Job Reference (optional)	I59456650

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:01 Page: 1
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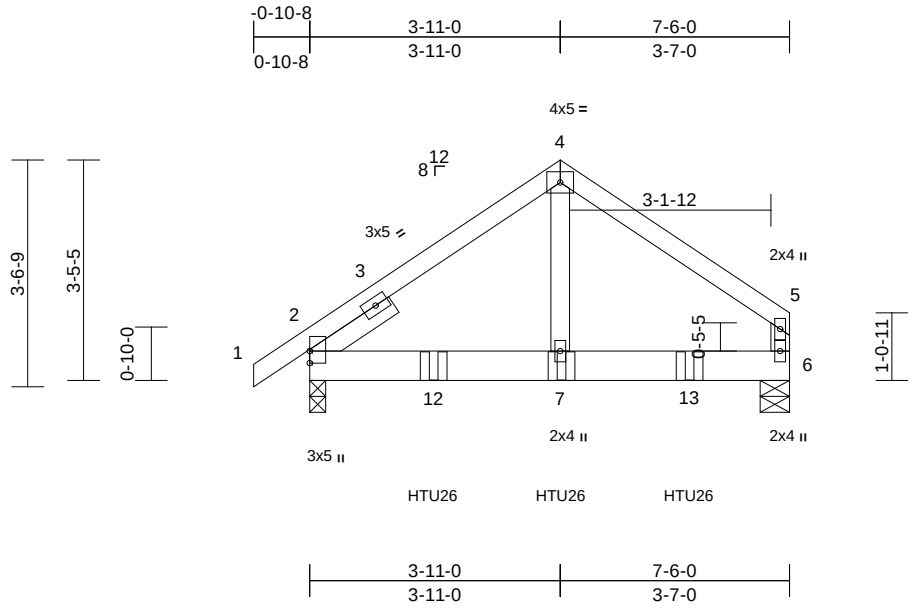

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.16	7-10	>549	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.26	7-10	>337	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.05	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 80 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

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

REACTIONS (size) 2=0-3-0, 6=0-5-8
Max Horiz 2=85 (LC 11)
Max Uplift 2=-193 (LC 12), 6=-195 (LC 13)
Max Grav 2=894 (LC 19), 6=907 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-4=-580/196, 4-5=-77/77, 5-6=-173/67
BOT CHORD 2-7=-51/59, 6-7=-10/7
WEBS 4-7=-292/34

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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-11-4 from the left end to 5-11-4 to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-60, 4-5=-60, 6-8=-20
Concentrated Loads (lb)
Vert: 7=-335 (B), 12=-335 (B), 13=-335 (B)

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	H	Monopitch	5	1	Job Reference (optional)	I59456651

Carter Components (Sanford), Sanford, NC - 27332,

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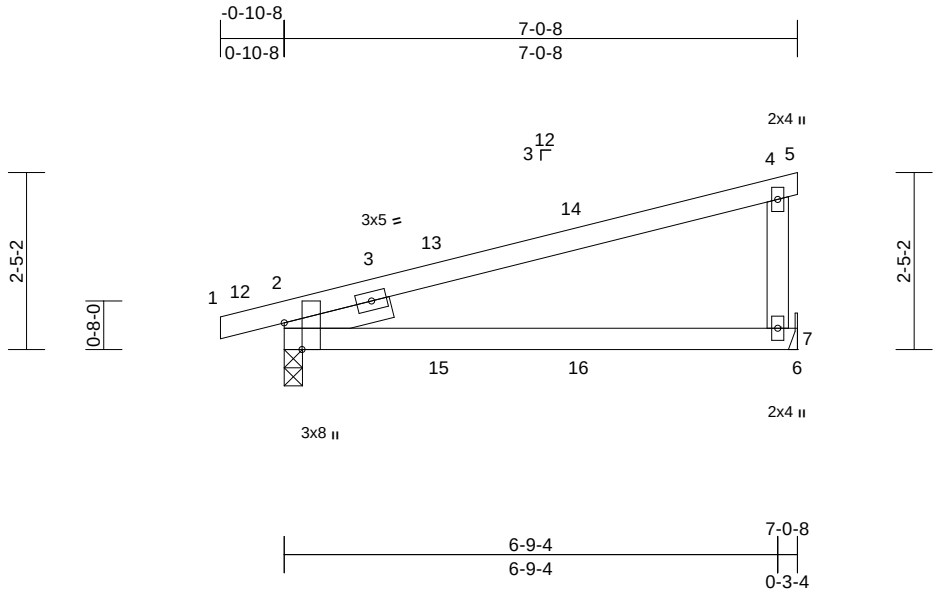


Scale = 1:31.6

Plate Offsets (X, Y): [2:0-4-6,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	0.93	Vert(LL)	0.32	7-10	>256	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.26	7-10	>314	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.05	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 28 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -- 1-6-0

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, 7= Mechanical
Max Horiz 2=80 (LC 13)
Max Uplift 2=-130 (LC 10), 7=-108 (LC 10)
Max Grav 2=424 (LC 21), 7=381 (LC 21)

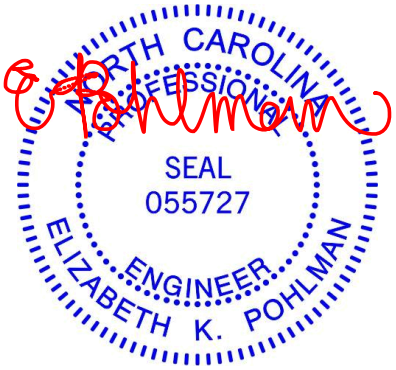
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/16, 2-4=-290/447, 4-5=-6/0, 4-7=-268/207
BOT CHORD	2-7=-304/400, 6-7=0/0

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 4-0-8, Exterior(2E) 4-0-8 to 7-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 7.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	H1	Monopitch	1	1	Job Reference (optional)	I59456652

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 E May 25 2023 Print: 8.630 E May 25 2023 MiTek Industries, Inc. Wed Jul 12 08:36:52 Page: 1
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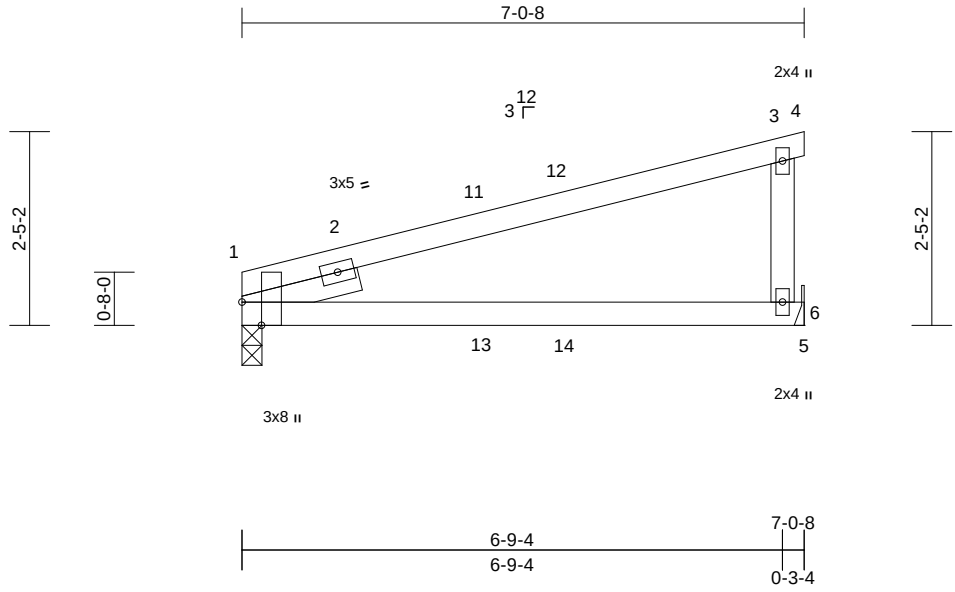


Scale = 1:28.9

Plate Offsets (X, Y): [1:0-3-8,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	0.95	Vert(LL)	0.33	6-9	>243	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.27	6-9	>305	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.06	1	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 26 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

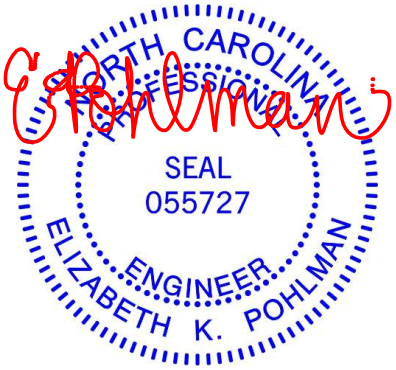
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=270/0-3-0, 6=293/ Mechanical
Max Horiz 1=76 (LC 13)
Max Uplift 1=-96 (LC 10), 6=-110 (LC 10)
Max Grav 1=355 (LC 20), 6=385 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-315/524, 2-11=-58/41, 11-12=-38/46, 3-12=-38/57, 3-4=-6/0, 3-6=-270/213
BOT CHORD 1-13=-318/425, 13-14=-26/39, 6-14=-26/39, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-0-8, Exterior(2E) 4-0-8 to 7-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 1.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 6.
9) One RT4 MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	H2	Monopitch	3	1	Job Reference (optional)	I59456653

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:02 Page: 1
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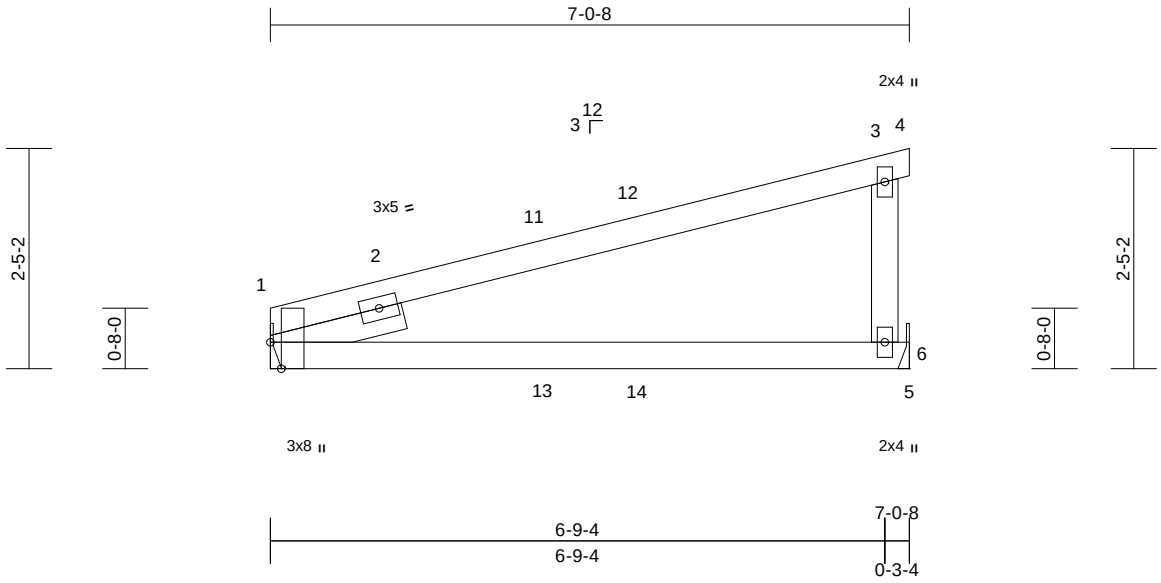

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Plate Offsets (X, Y): [1:0-3-8,Edge]

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	0.95	Vert(LL)	0.33	6-9	>243	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.27	6-9	>305	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.06	1	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 26 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

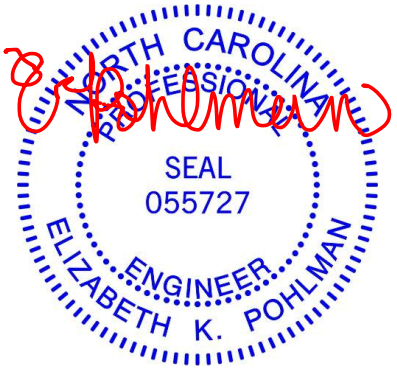
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1= Mechanical, 6= Mechanical
Max Horiz 1=76 (LC 13)
Max Uplift 1=-96 (LC 10), 6=-110 (LC 10)
Max Grav 1=355 (LC 20), 6=385 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-315/524, 3-4=-6/0, 3-6=-270/213
BOT CHORD 1-6=-318/425, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-0-8, Exterior(2E) 4-0-8 to 7-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 1 and 110 lb uplift at joint 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	HGE	Monopitch Supported Gable	1	1	Job Reference (optional)	I59456654

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:03 Page: 1
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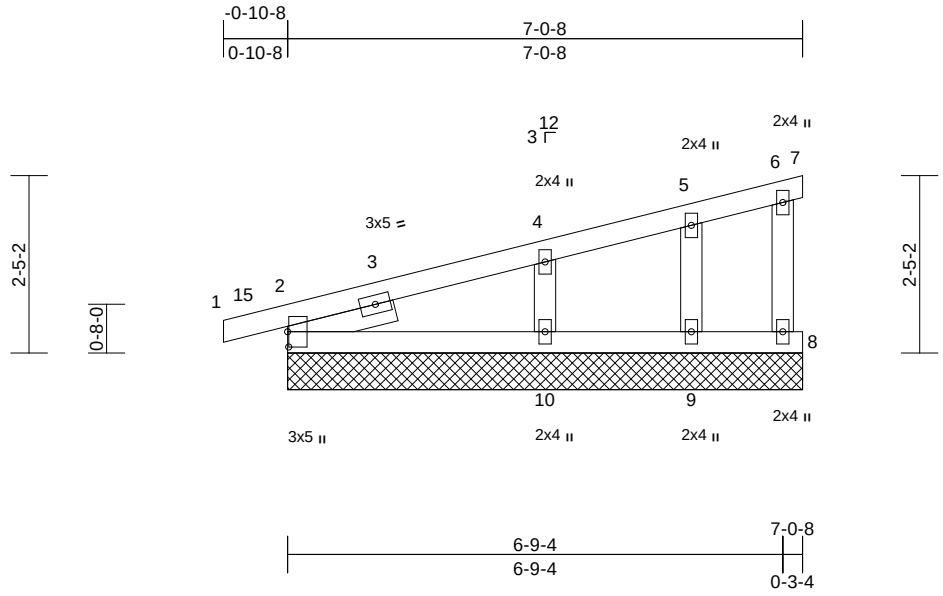


Scale = 1:31.5

Plate Offsets (X, Y): [2:0-2-8,0-0-3]

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 31 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

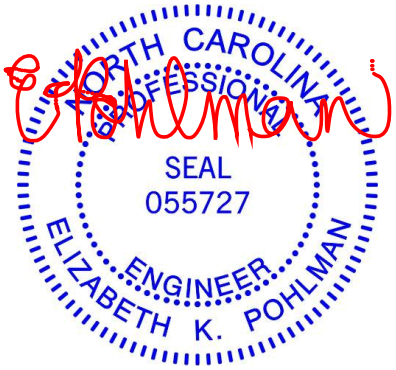
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=7-0-8, 7=7-0-8, 8=7-0-8, 9=7-0-8, 10=7-0-8, 11=7-0-8
Max Horiz 2=80 (LC 13), 11=80 (LC 13)
Max Uplift 2=-41 (LC 10), 7=-3 (LC 13), 8=-14 (LC 14), 9=-14 (LC 10), 10=-61 (LC 14), 11=-41 (LC 10)
Max Grav 2=226 (LC 21), 7=1 (LC 21), 8=85 (LC 21), 9=120 (LC 21), 10=368 (LC 21), 11=226 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-4=-89/81, 4-5=-43/52, 5-6=-32/46, 6-7=-5/0, 6-8=-69/54
BOT CHORD 2-10=-26/48, 9-10=-26/48, 8-9=-26/48
WEBS 4-10=-267/234, 5-9=-112/105

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 7-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 2, 3 lb uplift at joint 7, 14 lb uplift at joint 8, 61 lb uplift at joint 10, 14 lb uplift at joint 9 and 41 lb uplift at joint 2.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

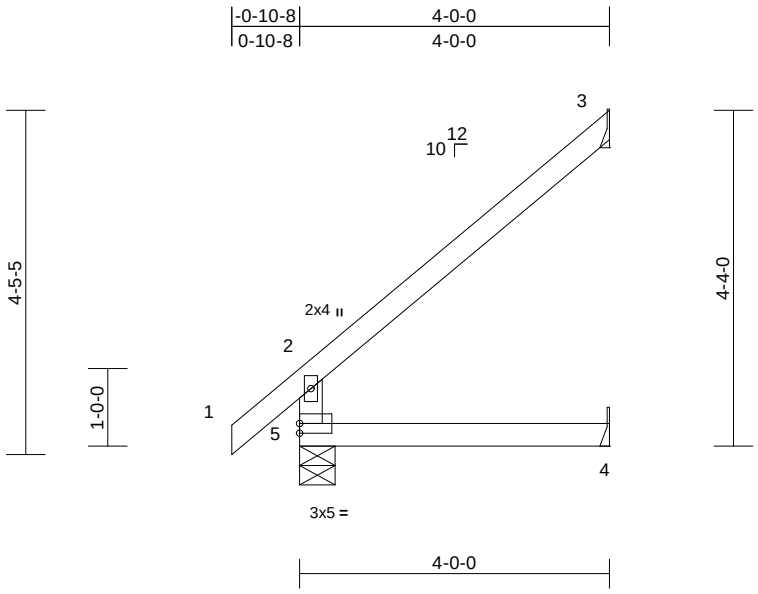
ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	I	Jack-Open	9	1	Job Reference (optional)	I59456655

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:03
ID:crXu80texbJNcE7reHwwFyyzBEX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:29.7

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	0.43	Vert(LL)	0.02	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.02	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 17 lb	FT = 20%

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

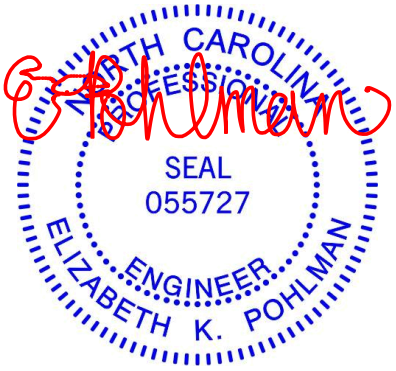
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=133 (LC 14)
Max Uplift 3=-92 (LC 14), 4=-3 (LC 14)
Max Grav 3=176 (LC 21), 4=72 (LC 7), 5=307 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-284/85, 1-2=0/39, 2-3=-143/87
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be User Defined crushing capacity of 425 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 92 lb uplift at joint 3 and 3 lb uplift at joint 4.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



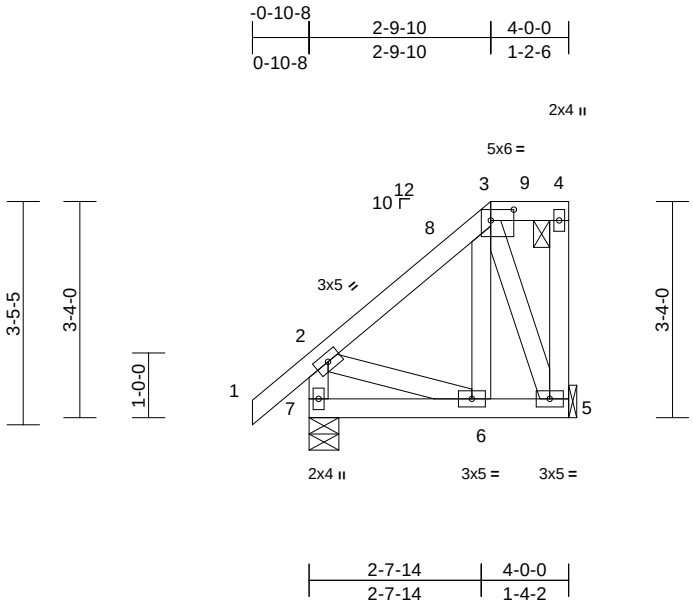
July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	I1	Half Hip	1	1	Job Reference (optional)	I59456656

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:03 ID:oyh2Rm0XL_ipQxTyo5dVCHyzBEM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:35.5

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

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	0.15	Vert(LL)	0.00	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 32 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 4-0-0 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) 5= Mechanical, 7=0-5-8
Max Horiz 7=121 (LC 11)
Max Uplift 5=-54 (LC 11), 7=-24 (LC 14)
Max Grav 5=150 (LC 35), 7=319 (LC 36)

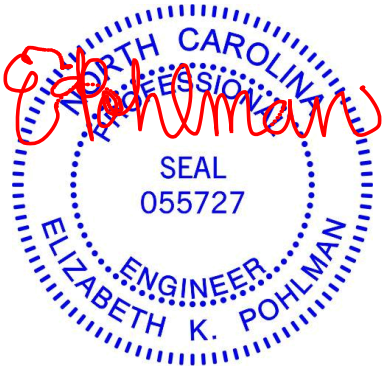
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/63, 2-3=-153/36, 3-4=-39/57, 4-5=-51/25, 2-7=-297/126
BOT CHORD	6-7=-118/136, 5-6=-41/95
WEBS	3-6=-4/87, 3-5=-166/68, 2-6=-40/120

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 2-9-10, Exterior(2E) 2-9-10 to 3-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 5. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 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



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	I2GR	Half Hip Girder	1	1	Job Reference (optional)	I59456657

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:04 Page: 1
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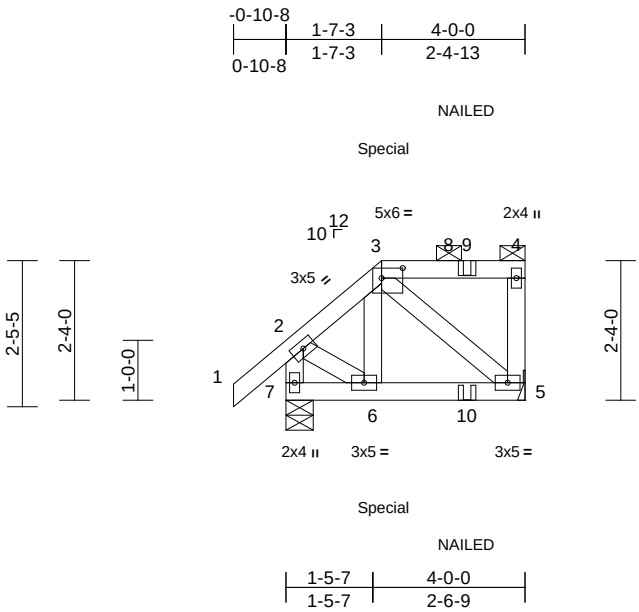

Scale = 1:38.5

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

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	0.20	Vert(LL)	0.00	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	0.00	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
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 4-0-0 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) 5= Mechanical, 7=0-5-8
Max Horiz 7=85 (LC 9)
Max Uplift 5=-64 (LC 9), 7=-57 (LC 12)
Max Grav 5=279 (LC 33), 7=371 (LC 34)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/63, 2-3=-217/44, 3-4=-26/20, 4-5=-132/42, 2-7=-368/58
BOT CHORD 6-7=-82/51, 5-6=-58/127
WEBS 3-6=0/84, 3-5=-172/57, 2-6=-30/152

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 5.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 109 lb down and 76 lb up at 1-7-3 on top chord, and 33 lb down and 9 lb up at 1-7-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
16) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-7=-20
Concentrated Loads (lb)
Vert: 3=-67 (B), 6=-33 (B), 9=-69 (B), 10=-31 (B)

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	I59456658
23060130-01	J	Jack-Open	2	1	Job Reference (optional)	

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:04 Page: 1
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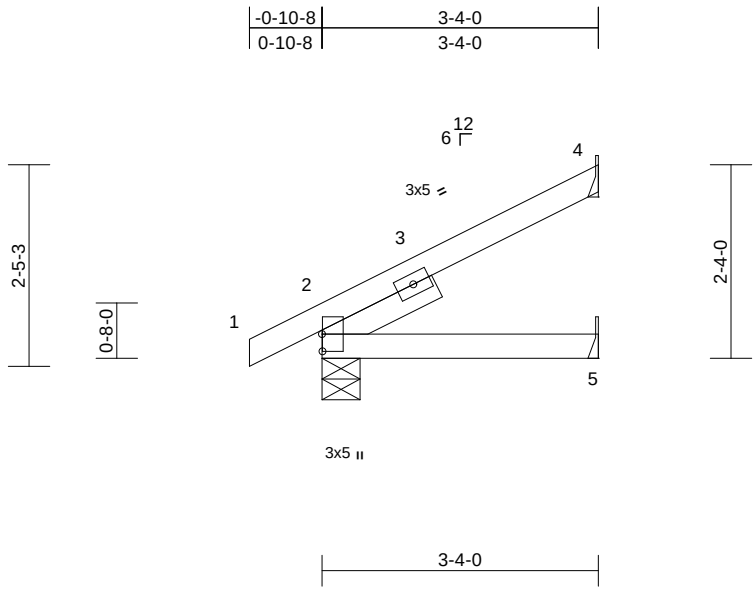


Scale = 1:27.8

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

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	0.20	Vert(LL)	-0.01	5-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 14 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0

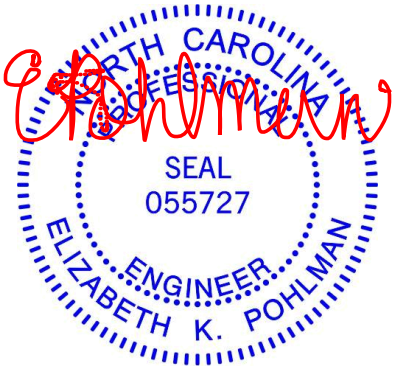
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=74 (LC 14)
Max Uplift 2=-18 (LC 14), 4=-44 (LC 14)
Max Grav 2=276 (LC 21), 4=124 (LC 21), 5=58 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-4=-96/44
BOT CHORD 2-5=-110/78

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; 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 1.00 times flat roof load of 20.0 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 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be User Defined crushing capacity of 425 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 44 lb uplift at joint 4.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	V1	Valley	1	1	Job Reference (optional)	I59456659

Carter Components (Sanford), Sanford, NC - 27332,

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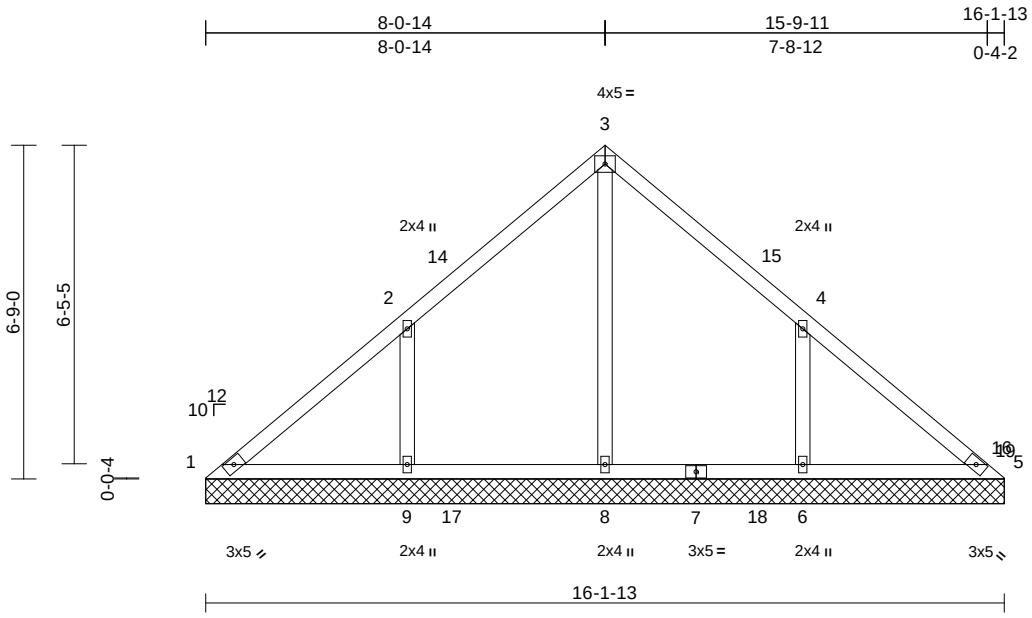
Page: 1



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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	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 71 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 6-0-0 oc bracing.

REACTIONS (size) 1=16-1-13, 5=16-1-13, 6=16-1-13, 8=16-1-13, 9=16-1-13
Max Horiz 1=153 (LC 11)
Max Uplift 1=-21 (LC 10), 6=-173 (LC 15), 9=-177 (LC 14)
Max Grav 1=127 (LC 28), 5=87 (LC 26), 6=494 (LC 6), 8=465 (LC 23), 9=495 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-150/212, 2-3=-132/163, 3-4=-133/143, 4-5=-115/173
BOT CHORD 1-9=-95/133, 8-9=-95/118, 6-8=-95/118, 5-6=-95/118
WEBS 3-8=-276/0, 2-9=-387/212, 4-6=-386/210

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-1-3, Exterior(2R) 5-1-3 to 11-1-3, Interior (1) 11-1-3 to 12-9-9, Exterior(2E) 12-9-9 to 15-9-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1, 177 lb uplift at joint 9 and 173 lb uplift at joint 6.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	V2	Valley	1	1	Job Reference (optional)	I59456660

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:05 Page: 1
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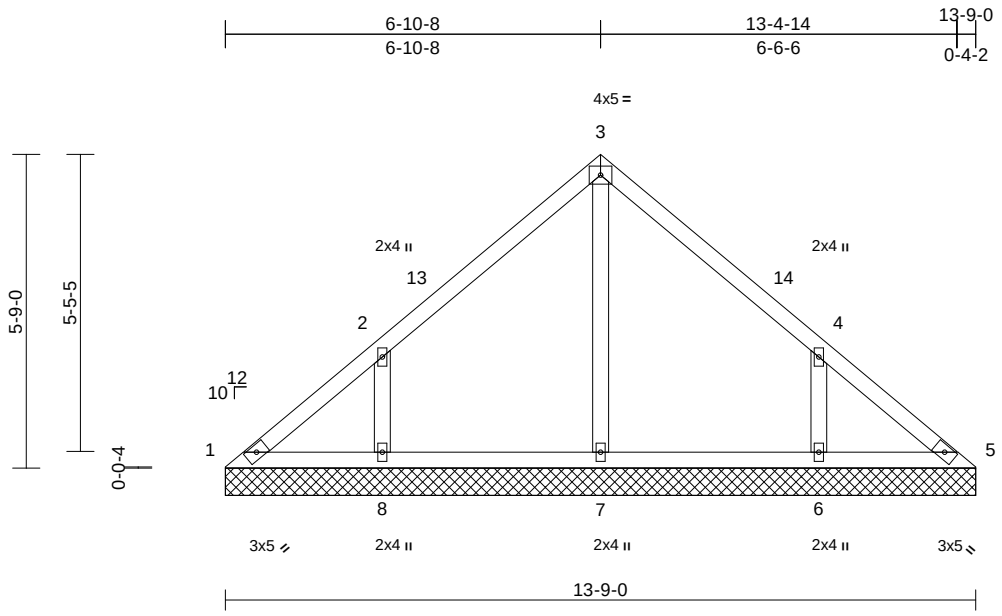


Scale = 1:42.2

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	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 59 lb	FT = 20%

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

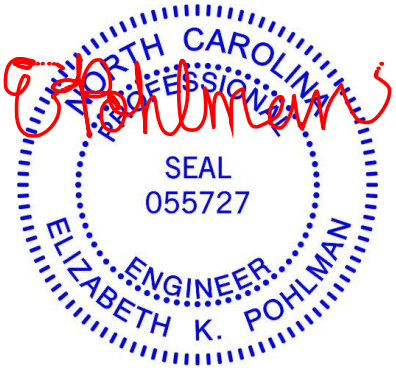
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=13-9-0, 5=13-9-0, 6=13-9-0, 7=13-9-0, 8=13-9-0
Max Horiz 1=-131 (LC 12)
Max Uplift 1=-26 (LC 10), 6=-148 (LC 15), 8=-151 (LC 14)
Max Grav 1=115 (LC 24), 5=91 (LC 23), 6=444 (LC 21), 7=288 (LC 21), 8=444 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-143/120, 2-3=-191/116, 3-4=-191/114, 4-5=-113/83
BOT CHORD 1-8=-50/113, 7-8=-50/91, 6-7=-50/91, 5-6=-50/91
WEBS 3-7=-206/0, 2-8=-374/193, 4-6=-374/191

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 2-10-13, Interior (1) 2-10-13 to 3-10-13, Exterior(2R) 3-10-13 to 9-10-13, Interior (1) 9-10-13 to 10-9-5, Exterior(2E) 10-9-5 to 13-9-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1, 151 lb uplift at joint 8 and 148 lb uplift at joint 6.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	I59456661
23060130-01	V3	Valley	1	1	Job Reference (optional)	

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:05 Page: 1
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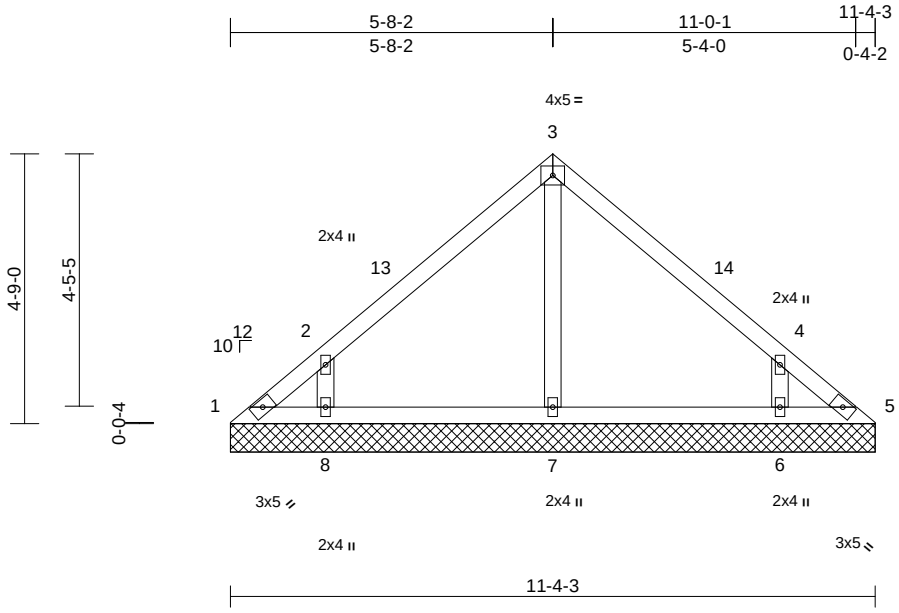


Scale = 1:40.6

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	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 46 lb	FT = 20%

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

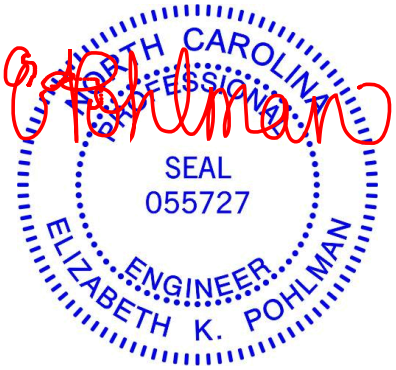
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=11-4-3, 5=11-4-3, 6=11-4-3, 7=11-4-3, 8=11-4-3
Max Horiz 1=-107 (LC 10)
Max Uplift 1=-39 (LC 10), 5=-12 (LC 11), 6=-134 (LC 15), 8=-138 (LC 14)
Max Grav 1=75 (LC 24), 5=56 (LC 26), 6=442 (LC 21), 7=252 (LC 21), 8=442 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-123/101, 2-3=-224/112, 3-4=-224/112, 4-5=-100/66
BOT CHORD 1-8=-33/74, 7-8=-25/74, 6-7=-25/74, 5-6=-34/74
WEBS 3-7=-163/0, 2-8=-434/243, 4-6=-434/243

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 8-4-8, Exterior(2E) 8-4-8 to 11-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 1, 12 lb uplift at joint 5, 138 lb uplift at joint 8 and 134 lb uplift at joint 6.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	I59456662
23060130-01	V4	Valley	1	1	Job Reference (optional)	

Carter Components (Sanford), Sanford, NC - 27332,

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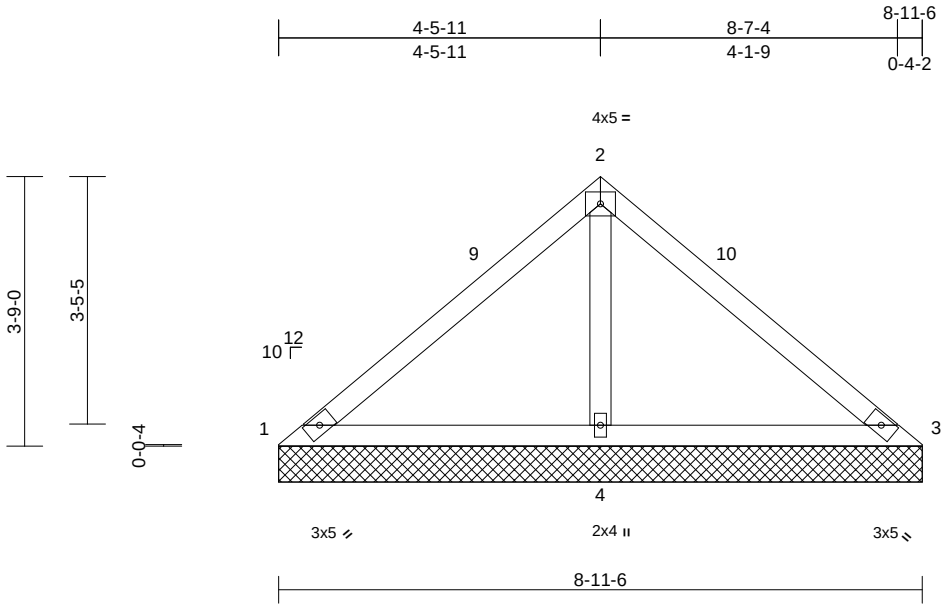


Scale = 1:32

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	0.44	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 34 lb	FT = 20%

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

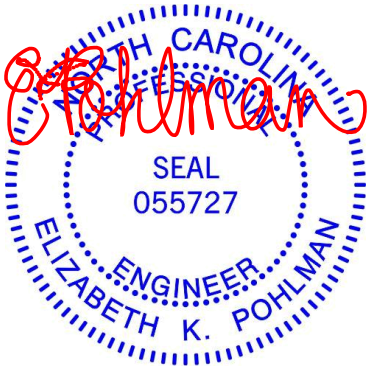
BRACING
TOP CHORD Structural wood sheathing directly applied or 8-11-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=8-11-6, 3=8-11-6, 4=8-11-6
Max Horiz 1=-84 (LC 10)
Max Uplift 1=-55 (LC 21), 3=-55 (LC 20), 4=-114 (LC 14)
Max Grav 1=75 (LC 20), 3=75 (LC 21), 4=732 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-137/342, 2-3=-137/342
BOT CHORD 1-4=-231/197, 3-4=-231/197
WEBS 2-4=-551/273

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 5-11-11, Exterior(2E) 5-11-11 to 8-11-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 1, 55 lb uplift at joint 3 and 114 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	V5	Valley	1	1	Job Reference (optional)	I59456663

Carter Components (Sanford), Sanford, NC - 27332,

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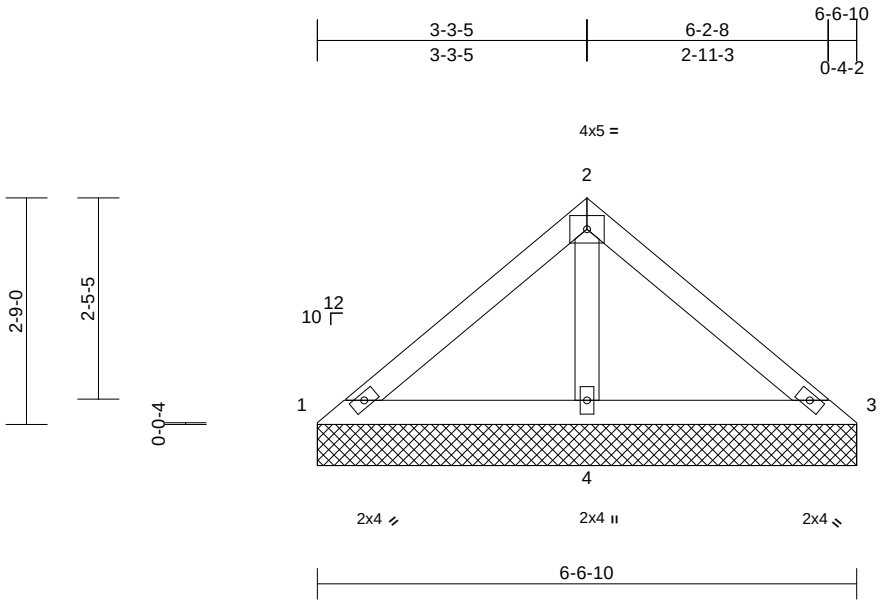

Scale = 1:28

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 24 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 6-6-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=6-6-10, 3=6-6-10, 4=6-6-10
Max Horiz 1=60 (LC 11)
Max Uplift 1=-5 (LC 21), 3=-5 (LC 20), 4=-60 (LC 14)
Max Grav 1=102 (LC 20), 3=102 (LC 21), 4=457 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-88/188, 2-3=-88/188
BOT CHORD 1-4=-136/134, 3-4=-136/134
WEBS 2-4=-316/168

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1, 5 lb uplift at joint 3 and 60 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	V6	Valley	1	1	Job Reference (optional)	I59456664

Carter Components (Sanford), Sanford, NC - 27332,

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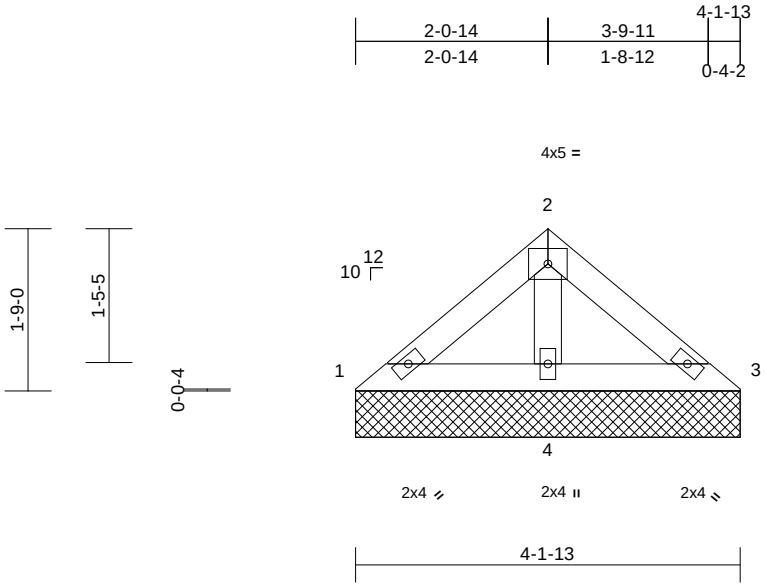

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 14 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 4-1-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=4-1-13, 3=4-1-13, 4=4-1-13
Max Horiz 1=37 (LC 11)
Max Uplift 1=-1 (LC 14), 3=-8 (LC 15), 4=-25 (LC 14)
Max Grav 1=79 (LC 20), 3=79 (LC 21), 4=238 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-72/76, 2-3=-72/76
BOT CHORD 1-4=-60/69, 3-4=-60/69
WEBS 2-4=-136/67

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 1, 8 lb uplift at joint 3 and 25 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	V11	Valley	1	1	Job Reference (optional)	I59456665

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:07 Page: 1
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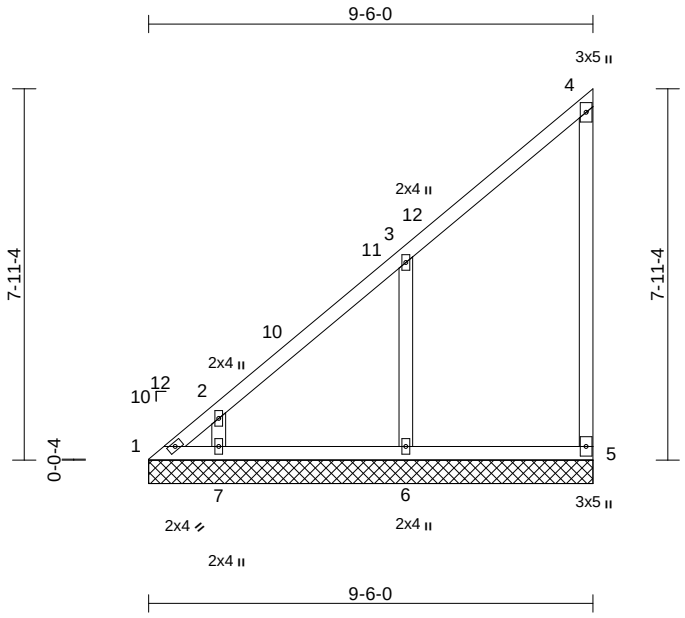


Scale = 1:49.3

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	0.65	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 50 lb	FT = 20%

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

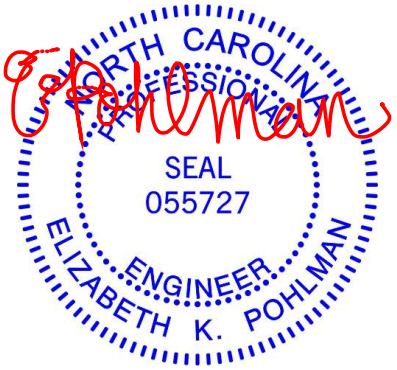
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=9-6-0, 5=9-6-0, 6=9-6-0, 7=9-6-0
Max Horiz 1=271 (LC 11)
Max Uplift 1=-91 (LC 12), 5=-65 (LC 11), 6=-136 (LC 14), 7=-100 (LC 14)
Max Grav 1=159 (LC 11), 5=218 (LC 5), 6=508 (LC 5), 7=307 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-272/327, 2-3=-224/278, 3-4=-174/157, 4-5=-171/72
BOT CHORD 1-7=-118/134, 6-7=-96/134, 5-6=-96/134
WEBS 3-6=-393/257, 2-7=-223/202

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-1-10, Exterior(2R) 5-1-10 to 9-4-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 5, 91 lb uplift at joint 1, 136 lb uplift at joint 6 and 100 lb uplift at joint 7.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	V12	Valley	1	1	Job Reference (optional)	I59456666

Carter Components (Sanford), Sanford, NC - 27332,

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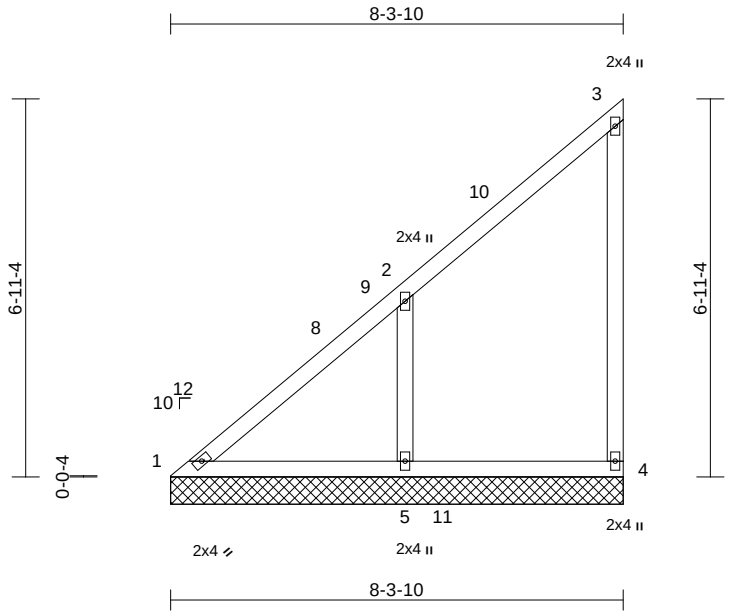
Page: 1



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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	0.74	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 42 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	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) 1=8-3-10, 4=8-3-10, 5=8-3-10
Max Horiz 1=235 (LC 11)
Max Uplift 1=-19 (LC 10), 4=-58 (LC 11), 5=-165 (LC 14)
Max Grav 1=199 (LC 24), 4=201 (LC 5), 5=552 (LC 5)

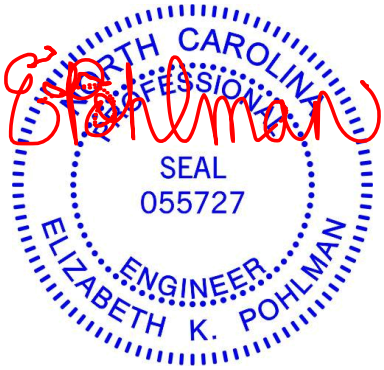
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-259/278, 2-3=-171/157, 3-4=-163/76
BOT CHORD	1-5=-83/208, 4-5=-83/119
WEBS	2-5=-419/319

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 3-11-4, Exterior(2R) 3-11-4 to 8-2-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 4, 19 lb uplift at joint 1 and 165 lb uplift at joint 5.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	V13	Valley	1	1	Job Reference (optional)	I59456667

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Tue Jul 11 10:02:08
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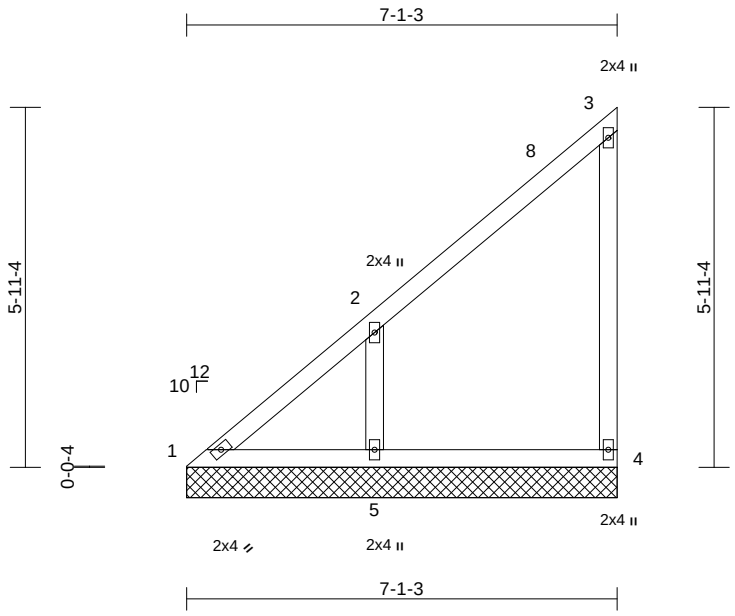


Scale = 1:38

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	0.52	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 35 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	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) 1=7-1-3, 4=7-1-3, 5=7-1-3
Max Horiz 1=199 (LC 11)
Max Uplift 1=-26 (LC 10), 4=-53 (LC 11), 5=-148 (LC 14)
Max Grav 1=137 (LC 24), 4=198 (LC 20), 5=466 (LC 20)

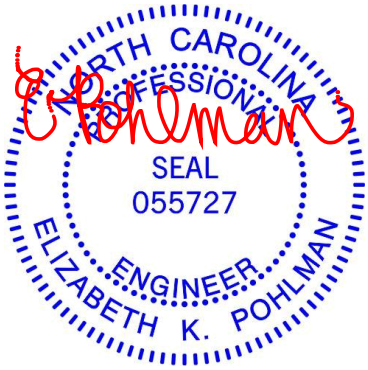
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-183/256, 2-3=-155/148, 3-4=-167/71
BOT CHORD	1-5=-70/151, 4-5=-70/102
WEBS	2-5=-383/290

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 4, 26 lb uplift at joint 1 and 148 lb uplift at joint 5.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	V14	Valley	1	1	Job Reference (optional)	I59456668

Carter Components (Sanford), Sanford, NC - 27332,

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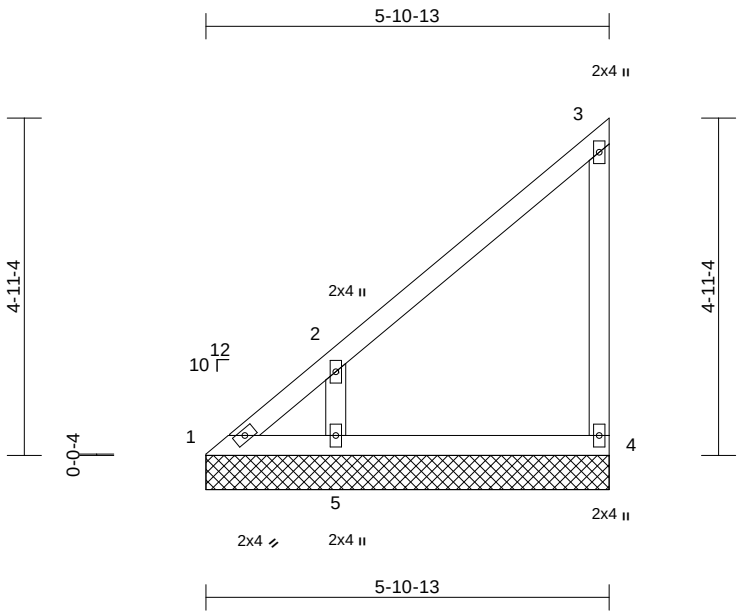

Scale = 1:33.7

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	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
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
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-10-13 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-10-13, 4=5-10-13, 5=5-10-13
Max Horiz 1=163 (LC 11)
Max Uplift 1=-49 (LC 12), 4=-46 (LC 11), 5=-133 (LC 14)
Max Grav 1=98 (LC 11), 4=199 (LC 20), 5=451 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-222/247, 2-3=-155/134, 3-4=-165/64
BOT CHORD	1-5=-69/84, 4-5=-57/84
WEBS	2-5=-416/334

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 4, 49 lb uplift at joint 1 and 133 lb uplift at joint 5.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	
23060130-01	V15	Valley	1	1	Job Reference (optional)	I59456669

Carter Components (Sanford), Sanford, NC - 27332,

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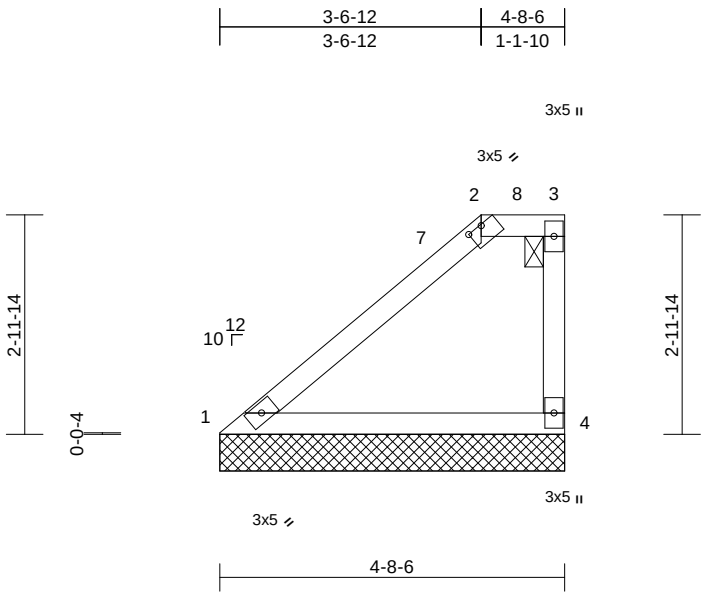


Scale = 1:31.4

Plate Offsets (X, Y): [2:0-2-8,0-0-3]

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	0.51	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.34	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 18 lb	FT = 20%

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

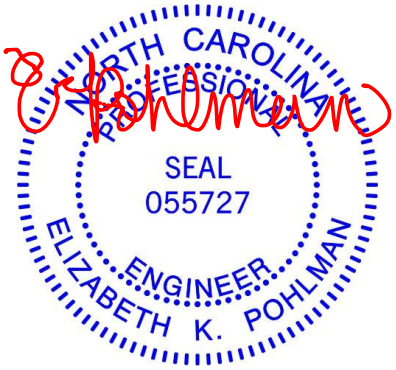
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-6 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-8-6, 4=4-8-6
Max Horiz 1=100 (LC 11)
Max Uplift 1=-12 (LC 14), 4=-39 (LC 11)
Max Grav 1=259 (LC 35), 4=208 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-320/51, 2-3=-76/90, 3-4=-113/90
BOT CHORD 1-4=-98/251

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 3-7-1, Exterior(2E) 3-7-1 to 4-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 4 and 12 lb uplift at joint 1.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) 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



July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	I59456670
23060130-01	V21	Valley	1	1	Job Reference (optional)	

Carter Components (Sanford), Sanford, NC - 27332,

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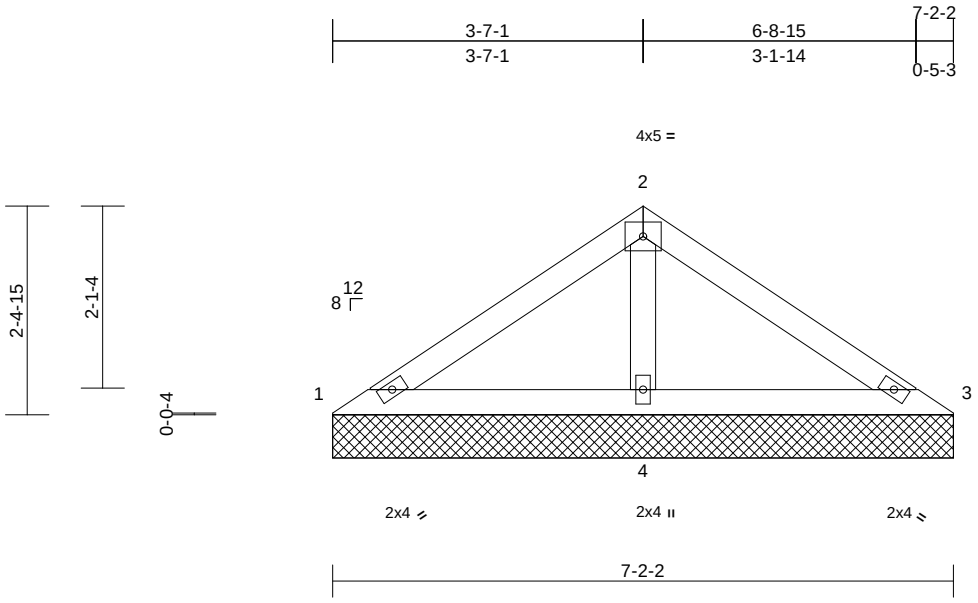
Page: 1



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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	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 25 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 7-2-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=7-2-2, 3=7-2-2, 4=7-2-2
Max Horiz 1=53 (LC 11)
Max Uplift 1=-10 (LC 21), 3=-10 (LC 20), 4=-52 (LC 14)
Max Grav 1=104 (LC 20), 3=104 (LC 21), 4=505 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-98/230, 2-3=-98/230
BOT CHORD 1-4=-163/129, 3-4=-163/129
WEBS 2-4=-355/166

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 4-2-8, Exterior(2E) 4-2-8 to 7-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 10 lb uplift at joint 3 and 52 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 12,2023

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

Job	Truss	Truss Type	Qty	Ply	18 Serenity-Roof-B328 A	I59456671
23060130-01	V22	Valley	1	1	Job Reference (optional)	

Carter Components (Sanford), Sanford, NC - 27332,

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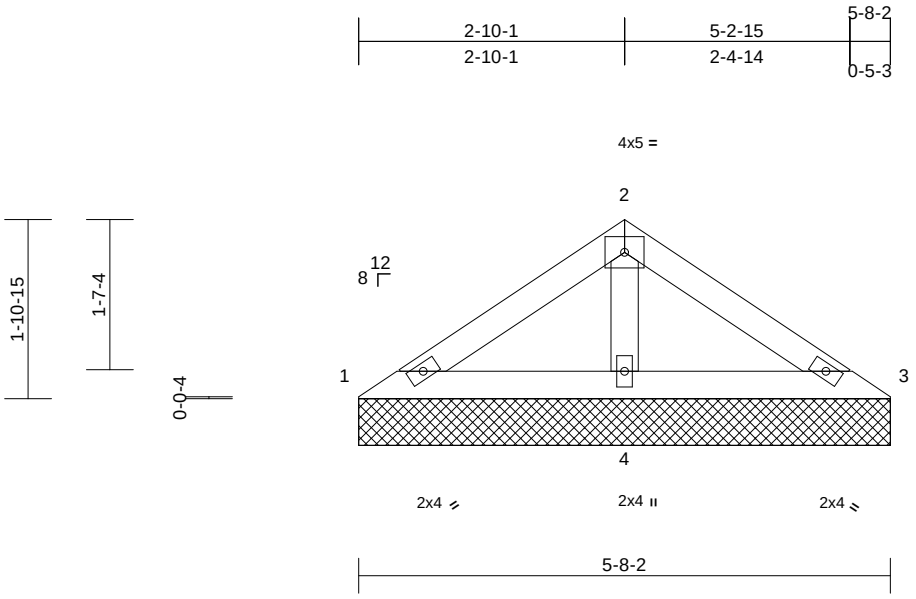


Scale = 1:24.6

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 19 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 5-8-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=5-8-2, 3=5-8-2, 4=5-8-2
Max Horiz 1=41 (LC 11)
Max Uplift 1=-4 (LC 14), 3=-11 (LC 15), 4=-33 (LC 14)
Max Grav 1=94 (LC 20), 3=94 (LC 21), 4=358 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-93/144, 2-3=-93/144
BOT CHORD 1-4=-108/95, 3-4=-108/95
WEBS 2-4=-232/118

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 1, 11 lb uplift at joint 3 and 33 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

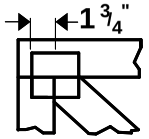
LOAD CASE(S) Standard

July 12,2023

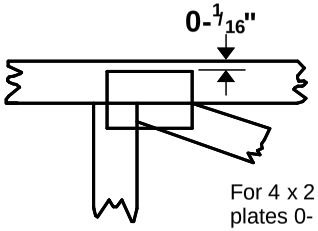
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

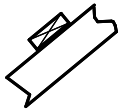
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

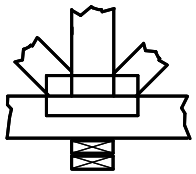
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

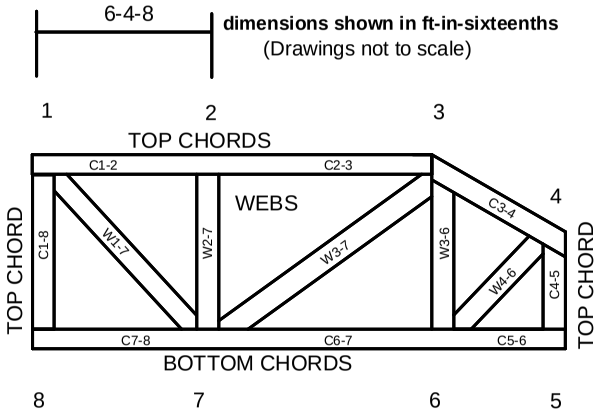


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & 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-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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