

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: GP17 ROOF  
Great Southern Homes; Porter II; E; Master.RT

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

Pages or sheets covered by this seal: I67157158 thru I67157194

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

North Carolina COA: C-0844



July 30,2024

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Johnson, Andrew

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

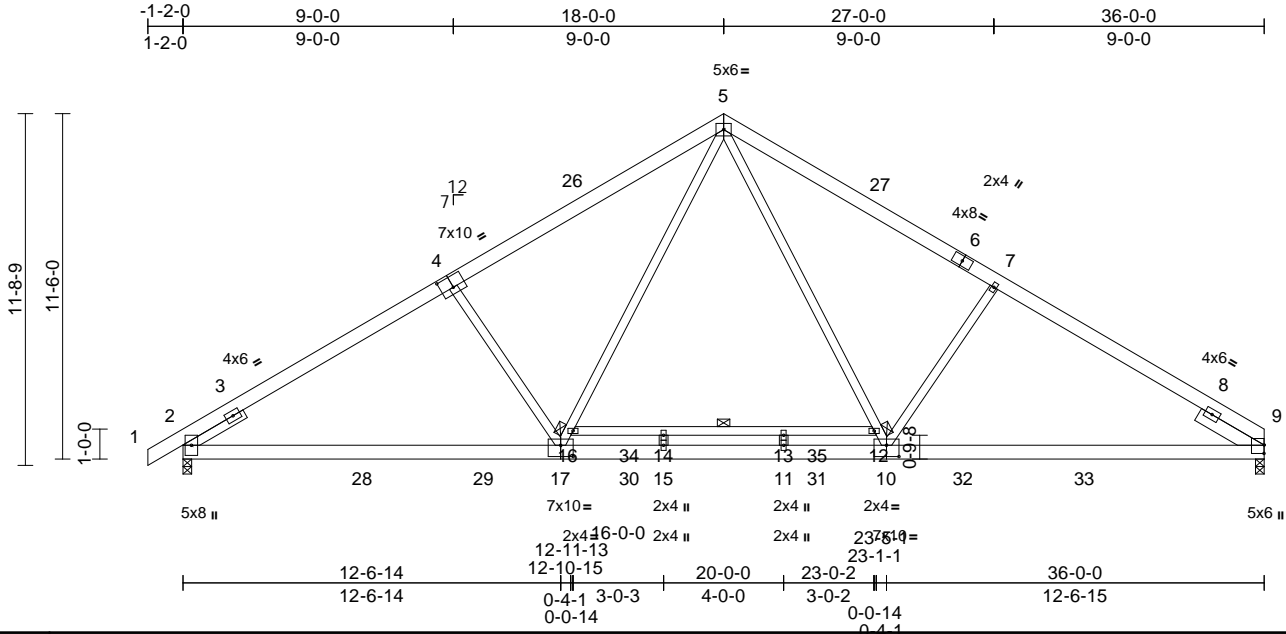


Job GP17 ROOF	Truss A01B	Truss Type	Qty 4	Ply 1	Great Southern Homes; Porter II; E; Master.RT Job Reference (optional)
					167157159

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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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	1.00	TC	0.66	Vert(LL)	-0.30	13-14	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.51	13-14	>843	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.07	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.05	16	>999	240		
BCDL	10.0										Weight: 265 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\* 16-12:2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 2-3-13, Right 2x6 SP No.2 -- 2-5-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 6-0-0 oc bracing: 12-16

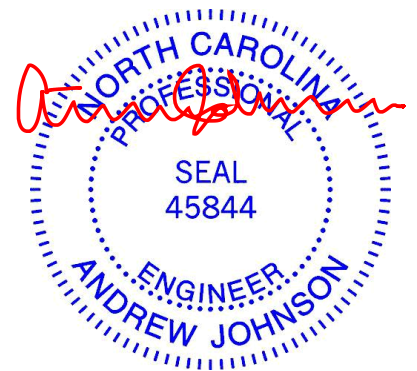
**REACTIONS** (size) 2=0-3-8, 9=0-3-8  
Max Horiz 2=231 (LC 15)  
Max Uplift 2=-30 (LC 16), 9=-11 (LC 17)  
Max Grav 2=1801 (LC 30), 9=1734 (LC 31)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/59, 2-5=-2627/186, 5-7=-2428/186, 7-9=-2630/143  
BOT CHORD 2-15=-183/2334, 11-15=0/1721, 9-11=-91/2174, 14-16=-139/0, 13-14=-139/0, 12-13=-139/0  
WEBS 4-17=-470/276, 16-17=-61/1014, 5-16=-35/1120, 5-12=-36/1127, 10-12=-62/1021, 7-10=-473/275, 14-15=-169/0, 11-13=-170/0

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=13.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 2 and 11 lb uplift at joint 9.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

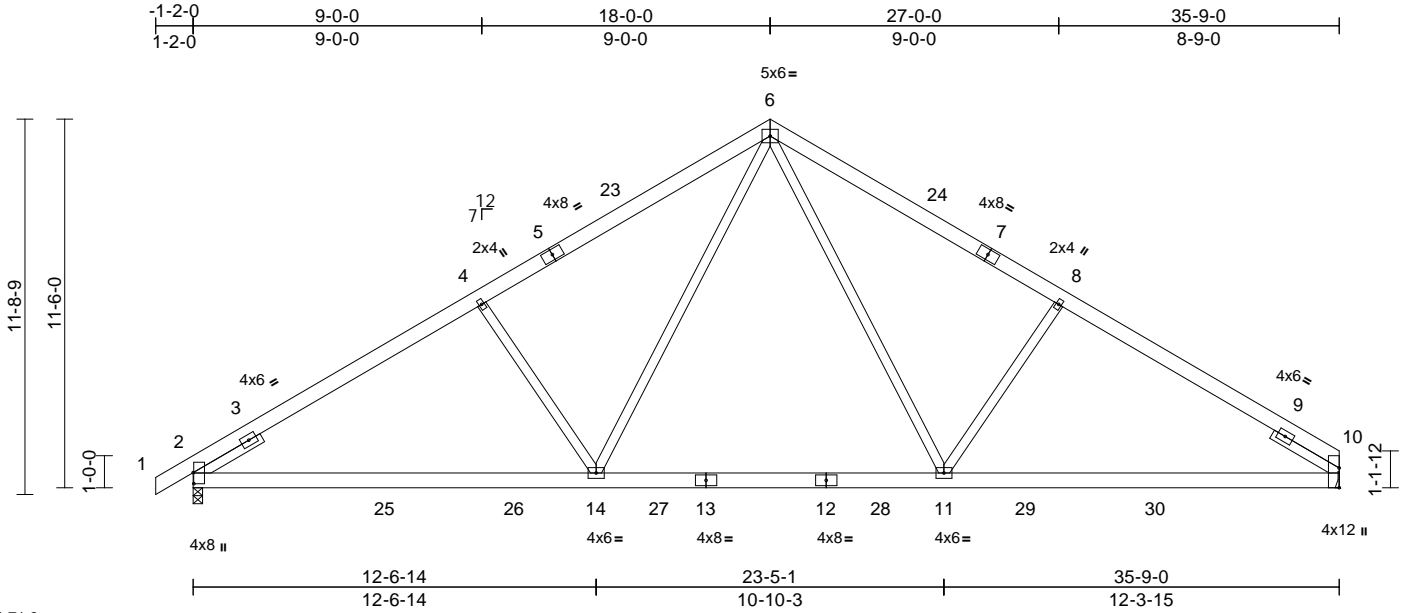


Job GP17 ROOF	Truss A02	Truss Type Common	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157160
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:21  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.65	Vert(LL)	-0.18	11-14	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.28	11-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.07	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.05	11-14	>999	240		
BCDL	10.0										Weight: 246 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 2-5-0, Right 2x4 SP No.3 -- 2-5-0

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

**REACTIONS** (size) 2=0-3-8, 10= Mechanical  
Max Horiz 2=230 (LC 13)  
Max Uplift 2=-92 (LC 16), 10=-71 (LC 17)  
Max Grav 2=1603 (LC 30), 10=1537 (LC 31)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/59, 2-4=-2172/261, 4-6=-2039/304, 6-8=-2009/302, 8-10=-2206/258  
BOT CHORD 2-14=-240/2014, 11-14=0/1341, 10-11=-135/1810  
WEBS 6-11=-99/870, 8-11=-461/266, 6-14=-101/922, 4-14=-485/267

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=13.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 2 and 71 lb uplift at joint 10.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 30, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



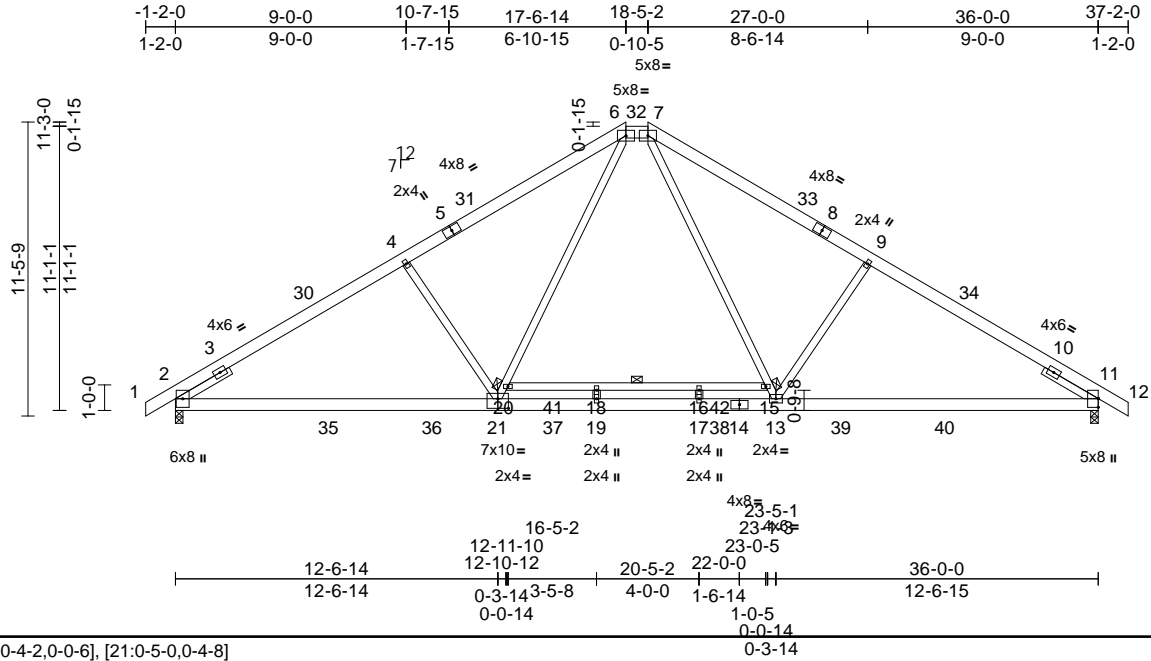
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss A03	Truss Type Hip	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT Job Reference (optional) I67157161
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:89.9

Plate Offsets (X, Y): [2:0-4-2,0-0-6], [21:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.81	Vert(LL)	-0.33	16-18	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.51	16-18	>844	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.09	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.05	20	>999	240		
BCDL	10.0											
											Weight: 265 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2 \*Except\* 20-15:2x4 SP No.2, 21-14:2x6 SP 2400F 2.0E or 2x6 SP DSS  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 2-5-0, Right 2x4 SP No.3 -- 2-5-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-8-1 oc purlins, except 2-0-0 oc purlins (5-0-0 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 6-0-0 oc bracing: 15-20

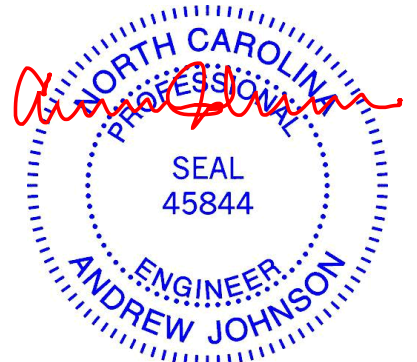
**REACTIONS** (size) 2=0-3-8, 11=0-3-8  
Max Horiz 2=-229 (LC 14)  
Max Uplift 2=-31 (LC 16), 11=-31 (LC 17)  
Max Grav 2=2030 (LC 47), 11=2030 (LC 49)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/59, 2-4=-3111/142, 4-6=-2880/182, 6-7=-1852/208, 7-9=-2878/182, 9-11=-3110/143, 11-12=0/59  
BOT CHORD 2-19=-171/2756, 17-19=0/2072, 13-17=0/2072, 11-13=-81/2583, 18-20=-144/0, 16-18=-144/0, 15-16=-144/0  
WEBS 4-21=-593/274, 9-13=-594/274, 20-21=-57/1093, 6-20=-31/1205, 7-15=-33/1200, 13-15=-54/1103, 18-19=-193/0, 16-17=-166/0

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

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 2 and 31 lb uplift at joint 11.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-6=-46, 6-7=-60, 7-12=-46, 22-26=-20, 15-20=-20



July 30, 2024

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

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



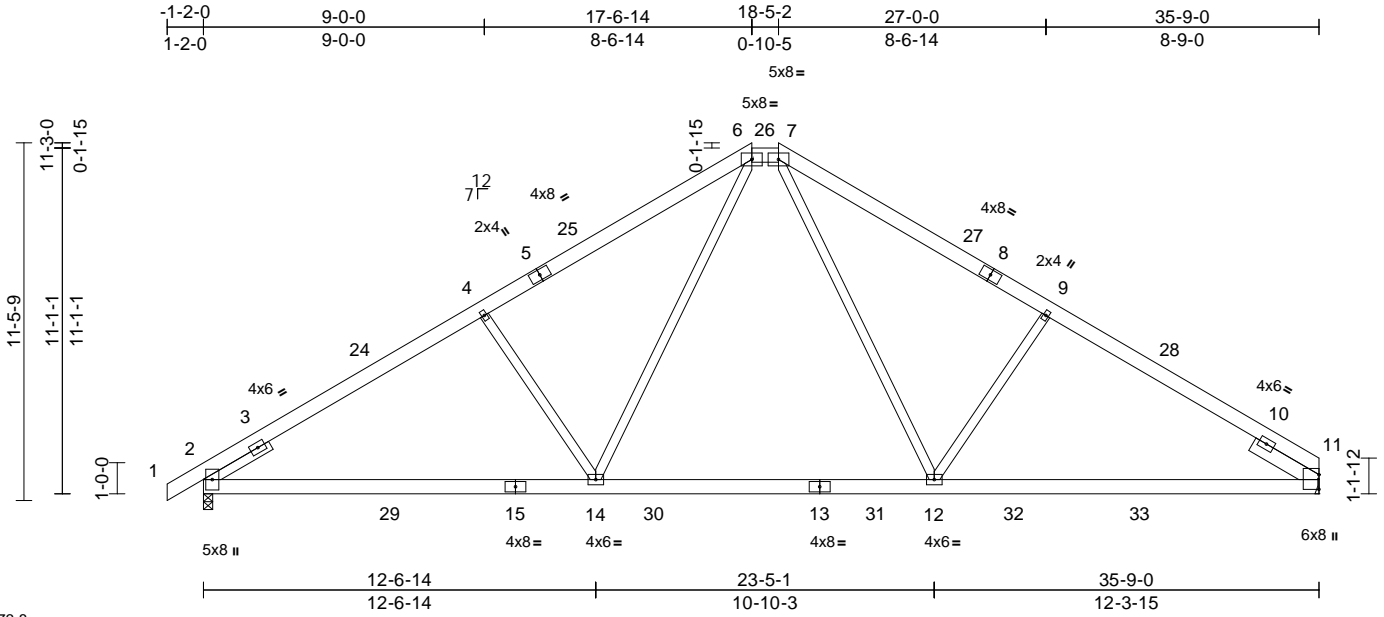
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss A05	Truss Type Hip	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT Job Reference (optional)
					167157162

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:73.8

Plate Offsets (X, Y): [2:0-4-2,0-0-14]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.79	Vert(LL)	-0.25	12-14	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.34	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.09	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.05	14	>999	240		
BCDL	10.0										Weight: 246 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 2-5-0, Right 2x6 SP No.2 -- 2-5-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins, except 2-0-0 oc purlins (5-2-7 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 11= Mechanical  
Max Horiz 2=223 (LC 13)  
Max Uplift 2=-93 (LC 16), 11=-73 (LC 17)  
Max Grav 2=1826 (LC 47), 11=1779 (LC 49)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/59, 2-4=-2736/261, 4-6=-2489/301, 6-7=-1610/286, 7-9=-2454/299, 9-11=-2697/259  
BOT CHORD 2-14=-236/2422, 12-14=0/1668, 11-12=-143/2236  
WEBS 6-14=-95/1008, 4-14=-609/265, 7-12=-95/947, 9-12=-571/261

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33

- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 2 and 73 lb uplift at joint 11.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-6=-46, 6-7=-60, 7-11=-46, 16-20=-20



July 30, 2024

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

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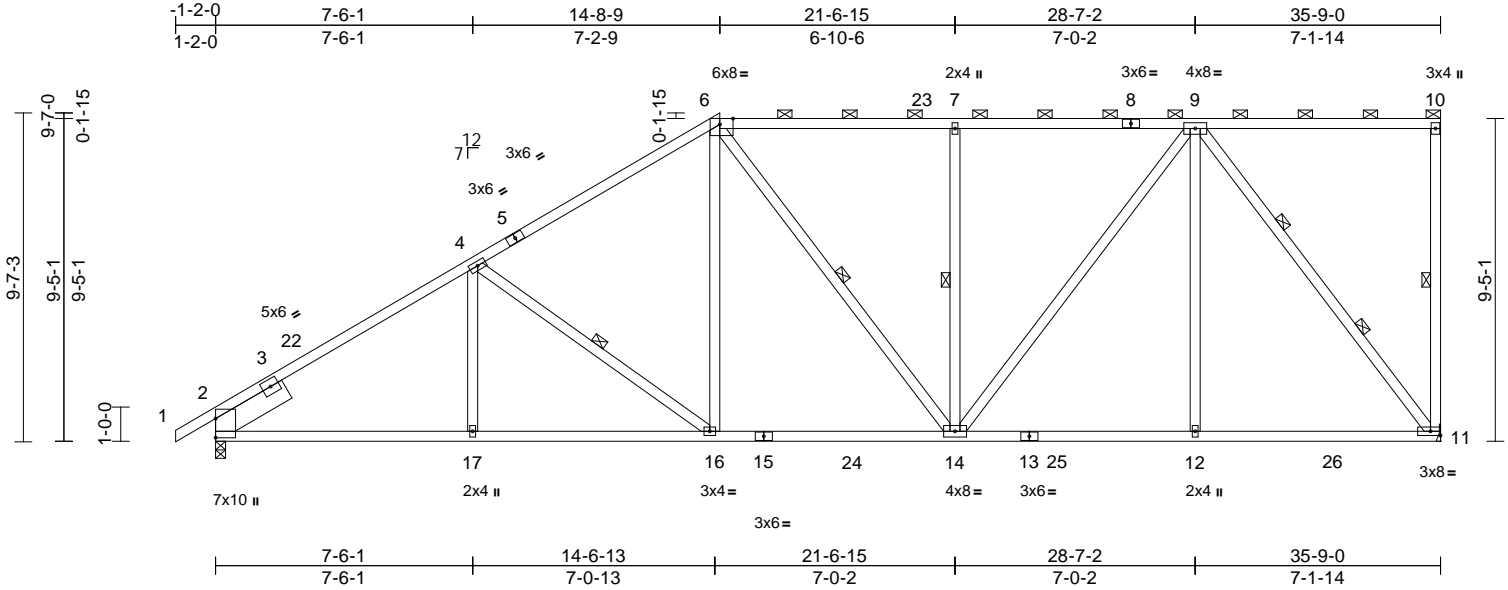
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss A06	Truss Type Half Hip	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT Job Reference (optional)
					167157163

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:22  
ID:ypWvCbX26FBBHaKY1Af0qyC?YS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:67.2

Plate Offsets (X, Y): [6:0-4-10,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.87	Vert(LL)	-0.16	14-16	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.29	16-17	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.08	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.07	16-17	>999	240		
BCDL	10.0										Weight: 241 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS \*Except\* 6-8,8-10:2x4 SP No.1  
BOT CHORD 2x4 SP No.2 \*Except\* 2-15:2x4 SP No.1  
WEBS 2x4 SP No.3 \*Except\* 11-9,14-6,14-9:2x4 SP No.2  
SLIDER Left 2x8 SP 2400F 2.0E or DSS -- 2-5-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-9-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-10-0 max.): 6-10.  
BOT CHORD Rigid ceiling directly applied or 9-3-11 oc bracing.  
WEBS 1 Row at midpt 10-11, 6-14, 7-14, 4-16  
WEBS 2 Rows at 1/3 pts 9-11

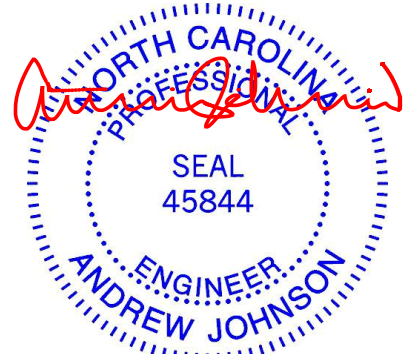
**REACTIONS** (size) 2=0-3-8, 11= Mechanical  
Max Horiz 2=296 (LC 15)  
Max Uplift 2=-71 (LC 16), 11=-153 (LC 13)  
Max Grav 2=1582 (LC 36), 11=2021 (LC 35)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/59, 2-4=-2248/244, 4-6=-1880/274, 6-7=-1797/282, 7-9=-1794/281, 9-10=-114/121, 10-11=-316/78  
BOT CHORD 2-17=-473/1833, 16-17=-446/1833, 14-16=-329/1607, 12-14=-210/1276, 11-12=-210/1276  
WEBS 9-11=-2071/238, 6-16=-15/605, 6-14=-286/329, 7-14=-793/162, 9-14=-144/849, 9-12=0/408, 4-17=0/233, 4-16=-631/178

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

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP No.1 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 153 lb uplift at joint 11 and 71 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-6=-46, 6-10=-60, 11-18=-20



July 30, 2024

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

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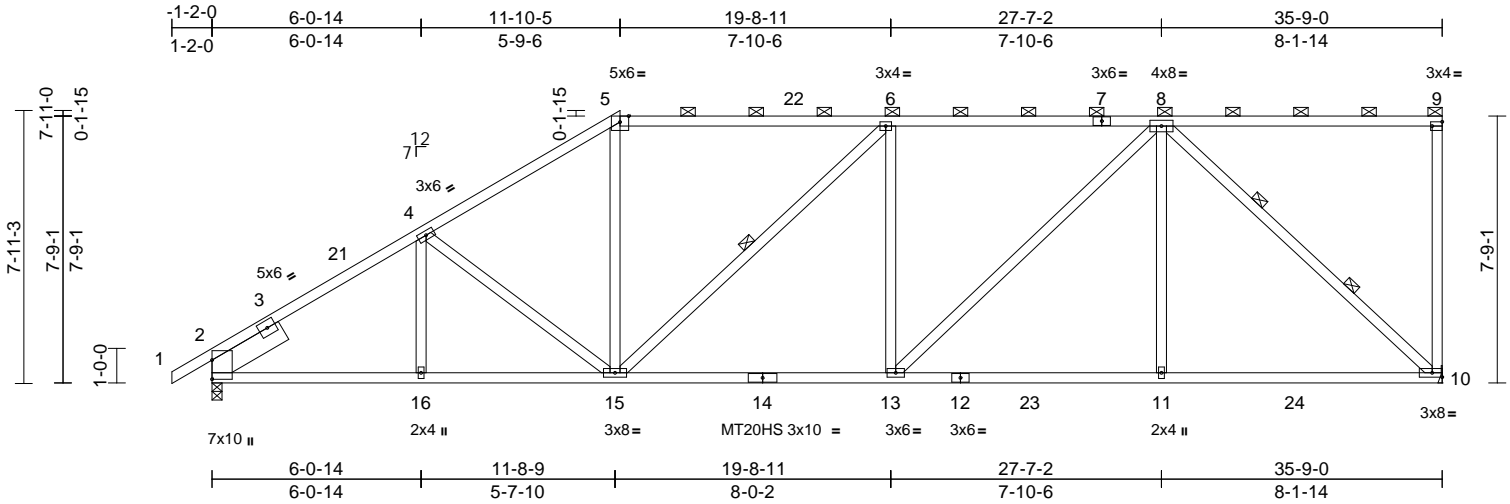
Job GP17 ROOF	Truss A07	Truss Type Half Hip	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT Job Reference (optional)
					167157164

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Scale = 1:67

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.95	Vert(LL)	-0.19	13-15	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.33	13-15	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.10	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.07	11-13	>999	240		
BCDL	10.0											
											Weight: 224 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS

BOT CHORD 2x4 SP No.2 \*Except\* 2-14:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS

WEBS 2x4 SP No.3 \*Except\* 10-8,15-6:2x4 SP No.2

SLIDER Left 2x8 SP 2400F 2.0E or DSS -- 2-5-0

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-1-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-4-4 max.): 5-9.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 6-15

WEBS 2 Rows at 1/3 pts 8-10

**REACTIONS**

(size) 2=0-3-8, 10= Mechanical

Max Horiz 2=242 (LC 15)

Max Uplift 2=52 (LC 16), 10=156 (LC 13)

Max Grav 2=1589 (LC 36), 10=2105 (LC 35)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/59, 2-4=-2244/248, 4-5=-2221/277,

5-6=-1921/275, 6-8=-2425/305, 8-9=-99/100,

9-10=-366/82

BOT CHORD 2-16=-412/1855, 15-16=-412/1855,

13-15=-327/2425, 11-13=-236/1816,

10-11=-236/1816

WEBS 8-10=-2445/249, 5-15=-2/621,

6-15=-703/168, 6-13=-426/179,

8-13=-126/840, 8-11=0/426, 4-16=-24/132,

4-15=-414/200

**NOTES**

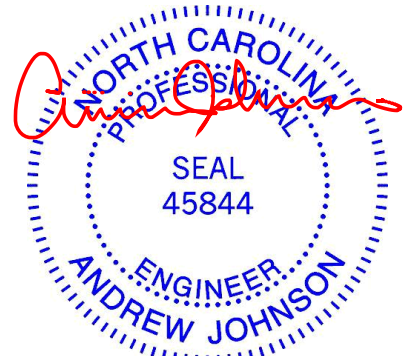
1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP DSS or SS or 2400F 2.0E crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint 10 and 52 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

15) 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-5=-46, 5-9=-60, 10-17=-20



July 30, 2024

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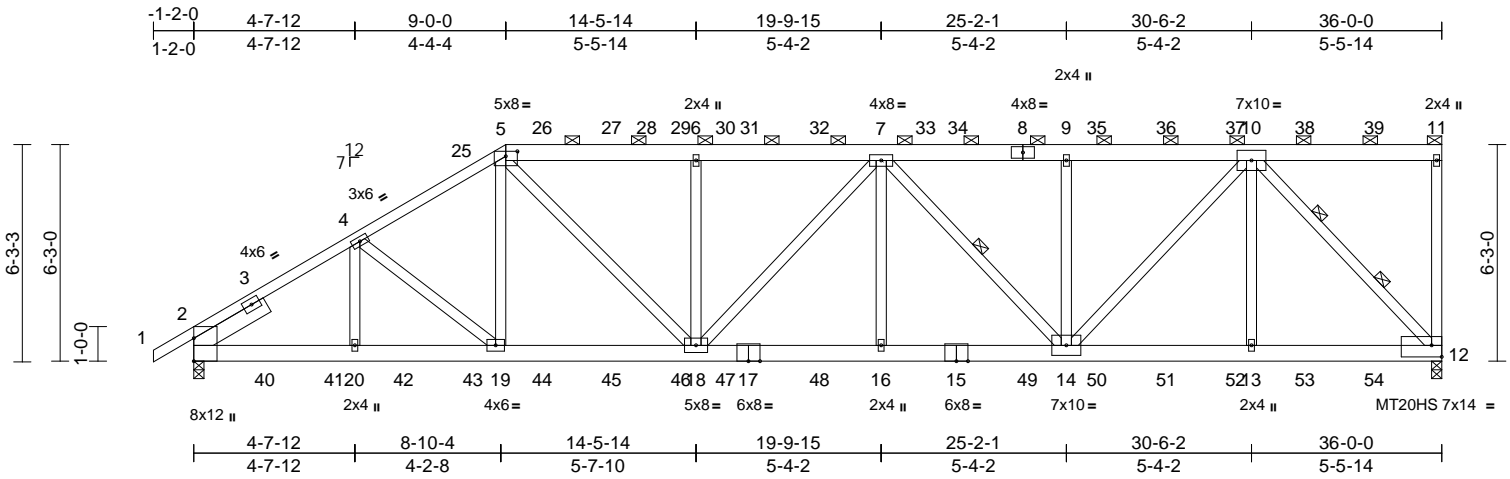


Job GP17 ROOF	Truss A08	Truss Type Half Hip Girder	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT I67157165 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:66.5

Plate Offsets (X, Y): [5:0-4-0,0-1-11], [12:Edge,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	-0.18	16-18	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.34	16-18	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.10	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.20	16-18	>999	240		
BCDL	10.0										Weight: 285 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2 \*Except\* 1-5:2x4 SP No.1  
BOT CHORD 2x6 SP No.2 \*Except\* 2-17:2x6 SP 2400F 2.0E or 2x6 SP DSS  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 -- 2-5-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-1-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-3 max.): 5-11.  
BOT CHORD Rigid ceiling directly applied or 6-5-6 oc bracing.  
WEBS 1 Row at midpt 7-14  
WEBS 2 Rows at 1/3 pts 10-12

**REACTIONS** (size) 2=0-3-8, 12=0-3-8  
Max Horiz 2=189 (LC 11)  
Max Uplift 2=-822 (LC 12), 12=-714 (LC 9)  
Max Grav 2=2619 (LC 36), 12=2953 (LC 41)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/59, 2-4=-3750/1239, 4-5=-3760/1246, 5-6=-4382/1373, 6-7=-4378/1370, 7-9=-3881/980, 9-10=-3881/980, 10-11=-76/53, 11-12=-281/121  
BOT CHORD 2-20=-1150/3227, 19-20=-1150/3227, 18-19=-1177/3272, 16-18=-1331/4511, 14-16=-1331/4511, 13-14=-630/2408, 12-13=-630/2408  
WEBS 4-20=-128/143, 4-19=-346/331, 5-19=-162/515, 5-18=-459/1693, 6-18=-788/409, 7-18=-339/0, 7-16=0/419, 7-14=-1020/415, 9-14=-593/271, 10-14=-618/2120, 10-13=0/446, 10-12=-3516/868

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 2 SP 2400F 2.0E or DSS crushing capacity of 660 psi, Joint 12 SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 714 lb uplift at joint 12 and 822 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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



July 30, 2024

Continued on page 2

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

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818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Great Southern Homes; Porter II; E; Master.RT
GP17 ROOF	A08	Half Hip Girder	1	1	I67157165
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 83 lb down and 96 lb up at 8-0-12, 110 lb down and 103 lb up at 10-0-12, 110 lb down and 103 lb up at 12-0-12, 110 lb down and 103 lb up at 14-0-12, 126 lb down and 71 lb up at 15-4-4, 162 lb down and 84 lb up at 16-0-12, 162 lb down and 84 lb up at 18-0-12, 162 lb down and 84 lb up at 20-0-12, 162 lb down and 84 lb up at 22-0-12, 162 lb down and 84 lb up at 24-0-12, 162 lb down and 84 lb up at 26-0-12, 162 lb down and 84 lb up at 28-0-12, 162 lb down and 84 lb up at 30-0-12, 162 lb down and 84 lb up at 32-0-12, and 162 lb down and 84 lb up at 34-0-12, and 51 lb down and 31 lb up at 35-10-4 on top chord, and 128 lb down and 37 lb up at 2-0-12, 225 lb down and 76 lb up at 4-0-12, 189 lb down and 107 lb up at 6-0-12, 56 lb down and 39 lb up at 8-0-12, 59 lb down and 45 lb up at 10-0-12, 59 lb down and 45 lb up at 12-0-12, 59 lb down and 45 lb up at 14-0-12, 64 lb down and 46 lb up at 15-4-4, 74 lb down at 16-0-12, 74 lb down at 18-0-12, 74 lb down at 20-0-12, 74 lb down at 22-0-12, 74 lb down at 24-0-12, 74 lb down at 26-0-12, 74 lb down at 28-0-12, 74 lb down at 30-0-12, and 74 lb down at 32-0-12, and 74 lb down at 34-0-12 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=1.00

Uniform Loads (lb/ft)

Vert: 1-5=-46, 5-11=-60, 12-21=-20

Concentrated Loads (lb)

Vert: 8=-48 (B), 11=-6 (B), 17=-37 (B), 16=-37 (B), 7=-48 (B), 15=-37 (B), 25=-28 (B), 26=-13 (B), 27=-13 (B), 29=-13 (B), 30=-25 (B), 31=-48 (B), 32=-48 (B), 34=-48 (B), 35=-48 (B), 36=-48 (B), 37=-48 (B), 38=-48 (B), 39=-48 (B), 40=-128 (B), 41=-225 (B), 42=-189 (B), 43=-18 (B), 44=-17 (B), 45=-17 (B), 46=-17 (B), 47=-34 (B), 48=-37 (B), 49=-37 (B), 50=-37 (B), 51=-37 (B), 52=-37 (B), 53=-37 (B), 54=-37 (B)

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

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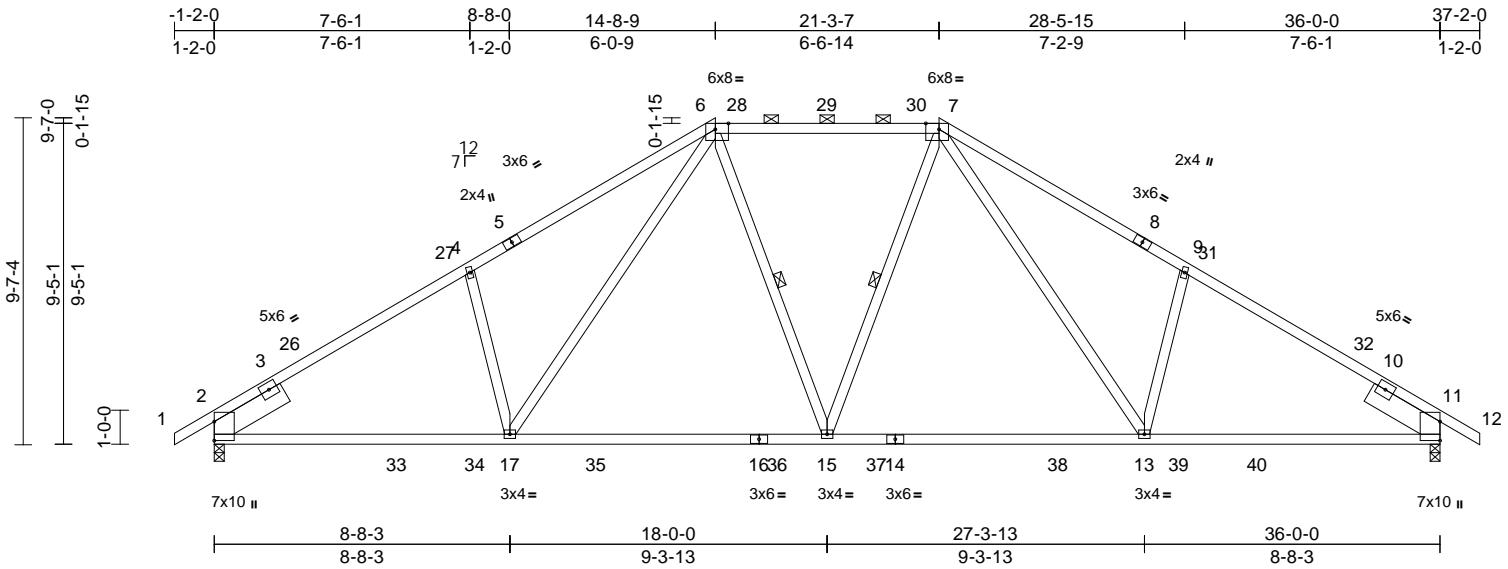
Job GP17 ROOF	Truss A09	Truss Type Hip	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT Job Reference (optional)
Runners FirstSource (Apex, NC), Apex, NC - 27523,					167157166

Runners FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:24

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Scale = 1:67.7

Plate Offsets (X, Y): [6:0-4-10,Edge], [7:0-4-10,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.99	Vert(LL)	-0.35	13-15	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.57	13-15	>761	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.16	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.08	13-15	>999	240		
BCDL	10.0										Weight: 208 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Left 2x8 SP 2400F 2.0E or DSS -- 2-5-0, Right 2x8 SP 2400F 2.0E or DSS -- 2-5-0

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

**REACTIONS** (size) 2=0-3-8, 11=0-3-8  
Max Horiz 2=-194 (LC 14)  
Max Uplift 2=-99 (LC 16), 11=-99 (LC 17)  
Max Grav 2=1774 (LC 39), 11=1774 (LC 39)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/59, 2-4=-2583/249, 4-6=-2483/348, 6-7=-1726/265, 7-9=-2483/348, 9-11=-2583/249, 11-12=0/59  
BOT CHORD 2-17=-218/2222, 15-17=-15/1662, 13-15=-4/1650, 11-13=-138/2120  
WEBS 4-17=-498/226, 6-17=-144/823, 6-15=-38/328, 7-15=-38/328, 7-13=-144/823, 9-13=-498/226

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

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- 3) \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 4) Roof design snow load has been reduced to account for slope.
- 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 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 7) Provide adequate drainage to prevent water ponding.
- 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) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 2 and 99 lb uplift at joint 11.
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-6=-46, 6-7=-60, 7-12=-46, 18-22=-20



July 30, 2024

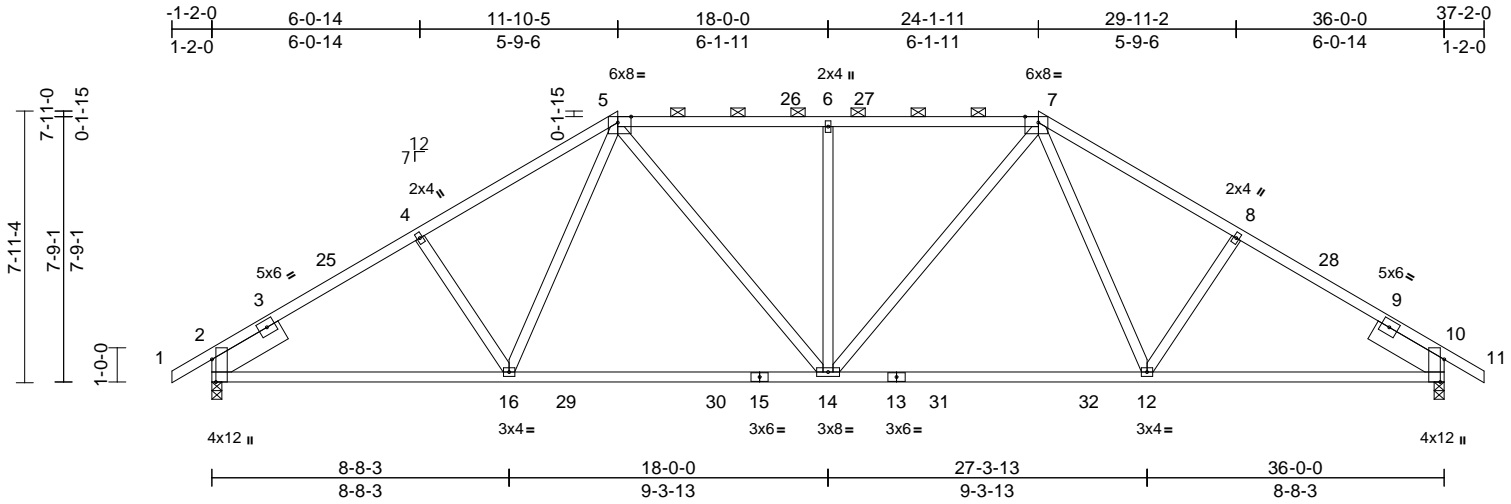
Job GP17 ROOF	Truss A10	Truss Type Hip	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT Job Reference (optional)
					167157167

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:24

Page: 1

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Scale = 1:67.3

Plate Offsets (X, Y): [2:0-7-15,Edge], [5:0-4-10,Edge], [7:0-4-10,Edge], [10:0-7-15,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.97	Vert(LL)	-0.33	14-16	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.56	14-16	>774	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.14	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.09	14-16	>999	240		
BCDL	10.0										Weight: 208 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS \*Except\* 5-7:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 15-13:2x4 SP No.1  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x8 SP 2400F 2.0E or DSS -- 2-5-0, Right 2x8 SP 2400F 2.0E or DSS -- 2-5-0

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-0-3 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 5-7.  
 BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.

**REACTIONS**

(size) 2=0-3-8, 10=0-3-8  
 Max Horiz 2=-158 (LC 14)  
 Max Uplift 2=-105 (LC 16), 10=-105 (LC 17)  
 Max Grav 2=1720 (LC 39), 10=1720 (LC 39)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/59, 2-4=-2353/265, 4-5=-2136/293, 5-6=-2096/299, 6-7=-2096/299, 7-8=-2136/293, 8-10=-2353/264, 10-11=0/59  
 BOT CHORD 2-16=-188/1915, 14-16=-54/1683, 12-14=-55/1683, 10-12=-139/1915  
 WEBS 5-16=-36/519, 4-16=-326/167, 5-14=-100/648, 6-14=-789/152, 7-14=-100/648, 7-12=-36/519, 8-12=-326/167

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33

- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 2 and 105 lb uplift at joint 10.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
 Uniform Loads (lb/ft)  
 Vert: 1-5=-46, 5-7=-60, 7-11=-46, 17-21=-20



July 30, 2024

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

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



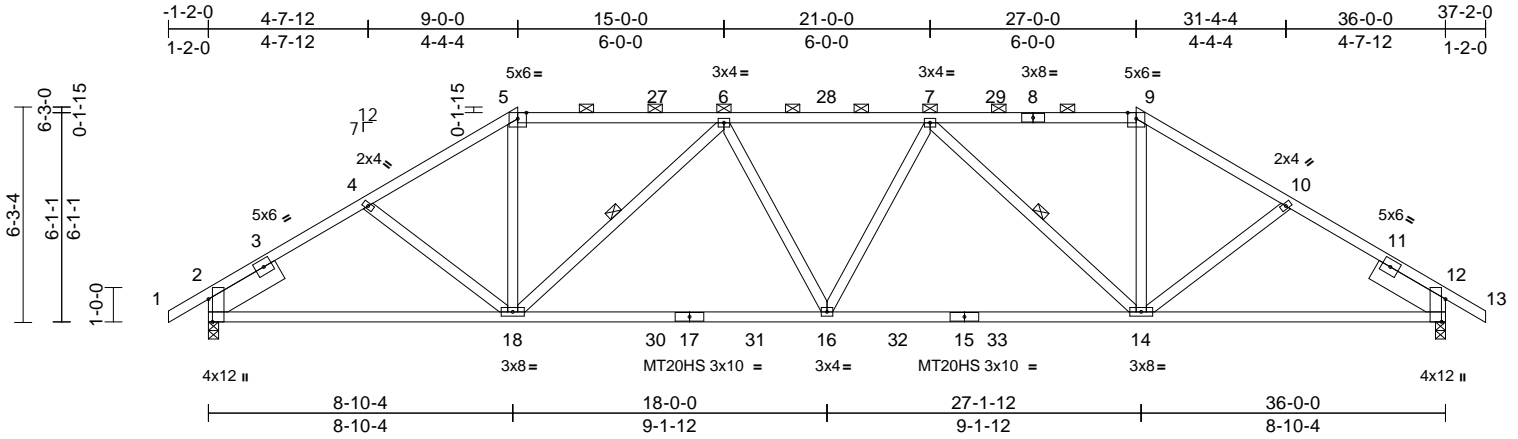
818 Soundside Road  
 Edenton, NC 27932

Job GP17 ROOF	Truss A11	Truss Type Hip	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157168
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:25  
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Page: 1



Scale = 1:67.1

Plate Offsets (X, Y): [2:0-7-15,Edge], [12:0-7-15,Edge], [12:0-0-0,0-0-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.28	14-16	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.50	14-16	>864	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.16	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.09	16-18	>999	240		
BCDL	10.0											
											Weight: 206 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS \*Except\* 5-8,8-9:2x4 SP No.1  
BOT CHORD 2x4 SP No.2 \*Except\* 17-15:2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Left 2x8 SP 2400F 2.0E or DSS -- 2-5-0, Right 2x8 SP 2400F 2.0E or DSS -- 2-5-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-0-3 oc purlins, except 2-0-0 oc purlins (3-1-2 max.): 5-9.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 6-18, 7-14

**REACTIONS** (size) 2=0-3-8, 12=0-3-8  
Max Horiz 2=-123 (LC 14)  
Max Uplift 2=-109 (LC 16), 12=-109 (LC 17)  
Max Grav 2=1608 (LC 38), 12=1608 (LC 38)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/59, 2-4=-2369/274, 4-5=-2428/270, 5-6=-2107/263, 6-7=-3001/321, 7-9=-2105/263, 9-10=-2429/270, 10-12=-2369/274, 12-13=0/59  
BOT CHORD 2-18=-173/1918, 16-18=-172/2946, 14-16=-173/2951, 12-14=-151/1917  
WEBS 4-18=-167/283, 5-18=-23/785, 6-18=-1159/164, 6-16=-12/244, 7-16=-12/236, 7-14=-1163/164, 9-14=-23/786, 10-14=-166/286

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

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 2 and 109 lb uplift at joint 12.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

14) 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  
1) Dead + Snow (balanced); Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-5=-46, 5-9=-60, 9-13=-46, 19-23=-20



July 30, 2024

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

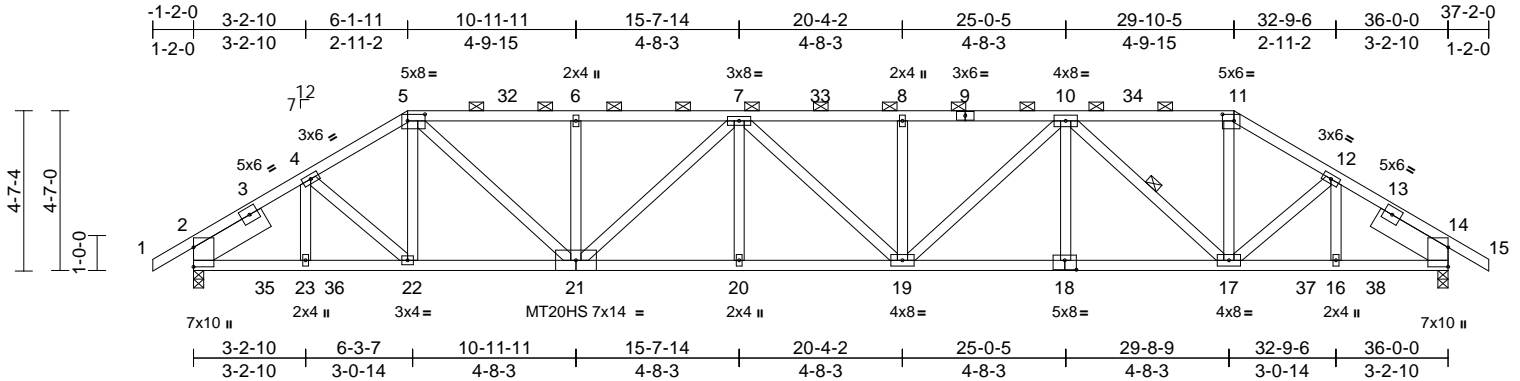
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss A12	Truss Type Hip Girder	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT Job Reference (optional)
					167157169

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:25  
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Page: 1



Scale = 1:66.1

Plate Offsets (X, Y): [5:0-6-0,0-2-4], [11:0-4-0,0-2-4], [18:0-4-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	-0.36	19-20	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.55	19-20	>784	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.16	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.16	19-20	>999	240		
BCDL	10.0											
											Weight: 227 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS \*Except\* 5-9,9-11:2x4 SP No.1  
BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS \*Except\* 21-18:2x4 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Left 2x8 SP 2400F 2.0E or DSS -- 2-5-0, Right 2x8 SP 2400F 2.0E or DSS -- 2-5-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-0-12 oc purlins, except 2-0-0 oc purlins (2-6-3 max.): 5-11.  
BOT CHORD Rigid ceiling directly applied or 9-5-5 oc bracing.  
WEBS 1 Row at midpt 10-17

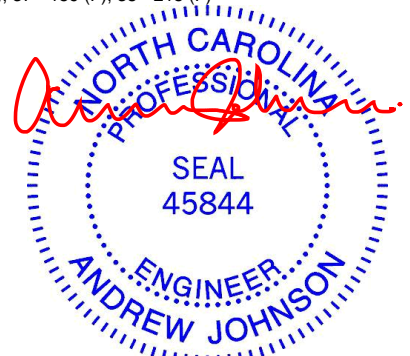
**REACTIONS** (size) 2=0-3-8, 14=0-3-8  
Max Horiz 2=90 (LC 10)  
Max Uplift 2=-294 (LC 12), 14=-294 (LC 13)  
Max Grav 2=2290 (LC 34), 14=2290 (LC 34)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/59, 2-4=-3139/399, 4-5=-3190/381, 5-6=-4137/416, 6-7=-4137/416, 7-8=-4781/443, 8-10=-4781/443, 10-11=-2823/355, 11-12=-3187/380, 12-14=-3138/400, 14-15=0/59  
BOT CHORD 2-23=-341/2514, 22-23=-341/2514, 20-22=-446/4783, 19-20=-446/4783, 17-19=-367/4138, 16-17=-264/2512, 14-16=-264/2512  
WEBS 4-23=-47/192, 4-22=-139/348, 5-22=-87/354, 5-21=-164/1812, 6-21=-535/109, 7-21=-877/85, 7-20=0/187, 7-19=-92/94, 8-19=-491/96, 10-19=-84/872, 10-18=0/182, 10-17=-1784/164, 11-17=-120/1240, 12-17=-137/350, 12-16=-47/194

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=13.2 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP DSS or SS or 2400F 2.0E crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 294 lb uplift at joint 2 and 294 lb uplift at joint 14.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 215 lb down and 45 lb up at 2-0-12, 159 lb down and 59 lb up at 4-0-12, 150 lb down and 77 lb up at 6-0-12, 150 lb down and 77 lb up at 29-11-4, and 159 lb down and 59 lb up at 31-11-4, and 215 lb down and 45 lb up at 33-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-5=-46, 5-11=-60, 11-15=-46, 24-28=-20  
Concentrated Loads (lb)  
Vert: 22=-82 (F), 17=-82 (F), 35=-215 (F), 36=-159 (F), 37=-159 (F), 38=-215 (F)



**NOTES**

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

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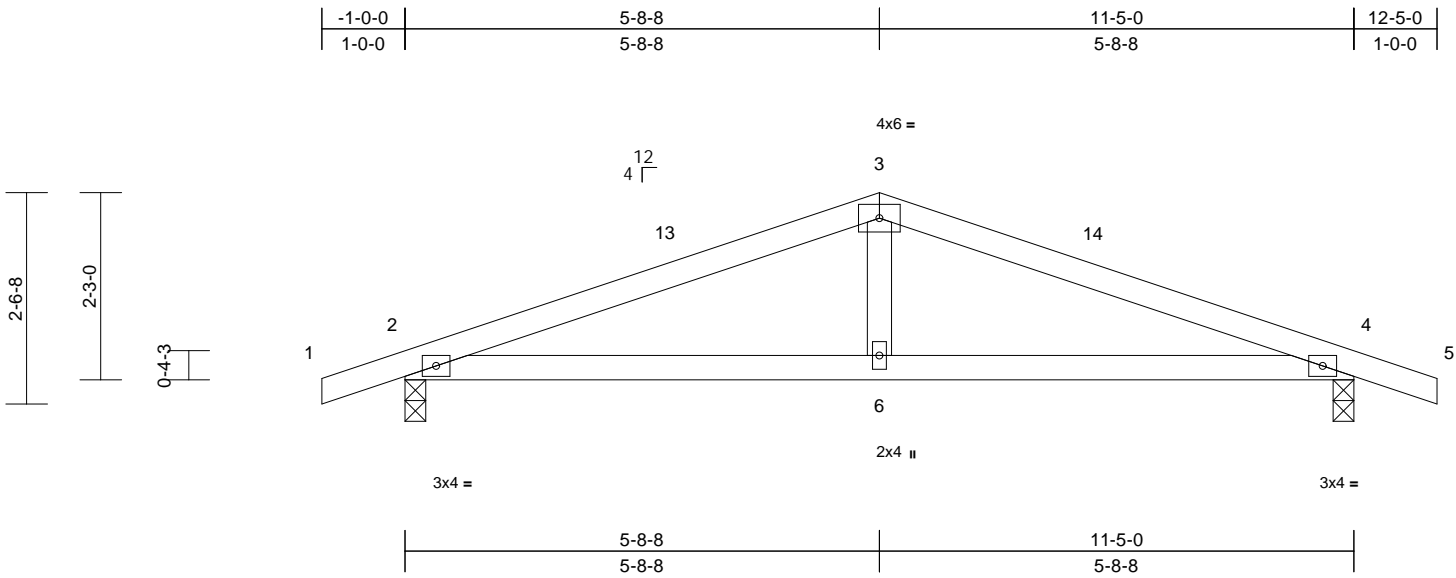
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss CP01	Truss Type Common	Qty 5	Ply 1	Great Southern Homes; Porter II; E; Master.RT I67157170 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:25  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.38	Vert(LL)	-0.04	6-9	>999	360	MT20	244/190
Snow (Ps/Pf)	17.2/20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.08	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.03	6-9	>999	240		
BCDL	10.0										Weight: 41 lb	FT = 20%

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

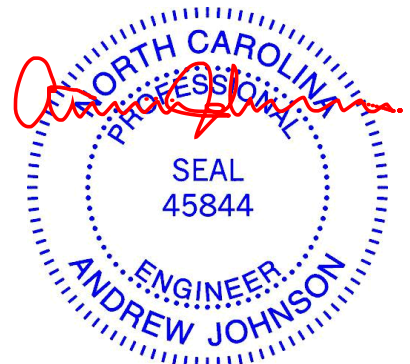
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-8-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-0, 4=0-3-0  
Max Horiz 2=32 (LC 16)  
Max Uplift 2=-67 (LC 12), 4=-67 (LC 13)  
Max Grav 2=517 (LC 2), 4=517 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/32, 2-3=-840/179, 3-4=-840/179, 4-5=0/32  
BOT CHORD 2-6=-104/756, 4-6=-104/756  
WEBS 3-6=0/259

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 2 and 67 lb uplift at joint 4.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=17.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
  - Roof design snow load has been reduced to account for slope.
  - Unbalanced snow loads have been considered for this design.



July 30, 2024

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

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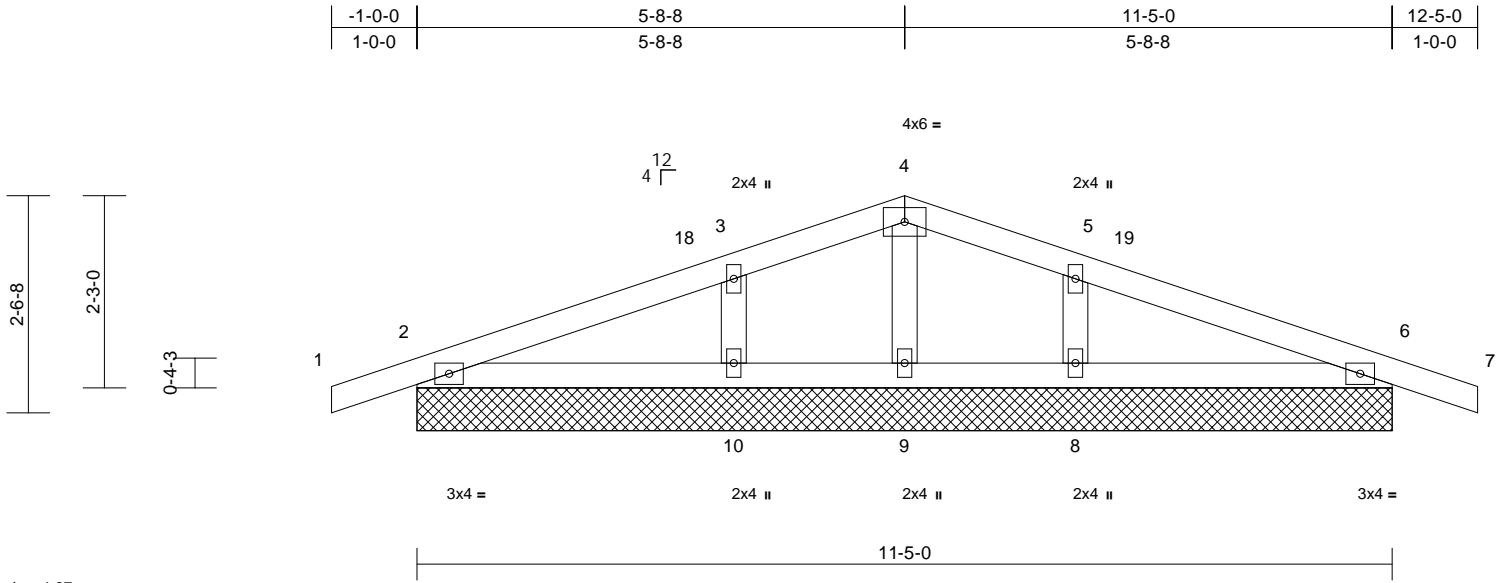
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss CP01G	Truss Type Common Supported Gable	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157171
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:25  
ID:8XJWRq1S?tT2ValG7jEePFYuPPT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	17.2/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 44 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=11-5-0, 6=11-5-0, 8=11-5-0, 9=11-5-0, 10=11-5-0, 11=11-5-0, 15=11-5-0  
Max Horiz 2=32 (LC 16), 11=32 (LC 16)  
Max Uplift 2=-48 (LC 12), 6=-52 (LC 13), 8=-44 (LC 17), 10=-45 (LC 16), 11=-48 (LC 12), 15=-52 (LC 13)  
Max Grav 2=199 (LC 2), 6=199 (LC 2), 8=295 (LC 2), 9=46 (LC 33), 10=295 (LC 2), 11=199 (LC 2), 15=199 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/32, 2-3=-44/31, 3-4=-51/65, 4-5=-51/65, 5-6=-44/28, 6-7=0/32  
BOT CHORD 2-10=-32/36, 9-10=0/32, 8-9=0/32, 6-8=-32/38  
WEBS 4-9=-50/4, 3-10=-199/98, 5-8=-199/98

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=17.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 2, 52 lb uplift at joint 6, 45 lb uplift at joint 10, 44 lb uplift at joint 8, 48 lb uplift at joint 2 and 52 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 30, 2024

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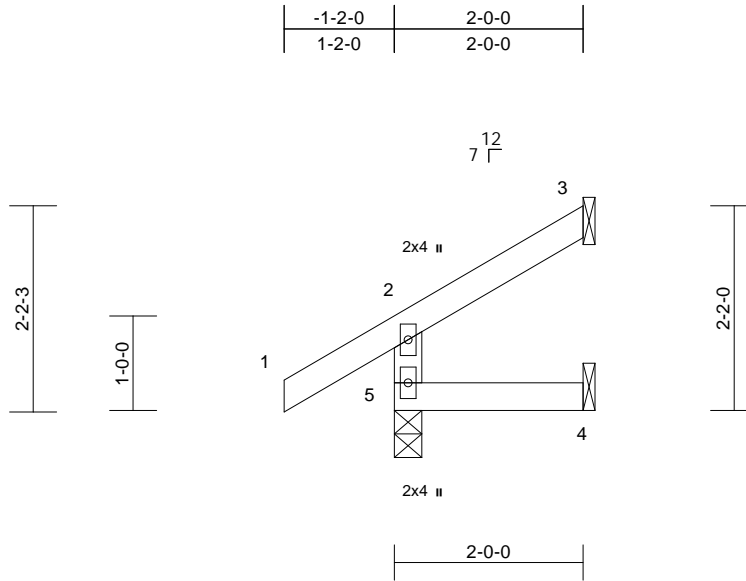


Job GP17 ROOF	Truss J02	Truss Type Jack-Open	Qty 3	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157173 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:26  
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Page: 1



Scale = 1:24.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	0.00	4-5	>999	360	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR		Wind(LL)	0.00	4-5	>999	240		
BCDL	10.0										Weight: 9 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 3= Mechanical, 4= Mechanical,  
5=0-3-8  
Max Horiz 5=48 (LC 16)  
Max Uplift 3=-29 (LC 16), 5=-9 (LC 16)  
Max Grav 3=40 (LC 30), 4=33 (LC 7), 5=215 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-181/72, 1-2=0/66, 2-3=-41/26  
BOT CHORD 4-5=0/0

#### NOTES

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=13.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.

- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 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) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
  - 9) Refer to girder(s) for truss to truss connections.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 5 and 29 lb uplift at joint 3.
  - 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



July 30, 2024

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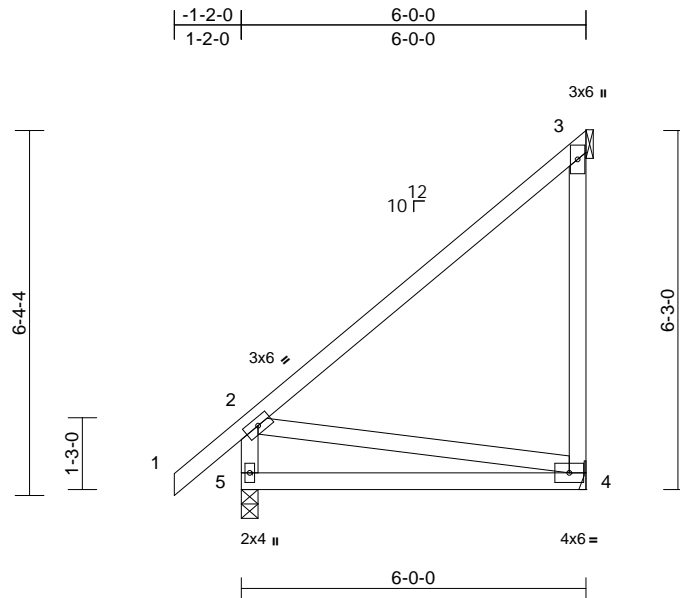
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss J11	Truss Type Jack-Open	Qty 10	Ply 1	Great Southern Homes; Porter II; E; Master.RT I67157174
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.06	4-5	>999	360	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.13	4-5	>538	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 41 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 9-9-4 oc bracing.

**REACTIONS** (size) 3= Mechanical, 4= Mechanical,  
 5=0-3-8  
 Max Horiz 5=200 (LC 11)  
 Max Uplift 3=-87 (LC 11), 5=-1 (LC 14)  
 Max Grav 3=191 (LC 26), 4=114 (LC 5),  
 5=316 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/84, 2-3=-205/201, 3-4=0/0,  
 2-5=-259/120  
 BOT CHORD 4-5=-345/314  
 WEBS 2-4=-249/288

**NOTES**

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.

- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 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) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 5 and 87 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

**LOAD CASE(S)** Standard



July 30, 2024

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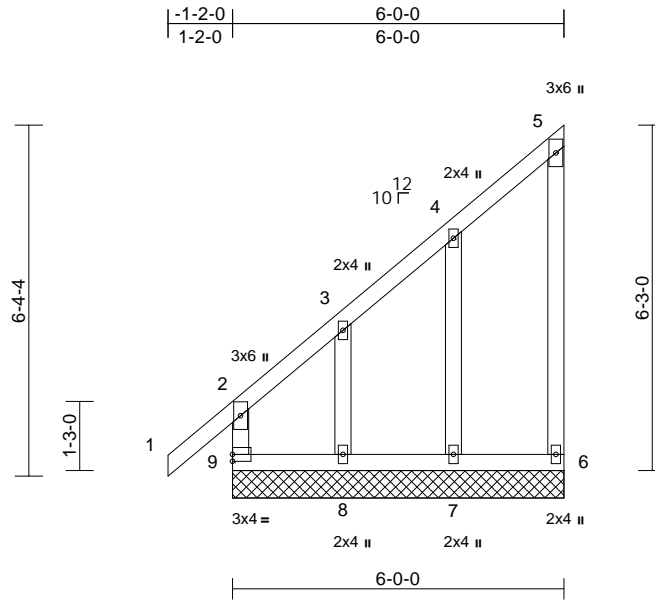
Job GP17 ROOF	Truss J11G	Truss Type Jack-Open Supported Gable	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157175 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 E Feb 9 2023 Print: 8.630 E Feb 9 2023 MiTek Industries, Inc. Tue Jul 30 16:09:44

Page: 1

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<b>Loading</b> (psf)		<b>Spacing</b> 2-0-0	<b>CSI</b>	<b>DEFL</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL (roof)	20.0	Plate Grip DOL 1.00	TC 0.42	Vert(LL) n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL 1.15	BC 0.22	Vert(CT) n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00	6	n/a	n/a		
BCLL	0.0*	Code IRC2015/TPI2014	Matrix-MR						
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

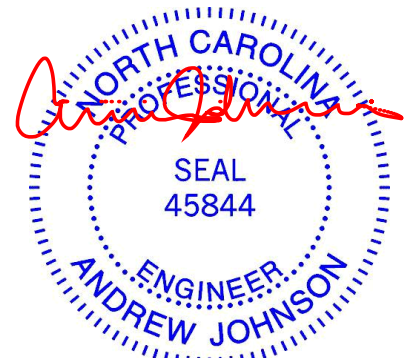
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
  - BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

- REACTIONS** All bearings 6-0-0.
- (lb) - Max Horiz 9=200 (LC 11)
  - Max Uplift All uplift 100 (lb) or less at joint(s) 6, 7, 9 except 8=159 (LC 14)
  - Max Grav All reactions 250 (lb) or less at joint (s) 6, 7, 8, 9

- FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
- TOP CHORD 2-3=-326/289

- NOTES**
- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
  - 4) Roof design snow load has been reduced to account for slope.

- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6, 7 except (jt=lb) 8=158.
- LOAD CASE(S)** Standard



July 30, 2024

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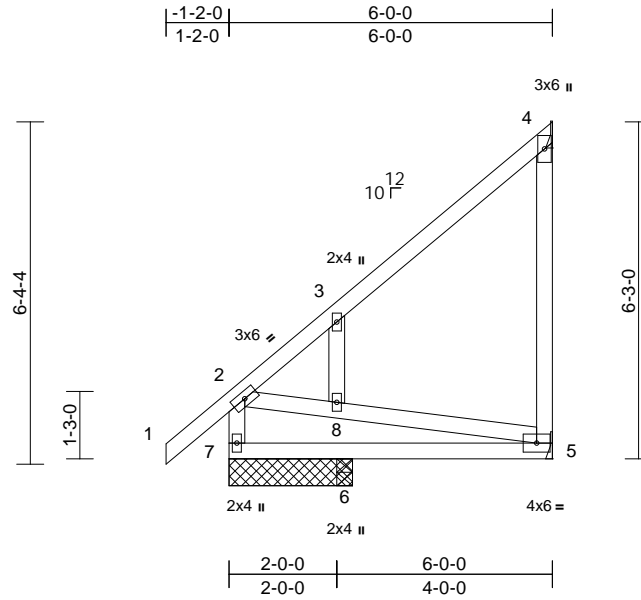
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss J11SG	Truss Type Jack-Open Structural Gable	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157176 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.52	Vert(LL)	-0.01	5-6	>999	360	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	-0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 43 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)

4= Mechanical, 5= Mechanical,
6=0-3-8, 7=2-3-8
Max Horiz 7=200 (LC 11)
Max Uplift 4=-73 (LC 11), 5=-34 (LC 14),
7=-31 (LC 14)
Max Grav 4=151 (LC 26), 5=84 (LC 26),
6=154 (LC 5), 7=266 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/84, 2-3=-252/214, 3-4=-172/176,
	4-5=0/0, 2-7=-259/120
BOT CHORD	6-7=-345/314, 5-6=-345/314
WEBS	2-8=-236/278, 5-8=-257/295, 3-8=-152/98

- NOTES**
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
  - Roof design snow load has been reduced to account for slope.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Bearings are assumed to be: , Joint 7 SP No.2 crushing capacity of 565 psi, Joint 6 SP No.2 crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 4, 34 lb uplift at joint 5 and 31 lb uplift at joint 7.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- LOAD CASE(S)** Standard



July 30, 2024

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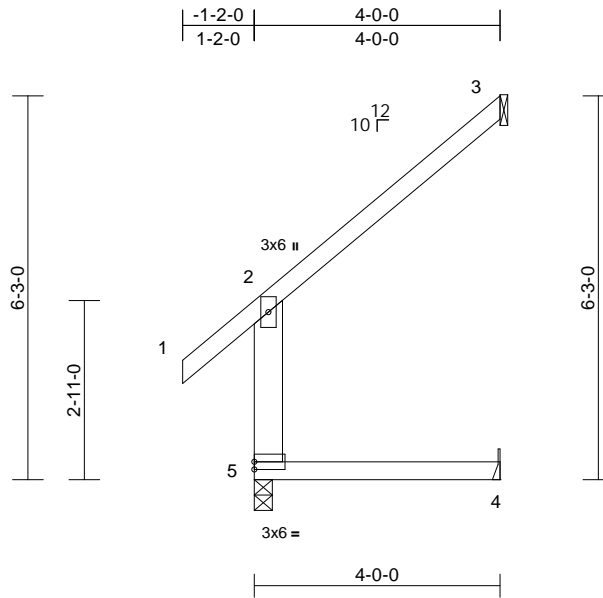
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss J12	Truss Type Jack-Open	Qty 3	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157177 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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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	1.00	TC	0.37	Vert(LL)	0.05	4-5	>952	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.05	4-5	>928	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.20	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 22 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 3= Mechanical, 4= Mechanical,  
5=0-3-8  
Max Horiz 5=122 (LC 11)  
Max Uplift 3=-105 (LC 14), 4=-33 (LC 14)  
Max Grav 3=120 (LC 26), 4=71 (LC 12),  
5=248 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-213/30, 1-2=0/89, 2-3=-114/97  
BOT CHORD 4-5=0/0

**NOTES**

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow; Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 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) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Refer to girder(s) for truss to truss connections.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 3 and 33 lb uplift at joint 4.
  - 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



July 30, 2024

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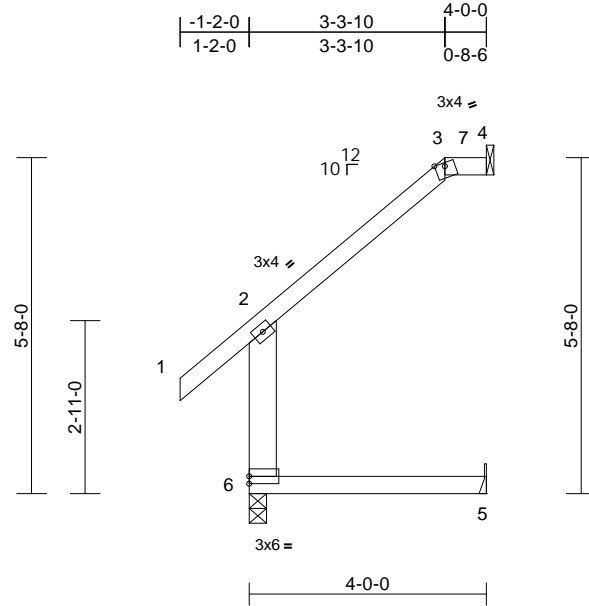
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss J13	Truss Type Half Hip	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157178 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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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	1.00	TC	0.34	Vert(LL)	0.04	5-6	>999	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.04	5-6	>992	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.21	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 22 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 4= Mechanical, 5= Mechanical, 6=0-3-8  
Max Horiz 6=113 (LC 11)  
Max Uplift 4=-83 (LC 14), 5=-27 (LC 14)  
Max Grav 4=101 (LC 26), 5=70 (LC 5), 6=248 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/89, 2-3=-97/69, 3-4=0/0, 2-6=-213/50  
BOT CHORD 5-6=0/0

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=10.1 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: , Joint 6 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 4 and 27 lb uplift at joint 5.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-40, 2-3=-40, 3-4=-60, 5-6=-20



July 30, 2024

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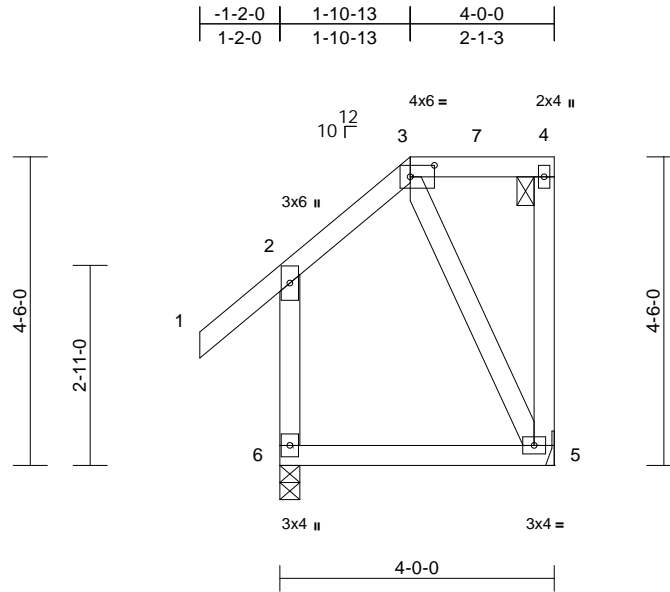
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss J14	Truss Type Half Hip	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT I67157179 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:33.6

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	1.00	TC	0.44	Vert(LL)	-0.01	5-6	>999	360	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.01	5-6	>999	240		
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

**BRACING**

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

**REACTIONS**

(size) 5= Mechanical, 6=0-3-8  
Max Horiz 6=147 (LC 13)  
Max Uplift 5=95 (LC 13), 6=-25 (LC 16)  
Max Grav 5=209 (LC 35), 6=332 (LC 36)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/84, 2-3=-121/74, 3-4=-66/72, 4-5=-128/50, 2-6=-289/128  
BOT CHORD 5-6=-145/147  
WEBS 3-5=-210/226

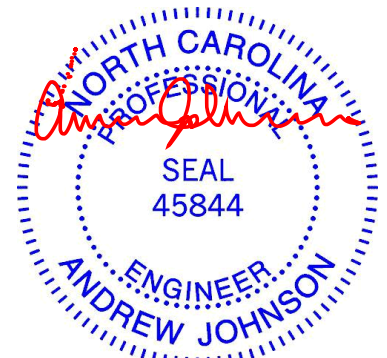
**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=10.1 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface

- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 6 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 6 and 95 lb uplift at joint 5.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-40, 2-3=-40, 3-4=-60, 5-6=-20



July 30, 2024

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818 Soundside Road  
Edenton, NC 27932

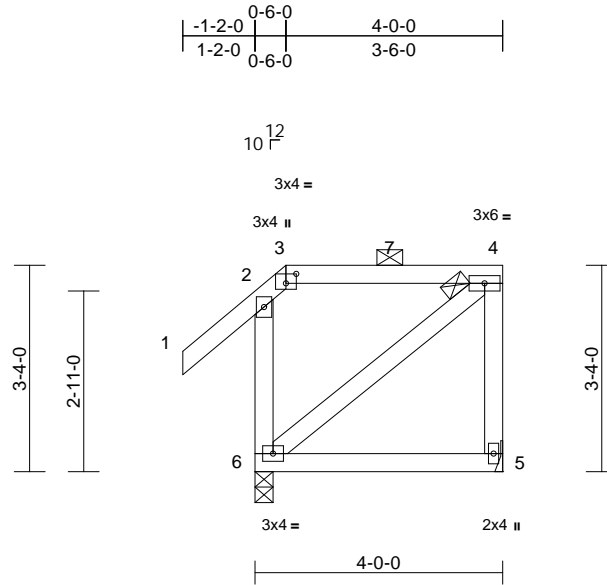


Job GP17 ROOF	Truss J15	Truss Type Half Hip	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157180 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:37.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.33	Vert(LL)	-0.01	5-6	>999	360	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.00	5-6	>999	240		
BCDL	10.0										Weight: 29 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 5= Mechanical, 6=0-3-8  
Max Horiz 6=109 (LC 13)  
Max Uplift 5=64 (LC 13), 6=41 (LC 16)  
Max Grav 5=245 (LC 35), 6=267 (LC 36)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/84, 2-3=-155/113, 3-4=-72/85, 4-5=-209/154, 2-6=-230/131  
BOT CHORD 5-6=-38/49  
WEBS 4-6=-148/131

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-10-0 to 5-10-4 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=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=10.1 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface

- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 6 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 5 and 41 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-40, 2-3=-40, 3-4=-60, 5-6=-20



July 30, 2024

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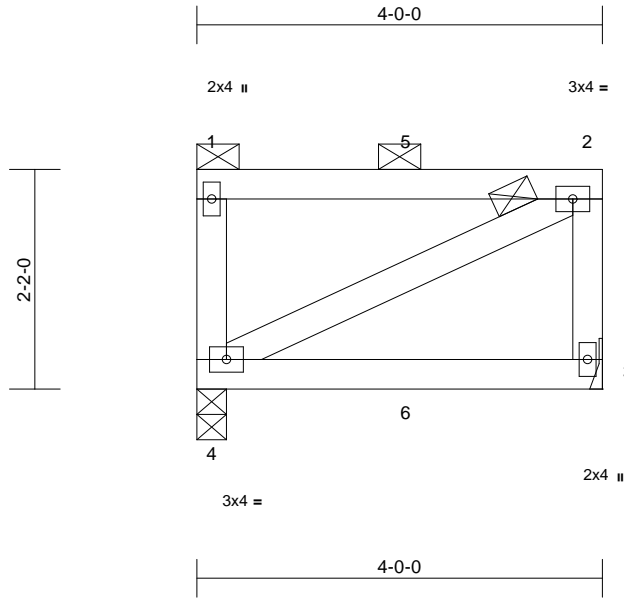
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss J16	Truss Type Flat Girder	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT I67157181 Job Reference (optional)
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Page: 1



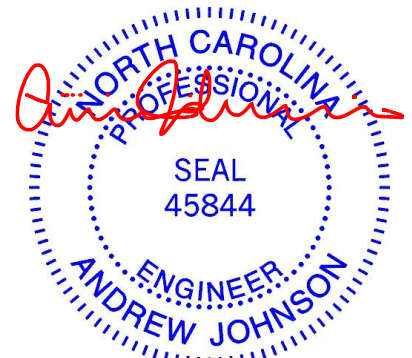
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.29	Vert(LL)	-0.01	3-4	>999	360	MT20	244/190
Snow (Ps/Pf)	20.0/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP		Wind(LL)	0.00	3-4	>999	240		
BCDL	10.0										Weight: 22 lb	FT = 20%

- LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3
- BRACING**  
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 3= Mechanical, 4=0-3-8  
Max Horiz 4=43 (LC 11)  
Max Uplift 3=-25 (LC 9), 4=-26 (LC 8)  
Max Grav 3=148 (LC 1), 4=148 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/0, 2-3=-111/47  
BOT CHORD 3-4=-21/16  
WEBS 2-4=-24/18, 1-4=-111/40

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=20.0 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
  - Roof design snow load has been reduced to account for slope.
  - Unbalanced snow loads have been considered for this design.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 4 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 3 and 26 lb uplift at joint 4.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 53 lb down and 13 lb up at 2-0-12 on top chord, and 10 lb down and 3 lb up at 2-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-60, 3-4=-20  
Concentrated Loads (lb)  
Vert: 6=1 (F)



July 30, 2024

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

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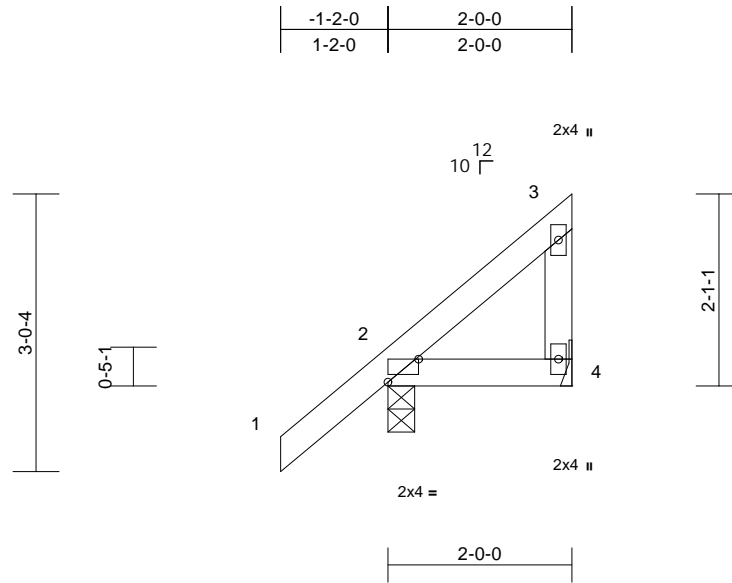
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss M01	Truss Type Monopitch	Qty 3	Ply 1	Great Southern Homes; Porter II; E; Master.RT I67157182 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:25  
Plate Offsets (X, Y): [2:0-4-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.16	Vert(LL)	0.00	4-7	>999	360	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP		Wind(LL)	0.00	4-7	>999	240		
BCDL	10.0										Weight: 12 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size) 2=0-3-8, 4= Mechanical  
Max Horiz 2=65 (LC 13)  
Max Uplift 2=-27 (LC 14), 4=-14 (LC 11)  
Max Grav 2=190 (LC 20), 4=62 (LC 26)

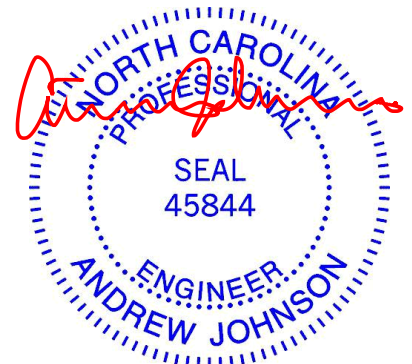
**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/75, 2-3=-63/72, 3-4=-62/45  
BOT CHORD 2-4=-80/56

**NOTES**

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 3) Roof design snow load has been reduced to account for slope.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 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) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 4 and 27 lb uplift at joint 2.
  - 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



July 30, 2024

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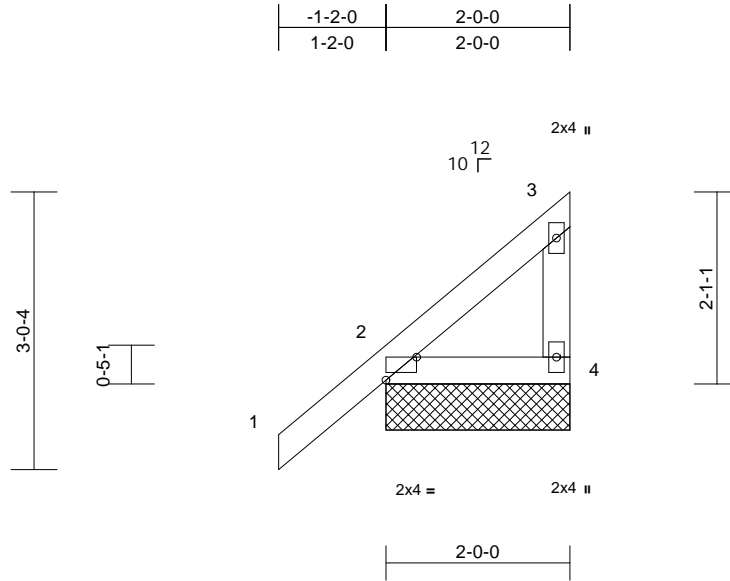
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss M01G	Truss Type Monopitch Supported Gable	Qty 2	Ply 1	Great Southern Homes; Porter II; E; Master.RT I67157183 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:25

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 12 lb	FT = 20%	

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=2-0-0, 4=2-0-0, 5=2-0-0  
Max Horiz 2=65 (LC 13), 5=65 (LC 13)  
Max Uplift 2=-27 (LC 14), 4=-13 (LC 11), 5=-27 (LC 14)  
Max Grav 2=190 (LC 20), 4=65 (LC 26), 5=190 (LC 20)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

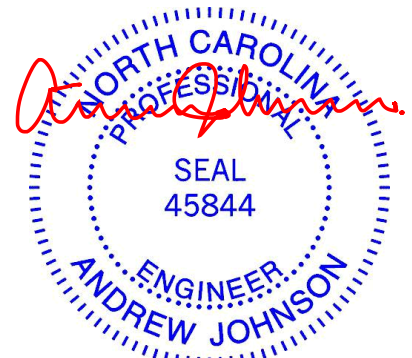
TOP CHORD 1-2=0/75, 2-3=-63/72, 3-4=-62/45  
BOT CHORD 2-4=-80/56

**NOTES**

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface

- 4) Roof design snow load has been reduced to account for slope.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 2, 13 lb uplift at joint 4 and 27 lb uplift at joint 2.
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 30, 2024

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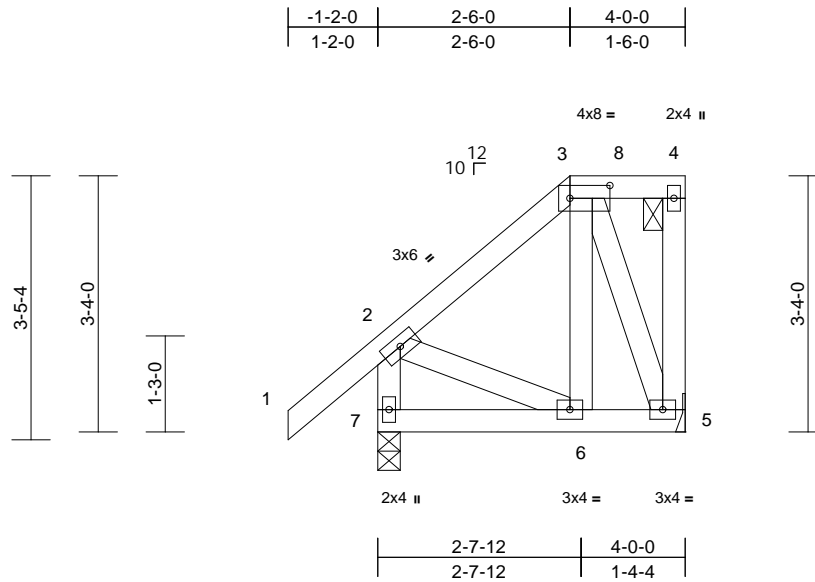
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Great Southern Homes; Porter II; E; Master.RT
GP17 ROOF	T04	Half Hip	2	1	I67157184
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:30

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.21	Vert(LL)	0.00	6-7	>999	360	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	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	IRC2015/TPI2014	Matrix-MP		Wind(LL)	0.00	6	>999	240		
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 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=0-3-8  
 Max Horiz 7=112 (LC 13)  
 Max Uplift 5=-47 (LC 13), 7=-22 (LC 16)  
 Max Grav 5=179 (LC 35), 7=349 (LC 36)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/84, 2-3=-150/50, 3-4=-47/51, 4-5=-79/27, 2-7=-327/99  
 BOT CHORD 6-7=-191/173, 5-6=-71/99  
 WEBS 3-6=-18/84, 3-5=-154/94, 2-6=-83/131

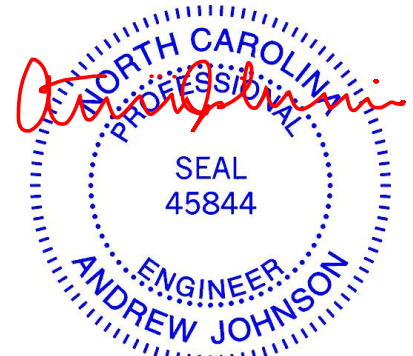
**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=10.1 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface

- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 7 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 7 and 47 lb uplift at joint 5.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-40, 2-3=-40, 3-4=-60, 5-7=-20



July 30, 2024

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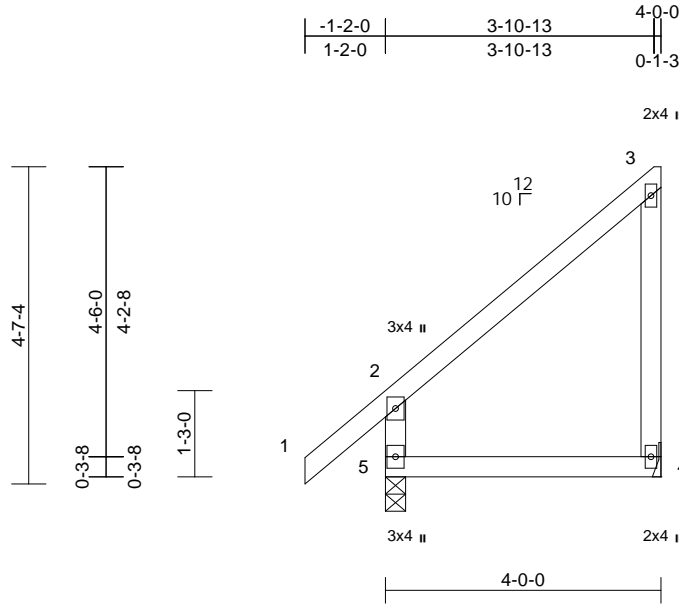
818 Soundside Road  
 Edenton, NC 27932

Job GP17 ROOF	Truss T05	Truss Type Half Hip	Qty 2	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157185 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	-0.01	4-5	>999	360	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.02	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR		Wind(LL)	0.01	4-5	>999	240		
BCDL	10.0										Weight: 23 lb	FT = 20%

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

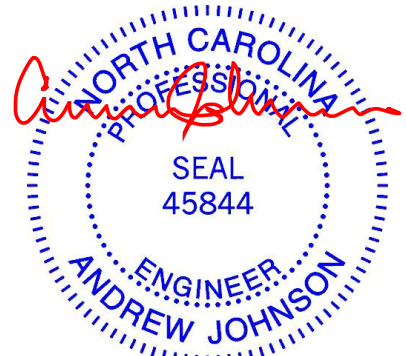
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 4= Mechanical, 5=0-3-8  
Max Horiz 5=147 (LC 11)  
Max Uplift 4=-65 (LC 11), 5=-5 (LC 14)  
Max Grav 4=169 (LC 26), 5=241 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/84, 2-3=-133/127, 3-4=-167/138, 2-5=-208/110  
BOT CHORD 4-5=-64/74

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Bearings are assumed to be: Joint 5 SP No.2 crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 4 and 5 lb uplift at joint 5.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
  - Roof design snow load has been reduced to account for slope.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.



July 30, 2024

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

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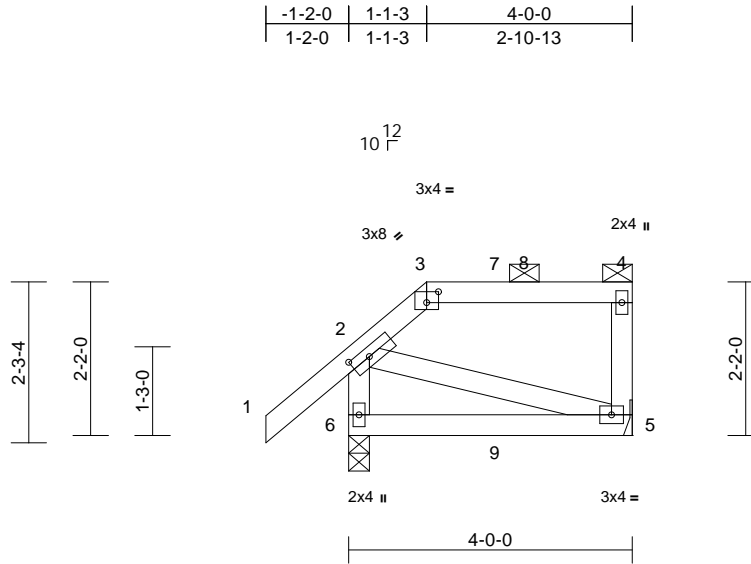
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss TG02	Truss Type Half Hip Girder	Qty 2	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157186 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:32.5

Plate Offsets (X, Y): [2:0-3-5,0-1-8], [3:0-2-0,0-1-13]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	-0.01	5-6	>999	360	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.00	5-6	>999	240		
BCDL	10.0										Weight: 24 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 6-0-0 oc bracing.

**REACTIONS**

(size) 5= Mechanical, 6=0-3-8  
Max Horiz 6=74 (LC 9)  
Max Uplift 5=-33 (LC 9), 6=-36 (LC 12)  
Max Grav 5=235 (LC 31), 6=299 (LC 32)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/84, 2-3=-138/32, 3-4=-52/18, 4-5=-188/38, 2-6=-263/59

BOT CHORD 5-6=-72/89

WEBS 2-5=-46/54

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- \*\* TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=10.1 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.

- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 6 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 6 and 33 lb uplift at joint 5.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 52 lb down and 19 lb up at 2-0-12 on top chord, and 10 lb down and 12 lb up at 2-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 1-2=-40, 2-3=-40, 3-4=-60, 5-6=-20  
Concentrated Loads (lb)

Vert: 9=1 (B)



July 30, 2024

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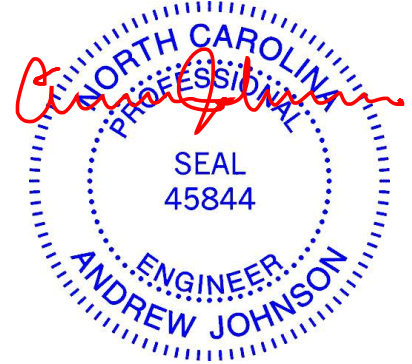
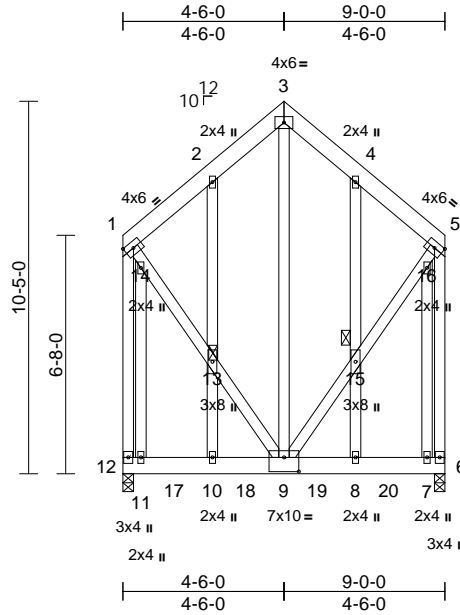
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss TG03	Truss Type Common Girder	Qty 1	Ply 2	Great Southern Homes; Porter II; E; Master.RT 167157187 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:64.4

Plate Offsets (X, Y): [9:0-5-0,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.04	7-8	>999	360	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.06	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.02	7-8	>999	240		
BCDL	10.0											
											Weight: 284 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 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.

**JOINTS**  
1 Brace at Jt(s): 13, 15

**REACTIONS**  
(size) 6=0-3-8, 12=0-3-8  
Max Horiz 12=269 (LC 7)  
Max Uplift 6=-333 (LC 7), 12=-264 (LC 6)  
Max Grav 6=4056 (LC 1), 12=3606 (LC 18)

**FORCES**  
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1612/167, 2-3=-1204/171, 3-4=-1110/157, 4-5=-1707/181, 1-12=-2422/193, 5-6=-2574/216  
BOT CHORD 11-12=-230/242, 10-11=-230/242, 9-10=-230/242, 8-9=-62/64, 7-8=-62/64, 6-7=-62/64  
WEBS 3-9=-104/759, 1-14=-200/1664, 13-14=-240/2025, 9-13=-237/1921, 9-15=-230/1895, 15-16=-240/2020, 5-16=-200/1675, 2-13=-31/669, 10-13=-35/788, 11-14=-451/50, 4-15=-75/855, 8-15=-87/1023, 7-16=-426/49

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 264 lb uplift at joint 12 and 333 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1517 lb down and 83 lb up at 1-5-4, 1759 lb down and 85 lb up at 3-5-4, and 2001 lb down and 165 lb up at 5-5-4, and 2085 lb down and 168 lb up at 7-5-4 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00

**NOTES**

July 30, 2024

Continued on page 2

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818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Great Southern Homes; Porter II; E; Master.RT
GP17 ROOF	TG03	Common Girder	1	<b>2</b>	I67157187 Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 2

Uniform Loads (lb/ft)

Vert: 1-3=-40, 3-5=-40, 6-12=-20

Concentrated Loads (lb)

Vert: 17=-1186 (B), 18=-1736 (B), 19=-2001 (B),  
20=-2085 (B)

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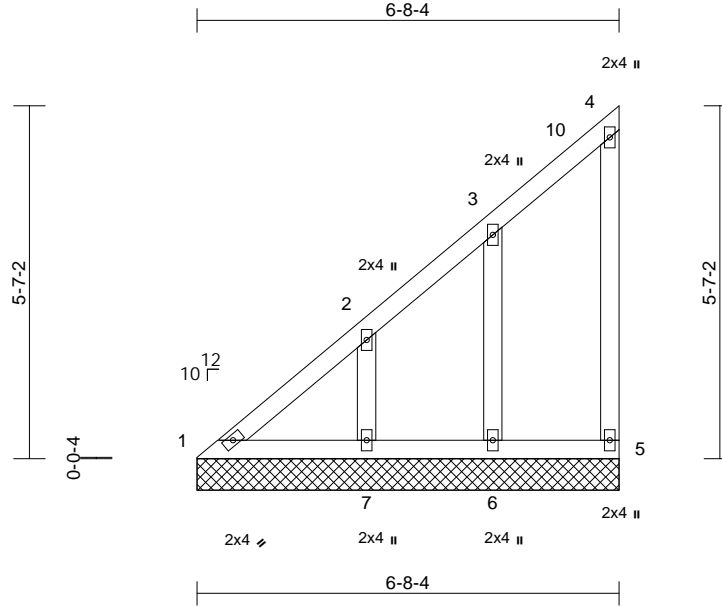
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss V01	Truss Type Valley	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157188 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:28  
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Page: 1



Scale = 1:36.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 37 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=6-8-4, 5=6-8-4, 6=6-8-4, 7=6-8-4  
Max Horiz 1=168 (LC 11)  
Max Uplift 1=-16 (LC 10), 5=-34 (LC 11),  
6=-63 (LC 14), 7=-71 (LC 14)  
Max Grav 1=129 (LC 26), 5=78 (LC 25),  
6=163 (LC 25), 7=230 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-264/248, 2-3=-188/176, 3-4=-106/108,  
4-5=-100/80  
BOT CHORD 1-7=-106/154, 6-7=-78/85, 5-6=-78/85  
WEBS 3-6=-139/103, 2-7=-156/98

- NOTES**
- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- 4) Roof design snow load has been reduced to account for slope.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 5, 16 lb uplift at joint 1, 63 lb uplift at joint 6 and 71 lb uplift at joint 7.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 30, 2024

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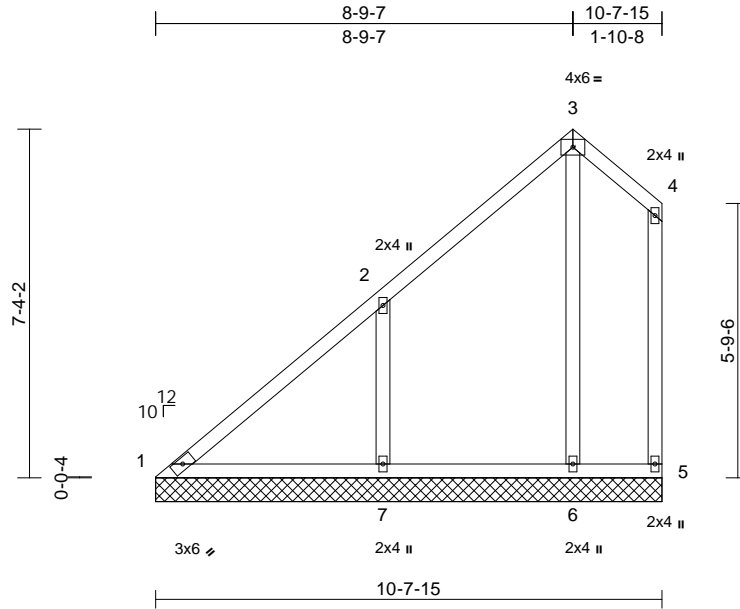
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss V02	Truss Type Valley	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT I67157189
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:48.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
										Weight: 59 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.

<b>REACTIONS</b> (size)	1=10-7-15, 5=10-7-15, 6=10-7-15, 7=10-7-15
Max Horiz	1=212 (LC 11)
Max Uplift	1=-21 (LC 10), 5=-49 (LC 10), 6=-47 (LC 11), 7=-160 (LC 14)
Max Grav	1=196 (LC 26), 5=87 (LC 13), 6=327 (LC 25), 7=514 (LC 25)

**FORCES**

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-249/247, 2-3=-166/125, 3-4=-140/155, 4-5=-125/119
BOT CHORD	1-7=-122/219, 6-7=-80/88, 5-6=-80/88
WEBS	3-6=-229/146, 2-7=-320/203

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 5, 21 lb uplift at joint 1, 47 lb uplift at joint 6 and 160 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 30, 2024

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

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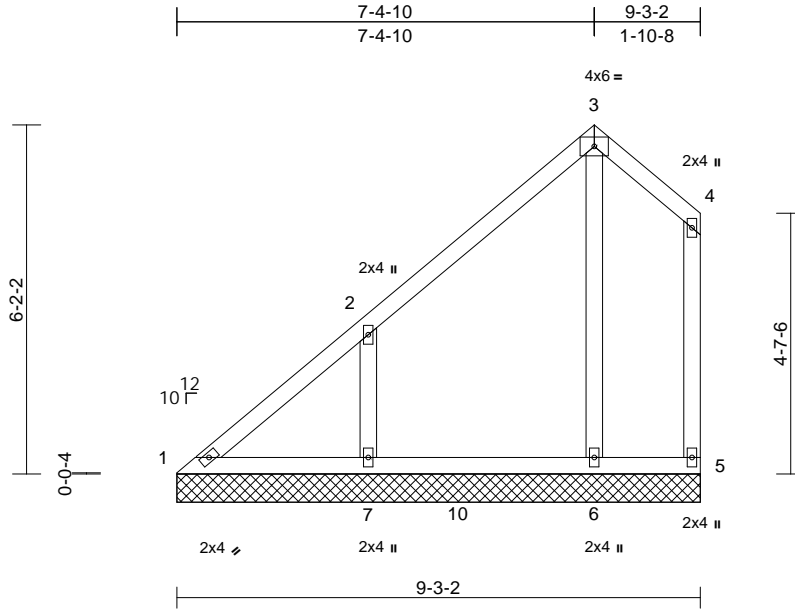
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss V03	Truss Type Valley	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT Job Reference (optional)
					I67157190

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:28  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 49 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.

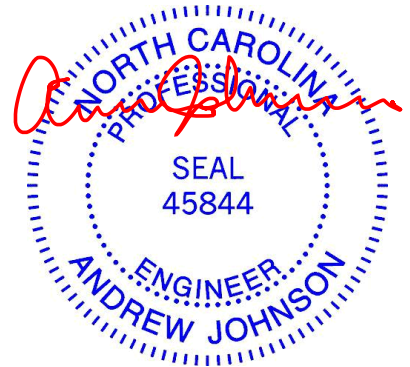
**REACTIONS** (size) 1=9-3-2, 5=9-3-2, 6=9-3-2, 7=9-3-2  
Max Horiz 1=175 (LC 11)  
Max Uplift 1=-29 (LC 10), 5=-45 (LC 10), 6=-36 (LC 11), 7=-130 (LC 14)  
Max Grav 1=142 (LC 26), 5=75 (LC 13), 6=336 (LC 25), 7=392 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-209/210, 2-3=-149/103, 3-4=-113/126, 4-5=-101/95  
BOT CHORD 1-7=-91/149, 6-7=-65/70, 5-6=-65/70  
WEBS 3-6=-217/132, 2-7=-274/180

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 5, 29 lb uplift at joint 1, 36 lb uplift at joint 6 and 130 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 30, 2024

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**TRENCO**  
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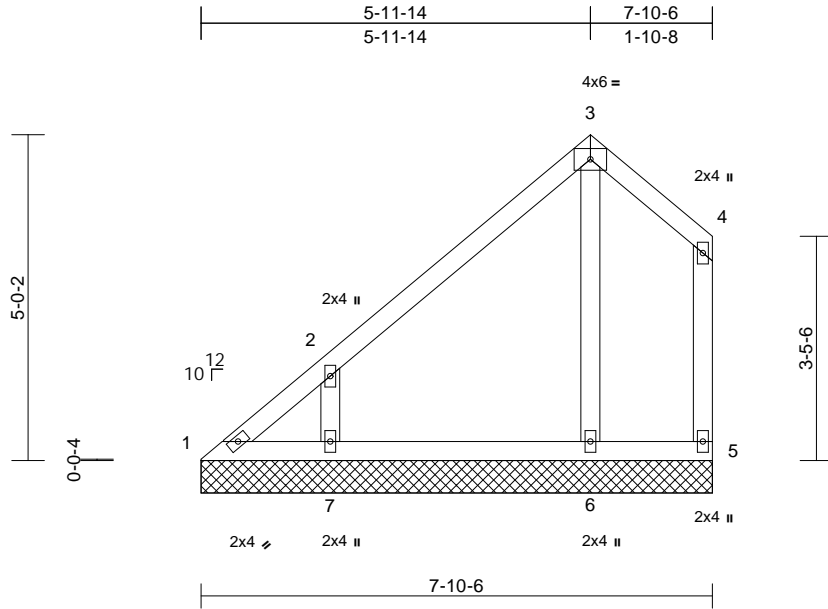
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss V04	Truss Type Valley	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157191
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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Page: 1



Scale = 1:35.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
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 10-0-0 oc bracing.

#### REACTIONS

(size)	1=7-10-6, 5=7-10-6, 6=7-10-6, 7=7-10-6
Max Horiz	1=137 (LC 11)
Max Uplift	1=-45 (LC 12), 5=-38 (LC 10), 6=-20 (LC 11), 7=-123 (LC 14)
Max Grav	1=89 (LC 11), 5=83 (LC 26), 6=244 (LC 25), 7=333 (LC 25)

#### FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-196/199, 2-3=-141/85, 3-4=-97/106, 4-5=-98/84
BOT CHORD	1-7=-48/52, 6-7=-48/52, 5-6=-48/52
WEBS	3-6=-171/87, 2-7=-290/204

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 5, 45 lb uplift at joint 1, 20 lb uplift at joint 6 and 123 lb uplift at joint 7.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

#### LOAD CASE(S)

Standard



July 30, 2024

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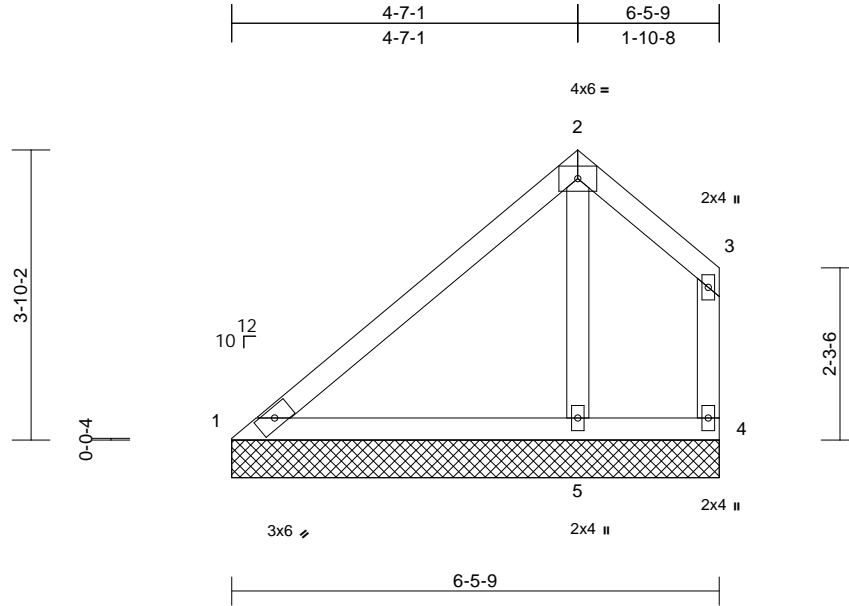
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss V05	Truss Type Valley	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157192 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

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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	1.00	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.31	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	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 29 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=6-5-9, 4=6-5-9, 5=6-5-9
Max Horiz	1=100 (LC 11)
Max Uplift	1=5 (LC 14), 4=40 (LC 10), 5=-15 (LC 11)
Max Grav	1=165 (LC 29), 4=50 (LC 26), 5=339 (LC 25)

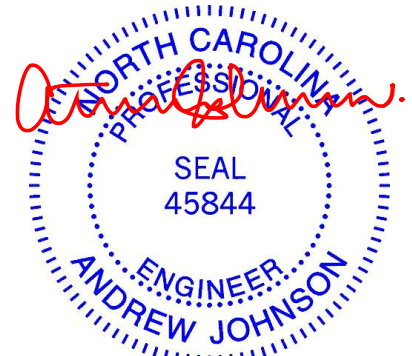
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-205/85, 2-3=-76/83, 3-4=-85/70
BOT CHORD	1-5=-95/190, 4-5=-31/34
WEBS	2-5=-179/73

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 4, 5 lb uplift at joint 1 and 15 lb uplift at joint 5.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 30, 2024

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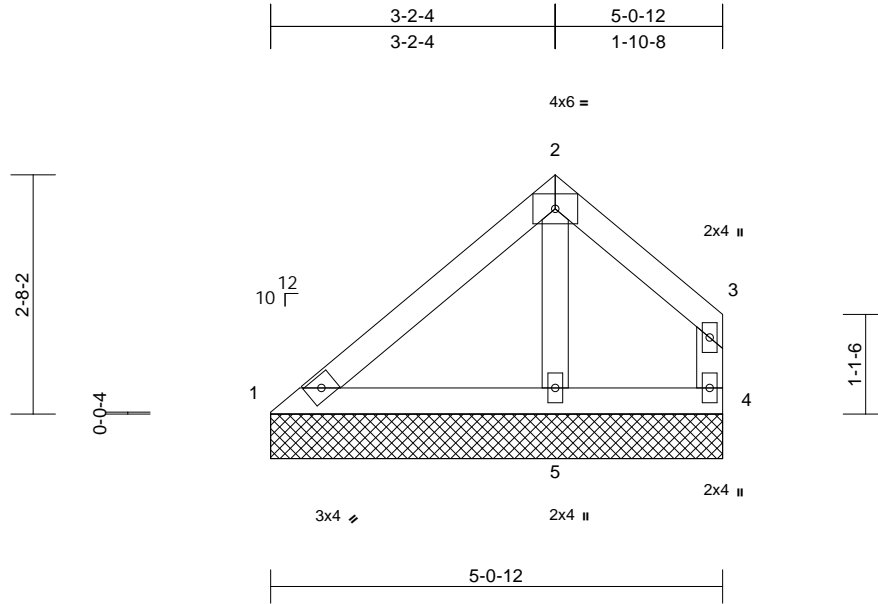
818 Soundside Road  
Edenton, NC 27932

Job GP17 ROOF	Truss V06	Truss Type Valley	Qty 1	Ply 1	Great Southern Homes; Porter II; E; Master.RT 167157193
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

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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	1.00	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.15	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	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 21 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 5-1-1 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=5-0-12, 4=5-0-12, 5=5-0-12  
Max Horiz 1=62 (LC 11)  
Max Uplift 1=7 (LC 14), 4=24 (LC 15), 5=3 (LC 14)  
Max Grav 1=115 (LC 29), 4=62 (LC 26), 5=241 (LC 25)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-138/59, 2-3=-54/59, 3-4=-71/55  
BOT CHORD 1-5=-59/120, 4-5=-14/15  
WEBS 2-5=-133/27

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1, 24 lb uplift at joint 4 and 3 lb uplift at joint 5.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 30, 2024

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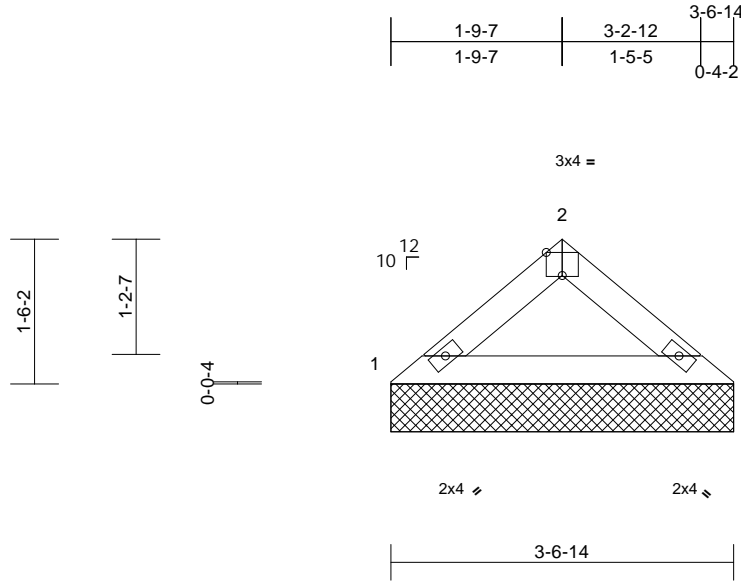
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Great Southern Homes; Porter II; E; Master.RT
GP17 ROOF	V07	Valley	1	1	I67157194
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Sat Jul 27 12:23:28  
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Page: 1



Scale = 1:24

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 11 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-6-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 1=3-6-14, 3=3-6-14  
 Max Horiz 1=28 (LC 10)  
 Max Uplift 1=6 (LC 14), 3=6 (LC 15)  
 Max Grav 1=143 (LC 2), 3=143 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

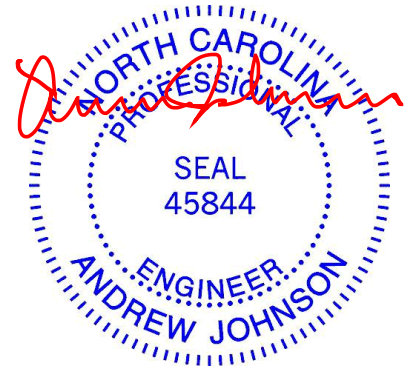
TOP CHORD 1-2=-189/28, 2-3=-189/28  
 BOT CHORD 1-3=-16/143

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
- Roof design snow load has been reduced to account for slope.

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1 and 6 lb uplift at joint 3.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 30, 2024

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

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

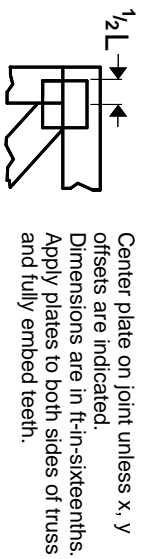


818 Soundside Road  
 Edenton, NC 27932

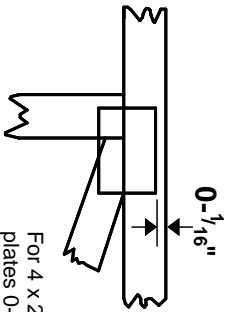


# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

4 X 4

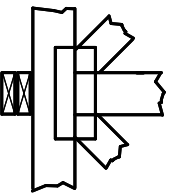
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



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

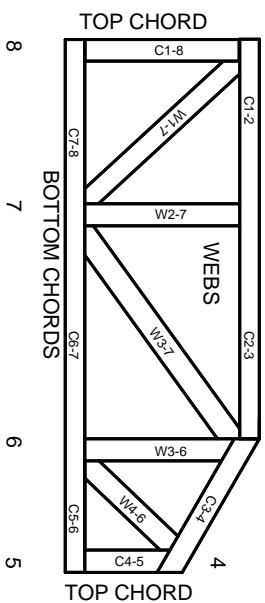
## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



1 TOP CHORDS  
2 Joint ID typ.



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

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

# Product Code Approvals

ICC-ES Reports:

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

# Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on Lumber values established by others.

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# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

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

**MITek**

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