

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 2500391-21340  
CC2724 CP Granville

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Lumber 2383 (Dunn, NC).

Pages or sheets covered by this seal: I71010828 thru I71010847

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

North Carolina COA: C-0844



January 27, 2025

Gilbert, Eric

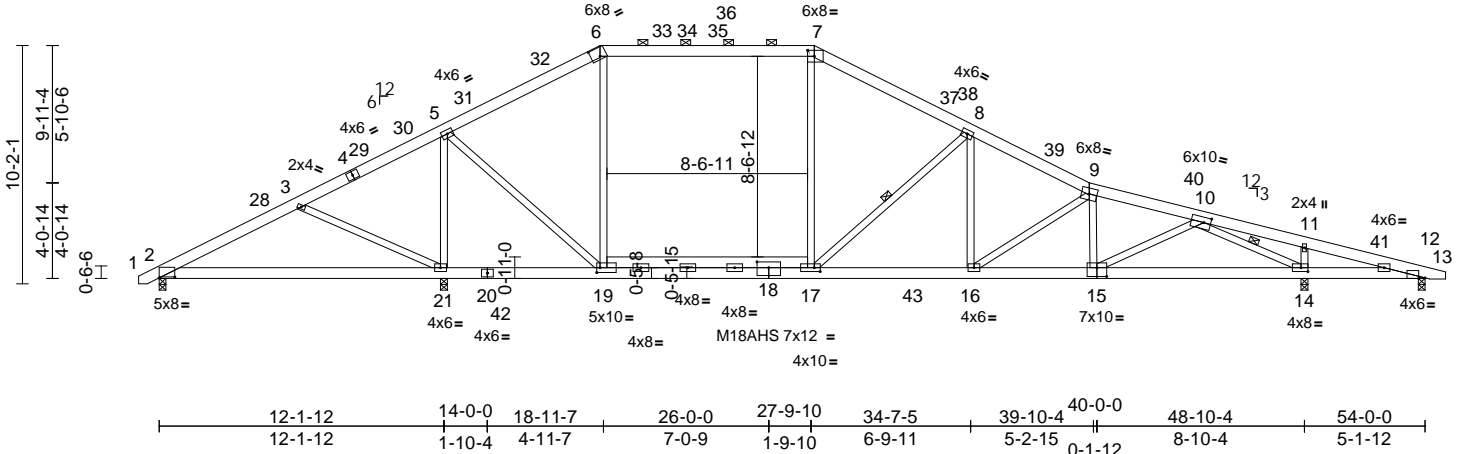
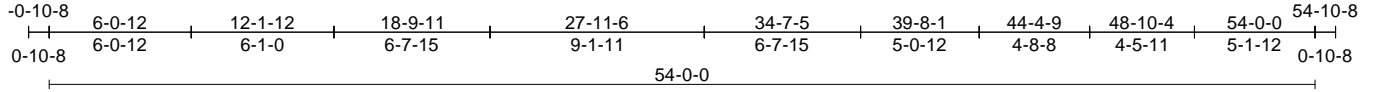
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

Job 2500391-21340	Truss A1	Truss Type Piggyback Base	Qty 6	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010828
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.37	16-17	>999	240	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.79	16-17	>566	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.09	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.19	17-19	>561	360		
BCDL	10.0											
											Weight: 396 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP DSS \*Except\* 19-17:2x6 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
5-21,16-8,16-9,10-15,11-14,9-15:2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-10-13 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 5-1-10 oc bracing: 12-14.  
WEBS 1 Row at midpt 8-17, 10-14

**REACTIONS** (size) 2=0-3-8, 12=0-3-8, 14=0-3-8, 21=0-3-8  
Max Horiz 2=166 (LC 20)  
Max Uplift 2=-109 (LC 17), 12=-610 (LC 62), 14=-299 (LC 17), 21=-206 (LC 16)  
Max Grav 2=1551 (LC 3), 12=-7 (LC 17), 14=3132 (LC 62), 21=1204 (LC 61)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/19, 2-3=-2869/273, 3-5=-2541/229, 5-6=-2890/133, 6-7=-2544/153, 7-8=-2922/115, 8-9=-3627/187, 9-10=-3472/205, 10-11=-132/2583, 11-12=-177/2637, 12-13=0/8  
BOT CHORD 2-21=-157/2555, 19-21=0/2239, 17-19=0/2544, 16-17=-15/3211, 14-16=-116/3427, 12-14=-2508/199  
WEBS 6-19=-143/801, 7-17=-89/890, 8-17=-965/324, 3-21=-487/234, 5-21=-922/138, 5-19=0/614, 8-16=-81/578, 9-16=-347/154, 10-15=0/1709, 10-14=-4953/359, 11-14=-479/148, 9-15=-842/52

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-8-5 to 4-8-8, Interior (1) 4-8-8 to 18-9-11, Exterior (2) 18-9-11 to 24-2-8, Interior (1) 24-2-8 to 27-11-6, Exterior (2) 27-11-6 to 33-4-3, Interior (1) 33-4-3 to 54-6-7 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=12.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 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.
- Ceiling dead load (5.0 psf) on member(s) 6-7; Wall dead load (10.0psf) on member(s) 6-19, 7-17
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 17-19
- Bearings are assumed to be: Joint 2 SP No.2 , Joint 21 SP No.2 , Joint 14 SP DSS , Joint 12 SP No.2 .

14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 2, 610 lb uplift at joint 12, 206 lb uplift at joint 21 and 299 lb uplift at joint 14.  
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.  
16) Attic room checked for L/360 deflection.  
**LOAD CASE(S)** Standard



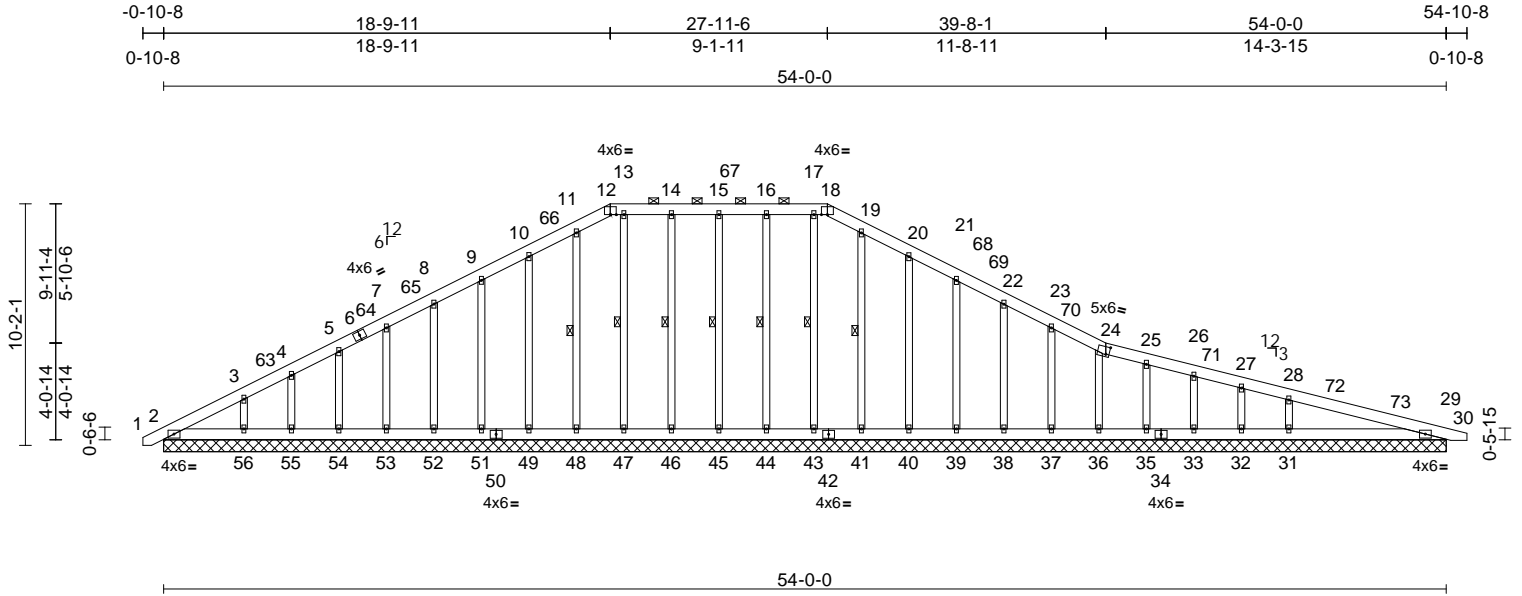
January 27, 2025

Job 2500391-21340	Truss A1E	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010829
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Page: 1



Scale = 1:96.8

Plate Offsets (X, Y): [24:0-1-9,0-3-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	29	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 456 lb	FT = 20%

LUMBER		Max Grav	2=164 (LC 58), 29=252 (LC 2), 31=584 (LC 59), 32=19 (LC 17), 33=211 (LC 59), 35=143 (LC 2), 36=154 (LC 2), 37=177 (LC 2), 38=167 (LC 41), 39=168 (LC 41), 40=170 (LC 41), 41=161 (LC 41), 43=158 (LC 59), 44=170 (LC 40), 45=169 (LC 40), 46=170 (LC 40), 47=164 (LC 33), 48=161 (LC 41), 49=170 (LC 41), 51=168 (LC 41), 52=169 (LC 41), 53=159 (LC 58), 54=168 (LC 2), 55=123 (LC 58), 56=264 (LC 2)	BOT CHORD	2-56=44/161, 55-56=44/161, 54-55=44/161, 53-54=44/161, 52-53=44/161, 51-52=44/161, 49-51=44/161, 48-49=44/161, 47-48=44/161, 46-47=44/161, 45-46=44/161, 44-45=44/161, 43-44=44/161, 41-43=44/161, 40-41=44/161, 39-40=44/161, 38-39=44/161, 37-38=44/161, 36-37=44/161, 35-36=39/155, 33-35=39/155, 32-33=39/155, 31-32=39/155, 29-31=39/163
TOP CHORD	2x6 SP No.2				
BOT CHORD	2x6 SP No.2				
OTHERS	2x4 SP No.3 *Except* 45-15,44-16,43-17,41-19,40-20,39-21,46-14, 47-13,48-11,49-10,51-9:2x4 SP No.2				
BRACING					
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 12-18.				
BOT CHORD	Rigid ceiling directly applied or 10-10 oc bracing.				
WEBS	1 Row at midpt 15-45, 16-44, 17-43, 19-41, 14-46, 13-47, 11-48				
REACTIONS	(size) 2=54-0-0, 29=54-0-0, 31=54-0-0, 32=54-0-0, 33=54-0-0, 35=54-0-0, 36=54-0-0, 37=54-0-0, 38=54-0-0, 39=54-0-0, 40=54-0-0, 41=54-0-0, 43=54-0-0, 44=54-0-0, 45=54-0-0, 46=54-0-0, 47=54-0-0, 48=54-0-0, 49=54-0-0, 51=54-0-0, 52=54-0-0, 53=54-0-0, 54=54-0-0, 55=54-0-0, 56=54-0-0 Max Horiz 2=166 (LC 20) Max Uplift 2=-26 (LC 17), 29=-66 (LC 13), 31=-168 (LC 17), 32=-71 (LC 59), 33=-61 (LC 17), 35=-42 (LC 13), 36=-52 (LC 17), 37=-69 (LC 17), 38=-59 (LC 17), 39=-62 (LC 17), 40=-69 (LC 17), 41=-19 (LC 17), 44=-43 (LC 13), 45=-46 (LC 12), 46=-43 (LC 12), 48=-31 (LC 16), 49=-67 (LC 16), 51=-61 (LC 16), 52=-60 (LC 16), 53=-60 (LC 16), 54=-64 (LC 16), 55=-45 (LC 16), 56=-104 (LC 16)	TOP CHORD 1-2=0/19, 2-3=-199/90, 3-4=-143/91, 4-5=-109/105, 5-7=-81/128, 7-8=-58/155, 8-9=-63/202, 9-10=-80/251, 10-11=-98/302, 11-12=-107/323, 12-13=-97/315, 13-14=-97/315, 14-15=-97/315, 15-16=-97/315, 16-17=-97/315, 17-18=-97/315, 18-19=-107/316, 19-20=-98/282, 20-21=-80/230, 21-22=-63/182, 22-23=-48/135, 23-24=-40/86, 24-25=-33/65, 25-26=-44/47, 26-27=-54/32, 27-28=-78/17, 28-29=-184/57, 29-30=0/8			
		FORCES (lb) - Maximum Compression/Maximum Tension			



January 27, 2025

Continued on page 2

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

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



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CC2724 CP Granville	I71010829
2500391-21340	A1E	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Page: 2

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WEBS 15-45=-129/63, 16-44=-130/55,  
17-43=-118/0, 19-41=-121/86,  
20-40=-130/158, 21-39=-128/116,  
22-38=-127/80, 23-37=-138/94,  
24-36=-112/83, 25-35=-111/59,  
26-33=-142/83, 27-32=-22/31,  
28-31=-365/247, 14-46=-130/55,  
13-47=-124/0, 11-48=-121/88,  
10-49=-130/158, 9-51=-128/116,  
8-52=-129/82, 7-53=-120/83, 5-54=-122/84,  
4-55=-103/80, 3-56=-173/194

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-8-5 to 4-8-8, Exterior (2) 4-8-8 to 18-9-11, Corner (3) 18-9-11 to 24-2-8, Exterior (2) 24-2-8 to 27-11-6, Corner (3) 27-11-6 to 33-4-9, Exterior (2) 33-4-9 to 54-6-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCELL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=12.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 8) Provide adequate drainage to prevent water ponding.
- 9) All plates are 2x4 (||) MT20 unless otherwise indicated.
- 10) Gable requires continuous bottom chord bearing.
- 11) Gable studs spaced at 2-0-0 oc.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) \* 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.
- 14) All bearings are assumed to be SP No.2 .
- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2, 66 lb uplift at joint 29, 46 lb uplift at joint 45, 43 lb uplift at joint 44, 19 lb uplift at joint 41, 69 lb uplift at joint 40, 62 lb uplift at joint 39, 59 lb uplift at joint 38, 69 lb uplift at joint 37, 52 lb uplift at joint 36, 42 lb uplift at joint 35, 61 lb uplift at joint 33, 71 lb uplift at joint 32, 168 lb uplift at joint 31, 43 lb uplift at joint 46, 31 lb uplift at joint 48, 67 lb uplift at joint 49, 61 lb uplift at joint 51, 60 lb uplift at joint 52, 60 lb uplift at joint 53, 64 lb uplift at joint 54, 45 lb uplift at joint 55, 104 lb uplift at joint 56, 26 lb uplift at joint 2 and 66 lb uplift at joint 29.
- 16) 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

**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](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))



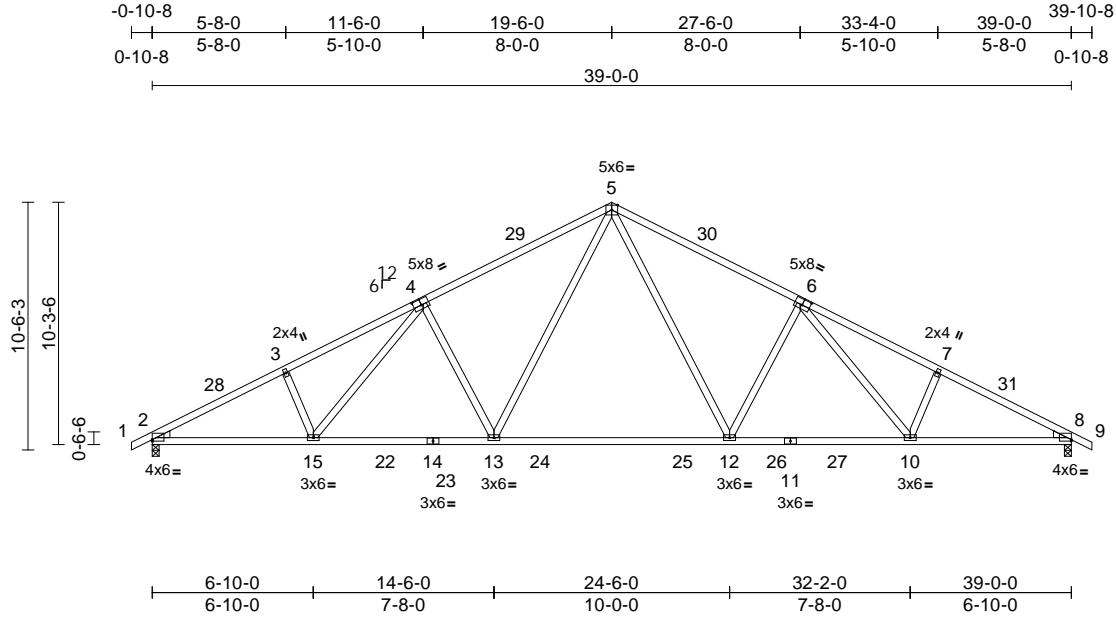
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss B1	Truss Type Common	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010830
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:89.3

Plate Offsets (X, Y): [2:Edge,0-0-12], [4:0-4-0,0-3-0], [6:0-4-0,0-3-0], [8:Edge,0-0-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.32	12-13	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.57	12-13	>823	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.10	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 210 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP DSS  
BOT CHORD 2x4 SP DSS  
WEBS 2x4 SP No.2 \*Except\* 15-3,7-10:2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-8-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 9-1-12 oc bracing.

**REACTIONS** (size) 2=0-3-8, 8=0-3-8  
Max Horiz 2=170 (LC 16)  
Max Uplift 2=-319 (LC 16), 8=-319 (LC 17)  
Max Grav 2=1613 (LC 2), 8=1613 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/23, 2-3=-2860/542, 3-5=-2731/585, 5-7=-2731/586, 7-8=-2860/543, 8-9=0/23  
BOT CHORD 2-15=-568/2472, 13-15=-435/2210, 12-13=-175/1574, 10-12=-301/2210, 8-10=-399/2472  
WEBS 3-15=-220/153, 4-15=-125/388, 4-13=-610/315, 5-13=-249/903, 5-12=-249/903, 6-12=-610/315, 6-10=-126/388, 7-10=-220/153

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 3-0-5, Interior (1) 3-0-5 to 19-6-0, Exterior (2) 19-6-0 to 23-4-13, Interior (1) 23-4-13 to 39-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 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 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 319 lb uplift at joint 2 and 319 lb uplift at joint 8.

**LOAD CASE(S)** Standard



January 27, 2025

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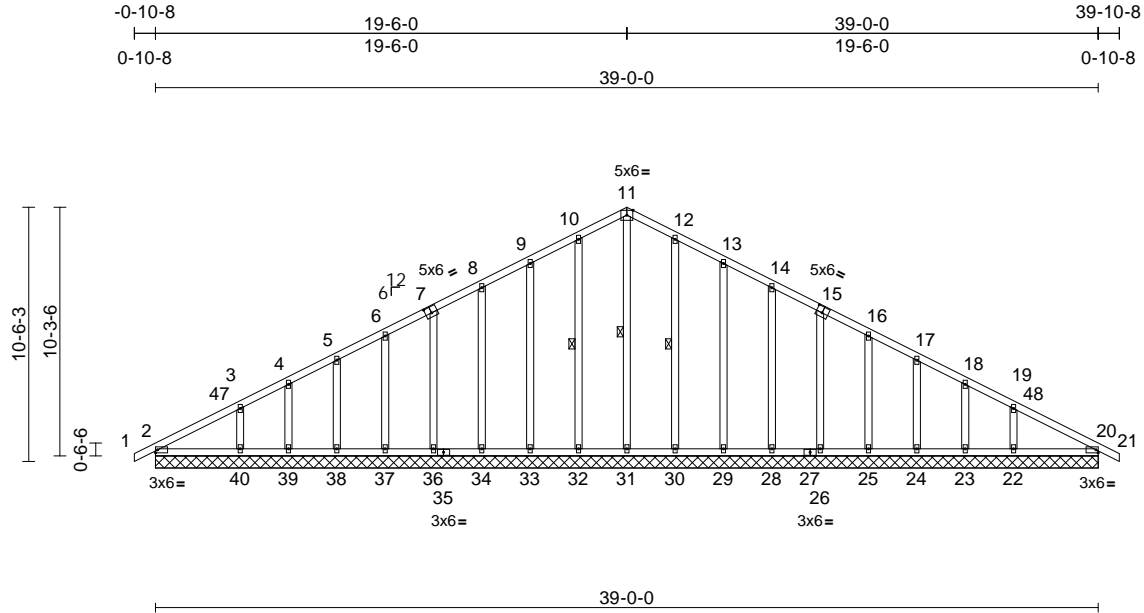
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss B1E	Truss Type Common Supported Gable	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010831
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:86.8

Plate Offsets (X, Y): [7:0-3-0,0-3-0], [15:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	-0.01	22	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 265 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3 \*Except\*  
31-11,32-10,33-9,34-8,30-12,29-13,28-14:2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 11-31, 10-32, 12-30

**REACTIONS** (size)  
2=39-0-0, 20=39-0-0, 22=39-0-0, 23=39-0-0, 24=39-0-0, 25=39-0-0, 26=39-0-0, 28=39-0-0, 29=39-0-0, 30=39-0-0, 31=39-0-0, 32=39-0-0, 33=39-0-0, 34=39-0-0, 36=39-0-0, 37=39-0-0, 38=39-0-0, 39=39-0-0, 40=39-0-0  
Max Horiz 2=170 (LC 16)  
Max Uplift 2=-68 (LC 35), 22=-111 (LC 17), 23=-44 (LC 17), 24=-66 (LC 17), 25=-55 (LC 17), 26=-61 (LC 17), 28=-63 (LC 17), 29=-65 (LC 17), 30=-52 (LC 17), 32=-56 (LC 16), 33=-63 (LC 16), 34=-63 (LC 16), 36=-61 (LC 16), 37=-54 (LC 16), 38=-68 (LC 16), 39=-33 (LC 16), 40=-129 (LC 16)  
Max Grav 2=114 (LC 34), 22=407 (LC 2), 23=22 (LC 7), 24=197 (LC 2), 25=148 (LC 2), 26=156 (LC 35), 28=170 (LC 2), 29=151 (LC 35), 30=181 (LC 35), 31=390 (LC 33), 32=179 (LC 2), 33=155 (LC 34), 34=166 (LC 34), 36=162 (LC 2), 37=150 (LC 34), 38=176 (LC 2), 39=110 (LC 34), 40=304 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/23, 2-3=-262/327, 3-4=-183/292, 4-5=-145/312, 5-6=-94/318, 6-8=-50/341, 8-9=0/348, 9-10=0/360, 10-11=-6/356, 11-12=-6/350, 12-13=0/339, 13-14=0/312, 14-16=0/309, 16-17=-39/301, 17-18=-92/308, 18-19=-115/275, 19-20=-228/335, 20-21=0/23  
BOT CHORD 2-40=-248/284, 39-40=-248/284, 38-39=-248/284, 37-38=-248/284, 36-37=-248/284, 34-36=-249/286, 33-34=-249/286, 32-33=-249/286, 31-32=-249/286, 30-31=-249/286, 29-30=-249/286, 28-29=-249/286, 26-28=-249/286, 25-26=-246/284, 24-25=-246/284, 23-24=-246/284, 22-23=-246/284, 20-22=-246/284  
WEBS 11-31=-350/0, 10-32=-139/146, 9-33=-115/116, 8-34=-126/86, 7-36=-121/84, 6-37=-111/76, 5-38=-129/91, 4-39=-91/60, 3-40=-204/182, 12-30=-141/140, 13-29=-111/119, 14-28=-131/88, 15-26=-115/83, 16-25=-114/77, 17-24=-137/96, 18-23=-48/63, 19-22=-252/213

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 0-10-8 to 3-0-5, Exterior (2) 3-0-5 to 19-6-0, Corner (3) 19-6-0 to 23-6-0, Exterior (2) 23-6-0 to 39-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 (||) MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



January 27, 2025

Continued on page 2

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

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 2500391-21340	Truss B1E	Truss Type Common Supported Gable	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010831
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:17  
ID:t2Ke?o3RWy?EBhGkgJiCf7zrDQn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 2

- 12) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) All bearings are assumed to be SP No.2 .
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 2, 56 lb uplift at joint 32, 63 lb uplift at joint 33, 63 lb uplift at joint 34, 61 lb uplift at joint 36, 54 lb uplift at joint 37, 68 lb uplift at joint 38, 33 lb uplift at joint 39, 129 lb uplift at joint 40, 52 lb uplift at joint 30, 65 lb uplift at joint 29, 63 lb uplift at joint 28, 61 lb uplift at joint 26, 55 lb uplift at joint 25, 66 lb uplift at joint 24, 44 lb uplift at joint 23, 111 lb uplift at joint 22 and 68 lb uplift at joint 2.

**LOAD CASE(S)** Standard

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

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



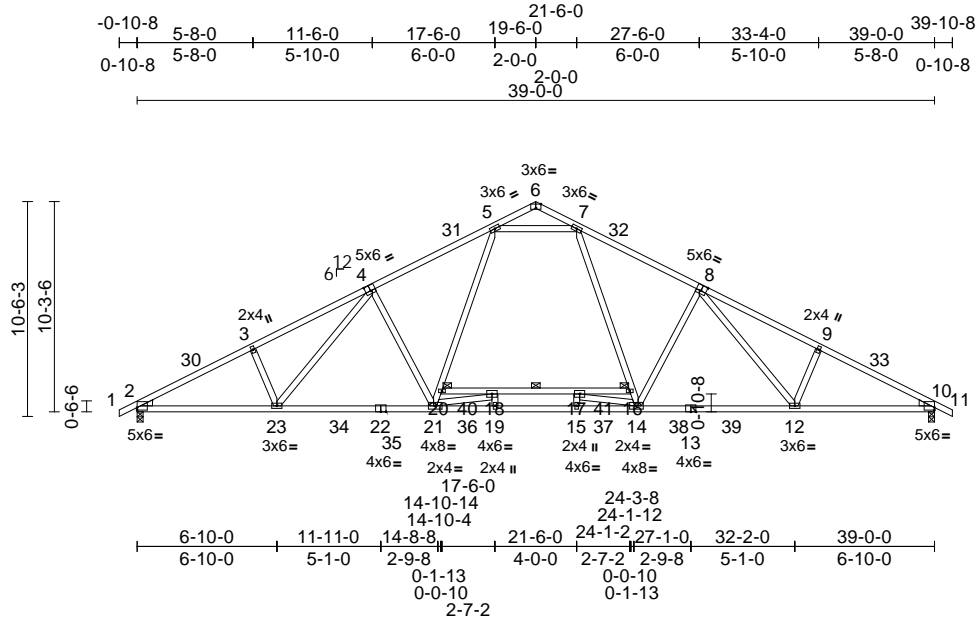
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss B1M	Truss Type Common	Qty 7	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010832
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:17  
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Page: 1



Scale = 1:96.8  
Plate Offsets (X, Y): [2:Edge,0-1-8], [4:0-3-0,0-3-4], [6:0-3-0,Edge], [8:0-3-0,0-3-4], [10:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.32	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.51	12-14	>909	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.13	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 235 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP DSS  
BOT CHORD 2x4 SP DSS \*Except\* 20-16:2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
23-4,21-4,21-5,14-7,14-8,12-8:2x4 SP No.2  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or  
3-5-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 5-4-6 oc  
bracing.

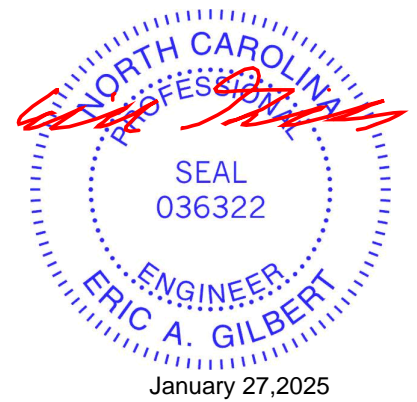
**REACTIONS** (size) 2=0-3-8, 10=0-3-8  
Max Horiz 2=170 (LC 16)  
Max Uplift 2=-290 (LC 16), 10=-290 (LC 17)  
Max Grav 2=1781 (LC 3), 10=1781 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 1-2=0/23, 2-3=-3281/488, 3-5=-3160/532,  
5-6=-91/61, 6-7=-91/61, 7-9=-3160/533,  
9-10=-3281/489, 10-11=0/23  
BOT CHORD 2-23=-521/2856, 21-23=-372/2578,  
19-21=-53/2906, 15-19=-53/2906,  
14-15=-53/2906, 12-14=-237/2578,  
10-12=-352/2856, 18-20=-167/72,  
17-18=-1055/0, 16-17=-167/72  
WEBS 3-23=-234/163, 4-23=-145/418,  
4-21=-610/307, 20-21=-152/940,  
5-20=-172/1007, 7-16=-172/1007,  
14-16=-152/940, 8-14=-610/307,  
8-12=-146/418, 9-12=-234/163,  
5-7=-2033/451, 18-19=0/100, 18-21=-1042/0,  
15-17=0/100, 14-17=-1042/0

- Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat.  
II; Exp B; Enclosed; MWFRS (envelope) exterior zone  
and C-C Exterior (2) -0-10-8 to 3-0-5, Interior (1) 3-0-5 to  
19-6-0, Exterior (2) 19-6-0 to 23-4-13, Interior (1)  
23-4-13 to 39-10-8 zone;C-C for members and forces &  
MWFRS for reactions shown; Lumber DOL=1.60 plate  
grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15  
Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7  
psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15);  
Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this  
design.
- This truss has been designed for greater of min roof live  
load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on  
overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for  
verifying Rain Load = 5.0 (psf) covers rain loading  
requirements specific to the use of this truss component.
- 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 .
- Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 290 lb uplift at joint  
2 and 290 lb uplift at joint 10.
- ATTIC SPACE SHOWN IS DESIGNED AS  
UNINHABITABLE.

LOAD CASE(S) Standard

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



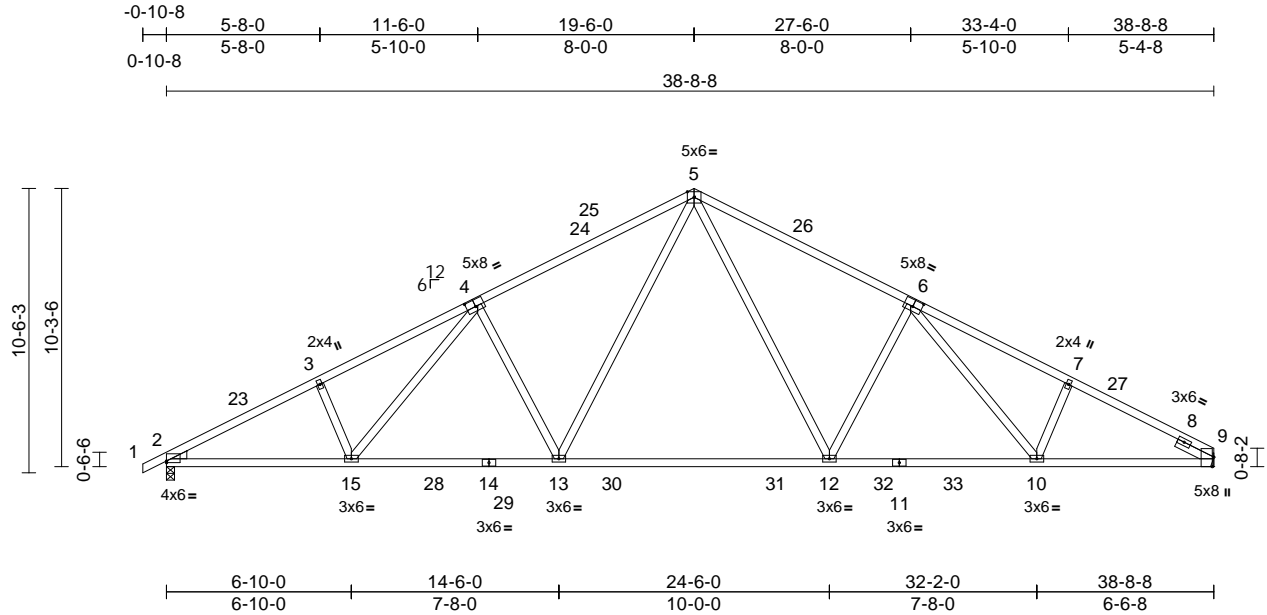


Job 2500391-21340	Truss B2	Truss Type Common	Qty 6	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010833
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:17  
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Page: 1



Scale = 1:77.3

Plate Offsets (X, Y): [2:Edge,0-0-12], [4:0-4-0,0-3-0], [6:0-4-0,0-3-0], [9:0-4-4,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.31	12-13	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.56	12-13	>830	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.10	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 209 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP DSS  
BOT CHORD 2x4 SP DSS  
WEBS 2x4 SP No.2 \*Except\* 3-15,7-10:2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
SLIDER Right 2x4 SP No.3 -- 1-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-7-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 9-0-15 oc bracing.

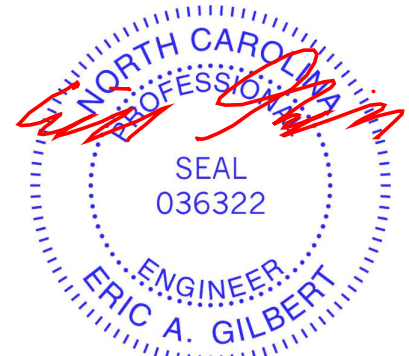
**REACTIONS** (size) 2=0-3-8, 9= Mechanical  
Max Horiz 2=180 (LC 16)  
Max Uplift 2=-317 (LC 16), 9=-296 (LC 17)  
Max Grav 2=1601 (LC 2), 9=1548 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/23, 2-3=-2837/539, 3-5=-2708/583, 5-7=-2591/570, 7-9=-2697/530  
BOT CHORD 2-15=-576/2452, 13-15=-443/2189, 12-13=-183/1553, 10-12=-308/2160, 9-10=-396/2331  
WEBS 3-15=-220/153, 4-15=-125/389, 4-13=-610/315, 5-13=-249/902, 5-12=-243/877, 6-12=-580/309, 6-10=-105/295, 7-10=-160/136

- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 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 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 317 lb uplift at joint 2 and 296 lb uplift at joint 9.

**LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-11-15, Interior (1) 2-11-15 to 19-6-0, Exterior (2) 19-6-0 to 23-4-7, Interior (1) 23-4-7 to 38-8-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



January 27, 2025

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

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



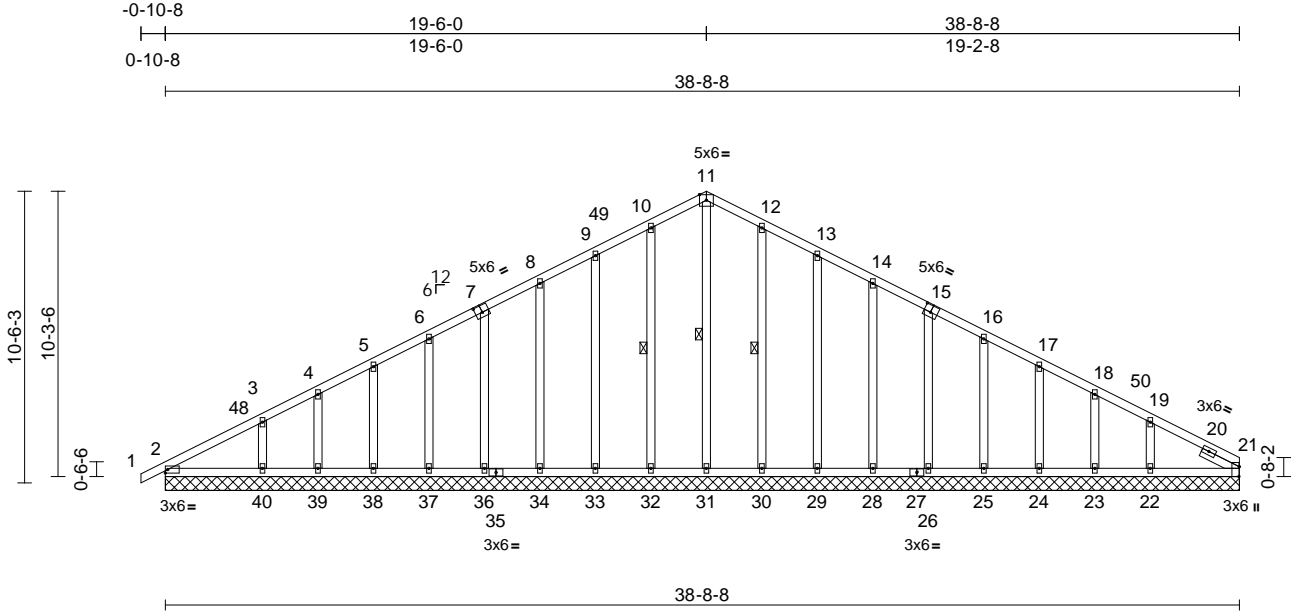
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss B2E	Truss Type Common Supported Gable	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010834
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:18  
ID:XO2b6bpS6PI37SwzMVj3HzrDI3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:75.2  
Plate Offsets (X, Y): [7:0-3-0,0-3-0], [15:0-3-0,0-3-0], [21:0-4-4,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	21	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 265 lb	FT = 20%

LUMBER	Max Grav	2=197 (LC 2), 21=129 (LC 2), 22=256 (LC 35), 23=125 (LC 2), 24=170 (LC 35), 25=151 (LC 2), 26=160 (LC 35), 28=166 (LC 2), 29=158 (LC 2), 30=167 (LC 35), 31=186 (LC 33), 32=167 (LC 34), 33=158 (LC 2), 34=166 (LC 2), 36=160 (LC 34), 37=151 (LC 2), 38=172 (LC 34), 39=118 (LC 2), 40=268 (LC 34)	1) Unbalanced roof live loads have been considered for this design.
TOP CHORD	2x4 SP No.2		2) Wind: ASCE 7-10; Vult=130mph (3-second gust)
BOT CHORD	2x4 SP No.2		Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-10-8 to 2-11-15, Exterior (2) 2-11-15 to 19-6-0, Corner (3) 19-6-0 to 23-6-0, Exterior (2) 23-6-0 to 38-8-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
OTHERS	2x4 SP No.3 *Except* 31-11,32-10,33-9,34-8,30-12,29-13,28-14:2x4 SP No.2		3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
SLIDER	Right 2x4 SP No.3 -- 1-6-0		4) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
BRACING			5) Unbalanced snow loads have been considered for this design.
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.		
WEBS	1 Row at midpt	11-31, 10-32, 12-30	
REACTIONS (size)	2=38-8-8, 21=38-8-8, 22=38-8-8, 23=38-8-8, 24=38-8-8, 25=38-8-8, 26=38-8-8, 28=38-8-8, 29=38-8-8, 30=38-8-8, 31=38-8-8, 32=38-8-8, 33=38-8-8, 34=38-8-8, 36=38-8-8, 37=38-8-8, 38=38-8-8, 39=38-8-8, 40=38-8-8		
Max Horiz	2=180 (LC 16)		
Max Uplift	2=-31 (LC 17), 22=-128 (LC 17), 23=-35 (LC 17), 24=-68 (LC 17), 25=-54 (LC 17), 26=-61 (LC 17), 28=-63 (LC 17), 29=-64 (LC 17), 30=-54 (LC 17), 32=-57 (LC 16), 33=-63 (LC 16), 34=-63 (LC 16), 36=-61 (LC 16), 37=-54 (LC 16), 38=-68 (LC 16), 39=-33 (LC 16), 40=-129 (LC 16)		
FORCES	(lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=0/23, 2-3=-194/77, 3-4=-145/87, 4-5=-118/109, 5-6=-96/134, 6-8=-86/206, 8-9=-103/255, 9-10=-120/305, 10-11=-136/347, 11-12=-136/351, 12-13=-120/310, 13-14=-103/259, 14-16=-86/210, 16-17=-69/120, 17-18=-69/69, 18-19=-94/33, 19-21=-122/28		
BOT CHORD	2-40=-128/135, 39-40=-21/135, 38-39=-21/135, 37-38=-21/135, 36-37=-21/135, 34-36=-23/136, 33-34=-23/136, 32-33=-23/136, 31-32=-23/136, 30-31=-23/136, 29-30=-23/136, 28-29=-23/136, 26-28=-23/136, 25-26=-21/134, 24-25=-21/134, 23-24=-21/134, 22-23=-21/134, 21-22=-21/134		
WEBS	11-31=-209/43, 10-32=-127/140, 9-33=-118/119, 8-34=-126/86, 7-36=-119/83, 6-37=-112/77, 5-38=-127/91, 4-39=-95/64, 3-40=-188/181, 12-30=-127/140, 13-29=-118/119, 14-28=-126/85, 15-26=-119/83, 16-25=-112/77, 17-24=-126/90, 18-23=-101/66, 19-22=-175/206		

NOTES



January 27, 2025

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
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	Truss	Truss Type	Qty	Ply	CC2724 CP Granville	I71010834
2500391-21340	B2E	Common Supported Gable	1	1	Job Reference (optional)	

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:18  
 ID:XO2b6bpS6PI37SwzMVj3HozrDI3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 2

- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 8) All plates are 2x4 (||) MT20 unless otherwise indicated.
- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 2-0-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) All bearings are assumed to be SP No.2 .
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 2, 57 lb uplift at joint 32, 63 lb uplift at joint 33, 63 lb uplift at joint 34, 61 lb uplift at joint 36, 54 lb uplift at joint 37, 68 lb uplift at joint 38, 33 lb uplift at joint 39, 129 lb uplift at joint 40, 54 lb uplift at joint 30, 64 lb uplift at joint 29, 63 lb uplift at joint 28, 61 lb uplift at joint 26, 54 lb uplift at joint 25, 68 lb uplift at joint 24, 35 lb uplift at joint 23, 128 lb uplift at joint 22 and 31 lb uplift at joint 2.

**LOAD CASE(S)** Standard

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

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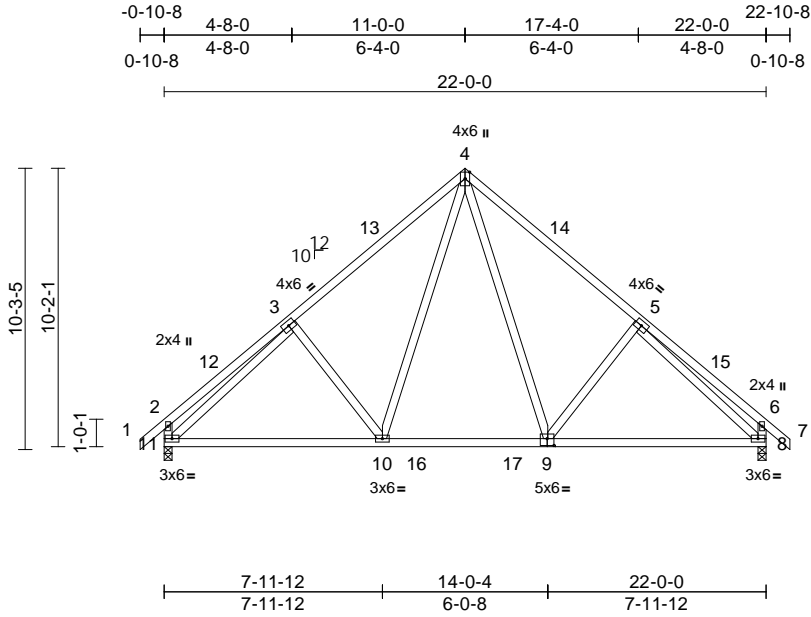
818 Soundside Road  
 Edenton, NC 27932

Job 2500391-21340	Truss C1	Truss Type Common	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010835
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:18  
ID:uNuMAfykcvFxz7nCcNDsBXzrDcX-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:76.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.10	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.21	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 144 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* 9-4,10-4:2x4 SP No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-0-2 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 8=0-3-8, 11=0-3-8  
 Max Horiz 11=273 (LC 13)  
 Max Uplift 8=-164 (LC 15), 11=-164 (LC 14)  
 Max Grav 8=930 (LC 2), 11=930 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/39, 2-3=-284/110, 3-4=-885/283, 4-5=-884/282, 5-6=-284/110, 6-7=0/39, 2-11=-298/142, 6-8=-298/142  
 BOT CHORD 10-11=-206/850, 8-10=-76/702  
 WEBS 4-9=-163/413, 5-9=-275/253, 4-10=-163/413, 3-10=-275/253, 3-11=-809/123, 5-8=-808/123

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-0-0, Exterior (2) 11-0-0 to 14-0-0, Interior (1) 14-0-0 to 22-10-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 11 and 164 lb uplift at joint 8.

**LOAD CASE(S)** Standard



January 27, 2025

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

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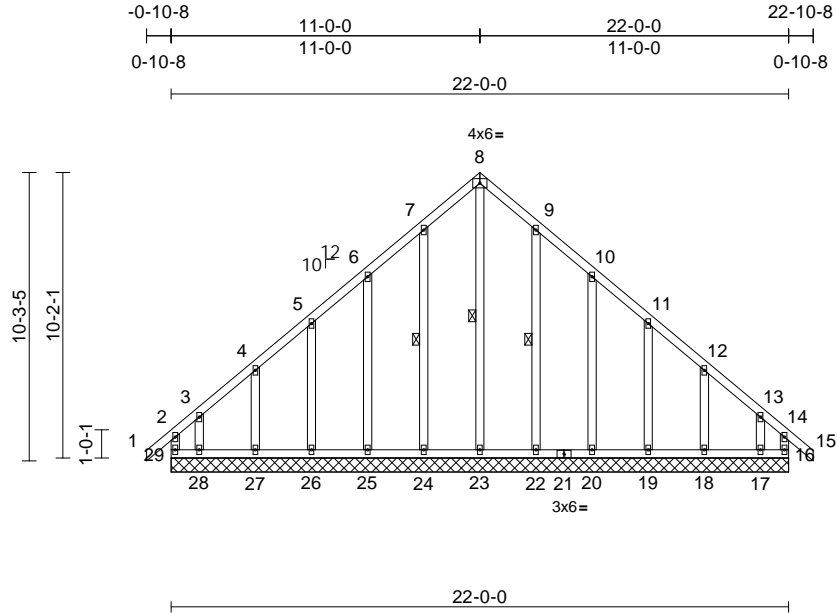
818 Soundside Road  
 Edenton, NC 27932

Job 2500391-21340	Truss C1E	Truss Type Common Supported Gable	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010836
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:18  
ID:BGtsngSSyVQ7OQQ4WUStLbZrDbu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC?f

Page: 1



Scale = 1:74.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	244/190	
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	16	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 164 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 \*Except\*  
23-8,24-7,25-6,22-9,20-10:2x4 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 6-0-0 oc bracing.  
WEBS 1 Row at midpt 8-23, 7-24, 9-22

**REACTIONS** (size)  
16=22-0-0, 17=22-0-0, 18=22-0-0, 19=22-0-0, 20=22-0-0, 22=22-0-0, 23=22-0-0, 24=22-0-0, 25=22-0-0, 26=22-0-0, 27=22-0-0, 28=22-0-0, 29=22-0-0  
Max Horiz 29=273 (LC 13)  
Max Uplift 16=139 (LC 11), 17=221 (LC 15), 18=87 (LC 15), 19=96 (LC 15), 20=100 (LC 15), 22=86 (LC 15), 24=87 (LC 14), 25=100 (LC 14), 26=96 (LC 14), 27=86 (LC 14), 28=241 (LC 14), 29=205 (LC 12)  
Max Grav 16=221 (LC 10), 17=209 (LC 13), 18=177 (LC 27), 19=175 (LC 27), 20=175 (LC 27), 22=183 (LC 27), 23=282 (LC 15), 24=185 (LC 26), 25=174 (LC 26), 26=176 (LC 26), 27=175 (LC 26), 28=248 (LC 12), 29=284 (LC 11)

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

**TOP CHORD**  
2-29=198/145, 1-2=0/39, 2-3=-242/216, 3-4=-155/155, 4-5=-134/138, 5-6=-120/171, 6-7=-189/226, 7-8=-250/297, 8-9=-250/297, 9-10=-189/226, 10-11=-120/147, 11-12=-90/101, 12-13=-112/110, 13-14=-204/158, 14-15=0/39, 14-16=-162/100  
**BOT CHORD**  
28-29=-124/150, 27-28=-124/150, 26-27=-124/150, 25-26=-124/150, 24-25=-124/150, 23-24=-124/150, 22-23=-124/150, 20-22=-124/150, 19-20=-124/150, 18-19=-124/150, 17-18=-124/150, 16-17=-124/150  
**WEBS**  
8-23=-312/199, 7-24=-144/99, 6-25=-148/112, 5-26=-141/106, 4-27=-146/107, 3-28=-150/160, 9-22=-142/98, 10-20=-148/113, 11-19=-141/106, 12-18=-147/107, 13-17=-156/150

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-10-8 to 2-1-8, Exterior (2) 2-1-8 to 11-0-0, Corner (3) 11-0-0 to 14-0-0, Exterior (2) 14-0-0 to 22-10-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 (||) MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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 .



January 27, 2025

Continued on page 2

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CC2724 CP Granville	I71010836
2500391-21340	C1E	Common Supported Gable	1	1	Job Reference (optional)	

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:18  
ID:BGtsngSSyVQ7OQQ4WUSTLBzrDbu-RC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 2

- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 205 lb uplift at joint 29, 139 lb uplift at joint 16, 87 lb uplift at joint 24, 100 lb uplift at joint 25, 96 lb uplift at joint 26, 86 lb uplift at joint 27, 241 lb uplift at joint 28, 86 lb uplift at joint 22, 100 lb uplift at joint 20, 96 lb uplift at joint 19, 87 lb uplift at joint 18 and 221 lb uplift at joint 17.

**LOAD CASE(S)** Standard

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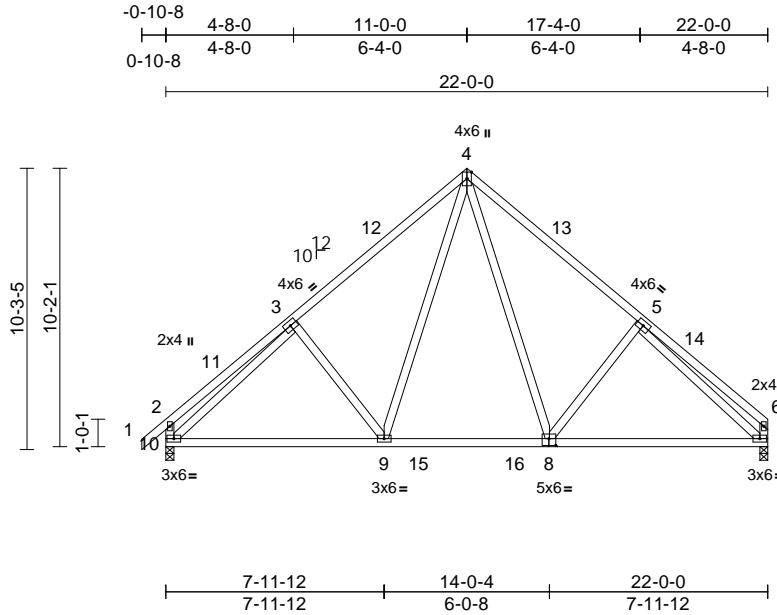
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss C2	Truss Type Common	Qty 5	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010837
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:19  
ID:cf8G686KF5DSskYThqQ8XazrDb2-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:76.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.10	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.21	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 143 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* 8-4,9-4:2x4 SP No.2

**BRACING**

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

**REACTIONS**

(size) 7=0-3-8, 10=0-3-8  
 Max Horiz 10=254 (LC 11)  
 Max Uplift 7=-142 (LC 15), 10=-164 (LC 14)  
 Max Grav 7=867 (LC 2), 10=931 (LC 2)

**FORCES**

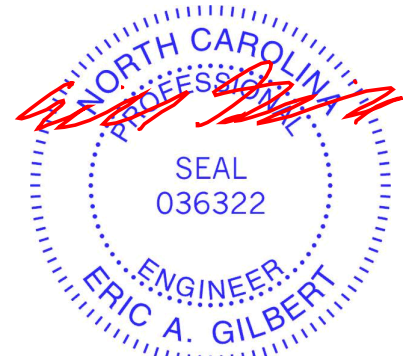
(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/39, 2-3=-283/110, 3-4=-887/282, 4-5=-889/288, 5-6=-246/99, 2-10=-298/142, 6-7=-221/90  
 BOT CHORD 9-10=-235/835, 7-9=-105/709  
 WEBS 4-8=-164/417, 5-8=-278/255, 4-9=-163/413, 3-9=-275/253, 3-10=-810/124, 5-7=-816/151

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-0-0, Exterior (2) 11-0-0 to 14-0-0, Interior (1) 14-0-0 to 21-10-4 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 10 and 142 lb uplift at joint 7.

**LOAD CASE(S)** Standard



January 27, 2025

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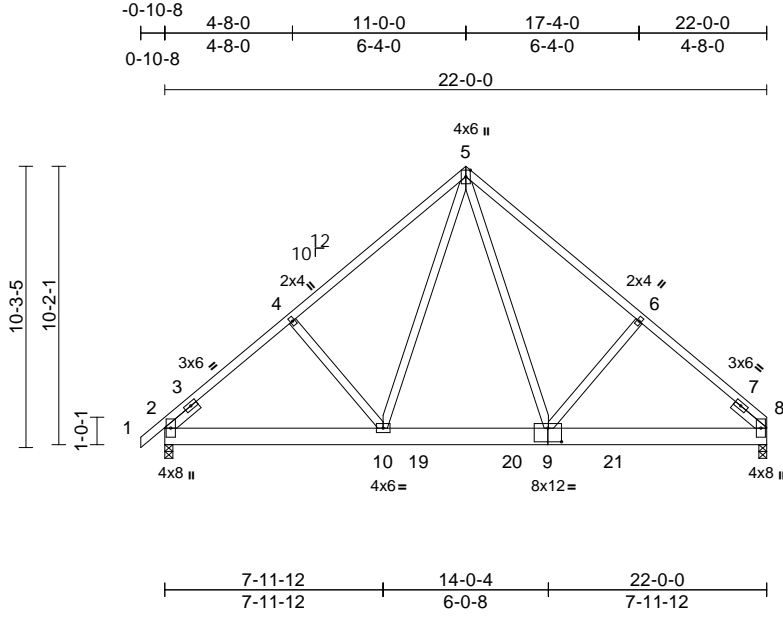
818 Soundside Road  
 Edenton, NC 27932

Job 2500391-21340	Truss C2G	Truss Type Common Girder	Qty 1	Ply 2	CC2724 CP Granville Job Reference (optional)	I71010838
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:19  
ID:SHtZvc5QLIDOK3Bij9jZzrDZ2-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRCDoi7J4zJC?F

Page: 1



Scale = 1:76.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	0.03	9-13	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.07	9-13	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.16	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 322 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP DSS  
WEBS 2x4 SP No.3 \*Except\* 10-5,9-5:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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

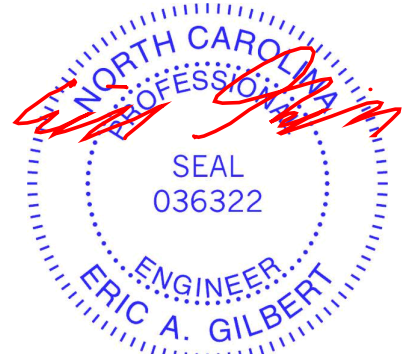
**REACTIONS** (size) 2=0-3-8, 8=0-3-8  
Max Horiz 2=239 (LC 7)  
Max Uplift 2=-232 (LC 10), 8=-345 (LC 11)  
Max Grav 2=1196 (LC 2), 8=1650 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/34, 2-4=-1352/300, 4-5=-1258/352, 5-6=-1701/467, 6-8=-1711/413  
BOT CHORD 2-10=-305/1158, 8-10=-266/1380  
WEBS 4-10=-306/256, 5-10=-115/235, 5-9=-410/1389, 6-9=-322/260

**NOTES**  
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.  
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.  
3) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 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 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 345 lb uplift at joint 8 and 232 lb uplift at joint 2.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1040 lb down and 267 lb up at 16-5-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-5=-35, 5-8=-35, 11-15=-20  
Concentrated Loads (lb)  
Vert: 21=-716 (F)



January 27, 2025

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818 Soundside Road  
Edenton, NC 27932

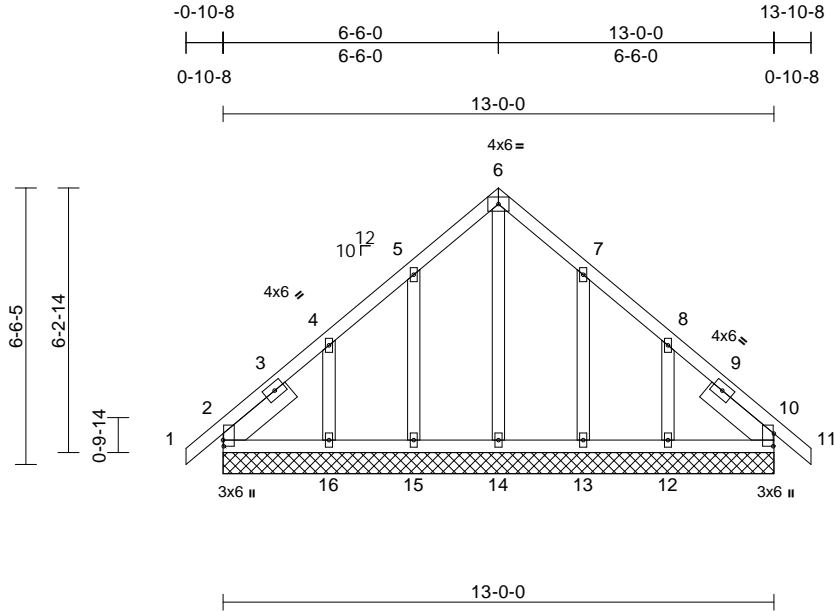


Job 2500391-21340	Truss D1E	Truss Type Common Supported Gable	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010839
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:19  
ID:NVG01FdAw9k06PpEbovgZrDi7-RfC?PsB70Hq3NSgPqnL8w3uTxbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:48  
Plate Offsets (X, Y): [2:0-1-12,0-0-3], [10:0-3-9,0-0-3]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 85 lb	FT = 20%

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

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

**REACTIONS** (size) 2=13-0-0, 10=13-0-0, 12=13-0-0, 13=13-0-0, 14=13-0-0, 15=13-0-0, 16=13-0-0  
Max Horiz 2=152 (LC 12)  
Max Uplift 2=-38 (LC 10), 10=-9 (LC 11), 12=-149 (LC 15), 13=-81 (LC 15), 15=-80 (LC 14), 16=-154 (LC 14)  
Max Grav 2=196 (LC 27), 10=185 (LC 2), 12=219 (LC 27), 13=169 (LC 27), 14=143 (LC 29), 15=168 (LC 26), 16=226 (LC 26)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/34, 2-4=-116/96, 4-5=-119/101, 5-6=-165/159, 6-7=-166/159, 7-8=-103/81, 8-10=-86/54, 10-11=0/34  
BOT CHORD 2-16=-45/109, 15-16=-45/109, 14-15=-45/109, 13-14=-45/109, 12-13=-45/109, 10-12=-45/109  
WEBS 6-14=-141/94, 5-15=-139/101, 4-16=-181/142, 7-13=-139/100, 8-12=-183/139

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

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-10-8 to 2-1-8, Exterior (2) 2-1-8 to 6-6-0, Corner (3) 6-6-0 to 9-6-0, Exterior (2) 9-6-0 to 13-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 (||) MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 2, 9 lb uplift at joint 10, 80 lb uplift at joint 15, 154 lb uplift at joint 16, 81 lb uplift at joint 13, 149 lb uplift at joint 12, 38 lb uplift at joint 2 and 9 lb uplift at joint 10.

**LOAD CASE(S)** Standard



January 27, 2025

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

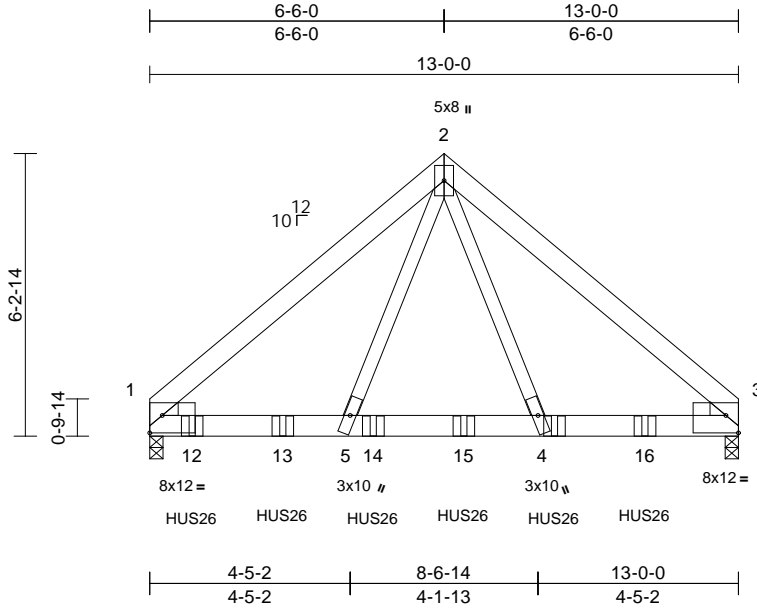
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss D1G	Truss Type Common Girder	Qty 1	Ply 2	CC2724 CP Granville Job Reference (optional)	I71010840
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:19  
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Page: 1



Scale = 1:46.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.05	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.09	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.02	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0											
											Weight: 179 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=0-3-8, 3=0-3-8  
Max Horiz 1=134 (LC 7)  
Max Uplift 1=-1077 (LC 10), 3=-908 (LC 11)  
Max Grav 1=5532 (LC 2), 3=4675 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-5700/1151, 2-3=-5638/1134  
BOT CHORD 1-5=-834/4327, 4-5=-565/3010,  
3-4=-793/4251  
WEBS 2-5=-759/3742, 2-4=-718/3530

**NOTES**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 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=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 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 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1077 lb uplift at joint 1 and 908 lb uplift at joint 3.
- Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-11-4 from the left end to 10-11-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-35, 2-3=-35, 6-9=-20  
Concentrated Loads (lb)  
Vert: 4=-1052 (B), 12=-1052 (B), 13=-1052 (B),  
14=-1052 (B), 15=-1052 (B), 16=-1052 (B)



January 27, 2025

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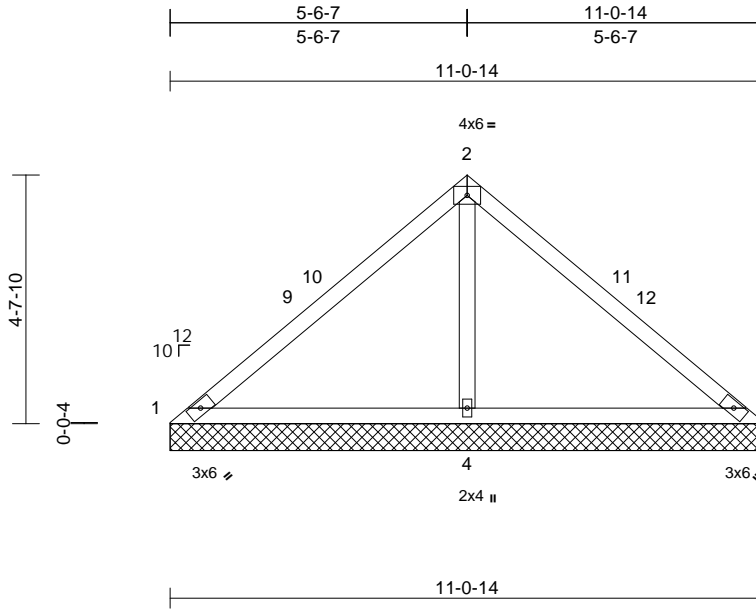
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss DV1	Truss Type Valley	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010841
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:38.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.33	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 42 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 10-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS**

(size) 1=11-0-14, 3=11-0-14, 4=11-0-14  
Max Horiz 1=-110 (LC 10)  
Max Uplift 1=-50 (LC 30), 3=-50 (LC 29),  
4=-231 (LC 14)  
Max Grav 1=61 (LC 29), 3=61 (LC 30), 4=869 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-147/391, 2-3=-146/391  
BOT CHORD 1-4=-317/184, 3-4=-317/184  
WEBS 2-4=-679/273

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-6-12, Exterior (2) 5-6-12 to 8-6-12, Interior (1) 8-6-12 to 11-1-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - 5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Gable studs spaced at 4-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 10) All bearings are assumed to be SP No.2 .
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 1, 50 lb uplift at joint 3 and 231 lb uplift at joint 4.
- LOAD CASE(S)** Standard



January 27, 2025

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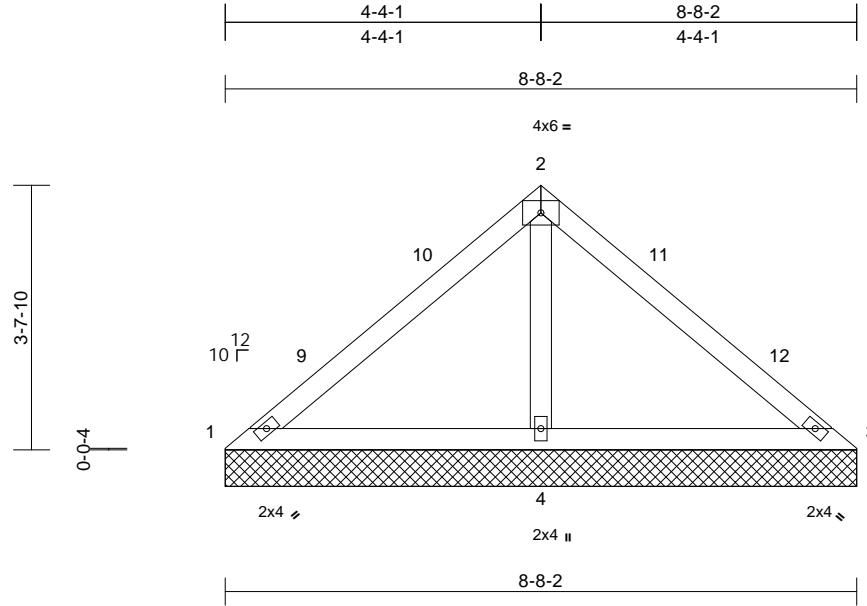
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss DV2	Truss Type Valley	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010842
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:20  
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Page: 1



Scale = 1:23.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 33 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 8-8-2 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS**

(size) 1=8-8-2, 3=8-8-2, 4=8-8-2  
Max Horiz 1=-85 (LC 10)  
Max Uplift 1=-25 (LC 30), 3=-25 (LC 29),  
4=-171 (LC 14)  
Max Grav 1=61 (LC 29), 3=61 (LC 30), 4=647 (LC 2)

**FORCES**

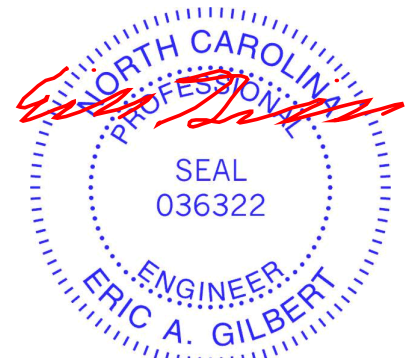
(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-117/270, 2-3=-116/270  
BOT CHORD 1-4=-245/159, 3-4=-245/159  
WEBS 2-4=-478/206

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 4-4-6, Exterior (2) 4-4-6 to 7-4-6, Interior (1) 7-4-6 to 8-8-6 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
  - Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
  - 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 .
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1, 25 lb uplift at joint 3 and 171 lb uplift at joint 4.
- LOAD CASE(S)** Standard



January 27, 2025

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

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



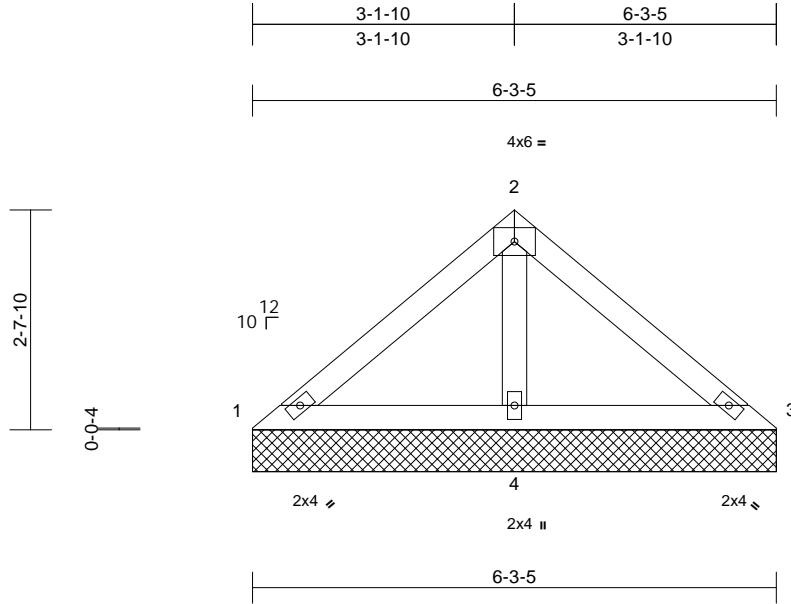
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss DV3	Truss Type Valley	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	171010843
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:20  
ID:7QaUI6UC31J4kgEK8S6ssDzrDjb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwrcDoi7J4zJC7f

Page: 1



Scale = 1:19.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 23 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 6-3-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS

(size) 1=6-3-5, 3=6-3-5, 4=6-3-5  
Max Horiz 1=-60 (LC 12)  
Max Uplift 3=-7 (LC 10), 4=-96 (LC 14)  
Max Grav 1=67 (LC 29), 3=67 (LC 30), 4=407 (LC 2)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-56/147, 2-3=-56/144  
BOT CHORD 1-4=-134/98, 3-4=-134/98  
WEBS 2-4=-275/116

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 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 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 3 and 96 lb uplift at joint 4.

LOAD CASE(S) Standard



January 27, 2025

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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

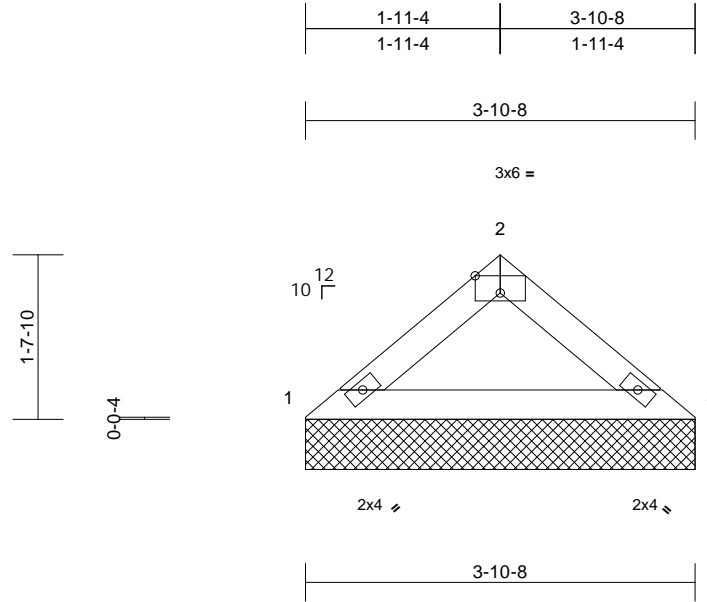
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss DV4	Truss Type Valley	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010844
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:20  
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Page: 1



Scale = 1:15.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 1=3-10-8, 3=3-10-8  
Max Horiz 1=-36 (LC 10)  
Max Uplift 1=-27 (LC 14), 3=-27 (LC 15)  
Max Grav 1=155 (LC 2), 3=155 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-207/61, 2-3=-207/61  
BOT CHORD 1-3=-39/162

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 6) Gable requires continuous bottom chord bearing.

- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1 and 27 lb uplift at joint 3.

**LOAD CASE(S)** Standard



January 27, 2025

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

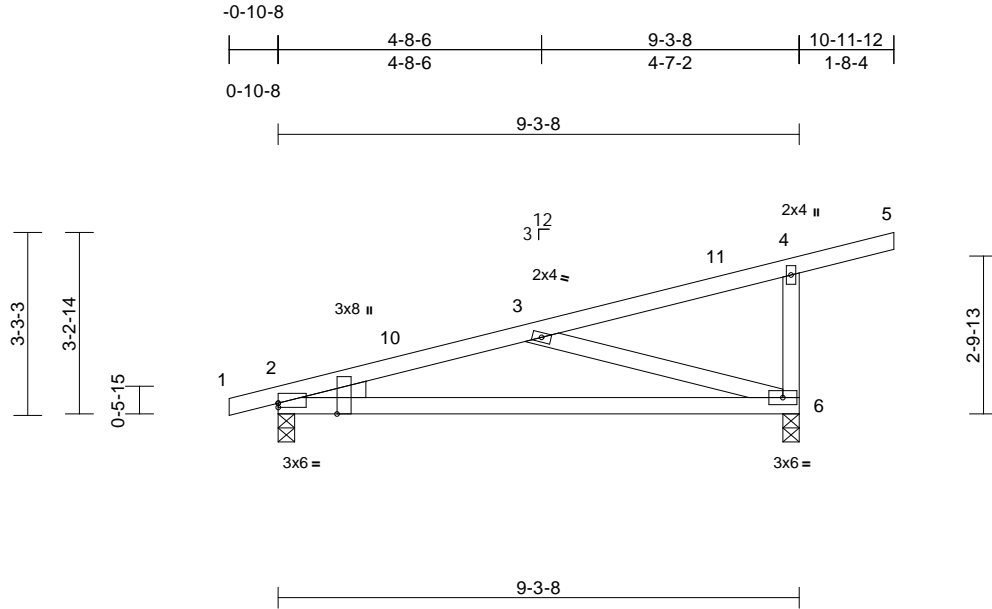
818 Soundside Road  
Edenton, NC 27932

Job 2500391-21340	Truss M1	Truss Type Monopitch	Qty 3	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010845
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:20  
ID:Uhut9pJDPngYKmbQn74v7zrCkY-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:35.4

Plate Offsets (X, Y): [2:Edge,0-0-14], [2:0-2-5,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.11	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.22	6-9	>501	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.01	6	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  
 WEBS 2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 2=0-3-8, 6=0-3-8  
 Max Horiz 2=115 (LC 12)  
 Max Uplift 2=-109 (LC 12), 6=-154 (LC 16)  
 Max Grav 2=410 (LC 2), 6=484 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

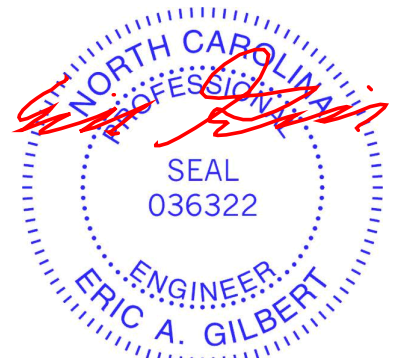
TOP CHORD 1-2=0/13, 2-3=-649/145, 3-4=-78/7,  
 4-5=-27/0, 4-6=-245/178  
 BOT CHORD 2-6=-212/630  
 WEBS 3-6=-626/219

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 10-11-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 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 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 2 and 154 lb uplift at joint 6.

**LOAD CASE(S)** Standard



January 27, 2025

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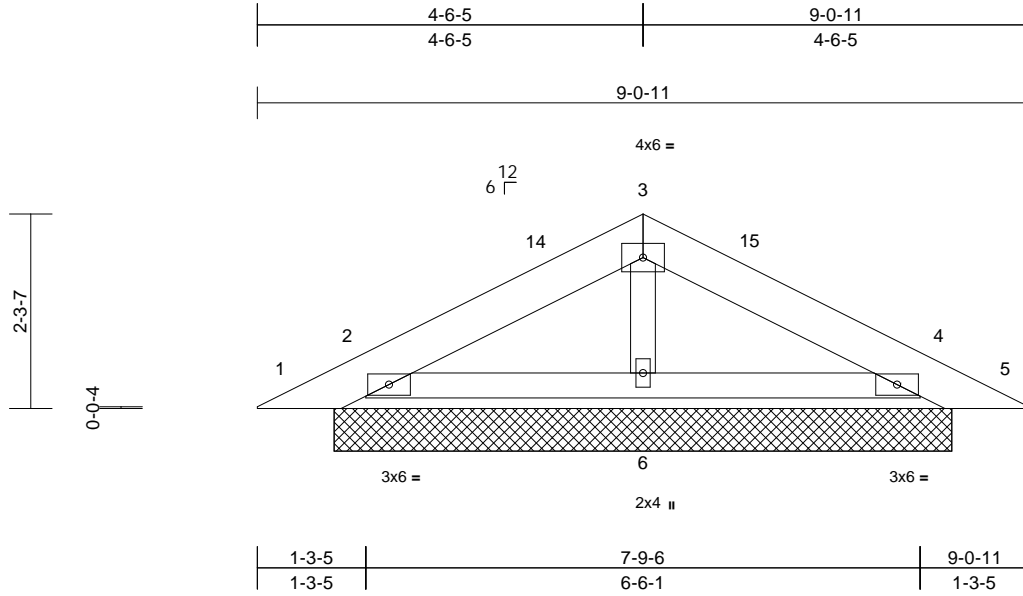
818 Soundside Road  
 Edenton, NC 27932

Job 2500391-21340	Truss PB1	Truss Type Piggyback	Qty 1	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010846
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:21  
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Page: 1



Scale = 1:19.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.07	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-MS								
BCDL	10.0										Weight: 35 lb	FT = 20%

**LUMBER**

TOP CHORD 2x6 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 1=7-3-0, 2=7-3-0, 4=7-3-0, 5=7-3-0, 6=7-3-0  
Max Horiz 1=-34 (LC 17)  
Max Uplift 1=-58 (LC 34), 2=-98 (LC 16), 4=-94 (LC 17), 5=-56 (LC 35), 6=-16 (LC 16)  
Max Grav 1=40 (LC 16), 2=291 (LC 34), 4=276 (LC 35), 5=26 (LC 17), 6=205 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

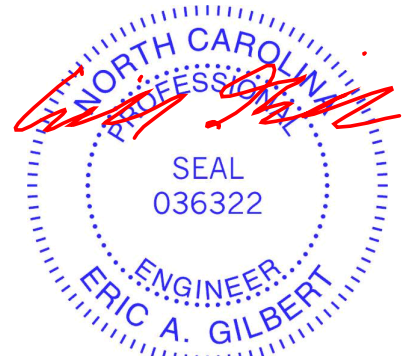
TOP CHORD 1-2=-47/71, 2-3=-75/69, 3-4=-76/71, 4-5=-17/54  
BOT CHORD 2-6=-23/45, 4-6=-23/45  
WEBS 3-6=-135/45

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-6-6 to 3-6-6, Interior (1) 3-6-6 to 4-6-13, Exterior (2) 4-6-13 to 7-3-6, Interior (1) 7-3-6 to 8-7-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 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 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 1, 56 lb uplift at joint 5, 98 lb uplift at joint 2, 94 lb uplift at joint 4, 16 lb uplift at joint 6, 98 lb uplift at joint 2 and 94 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



January 27, 2025

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818 Soundside Road  
Edenton, NC 27932

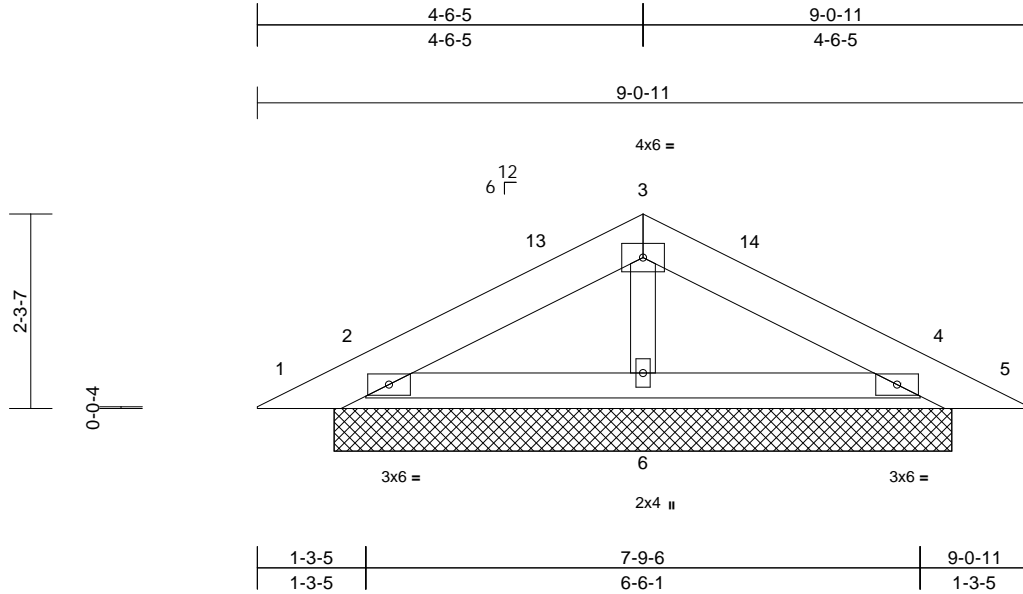


Job 2500391-21340	Truss PB2	Truss Type Piggyback	Qty 6	Ply 1	CC2724 CP Granville Job Reference (optional)	I71010847
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Jan 27 08:50:21  
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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	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	0.07	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-MS								
BCDL	10.0											
											Weight: 35 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

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

**REACTIONS** (size) 1=7-3-0, 2=7-3-0, 4=7-3-0, 5=7-3-0, 6=7-3-0  
 Max Horiz 1=-34 (LC 17)  
 Max Uplift 1=-58 (LC 34), 2=-98 (LC 16), 4=-94 (LC 17), 5=-56 (LC 35), 6=-16 (LC 16)  
 Max Grav 1=40 (LC 16), 2=291 (LC 34), 4=276 (LC 35), 5=26 (LC 17), 6=205 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-47/71, 2-3=-75/69, 3-4=-76/71, 4-5=-17/54  
 BOT CHORD 2-6=-23/45, 4-6=-23/45  
 WEBS 3-6=-135/45

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-6-6 to 3-6-6, Interior (1) 3-6-6 to 4-6-13, Exterior (2) 4-6-13 to 7-3-6, Interior (1) 7-3-6 to 8-7-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf (ground snow); Pf=7.7 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 1, 56 lb uplift at joint 5, 98 lb uplift at joint 2, 94 lb uplift at joint 4, 16 lb uplift at joint 6, 98 lb uplift at joint 2 and 94 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



January 27, 2025

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

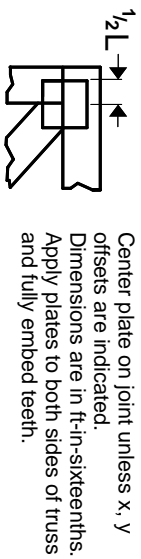
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



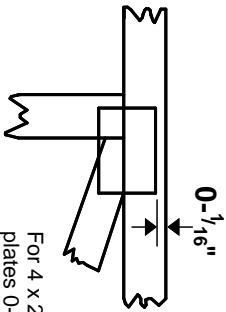
818 Soundside Road  
Edenton, NC 27932

# Symbols

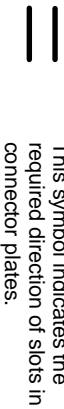
## PLATE LOCATION AND ORIENTATION



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

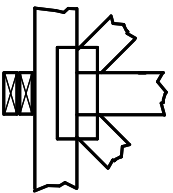
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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.

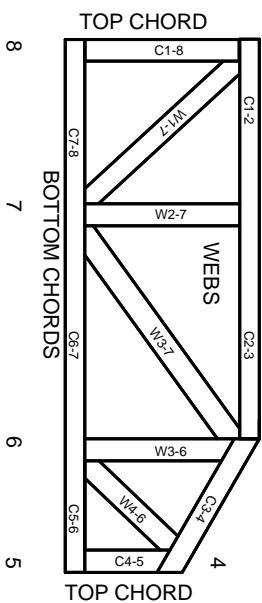
## Industry Standards:

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  
3 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.

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