

RE: 4600410
BONNET FLOOR - LOT 13 - ILA'S WAY

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: 4600410
Lot/Block: Model:
Address: Subdivision:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.8
Wind Code: Wind Speed: 120 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 13 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I71640883	F01	2/25/2025
2	I71640884	F02	2/25/2025
3	I71640885	F03	2/25/2025
4	I71640886	F04	2/25/2025
5	I71640887	F05	2/25/2025
6	I71640888	F06	2/25/2025
7	I71640889	F07	2/25/2025
8	I71640890	F08	2/25/2025
9	I71640891	F09	2/25/2025
10	I71640892	F09G	2/25/2025
11	I71640893	F10	2/25/2025
12	I71640894	F11	2/25/2025
13	I71640895	F12	2/25/2025

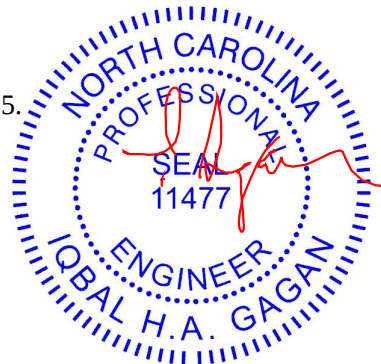
The truss drawing(s) referenced above have been prepared by
Truss Engineering Co. under my direct supervision
based on the parameters provided by Builders FirstSource (Albermarle,NC).

Truss Design Engineer's Name: Gagan, Iqbal

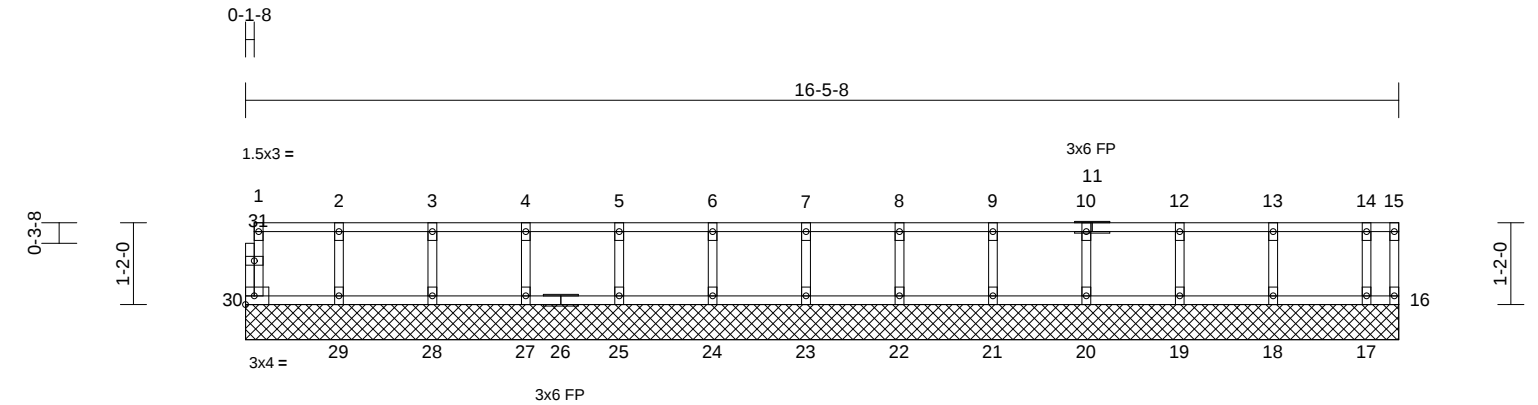
My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844

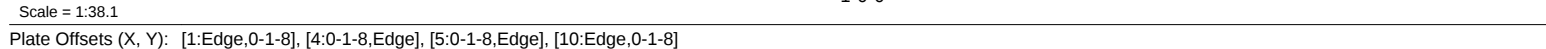
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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



Job	Truss	Truss Type	Qty	Ply	BONNET FLOOR - LOT 13 - ILA'S WAY
4600410	F01	Floor Supported Gable	1	1	I71640883
					Job Reference (optional)

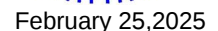


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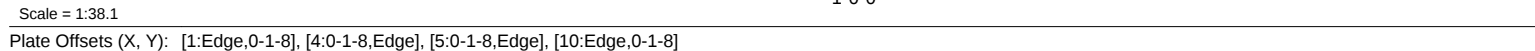


LUMBER	
TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat) *Except* 17-10:2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS	(size) 10= Mechanical, 20=0-3-8 Max Grav 10=891 (LC 1), 20=885 (LC 1)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-20=-880/0, 9-10=-884/0, 1-2=-1030/0, 2-3=-2494/0, 3-4=-3282/0, 4-5=-3425/0, 5-6=-3299/0, 6-8=-2492/0, 8-9=-1029/0
BOT CHORD	19-20=0/53, 18-19=0/1936, 16-18=0/3020, 15-16=0/3425, 14-15=0/3425, 13-14=0/3425, 12-13=0/3012, 11-12=0/1940, 10-11=0/0
WEBS	4-15=-206/195, 5-14=-232/307, 1-19=0/1248, 2-19=-1180/0, 2-18=0/726, 3-18=-686/0, 3-16=0/465, 4-16=-498/89, 9-11=0/1290, 8-11=-1187/0, 8-12=0/718, 6-12=-676/0, 6-13=0/511, 5-13=-582/116

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 3x4 (=) MT20 unless otherwise indicated.
- 4) Bearings are assumed to be: Joint 20 SP No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 7) CAUTION. Do not erect truss backwards.

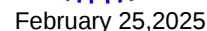


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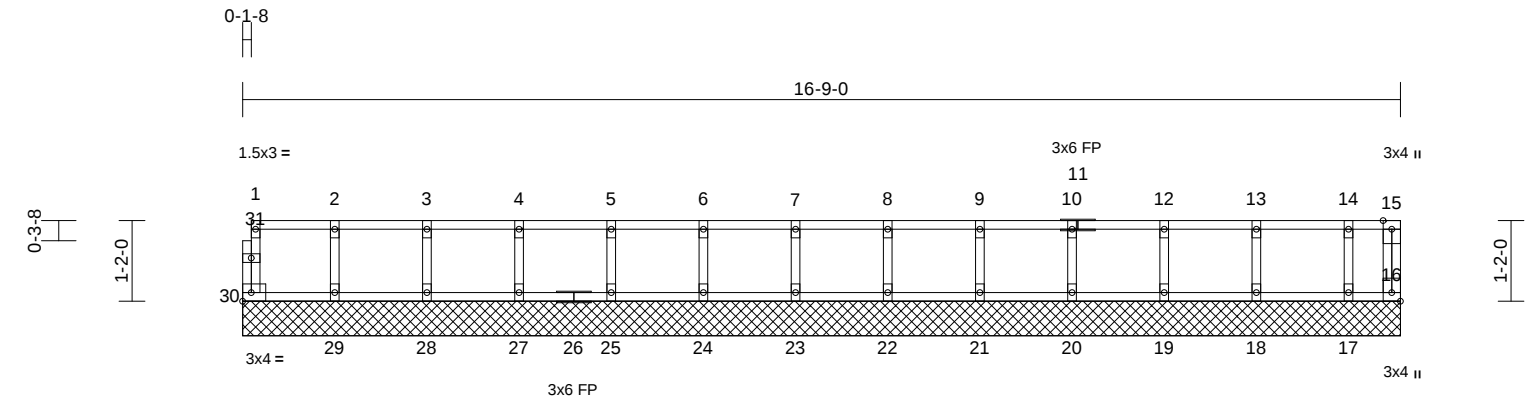


LUMBER		LOAD CASE(S)	Standard
TOP CHORD	2x4 SP No.2(flat)		
BOT CHORD	2x4 SP No.2(flat) *Except* 17-10:2x4 SP No.1(flat)		
WEBS	2x4 SP No.3(flat)		
OTHERS	2x4 SP No.3(flat)		
BRACING			
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.		
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.		
REACTIONS		(size)	10=0-3-8, 20=0-3-8
	Max Grav	10=907 (LC 1), 20=901 (LC 1)	
FORCES		(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-20=-896/0, 9-10=-900/0, 1-2=-1051/0, 2-3=-2553/0, 3-4=-3380/0, 4-5=-3553/0, 5-6=-3381/0, 6-8=-2554/0, 8-9=-1049/0		
BOT CHORD	19-20=0/54, 18-19=0/1977, 16-18=0/3097, 15-16=0/3553, 14-15=0/3553, 13-14=0/3553, 12-13=0/3097, 11-12=0/1979, 10-11=0/0		
WEBS	4-15=-195/223, 5-14=-196/223, 1-19=0/1273, 2-19=-1205/0, 2-18=0/750, 3-18=-708/0, 3-16=0/491, 4-16=-544/71, 9-11=0/1316, 8-11=-1211/0, 8-12=0/748, 6-12=-707/0, 6-13=0/491, 5-13=-544/72		

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 3x4 (=) MT20 unless otherwise indicated.
- 4) Bearings are assumed to be: Joint 20 SP No.2 , Joint 10 SP No.1 .
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION. Do not erect truss backwards.

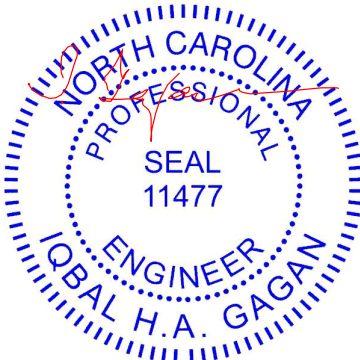


Job	Truss	Truss Type	Qty	Ply	BONNET FLOOR - LOT 13 - ILA'S WAY
4600410	F04	Floor Supported Gable	1	1	Job Reference (optional)
					I71640886



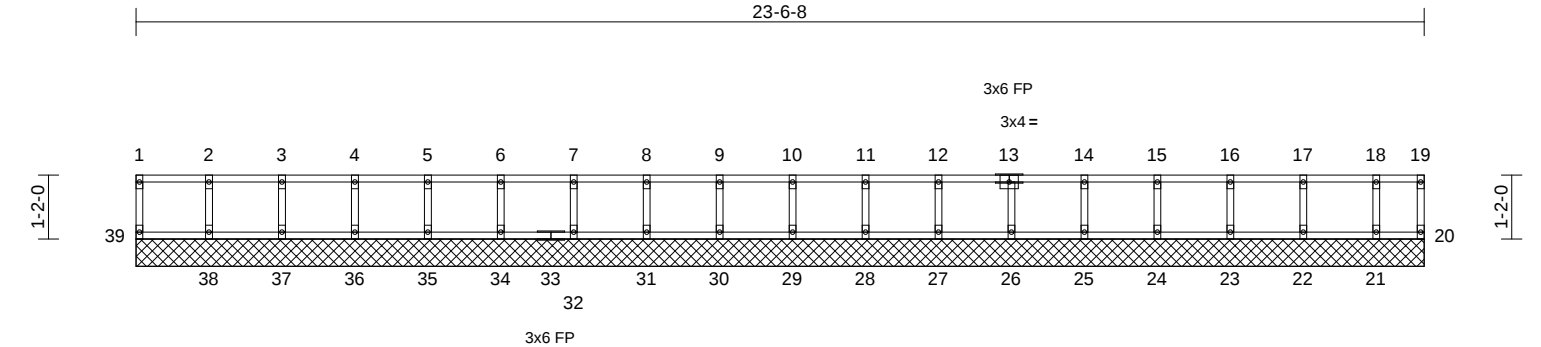
Scale = 1:33.3									
Plate Offsets (X, Y): [16:Edge,0-1-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	999
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	16	n/a
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R					n/a
					Weight: 71 lb		FT = 20%F, 11%E		

LUMBER		1) All plates are 1.5x3 (II) MT20 unless otherwise indicated.
TOP CHORD	2x4 SP No.2(flat)	2) Gable requires continuous bottom chord bearing.
BOT CHORD	2x4 SP No.2(flat)	3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
WEBS	2x4 SP No.3(flat)	4) Gable studs spaced at 1-4-0 oc.
OTHERS	2x4 SP No.3(flat)	5) All bearings are assumed to be SP No.2 .
BRACING		6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	7) CAUTION, Do not erect truss backwards.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	LOAD CASE(S) Standard
REACTIONS (size)		
16=16-9-0, 17=16-9-0, 18=16-9-0, 19=16-9-0, 20=16-9-0, 21=16-9-0, 22=16-9-0, 23=16-9-0, 24=16-9-0, 25=16-9-0, 27=16-9-0, 28=16-9-0, 29=16-9-0, 30=16-9-0		
Max Grav		
16=27 (LC 1), 17=110 (LC 1), 18=153 (LC 1), 19=145 (LC 1), 20=147 (LC 1), 21=147 (LC 1), 22=147 (LC 1), 23=147 (LC 1), 24=147 (LC 1), 25=147 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 29=148 (LC 1), 30=52 (LC 1)		
FORCES (lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-30=-49/0, 15-16=-20/0, 1-2=-6/0, 2-3=-6/0, 3-4=-6/0, 4-5=-6/0, 5-6=-6/0, 6-7=-6/0, 7-8=-6/0, 8-9=-6/0, 9-10=-6/0, 10-12=-6/0, 12-13=-6/0, 13-14=-6/0, 14-15=-6/0	
BOT CHORD	29-30=0/6, 28-29=0/6, 27-28=0/6, 25-27=0/6, 24-25=0/6, 23-24=0/6, 22-23=0/6, 21-22=0/6, 20-21=0/6, 19-20=0/6, 18-19=0/6, 17-18=0/6, 16-17=0/6	
WEBS	2-29=-132/0, 3-28=-134/0, 4-27=-133/0, 5-25=-133/0, 6-24=-133/0, 7-23=-133/0, 8-22=-133/0, 9-21=-133/0, 10-20=-134/0, 12-19=-132/0, 13-18=-139/0, 14-17=-105/0	
NOTES		



February 25,2025

Job	Truss	Truss Type	Qty	Ply	BONNET FLOOR - LOT 13 - ILA'S WAY
4600410	F05	Floor Supported Gable	1	1	Job Reference (optional)
					I71640887

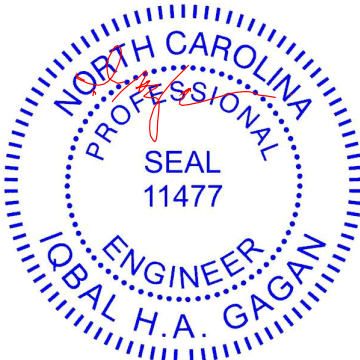


Scale = 1:42.1												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	20	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 96 lb	FT = 20%F, 11%E

LUMBER		WEBS	2-38=-139/0, 3-37=-132/0, 4-36=-134/0, 5-35=-133/0, 6-34=-133/0, 7-32=-133/0, 8-31=-133/0, 9-30=-133/0, 10-29=-133/0, 11-28=-134/0, 12-27=-130/0, 13-26=-134/0, 14-25=-137/0, 15-24=-133/0, 16-23=-133/0, 17-22=-137/0, 18-21=-116/0
TOP CHORD	2x4 SP No.2(flat)		
BOT CHORD	2x4 SP No.2(flat)		
WEBS	2x4 SP No.3(flat)		
OTHERS	2x4 SP No.3(flat)		

BRACING		NOTES	1) All plates are 1.5x3 () MT20 unless otherwise indicated. 2) Gable requires continuous bottom chord bearing. 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web). 4) Gable studs spaced at 1-4-0 oc. 5) All bearings are assumed to be SP No.2 . 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
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)		
	20=23-6-8, 21=23-6-8, 22=23-6-8, 23=23-6-8, 24=23-6-8, 25=23-6-8, 26=23-6-8, 27=23-6-8, 28=23-6-8, 29=23-6-8, 30=23-6-8, 31=23-6-8, 32=23-6-8, 34=23-6-8, 35=23-6-8, 36=23-6-8, 37=23-6-8, 38=23-6-8, 39=23-6-8		
Max Grav	20=32 (LC 1), 21=127 (LC 1), 22=151 (LC 1), 23=146 (LC 1), 24=146 (LC 1), 25=150 (LC 1), 26=147 (LC 1), 27=143 (LC 1), 28=148 (LC 1), 29=146 (LC 1), 30=147 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 34=147 (LC 1), 35=147 (LC 1), 36=147 (LC 1), 37=146 (LC 1), 38=151 (LC 1), 39=63 (LC 1)		

FORCES	(lb) - Maximum Compression/Maximum Tension	LOAD CASE(S)	Standard
TOP CHORD	1-39=-56/0, 19-20=-28/0, 1-2=-8/0, 2-3=-8/0, 3-4=-8/0, 4-5=-8/0, 5-6=-8/0, 6-7=-8/0, 7-8=-8/0, 8-9=-8/0, 9-10=-8/0, 10-11=-8/0, 11-12=-8/0, 12-14=-8/0, 14-15=-2/0, 15-16=-2/0, 16-17=-2/0, 17-18=-2/0, 18-19=-2/0		
BOT CHORD	38-39=0/8, 37-38=0/8, 36-37=0/8, 35-36=0/8, 34-35=0/8, 32-34=0/8, 31-32=0/8, 30-31=0/8, 29-30=0/8, 28-29=0/8, 27-28=0/8, 26-27=0/8, 25-26=0/2, 24-25=0/2, 23-24=0/2, 22-23=0/2, 21-22=0/2, 20-21=0/2		



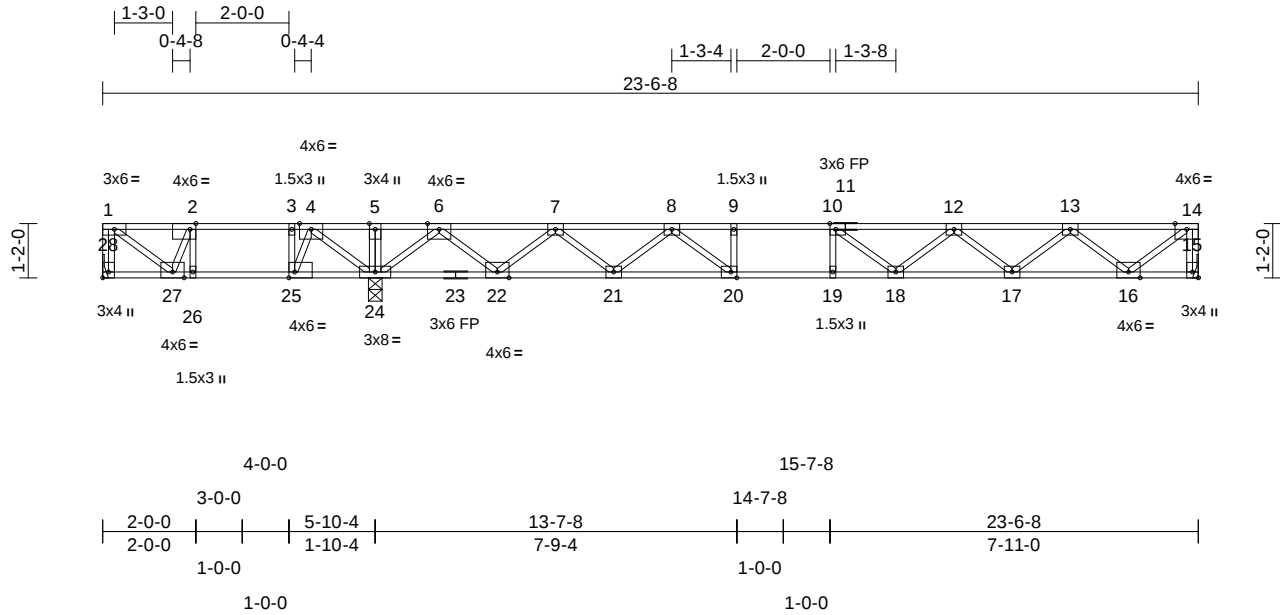
February 25,2025

Job	Truss	Truss Type	Qty	Ply	BONNET FLOOR - LOT 13 - ILA'S WAY	I71640888
4600410	F06	Floor	7	1	Job Reference (optional)	

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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Page: 1



Scale = 1:49.5												
Plate Offsets (X, Y): [2:0-1-8,Edge], [10:0-1-8,Edge], [15:Edge,0-1-8], [20:0-1-8,Edge], [25:0-1-8,Edge], [28:Edge,0-1-8]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.93	Vert(LL)	-0.27	18-19	>778	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.37	18-19	>569	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.05	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 119 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 23-15:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS (flat)
WEBS 2x4 SP No.3(flat)
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 26-27,25-26,24-25.
REACTIONS (size) 15= Mechanical, 24=0-3-8, 28= Mechanical
Max Uplift 28=-115 (LC 4)
Max Grav 15=904 (LC 7), 24=1551 (LC 1), 28=256 (LC 3)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-28=-252/112, 14-15=-897/0, 1-2=-221/231, 2-3=-245/439, 3-4=-245/439, 4-5=0/1191, 5-6=0/1191, 6-7=-1157/0, 7-8=-2572/0, 8-9=-3507/0, 9-10=-3507/0, 10-12=-3338/0, 12-13=-2545/0, 13-14=-1042/0
BOT CHORD 27-28=0/0, 26-27=-439/245, 25-26=-439/245, 24-25=-696/97, 22-24=0/234, 21-22=0/2028, 20-21=0/3120, 19-20=0/3507, 18-19=0/3507, 17-18=0/3101, 16-17=0/1964, 15-16=0/0
WEBS 2-26=-429/0, 3-25=-636/0, 5-24=-156/0, 9-20=-279/0, 10-19=-197/102, 4-24=-795/0, 4-25=0/896, 6-24=-1603/0, 6-22=0/1216, 7-22=-1150/0, 7-21=0/721, 8-21=-732/0, 8-20=0/742, 1-27=-289/277, 2-27=-63/539, 14-16=0/1308, 13-16=-1200/0, 13-17=0/756, 12-17=-724/0, 12-18=0/407, 10-18=-476/102

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

- All plates are 3x4 (=) MT20 unless otherwise indicated.
 - Bearings are assumed to be: , Joint 24 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 115 lb uplift at joint 28.
 - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard

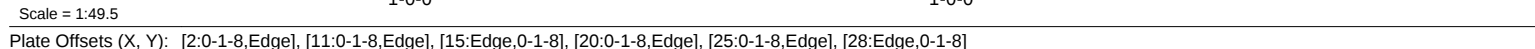


February 25, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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

Builders FirstSource (Albermarle), Albemarle, NC - 28001, Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 14:20:39 Page: 1
ID:IdQHxY5O6ySVRrlxUE?NSzz1zH-RfC?PsB70Ha3NSaPanL8w3ulTXbGKWrCDoi7J4zJC?f



LUMBER		1) Unbalanced floor live loads have been considered for this design.
TOP CHORD	2x4 SP No.2(flat)	2) All plates are 3x4 (=) MT20 unless otherwise indicated.
BOT CHORD	2x4 SP No.2(flat) *Except* 23-15:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS (flat)	3) Bearings are assumed to be: Joint 28 SP No.2 , Joint 24 SP No.2 .
WEBS	2x4 SP No.3(flat)	4) Refer to girder(s) for truss to truss connections.
BRACING		5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 28.
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.	6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 26-27,25-26,24-25.	7) CAUTION, Do not erect truss backwards.
REACTIONS	(size) 15= Mechanical, 24=0-3-8, 28=0-3-8	LOAD CASE(S) Standard
	Max Uplift 28=-102 (LC 4)	
	Max Grav 15=906 (LC 7), 24=1550 (LC 1), 28=284 (LC 3)	
FORCES		
	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-28=-282/94, 14-15=-899/0, 1-2=-243/199, 2-3=-312/452, 3-4=-312/452, 4-5=0/1192, 5-6=0/1192, 6-7=-1185/0, 7-9=-2595/0, 9-10=-3523/0, 10-11=-3523/0, 11-12=-3350/0, 12-13=-2552/0, 13-14=-1045/0	
BOT CHORD	27-28=0/0, 26-27=-452/312, 25-26=-452/312, 24-25=-710/156, 22-24=0/263, 21-22=0/2054, 20-21=0/3141, 19-20=0/3523, 18-19=0/3523, 17-18=0/3110, 16-17=0/1969, 15-16=0/0	
WEBS	2-26=-308/0, 3-25=-646/0, 5-24=-157/0, 10-20=-276/0, 11-19=-194/104, 4-24=-801/0, 4-25=0/912, 6-24=-1604/0, 6-22=0/1217, 7-22=-1150/0, 7-21=0/721, 9-21=-732/0, 9-20=0/735, 1-27=-250/305, 2-27=-121/441, 14-16=0/1311, 13-16=-1203/0, 13-17=0/759, 12-17=-727/0, 12-18=0/411, 11-18=-483/94	

February 25, 2025

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

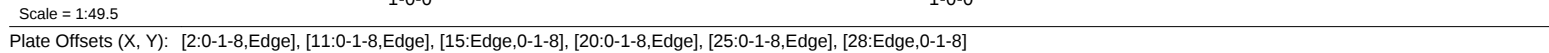
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-1473 (rev. 1/2/2023) BEFORE USE.

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

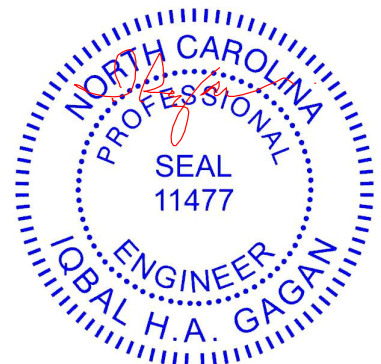
ENGINEERING BY
TRENCO
A MiTek Affiliat

818 Soundside Road
Edenton, NC 27932

Builders FirstSource (Albermarle), Albemarle, NC - 28001, Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 14:20:39 Page: 1
ID: idQHxbY5Q6ySVRrlxUE?NSzz1zH-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcD0i7J4zJC?fi



LUMBER				NOTES
TOP CHORD	2x4 SP No.2(flat) *Except*	8-1:2x4 SP No.1 (flat)		1) Unbalanced floor live loads have been considered for this design.
BOT CHORD	2x4 SP No.2(flat) *Except*	23-15:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS (flat)		2) All plates are 3x4 (=) MT20 unless otherwise indicated.
WEBS	2x4 SP No.3(flat)			3) Bearings are assumed to be: Joint 28 SP No.2 , Joint 24 SP No.2 .
BRACING				4) Refer to girder(s) for truss to truss connections.
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.			5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 28.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 26-27,24-25 2-2-0 oc bracing: 25-26.			6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
REACTIONS	(size)	15= Mechanical, 24=0-3-8, 28=0-3-8		7) CAUTION, Do not erect truss backwards.
	Max Uplift	28=-130 (LC 4)		8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 116 lb down at 2-5-11 on top chord. The design/selection of such connection device(s) is the responsibility of others.
	Max Grav	15=903 (LC 7), 24=1599 (LC 8), 28=317 (LC 10)		9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
FORCES	(lb) - Maximum Compression/Maximum Tension			LOAD CASE(S) Standard
TOP CHORD	1-28=-323/119, 14-15=-897/0, 1-2=-264/233, 2-3=-363/552, 3-4=-363/552, 4-5=0/1264, 5-6=0/1264, 6-7=-1151/0, 7-9=-2565/0, 9-10=-3503/0, 10-11=-3503/0, 11-12=-3335/0, 12-13=-2543/0, 13-14=-1042/0			1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 15-28=-10, 1-14=-100 Concentrated Loads (lb) Vert: 2=-36 (B)
BOT CHORD	27-28=0/0, 26-27=-543/367, 25-26=-552/363, 24-25=-835/194, 22-24=0/224, 21-22=0/2023, 20-21=0/3114, 19-20=0/3503, 18-19=0/3503, 17-18=0/3099, 16-17=0/1963, 15-16=0/0			
WEBS	2-26=-307/0, 3-25=-744/0, 5-24=-160/0, 10-20=-275/0, 11-19=-190/103, 4-24=-861/0, 4-25=0/1057, 6-24=-1618/0, 6-22=0/1224, 7-22=-1155/0, 7-21=0/725, 9-21=-738/0, 9-20=0/728, 1-27=-292/331, 2-27=-155/464, 14-16=0/1307, 13-16=-1199/0, 13-17=0/755, 12-17=-724/0, 12-18=0/409, 11-18=-480/86			



February 25, 2025



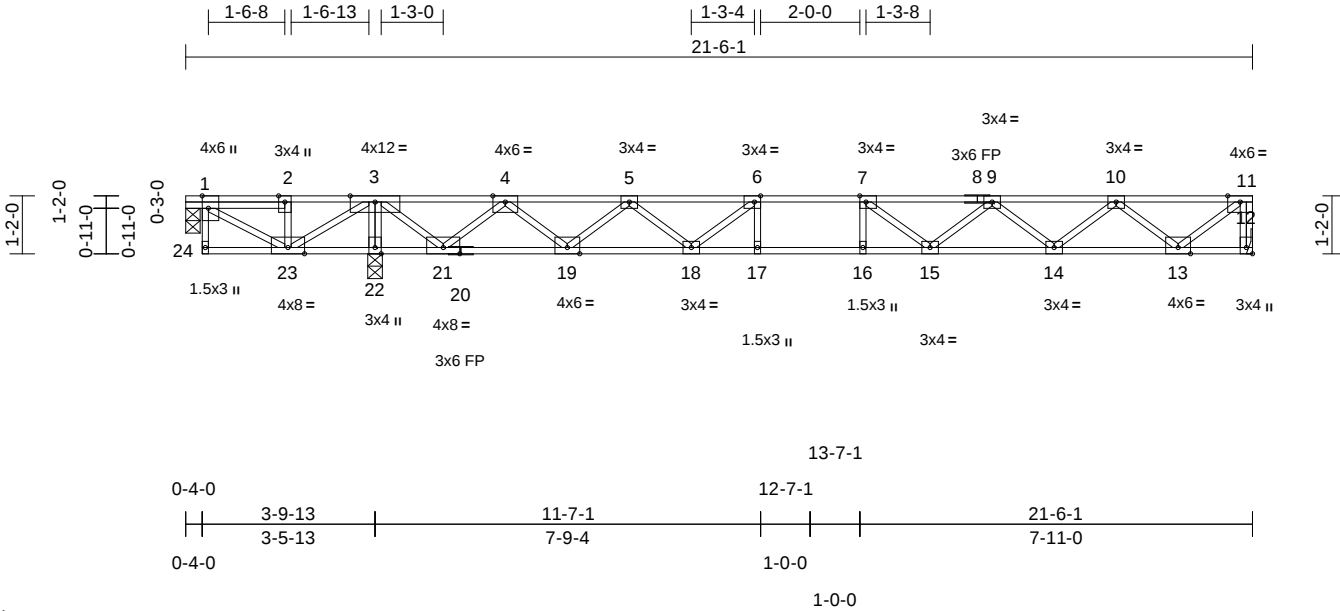
WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED LITERATURE REFERENCE PAGE IRI-17-15169: 1/2/2023 BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	BONNET FLOOR - LOT 13 - ILA'S WAY	I71640891
4600410	F09	Floor	1	1	Job Reference (optional)	



Scale = 1:46.4

Plate Offsets (X, Y): [1:0-3-0,Edge], [6:0-1-8,Edge], [7:0-1-8,Edge], [12:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.75	Vert(LL)	-0.24	15-16	>867	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.33	15-16	>631	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.02	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 110 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 20-12:2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS (flat)
WEBS 2x4 SP No.3(flat)

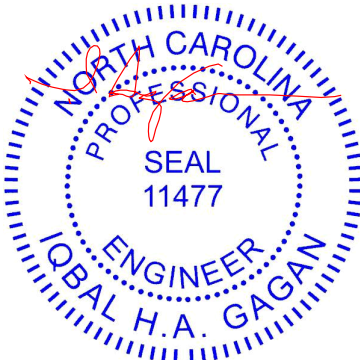
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 22-23,21-22,19-21.

REACTIONS (size) 1=0-3-8, 12= Mechanical, 22=0-3-8
Max Uplift 1=-697 (LC 4)
Max Grav 1=-20 (LC 3), 12=820 (LC 4), 22=2052 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-24=0/9, 11-12=-814/0, 1-2=0/1166, 2-3=0/1165, 3-4=0/1126, 4-5=-864/0, 5-6=-2160/0, 6-7=-2814/0, 7-9=-2828/0, 9-10=-2235/0, 10-11=-932/0
BOT CHORD 23-24=0/0, 22-23=-2379/0, 21-22=-2396/0, 19-21=-95/49, 18-19=0/1645, 17-18=0/2814, 16-17=0/2814, 15-16=0/2814, 14-15=0/2702, 13-14=0/1752, 12-13=0/0
WEBS 3-22=-2005/0, 6-17=-7/302, 7-16=-267/40, 2-23=-205/0, 1-23=-1351/0, 3-23=0/1564, 3-21=0/1596, 4-21=-1501/0, 4-19=0/1085, 5-19=-1020/0, 5-18=0/670, 6-18=-883/0, 11-13=0/1170, 10-13=-1067/0, 10-14=0/630, 9-14=-607/0, 9-15=0/279, 7-15=-283/221

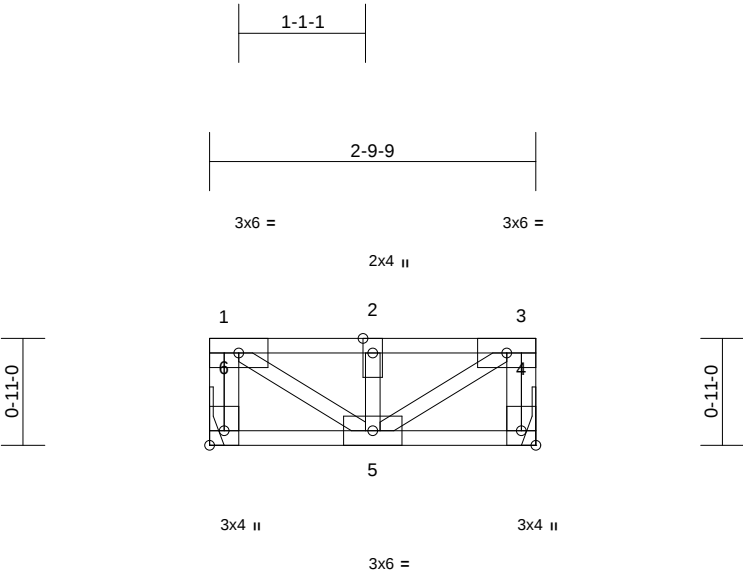
- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - Bearings are assumed to be: Joint 1 SP No.2 , Joint 22 SP No.2 .
 - Refer to girder(s) for truss to truss connections.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 697 lb uplift at joint 1.
 - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
 - CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard



February 25,2025

Job	Truss	Truss Type	Qty	Ply	BONNET FLOOR - LOT 13 - ILA'S WAY
4600410	F09G	Floor Girder	1	1	I71640892
					Job Reference (optional)

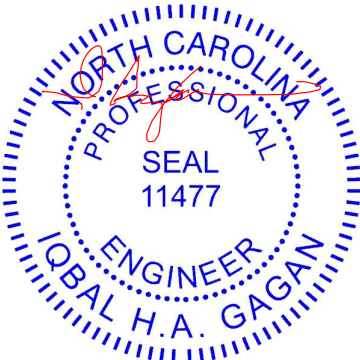


Scale = 1:19.8

Plate Offsets (X, Y): [4:Edge,0-1-8], [6:Edge,0-1-8]											
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES
TCLL	40.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	0.00	5	>999	480	MT20
TCDL	10.0	Lumber DOL	1.00	BC	0.05	Vert(CT)	0.00	5	>999	240	
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.00	4	n/a	n/a	
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 17 lb
											FT = 20%F, 11%E

- LUMBER**
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
- BRACING**
TOP CHORD Structural wood sheathing directly applied or 2-9-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 4= Mechanical, 6= Mechanical
Max Uplift 4=-258 (LC 3), 6=-258 (LC 3)
Max Grav 4=53 (LC 1), 6=53 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-48/258, 3-4=-48/258, 1-2=-1/482, 2-3=-1/482
BOT CHORD 5-6=0/0, 4-5=0/0
WEBS 2-5=0/626, 3-5=-568/1, 1-5=-568/1
- NOTES**
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 258 lb uplift at joint 6 and 258 lb uplift at joint 4.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 797 lb up at 1-5-7 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- LOAD CASE(S)** Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 4-6=-10, 1-3=-100

Concentrated Loads (lb)
Vert: 2=174



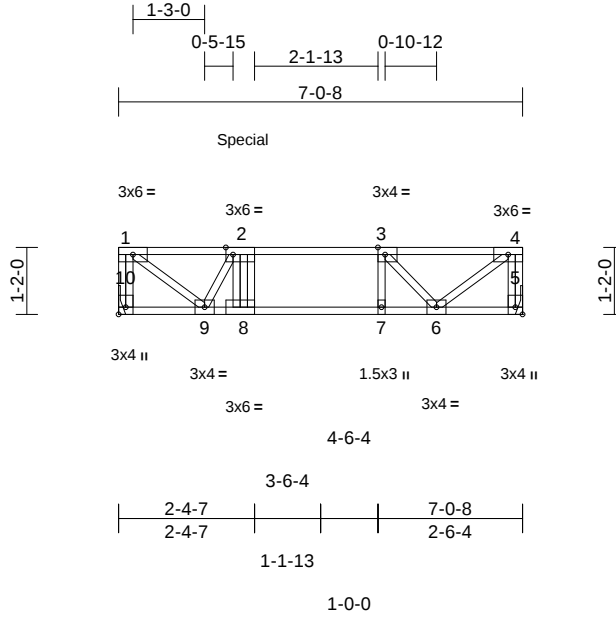
February 25,2025

Job	Truss	Truss Type	Qty	Ply	BONNET FLOOR - LOT 13 - ILA'S WAY
4600410	F10	Floor Girder	1	1	I71640893
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 14:20:40
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Page: 1



Scale = 1:40.2

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [5:Edge,0-1-8], [10:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.06	6-7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.81	Vert(CT)	-0.08	6-7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 40 lb	FT = 20%F, 11%E

LUMBER

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

Vert: 5-10=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 2=47 (F)

BRACING

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

REACTIONS (size) 5= Mechanical, 10= Mechanical
Max Grav 5=360 (LC 1), 10=365 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

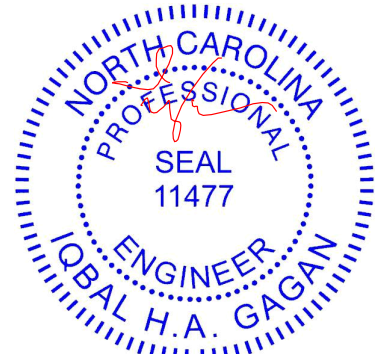
TOP CHORD 1-10=-361/0, 4-5=-357/0, 1-2=-367/0, 2-3=-535/0, 3-4=-341/0
BOT CHORD 9-10=0/0, 8-9=0/532, 7-8=0/535, 6-7=0/535, 5-6=0/0
WEBS 2-8=-50/293, 3-7=-198/74, 1-9=0/460, 2-9=-365/0, 4-6=0/428, 3-6=-327/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 33 lb down and 358 lb up at 2-2-3 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)



February 25, 2025

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

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

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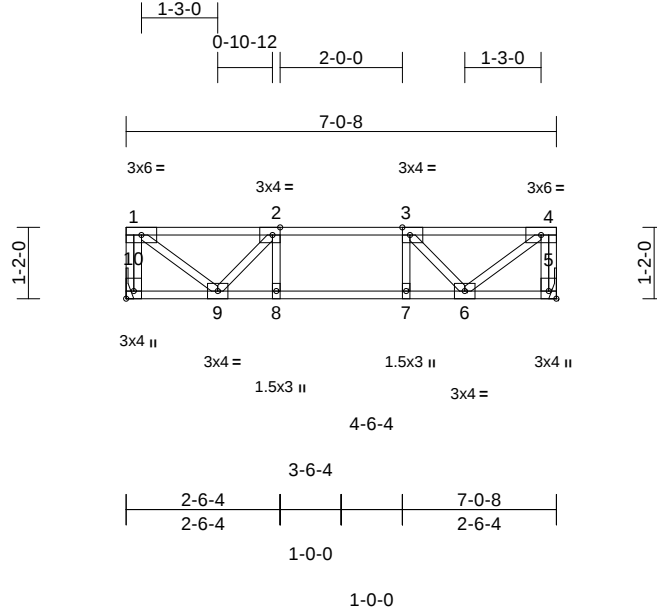
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	BONNET FLOOR - LOT 13 - ILA'S WAY
4600410	F11	Floor	2	1	I71640894
					Job Reference (optional)

Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 14:20:40
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Page: 1



Scale = 1:37.7

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [5:Edge,0-1-8], [10:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	-0.03	8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.35	Vert(CT)	-0.03	8	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 38 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS (size) 5= Mechanical, 10= Mechanical
Max Grav 5=374 (LC 1), 10=374 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=-366/0, 4-5=-366/0, 1-2=-357/0, 2-3=-596/0, 3-4=-357/0

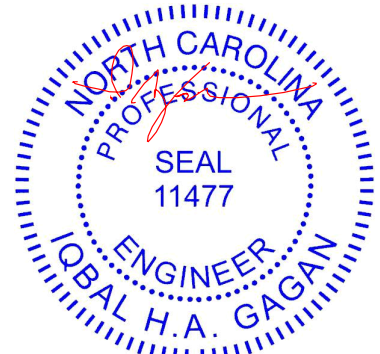
BOT CHORD 9-10=0/0, 8-9=0/596, 7-8=0/596, 6-7=0/596, 5-6=0/0

WEBS 2-8=-56/90, 3-7=-56/90, 1-9=0/448, 2-9=-353/0, 4-6=0/448, 3-6=-353/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10'-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



February 25, 2025

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

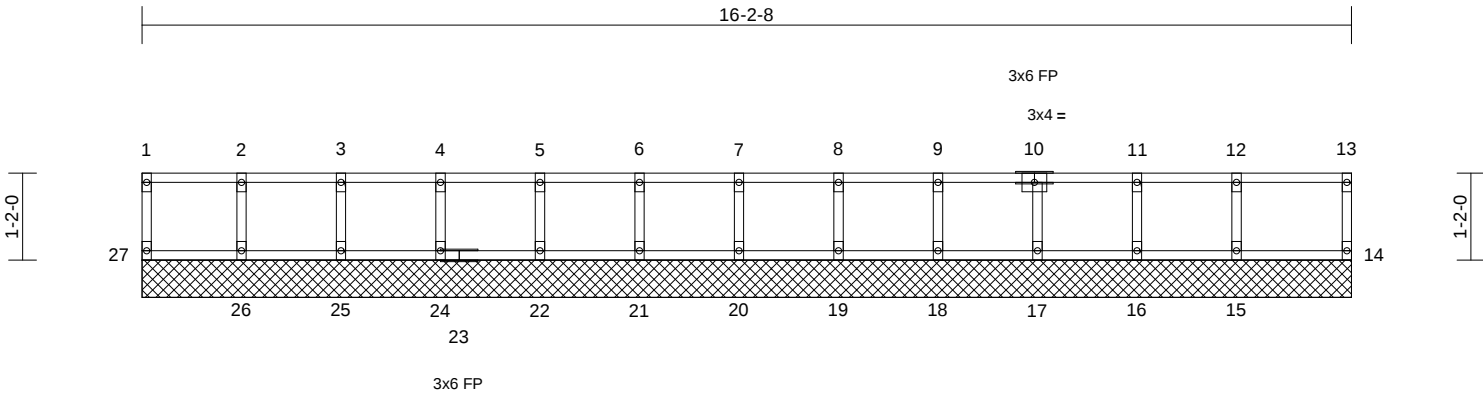
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	BONNET FLOOR - LOT 13 - ILA'S WAY
4600410	F12	Floor Supported Gable	1	1	Job Reference (optional)
					I71640895

ID:YCWOJyTrzy_u4tVJINblJ_zz1wo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 66 lb	FT = 20%F, 11%E

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

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

REACTIONS	(size)	14=16-2-8, 15=16-2-8, 16=16-2-8, 17=16-2-8, 18=16-2-8, 19=16-2-8, 20=16-2-8, 21=16-2-8, 22=16-2-8, 24=16-2-8, 25=16-2-8, 26=16-2-8, 27=16-2-8
	Max Grav	14=73 (LC 1), 15=167 (LC 1), 16=144 (LC 1), 17=148 (LC 1), 18=143 (LC 1), 19=147 (LC 1), 20=146 (LC 1), 21=147 (LC 1), 22=147 (LC 1), 24=146 (LC 1), 25=148 (LC 1), 26=143 (LC 1), 27=69 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-27=-59/0, 13-14=-67/0, 1-2=-14/0, 2-3=-14/0, 3-4=-14/0, 4-5=-14/0, 5-6=-14/0, 6-7=-14/0, 7-8=-14/0, 8-9=-14/0, 9-11=-14/0, 11-12=-9/0, 12-13=-9/0
BOT CHORD	26-27=0/14, 25-26=0/14, 24-25=0/14, 22-24=0/14, 21-22=0/14, 20-21=0/14, 19-20=0/14, 18-19=0/14, 17-18=0/14, 16-17=0/9, 15-16=0/9, 14-15=0/9
WEBS	2-26=-135/0, 3-25=-133/0, 4-24=-133/0, 5-22=-133/0, 6-21=-133/0, 7-20=-133/0, 8-19=-134/0, 9-18=-130/0, 10-17=-134/0, 11-16=-132/0, 12-15=-152/0

- NOTES**
- 1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
 - 2) Gable requires continuous bottom chord bearing.

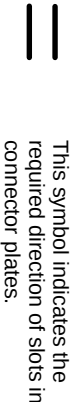
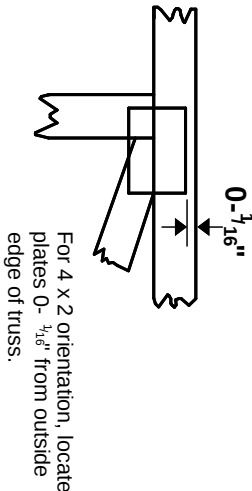
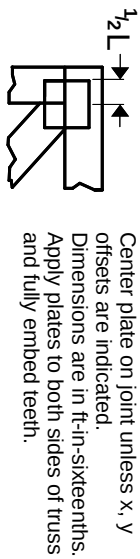
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 4) Gable studs spaced at 1-4-0 oc.
 - 5) All bearings are assumed to be SP No.2 .
 - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- LOAD CASE(S)** Standard



February 25,2025

Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

4 X 4

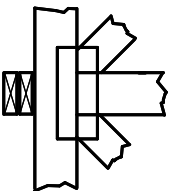
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

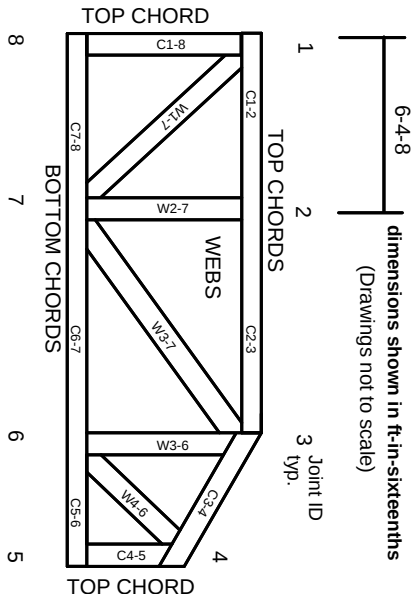
BEARING



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

Industry Standards:
ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:
ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.
Lumber design values are in accordance with ANSI/TPI 1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

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