

RE: 2501-0740-A - Blake Pond Lot 00.0128 OWF

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Project Customer: DRB Raleigh Project Name: Blake Pond Lot 00.0128
 Lot/Block: 00.0128 Subdivision: Blake Pond
 Model: Townsend
 Address: 203 Great Smoky Place
 City: Lillington State: NC

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

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 8.8
 Wind Code: ASCE 7-16 Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16
 Wind Speed: 115 mph Floor Load: N/A psf
 Roof Load: 40.0 psf Exposure Category: B
 Mean Roof Height (feet): 25

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I70927128	2F2GR	1/22/25	35	I70927162	1F22	1/22/25
2	I70927129	2F15	1/22/25	36	I70927163	1F21	1/22/25
3	I70927133	2F6GE	1/22/25	37	I70927164	1F20	1/22/25
4	I70927131	1F17	1/22/25	38	I70927165	1F19	1/22/25
5	I70927132	1F9	1/22/25	39	I70927166	1F18	1/22/25
6	I70927133	1F11	1/22/25	40	I70927167	1F16	1/22/25
7	I70927134	1F15	1/22/25	41	I70927168	1F14	1/22/25
8	I70927135	2F5GE	1/22/25	42	I70927169	2F2	1/22/25
9	I70927136	1F5GE	1/22/25	43	I70927170	2F1GE	1/22/25
10	I70927137	1F24	1/22/25	44	I70927171	1F1GE	1/22/25
11	I70927138	1F4GE	1/22/25	45	I70927172	1F3	1/22/25
12	I70927139	2F2GE	1/22/25	46	I70927173	2F1GR	1/22/25
13	I70927140	1F2GE	1/22/25	47	I70927174	2F1	1/22/25
14	I70927141	1F7	1/22/25	48	I70927175	1F5	1/22/25
15	I70927142	2F5	1/22/25	49	I70927176	1F4	1/22/25
16	I70927143	2F12	1/22/25	50	I70927177	1F2	1/22/25
17	I70927144	2F13	1/22/25	51	I70927178	1F2A	1/22/25
18	I70927145	2F4GE	1/22/25	52	I70927179	1F1	1/22/25
19	I70927146	2F14	1/22/25	53	I70927180	1F1A	1/22/25
20	I70927147	2F3	1/22/25	54	I70927181	1F6	1/22/25
21	I70927148	2F4	1/22/25				
22	I70927149	2F7	1/22/25				
23	I70927150	1F3GE	1/22/25				
	I70927151	2F6	1/22/25				
25	I70927152	2F3GE	1/22/25				
26	I70927153	1F13	1/22/25				
27	I70927154	1F12	1/22/25				
28	I70927155	1F10	1/22/25				
29	I70927156	1F8	1/22/25				
30	I70927157	2F9	1/22/25				
31	I70927158	2F8	1/22/25				
32	I70927159	2F10	1/22/25				
	I70927160	2F11	1/22/25				
34	I70927161	1F23	1/22/25				

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

Truss Design Engineer's Name: Gilbert, Eric
 My license renewal date for the state of North Carolina is December 31, 2025.

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.



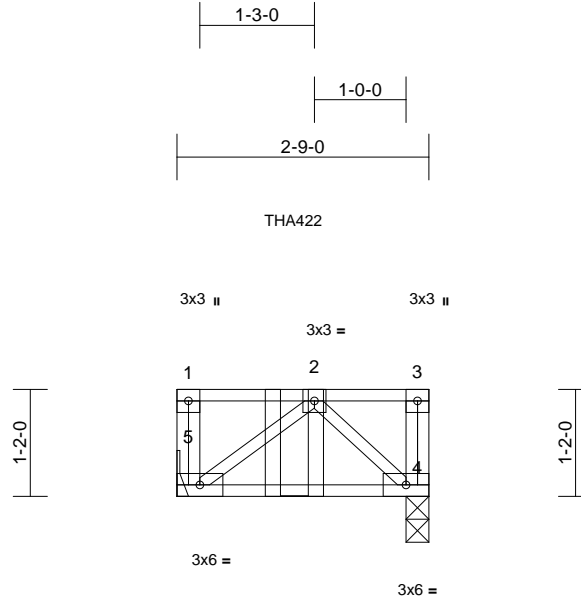
January 22, 2025

Job 2501-0740-A	Truss 2F2GR	Truss Type Floor Girder	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927128
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Structural, LLC, Thurmont, MD - 21788,

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Loading	(psf)	Spacing	1-7-3	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	0.19	Vert(CT)	-0.01	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%F, 12%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 2-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-0, 5= Mechanical
Max Grav 4=533 (LC 1), 5=456 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-5=-48/0, 3-4=-37/0, 1-2=0/0, 2-3=0/0
BOT CHORD 4-5=0/525
WEBS 2-5=-659/0, 2-4=-716/0

NOTES

- Bearings are assumed to be: , Joint 4 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 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.
- Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 1-3-6 from the left end to connect truss (es) to back face of top chord.
- Fill all nail holes where hanger is in contact with lumber.
- 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)
Vert: 4-5=-8, 1-3=-80
Concentrated Loads (lb)
Vert: 2=-770 (B)



January 22, 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)

ENGINEERING BY
TRENCO
A MiTek Affiliate

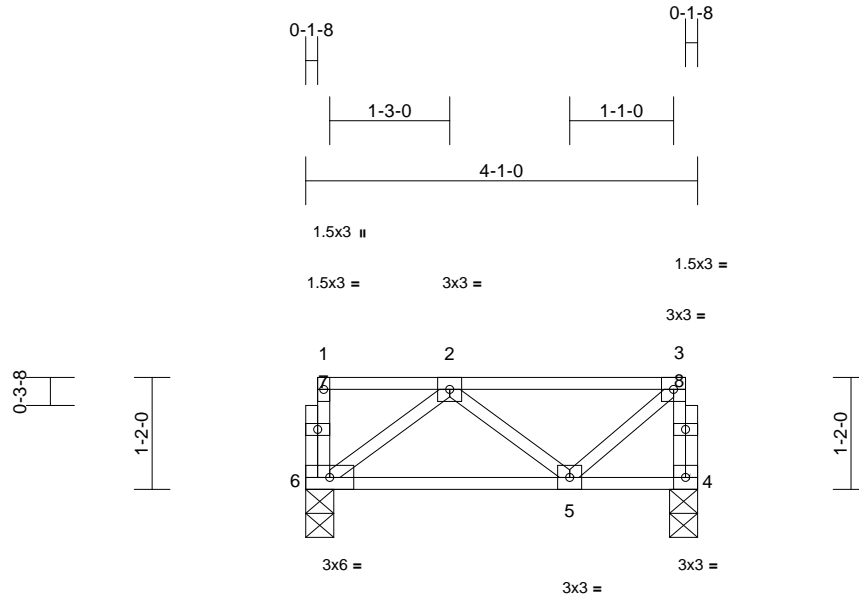
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F15	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927129
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Structural, LLC, Thurmont, MD - 21788,

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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	0.00	5-6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.09	Vert(CT)	0.00	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%F, 12%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)

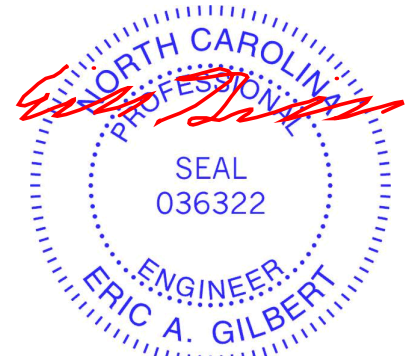
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-8, 6=0-3-8
Max Grav 4=163 (LC 1), 6=163 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-21/0, 3-4=-162/0, 1-2=-1/0, 2-3=-102/0
BOT CHORD 5-6=0/178, 4-5=0/10
WEBS 2-6=-222/0, 2-5=-99/0, 3-5=0/125

NOTES
1) All bearings are assumed to be SP No.2.
2) 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



January 22, 2025

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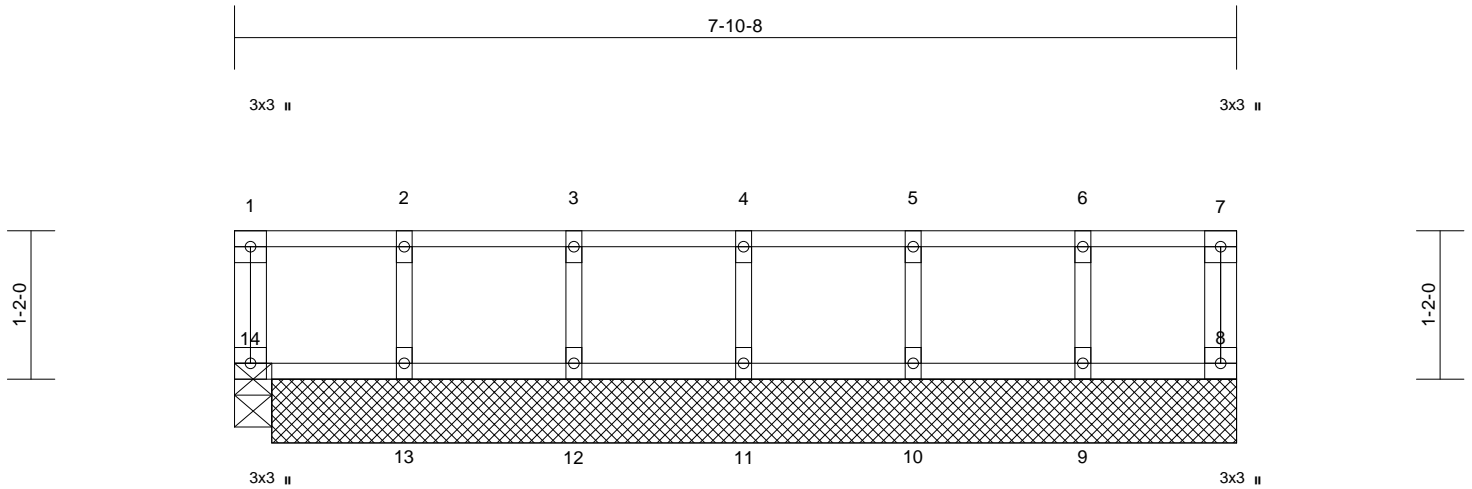
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F6GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927130
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Structural, LLC, Thurmont, MD - 21788,

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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	0.00	9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	0.00	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 36 lb	FT = 20%F, 12%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)

- 8=7-7-0, 9=7-7-0, 10=7-7-0, 11=7-7-0, 12=7-7-0, 13=7-7-0, 14=0-3-8
- Max Grav 8=45 (LC 1), 9=107 (LC 1), 10=120 (LC 1), 11=116 (LC 1), 12=118 (LC 1), 13=115 (LC 1), 14=49 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

- TOP CHORD 1-14=-45/0, 7-8=-40/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0
- BOT CHORD 13-14=0/7, 12-13=0/7, 11-12=0/7, 10-11=0/7, 9-10=0/7, 8-9=0/7
- WEBS 2-13=-105/0, 3-12=-107/0, 4-11=-106/0, 5-10=-109/0, 6-9=-99/0

NOTES

- All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2.
- 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



January 22, 2025

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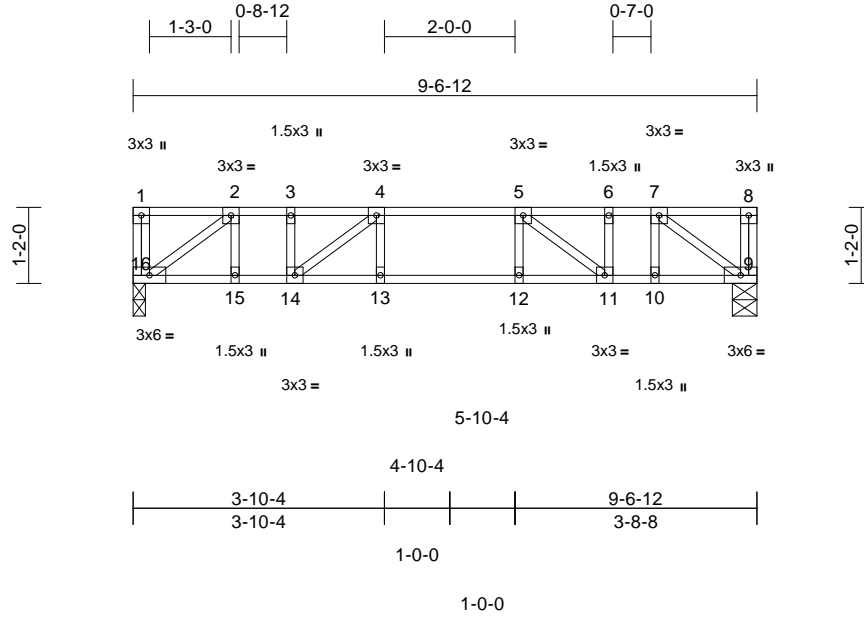
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F17	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927131
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Structural, LLC, Thurmont, MD - 21788,

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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	-0.06	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.57	Vert(CT)	-0.08	13-14	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 51 lb	FT = 20%F, 12%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) 9=0-4-8, 16=0-2-4
Max Grav 9=409 (LC 1), 16=409 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-19/27, 8-9=-24/20, 1-2=0/0,
2-3=-583/0, 3-4=-583/0, 4-5=-902/0,
5-6=-566/0, 6-7=-566/0, 7-8=0/0
BOT CHORD 15-16=0/583, 14-15=0/583, 13-14=0/902,
12-13=0/902, 11-12=0/902, 10-11=0/566,
9-10=0/566
WEBS 4-13=0/85, 5-12=0/90, 4-14=-439/0,
2-16=-719/0, 2-15=0/173, 3-14=0/141,
5-11=-457/0, 7-9=-698/0, 6-11=0/148,
7-10=0/169

NOTES

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 16.
- 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



January 22, 2025

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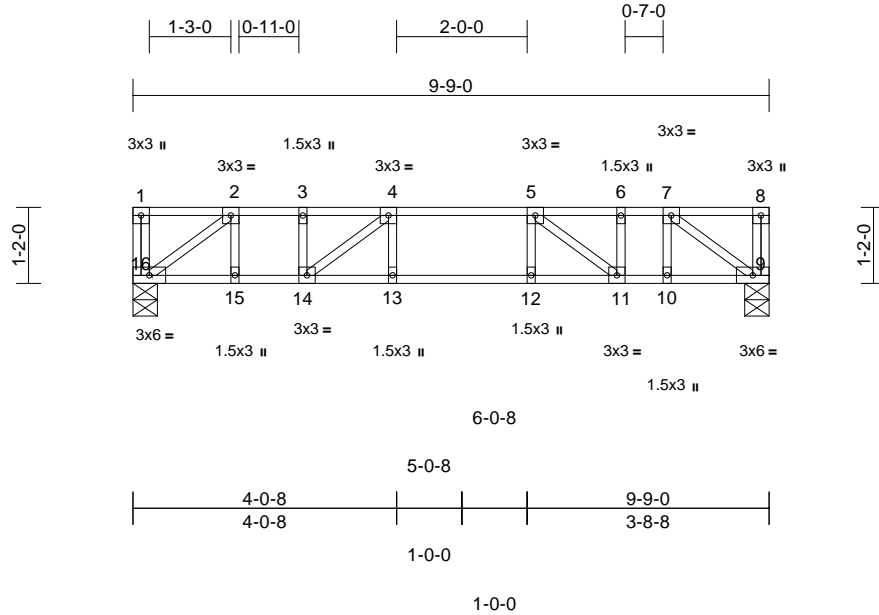
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F9	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927132
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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.07	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.93	Vert(CT)	-0.13	11-12	>906	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%F, 12%E

LUMBER	Concentrated Loads (lb)
TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)

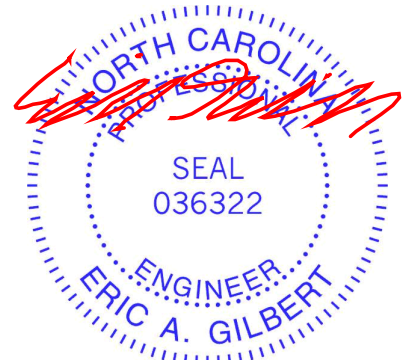
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	9=0-4-8, 16=0-4-8
Max Grav	9=615 (LC 1), 16=475 (LC 1)	

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-16=-4/44, 8-9=0/46, 1-2=0/0, 2-3=-718/0, 3-4=-718/0, 4-5=-1218/0, 5-6=-921/0, 6-7=-921/0, 7-8=0/0
BOT CHORD	15-16=0/718, 14-15=0/718, 13-14=0/1218, 12-13=0/1218, 11-12=0/1218, 10-11=0/921, 9-10=0/921
WEBS	4-13=0/154, 5-12=-16/73, 4-14=-668/0, 2-16=-886/0, 2-15=0/218, 3-14=0/208, 5-11=-405/0, 7-9=-1137/0, 6-11=-88/7, 7-10=0/296

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All bearings are assumed to be SP No.2 .
 - Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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
1)	Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 9-16=-8, 1-8=-80



January 22, 2025

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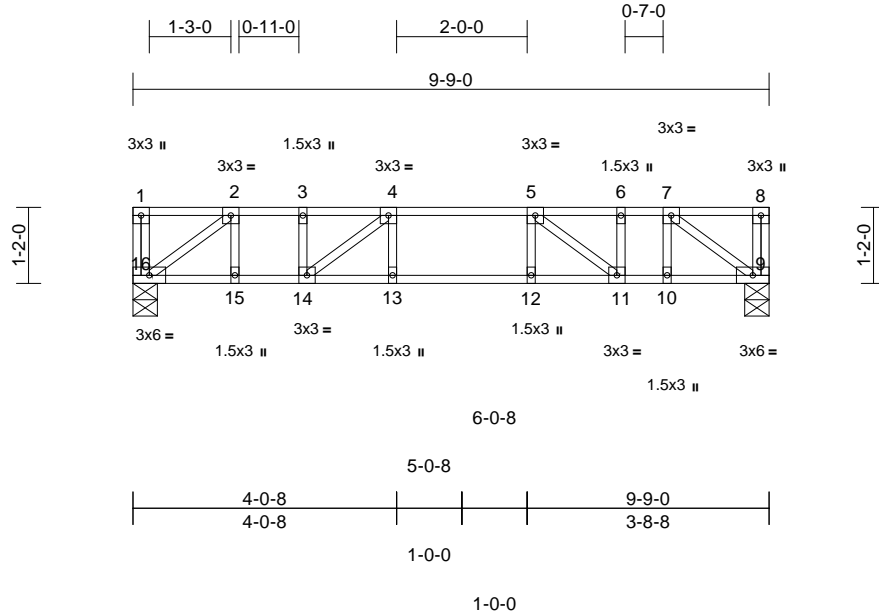
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F11	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927133
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:59
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Page: 1



Scale = 1:27.2

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.69	Vert(LL)	-0.07	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.14	11-12	>790	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%F, 12%E

LUMBER

	Concentrated Loads (lb)
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) 9=0-4-8, 16=0-4-8
Max Grav 9=678 (LC 1), 16=494 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-16=-2/46, 8-9=0/54, 1-2=0/0, 2-3=-749/0, 3-4=-749/0, 4-5=-1306/0, 5-6=-1029/0, 6-7=-1029/0, 7-8=0/0
BOT CHORD	15-16=0/749, 14-15=0/749, 13-14=0/1306, 12-13=0/1306, 11-12=0/1306, 10-11=0/1029, 9-10=0/1029
WEBS	4-13=0/175, 5-12=-24/65, 4-14=-738/0, 2-16=-926/0, 2-15=0/230, 3-14=0/230, 5-11=-379/0, 7-9=-1271/0, 6-11=-136/0, 7-10=0/335

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All bearings are assumed to be SP No.2 .
 - Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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

1)	Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
	Uniform Loads (lb/ft)
	Vert: 9-16=-8, 1-8=-80



January 22, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

ENGINEERING BY
TRENCO
A MiTek Affiliate

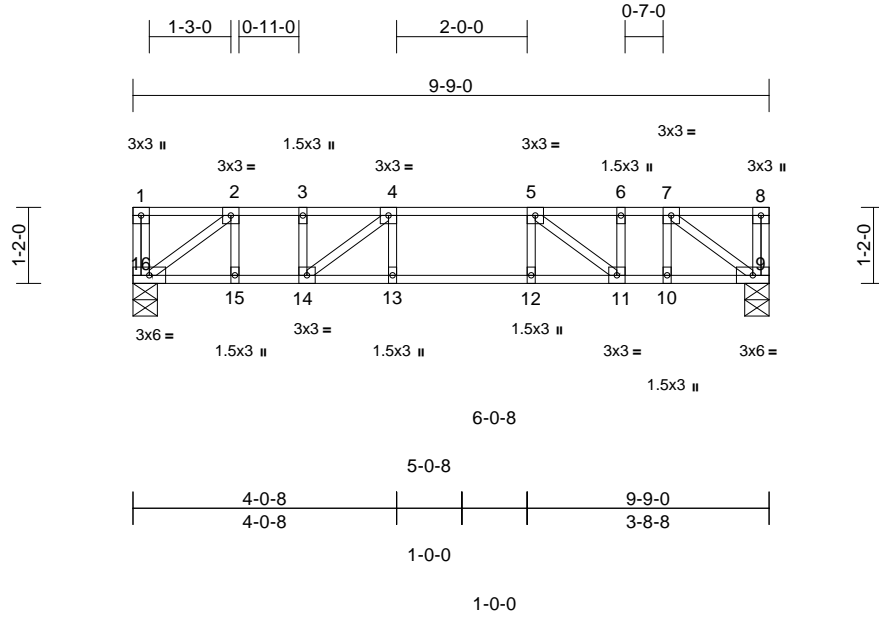
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F15	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927134
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:00
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Page: 1



Scale = 1:27.2

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.49	Vert(LL)	-0.07	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.10	13-14	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.01	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%F, 12%E

LUMBER	Concentrated Loads (lb)
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)	9=0-4-8, 16=0-4-8
Max Grav		9=438 (LC 1), 16=424 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-16=-11/37, 8-9=-21/23, 1-2=0/0, 2-3=-627/0, 3-4=-627/0, 4-5=-968/0, 5-6=-613/0, 6-7=-613/0, 7-8=0/0
BOT CHORD	15-16=0/627, 14-15=0/627, 13-14=0/968, 12-13=0/968, 11-12=0/968, 10-11=0/613, 9-10=0/613
WEBS	4-13=0/93, 5-12=0/96, 4-14=-467/0, 2-16=-775/0, 2-15=0/185, 3-14=0/148, 5-11=-477/0, 7-9=-757/0, 6-11=0/141, 7-10=0/186

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All bearings are assumed to be SP No.2 .
 - Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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
1)	Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 9-16=-8, 1-8=-80



January 22, 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)



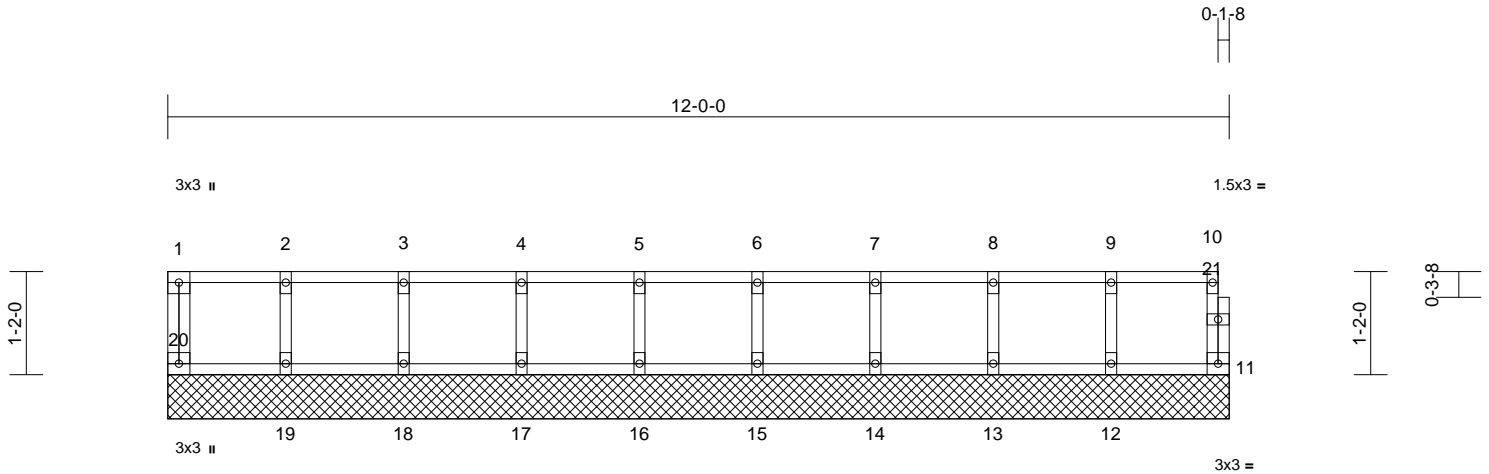
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F5GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927135
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:06
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Page: 1



Scale = 1:27

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	11	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 52 lb	FT = 20%F, 12%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)

- 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

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)
11=12-0-0, 12=12-0-0, 13=12-0-0, 14=12-0-0, 15=12-0-0, 16=12-0-0, 17=12-0-0, 18=12-0-0, 19=12-0-0, 20=12-0-0
Max Grav 11=45 (LC 1), 12=114 (LC 1), 13=118 (LC 1), 14=117 (LC 1), 15=117 (LC 1), 16=117 (LC 1), 17=117 (LC 1), 18=118 (LC 1), 19=114 (LC 1), 20=50 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-20=-45/0, 10-11=-41/0, 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
BOT CHORD 19-20=0/8, 18-19=0/8, 17-18=0/8, 16-17=0/8, 15-16=0/8, 14-15=0/8, 13-14=0/8, 12-13=0/8, 11-12=0/8
WEBS 2-19=-104/0, 3-18=-107/0, 4-17=-106/0, 5-16=-107/0, 6-15=-107/0, 7-14=-106/0, 8-13=-107/0, 9-12=-104/0

- NOTES**
- All plates are 1.5x3 (||) 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 1-4-0 oc.
 - All bearings are assumed to be SP No.2.



January 22, 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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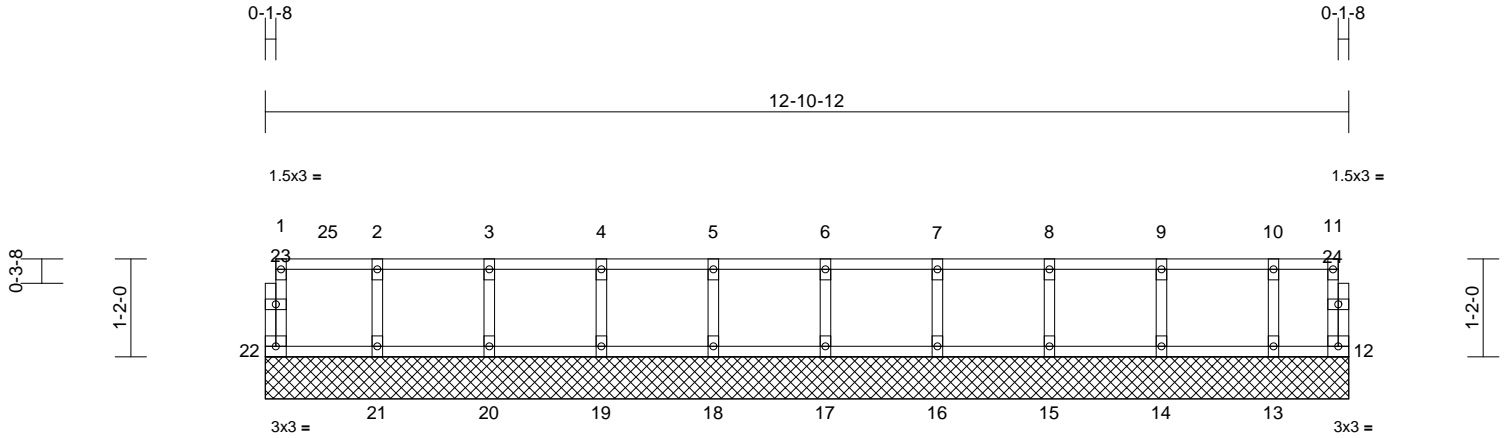
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F5GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927136
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:57
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Page: 1



Scale = 1:28.3

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 55 lb	FT = 20%F, 12%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.

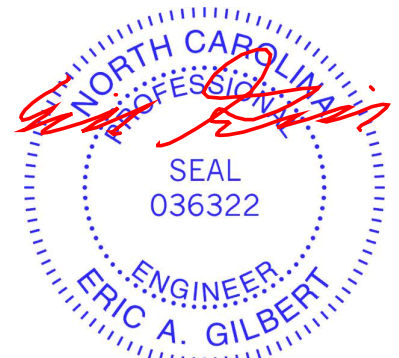
REACTIONS (size)
12=12-10-12, 13=12-10-12,
14=12-10-12, 15=12-10-12,
16=12-10-12, 17=12-10-12,
18=12-10-12, 19=12-10-12,
20=12-10-12, 21=12-10-12,
22=12-10-12
Max Grav 12=60 (LC 1), 13=54 (LC 1),
14=127 (LC 1), 15=115 (LC 1),
16=118 (LC 1), 17=118 (LC 1),
18=115 (LC 1), 19=124 (LC 1),
20=90 (LC 1), 21=273 (LC 1),
22=165 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-170/0, 11-12=-38/0, 1-2=-27/0,
2-3=-27/0, 3-4=-27/0, 4-5=-27/0, 5-6=-27/0,
6-7=-27/0, 7-8=-27/0, 8-9=-27/0, 9-10=-27/0,
10-11=-27/0
BOT CHORD 21-22=0/27, 20-21=0/27, 19-20=0/27,
18-19=0/27, 17-18=0/27, 16-17=0/27,
15-16=0/27, 14-15=0/27, 13-14=0/27,
12-13=0/27
WEBS 2-21=-252/0, 3-20=-81/0, 4-19=-113/0,
5-18=-105/0, 6-17=-107/0, 7-16=-107/0,
8-15=-105/0, 9-14=-113/0, 10-13=-69/0

NOTES
1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
2) 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 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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
1) Dead + Floor Live (balanced): Lumber Increase=1.00,
Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 12-22=-8, 1-11=-80
Concentrated Loads (lb)
Vert: 25=-255



January 22, 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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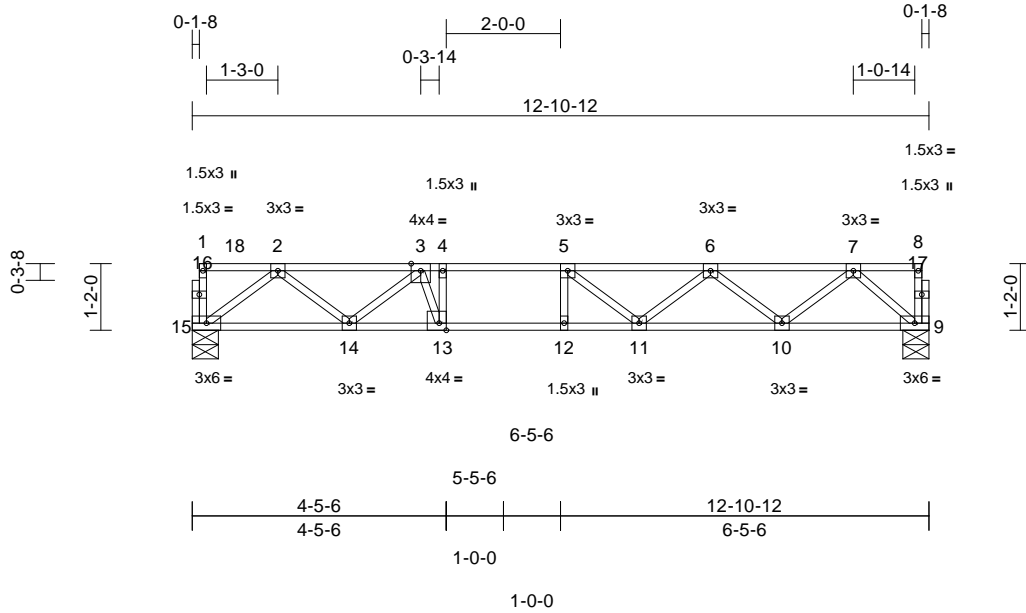
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F24	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927137
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:03
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Page: 1



Scale = 1:34.9
Plate Offsets (X, Y): [13:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL	40.0	Plate Grip DOL	1.00	TC	0.50	Vert(LL)	-0.11	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.14	11-12	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 65 lb	FT = 20%F, 12%E

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

Vert: 9-15=-8, 1-8=-80
 Concentrated Loads (lb)
 Vert: 18=-552

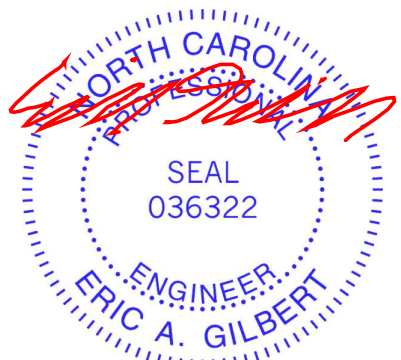
BRACING
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9=0-5-8, 15=0-5-8
 Max Grav 9=578 (LC 1), 15=1076 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-15=-308/0, 8-9=-25/0, 1-2=-18/0, 2-3=-1351/0, 3-4=-1817/0, 4-5=-1817/0, 5-6=-1703/0, 6-7=-1095/0, 7-8=-1/0
 BOT CHORD 14-15=0/1017, 13-14=0/1692, 12-13=0/1817, 11-12=0/1817, 10-11=0/1539, 9-10=0/629
 WEBS 4-13=-459/0, 5-12=-83/48, 2-15=-1253/0, 2-14=0/435, 3-14=-443/0, 3-13=0/593, 5-11=-304/0, 6-11=0/289, 6-10=-578/0, 7-10=0/607, 7-9=-832/0

NOTES
 1) Unbalanced floor live loads have been considered for this design.
 2) All bearings are assumed to be SP No.2 .
 3) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 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.

LOAD CASE(S) Standard
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (lb/ft)



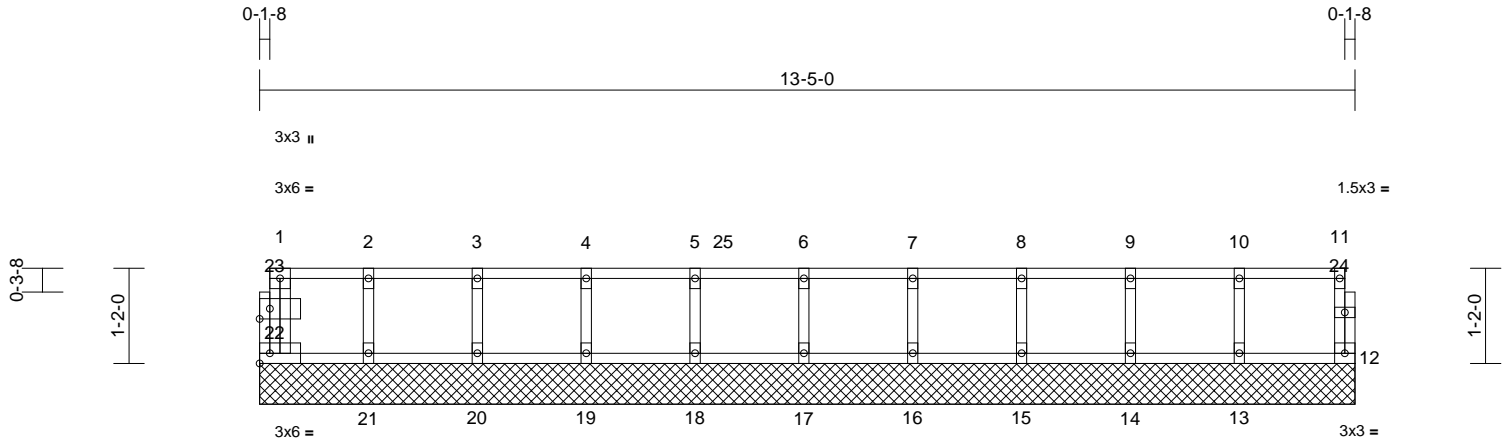
January 22, 2025

Job 2501-0740-A	Truss 1F4GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927138
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:57
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Page: 1



Scale = 1:29

Plate Offsets (X, Y): [23:0-1-8,0-1-8]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 58 lb	FT = 20%F, 12%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)
12=13-5-0, 13=13-5-0, 14=13-5-0,
15=13-5-0, 16=13-5-0, 17=13-5-0,
18=13-5-0, 19=13-5-0, 20=13-5-0,
21=13-5-0, 22=13-5-0
Max Grav 12=142 (LC 1), 13=122 (LC 1),
14=115 (LC 1), 15=122 (LC 1),
16=99 (LC 1), 17=191 (LC 1),
18=338 (LC 1), 19=86 (LC 1),
20=128 (LC 1), 21=103 (LC 1),
22=48 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-43/0, 11-12=-139/0, 1-2=-12/0,
2-3=-12/0, 3-4=-12/0, 4-5=-12/0, 5-6=-12/0,
6-7=-12/0, 7-8=-12/0, 8-9=-12/0, 9-10=-12/0,
10-11=-12/0
BOT CHORD 21-22=0/12, 20-21=0/12, 19-20=0/12,
18-19=0/12, 17-18=0/12, 16-17=0/12,
15-16=0/12, 14-15=0/12, 13-14=0/12,
12-13=0/12
WEBS 2-21=-95/0, 3-20=-117/0, 4-19=-75/0,
5-18=-327/0, 6-17=-181/0, 7-16=-88/0,
8-15=-111/0, 9-14=-105/0, 10-13=-109/0

NOTES
1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
2) 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 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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
1) Dead + Floor Live (balanced): Lumber Increase=1.00,
Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 12-22=-8, 1-11=-80
Concentrated Loads (lb)
Vert: 11=-96, 25=-255



January 22, 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)

ENGINEERING BY
TRENCO
A MiTek Affiliate

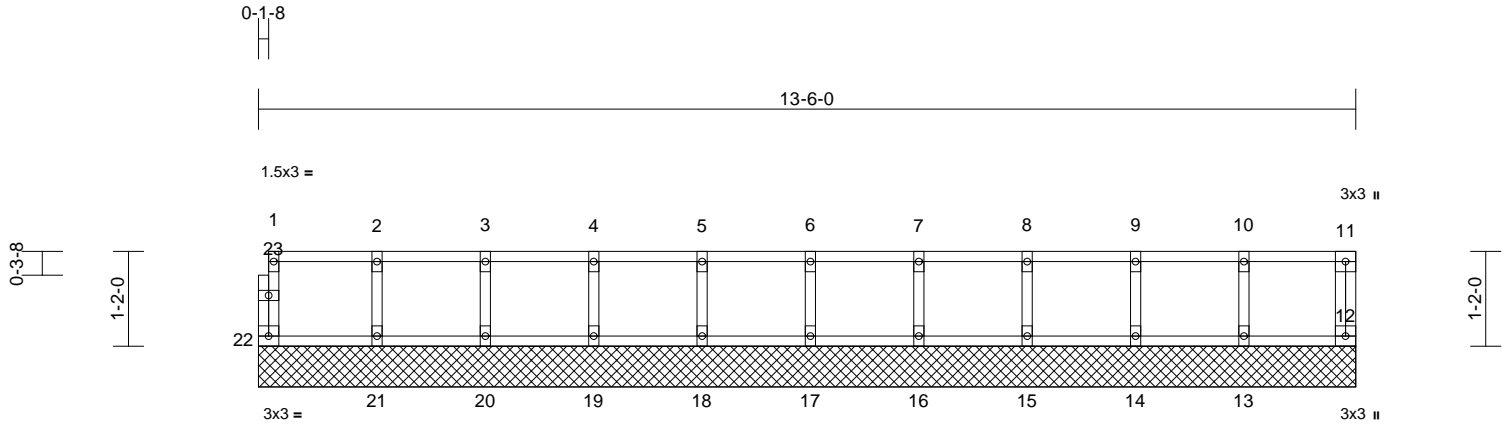
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F2GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927139
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:04
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Page: 1



Scale = 1:29.2

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	12	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 57 lb	FT = 20%F, 12%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)

- All bearings are assumed to be SP No.2 .
- 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.

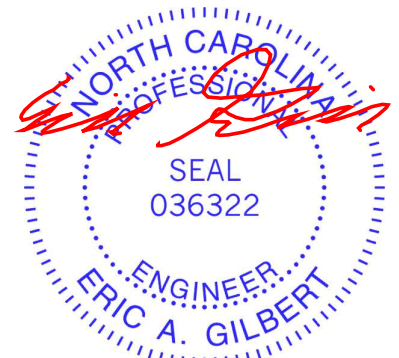
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

LOAD CASE(S) Standard

REACTIONS (size) 12=13-6-0, 13=13-6-0, 14=13-6-0, 15=13-6-0, 16=13-6-0, 17=13-6-0, 18=13-6-0, 19=13-6-0, 20=13-6-0, 21=13-6-0, 22=13-6-0
Max Grav 12=53 (LC 1), 13=115 (LC 1), 14=118 (LC 1), 15=117 (LC 1), 16=117 (LC 1), 17=117 (LC 1), 18=117 (LC 1), 19=117 (LC 1), 20=117 (LC 1), 21=120 (LC 1), 22=51 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-47/0, 11-12=-48/0, 1-2=-10/0, 2-3=-10/0, 3-4=-10/0, 4-5=-10/0, 5-6=-10/0, 6-7=-10/0, 7-8=-10/0, 8-9=-10/0, 9-10=-10/0, 10-11=-10/0
BOT CHORD 21-22=0/10, 20-21=0/10, 19-20=0/10, 18-19=0/10, 17-18=0/10, 16-17=0/10, 15-16=0/10, 14-15=0/10, 13-14=0/10, 12-13=0/10
WEBS 2-21=-109/0, 3-20=-106/0, 4-19=-107/0, 5-18=-107/0, 6-17=-107/0, 7-16=-107/0, 8-15=-106/0, 9-14=-107/0, 10-13=-105/0

- NOTES**
- All plates are 1.5x3 (||) 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 1-4-0 oc.



January 22, 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)



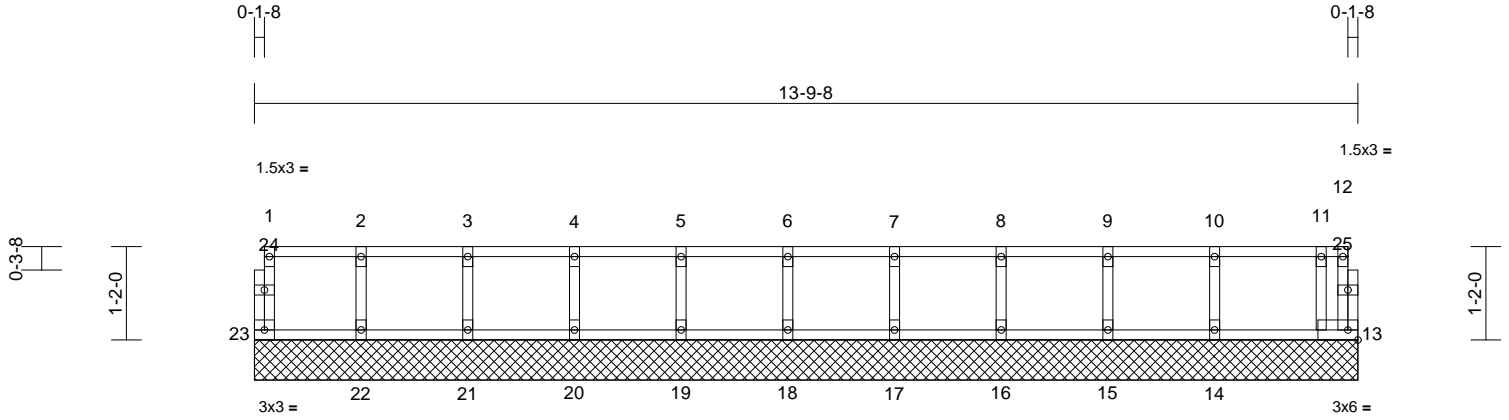
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F2GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927140
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:56
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Page: 1



Scale = 1:29.6

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	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	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 59 lb	FT = 20%F, 12%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)

- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- 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.

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.

LOAD CASE(S) Standard

REACTIONS (size) 13=13-9-8, 14=13-9-8, 15=13-9-8, 16=13-9-8, 17=13-9-8, 18=13-9-8, 19=13-9-8, 20=13-9-8, 21=13-9-8, 22=13-9-8, 23=13-9-8
Max Grav 13=72 (LC 1), 14=130 (LC 1), 15=114 (LC 1), 16=118 (LC 1), 17=117 (LC 1), 18=117 (LC 1), 19=117 (LC 1), 20=117 (LC 1), 21=120 (LC 1), 22=107 (LC 1), 23=51 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-44/0, 12-13=0/6, 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, 9-10=-14/0, 10-11=-14/0, 11-12=0/0
BOT CHORD 22-23=0/14, 21-22=0/14, 20-21=0/14, 19-20=0/14, 18-19=0/14, 17-18=0/14, 16-17=0/14, 15-16=0/14, 14-15=0/14, 13-14=0/14
WEBS 2-22=-100/0, 3-21=-108/0, 4-20=-106/0, 5-19=-107/0, 6-18=-107/0, 7-17=-106/0, 8-16=-107/0, 9-15=-104/0, 10-14=-115/0, 11-13=-75/0

- NOTES**
- All plates are 1.5x3 (||) 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).



January 22, 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)



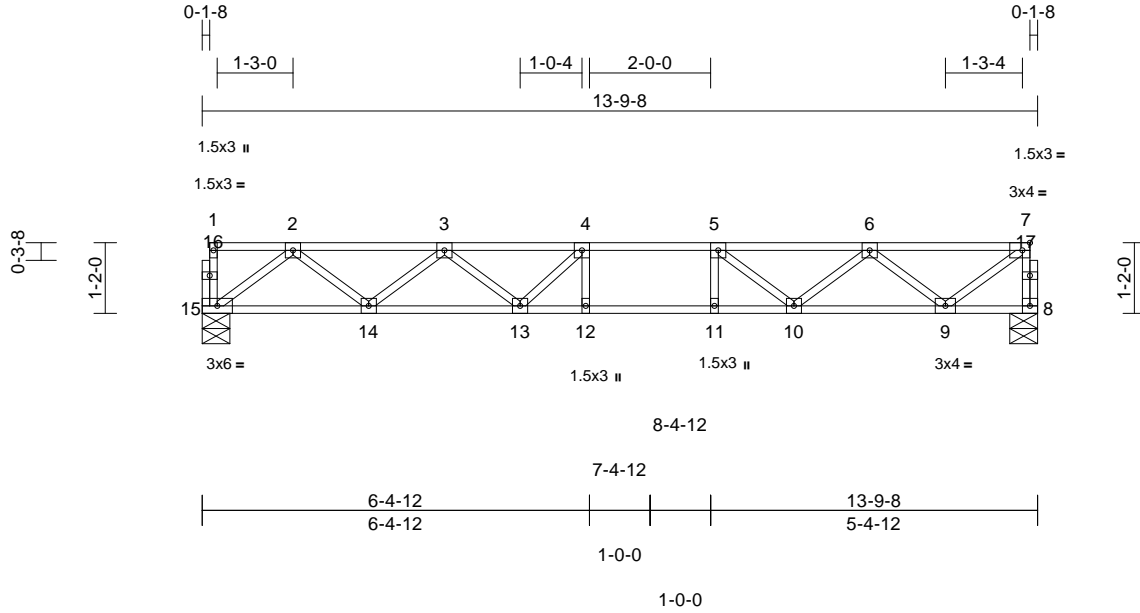
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F7	Truss Type Floor	Qty 12	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927141
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:58
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Page: 1



Scale = 1:34.9

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

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.42	Vert(LL)	-0.12	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.17	12-13	>980	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.03	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%F, 12%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) 8=0-5-8, 15=0-5-8

Max Grav 8=590 (LC 1), 15=590 (LC 1)

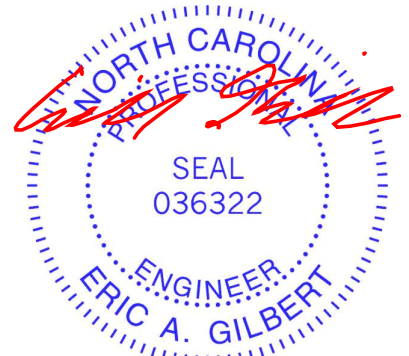
FORCES (lb) - Maximum Compression/Maximum Tension

- TOP CHORD 1-15=-32/0, 7-8=-588/0, 1-2=-2/0, 2-3=-1185/0, 3-4=-1793/0, 4-5=-1899/0, 5-6=-1564/0, 6-7=-679/0
- BOT CHORD 14-15=0/727, 13-14=0/1618, 12-13=0/1899, 11-12=0/1899, 10-11=0/1899, 9-10=0/1257, 8-9=0/35
- WEBS 4-12=-137/85, 5-11=-53/146, 2-15=-910/0, 2-14=0/596, 3-14=-563/0, 3-13=0/298, 4-13=-316/40, 5-10=-509/0, 6-10=0/408, 6-9=-753/0, 7-9=0/816

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (=) MT20 unless otherwise indicated.
- 3) All bearings are assumed to be SP No.2.
- 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.

LOAD CASE(S) Standard



January 22, 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)



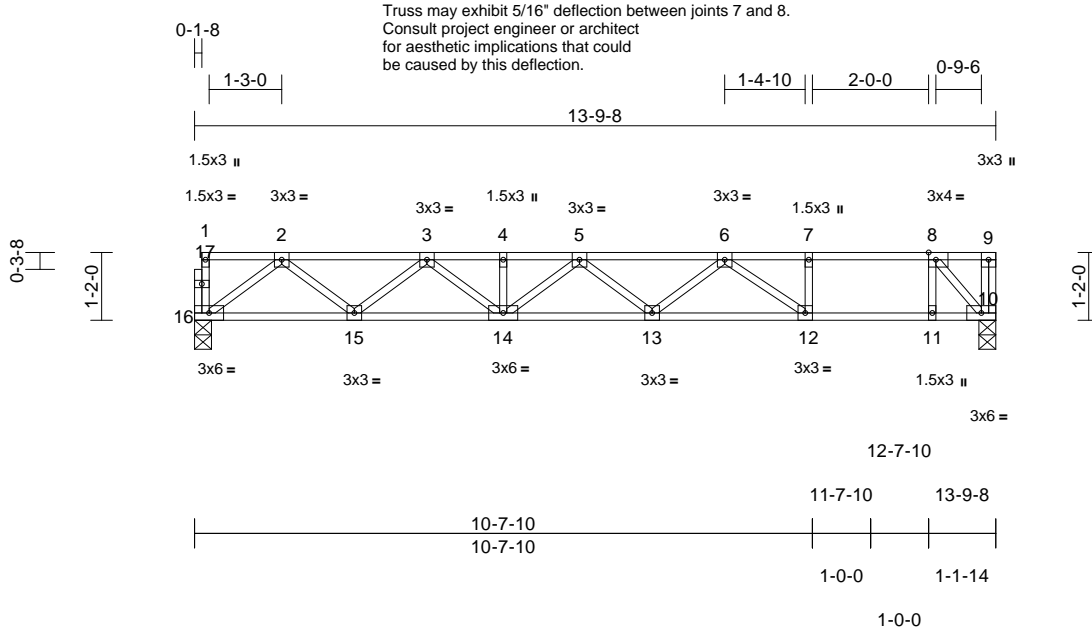
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F5	Truss Type Floor	Qty 12	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927142
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:05
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Page: 1



Scale = 1:34.9

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

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.81	Vert(LL)	-0.29	12-13	>553	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.81	Vert(CT)	-0.41	12-13	>401	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.02	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 71 lb	FT = 20%F, 12%E

LUMBER

- TOP CHORD 2x4 SP SS(flat)
- BOT CHORD 2x4 SP SS(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.

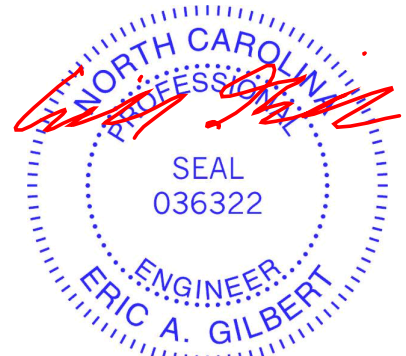
- REACTIONS** (size) 10=0-3-8, 16=0-3-8
Max Grav 10=595 (LC 1), 16=590 (LC 1)

- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-16=-28/0, 9-10=0/274, 1-2=-2/0, 2-3=-1184/0, 3-4=-1815/0, 4-5=-1815/0, 5-6=-1921/0, 6-7=-995/0, 7-8=-995/0, 8-9=0/0
 - BOT CHORD 15-16=0/733, 14-15=0/1600, 13-14=0/1957, 12-13=0/1735, 11-12=0/995, 10-11=0/995
 - WEBS 7-12=0/284, 8-11=0/440, 2-16=-918/0, 2-15=0/588, 3-15=-541/0, 3-14=0/274, 4-14=-68/0, 5-14=-181/0, 5-13=-50/40, 6-13=0/247, 6-12=-918/0, 8-10=-1461/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP SS.
- 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



January 22, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbccomponents.com)



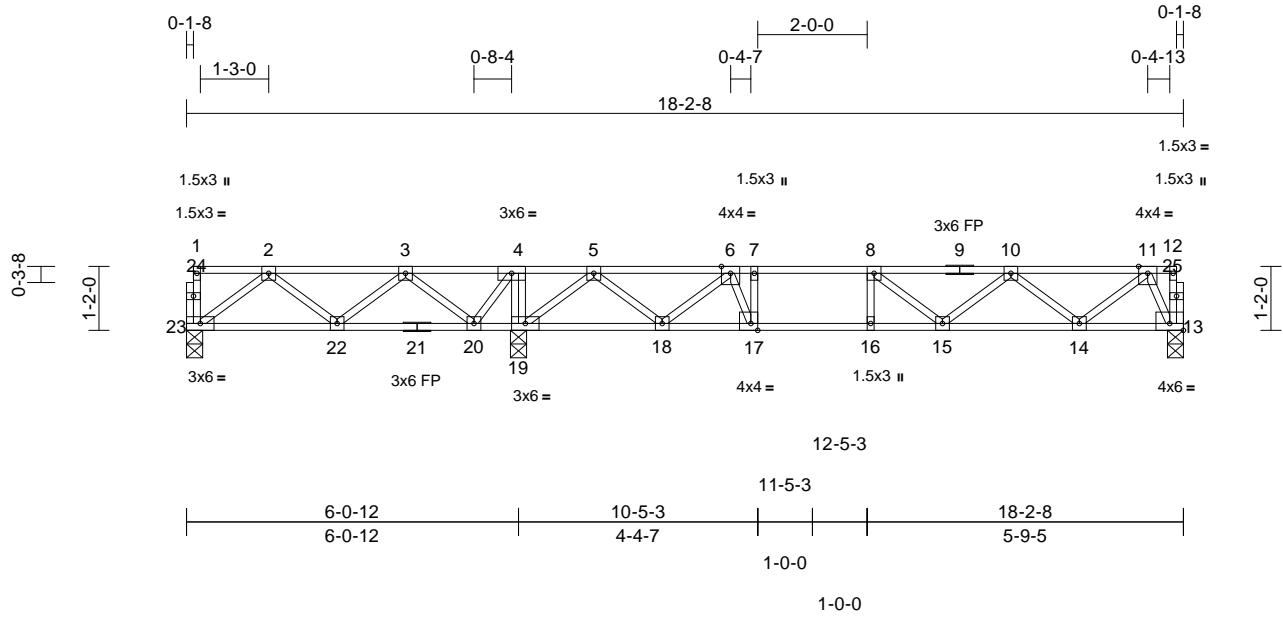
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F12	Truss Type Floor	Qty 3	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927143
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:08
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Page: 1



Scale = 1:36.4
Plate Offsets (X, Y): [13:Edge,0-1-8], [17:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.54	Vert(LL)	-0.10	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.13	15-16	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.02	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 94 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 13=0-3-8, 19=0-3-8, 23=0-3-8
Max Uplift 23=14 (LC 4)
Max Grav 13=482 (LC 4), 19=931 (LC 1), 23=219 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-28/0, 12-13=0/40, 1-2=-2/0, 2-3=-253/110, 3-4=0/406, 4-5=0/634, 5-6=-628/0, 6-7=-1228/0, 7-8=-1228/0, 8-10=-1197/0, 10-11=-676/0, 11-12=0/2
BOT CHORD 22-23=-35/243, 20-22=-215/236, 19-20=-634/0, 18-19=-51/221, 17-18=0/1070, 16-17=0/1228, 15-16=0/1228, 14-15=0/1080, 13-14=0/257
WEBS 4-19=-411/0, 2-23=-303/45, 2-22=-110/14, 3-22=0/147, 3-20=-452/0, 4-20=0/370, 7-17=-387/0, 8-16=-115/0, 5-19=-852/0, 5-18=0/539, 6-18=-589/0, 6-17=0/555, 8-15=-118/31, 10-15=0/162, 10-14=-527/0, 11-14=0/545, 11-13=-576/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) All bearings are assumed to be SP No.2.

- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 23. This connection is for uplift only and does not consider lateral forces.
- 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



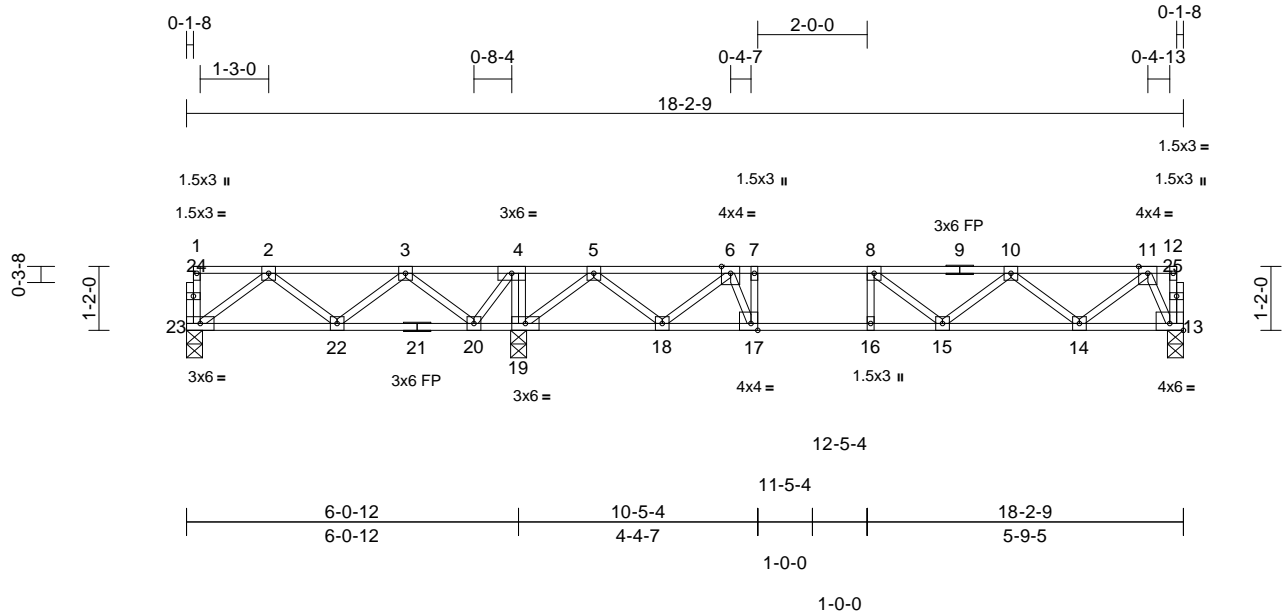
January 22, 2025

Job 2501-0740-A	Truss 2F13	Truss Type Floor	Qty 2	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927144
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:08
ID:KI9C8IjsJZvuBi?kceMf_BztTLV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:36.4

Plate Offsets (X, Y): [13:Edge,0-1-8], [17:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.54	Vert(LL)	-0.10	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.13	15-16	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.02	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 94 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 13=0-3-8, 19=0-3-8, 23=0-3-8
Max Uplift 23=-14 (LC 4)
Max Grav 13=482 (LC 4), 19=931 (LC 1), 23=219 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-28/0, 12-13=0/40, 1-2=-2/0, 2-3=-254/110, 3-4=0/406, 4-5=0/634, 5-6=-628/0, 6-7=-1228/0, 7-8=-1228/0, 8-10=-1197/0, 10-11=-676/0, 11-12=0/2
BOT CHORD 22-23=-35/243, 20-22=-214/236, 19-20=-634/0, 18-19=-51/221, 17-18=0/1070, 16-17=0/1228, 15-16=0/1228, 14-15=0/1080, 13-14=0/257
WEBS 4-19=-411/0, 2-23=-303/45, 2-22=-110/14, 3-22=0/147, 3-20=-452/0, 4-20=0/370, 7-17=-387/0, 8-16=-115/0, 5-19=-852/0, 5-18=0/539, 6-18=-589/0, 6-17=0/555, 8-15=-118/31, 10-15=0/162, 10-14=-527/0, 11-14=0/545, 11-13=-576/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) All bearings are assumed to be SP No.2.

- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 23. This connection is for uplift only and does not consider lateral forces.
- 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



January 22, 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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ENGINEERING BY
TRENCO
A MiTek Affiliate

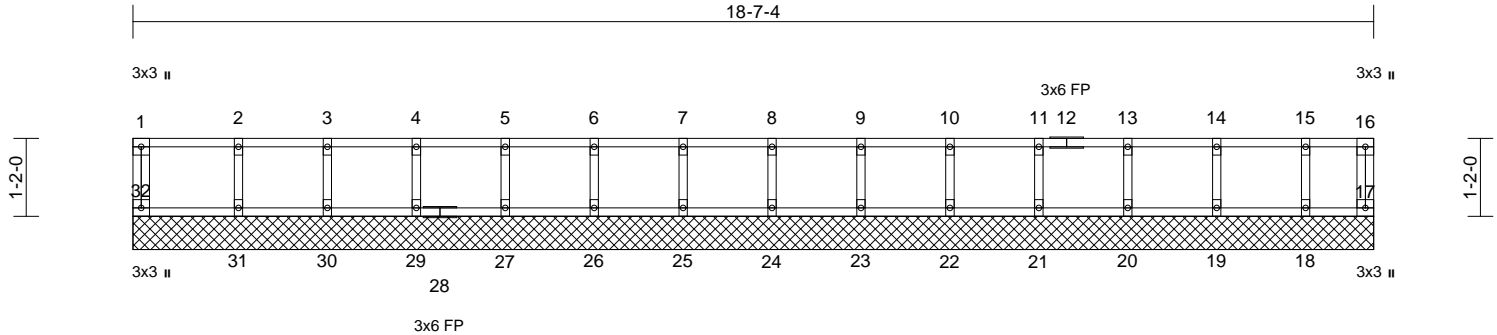
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0128 OWF	170927145
2501-0740-A	2F4GE	FLOOR	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:05
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Page: 1



Scale = 1:34.5

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 78 lb	FT = 20%F, 12%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) 17=18-7-4, 18=18-7-4, 19=18-7-4, 20=18-7-4, 21=18-7-4, 22=18-7-4, 23=18-7-4, 24=18-7-4, 25=18-7-4, 26=18-7-4, 27=18-7-4, 29=18-7-4, 30=18-7-4, 31=18-7-4, 32=18-7-4
 Max Grav 17=40 (LC 1), 18=94 (LC 1), 19=122 (LC 1), 20=116 (LC 1), 21=118 (LC 1), 22=117 (LC 1), 23=117 (LC 1), 24=117 (LC 1), 25=117 (LC 1), 26=117 (LC 1), 27=117 (LC 1), 29=118 (LC 1), 30=114 (LC 1), 31=130 (LC 1), 32=60 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-32=-55/0, 16-17=-33/0, 1-2=-9/0, 2-3=-9/0, 3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0, 7-8=-9/0, 8-9=-9/0, 9-10=-9/0, 10-11=-9/0, 11-13=-9/0, 13-14=-9/0, 14-15=-9/0, 15-16=-9/0
 BOT CHORD 31-32=0/9, 30-31=0/9, 29-30=0/9, 27-29=0/9, 26-27=0/9, 25-26=0/9, 24-25=0/9, 23-24=0/9, 22-23=0/9, 21-22=0/9, 20-21=0/9, 19-20=0/9, 18-19=0/9, 17-18=0/9
 WEBS 2-31=-117/0, 3-30=-104/0, 4-29=-107/0, 5-27=-106/0, 6-26=-107/0, 7-25=-107/0, 8-24=-107/0, 9-23=-107/0, 10-22=-107/0, 11-21=-107/0, 13-20=-106/0, 14-19=-110/0, 15-18=-89/0

NOTES

- All plates are 1.5x3 (II) 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 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- 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



January 22, 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)



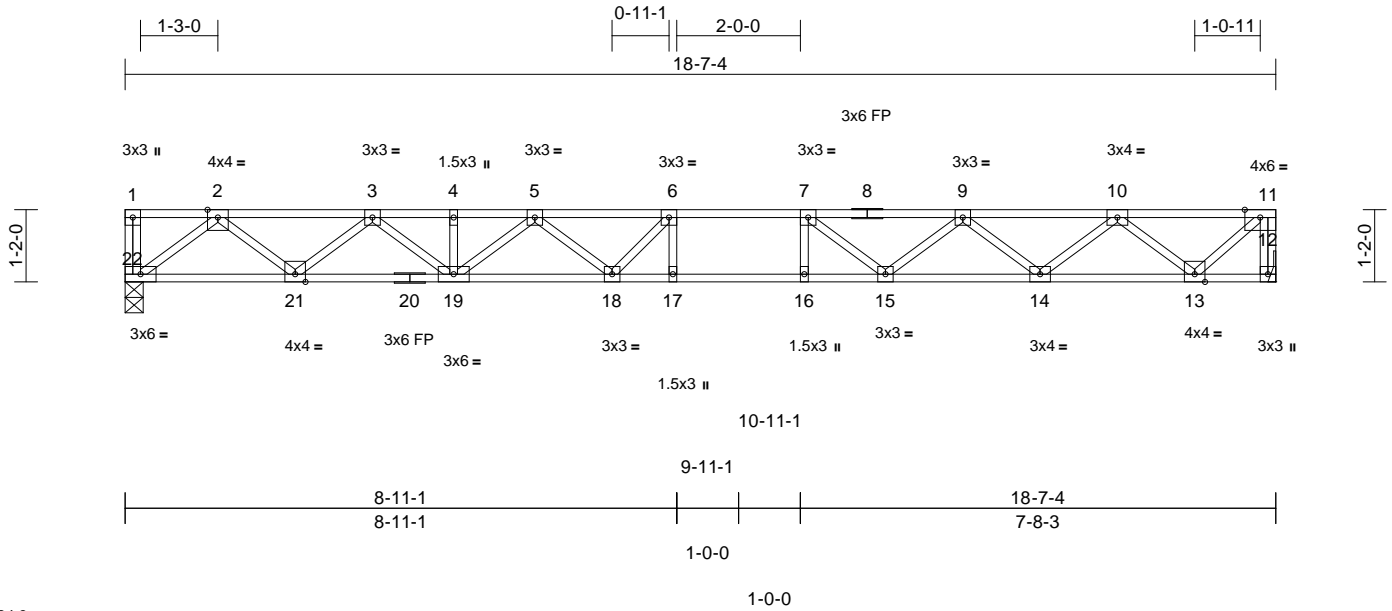
818 Soundside Road
 Edenton, NC 27932

Job 2501-0740-A	Truss 2F14	Truss Type Floor	Qty 12	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927146
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:08
ID:oUjblLekU411osaxALTuWPztTLU-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.52	Vert(LL)	-0.29	17-18	>763	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.68	Vert(CT)	-0.40	17-18	>555	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.06	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 94 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
 BOT CHORD 2x4 SP No.2(flat) *Except* 20-12:2x4 SP SS (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) 12= Mechanical, 22=0-3-8
 Max Grav 12=807 (LC 1), 22=807 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-22=-32/0, 11-12=-802/0, 1-2=0/0, 2-3=-1714/0, 3-4=-2870/0, 4-5=-2870/0, 5-6=-3433/0, 6-7=-3507/0, 7-9=-3139/0, 9-10=-2258/0, 10-11=-823/0
 BOT CHORD 21-22=0/1010, 19-21=0/2388, 18-19=0/3268, 17-18=0/3507, 16-17=0/3507, 15-16=0/3507, 14-15=0/2812, 13-14=0/1675, 12-13=0/0
 WEBS 6-17=-226/145, 7-16=-99/214, 2-22=-1267/0, 2-21=0/916, 3-21=-878/0, 3-19=0/615, 4-19=-50/0, 5-19=-509/0, 5-18=0/356, 6-18=-403/180, 7-15=-642/0, 9-15=0/480, 9-14=-721/0, 10-14=0/760, 10-13=-1109/0, 11-13=0/1096

NOTES

- Unbalanced floor live loads have been considered for this design.
- Bearings are assumed to be: Joint 22 SP No.2.
- 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.

LOAD CASE(S) Standard



January 22, 2025

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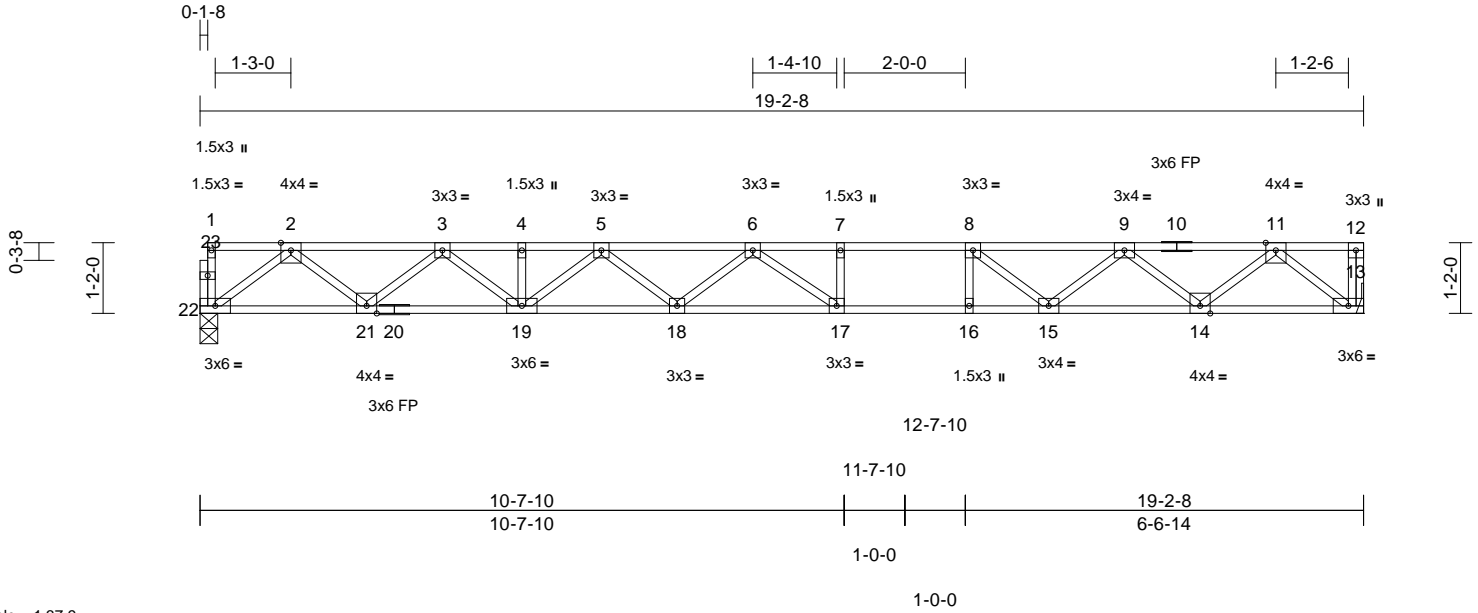
818 Soundside Road
 Edenton, NC 27932

Job 2501-0740-A	Truss 2F3	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927147
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:04
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Page: 1



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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	-0.35	17-18	>644	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.49	17-18	>466	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.06	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 96 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP SS(flat) *Except* 10-12:2x4 SP No.2 (flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 20-13:2x4 SP SS (flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

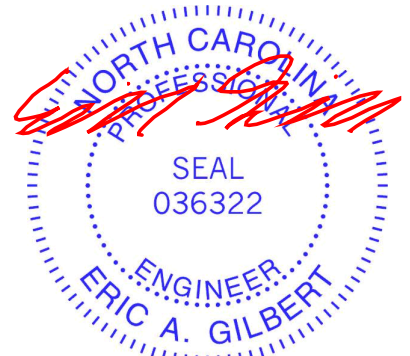
LOAD CASE(S) Standard

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) 13= Mechanical, 22=0-3-8
Max Grav 13=834 (LC 1), 22=829 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-29/0, 12-13=-31/1, 1-2=-2/0, 2-3=-1780/0, 3-4=-2999/0, 4-5=-2999/0, 5-6=-3653/0, 6-7=-3585/0, 7-8=-3585/0, 8-9=-2951/0, 9-11=-1750/0, 11-12=0/0
BOT CHORD 21-22=0/1044, 19-21=0/2485, 18-19=0/3435, 17-18=0/3787, 16-17=0/3585, 15-16=0/3585, 14-15=0/2447, 13-14=0/1014
WEBS 7-17=-107/105, 8-16=-6/268, 2-22=-1308/0, 2-21=0/958, 3-21=917/0, 3-19=0/657, 4-19=-61/0, 5-19=-556/0, 5-18=0/284, 6-18=-239/0, 6-17=-454/237, 8-15=-901/0, 9-15=0/672, 9-14=-907/0, 11-14=0/958, 11-13=-1291/0

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) Bearings are assumed to be: Joint 22 SP No.2 .
 - 3) Refer to girder(s) for truss to truss connections.
 - 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) CAUTION, Do not erect truss backwards.



January 22, 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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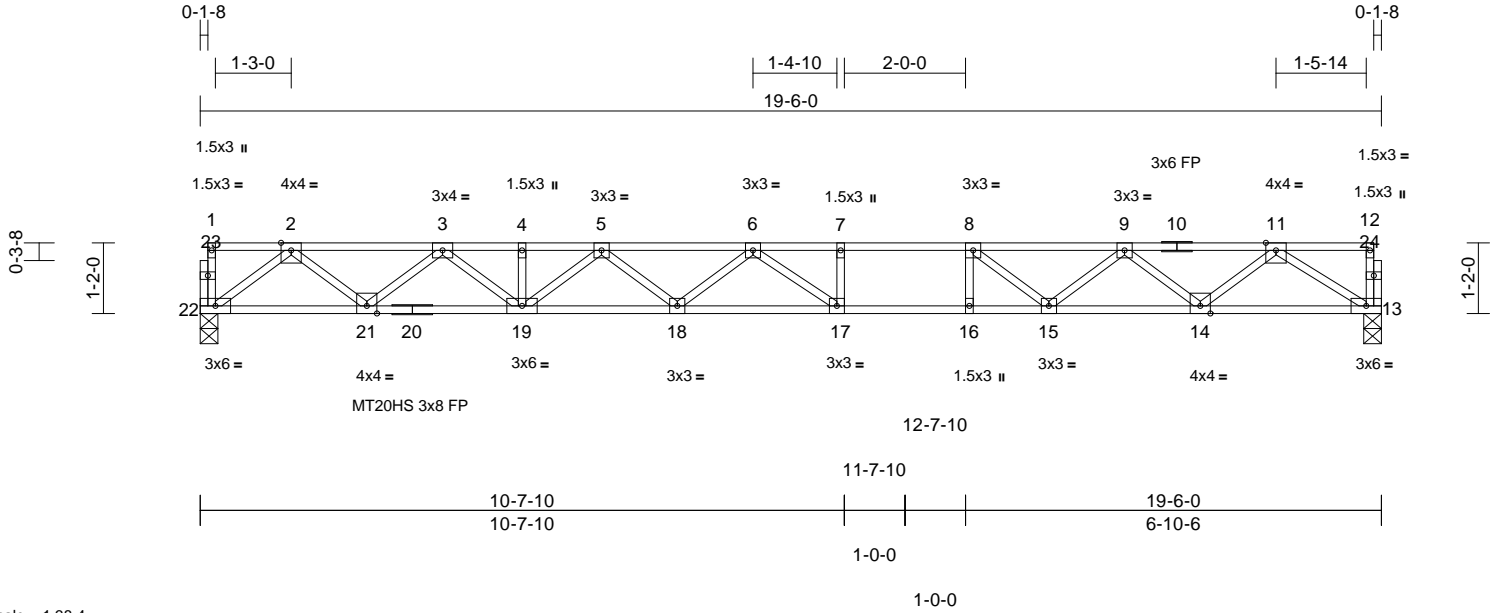
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F4	Truss Type Floor	Qty 5	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927148
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:05
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Page: 1



Scale = 1:38.4

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	-0.36	17-18	>635	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.50	17-18	>459	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.07	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 97 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP SS(flat) *Except* 10-12:2x4 SP No.2 (flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 20-13:2x4 SP SS (flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

LOAD CASE(S) Standard

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) 13=0-3-8, 22=0-3-8
Max Grav 13=841 (LC 1), 22=841 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-29/0, 12-13=-43/0, 1-2=-2/0, 2-3=-1812/0, 3-4=-3063/0, 4-5=-3063/0, 5-6=-3746/0, 6-7=-3725/0, 7-8=-3725/0, 8-9=-3120/0, 9-11=-1951/0, 11-12=-3/0
BOT CHORD 21-22=0/1061, 19-21=0/2532, 18-19=0/3514, 17-18=0/3898, 16-17=0/3725, 15-16=0/3725, 14-15=0/2634, 13-14=0/1229
WEBS 7-17=-117/98, 8-16=-16/260, 2-22=-1329/0, 2-21=0/978, 3-21=937/0, 3-19=0/678, 4-19=-61/0, 5-19=-576/0, 5-18=0/301, 6-18=-257/0, 6-17=-432/266, 8-15=-880/0, 9-15=0/658, 9-14=-889/0, 11-14=0/940, 11-13=-1460/0

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All plates are MT20 plates unless otherwise indicated.
 - Bearings are assumed to be: Joint 22 SP No.2, Joint 13 SP SS.
 - 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.



January 22, 2025

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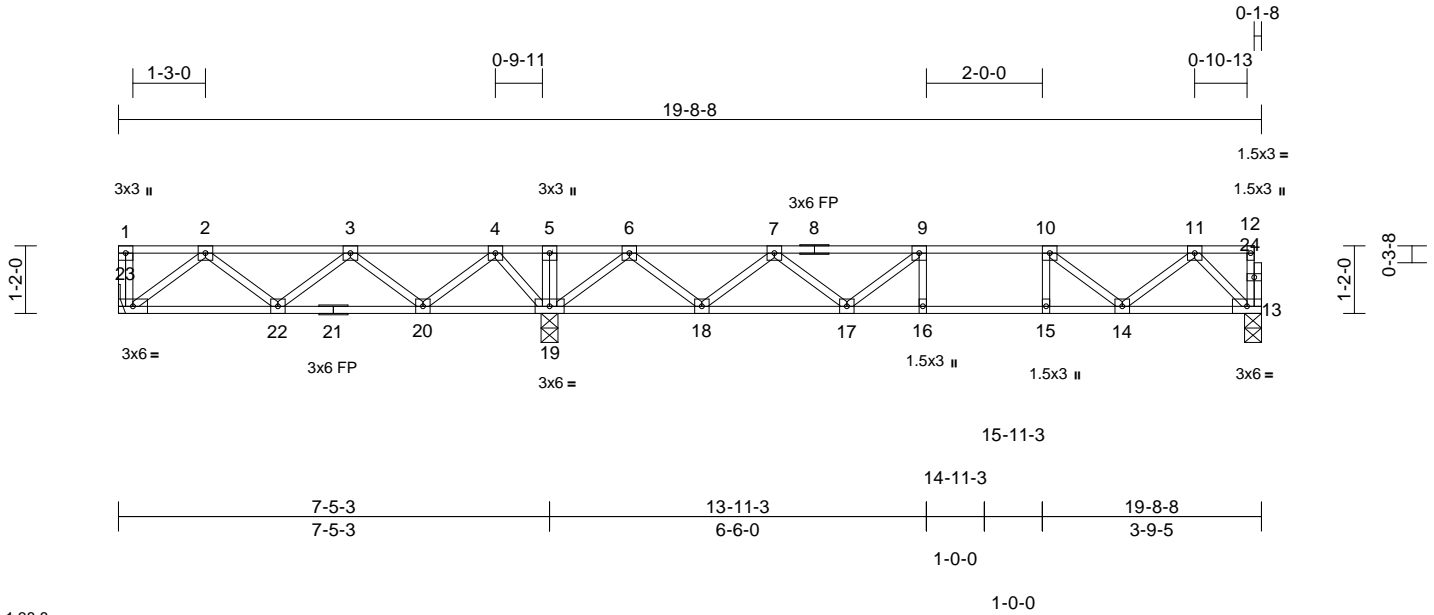
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F7	Truss Type Floor	Qty 3	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927149
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:06
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Page: 1



Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.06	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.43	Vert(CT)	-0.08	16-17	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 100 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 13=0-3-8, 19=0-3-8, 23=
Mechanical
Max Uplift 23=68 (LC 4)
Max Grav 13=435 (LC 4), 19=1130 (LC 1),
23=260 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-33/0, 12-13=-14/2, 1-2=0/0,
2-3=-346/249, 3-4=-150/638, 4-5=0/1260,
5-6=0/1261, 6-7=-169/59, 7-9=-855/0,
9-10=-1033/0, 10-11=-715/0, 11-12=-1/0
BOT CHORD 22-23=-109/289, 20-22=-418/375,
19-20=-877/0, 18-19=-534/0, 17-18=0/645,
16-17=0/1033, 15-16=0/1033, 14-15=0/1033,
13-14=0/412
WEBS 5-19=-55/0, 2-23=-362/137, 2-22=-182/74,
3-22=-38/220, 3-20=-481/0, 4-20=0/503,
4-19=-643/0, 9-16=-55/59, 10-15=-35/79,
6-19=-962/0, 6-18=0/658, 7-18=-632/0,
7-17=0/289, 9-17=-290/0, 10-14=-406/0,
11-14=0/394, 11-13=-586/0

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 3x3 (=) MT20 unless otherwise indicated.
 - 3) Bearings are assumed to be: , Joint 19 SP No.2 , Joint 13 SP No.2 .
 - 4) Refer to girder(s) for truss to truss connections.

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 23.
- 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.

LOAD CASE(S) Standard



January 22, 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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ENGINEERING BY
TRENCO
A MITEK Affiliate

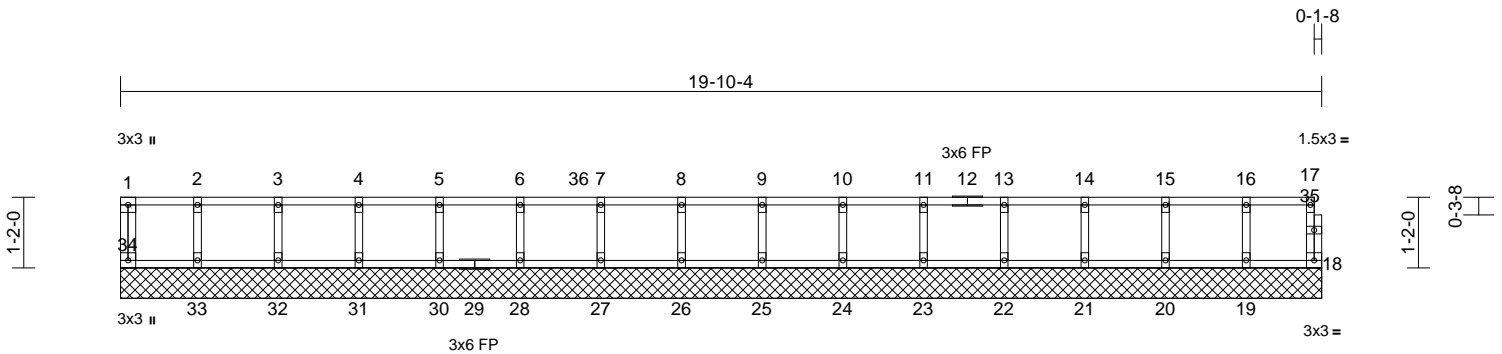
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F3GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927150
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:56
ID:6IHRP8?OUYuwudcEP6kAp?zuBH_-RfC?PsB70Hq3NSgPqnl8w3uTXbGKWrCD0i7J4zJC?f

Page: 1



Scale = 1:39

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.51	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	NO	WB	0.11	Horiz(TL)	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 83 lb	FT = 20%F, 12%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)

WEBS

2-33=-103/0, 3-32=-106/0, 4-31=-114/0,
5-30=-75/0, 6-28=-234/0, 7-27=-477/0,
8-26=-55/0, 9-25=-120/0, 10-24=-103/0,
11-23=-107/0, 13-22=-106/0, 14-21=-106/0,
15-20=-108/0, 16-19=-101/0

BRACING

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

- NOTES**
- All plates are 1.5x3 (||) 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 1'-4-0 oc.
 - All bearings are assumed to be SP No.2 .
 - Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - Recommend 2x6 strongbacks, on edge, spaced at 10'-0-0-0 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.

REACTIONS (size)

18=19-10-4, 19=19-10-4,
20=19-10-4, 21=19-10-4,
22=19-10-4, 23=19-10-4,
24=19-10-4, 25=19-10-4,
26=19-10-4, 27=19-10-4,
28=19-10-4, 30=19-10-4,
31=19-10-4, 32=19-10-4,
33=19-10-4, 34=19-10-4
Max Grav 18=40 (LC 1), 19=111 (LC 1),
20=119 (LC 1), 21=117 (LC 1),
22=117 (LC 1), 23=118 (LC 1),
24=114 (LC 1), 25=130 (LC 1),
26=65 (LC 1), 27=488 (LC 1),
28=245 (LC 1), 30=86 (LC 1),
31=125 (LC 1), 32=116 (LC 1),
33=113 (LC 1), 34=46 (LC 1)

LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00,
Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 18-34=-8, 1-17=-80
Concentrated Loads (lb)
Vert: 36=-431

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-34=-42/0, 17-18=-36/0, 1-2=-7/0, 2-3=-7/0,
3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0,	
7-8=-7/0, 8-9=-7/0, 9-10=-7/0, 10-11=-7/0,	
11-13=-7/0, 13-14=-7/0, 14-15=-7/0,	
15-16=-7/0, 16-17=-7/0	
BOT CHORD	33-34=0/7, 32-33=0/7, 31-32=0/7, 30-31=0/7,
28-30=0/7, 27-28=0/7, 26-27=0/7, 25-26=0/7,	
24-25=0/7, 23-24=0/7, 22-23=0/7, 21-22=0/7,	
20-21=0/7, 19-20=0/7, 18-19=0/7	



January 22, 2025

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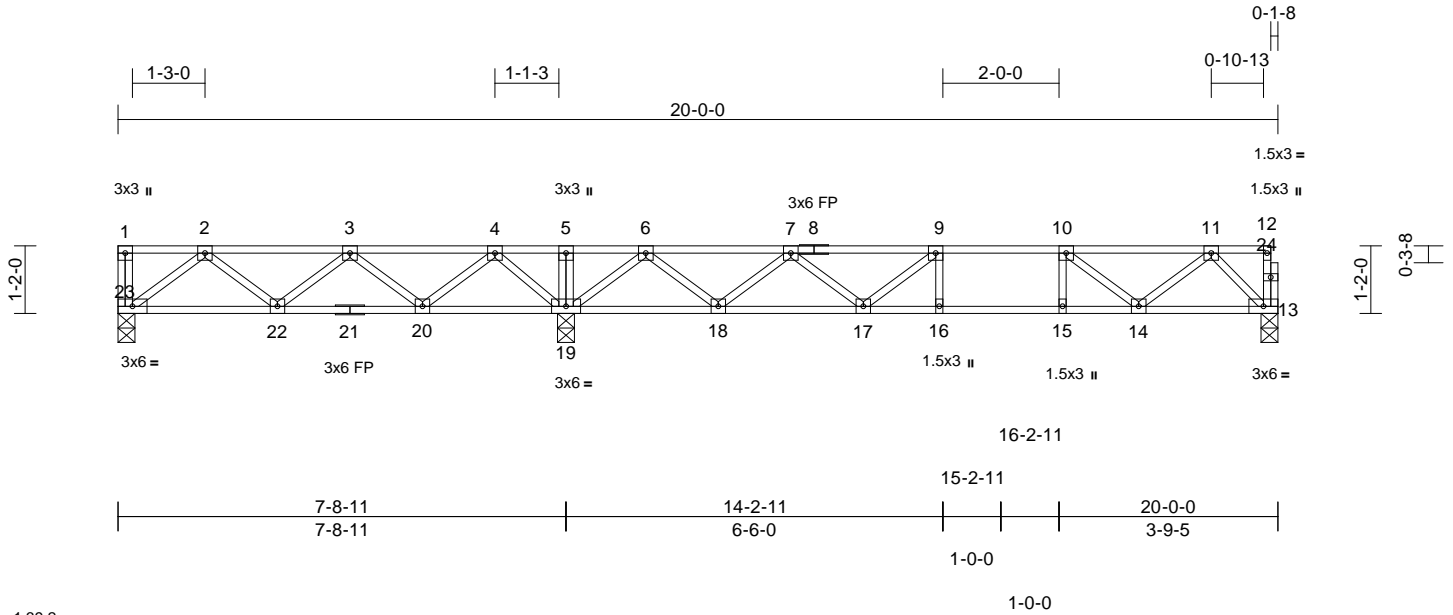
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F6	Truss Type Floor	Qty 3	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927151
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:06
ID:oUjblEkU411osaxALtuWPztTLU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCdoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.06	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.43	Vert(CT)	-0.08	16-17	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 102 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 13=0-3-8, 19=0-3-8, 23=0-3-8
Max Uplift 23=59 (LC 4)
Max Grav 13=435 (LC 4), 19=1137 (LC 1), 23=273 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-33/0, 12-13=-14/3, 1-2=0/0, 2-3=-379/225, 3-4=-215/590, 4-5=0/1264, 5-6=0/1264, 6-7=-175/62, 7-9=-860/0, 9-10=-1036/0, 10-11=-716/0, 11-12=-1/0
BOT CHORD 22-23=-96/306, 20-22=-382/424, 19-20=-819/0, 18-19=-535/0, 17-18=0/651, 16-17=0/1036, 15-16=0/1036, 14-15=0/1036, 13-14=0/412
WEBS 5-19=-77/0, 9-16=-55/60, 10-15=-36/79, 2-23=-384/121, 2-22=-167/95, 3-22=-59/204, 3-20=-453/0, 4-20=0/477, 4-19=-716/0, 6-19=-962/0, 6-18=0/659, 7-18=-633/0, 7-17=0/289, 9-17=-292/0, 10-14=-408/0, 11-14=0/395, 11-13=-587/0

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 3x3 (=) MT20 unless otherwise indicated.
 - 3) All bearings are assumed to be SP No.2.
 - 4) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 23. This connection is for uplift only and does not consider lateral forces.

- 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.

LOAD CASE(S) Standard



January 22, 2025

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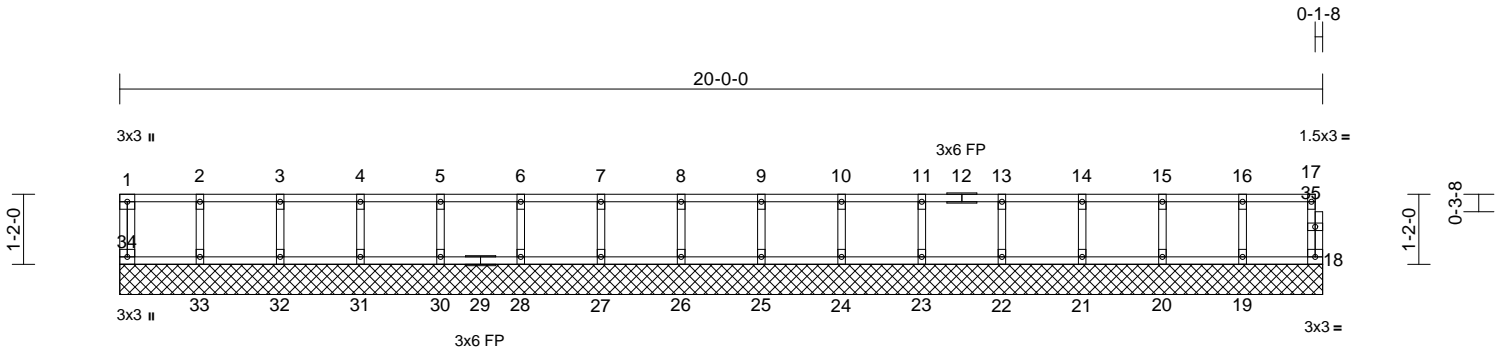
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F3GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927152
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:05
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Page: 1



Scale = 1:39.2

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	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	0.02	Horiz(TL)	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 84 lb	FT = 20%F, 12%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" oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10'-0" oc bracing.

REACTIONS (size)

18=20-0-0, 19=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0, 25=20-0-0, 26=20-0-0, 27=20-0-0, 28=20-0-0, 30=20-0-0, 31=20-0-0, 32=20-0-0, 33=20-0-0, 34=20-0-0	
Max Grav	18=45 (LC 1), 19=114 (LC 1), 20=118 (LC 1), 21=117 (LC 1), 22=117 (LC 1), 23=117 (LC 1), 24=117 (LC 1), 25=117 (LC 1), 26=117 (LC 1), 27=117 (LC 1), 28=117 (LC 1), 30=117 (LC 1), 31=117 (LC 1), 32=118 (LC 1), 33=115 (LC 1), 34=50 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-34=-45/0, 17-18=-41/0, 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, 11-13=-8/0, 13-14=-8/0, 14-15=-8/0, 15-16=-8/0, 16-17=-8/0
BOT CHORD	33-34=0/8, 32-33=0/8, 31-32=0/8, 30-31=0/8, 28-30=0/8, 27-28=0/8, 26-27=0/8, 25-26=0/8, 24-25=0/8, 23-24=0/8, 22-23=0/8, 21-22=0/8, 20-21=0/8, 19-20=0/8, 18-19=0/8
WEBS	2-33=-104/0, 3-32=-107/0, 4-31=-106/0, 5-30=-107/0, 6-28=-107/0, 7-27=-107/0, 8-26=-107/0, 9-25=-107/0, 10-24=-107/0, 11-23=-107/0, 13-22=-107/0, 14-21=-106/0, 15-20=-107/0, 16-19=-104/0

- 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" oc.
 - 5) All bearings are assumed to be SP No.2 .
 - 6) Recommend 2x6 strongbacks, on edge, spaced at 10'-0" 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.
- LOAD CASE(S)** Standard



January 22, 2025

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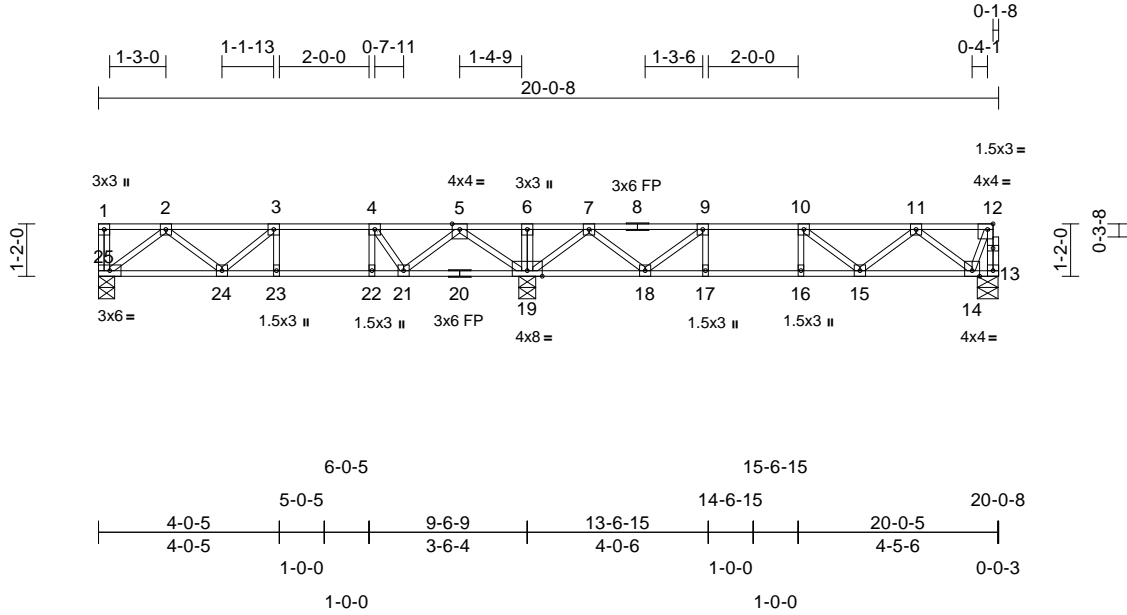
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0128 OWF	170927153
2501-0740-A	1F13	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:00
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Page: 1



Scale = 1:44.7

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

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.49	Vert(LL)	-0.06	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.76	Vert(CT)	-0.10	15-16	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.02	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 101 lb	FT = 20%F, 12%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)

- 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.

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.

LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (lb/ft)
 Vert: 13-25=-8, 1-12=-80
 Concentrated Loads (lb)
 Vert: 5=-720

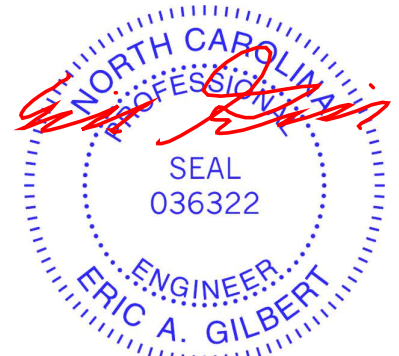
REACTIONS (size) 13=0-5-8, 19=0-4-8, 25=0-4-5
 Max Grav 13=391 (LC 7), 19=1648 (LC 1), 25=464 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-25=-35/0, 12-13=-386/0, 1-2=0/0, 2-3=-854/0, 3-4=-1146/0, 4-5=-1066/0, 5-6=0/903, 6-7=0/902, 7-9=-344/256, 9-10=-785/31, 10-11=-711/0, 11-12=-154/0
 BOT CHORD 24-25=0/552, 23-24=0/1146, 22-23=0/1146, 21-22=0/1146, 19-21=0/890, 18-19=-433/0, 17-18=-31/785, 16-17=-31/785, 15-16=-31/785, 14-15=0/563, 13-14=0/0
 WEBS 3-23=-19/71, 4-22=-67/59, 6-19=-124/0, 9-17=0/163, 10-16=-140/0, 2-25=-692/0, 2-24=0/394, 3-24=-384/0, 7-19=-783/0, 7-18=0/532, 9-18=-638/0, 10-15=-94/118, 11-15=-22/193, 11-14=-533/0, 12-14=0/378, 5-19=-1821/0, 5-21=0/307, 4-21=-248/20

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (=) MT20 unless otherwise indicated.
- 3) All bearings are assumed to be SP No.2.
- 4) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.



January 22, 2025

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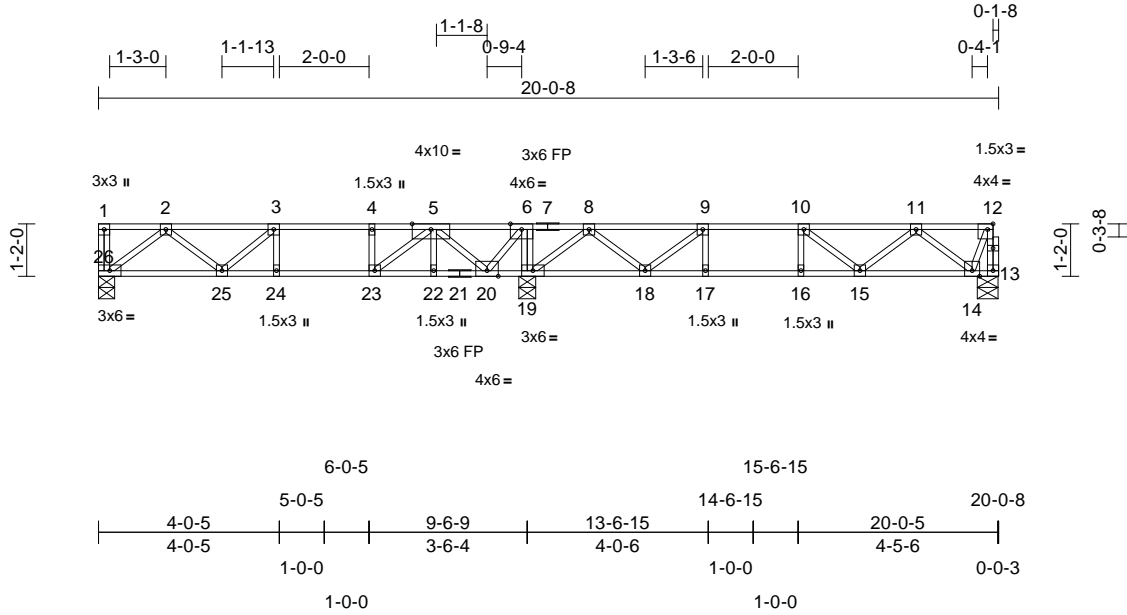
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0128 OWF	170927154
2501-0740-A	1F12	Floor	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:59
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Page: 1



Scale = 1:44.7
 Plate Offsets (X, Y): [12:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	-0.05	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.09	15-16	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.57	Horz(CT)	0.02	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 102 lb	FT = 20%F, 12%E

LUMBER
 TOP CHORD 2x4 SP DSS(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 6-0-0 oc bracing.

REACTIONS (size) 13=0-5-8, 19=0-4-8, 26=0-4-5
 Max Grav 13=382 (LC 7), 19=1550 (LC 1), 26=480 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-26=-38/0, 12-13=-378/0, 1-2=0/0, 2-3=-899/0, 3-4=-1219/0, 4-5=-1219/0, 5-6=-124/228, 6-8=0/964, 8-9=-285/310, 9-10=-741/69, 10-11=-684/0, 11-12=-151/0
 BOT CHORD 25-26=0/570, 24-25=0/1219, 23-24=0/1219, 22-23=0/1125, 20-22=0/1125, 19-20=-964/0, 18-19=-501/0, 17-18=-69/741, 16-17=-69/741, 15-16=-69/741, 14-15=0/552, 13-14=0/0
 WEBS 3-24=0/69, 4-23=-128/16, 6-19=-1059/0, 9-17=0/152, 10-16=-128/0, 2-26=-714/0, 2-25=0/429, 3-25=-422/0, 5-23=-64/242, 5-20=-1378/0, 6-20=0/1193, 8-19=-773/0, 8-18=0/553, 9-18=-657/0, 10-15=-74/135, 11-15=-41/171, 11-14=-522/0, 12-14=0/371, 5-22=-3/40

NOTES
 1) Unbalanced floor live loads have been considered for this design.
 2) All plates are 3x3 (=) MT20 unless otherwise indicated.
 3) All bearings are assumed to be SP No.2 .

- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (lb/ft)
 Vert: 13-26=-8, 1-12=-80
 Concentrated Loads (lb)
 Vert: 5=-630



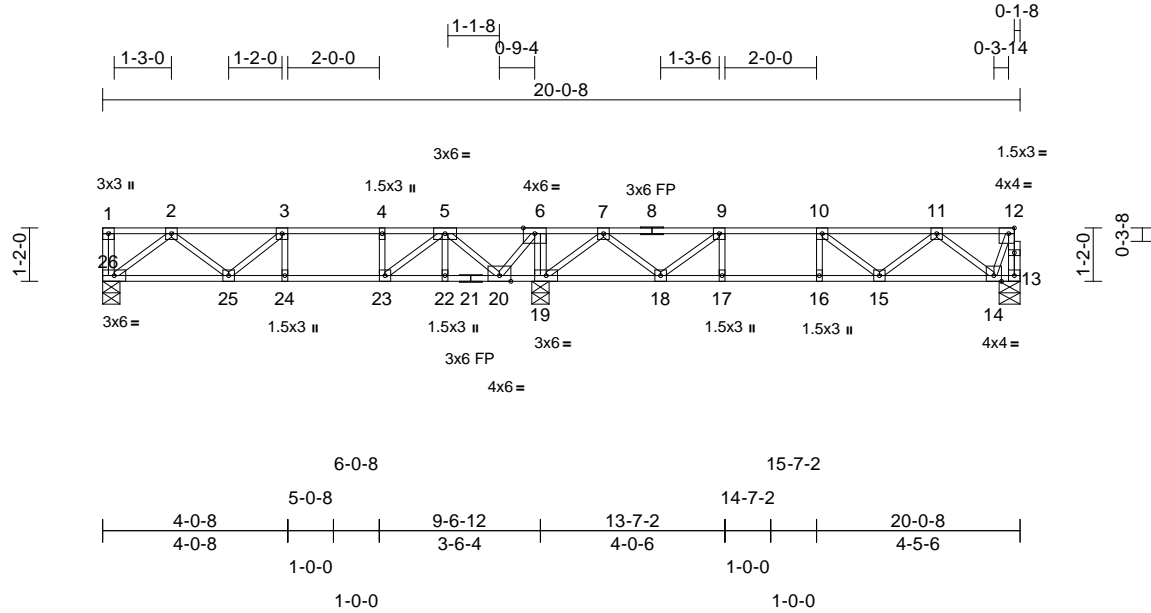
January 22, 2025

Job 2501-0740-A	Truss 1F8	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927156
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:58
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Page: 1



Scale = 1:43.8

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

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.51	Vert(LL)	-0.06	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.10	15-16	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.56	Horz(CT)	0.02	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 103 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 13=0-5-8, 19=0-4-8, 26=0-4-8
Max Grav 13=384 (LC 7), 19=1526 (LC 1), 26=478 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-26=-36/0, 12-13=-379/0, 1-2=0/0, 2-3=-892/0, 3-4=-1211/0, 4-5=-1211/0, 5-6=-130/224, 6-7=0/941, 7-9=-300/295, 9-10=-752/57, 10-11=-691/0, 11-12=-146/0
BOT CHORD 25-26=0/569, 24-25=0/1211, 23-24=0/1211, 22-23=0/1111, 20-22=0/1111, 19-20=-941/0, 18-19=-478/0, 17-18=-57/752, 16-17=-57/752, 15-16=-57/752, 14-15=0/550, 13-14=0/0
WEBS 3-24=-5/75, 4-23=-130/9, 6-19=-1034/0, 9-17=0/168, 10-16=-145/0, 2-26=-714/0, 2-25=0/421, 3-25=-418/0, 5-23=-58/250, 5-20=-1349/0, 6-20=0/1169, 7-19=-775/0, 7-18=0/539, 9-18=-654/0, 10-15=-79/132, 11-15=-31/183, 11-14=-525/0, 12-14=0/369, 5-22=-5/45

- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 13-26=-8, 1-12=-80
Concentrated Loads (lb)
Vert: 5=-606

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All plates are 3x3 (=) MT20 unless otherwise indicated.
 - All bearings are assumed to be SP No.2 .



January 22, 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)



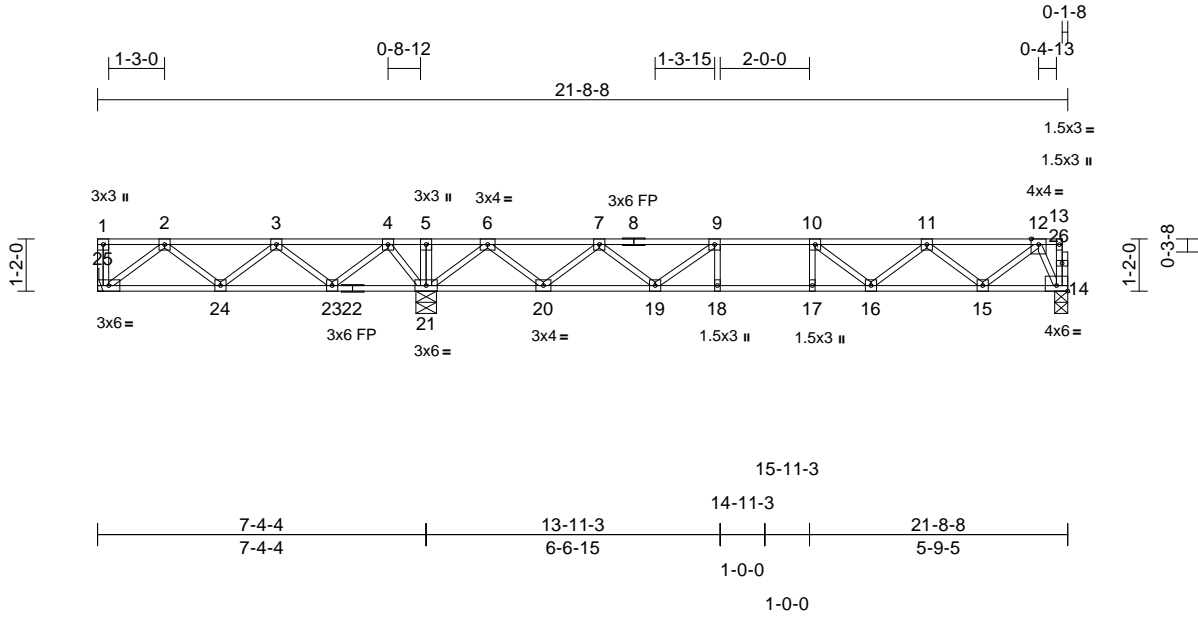
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F9	Truss Type Floor	Qty 4	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927157
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:07
ID:oUjbLekU411osaxALTuWPztTLU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCdoi7J4zJC?f

Page: 1



Scale = 1:43.8
Plate Offsets (X, Y): [14:Edge,0-1-8]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.50	Vert(LL)	-0.10	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.14	16-17	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.02	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 111 lb	FT = 20%F, 12%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)

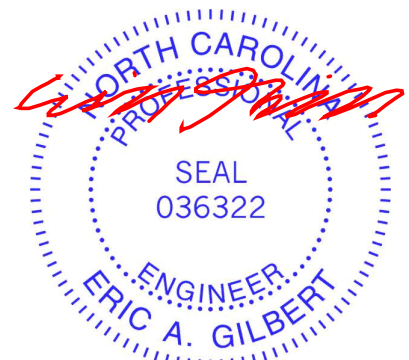
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 14=0-3-8, 21=0-5-8, 25= Mechanical
Max Uplift 25=86 (LC 4)
Max Grav 14=532 (LC 4), 21=1226 (LC 1), 25=253 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-25=-33/0, 13-14=0/45, 1-2=0/0, 2-3=-327/293, 3-4=-113/723, 4-5=0/1308, 5-6=0/1309, 6-7=-280/24, 7-9=-1170/0, 9-10=-1544/0, 10-11=-1404/0, 11-12=-761/0, 12-13=0/3
BOT CHORD 24-25=-132/279, 23-24=-482/347, 21-23=-982/0, 20-21=-526/0, 19-20=0/848, 18-19=0/1544, 17-18=0/1544, 16-17=0/1544, 15-16=0/1218, 14-15=0/285
WEBS 5-21=-50/0, 2-25=-350/165, 2-24=-209/62, 3-24=-26/247, 3-23=-500/0, 4-23=0/522, 4-21=-634/0, 9-18=-15/135, 10-17=-114/41, 6-21=-1103/0, 6-20=0/784, 7-20=-750/0, 7-19=0/433, 9-19=-503/0, 10-16=-248/0, 11-16=0/243, 11-15=-595/0, 12-15=0/619, 12-14=-639/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.

- Bearings are assumed to be: , Joint 21 SP No.2 , Joint 14 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 86 lb uplift at joint 25.
 - 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



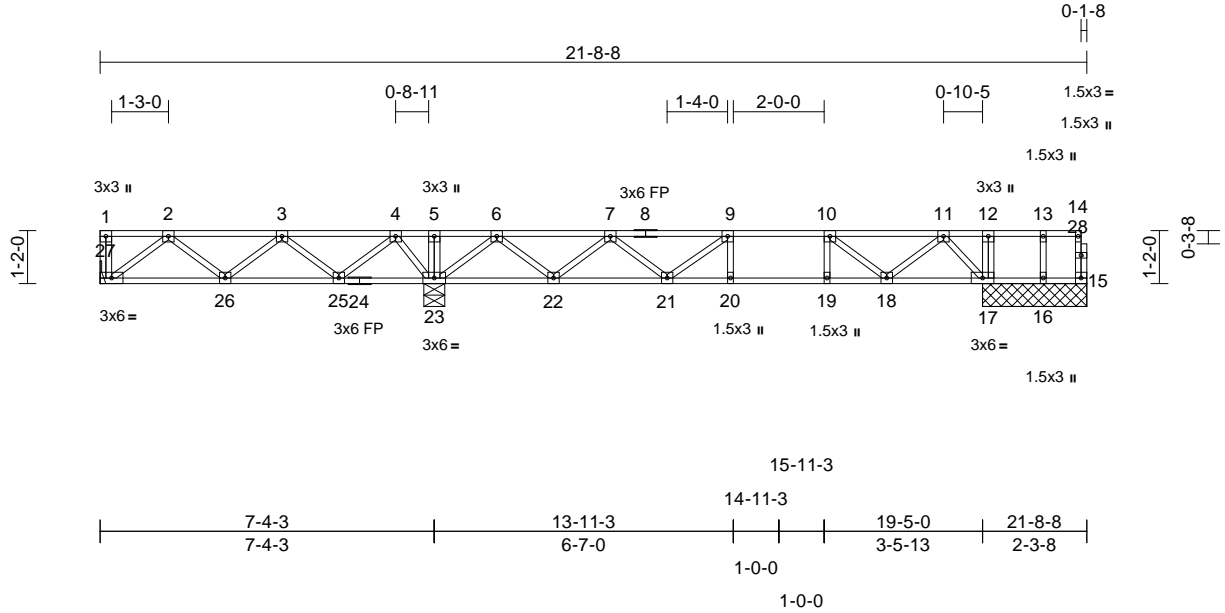
January 22, 2025

Job 2501-0740-A	Truss 2F8	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927158
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:06
ID:oUjblEkU411osaxALtuWPztTLU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:43.8

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.47	Vert(LL)	-0.06	20-21	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.41	Vert(CT)	-0.08	20-21	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.01	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								Weight: 110 lb FT = 20%F, 12%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 6-0-0 oc bracing.

- REACTIONS** (size) 15=2-3-8, 16=2-3-8, 17=2-3-8, 23=0-5-8, 27= Mechanical
- Max Uplift 27=75 (LC 4)
- Max Grav 15=29 (LC 4), 16=71 (LC 1), 17=516 (LC 4), 23=1133 (LC 1), 27=256 (LC 3)

FORCES

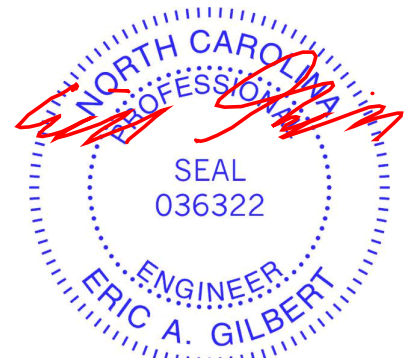
- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-27=-33/0, 14-15=-22/0, 1-2=0/0, 2-3=-334/267, 3-4=-127/673, 4-5=0/1208, 5-6=0/1209, 6-7=-143/57, 7-9=-831/0, 9-10=-1014/0, 10-11=-676/0, 11-12=-1/0, 12-13=-1/0, 13-14=-1/0
- BOT CHORD 26-27=-118/282, 25-26=-445/357, 23-25=-920/0, 22-23=-445/0, 21-22=0/624, 20-21=0/1014, 19-20=0/1014, 18-19=0/1014, 17-18=0/374, 16-17=0/1, 15-16=0/1
- WEBS 5-23=-53/0, 12-17=-85/0, 2-27=-354/149, 2-26=-193/67, 3-26=-31/231, 3-25=-478/0, 4-25=0/500, 4-23=-615/0, 9-20=-26/15, 10-19=0/56, 6-23=-962/0, 6-22=0/663, 7-22=-637/0, 7-21=0/285, 9-21=-253/0, 10-18=-431/0, 11-18=0/393, 11-17=-543/0, 13-16=-80/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x3 (=) MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

- Gable studs spaced at 1-4-0 oc.
- Bearings are assumed to be: , Joint 23 SP No.2 , Joint 16 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 75 lb uplift at joint 27.
- 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



January 22, 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.sbccomponents.com)



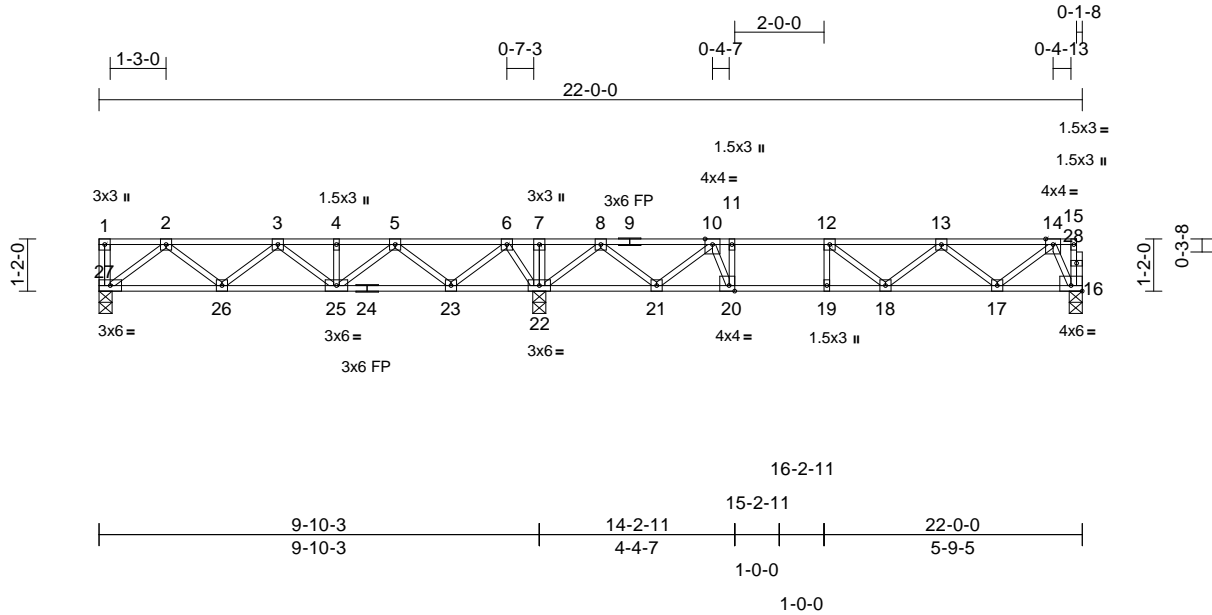
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F10	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927159
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:07
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Page: 1



Scale = 1:43.8
Plate Offsets (X, Y): [16:Edge,0-1-8], [20:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	-0.10	18-19	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.13	18-19	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.02	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 114 lb	FT = 20%F, 12%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)

- 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) CAUTION, Do not erect truss backwards.

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, Except:
6-0-0 oc bracing: 23-25,22-23,21-22.

LOAD CASE(S) Standard

REACTIONS (size) 16=0-3-8, 22=0-3-8, 27=0-3-8
Max Grav 16=481 (LC 4), 22=1096 (LC 1), 27=382 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-30/0, 15-16=0/40, 1-2=0/0, 2-3=-647/0, 3-4=-766/0, 4-5=-766/0, 5-6=-282/213, 6-7=0/818, 7-8=0/818, 8-10=-614/65, 10-11=-1218/0, 11-12=-1218/0, 12-13=-1190/0, 13-14=-673/0, 14-15=0/2
BOT CHORD 26-27=0/452, 25-26=0/815, 23-25=-79/628, 22-23=-449/0, 21-22=-213/204, 20-21=0/1058, 19-20=0/1218, 18-19=0/1218, 17-18=0/1076, 16-17=0/256
WEBS 7-22=-39/14, 11-20=-431/0, 12-19=-133/0, 2-27=-567/0, 2-26=0/254, 3-26=-219/14, 3-25=-131/0, 4-25=-51/0, 5-25=0/245, 5-23=-517/0, 6-23=0/539, 6-22=-636/0, 8-22=-885/0, 8-21=0/562, 10-21=-621/0, 10-20=0/621, 12-18=-76/84, 13-18=0/148, 13-17=-524/0, 14-17=0/543, 14-16=-574/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) All bearings are assumed to be SP No.2.



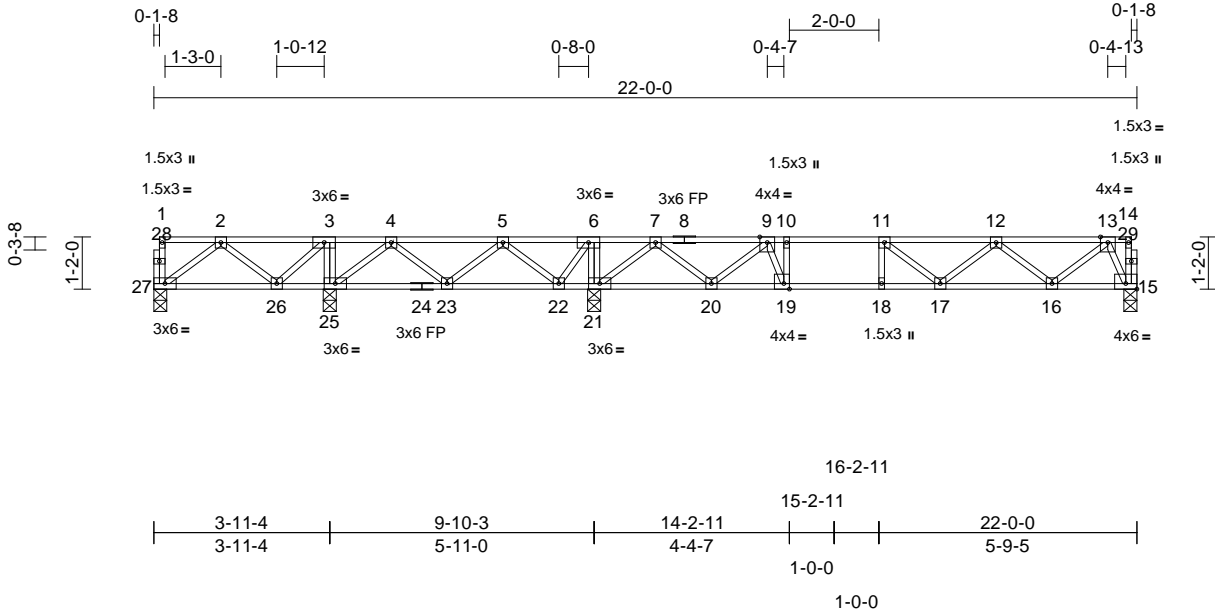
January 22, 2025

Job 2501-0740-A	Truss 2F11	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927160
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:07
ID:r5bqwjiEYGn1ZYQY3wrQR_ztTLW-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:43.8
Plate Offsets (X, Y): [15:Edge,0-1-8], [19:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.54	Vert(LL)	-0.10	17-18	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.13	17-18	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.02	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 115 lb	FT = 20%F, 12%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)

- 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.

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.

LOAD CASE(S) Standard

REACTIONS (size) 15=0-3-8, 21=0-3-8, 25=0-3-8, 27=0-3-8
Max Grav 15=482 (LC 5), 21=910 (LC 4), 25=480 (LC 3), 27=155 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-27/0, 14-15=0/40, 1-2=-2/0, 2-3=-89/71, 3-4=-2/160, 4-5=-169/128, 5-6=0/420, 6-7=0/624, 7-9=-630/0, 9-10=-1230/0, 10-11=-1230/0, 11-12=-1198/0, 12-13=-676/0, 13-14=0/2
BOT CHORD 26-27=-16/160, 25-26=-160/2, 23-25=-60/126, 22-23=-223/186, 21-22=-624/0, 20-21=-41/223, 19-20=0/1072, 18-19=0/1230, 17-18=0/1230, 16-17=0/1081, 15-16=0/257
WEBS 3-25=-272/0, 6-21=-386/0, 2-27=-198/20, 2-26=-161/0, 3-26=0/181, 4-25=-338/78, 4-23=-88/70, 5-23=-37/124, 5-22=-417/0, 6-22=0/339, 10-19=-384/0, 11-18=-114/0, 7-21=-853/0, 7-20=0/538, 9-20=-587/0, 9-19=0/551, 11-17=-120/27, 12-17=0/164, 12-16=-527/0, 13-16=0/545, 13-15=-576/0

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All plates are 3x3 (=) MT20 unless otherwise indicated.
 - All bearings are assumed to be SP No.2.

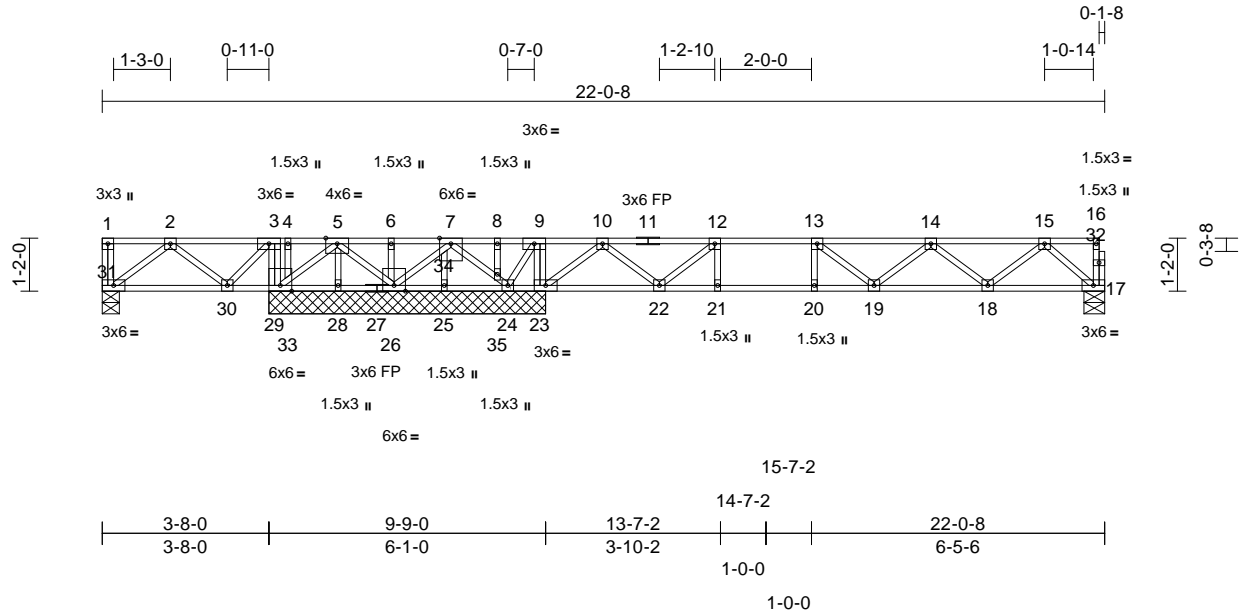


Job 2501-0740-A	Truss 1F23	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927161
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:02
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Page: 1



Scale = 1:42.9

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.53	Vert(LL)	-0.12	19-20	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.51	Vert(CT)	-0.16	19-20	>950	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.01	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 149 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 27-17:2x4 SP SS (flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

WEBS
3-29=-483/0, 9-23=-874/0, 12-21=0/211, 13-20=-182/0, 2-31=-164/0, 2-30=-110/0, 3-30=0/127, 29-33=-35/12, 5-33=-43/12, 5-26=-59/0, 26-34=-39/96, 7-34=-56/116, 7-35=-288/0, 24-35=-331/0, 9-24=-130/248, 10-23=-823/0, 10-22=0/569, 12-22=-706/0, 13-19=-76/113, 14-19=0/132, 14-18=-476/0, 15-18=0/495, 15-17=-716/0, 4-33=-1/15, 5-28=-47/1, 6-26=-102/0, 25-34=-24/30, 8-35=-65/0

Vert: 3=-218, 9=-581

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

REACTIONS (size)
17=0-5-8, 23=6-1-0, 24=6-1-0, 25=6-1-0, 26=6-1-0, 28=6-1-0, 29=6-1-0, 31=0-4-8
Max Uplift 24=-28 (LC 4), 25=-15 (LC 4), 26=-4 (LC 4)
Max Grav 17=505 (LC 4), 23=1338 (LC 9), 24=204 (LC 10), 25=38 (LC 10), 26=143 (LC 10), 28=57 (LC 10), 29=502 (LC 10), 31=142 (LC 10)

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x3 (=) MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-2-0 oc.
- Bearings are assumed to be: Joint 31 SP No.2, Joint 25 SP SS, Joint 17 SP SS.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 24.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 26 and 25. This connection is for uplift only and does not consider lateral forces.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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 other ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 17-31=-8, 1-16=-80
Concentrated Loads (lb)



January 22, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



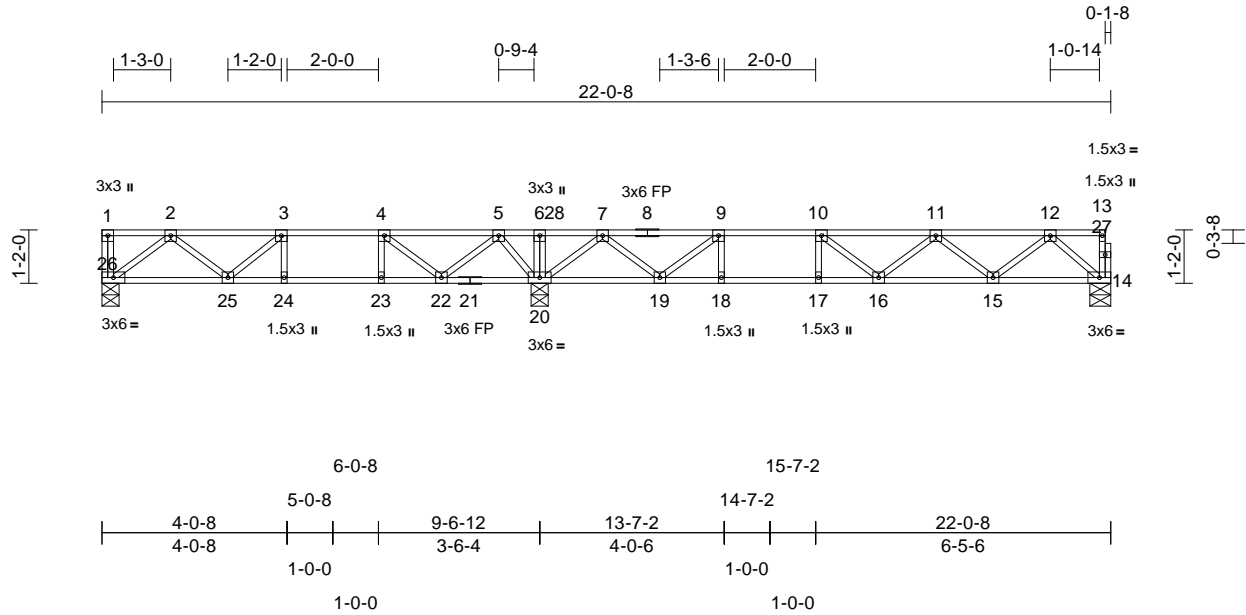
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F22	Truss Type Floor	Qty 2	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927162
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:02
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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	-0.12	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.54	Vert(CT)	-0.16	16-17	>955	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.29	Horz(CT)	0.03	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 110 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
 BOT CHORD 2x4 SP SS(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=0-5-8, 20=0-4-8, 26=0-4-8
 Max Grav 14=547 (LC 7), 20=1734 (LC 1), 26=549 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-26=-21/4, 13-14=-24/0, 1-2=0/0,
 2-3=-1062/0, 3-4=-1309/0, 4-5=-769/0,
 5-6=-28/300, 6-7=-21/308, 7-9=-1133/0,
 9-10=-1597/0, 10-11=-1559/0, 11-12=-1021/0,
 12-13=-1/0
 BOT CHORD 25-26=0/690, 24-25=0/1309, 23-24=0/1309,
 22-23=0/1309, 20-22=0/347, 19-20=0/767,
 18-19=0/1597, 17-18=0/1597, 16-17=0/1597,
 15-16=0/1431, 14-15=0/592
 WEBS 3-24=-213/0, 4-23=0/234, 6-20=-724/0,
 9-18=0/196, 10-17=-170/6, 2-26=-866/0,
 2-25=0/484, 3-25=-324/0, 4-22=-785/0,
 5-22=0/611, 5-20=-529/0, 7-20=-992/0,
 7-19=0/525, 9-19=-664/0, 10-16=-165/79,
 11-16=0/189, 11-15=-534/0, 12-15=0/558,
 12-14=-783/0

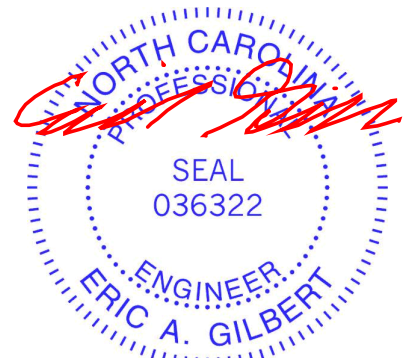
NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (=) MT20 unless otherwise indicated.
- 3) All bearings are assumed to be SP SS.
- 4) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

- 5) Recommend 2x6 strongbacks, on edge, spaced at 10'-0-0 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.

LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (lb/ft)
 Vert: 14-26=-8, 1-13=-80
 Concentrated Loads (lb)
 Vert: 3=-240, 28=-640



January 22, 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)



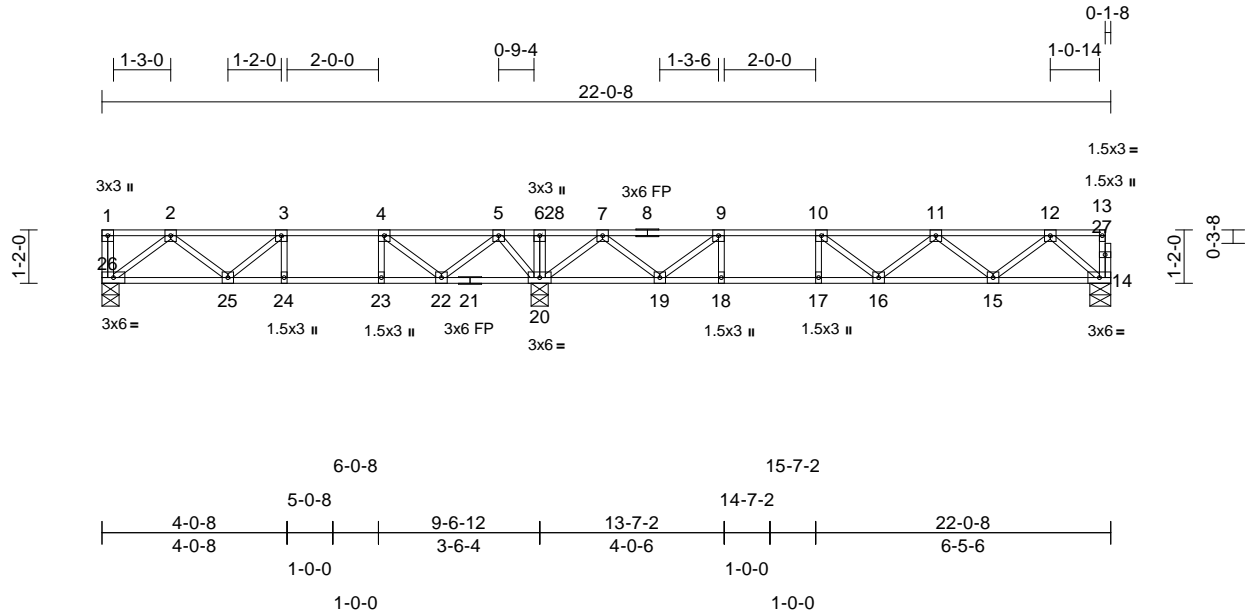
818 Soundside Road
 Edenton, NC 27932

Job 2501-0740-A	Truss 1F21	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927163
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:02
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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.12	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.81	Vert(CT)	-0.16	16-17	>941	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.03	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 110 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)

BOT CHORD 2x4 SP No.2(flat) *Except* 21-14:2x4 SP SS (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, Except: 6-0-0 oc bracing: 20-22.

REACTIONS (size) 14=0-5-8, 20=0-4-8, 26=0-4-8
Max Grav 14=541 (LC 7), 20=1694 (LC 1), 26=456 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

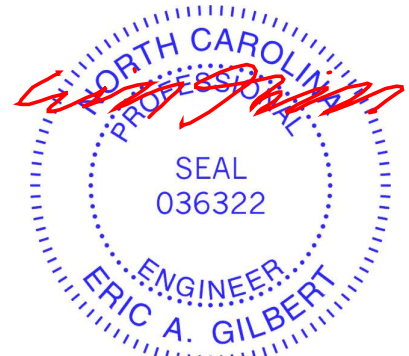
TOP CHORD 1-26=-24/1, 13-14=-24/0, 1-2=0/0, 2-3=-828/0, 3-4=-1014/0, 4-5=-579/0, 5-6=0/401, 6-7=0/409, 7-9=-1078/0, 9-10=-1554/0, 10-11=-1531/0, 11-12=-1007/0, 12-13=-1/0

BOT CHORD 25-26=0/562, 24-25=0/1014, 23-24=0/1014, 22-23=0/1014, 20-22=-121/216, 19-20=0/702, 18-19=0/1554, 17-18=0/1554, 16-17=0/1554, 15-16=0/1411, 14-15=0/585

WEBS 3-24=-136/0, 4-23=0/159, 6-20=-719/0, 9-18=0/206, 10-17=-181/0, 2-26=-705/0, 2-25=0/347, 3-25=-243/0, 4-22=-643/0, 5-22=0/533, 5-20=-479/0, 7-20=-1006/0, 7-19=0/542, 9-19=687/0, 10-16=-146/103, 11-16=0/177, 11-15=-526/0, 12-15=0/549, 12-14=-774/0

- 4) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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.
- LOAD CASE(S)** Standard
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-26=-8, 1-13=-80
Concentrated Loads (lb)
Vert: 3=-101, 28=-640

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All plates are 3x3 (=) MT20 unless otherwise indicated.
 - Bearings are assumed to be: Joint 26 SP No.2, Joint 20 SP SS, Joint 14 SP SS.



January 22, 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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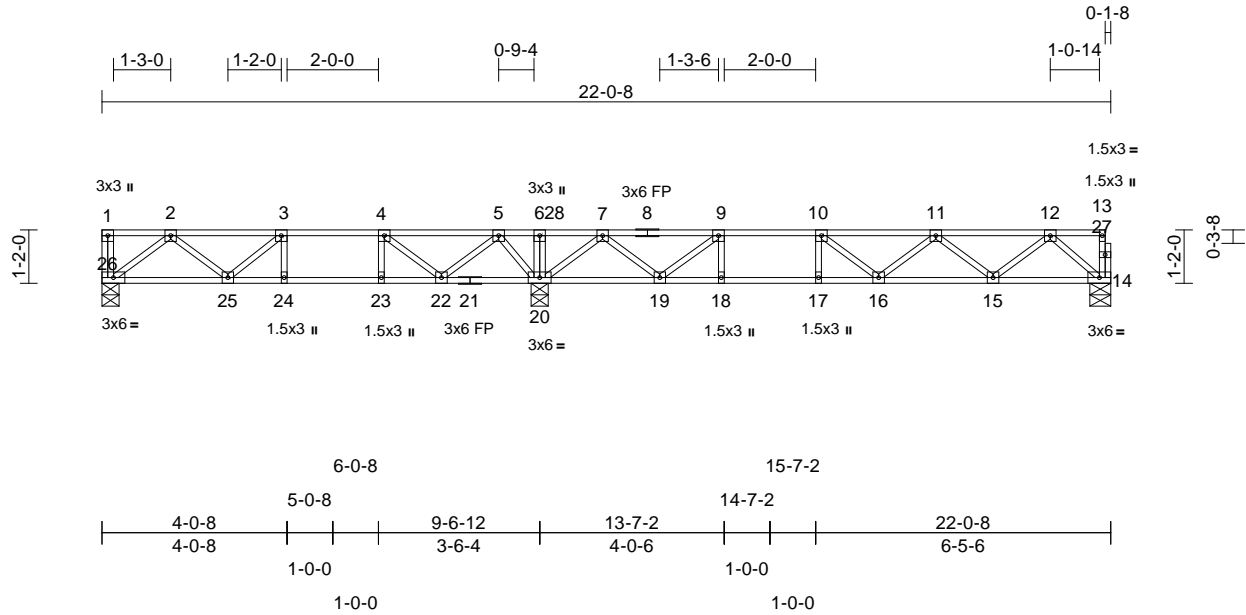
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F20	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927164
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Structural, LLC, Thurmont, MD - 21788,

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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	-0.12	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.59	Vert(CT)	-0.16	16-17	>929	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.02	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 110 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 21-14:2x4 SP SS (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, Except: 6-0-0 oc bracing: 20-22.

REACTIONS (size) 14=0-5-8, 20=0-4-8, 26=0-4-8
Max Grav 14=534 (LC 7), 20=1670 (LC 1), 26=540 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-26=-180/0, 13-14=-24/0, 1-2=0/0, 2-3=-656/0, 3-4=-790/0, 4-5=-427/89, 5-6=0/490, 6-7=0/498, 7-9=-1010/0, 9-10=-1503/0, 10-11=-1496/0, 11-12=-990/0, 12-13=-1/0
BOT CHORD 25-26=0/465, 24-25=0/790, 23-24=0/790, 22-23=0/790, 20-22=-229/108, 19-20=0/624, 18-19=0/1503, 17-18=0/1503, 16-17=0/1503, 15-16=0/1386, 14-15=0/576
WEBS 3-24=-99/0, 4-23=0/123, 6-20=-712/0, 9-18=0/214, 10-17=-190/0, 2-26=-583/0, 2-25=0/249, 3-25=-176/41, 4-22=-552/0, 5-22=0/476, 5-20=-448/0, 7-20=-1018/0, 7-19=0/555, 9-19=708/0, 10-16=-124/125, 11-16=0/164, 11-15=-516/0, 12-15=0/538, 12-14=-762/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) Bearings are assumed to be: Joint 26 SP No.2, Joint 20 SP SS, Joint 14 SP SS.

- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-26=-8, 1-13=-80
Concentrated Loads (lb)
Vert: 1=-154, 28=-640



January 22, 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/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



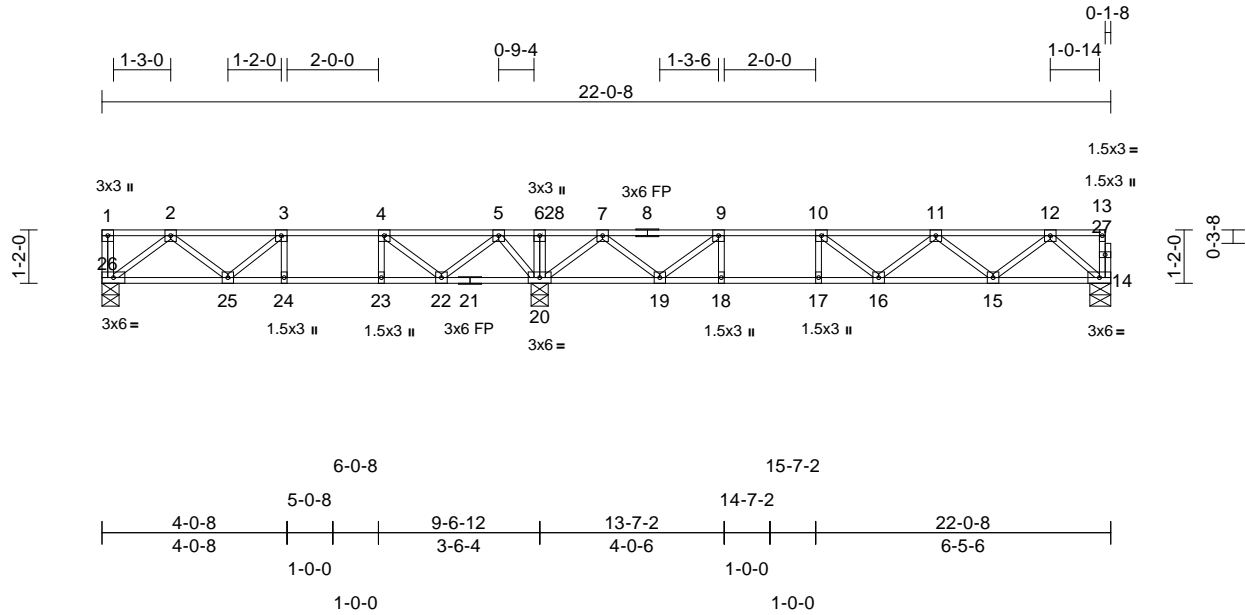
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F19	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927165
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:01
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Page: 1



Scale = 1:43.8

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	-0.12	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.59	Vert(CT)	-0.16	16-17	>929	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.02	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 110 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 21-14:2x4 SP SS (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, Except: 6-0-0 oc bracing: 20-22.

REACTIONS (size) 14=0-5-8, 20=0-4-8, 26=0-4-8
Max Grav 14=534 (LC 7), 20=1670 (LC 1), 26=387 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-26=-27/0, 13-14=-24/0, 1-2=0/0, 2-3=-656/0, 3-4=-790/0, 4-5=-427/89, 5-6=0/490, 6-7=0/498, 7-9=-1010/0, 9-10=-1503/0, 10-11=-1496/0, 11-12=-990/0, 12-13=-1/0
BOT CHORD 25-26=0/465, 24-25=0/790, 23-24=0/790, 22-23=0/790, 20-22=-229/108, 19-20=0/624, 18-19=0/1503, 17-18=0/1503, 16-17=0/1503, 15-16=0/1386, 14-15=0/576
WEBS 3-24=-99/0, 4-23=0/123, 6-20=-712/0, 9-18=0/214, 10-17=-190/0, 2-26=-583/0, 2-25=0/249, 3-25=-176/41, 4-22=-552/0, 5-22=0/476, 5-20=-448/0, 7-20=-1018/0, 7-19=0/555, 9-19=708/0, 10-16=-124/125, 11-16=0/164, 11-15=-516/0, 12-15=0/538, 12-14=-762/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) Bearings are assumed to be: Joint 26 SP No.2, Joint 20 SP SS, Joint 14 SP SS.

- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-26=-8, 1-13=-80
Concentrated Loads (lb)
Vert: 28=-640



January 22, 2025

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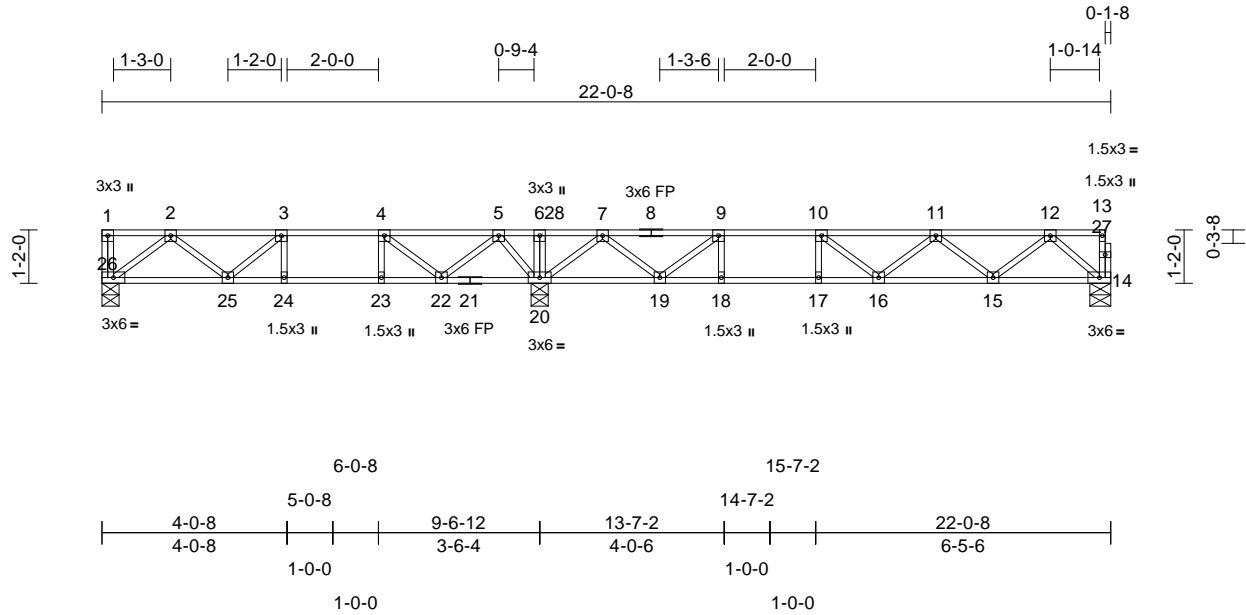
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F18	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927166
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Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:43.8

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.53	Vert(LL)	-0.12	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.58	Vert(CT)	-0.16	16-17	>929	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.02	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 110 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 21-14:2x4 SP SS (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, Except: 6-0-0 oc bracing: 20-22.

REACTIONS (size) 14=0-5-8, 20=0-4-8, 26=0-4-8
Max Grav 14=528 (LC 7), 20=1301 (LC 1), 26=392 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-26=-27/0, 13-14=-25/0, 1-2=0/0, 2-3=-669/0, 3-4=-814/0, 4-5=-466/50, 5-6=0/488, 6-7=0/491, 7-9=-953/0, 9-10=-1465/0, 10-11=-1469/0, 11-12=-977/0, 12-13=-1/0
BOT CHORD 25-26=0/471, 24-25=0/814, 23-24=0/814, 22-23=0/814, 20-22=-180/157, 19-20=0/551, 18-19=0/1465, 17-18=0/1465, 16-17=0/1465, 15-16=0/1367, 14-15=0/570
WEBS 3-24=-94/0, 4-23=0/118, 6-20=-349/0, 9-18=0/218, 10-17=-194/0, 2-26=-590/0, 2-25=0/259, 3-25=-190/27, 4-22=-534/0, 5-22=0/462, 5-20=-520/0, 7-20=-919/0, 7-19=0/575, 9-19=-732/0, 10-16=-110/139, 11-16=0/154, 11-15=-508/0, 12-15=0/530, 12-14=-753/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) Bearings are assumed to be: Joint 26 SP No.2, Joint 20 SP SS, Joint 14 SP SS.

- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-26=-8, 1-13=-80
Concentrated Loads (lb)
Vert: 28=-270



January 22, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



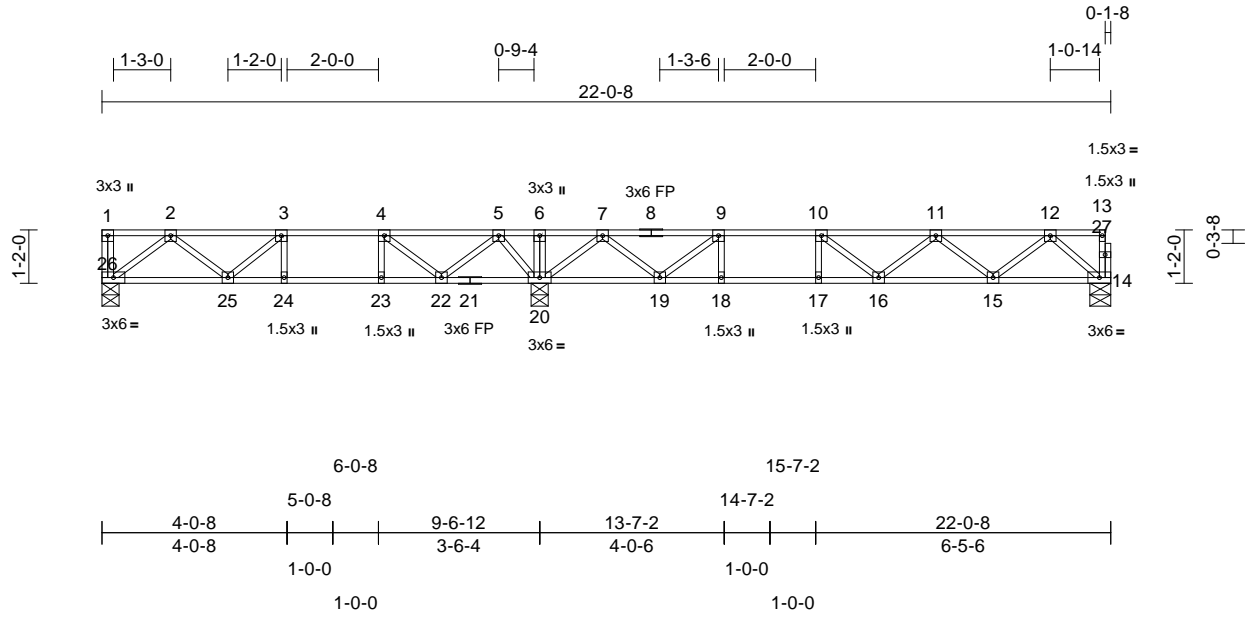
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F16	Truss Type Floor	Qty 3	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927167
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:00
ID:bxrpcU00Fr0nWmBQzpfPMDzuBGz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCdoi7J4zJC?f

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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.52	Vert(LL)	-0.14	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.99	Vert(CT)	-0.18	16-17	>813	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.03	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 110 lb	FT = 20%F, 12%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)

- 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) CAUTION, Do not erect truss backwards.

BRACING

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

LOAD CASE(S) Standard

REACTIONS (size) 14=0-5-8, 20=0-4-8, 26=0-4-8
Max Grav 14=523 (LC 7), 20=1031 (LC 1), 26=397 (LC 10)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-26=-28/0, 13-14=-26/0, 1-2=0/0, 2-3=-683/0, 3-4=-839/0, 4-5=-505/27, 5-6=0/478, 6-7=0/479, 7-9=-906/0, 9-10=-1430/0, 10-11=-1441/0, 11-12=-966/0, 12-13=-2/0
BOT CHORD 25-26=0/477, 24-25=0/839, 23-24=0/839, 22-23=0/839, 20-22=-146/206, 19-20=-21/485, 18-19=0/1430, 17-18=0/1430, 16-17=0/1430, 15-16=0/1351, 14-15=0/563

WEBS

3-24=-92/0, 4-23=0/116, 6-20=-88/0, 9-18=0/201, 10-17=-177/0, 2-26=-598/0, 2-25=0/269, 3-25=-204/19, 4-22=-523/0, 5-22=0/455, 5-20=-575/0, 7-20=-844/0, 7-19=0/598, 9-19=-741/0, 10-16=-98/140, 11-16=0/143, 11-15=-501/0, 12-15=0/524, 12-14=-744/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (=) MT20 unless otherwise indicated.
- 3) All bearings are assumed to be SP No.2 .



January 22, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



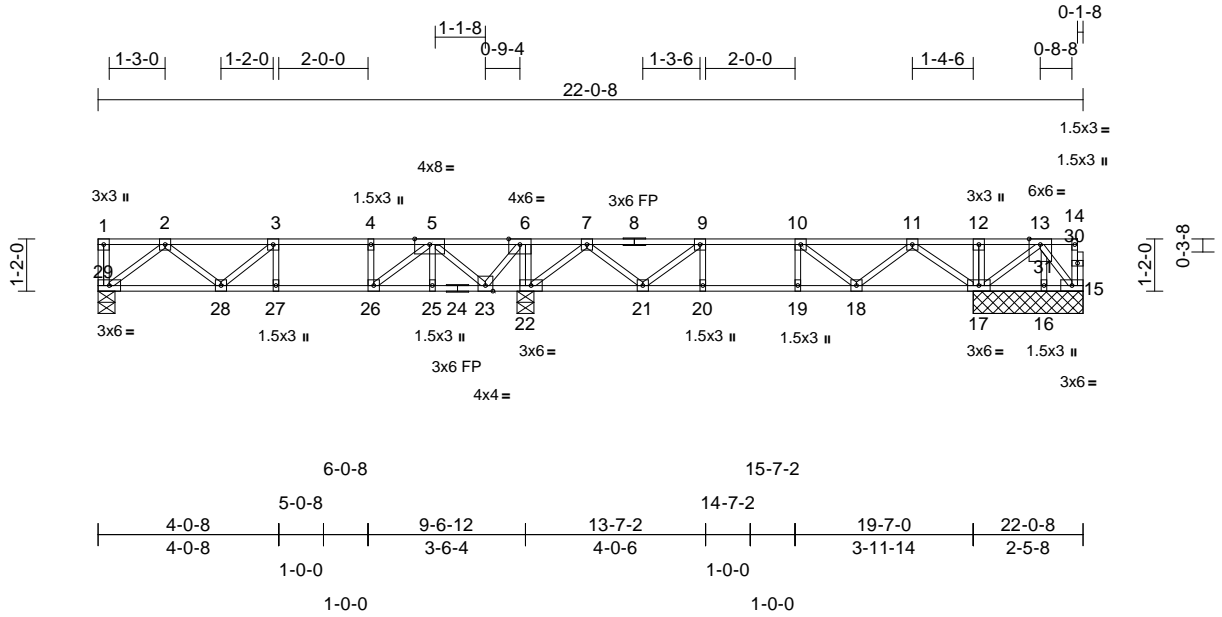
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F14	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927168
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:00
ID:uwzZ9cNGnYtzGEXzwAjdV0zuAje-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:43.8

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	-0.05	27-28	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.36	Vert(CT)	-0.04	26-27	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.49	Horz(CT)	0.01	22	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 115 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS

(size) 15=2-5-8, 16=2-5-8, 17=2-5-8, 22=0-4-8, 29=0-4-8
Max Uplift 15=-176 (LC 1), 16=-56 (LC 1)
Max Grav 15=90 (LC 3), 16=-31 (LC 3), 17=844 (LC 1), 22=1350 (LC 1), 29=449 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-29=-33/0, 14-15=-19/0, 1-2=0/0, 2-3=-818/0, 3-4=-1076/0, 4-5=-1076/0, 5-6=-43/299, 6-7=0/828, 7-9=-67/325, 9-10=-372/172, 10-11=-161/153, 11-12=0/626, 12-13=0/625, 13-14=-1/0
BOT CHORD 28-29=0/536, 27-28=0/1076, 26-27=0/1076, 25-26=0/903, 23-25=0/903, 22-23=-828/0, 21-22=-456/0, 20-21=-172/372, 19-20=-172/372, 18-19=-172/372, 17-18=-180/0, 16-17=-162/0, 15-16=-162/0
WEBS 3-27=-11/24, 4-26=-143/0, 6-22=-918/0, 9-20=0/55, 10-19=-29/0, 12-17=-103/0, 2-29=-673/0, 2-28=0/367, 3-28=-339/0, 5-26=0/300, 5-23=-1173/0, 6-23=0/1021, 7-22=-676/0, 7-21=0/385, 9-21=-408/0, 10-18=-269/25, 11-18=0/301, 11-17=-651/0, 13-17=-580/0, 13-31=0/301, 15-31=0/257, 5-25=-9/13, 16-31=0/57

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (=) MT20 unless otherwise indicated.

- 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 16. This connection is for uplift only and does not consider lateral forces.
- 7) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 8) 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.
- 9) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 15-29=-8, 1-14=-80
Concentrated Loads (lb)
Vert: 5=-475



January 22, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



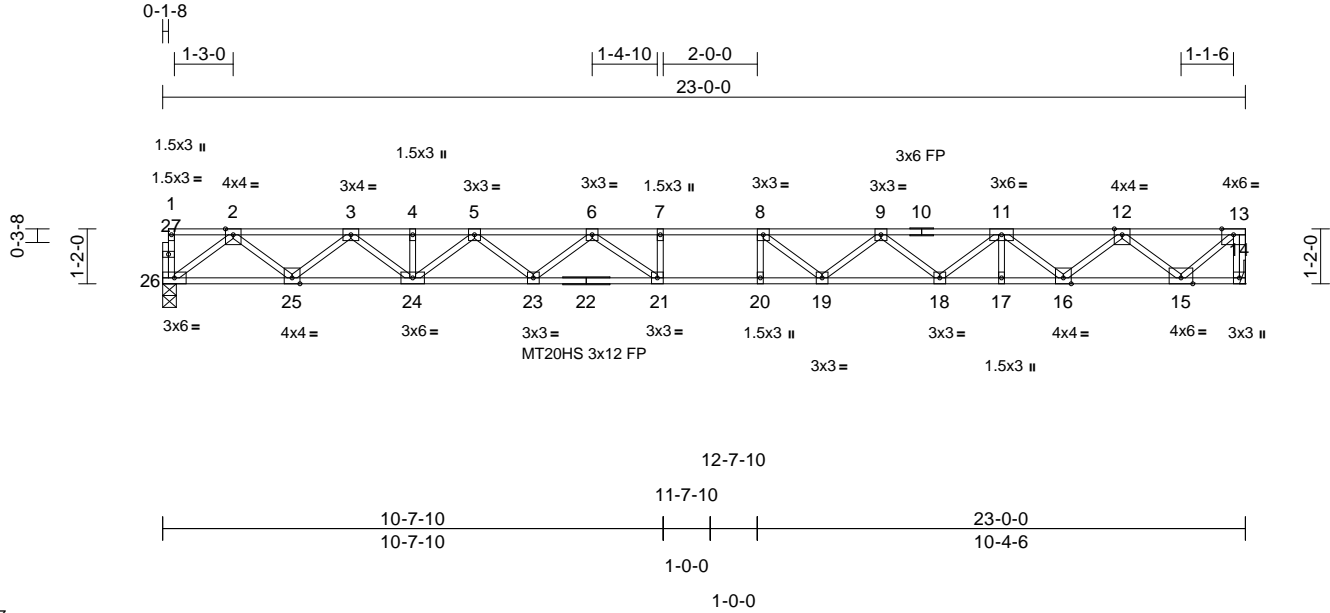
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F2	Truss Type Floor	Qty 8	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927169
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:04
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Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.52	20-21	>528	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.62	Vert(CT)	-0.71	20-21	>384	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.09	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 116 lb	FT = 20%F, 12%E

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

- Required 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.

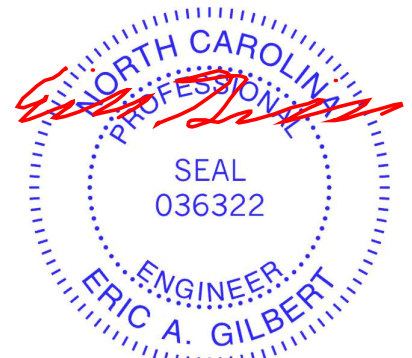
LOAD CASE(S) Standard

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 14= Mechanical, 26=0-3-8
Max Grav 14=834 (LC 1), 26=830 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-26=-24/0, 13-14=-830/0, 1-2=-1/0, 2-3=-1833/0, 3-4=-3192/0, 4-5=-3192/0, 5-6=-4054/0, 6-7=-4517/0, 7-8=-4517/0, 8-9=-4295/0, 9-11=-3637/0, 11-12=-2478/0, 12-13=-909/0
BOT CHORD 25-26=0/1053, 24-25=0/2589, 23-24=0/3727, 21-23=0/4359, 20-21=0/4517, 19-20=0/4517, 18-19=0/4070, 17-18=0/3166, 16-17=0/3166, 15-16=0/1807, 14-15=0/0
WEBS 7-21=-184/0, 8-20=-138/163, 2-26=-1319/0, 2-25=0/1015, 3-25=-985/0, 3-24=0/769, 4-24=-43/0, 5-24=-684/0, 5-23=0/426, 6-23=-411/0, 6-21=-155/519, 8-19=-548/89, 9-19=0/415, 9-18=-563/0, 11-18=0/602, 11-17=-1/12, 11-16=-878/0, 12-16=0/873, 12-15=-1170/0, 13-15=0/1186

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All plates are MT20 plates unless otherwise indicated.
 - Bearings are assumed to be: Joint 26 SP SS .
 - Refer to girder(s) for truss to truss connections.



January 22, 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)



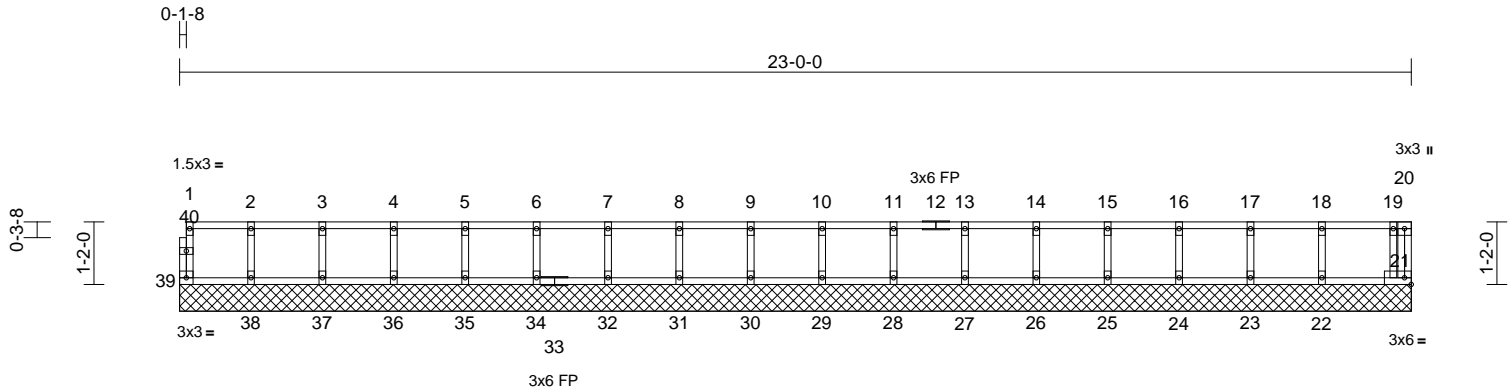
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 2F1GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927170
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:35:03
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Page: 1



Scale = 1:43.7

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	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	0.02	Horiz(TL)	0.00	21	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 97 lb	FT = 20%F, 12%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)

WEBS	
2-38	=85/0, 3-37=-90/0, 4-36=-89/0,
5-35	=89/0, 6-34=-89/0, 7-32=-89/0,
8-31	=89/0, 9-30=-89/0, 10-29=-89/0,
11-28	=89/0, 13-27=-89/0, 14-26=-89/0,
15-25	=89/0, 16-24=-89/0, 17-23=-87/0,
18-22	=95/0, 19-21=-61/0

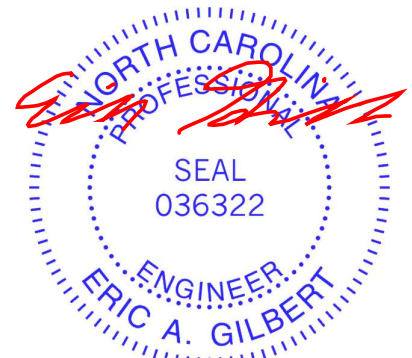
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)	
21=23-0-0, 22=23-0-0, 23=23-0-0,	
24=23-0-0, 25=23-0-0, 26=23-0-0,	
27=23-0-0, 28=23-0-0, 29=23-0-0,	
30=23-0-0, 31=23-0-0, 32=23-0-0,	
34=23-0-0, 35=23-0-0, 36=23-0-0,	
37=23-0-0, 38=23-0-0, 39=23-0-0	
Max Grav	21=57 (LC 1), 22=107 (LC 1),
	23=95 (LC 1), 24=98 (LC 1), 25=98
	(LC 1), 26=98 (LC 1), 27=98 (LC
	1), 28=98 (LC 1), 29=98 (LC 1),
	30=98 (LC 1), 31=98 (LC 1), 32=98
	(LC 1), 34=98 (LC 1), 35=98 (LC
	1), 36=97 (LC 1), 37=99 (LC 1),
	38=91 (LC 1), 39=41 (LC 1)

- 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.
 - 7) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-39=-36/0, 20-21=0/7, 1-2=-9/0, 2-3=-9/0,
	3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0,
	7-8=-9/0, 8-9=-9/0, 9-10=-9/0, 10-11=-9/0,
	11-13=-9/0, 13-14=-9/0, 14-15=-9/0,
	15-16=-9/0, 16-17=-9/0, 17-18=-9/0,
	18-19=-9/0, 19-20=-2/0
BOT CHORD	38-39=0/9, 37-38=0/9, 36-37=0/9, 35-36=0/9,
	34-35=0/9, 32-34=0/9, 31-32=0/9, 30-31=0/9,
	29-30=0/9, 28-29=0/9, 27-28=0/9, 26-27=0/9,
	25-26=0/9, 24-25=0/9, 23-24=0/9, 22-23=0/9,
	21-22=0/9



January 22, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



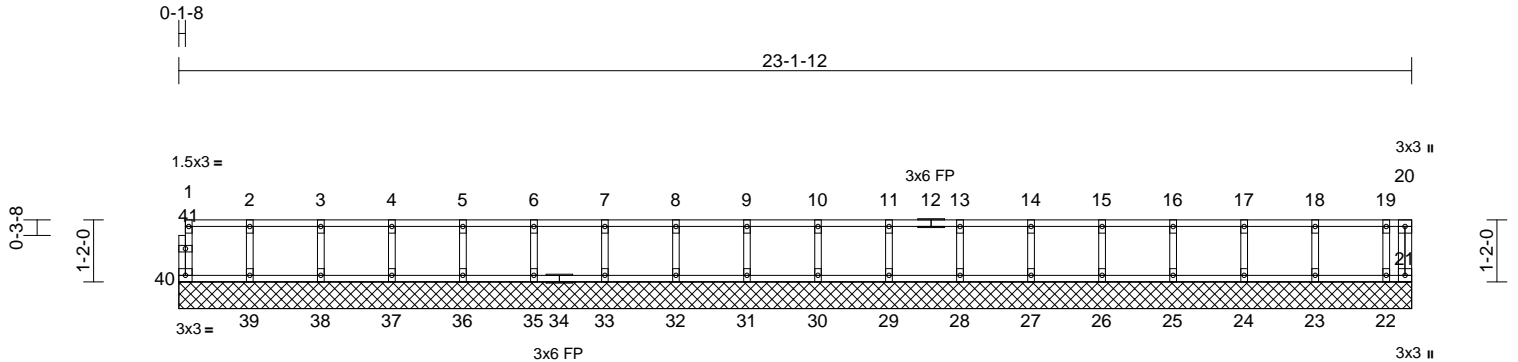
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0128 OWF	170927171
2501-0740-A	1F1GE	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:55
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Page: 1



Scale = 1:44

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horiz(TL)	0.00	21	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 97 lb	FT = 20%F, 12%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)

BOT CHORD 39-40=0/5, 38-39=0/5, 37-38=0/5, 36-37=0/5, 35-36=0/5, 33-35=0/5, 32-33=0/5, 31-32=0/5, 30-31=0/5, 29-30=0/5, 28-29=0/5, 27-28=0/5, 26-27=0/5, 25-26=0/5, 24-25=0/5, 23-24=0/5, 22-23=0/5, 21-22=0/5

WEBS 2-39=-106/0, 3-38=-107/0, 4-37=-106/0, 5-36=-107/0, 6-35=-107/0, 7-33=-107/0, 8-32=-107/0, 9-31=-107/0, 10-30=-107/0, 11-29=-107/0, 13-28=-107/0, 14-27=-107/0, 15-26=-107/0, 16-25=-107/0, 17-24=-106/0, 18-23=-111/0, 19-22=-80/0

BRACING

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

REACTIONS (size)

	21=23-1-12, 22=23-1-12, 23=23-1-12, 24=23-1-12, 25=23-1-12, 26=23-1-12, 27=23-1-12, 28=23-1-12, 29=23-1-12, 30=23-1-12, 31=23-1-12, 32=23-1-12, 33=23-1-12, 35=23-1-12, 36=23-1-12, 37=23-1-12, 38=23-1-12, 39=23-1-12, 40=23-1-12
Max Grav	21=5 (LC 1), 22=81 (LC 1), 23=122 (LC 1), 24=116 (LC 1), 25=118 (LC 1), 26=117 (LC 1), 27=117 (LC 1), 28=117 (LC 1), 29=117 (LC 1), 30=117 (LC 1), 31=117 (LC 1), 32=117 (LC 1), 33=117 (LC 1), 35=117 (LC 1), 36=117 (LC 1), 37=117 (LC 1), 38=117 (LC 1), 39=118 (LC 1), 40=42 (LC 1)

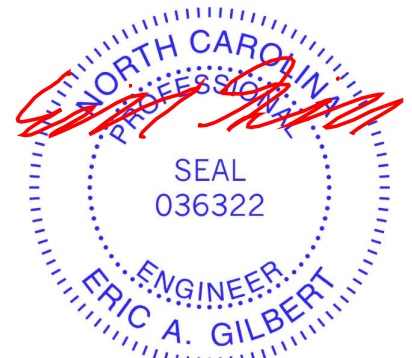
NOTES

- All plates are 1.5x3 (||) 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 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- 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

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-40=-39/0, 20-21=0/2, 1-2=-5/0, 2-3=-5/0, 3-4=-5/0, 4-5=-5/0, 5-6=-5/0, 6-7=-5/0, 7-8=-5/0, 8-9=-5/0, 9-10=-5/0, 10-11=-5/0, 11-13=-5/0, 13-14=-5/0, 14-15=-5/0, 15-16=-5/0, 16-17=-5/0, 17-18=-5/0, 18-19=-5/0, 19-20=-5/0
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January 22, 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)



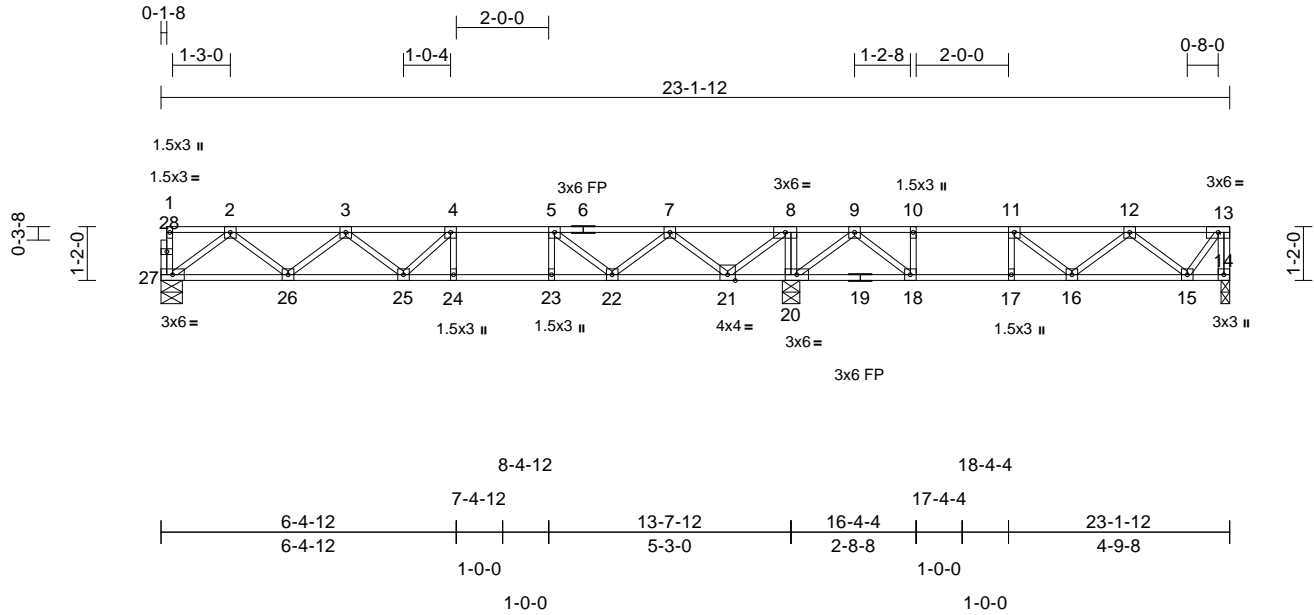
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F3	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927172
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:56
ID:37PCq1f098d8wmdWXmevQzuBGy-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:44

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.12	24-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.17	24-25	>975	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.03	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 116 lb	FT = 20%F, 12%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)

- 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.

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.

LOAD CASE(S) Standard

REACTIONS

(size) 14=0-2-4, 20=0-4-8, 27=0-5-8
Max Grav 14=407 (LC 4), 20=1084 (LC 1), 27=566 (LC 10)

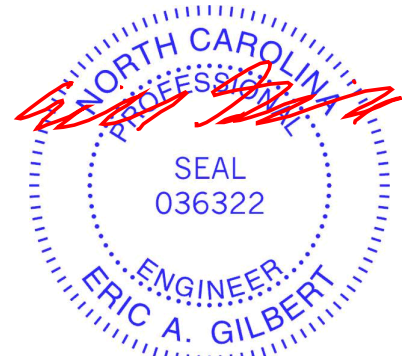
FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-27=-33/0, 13-14=-401/0, 1-2=-2/0, 2-3=-1124/0, 3-4=-1672/0, 4-5=-1730/0, 5-7=-1335/0, 7-8=-411/0, 8-9=0/555, 9-10=-835/49, 10-11=-835/49, 11-12=-798/0, 12-13=-263/0
BOT CHORD 26-27=0/694, 25-26=0/1531, 24-25=0/1730, 23-24=0/1730, 22-23=0/1730, 21-22=0/992, 20-21=-555/0, 18-20=-285/427, 17-18=-49/835, 16-17=-49/835, 15-16=0/672, 14-15=0/0
WEBS 4-24=-147/42, 5-23=-14/155, 8-20=-738/0, 10-18=-295/0, 11-17=-145/0, 2-27=-869/0, 2-26=0/560, 3-26=-530/0, 3-25=0/233, 4-25=-221/63, 5-22=-567/0, 7-22=0/490, 7-21=-787/0, 8-21=0/883, 9-20=-634/0, 9-18=0/659, 11-16=-48/136, 12-16=-37/164, 12-15=-533/0, 13-15=0/435

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (=) MT20 unless otherwise indicated.
- 3) All bearings are assumed to be SP No.2 .
- 4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 14.



January 22, 2025

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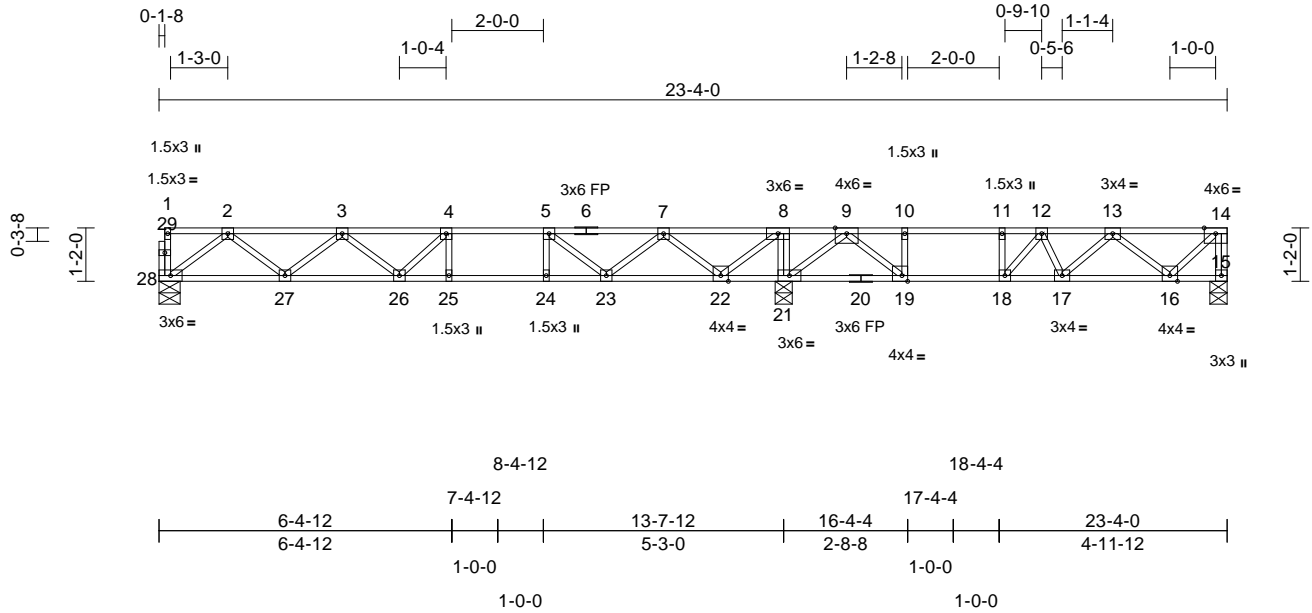
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F5	Truss Type Floor	Qty 3	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927175
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:57
ID:37PCq1f098d8wmdWXmevQzuBGy-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:44.2
Plate Offsets (X, Y): [19:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.86	Vert(LL)	-0.12	25-26	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.91	Vert(CT)	-0.23	17-18	>498	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.04	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 117 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 6-14:2x4 SP SS (flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 20-15:2x4 SP SS (flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

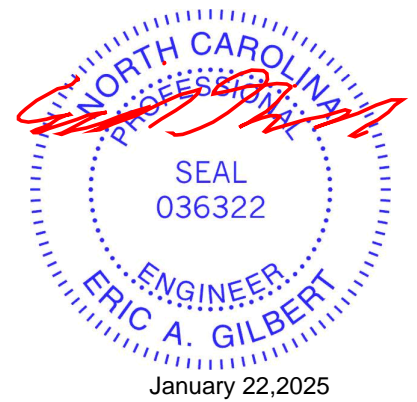
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 21-22.

REACTIONS (size) 15=0-4-8, 21=0-4-8, 28=0-5-8
Max Grav 15=828 (LC 4), 21=1301 (LC 1), 28=587 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-28=-32/0, 14-15=-815/0, 1-2=-2/0, 2-3=-1176/0, 3-4=-1775/0, 4-5=-1874/0, 5-7=-1523/0, 7-8=-658/0, 8-9=-270/224, 9-10=-1968/0, 10-11=-1968/0, 11-12=-1968/0, 12-13=-2286/0, 13-14=-793/0
BOT CHORD 27-28=0/722, 26-27=0/1605, 25-26=0/1874, 24-25=0/1874, 23-24=0/1874, 22-23=0/1208, 21-22=-224/270, 19-21=0/1064, 18-19=0/1968, 17-18=0/2453, 16-17=0/1684, 15-16=0/0
WEBS 4-25=-113/68, 5-24=-36/126, 8-21=-767/0, 10-19=-583/0, 11-18=0/397, 2-28=-904/0, 2-27=0/590, 3-27=-558/0, 3-26=0/272, 4-26=-278/0, 5-23=-494/0, 7-23=0/440, 7-22=-739/0, 8-22=0/869, 9-21=-1045/0, 9-19=0/1313, 14-16=0/1080, 13-16=-1161/0, 13-17=0/827, 12-17=-425/0, 12-18=-934/0

- All plates are 3x3 (=) MT20 unless otherwise indicated.
 - Bearings are assumed to be: Joint 28 SP No.2, Joint 21 SP No.2, Joint 15 SP SS.
 - Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 15-28=-8, 1-14=-80
Concentrated Loads (lb)
Vert: 12=-640

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

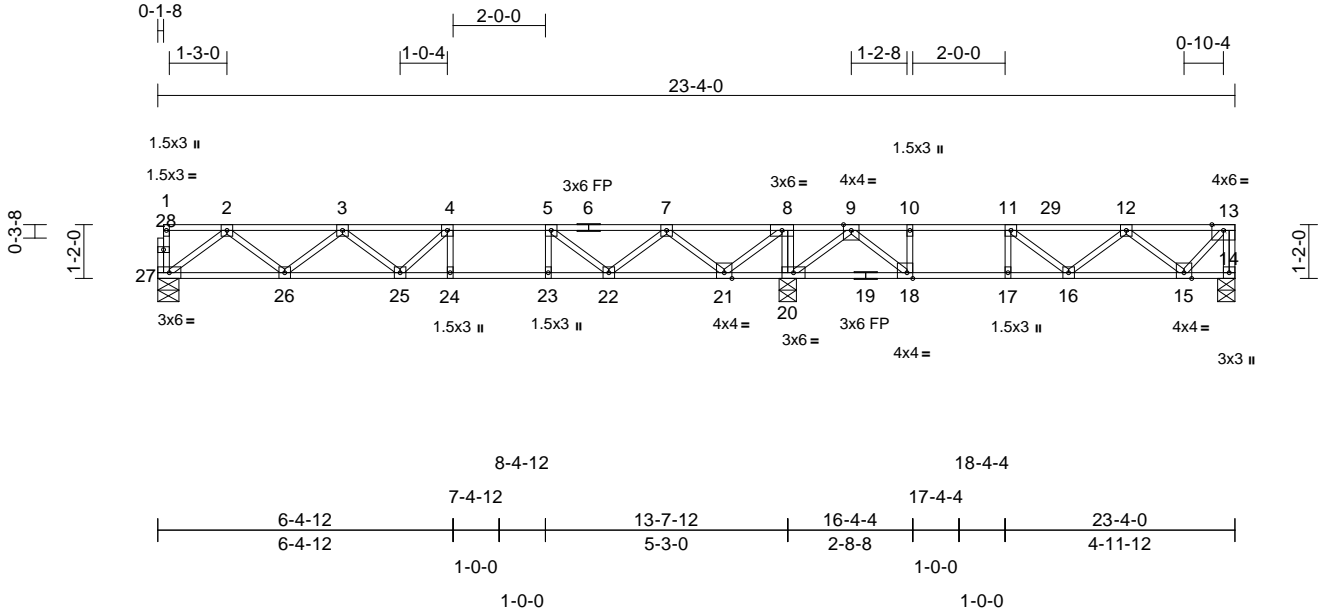


Job 2501-0740-A	Truss 1F4	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927176
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:57
ID:37PCq1f098d8wmdWXmevQzuBGy-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:44.2

Plate Offsets (X, Y): [18:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.97	Vert(LL)	-0.12	24-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.91	Vert(CT)	-0.21	16-17	>551	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.48	Horz(CT)	0.04	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 116 lb	FT = 20%F, 12%E

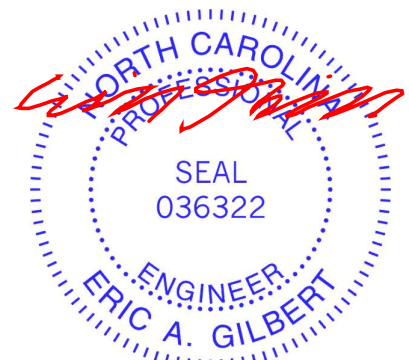
LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 6-13:2x4 SP SS (flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 19-14:2x4 SP SS (flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 20-21.

REACTIONS (size) 14=0-4-8, 20=0-4-8, 27=0-5-8
Max Grav 14=823 (LC 4), 20=1170 (LC 1), 27=592 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-32/0, 13-14=-810/0, 1-2=-2/0, 2-3=-1189/0, 3-4=-1802/0, 4-5=-1912/0, 5-7=-1573/0, 7-8=-719/0, 8-9=-317/210, 9-10=-1630/0, 10-11=-1630/0, 11-12=-1590/0, 12-13=-587/0
BOT CHORD 26-27=0/730, 25-26=0/1624, 24-25=0/1912, 23-24=0/1912, 22-23=0/1912, 21-22=0/1266, 20-21=-210/317, 18-20=0/961, 17-18=0/1630, 16-17=0/1630, 15-16=0/1349, 14-15=0/0
WEBS 4-24=-108/74, 5-23=-42/122, 8-20=-746/0, 10-18=-399/0, 11-17=-314/0, 2-27=-913/0, 2-26=0/598, 3-26=-566/0, 3-25=0/281, 4-25=-292/0, 5-22=-490/0, 7-22=0/438, 7-21=-741/0, 8-21=0/865, 9-20=-856/0, 9-18=0/1007, 11-16=-51/120, 12-16=0/315, 12-15=-991/0, 13-15=0/857

- All plates are 3x3 (=) MT20 unless otherwise indicated.
 - Bearings are assumed to be: Joint 27 SP No.2, Joint 20 SP No.2, Joint 14 SP SS.
 - Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-27=-8, 1-13=-80
Concentrated Loads (lb)
Vert: 13=-155, 29=-355



January 22, 2025

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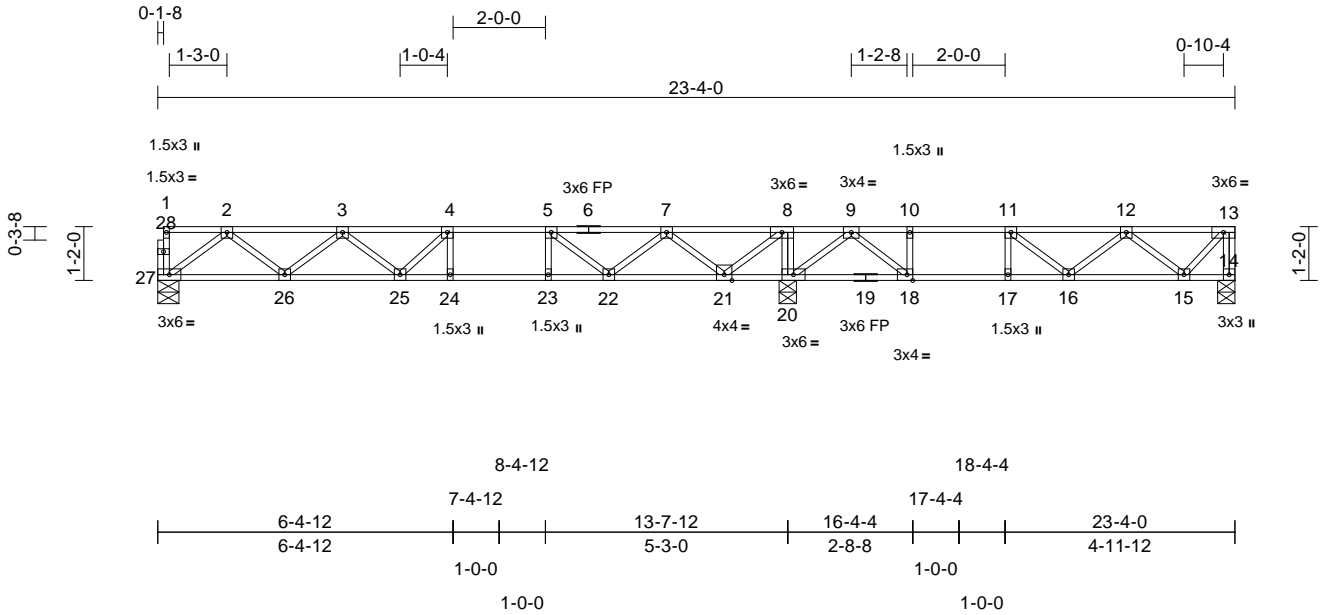
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F2	Truss Type Floor	Qty 9	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927177
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:55
ID:37PCq1f098d8wmdWXmevQzuBGy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:44.2

Plate Offsets (X, Y): [18:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.65	Vert(LL)	-0.12	24-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.17	24-25	>975	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.03	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 116 lb	FT = 20%F, 12%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)

- 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) CAUTION, Do not erect truss backwards.

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.

LOAD CASE(S) Standard

REACTIONS (size) 14=0-4-8, 20=0-4-8, 27=0-5-8
Max Grav 14=415 (LC 4), 20=1091 (LC 1), 27=566 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-33/0, 13-14=-409/0, 1-2=-2/0, 2-3=-1124/0, 3-4=-1672/0, 4-5=-1730/0, 5-7=-1336/0, 7-8=-411/0, 8-9=0/556, 9-10=-867/46, 10-11=-867/46, 11-12=-847/0, 12-13=-326/0
BOT CHORD 26-27=0/694, 25-26=0/1531, 24-25=0/1730, 23-24=0/1730, 22-23=0/1730, 21-22=0/992, 20-21=-556/0, 18-20=-285/442, 17-18=-46/867, 16-17=-46/867, 15-16=0/735, 14-15=0/0
WEBS 4-24=-146/42, 5-23=-14/155, 8-20=-740/0, 10-18=-303/0, 11-17=-152/0, 2-27=-869/0, 2-26=0/560, 3-26=-530/0, 3-25=0/233, 4-25=-221/62, 5-22=-567/0, 7-22=0/490, 7-21=-787/0, 8-21=0/884, 9-20=-647/0, 9-18=0/680, 11-16=-24/140, 12-16=-40/147, 12-15=-532/0, 13-15=0/476

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) All bearings are assumed to be SP No.2.



January 22, 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)

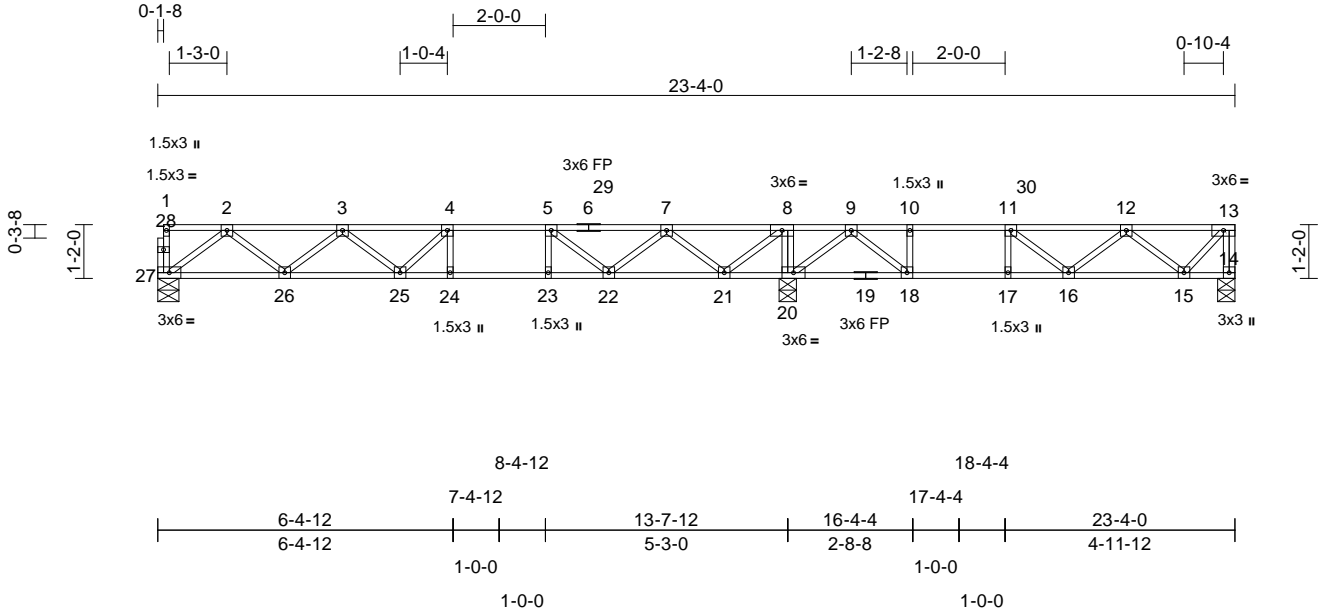
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F2A	Truss Type Floor	Qty 2	Ply 2	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927178
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:56
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Page: 1



Scale = 1:44.2

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.50	Vert(LL)	-0.06	24-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	-0.08	24-25	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.02	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 233 lb	FT = 20%F, 12%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, Except: 6-0-0 oc bracing: 20-21,18-20.

REACTIONS
(size) 14=0-4-8, 20=0-4-8, 27=0-5-8
Max Grav 14=471 (LC 4), 20=1567 (LC 1), 27=581 (LC 10)

FORCES
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-32/0, 13-14=-464/0, 1-2=-2/0, 2-3=-1163/0, 3-4=-1748/0, 4-5=-1839/0, 5-7=-1466/0, 7-8=-376/0, 8-9=0/785, 9-10=-1101/0, 10-11=-1101/0, 11-12=-1035/0, 12-13=-378/0
BOT CHORD 26-27=0/715, 25-26=0/1586, 24-25=0/1839, 23-24=0/1839, 22-23=0/1839, 21-22=0/1132, 20-21=-785/0, 18-20=-259/468, 17-18=0/1101, 16-17=0/1101, 15-16=0/856, 14-15=0/0
WEBS 4-24=-123/65, 5-23=-34/135, 8-20=-1029/0, 10-18=-455/0, 11-17=-181/0, 2-27=-895/0, 2-26=0/582, 3-26=-551/0, 3-25=0/261, 4-25=-266/17, 5-22=-538/0, 7-22=0/479, 7-21=-1015/0, 8-21=0/1126, 9-20=-967/0, 9-18=0/949, 11-16=-85/80, 12-16=0/232, 12-15=-623/0, 13-15=0/552

- 2-ply truss to be connected together with 7/16" x 1-3/4" Staple as follows:
Top chords connected as follows: 2x4(flat) - 4 rows staggered at 0-1-0 oc.
Bottom chords connected as follows: 2x4(flat) - 4 rows staggered at 0-1-0 oc.
Web connected as follows: 2x4(flat) - 4 rows staggered at 0-1-0 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 floor live loads have been considered for this design.
- All plates are 3x3 (=) MT20 unless otherwise indicated.
- All bearings are assumed to be SP No.2 .
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-27=-8, 1-29=-80, 29-30=-140, 13-30=-80

- NOTES**
- Fasten trusses together to act as a single unit as per standard industry detail, or loads are to be evenly applied to all plies.
 - N/A
 - N/A



January 22, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



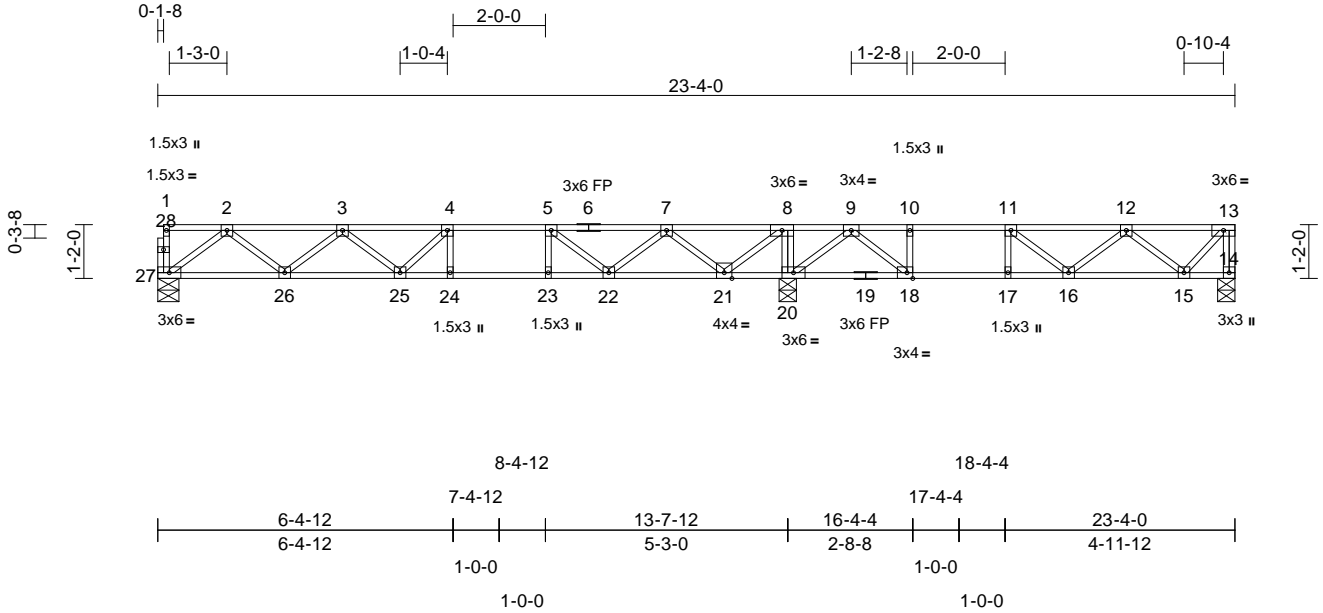
818 Soundside Road
Edenton, NC 27932

Job 2501-0740-A	Truss 1F1	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927179
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:53
ID:37PCq1f098d8wmdWXmevQzuBGy-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:44.2

Plate Offsets (X, Y): [18:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.12	24-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(CT)	-0.17	24-25	>975	360		
BCLL	0.0	Rep Stress Incr	NO	WB	Horz(CT)	0.03	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S						Weight: 116 lb	FT = 20%F, 12%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)

- 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) CAUTION, Do not erect truss backwards.

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.

LOAD CASE(S) Standard

REACTIONS (size) 14=0-4-8, 20=0-4-8, 27=0-5-8
Max Grav 14=415 (LC 4), 20=1091 (LC 1), 27=566 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-33/0, 13-14=-409/0, 1-2=-2/0, 2-3=-1124/0, 3-4=-1672/0, 4-5=-1730/0, 5-7=-1336/0, 7-8=-411/0, 8-9=0/556, 9-10=-867/46, 10-11=-867/46, 11-12=-847/0, 12-13=-326/0
BOT CHORD 26-27=0/694, 25-26=0/1531, 24-25=0/1730, 23-24=0/1730, 22-23=0/1730, 21-22=0/992, 20-21=-556/0, 18-20=-285/442, 17-18=-46/867, 16-17=-46/867, 15-16=0/735, 14-15=0/0
WEBS 4-24=-146/42, 5-23=-14/155, 8-20=-740/0, 10-18=-303/0, 11-17=-152/0, 2-27=-869/0, 2-26=0/560, 3-26=-530/0, 3-25=0/233, 4-25=-221/62, 5-22=-567/0, 7-22=0/490, 7-21=-787/0, 8-21=0/884, 9-20=-647/0, 9-18=0/680, 11-16=-24/140, 12-16=-40/147, 12-15=-532/0, 13-15=0/476

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 (=) MT20 unless otherwise indicated.
3) All bearings are assumed to be SP No.2.



January 22, 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.sbccomponents.com)

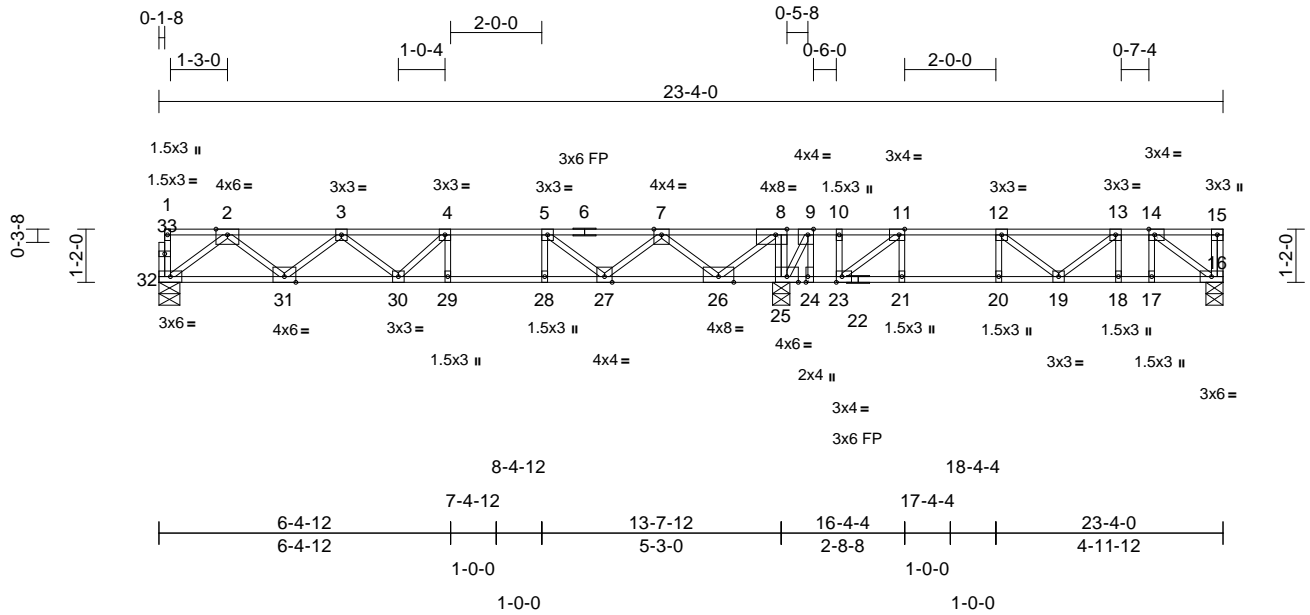


Job 2501-0740-A	Truss 1F1A	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927180
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 22 06:34:55
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Page: 1



Scale = 1:44.2
Plate Offsets (X, Y): [8:0-3-0,Edge], [9:0-1-8,Edge], [11:0-1-8,Edge], [14:0-1-8,Edge], [23:0-1-8,Edge], [24:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	-0.10	29-30	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.27	29-30	>594	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.05	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 119 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(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, Except:
6-0-0 oc bracing: 25-26,24-25,23-24.

REACTIONS (size) 16=0-4-8, 25=0-4-8, 32=0-5-8
Max Grav 16=826 (LC 4), 25=2359 (LC 1), 32=1188 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-32=-72/0, 15-16=-50/0, 1-2=-4/0, 2-3=-2340/0, 3-4=-3464/0, 4-5=-3552/0, 5-7=-2659/0, 7-8=-618/0, 8-9=0/1066, 9-10=-133/458, 10-11=-133/458, 11-12=-1541/0, 12-13=-1606/0, 13-14=-1186/0, 14-15=0/0
BOT CHORD 31-32=0/1462, 30-31=0/3204, 29-30=0/3552, 28-29=0/3552, 27-28=0/3552, 26-27=0/1905, 25-26=-1066/0, 24-25=-458/133, 23-24=-458/133, 21-23=0/1541, 20-21=0/1541, 19-20=0/1541, 18-19=0/1186, 17-18=0/1186, 16-17=0/1186
WEBS 4-29=-269/0, 5-28=0/262, 8-25=-1400/0, 11-21=0/469, 12-20=-414/0, 2-32=-1829/0, 2-31=0/1143, 3-31=-1124/0, 3-30=0/388, 4-30=-263/20, 5-27=-1192/0, 7-27=0/1014, 7-26=-1700/0, 8-26=0/1847, 11-23=-1919/0, 9-25=-1409/0, 9-24=0/642, 10-23=0/480, 12-19=0/243, 14-16=-1465/0, 13-19=0/536, 13-18=-544/0, 14-17=0/467

NOTES

- Unbalanced floor live loads have been considered for this design.
 - All bearings are assumed to be SP SS .
 - Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-32=-8, 1-15=-180



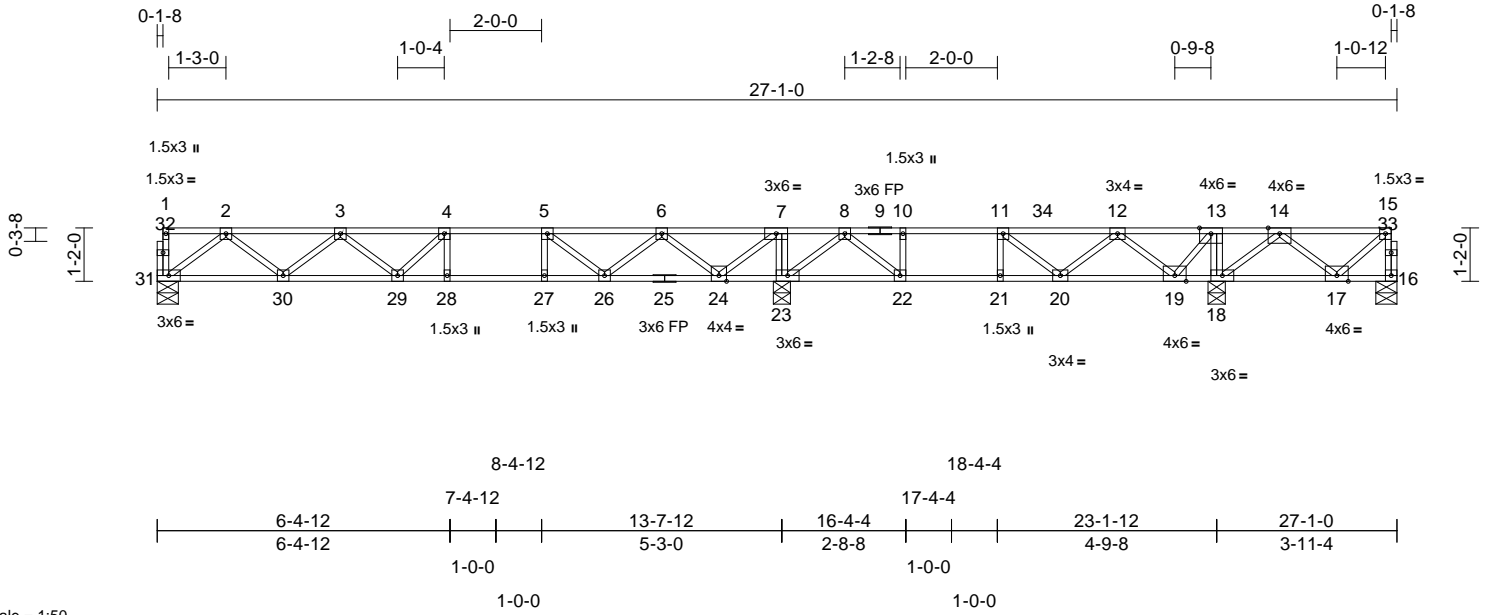
January 22, 2025

Job 2501-0740-A	Truss 1F6	Truss Type Floor	Qty 1	Ply 1	Blake Pond Lot 00.0128 OWF Job Reference (optional)	170927181
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Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:50

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.95	Vert(LL)	-0.13	28-29	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.16	28-29	>984	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.03	23	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 136 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) *Except* 9-15:2x4 SP DSS (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 6-0-0 oc bracing.

REACTIONS (size) 16=0-5-8, 18=0-4-8, 23=0-4-8, 31=0-5-8
 Max Uplift 16=462 (LC 3)
 Max Grav 16=195 (LC 5), 18=1928 (LC 14), 23=1028 (LC 3), 31=573 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-31=-32/0, 15-16=0/466, 1-2=-2/0, 2-3=-1141/0, 3-4=-1705/0, 4-5=-1776/0, 5-6=-1396/0, 6-7=-488/0, 7-8=-106/349, 8-10=-906/0, 10-11=-906/0, 11-12=-356/126, 12-13=0/1770, 13-14=0/2649, 14-15=0/767
 BOT CHORD 30-31=0/703, 29-30=0/1555, 28-29=0/1776, 27-28=0/1776, 26-27=0/1776, 24-26=0/1062, 23-24=-349/106, 22-23=-58/542, 21-22=0/906, 20-21=0/906, 19-20=-562/0, 18-19=-2649/0, 17-18=-1601/0, 16-17=-28/0
 WEBS 4-28=-132/52, 5-27=-22/143, 7-23=-729/0, 10-22=-228/0, 11-21=-159/0, 13-18=-1058/0, 2-31=-880/0, 2-30=0/569, 3-30=-539/0, 3-29=0/247, 4-29=-242/32, 5-26=-520/0, 6-26=0/459, 6-24=-763/0, 7-24=0/869, 8-23=-564/0, 8-22=0/570, 11-20=-707/0, 12-20=0/834, 12-19=-1644/0, 13-19=0/1380, 14-18=-1436/0, 14-17=0/1085, 15-17=-1008/0

NOTES

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

- All plates are 3x3 (=) MT20 unless otherwise indicated.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 462 lb uplift at joint 16.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (lb/ft)
 Vert: 16-31=-8, 1-15=-80
 Concentrated Loads (lb)
 Vert: 15=-207, 34=-612



January 22, 2025

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

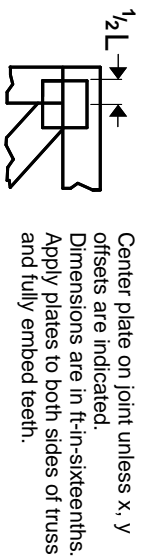
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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)



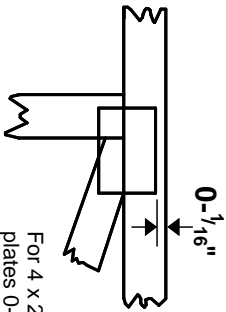
818 Soundside Road
Edenton, NC 27932

Symbols

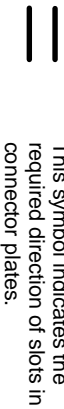
PLATE LOCATION AND ORIENTATION



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



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



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

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

PLATE SIZE

4 X 4

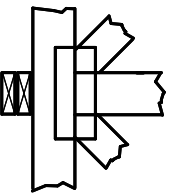
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



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

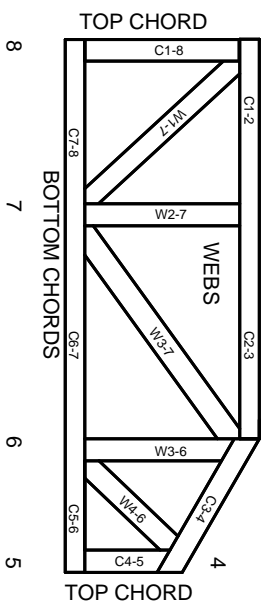
Industry Standards:

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

Numbering System



1 TOP CHORDS
2 Joint ID typ.



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

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

Product Code Approvals

ICC-ES Reports:

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

Design General Notes

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

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

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

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