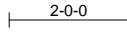
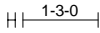


Job PERMIT2F	Truss F01	Truss Type FLOOR	Qty 12	Ply 1	NEW HOME INC./WILSON I56330432
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:08 2023 Page 1  
ID:mvHsUUHQZAZVMQf\_AKGSszu7Qq-G83w6u24n\_B2fcWkEqzecSf5Eam2zeTxfi0GOZrL\_L

0-1-8



0-1-8  
Scale = 1:38.3

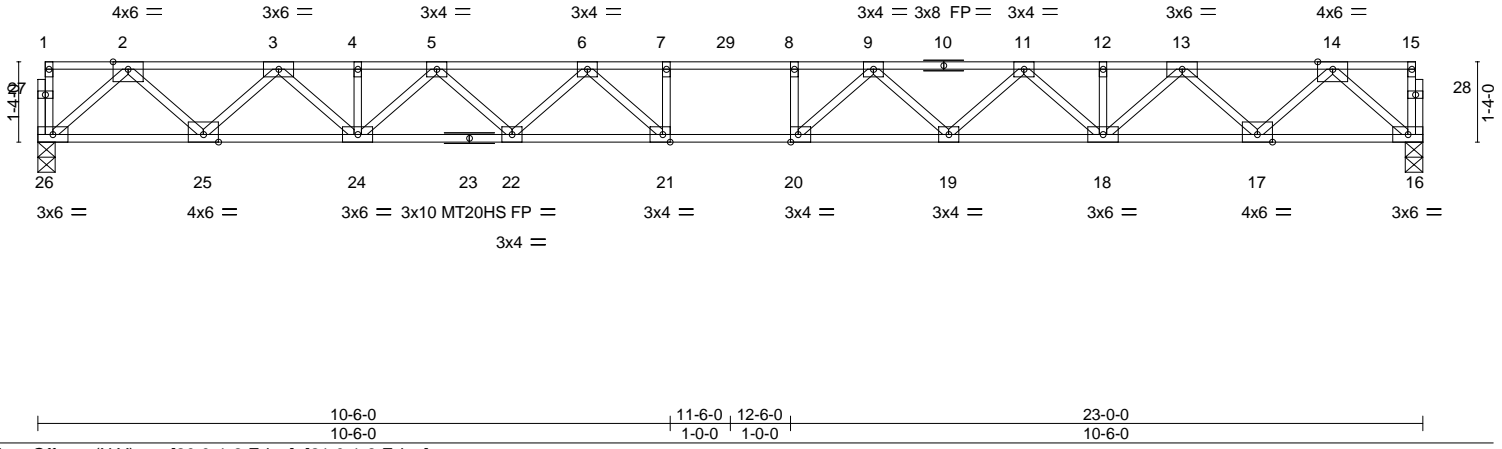


Plate Offsets (X,Y)--	[20:0-1-8,Edge], [21:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 1-7-3	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.43	Vert(LL) -0.41 20-21 >666 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.58	Vert(CT) -0.56 20-21 >484 360	MT20HS	187/143
BCLL 0.0	Rep Stress Incr YES	WB 0.53	Horz(CT) 0.09 16 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 120 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP SS(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP SS(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 26=0-3-8, 16=0-3-8  
Max Grav 26=995(LC 1), 16=995(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-1897/0, 3-4=-3305/0, 4-5=-3305/0, 5-6=-4195/0, 6-7=-4671/0, 7-8=-4671/0, 8-9=-4671/0, 9-11=-4195/0, 11-12=-3305/0, 12-13=-3305/0, 13-14=-1897/0  
**BOT CHORD** 25-26=0/1090, 24-25=0/2679, 22-24=0/3858, 21-22=0/4510, 20-21=0/4671, 19-20=0/4510, 18-19=0/3858, 17-18=0/2679, 16-17=0/1090  
**WEBS** 7-21=-281/42, 8-20=-281/42, 6-21=-174/579, 6-22=-450/0, 5-22=0/469, 5-24=-751/0, 3-24=0/851, 3-25=-1089/0, 2-25=0/1122, 2-26=-1449/0, 9-20=-174/579, 9-19=-450/0, 11-19=0/469, 11-18=-751/0, 13-18=0/851, 13-17=-1089/0, 14-17=0/1122, 14-16=-1449/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 4) 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.



January 26, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job PERMIT2F	Truss F01L	Truss Type GABLE	Qty 1	Ply 1	NEW HOME INC./WILSON Job Reference (optional)	156330433
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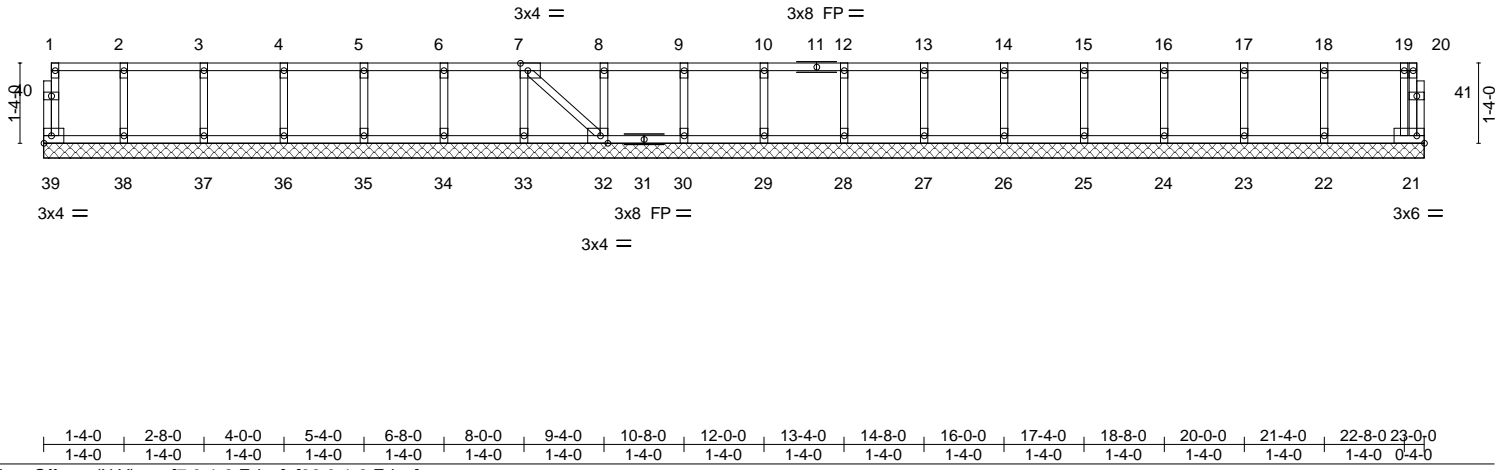
Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:10 2023 Page 1  
ID:mvHsUUHQZAZVMQf\_AKGSSzu7Qq-CXAgXa4KlcRmuvf7MF?6itlWINbJRguD60VNSSzrl\_J

0-1-8

0-1-8

Scale = 1:38.4



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	1-7-3	TC 0.08	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.01	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.00	WB 0.03	Vert(CT) n/a - n/a 999		
BCDL 5.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.00 21 n/a n/a		
	Code IRC2015/TPI2014			Weight: 104 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 23-0-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 39, 21, 38, 37, 36, 35, 34, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 22

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- 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) 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.



January 26, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job PERMIT2F	Truss F02GR	Truss Type FLOOR	Qty 1	Ply 1	NEW HOME INC./WILSON 156330434
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:11 2023 Page 1

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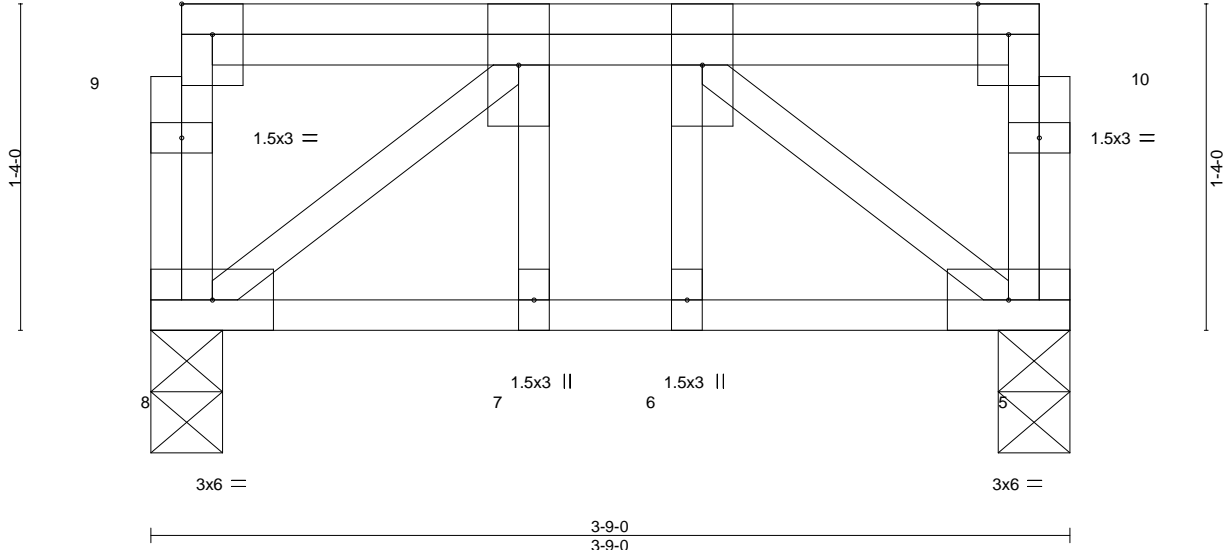
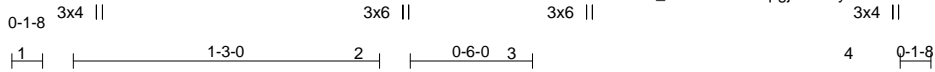


Plate Offsets (X,Y)--	[1:Edge,0-1-8]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00		TC 0.17	Vert(LL) -0.00	6	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00		BC 0.19	Lumber(CT) -0.01	7	>999	360		
BCLL 0.0	Rep Stress Incr NO		WB 0.17	Horz(CT) 0.00	5	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 29 lb	FT = 20%F, 11%E

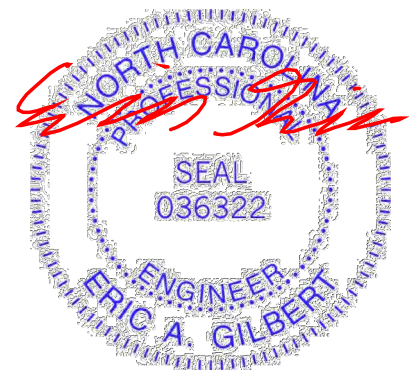
<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD 2x4 SP No.2(flat)		TOP CHORD	Structural wood sheathing directly applied or 3-9-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)		BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)			

**REACTIONS.** (size) 8=0-3-8, 5=0-3-8  
Max Grav 8=693(LC 1), 5=693(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-8=-251/0, 4-5=-251/0, 2-3=-564/0  
BOT CHORD 7-8=0/564, 6-7=0/564, 5-6=0/564  
WEBS 3-5=-705/0, 2-8=-705/0

**NOTES-**  
1) Unbalanced floor live loads have been considered for this design.  
2) N/A  
3) 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.

- LOAD CASE(S)** Standard
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 5-8=-10, 1-4=-400
  - 2) Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 5-8=-10, 1-4=-400
  - 3) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 5-8=-10, 1-3=-400, 3-4=-320
  - 4) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 5-8=-10, 1-2=-320, 2-4=-400
  - 5) 3rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 5-8=-10, 1-3=-400, 3-4=-320
  - 6) 4th chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 5-8=-10, 1-2=-320, 2-4=-400

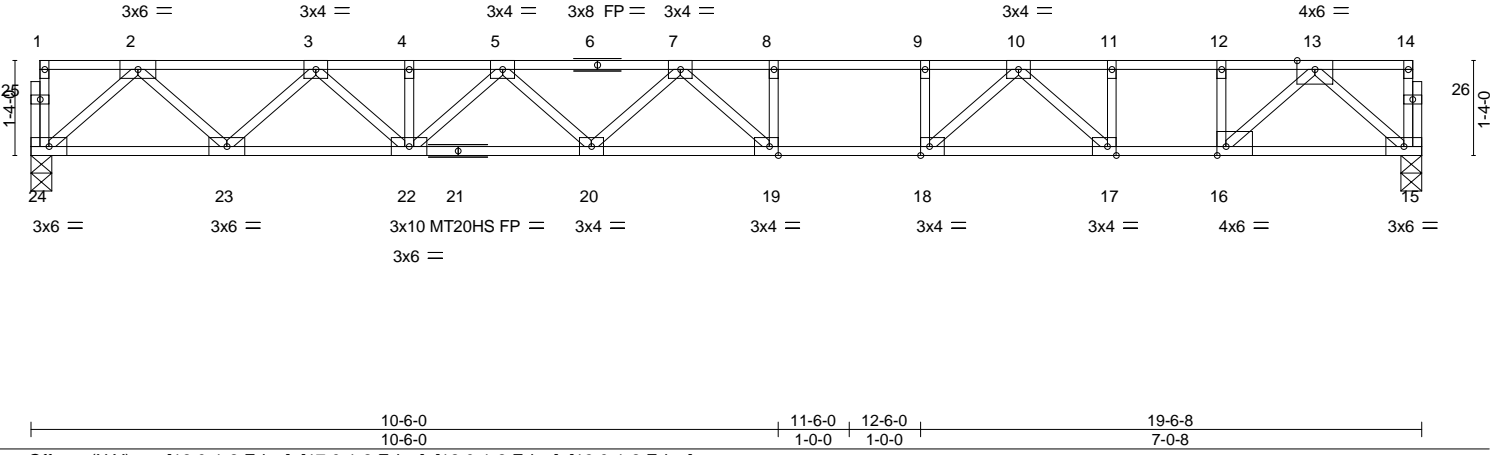


January 26, 2023

Job PERMIT2F	Truss F03	Truss Type FLOOR	Qty 5	Ply 1	NEW HOME INC./WILSON I56330435 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:12 2023 Page 1  
ID:mvHsUUHXQZAZVMQf\_AKGSszu7Qq-9vIRyG5bqDhU8DpVTg1anlqgxB4GvP9WZK\_UXKzrI\_H



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)	-0.38	19-20	>601	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.88	Vert(CT)	-0.53	19-20	>437	360	MT20HS	187/143
BCLL 0.0	Rep Stress Incr	YES	WB 0.68	Horz(CT)	0.06	15	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 101 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat) *Except* 6-14: 2x4 SP SS(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat) *Except* 15-21: 2x4 SP SS(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 24=0-3-8, 15=0-3-8  
Max Grav 24=843(LC 1), 15=843(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1568/0, 3-4=-2652/0, 4-5=-2652/0, 5-7=-3241/0, 7-8=-3257/0, 8-9=-3257/0,  
9-10=-3257/0, 10-11=-1967/0, 11-12=-1967/0, 12-13=-1967/0  
BOT CHORD 23-24=0/919, 22-23=0/2192, 20-22=0/3044, 19-20=0/3375, 18-19=0/3257, 17-18=0/2769,  
16-17=0/1967, 15-16=0/914  
WEBS 9-18=-322/0, 7-19=-369/0, 5-20=0/274, 5-22=-533/0, 3-22=0/626, 3-23=-867/0,  
2-23=0/904, 2-24=-1221/0, 13-15=-1210/0, 10-18=0/817, 13-16=0/1432, 10-17=-1120/0,  
11-17=0/439, 12-16=-679/0

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 1.5x3 MT20 unless otherwise indicated.
  - 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.

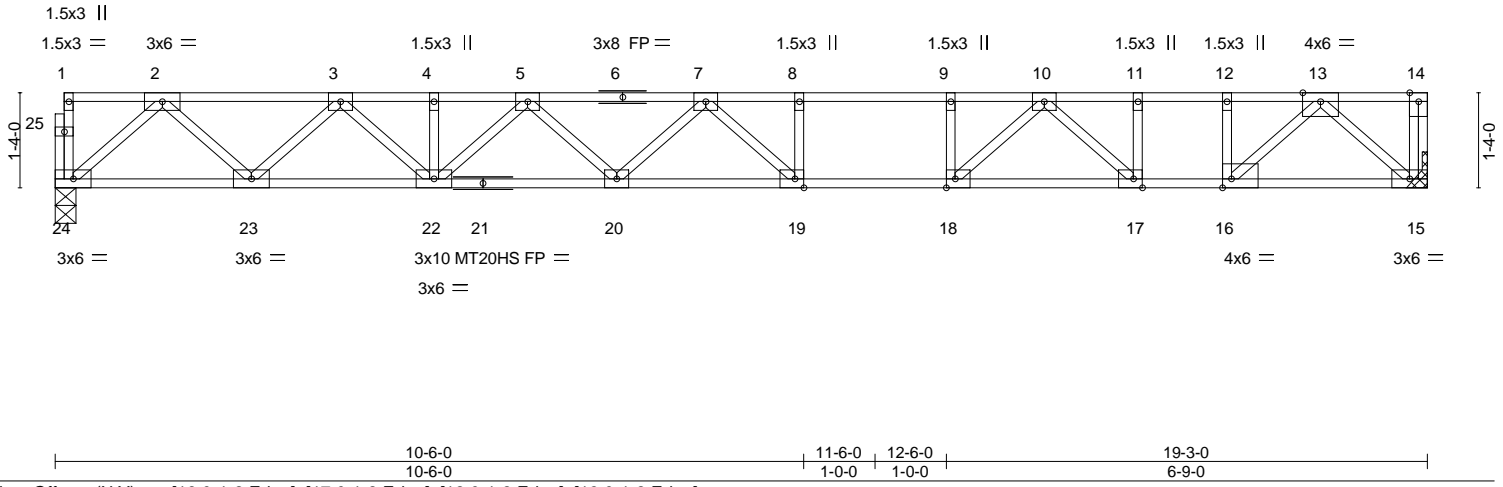


January 26, 2023

Job PERMIT2F	Truss F04	Truss Type FLOOR	Qty 2	Ply 1	NEW HOME INC./WILSON Job Reference (optional)	I56330436
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:14 2023 Page 1  
ID:mvHsUUHXQAZVMQF\_AKGSZu7Qq-5IQBNx7rMqxCNXzub542sjv\_Q\_mxNKYp1dTbbDzrl\_F



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 0.90	Vert(LL)	-0.36	19-20	>632	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.80	Vert(CT)	-0.50	19-20	>459	360	MT20HS	187/143
BCLL 0.0	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.06	15	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 101 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2(flat) *Except* 6-14: 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat) *Except* 15-21: 2x4 SP SS(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 24=0-3-8, 15=Mechanical  
Max Grav 24=830(LC 1), 15=835(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1541/0, 3-4=-2597/0, 4-5=-2597/0, 5-7=-3162/0, 7-8=-3135/0, 8-9=-3135/0,  
9-10=-3135/0, 10-11=-1869/0, 11-12=-1869/0, 12-13=-1869/0  
BOT CHORD 23-24=0/904, 22-23=0/2151, 20-22=0/2976, 19-20=0/3277, 18-19=0/3135, 17-18=0/2622,  
16-17=0/1869, 15-16=0/904  
WEBS 9-18=-330/0, 7-19=-386/0, 5-20=0/258, 5-22=-515/0, 3-22=0/607, 3-23=-849/0,  
2-23=0/885, 2-24=-1202/0, 13-15=-1203/0, 10-18=0/837, 13-16=0/1312, 10-17=-1052/0,  
11-17=0/379, 12-16=-591/0

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 3x4 MT20 unless otherwise indicated.
  - Refer to girder(s) for truss to truss connections.
  - 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.
  - CAUTION, Do not erect truss backwards.



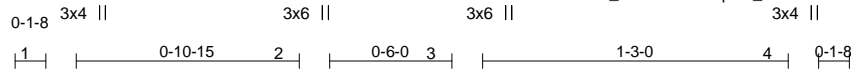
January 26, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job PERMIT2F	Truss F05GR	Truss Type FLOOR	Qty 1	Ply 1	NEW HOME INC./WILSON	156330437
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:15 2023 Page 1

ID:mvHsUUHXQZAZVMQf\_AKGSszu7Qq-ZU\_ZaH8T7843?hY48obHPxSlqOEo6tuzGHD88fzrl\_E



Scale = 1:9.4

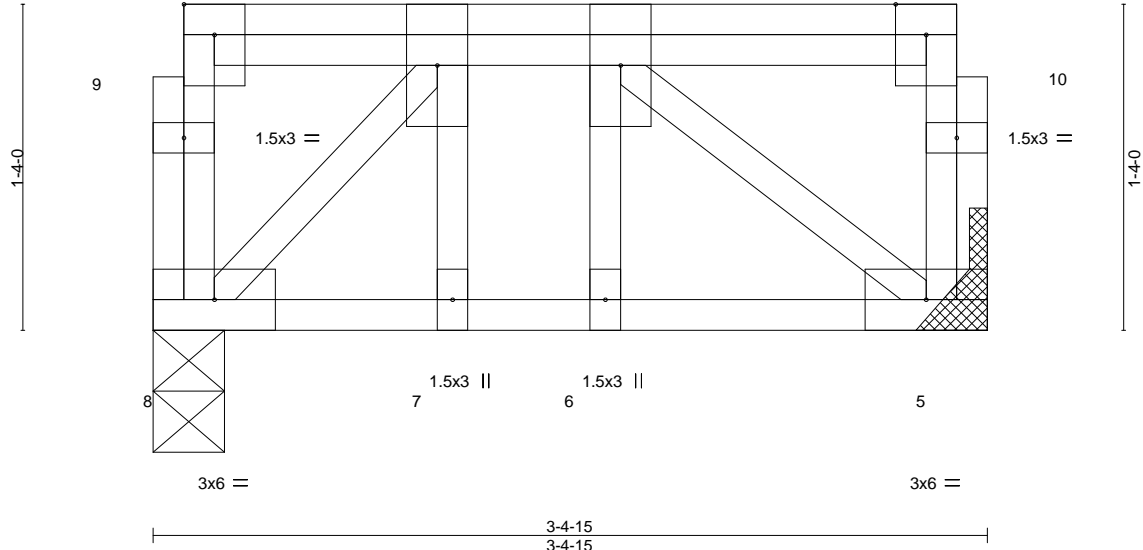


Plate Offsets (X,Y)-- [1:Edge,0-1-8]

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 0.35	Vert(LL)	-0.01	6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.31	Vert(CT)	-0.01	5-6	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.23	Horz(CT)	0.00	5	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						

Weight: 27 lb FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 3-4-15 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 8=0-3-8, 5=Mechanical  
 Max Grav 8=954(LC 1), 5=1016(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-8=-295/9, 4-5=-471/0, 2-3=-710/0  
 BOT CHORD 7-8=0/710, 6-7=0/710, 5-6=0/710  
 WEBS 3-5=-879/0, 2-8=-1009/0

- NOTES-
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Refer to girder(s) for truss to truss connections.
  - 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.
  - 4) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard  
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 5-8=-8, 1-3=-602(F=-522), 3-4=-687(F=-522, B=-85)



January 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

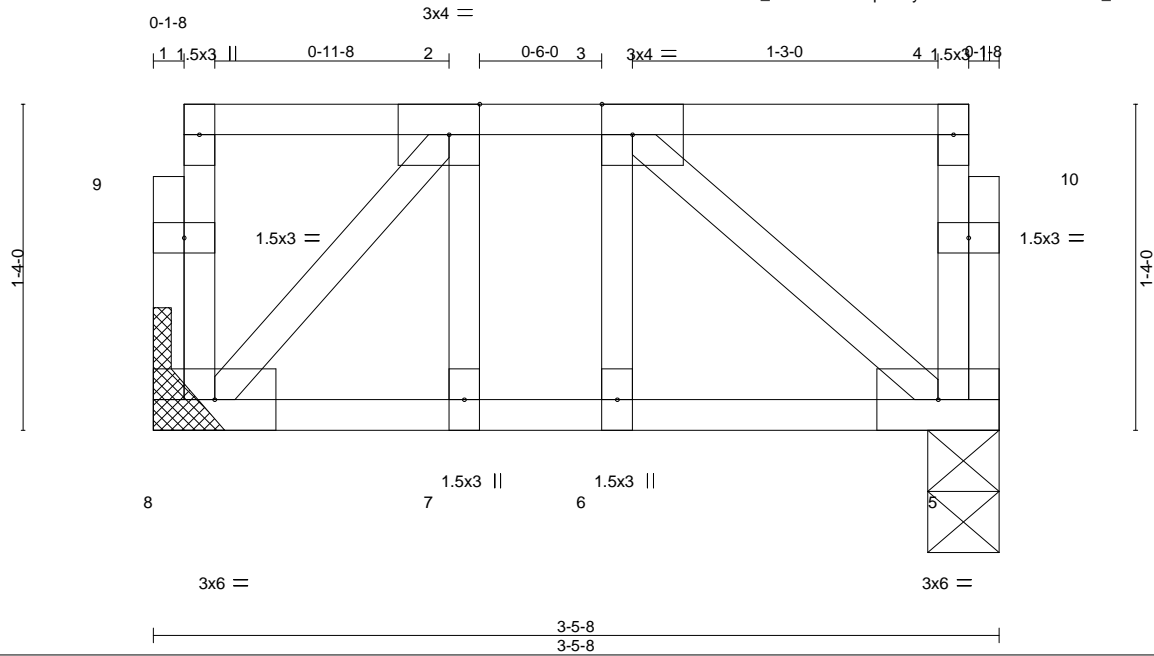
**TRENCO**  
 ENGINEERING BY  
 818 Soundside Road  
 Edenton, NC 27932

Job PERMIT2F	Truss F06	Truss Type FLOOR	Qty 1	Ply 1	NEW HOME INC./WILSON	156330438
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:16 2023 Page 1  
ID:mvHsUUHXQZAZVMQf\_AKGSSzu7Qq-1hYynd85uSCwdr7GiW6Wx8\_XXodtrN16Uxyhg6zrl\_D



Scale = 1:9.4

Plate Offsets (X,Y)--		[2:0-1-8,Edge], [3:0-1-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	1-7-3	<b>CSI.</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.09
TCDL 10.0	Lumber DOL	1.00	BC 0.07
BCLL 0.0	Rep Stress Incr	YES	WB 0.03
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-S
<b>DEFL.</b>	in (loc)	l/defl	L/d
Vert(LL)	-0.00	6 >999	480
Vert(CT)	-0.00	6 >999	360
Horz(CT)	0.00	5 n/a	n/a
<b>PLATES</b>	<b>GRIP</b>		
MT20	244/190		
Weight: 24 lb		FT = 20%F, 11%E	

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-5-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 8=Mechanical, 5=0-3-8  
 Max Grav 8=136(LC 1), 5=136(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.



January 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job PERMIT2F	Truss F09	Truss Type FLOOR	Qty 14	Ply 1	NEW HOME INC./WILSON	I56330439
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:17 2023 Page 1

ID:mvHsUUHXQZAZVMQf\_AKGSszu7Qq-Vi5K?z9jflKmE\_iTGDdlUMXX?Cs?anfFjbiFCYzrl\_C



Scale = 1:13.5

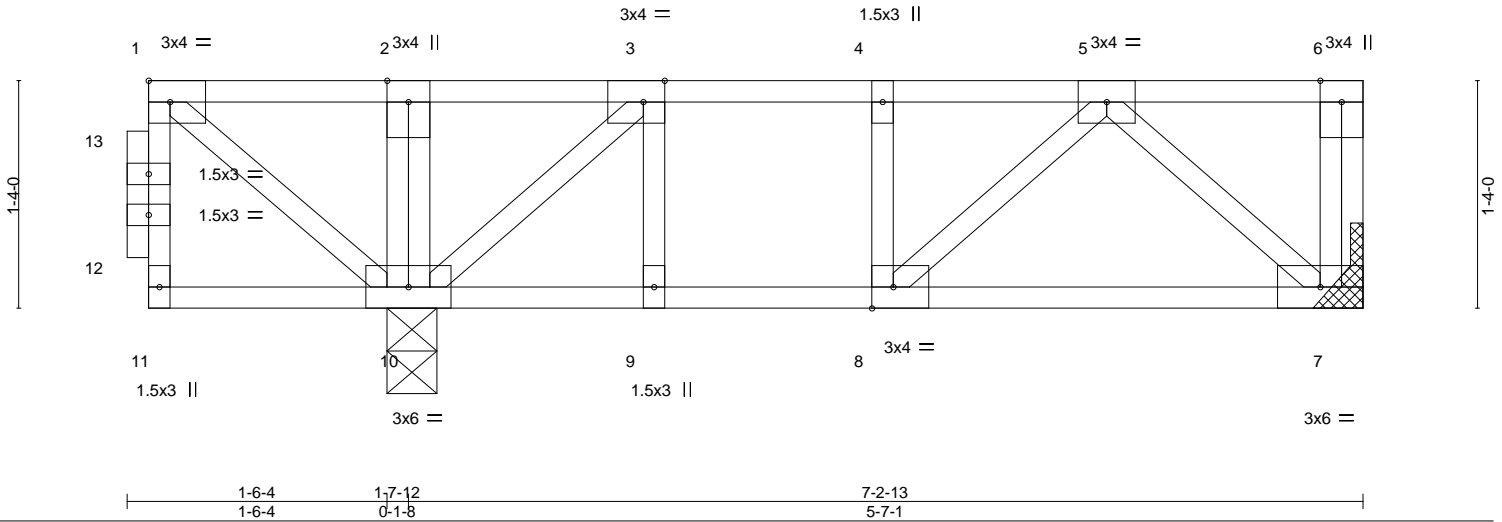


Plate Offsets (X, Y)--	[3:0-1-8,Edge], [8:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 1-7-3	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.82	Vert(LL) -0.03 7-8 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.52	Vert(CT) -0.07 7-8 >999 360		
BCLL 0.0	Rep Stress Incr NO	WB 0.22	Horz(CT) -0.00 7 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 43 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 7-2-13 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 10-11.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 7=Mechanical, 10=0-3-8  
 Max Uplift 7=87(LC 3)  
 Max Grav 7=132(LC 4), 10=1030(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=0/702, 2-3=0/702, 3-4=0/349, 4-5=0/349  
 BOT CHORD 9-10=-349/0, 8-9=-349/0  
 WEBS 1-10=-912/0, 3-10=-690/0, 5-8=-307/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Refer to girder(s) for truss to truss connections.
  - 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 7.
  - 4) N/A
  - 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.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 509 lb down at 0-2-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) 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)**
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 7-11=-8, 1-6=-80  
 Concentrated Loads (lb)  
 Vert: 1=-509(F)
  - 2) Dead: Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 7-11=-8, 1-6=-80  
 Concentrated Loads (lb)  
 Vert: 1=-509(F)
  - 3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00



January 26, 2023



Job	Truss	Truss Type	Qty	Ply	NEW HOME INC./WILSON	156330439
PERMIT2F	F09	FLOOR	14	1		
					Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:17 2023 Page 2  
 ID:mvHsUUHXQZAZVMQf\_AKGSszu7Qq-Vi5K?z9jflKmE\_iTGDdlUMXX?Cs?anfJbifCYzrl\_C

**LOAD CASE(S)**

- Uniform Loads (plf)
  - Vert: 7-11=-8, 1-2=-80, 2-6=-16
- Concentrated Loads (lb)
  - Vert: 1=-509(F)
- 4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 7-11=-8, 1-2=-16, 2-6=-80
  - Concentrated Loads (lb)
    - Vert: 1=-389(F)
- 5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 7-11=-8, 1-2=-80, 2-6=-16
  - Concentrated Loads (lb)
    - Vert: 1=-509(F)
- 6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 7-11=-8, 1-2=-16, 2-6=-80
  - Concentrated Loads (lb)
    - Vert: 1=-389(F)
- 7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 7-11=-8, 1-2=-16, 2-4=-80, 4-6=-16
  - Concentrated Loads (lb)
    - Vert: 1=-389(F)
- 8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 7-11=-8, 1-2=-80, 2-3=-16, 3-6=-80
  - Concentrated Loads (lb)
    - Vert: 1=-509(F)
- 9) 3rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 7-11=-8, 1-2=-16, 2-4=-80, 4-6=-16
  - Concentrated Loads (lb)
    - Vert: 1=-389(F)
- 10) 4th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
  - Uniform Loads (plf)
    - Vert: 7-11=-8, 1-2=-80, 2-3=-16, 3-6=-80
  - Concentrated Loads (lb)
    - Vert: 1=-509(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job PERMIT2F	Truss F09L	Truss Type GABLE	Qty 1	Ply 1	NEW HOME INC./WILSON Job Reference (optional)	I56330440
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:18 2023 Page 1  
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0-1-8



Scale = 1:13.5

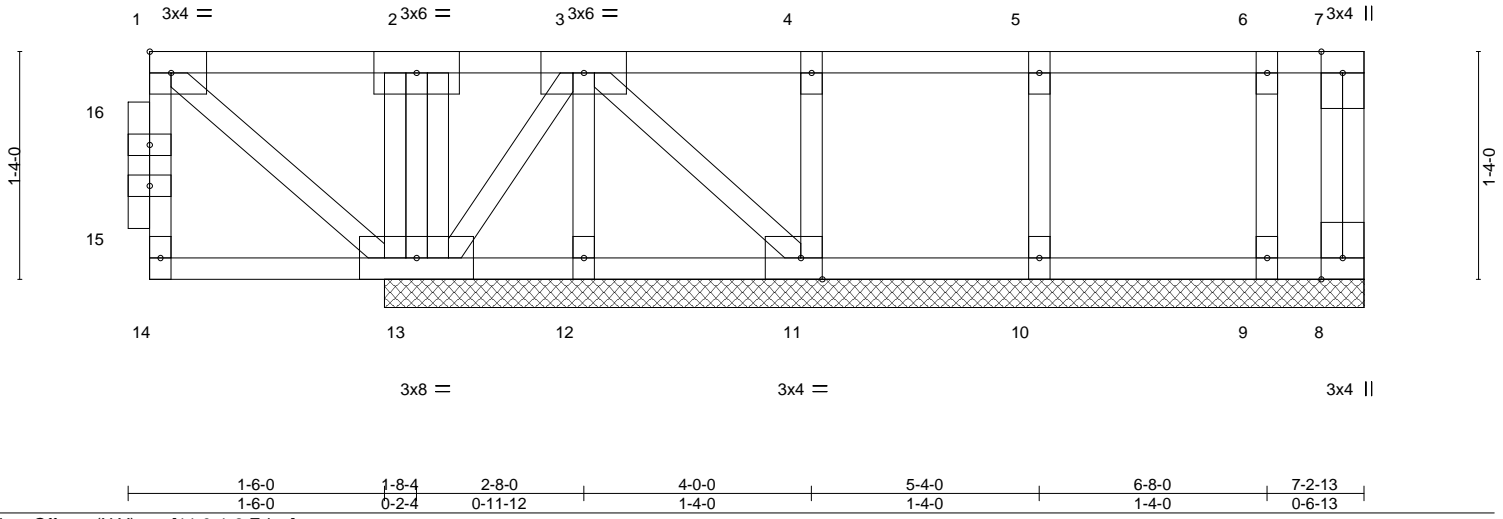


Plate Offsets (X,Y)-- [11:0-1-8,Edge]	1-6-0 1-6-0	1-8-4 0-2-4	2-8-0 0-11-12	4-0-0 1-4-0	5-4-0 1-4-0	6-8-0 1-4-0	7-2-13 0-6-13		
<b>LOADING</b> (psf)	<b>SPACING-</b>	1-7-3	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.44	Vert(LL) n/a	-	n/a	999	MT20	244/190	
TCDL 10.0	Lumber DOL 1.00	BC 0.07	Vert(CT) n/a	-	n/a	999			
BCLL 0.0	Rep Stress Incr NO	WB 0.23	Horz(CT) -0.00	8	n/a	n/a			
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S							
								Weight: 45 lb	FT = 20%F, 11%E

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 7-2-13 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** All bearings 5-8-13.  
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 8, 12, 11  
Max Grav All reactions 250 lb or less at joint(s) 12, 11, 10, 9 except 13=1393(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=0/743, 2-3=0/741  
BOT CHORD 12-13=-326/0, 11-12=-326/0  
WEBS 2-13=-255/0, 1-13=-957/0, 3-13=-655/0, 3-11=0/440

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 1.5x3 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 12, 11.
  - 6) Non Standard bearing condition. Review required.
  - 7) N/A
  - 8) 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.
  - 9) CAUTION, Do not erect truss backwards.
  - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 509 lb down at 0-2-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 11) 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 Except:  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 8-14=-8, 1-7=-162  
Concentrated Loads (lb)  
Vert: 1=-509(F)  
2) Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 8-14=-8, 1-7=-162



January 26, 2023

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job PERMIT2F	Truss F09L	Truss Type GABLE	Qty 1	Ply 1	NEW HOME INC./WILSON I56330440 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:19 2023 Page 2  
ID:mvHsUUHXQZAZVMQf\_AKGSSzu7Qq-RFD4QfB\_BNaUUlrrNefDZnczJ?eZ2h\_YAvBMHRzrl\_A

**LOAD CASE(S)** Standard Except:

Concentrated Loads (lb)

Vert: 1=-389(F)

3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 8-14=-8, 1-2=-162, 2-7=-98

4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 8-14=-8, 1-2=-98, 2-7=-162

5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 8-14=-8, 1-2=-162, 2-7=-98

6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 8-14=-8, 1-2=-98, 2-7=-162

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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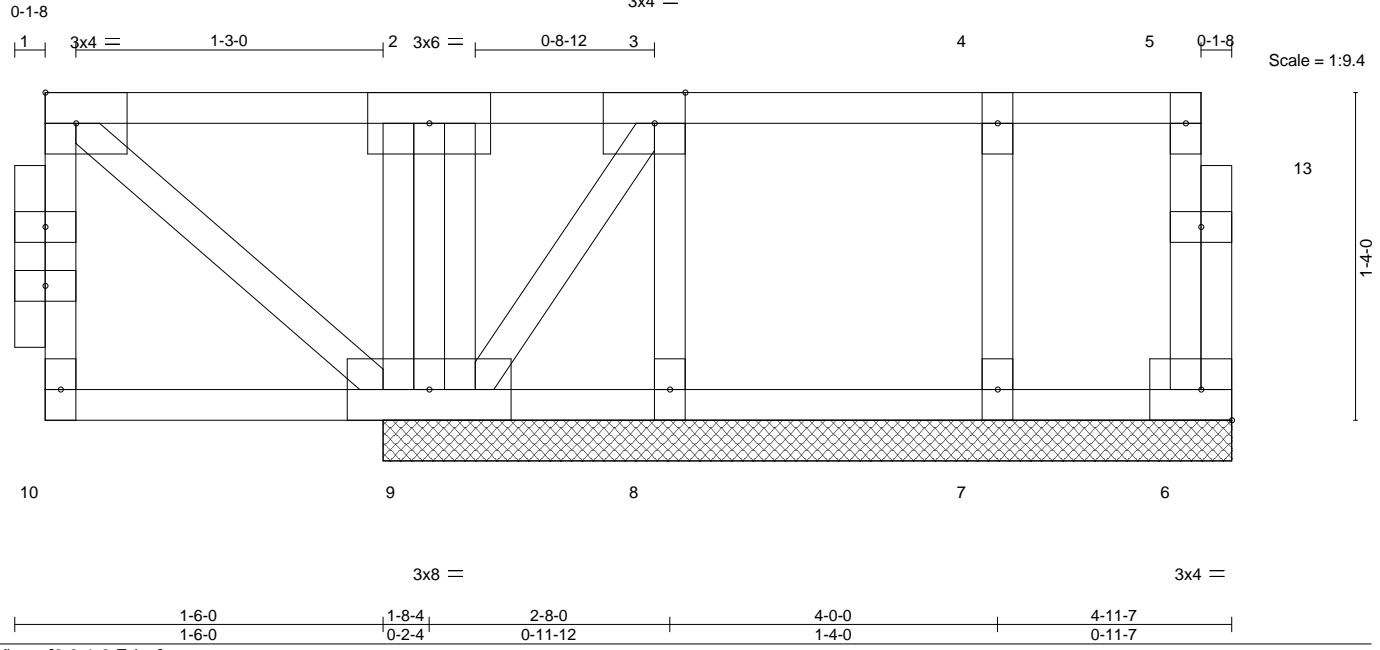
818 Soundside Road  
Edenton, NC 27932

Job PERMIT2F	Truss F10L	Truss Type GABLE	Qty 1	Ply 1	NEW HOME INC./WILSON Job Reference (optional)	I56330441
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:20 2023 Page 1

ID:mvHsUUHXQZAZVMQf\_AKGSSzu7Qq-wSnSd?CcygiL5SQ2xMAS6\_98IP\_gn7WiPZwvptzrl\_9  
3x4 =



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	1-7-3	TC 0.40	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.08	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.00	WB 0.27	Vert(CT) n/a - n/a 999		
BCDL 5.0	Rep Stress Incr NO	Matrix-P	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 32 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

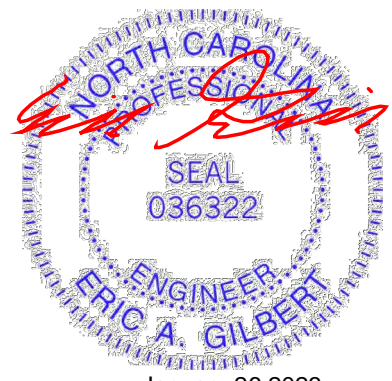
**REACTIONS.** (size) 6=3-5-7, 8=3-5-7, 7=3-5-7, 9=3-5-7  
 Max Uplift 8=580(LC 1)  
 Max Grav 6=37(LC 1), 7=212(LC 2), 9=1506(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=0/604, 2-3=0/602  
 WEBS 3-8=0/574, 1-9=-777/0, 3-9=-953/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 1.5x3 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=580.
  - 6) Non Standard bearing condition. Review required.
  - 7) N/A
  - 8) 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.
  - 9) CAUTION, Do not erect truss backwards.
  - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 396 lb down at 0-2-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 11) 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 Except:

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 6-10=-8, 1-5=-162  
 Concentrated Loads (lb)  
 Vert: 1=-396(F)
- 2) Dead: Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 6-10=-8, 1-5=-162



January 26, 2023

Job PERMIT2F	Truss F10L	Truss Type GABLE	Qty 1	Ply 1	NEW HOME INC./WILSON Job Reference (optional)	I56330441
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:20 2023 Page 2  
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**LOAD CASE(S)** Standard Except:

Concentrated Loads (lb)

Vert: 1=-276(F)

3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 6-10=-8, 1-2=-80, 2-5=-16

Concentrated Loads (lb)

Vert: 1=-156(F)

4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 6-10=-8, 1-2=-16, 2-5=-80

Concentrated Loads (lb)

Vert: 1=-156(F)

5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 6-10=-8, 1-2=-80, 2-5=-16

Concentrated Loads (lb)

Vert: 1=-156(F)

6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)

Vert: 6-10=-8, 1-2=-16, 2-5=-80

Concentrated Loads (lb)

Vert: 1=-156(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

Job PERMIT2F	Truss F11L	Truss Type GABLE	Qty 2	Ply 1	NEW HOME INC./WILSON Job Reference (optional)	I56330442
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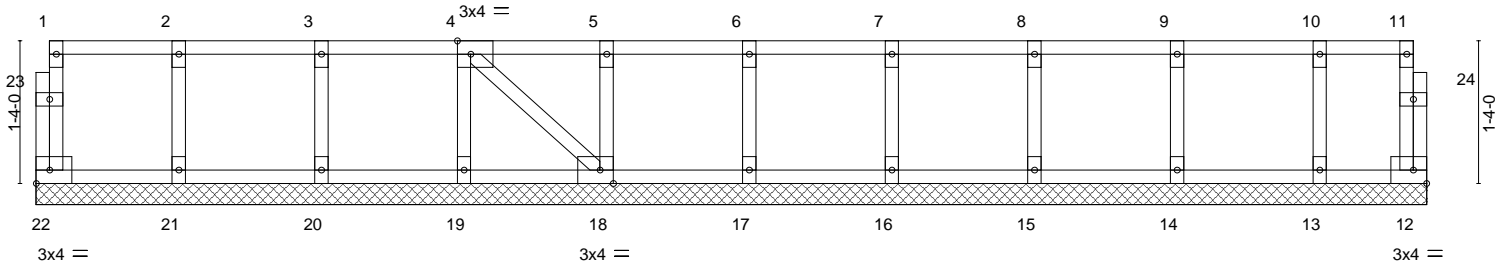
Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:21 2023 Page 1  
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0,1,8

0,1,8

Scale = 1:21.5



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-0-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-0-0

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [18:0-1-8,Edge]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 1-7-3	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
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 0.01	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr NO	WB 0.03	Horz(CT) 0.00 12 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 61 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 13-0-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- 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) 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.



January 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job PERMIT2F	Truss F12	Truss Type FLOOR	Qty 12	Ply 1	NEW HOME INC./WILSON 156330443
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.530 s Aug 11 2022 MiTek Industries, Inc. Wed Jan 25 17:36:22 2023 Page 1  
ID:mvHsUUHXQAZVMQf\_AKGSSzu7Qq-sqvD2gDsUJy3LmaQ3mDwBPUEHDaWf2n\_ttP0ulzrl\_7

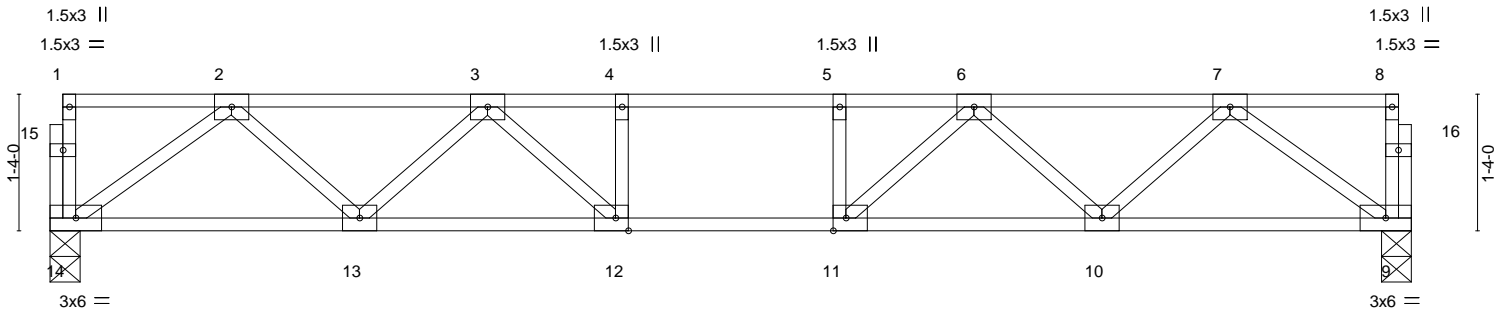
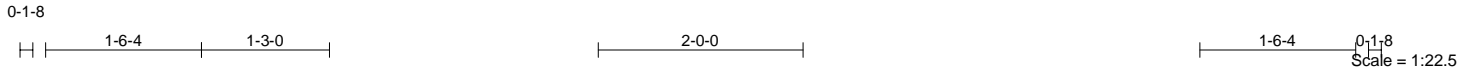


Plate Offsets (X,Y)--	[11:0-1-8,Edge], [12:0-1-8,Edge]
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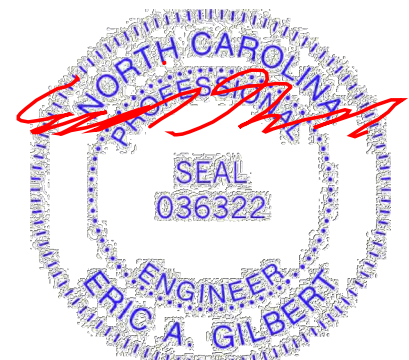
LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.40	Vert(LL)	-0.08	12-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.50	Vert(CT)	-0.11	12-13	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.22	Horz(CT)	0.02	9	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-S						
								Weight: 69 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 14=0-3-8, 9=0-3-8  
Max Grav 14=568(LC 1), 9=568(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1047/0, 3-4=-1521/0, 4-5=-1521/0, 5-6=-1521/0, 6-7=-1047/0  
BOT CHORD 13-14=0/707, 12-13=0/1361, 11-12=0/1521, 10-11=0/1361, 9-10=0/707  
WEBS 3-12=0/377, 3-13=-437/0, 2-13=0/472, 2-14=-875/0, 6-11=0/377, 6-10=-437/0, 7-10=0/472, 7-9=-875/0

**NOTES-**  
1) Unbalanced floor live loads have been considered for this design.  
2) All plates are 3x4 MT20 unless otherwise indicated.  
3) 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.

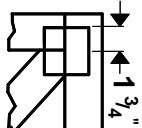


January 26, 2023

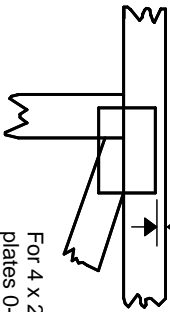
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b> Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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# 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 **MITrak 20/20 software** or upon request.

## PLATE SIZE

4 X 4

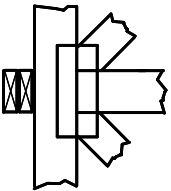
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



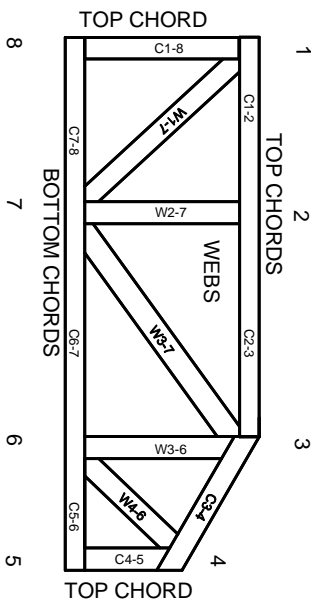
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TFP 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8  
dimensions shown in ft-in-sixteenths  
(Drawings not to scale)



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ESR-3907, ESR-2362, ESR-1397, ESR-3282

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

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MITteK Engineering Reference Sheet: MIT-7473 rev. 5/19/2020



# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.