



MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: 400279
Lot 62 MN

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Wheeler - Waverly.

Pages or sheets covered by this seal: I43442661 thru I43442661

My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193



Scott M. Sevier

November 2, 2020

Sevier, Scott ,Engineer

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

Job 400279	Truss D6	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 2	Lot 62 MN I43442661
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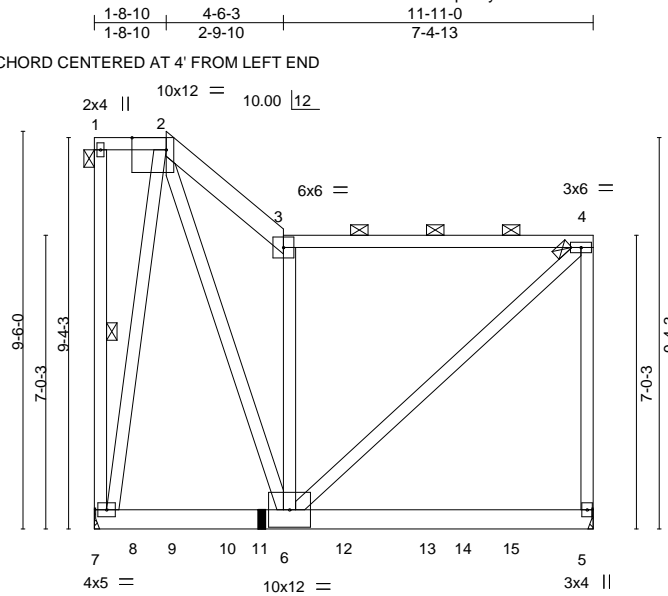
Wheeler Lumber, Waverly, KS 66871

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1/4" DEEP X 2" WIDE NOTCH IN FRONT PLY OF BOTTOM CHORD CENTERED AT 4' FROM LEFT END

NO REPAIR REQUIRED

Scale = 1:55.0



LUMBER MUST BE CUT CLEANLY AND ACCURATELY AND THE REMAINING WOOD MUST BE UNDAMAGED
NO LUMBER DEFECTS ARE TO BE LOCATED WITHIN +/- 12" OF NOTCH

		1-8-10		4-6-3		11-11-0			
		1-8-10		2-9-10		7-4-13			
Plate Offsets (X,Y)-- [2:0-9-13,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.54	Vert(LL)	-0.13 5-6 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.57	Vert(CT)	-0.23 5-6 >613 240		
BCLL	0.0 *+	Rep Stress Incr NO		WB	0.83	Horz(CT)	0.00 5 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08 5-6 >999 240	Weight: 200 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-3: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2, 3-4.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 1-7
REACTIONS. (lb/size) 7=3010/Mechanical, 5=2927/Mechanical Max Horz 7=-347(LC 23) Max Uplift 7=-438(LC 4), 5=-485(LC 5) Max Grav 7=3144(LC 2), 5=2955(LC 2)	
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 2-3=-2430/359, 3-4=-1774/243, 4-5=-1819/362	
BOT CHORD 7-8=-266/576, 8-9=-266/576, 9-10=-266/576, 10-11=-266/576, 6-11=-266/576	
WEBS 2-7=-2708/438, 2-6=-534/4294, 3-6=-1851/394, 4-6=-388/2353	

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 438 lb uplift at joint 7 and 485 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- A + following a basic load indicates that the load has been modified in one or more load cases.
- Load case(s) 2, 14, 15, 16, 17, 18, 31, 32, 33, 34 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1081 lb down and 77 lb up at 1-11-12, 1084 lb down and 232 lb up at 3-11-12, 974 lb down and 63 lb up at 5-11-12, and 1004 lb down and 63 lb up at 7-11-12, and 937 lb down and 196 lb up at 9-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



November 2,2020

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 62 MN
400279	D6	ROOF SPECIAL GIRDER	1	2	I43442661

Wheeler Lumber, Waverly, KS 66871

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LOAD CASE(S) Standard Except:

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 9=-1028(B) 11=-1048(B) 12=-940(B) 13=-938(B) 15=-937(B)
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-58, 2-3=-57, 3-4=-58, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
Concentrated Loads (lb)
Vert: 9=-1081(B) 11=-1084(B) 12=-974(B) 13=-1004(B) 15=-804(B)
- 14) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-20, 2-3=-20, 3-4=-20, 7-8=-40, 8-10=-60, 10-14=-40, 5-14=-60
Concentrated Loads (lb)
Vert: 9=-711(B) 11=-700(B) 12=-630(B) 13=-671(B) 15=-406(B)
- 15) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-36, 2-3=-49, 3-4=-49, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
Horz: 1-7=21, 2-3=9, 4-5=7
Drag: 1-2=0
Concentrated Loads (lb)
Vert: 9=-7(B) 11=108(B) 12=-12(B) 13=-12(B) 15=88(B)
- 16) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-36, 2-3=-69, 3-4=-36, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
Horz: 1-7=-7, 2-3=-11, 4-5=-21
Drag: 1-2=0
Concentrated Loads (lb)
Vert: 9=-7(B) 11=108(B) 12=-12(B) 13=-12(B) 15=88(B)
- 17) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-49, 2-3=-49, 3-4=-49, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
Horz: 1-7=19, 2-3=9, 4-5=6
Drag: 1-2=0
Concentrated Loads (lb)
Vert: 9=-7(B) 11=108(B) 12=-12(B) 13=-12(B) 15=88(B)
- 18) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-49, 2-3=-36, 3-4=-36, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
Horz: 1-7=-6, 2-3=22, 4-5=-19
Drag: 1-2=0
Concentrated Loads (lb)
Vert: 9=-7(B) 11=108(B) 12=-12(B) 13=-12(B) 15=88(B)
- 31) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-36, 2-3=-49, 3-4=-49, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
Horz: 1-7=21, 2-3=9, 4-5=7
Drag: 1-2=0
Concentrated Loads (lb)
Vert: 9=-998(B) 11=-1002(B) 12=-900(B) 13=-923(B) 15=-778(B)
- 32) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-36, 2-3=-69, 3-4=-36, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
Horz: 1-7=-7, 2-3=-11, 4-5=-21
Drag: 1-2=0
Concentrated Loads (lb)
Vert: 9=-998(B) 11=-1002(B) 12=-900(B) 13=-923(B) 15=-778(B)
- 33) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-49, 2-3=-49, 3-4=-49, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
Horz: 1-7=19, 2-3=9, 4-5=6
Drag: 1-2=0
Concentrated Loads (lb)
Vert: 9=-998(B) 11=-1002(B) 12=-900(B) 13=-923(B) 15=-778(B)
- 34) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-49, 2-3=-36, 3-4=-36, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
Horz: 1-7=-6, 2-3=22, 4-5=-19
Drag: 1-2=0
Concentrated Loads (lb)
Vert: 9=-998(B) 11=-1002(B) 12=-900(B) 13=-923(B) 15=-778(B)

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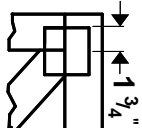
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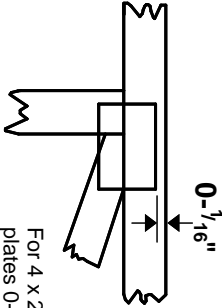
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Symbols

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.

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

* Plate location details available in **MiTek 20/20** software or upon request.

PLATE SIZE

4 X 4

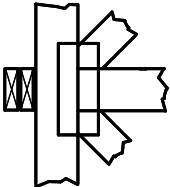
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: 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)

