

RE: 4040485 - THE ASCOT CORPORATION-HAMEL

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Project Customer: THE ASCOT CORPORATION Project Name:
Lot/Block: 154 Subdivision: ELGIN DR
Address: HSE#154 ELGIN DR
City: Lillington State: NC

Name Address and License # of Structural Engineer of Record, If there is one, for the building.

Name: License #:
Address:
City, County: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: N/A Design Method: N/A
Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 1 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Job ID#	Truss Name	Date
1	168031670	4040485	F7G	9/6/24

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

Truss Design Engineer's Name: Gilbert, Eric
My license renewal date for the state of North Carolina is December 31, 2024.

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.



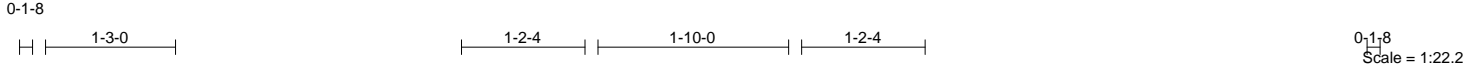
Gilbert, Eric

September 6, 2024

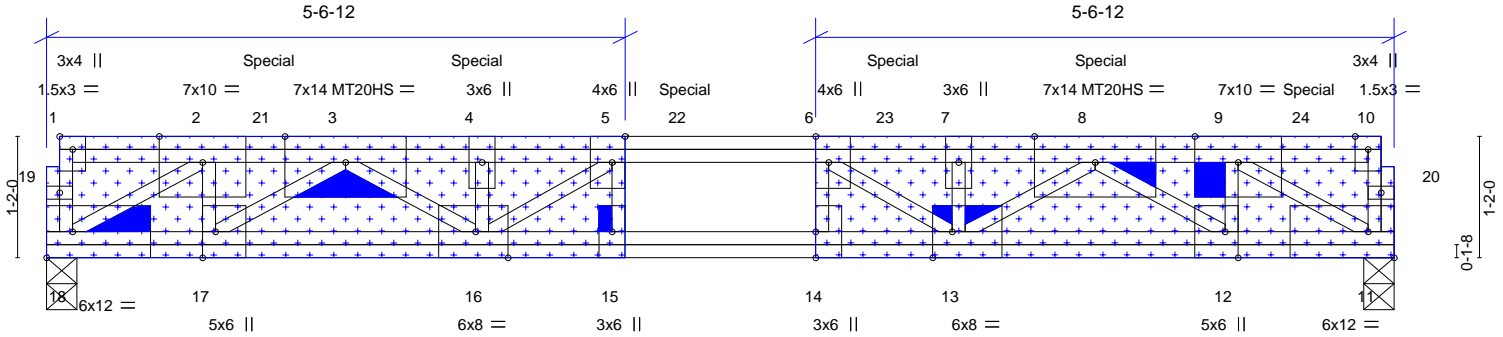
Job 4040485	Truss F7G	Truss Type FLOOR GIRDER	Qty 1	Ply 1	THE ASCOT CORPORATION-HAMEL Job Reference (optional)	Units: 1.0 Eng: LAM
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Sep 5 13:29:03 2024 Page 1
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PLATES CUT AT JOINTS 3, 8, 9, 13, 15 AND 18 AS SHOWN



ATTACH < 2 LAYERS > 3/4" PLYWOOD OR OSB GUSSET (23/32" RATED SHEATHING 48/24 EXP 1) TO ONE FACE OF TRUSS WITH ONE ROW OF (0.131" X 3.0") NAILS SPACED 2" O.C. INTO EACH COVERED TRUSS MEMBER. GLUE PLYWOOD LAYERS TOGETHER PRIOR TO ATTACHING TO TRUSS. IN ADDITION TO REQUIRED NAILING AND GLUED LAYERS, CONSTRUCTION QUALITY ADHESIVE RECOMMENDED AT TRUSS/GUSSET INTERFACE TO REDUCE POTENTIAL SQUEAKS.

Plate Offsets (X, Y)--	[1:Edge,0-1-8], [5:0-3-0,Edge], [6:0-3-0,Edge], [12:0-3-0,Edge], [13:0-2-4,Edge], [14:0-3-0,Edge], [16:0-3-12,Edge], [17:0-3-0,Edge]
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LOADING (psf)	SPACING-	1-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.88	Vert(LL)	-0.21 14-15	>724	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.96	Vert(CT)	-0.29 14-15	>524	240	MT20HS	187/143
BCLL 0.0	Rep Stress Incr	NO	WB 0.99	Horz(CT)	0.04 11	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-SH						
								Weight: 103 lb	FT = 20%F, 11%E

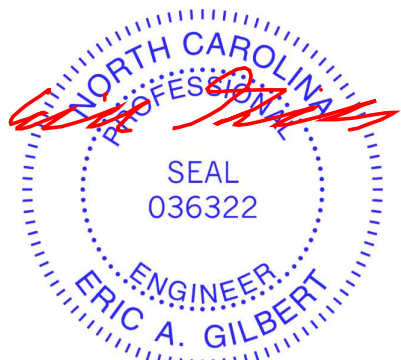
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 18=0-3-8, 11=0-3-8
Max Grav 18=2187(LC 1), 11=2747(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-11=-412/0, 2-3=-3246/0, 3-4=-7345/0, 4-5=-7345/0, 5-6=-8376/0, 6-7=-7428/0, 7-8=-7428/0, 8-9=-3453/0
BOT CHORD 17-18=0/3261, 16-17=0/5632, 15-16=0/8376, 14-15=0/8376, 13-14=0/8376, 12-13=0/5824, 11-12=0/3470
WEBS 2-17=0/1370, 3-17=-2911/0, 3-16=0/2089, 4-16=-497/0, 5-16=-1311/0, 9-12=0/1330, 8-12=-2892/0, 8-13=0/1956, 7-13=-450/0, 6-13=-1212/0, 2-18=-3745/0, 9-11=-3984/0

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
 - All plates are MT20 plates 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 723 lb down at 2-1-12, 723 lb down at 4-1-12, 690 lb down at 6-1-12, 717 lb down at 8-1-12, and 723 lb down at 10-1-12, and 858 lb down at 12-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

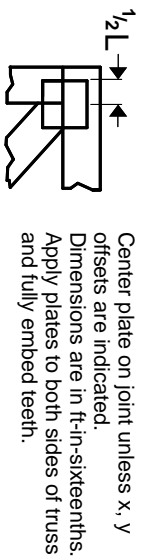
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 11-18=-5, 1-10=-50
Concentrated Loads (lb)
Vert: 4=-683(F) 8=-683(F) 21=-683(F) 22=-683(F) 23=-683(F) 24=-826(F)



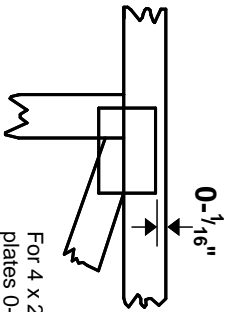
September 6, 2024

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

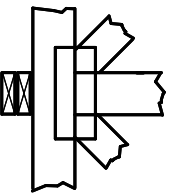
4 X 4
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

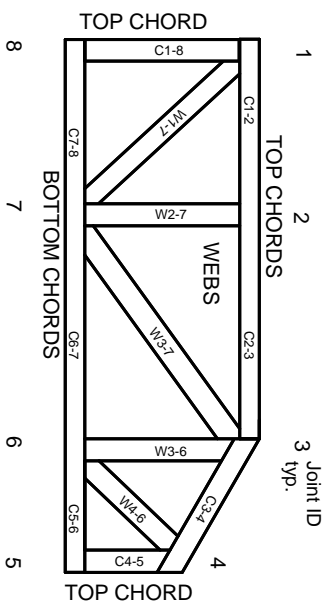


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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



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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ENGINEERING BY
TRENGO
A MITek Affiliate

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

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.