

Job	Truss	Truss Type	Qty	Ply	JE Womble\Butz
8945	T1	Common	12	1	
Job Reference (optional)					

C&R Building Supply, Autryville NC

8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Oct 7 10:40:18 2025 Page 1
ID: gBq1NNNNFSaZITszlmY1pFyVMDL-K8htB1HqGiK3oWPT9ensbgQdtHyF6xKZiHyM97dyVrMh

1-0-0 1-0-0	6-3-0 6-3-0	12-0-0 5-9-0	17-9-0 5-9-0	24-0-0 24-0-0	25-0-0 1-0-0
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Scale = 1:41.8

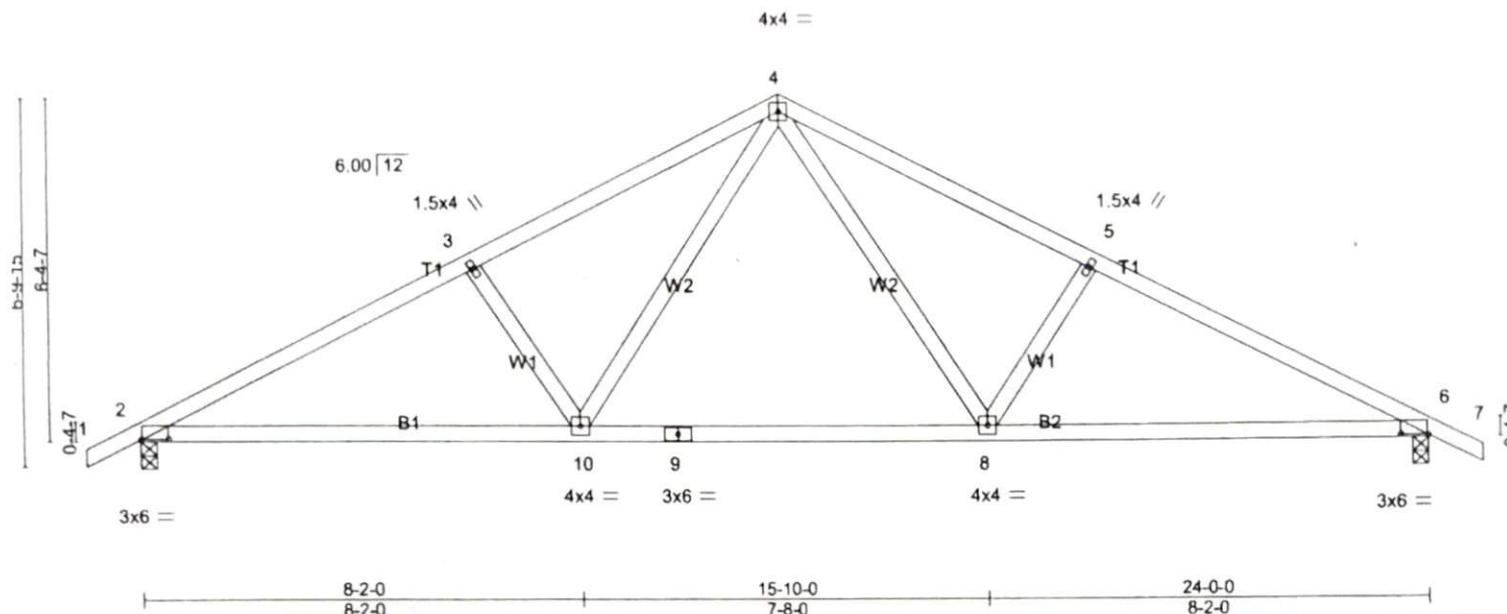


Plate Offsets (X,Y) = [2-0-6-3,0-0-3], [6-0-6-3,0-0-3]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.07	8-16	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.18	8-16	>999	240		
BCLL 0.0	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.03	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.04	8-16	>999	240		
									Weight: 110 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.2

BRACING-

TOP CHORD
BOT CHORD

Structural wood sheathing directly applied.
Rigid ceiling directly applied.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1020/0-3-8 (min. 0-1-8), 6=1020/0-3-8 (min. 0-1-8)
Max Horz 2=93(LC 7)
Max Uplift 2=-69(LC 8), 6=-69(LC 8)

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

TOP CHORD 2-3=-1660/108, 3-4=-1487/127, 4-5=-1487/127, 5-6=-1660/108
BOT CHORD 2-10=-18/1443, 9-10=0/958, 8-9=0/958, 6-8=-18/1443
WEBS 4-8=-8/567, 5-8=-362/119, 4-10=-8/567, 3-10=-362/119

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=24ft; L=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6'-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 6) 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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	JE WombleButz
28945	G1	Common Supported Gable	2	1	Job Reference (optional)

C&R Building Supply, Autryville NC

8 430 s Jan 20 2021 MiTek Industries, Inc. Tue Oct 7 10:40:17 2025 Page 1
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Scale = 1:42.2

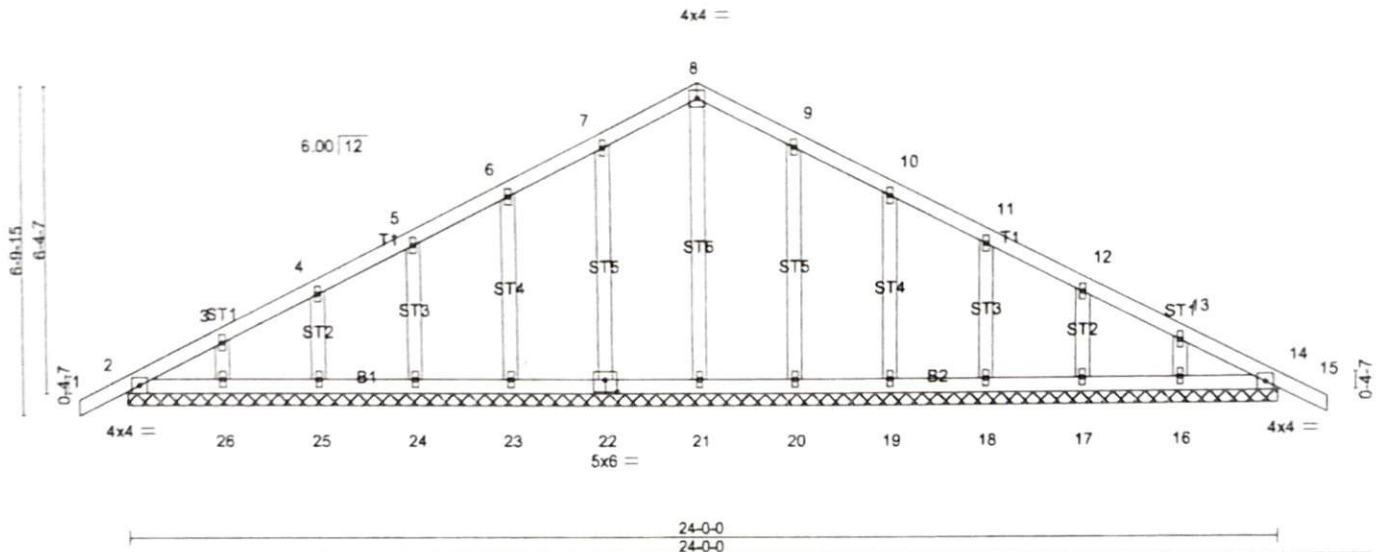


Plate Offsets (X,Y) - [22-0-3-0,0-3-0]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	15	n/r	120	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	15	n/r	120	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	14	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 130 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 24-0-0.
(lb) - Max Horz 2=93(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 25, 26, 20,
19, 18, 17, 16, 14
Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 23, 24, 25,
26, 20, 19, 18, 17, 16, 14

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=24ft; L=25ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16, 14.
- 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.

LOAD CASE(S) Standard

BUILDER SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT TIME OF CONSTRUCTION.

ALL CONSTRUCTION SHALL CONFORM TO THE 2018 EDITION OF THE NC STATE BUILDING CODE. CODES GOVERN OVER DRAWINGS. DIMENSIONS GOVERN OVER SCALE.

VERIFY ALL MECHANICAL REQUIREMENTS BEFORE FRAMING.

UNCANNON DESIGNS DOES NOT ASSUME LIABILITY FOR ANY DEVIATION OF OR CONSTRUCTION METHODS OF THESE PLANS.

GENERAL FOUNDATION NOTES

1. THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
2. EXTERIOR WALL FOOTING SHOWN NOTED TO BE 8" X 8" MINOR PER STRUCTURAL CONCRETE (ALSO OTHERWISE NOTED). CONCRETE TO BE PREPARED AND PLACED IN ACCORDANCE WITH ACI 308 FOR FOUNDATION WALL HEIGHT, THICKNESS AND BACKFILL REQUIREMENTS. REFER TO STATE AND LOCAL BUILDING CODES. NOTE: AMPLIFIED SOIL BEARING CAPACITY (AS PER CONTRACTOR MUST VERIFY CONDITIONS AND CONTACT SOIL ENGINEER IF FOUNDATION OR UNSTABLE SOILS ARE ENCOUNTERED).
3. FOOTINGS TO BEAR ON UNDISTURBED EARTH A MIN. OF 8" BELOW ADJACENT FINISH GRADE OR AS OTHERWISE DIRECTED BY LOCAL INSPECTOR.
4. FOUNDATION DRAINAGE SHALL BE IN ACCORDANCE WITH SECTION 1405 OF THE CODE "FOUNDATION DRAINAGE".
5. THE FOUNDATION SHALL BE TREATED IN ACCORDANCE WITH SECTION 1405 OF THE CODE "FOUNDATION DRAINAGE".
6. THIS FOUNDATION DESIGN IS VALID FOR 15.7 MPN AND ZONES ONLY.
7. FOUNDATION WALLS SHALL BE 8" BLOCK UNLESS NOTED OTHERWISE.
8. (1) 1/4 BARS IN FOOTING RUN CONTINUOUSLY.

⊙ INDICATES POINT LOAD ABOVE

GENERAL FRAMING NOTES

1. THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
2. GLAZING AREAS SHOWN ON THESE DESIGN DRAWINGS DO NOT EXCEED 80% OF THE GROUND AREA OF THE EXTERIOR WALLS. THIS STRUCTURE MEETS THE REQUIREMENTS OF MINIMAL RESIDENTIAL BUILDING TYPE A-1.
3. WALL GLAZING IS DESIGNED FOR A 24" HPS OR GREATER POSITIVE/NEGATIVE PRESSURE.
4. ALL WALLS FLOORS AND CEILING SHALL BE INSULATED IN ACCORDANCE WITH PART IV ENERGY CONSERVATION CHAPTER 1, ENERGY EFFICIENCY OF THE CODE FOR ZONE 1 (TABLE N1001).
5. DESIGN CRITERIA:
PRIMARY FLOOR
SECONDARY FLOOR
SLEEPING AREAS
ATTIC
ROOF
WIND
DEFLECTION LIMITS
FLOOR - L/400
ROOF - L/240
(LIVE LOAD ONLY)
FLOOR - L/360
ROOF - L/240
6. ALL HEADERS IN LOAD BEARING WALLS SHALL BE DOUBLE THIS.
7. ALL WALLS ARE 2X4 X 8" O.C. UNLESS OTHERWISE NOTED.
8. FLOOR TRIMMER - 4" X 8" EXTERIOR - 4" X 8" AND CEILING - 4" X 8".
9. PROVIDE DOUBLE FLOOR JOISTS OR TRUSS UNDER WALLS ABOVE.

WALL BRACING FOR THE GARAGE DOORS WILL BE DONE USING PWS PROVIDED IN ACCORDANCE WITH FPMR 601.8.4 OF THE NORTH CAROLINA BUILDING CODE 2018 ED. FOR RESIDENCES.

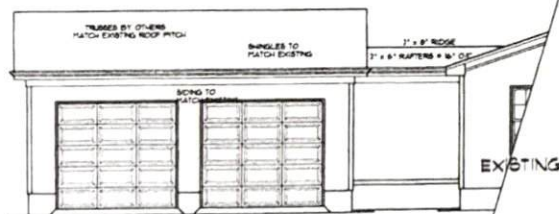
TABLE 13.1 SUPPORTS FOR HEADERS

HEADERS SHALL BE SUPPORTED ON EACH END WITH ONE OR MORE JACK STUDS OR WITH APPROVED FRAMING ANCHORS IN ACCORDANCE WITH TABLE 13.1(1) OR 13.1(2). THE FULL-HEIGHT STUD ADJACENT TO EACH END OF THE HEADER SHALL BE END NAILED TO EACH END OF THE HEADER WITH FOUR NO. 10S (13) INCHES BY 8.00 INCHES. THE MINIMUM NUMBER OF FULL-HEIGHT STUDS AT EACH END OF A HEADER SHALL BE IN ACCORDANCE WITH TABLE 13.1(1).

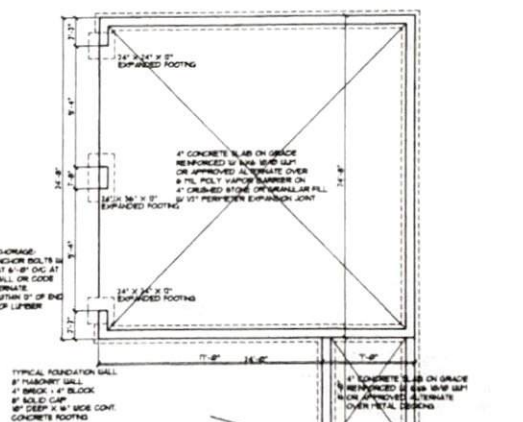
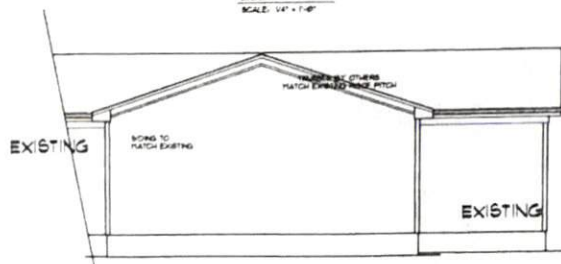
TABLE 13.1.1 MINIMUM NUMBER OF FULL-HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS		
HEADER SPAN	MINIMUM STUD BRACING (INCHES) PER TABLE 13.1(1)	
	W	D
LESS THAN EQUAL TO 3'	1	1
3' TO 4'	2	2
4' TO 5'	3	3
5' TO 6'	4	4

BRACED WALL NOTES

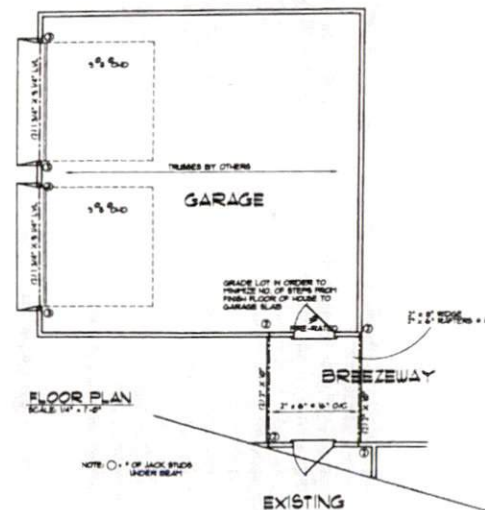
1. BRACED WALLS ARE REQUIRED PER SECTION 1405.1.1 NC RESIDENTIAL CODE.
2. THE EXTERIOR WALL STRUCTURE SHALL BE CONTINUOUSLY SUBMERGED FULL HEIGHT WITH PWS THICKNESS 5/8" DIA. THESE WALLS SHALL BE CONSTRUCTED IN CONFORMANCE TO TYPE CS-WP DETAILS.
3. BASIS OF DESIGN FOR INTERIOR BRACE WALLS IS OPTIMUM BOARD PERIOD AS DETAILED PER CODE TABLE N1001.2.
4. SPECIAL BRACING DETAILS ARE ILLUSTRATED IN THE CODE AND ALLOWED WHERE WALLS DO NOT MEET THE MINIMUM REQUIREMENTS FOR SUPPORT REFER TO GARAGE OPENING PORTAL BRACING DETAILS.



ELEVATIONS
SCALE: 1/4" = 1'-0"



FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



FLOOR PLAN
SCALE: 1/4" = 1'-0"

NOTE: ○ = 1" OF JACK STUD SHOWN BEAT

STRUCTURAL CALCULATED BY

HOWERTON SERVICES, PLLC
3513 CATHEDRAL BELL ROAD RALEIGH, NC 27814
LICENSE: P-1718

* ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS OF THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS.

* ANY CHANGES OR MODIFICATIONS TO PLANS ARE TO BE BROUGHT TO IMMEDIATE ATTENTION OF THE ENGINEER. FAILURE TO DO SO WILL VOID ENGINEER'S LIABILITY.

* DO NOT SCALE THESE DRAWINGS - DIMENSIONS APPROVAL: 01/01/2020



09/29/2023 EDT

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DRAWN BY: UNV
CHECKED BY: UNV
DATE: 09/29/23
REVISED: UNV

SHEET
A-1