

ADDRESS' : 175 FARRAH-SHEA WAY SUBDIV: BRIAN KEITH MEADOW 25LOTS  
CONTRACTOR : CUMBERLAND HOMES INC PHONE : (910) 892-4345  
OWNER : BARCO DEVELOPMENT INC PHONE :  
PARCEL : 04-0662- - -0024- -09-  
APPL NUMBER: 17-50041143 CP NEW RESIDENTIAL (SFD)  
DIRECTIONS : T/S: 04/11/2017 11:13 AM JBROCK ----  
210 TOWARDS ANGIER L ONTO HARNETT  
CENTRAL RD R INTO S/D L ONTO FARRAH  
SHEA WAY LOT IS ON L - LOT 5

STRUCTURE: 000 000 61X47 4BDR CRAWL W/ GARAGE/PATIO/SCRPORC

FLOOD ZONE : FLOOD ZONE X  
# BEDROOMS : 4000000.00 PROPOSED USE : SFD  
SEPTIC - EXISTING? : NEW TANK WATER SUPPLY : COUNTY

PERMIT: CPSF 00 CP \* SFD

TYP/SQ	REQUESTED COMPLETED	INSP RESULT	DESCRIPTION RESULTS/COMMENTS
A814 01	6/09/17 6/09/17	SB AP	ADDRESS CONFIRMATION TIME: 17:00 VRU #: 002982676 175 FARRAR-SHEA WAY ANGIER 27501 T/S: 06/09/2017 09:43 AM SBENNETT ----
B101 01	6/09/17 6/09/17	JLP AP	R*BLDG FOOTING / TEMP SVC POLE TIME: 17:00 VRU #: 002982668 T/S: 06/08/2017 01:36 PM BPETRICH ---- TSP ALSO T/S: 06/09/2017 02:10 PM JPERRY ---- Need premises number.
B103 01	6/28/17 6/28/17	JLP AP	R*BLDG FOUND & TEMP SVC POLE VRU #: 002990307 T/S: 06/28/2017 01:53 PM JPERRY ----
B105 01	7/28/17 7/28/17	JLP AP	R*OPEN FLOOR TIME: 17:00 VRU #: 003005162 T/S: 07/27/2017 04:25 PM LLUCAS ---- T/S: 07/28/2017 01:43 PM JPERRY ----
R425 01	8/29/17 8/29/17	JLP DA	FOUR TRADE ROUGH IN TIME: 17:00 VRU #: 003018215 T/S: 08/28/2017 12:08 PM JBROCK ---- 1-Head test down. 2-Missing stud column in bathroom 3. 3-nail door frame at entrance to bedroom 3. 4-Get damaged girder in bedroom 3 engineered.
R425 02	9/13/17 <u>9-13-17</u>	TI <u>APBS</u>	FOUR TRADE ROUGH IN TIME: 17:00 VRU #: 003023900 T/S: 09/12/2017 09:53 AM BPETRICH ----

COMMENTS AND NOTES

**Trenco**  
818 Soundside Rd  
Edenton, NC 27932

Re: J0517-2606  
Cumberland / 5 Brian Keith Meadows

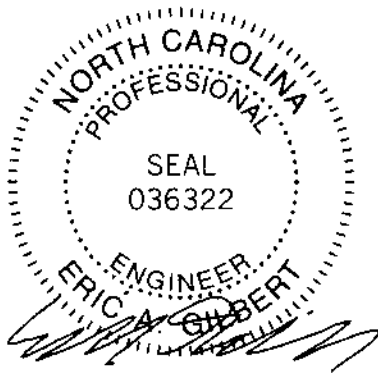
The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: E10918394 thru E10918394

My license renewal date for the state of North Carolina is December 31, 2017.

North Carolina COA: C-0844

Lumber design values are in accordance with ANSI/TPI 1 section 6.3  
These truss designs rely on lumber values established by others.



September 8, 2017

Gilbert, Eric

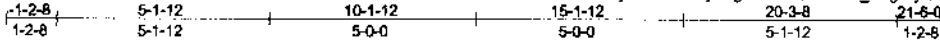
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

Job	Truss	Truss Type	Qty	Pty	Cumberland / 5 Brian Keith Meadows	E10918394
J0547-2606	C2	COMMON GIRDER	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

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**APPLY 2 X 8 X 6' SPF/DF/SP NO.2 SCAB TO DAMAGED FACE OF TRUSS.**  
**ATTACH WITH 3 ROWS OF 10d NAILS (0.131" X 3")**  
**SPACED @ 3" O.C. USE 2" MEMBER END DISTANCE.**

Scale = 1:53.9

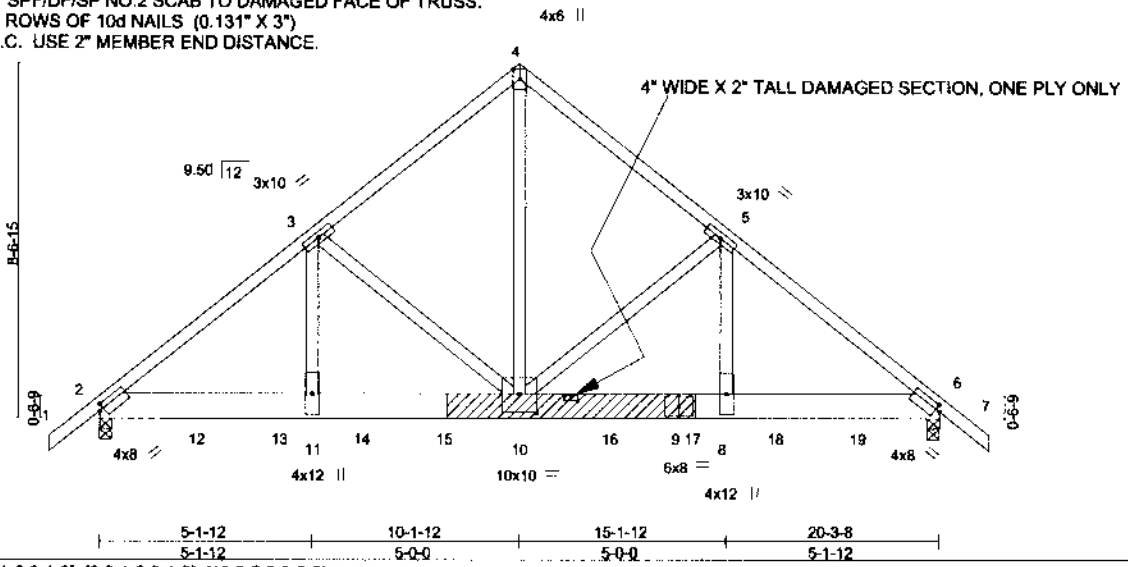


Plate Offsets (X,Y) - [2-0-1-6,0-1-9], [6-0-1-6,0-1-9], [10-0-5-0,0-5-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/def	L/d	PLATES	GRIP
TCLL 20.0	Lumber Grip DOL 1.15	TC 0.43	Vert(LL)	-0.09 10-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(TL)	-0.20 10-11	>999	240		
BCLL 0.0	Rep Stress Incr NO	WB 0.76	Horz(TL)	0.04 6	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	Matrix-R					Weight: 293 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x8 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\*  
 4-10: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-5-9 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=6975/0-3-8, 6=6041/0-3-8  
 Max Horz 2=224(LC 10)  
 Max Uplift 2=548(LC 4), 6=483(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-7797/572, 3-4=-5327/469, 4-5=-5327/469, 5-6=-7786/570  
 BOT CHORD 2-11=-447/5939, 10-11=-447/5939, 8-10=-370/5947, 6-8=-370/5947  
 WEBS 4-10=-472/6173, 5-10=-2395/280, 5-8=-163/2886, 3-10=-2386/279, 3-11=-162/2878

**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.  
 Bottom chords connected as follows: 2x8 - 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCCL=6.0psf, BCCL=5.0psf; h=15ft, Cat. II; Exp C, enclosed; MWFRS (low-rise); Lumber DOL=1.60 plate grip DOL=1.60
- \* 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 548 lb uplift at joint 2 and 483 lb uplift at joint 6.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1131 lb down and 78 lb up at 0-1-12, 1123 lb down and 82 lb up at 2-4-4, 1123 lb down and 82 lb up at 4-4-4, 1123 lb down and 82 lb up at 6-4-4, 1123 lb down and 82 lb up at 8-4-4, 1123 lb down and 82 lb up at 10-4-4, 1123 lb down and 82 lb up at 12-4-4, 1128 lb down and 82 lb up at 14-4-4, and 1128 lb down and 82 lb up at 16-4-4, and 1128 lb down and 82 lb up at 18-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced) + Uminhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 4-7=-60, 2-6=-20

Continued on page 2



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MH-7473 rev. 10/03/2015 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 ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY  
**TRENCO**  
 A MITEK Affiliate  
 818 Soundside Road  
 Edenport, NC 27932

Job J0517-2808	Truss C2	Truss Type COMMON GIRDER	Qty 1	Ply 2	Cumberland / 5 Brian Keith Meadows E10918394
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Comtech, Inc., Fayetteville, NC 28309

8.030 s Aug 11 2017 MiTek Industries, Inc. Wed Sep 06 14:15:09 2017 Page 2

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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 2=-1131(F) 10=-1123(F) 12=-1123(F) 13=-1123(F) 14=-1123(F) 15=-1123(F) 16=-1123(F) 17=-1128(F) 18=-1128(F) 19=-1128(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MW-7473 rev. 10/03/2015 BEFORE USE.**

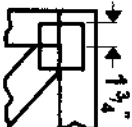
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 ANS/TP11 Quality Criteria, DSB-89 and BCS1 Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

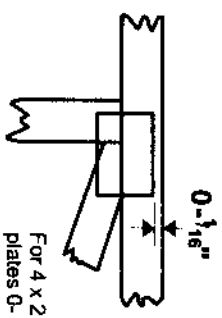
818 Soundside Road  
Edenton, NC 27932

# 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 MITrak 20120 software or upon request.

## PLATE SIZE



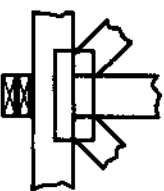
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

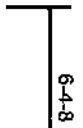


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

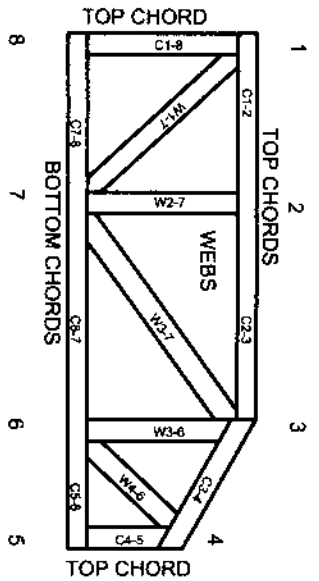
## Industry Standards:

- ANSI/TPI1: 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



dimensions shown in ft.-in.-sixteenths (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/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
  - ER-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/TPI 1 section 6.3. These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MIL-7473 rev. 10/03/2015

# General Safety Notes

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

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