

Job Estimate



ROOF & FLOOR TRUSSES & BEAMS

Reilly Road Industrial Park P.O. Box 40408
Fayetteville, N.C. 28309 (910) 864-TRUS
Cary Office: (919) 816-0105

| | | | |
|-----------------|----------------|-----------------|------------|
| REQ. QUOTE DATE | // | ORDER # | J0519-2500 |
| ORDER DATE | 05/28/19 | QUOTE # | |
| DELIVERY DATE | // | CUSTOMER ACCT # | 0000006995 |
| DATE OF INVOICE | // | CUSTOMER PO # | |
| ORDERED BY | Steve Thomas | INVOICE # | |
| SUPERINTENDANT | Steve Thomas | SALES REP | Bob Lewis |
| JOBSITE PHONE # | (919) 906-4069 | | |
| DESIGNER | BL | TRACKING | Bob Lewis |

| | | | |
|----------|---|---|--|
| ROOF FOR | Thomas Properties of Harnett PO Box 875 Broadway, NC 27505 (919) 258-9327/9064069 | JOB NAME: 1169 LAWRENCE RD MODEL: ROOF TAG: HANDDRAWN PLAN DELIVERY INSTRUCTIONS: | LOT # SUBDIV: JOB CATEGORY: Residential - Roof |
| | THOMAS PROP. OF 1169 LAWRENCE RD BROADWAY, NC | SPECIAL INSTRUCTIONS: | PLAN SEAL DATE: NONE |

ROOF TRUSSES

| PROFILE | QTY PLY | PITCH | | ID | SPAN FT-IN-16 | LUMBER | | OVERHANG | | CANTILEVER | | NOTES |
|---------|------------|---|------|------|------------------|--------|-------|----------|----------|------------|-------|-------|
| | | TOP | BOT | | | TOP | BOT | LEFT | RIGHT | LEFT | RIGHT | |
| | 10 | 4.00 | 0.00 | A1 | 20-00-00 | 2 X 4 | 2 X 4 | 01-02-08 | 01-02-08 | | | |
| | 2 | 4.00 | 0.00 | A1GE | 20-00-00 | 2 X 4 | 2 X 4 | 01-02-08 | 01-02-08 | | | |
| | 4 | 4.00 | 0.00 | A2 | 20-00-00 | 2 X 4 | 2 X 4 | 01-02-08 | | | | |
| | 9 | 4.00 | 0.00 | B1 | 12-00-00 | 2 X 4 | 2 X 4 | 01-02-08 | 01-02-08 | | | |
| | 1 | 4.00 | 0.00 | B1GE | 12-00-00 | 2 X 4 | 2 X 4 | 01-02-08 | 01-02-08 | | | |
| | 1 | Truss Drawings With B-1 and B-3 Bracing And Handling Instructions (Included in truss price) | | | | | | | | | | |

ROOF SUB-TOTAL: \$ 1,477.57

Please examine this quote, as we agree to furnish at the price herein specified only the articles named and described herein. Prices quoted are valid for thirty days unless otherwise specified. Additional design time made necessary by incorrect foundation installation or plan changes may require additional charges. This estimate includes sealed engineering of individual truss drawings only. Any requirement for additional engineering services will be billed in quarter hour increments as costs are incurred.

SUB-TOTAL \$1,477.57

| | |
|---|--|
| ACCEPTED BY SELLER BY: _____ TITLE: _____ DATE OF ACCEPTANCE: _____ | ACCEPTED BY BUYER PURCHASER: _____ BY: _____ TITLE: _____ ADDRESS: _____ PHONE: _____ DATE: _____ |
|---|--|

SALES TAX 7.00% \$103.42

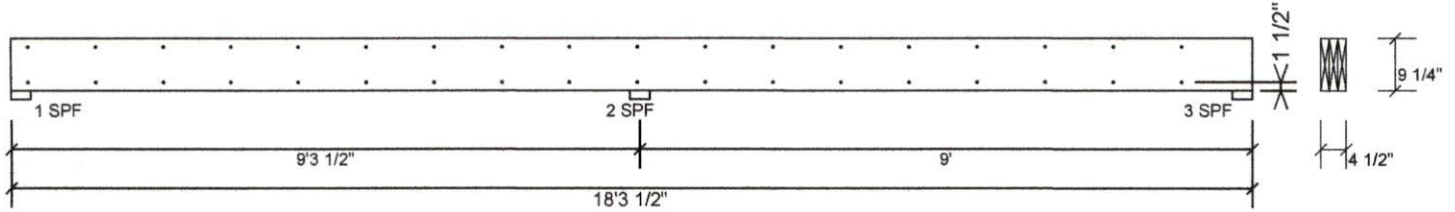
GRAND TOTAL \$1580.99

WARNING:As part of this proposal, we warn that trusses can be dangerous and cause property damage or personal injury if improperly installed and / or braced. Customer acceptance hereof shall constitute his affirmative representation to us that he is trained in the proper and safe methods of truss installation and bracing, and will use such methods. Customer acknowledges receipt of instructional pamphlet entitle: 'Bracing Wood Trusses: Commentary and recommendations', HIB-91, as published by the Truss Plate Institute, Inc., and also the engineering drawings showing the required lateral bracing. By his acceptance, Customer agrees, for himself, his agents and employees, to hold Comtech Inc. harmless from any and all actions for property damage, personal injury, or wrongful death resulting from improper installation and / or bracing during erection of the trusses comprehended hereby.



(3) 2X10 BBO SP #2 2.000" X 10.000" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6"

| | |
|--------------------------|-----------|
| Capacity | 0.0 % |
| Load | 0.0 PLF |
| Yield Limit per Foot | 202.6 PLF |
| Yield Limit per Fastener | 101.3 lb. |
| Yield Mode | IV |
| Edge Distance | 1 1/2" |
| Min. End Distance | 3" |
| Load Combination | |
| Duration Factor | 1.00 |

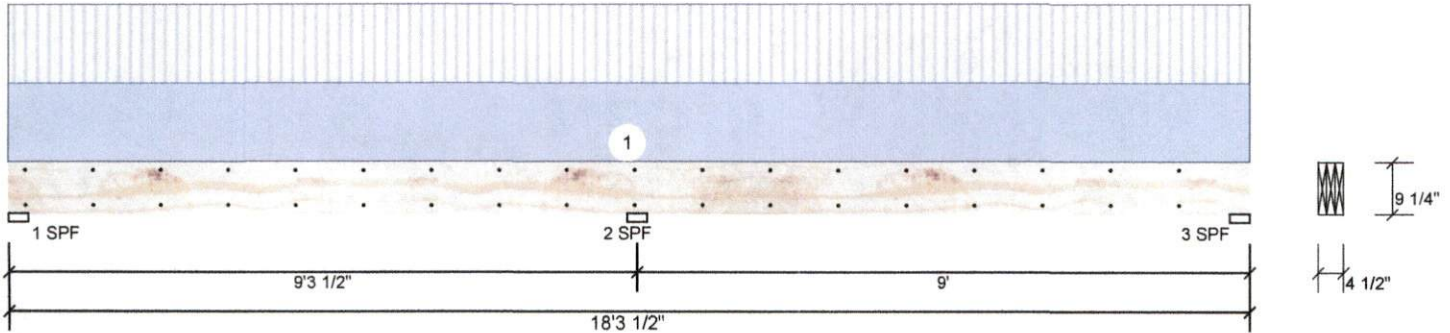
| | |
|--------------------------|--|
| <p>Manufacturer Info</p> | <p>Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS</p>  |
|--------------------------|--|

This design is valid until 10/18/2021



(3) 2X10 BBO SP #2 2.000" X 10.000" 3-Ply - PASSED

Level: Level



Member Information

| | |
|---------------------|---------------|
| Type: | Girder |
| Plyes: | 3 |
| Moisture Condition: | Dry |
| Deflection LL: | 480 |
| Deflection TL: | 240 |
| Importance: | Normal |
| Temperature: | Temp <= 100°F |

| | |
|----------------|--------------|
| Application: | Floor |
| Design Method: | ASD |
| Building Code: | IBC/IRC 2015 |
| Load Sharing: | Yes |
| Deck: | Not Checked |

Reactions UNPATTERNED lb (Uplift)

| Brg | Live | Dead | Snow | Wind | Const |
|-----|------|------|------|------|-------|
| 1 | 513 | 513 | 0 | 0 | 0 |
| 2 | 1561 | 1561 | 0 | 0 | 0 |
| 3 | 487 | 487 | 0 | 0 | 0 |

Bearings

| Bearing | Length | Cap. React D/L lb | Total Ld. Case | Ld. Comb. |
|---------|--------|-------------------|----------------|-----------|
| 1 - SPF | 3.500" | 16% 513 / 586 | 1099 L_ | D+L |
| 2 - SPF | 3.500" | 47% 1561 / 1561 | 3122 LL | D+L |
| 3 - SPF | 3.500" | 16% 487 / 571 | 1058 _L | D+L |

Analysis Results

| Analysis | Actual | Location | Allowed | Capacity | Comb. | Case |
|--------------|----------------|------------|---------------|-------------|-------|------|
| Neg Moment | -2785 ft-lb | 9'3 1/2" | 4920 ft-lb | 0.566 (57%) | D+L | LL |
| Unbraced | -2785 ft-lb | 9'3 1/2" | 4842 ft-lb | 0.575 (58%) | D+L | LL |
| Pos Moment | 1911 ft-lb | 3'11 1/16" | 4920 ft-lb | 0.388 (39%) | D+L | L_ |
| Unbraced | 1911 ft-lb | 3'11 1/16" | 4432 ft-lb | 0.431 (43%) | D+L | L_ |
| Shear | 1360 lb | 8'6 1/4" | 4856 lb | 0.280 (28%) | D+L | LL |
| LL Defl inch | 0.036 (L/3047) | 4'6 1/16" | 0.227 (L/480) | 0.160 (16%) | L | L_ |
| TL Defl inch | 0.058 (L/1885) | 4'3 15/16" | 0.453 (L/240) | 0.130 (13%) | D+L | L_ |

Design Notes

- 1 Fasten all plyes using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plyes.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on single ply width.

| ID | Load Type | Location | Trib Width | Side | Dead 0.9 | Live 1 | Snow 1.15 | Wind 1.6 | Const. 1.25 | Comments |
|----|-----------|----------|------------|------|----------|---------|-----------|----------|-------------|----------|
| 1 | Uniform | | | Top | 140 PLF | 140 PLF | 0 PLF | 0 PLF | 0 PLF | ROOF B1 |

Manufacturer Info

Comtech, Inc.
 1001 S. Reilly Road, Suite #639
 Fayetteville, NC
 USA
 28314
 910-864-TRUS



This design is valid until 10/18/2021



Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0519-2500
1169 LAWRENCE RD

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: E13098798 thru E13098802

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844



May 29, 2019

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 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 J0519-2500 | Truss A1 | Truss Type Common | Qty 10 | Ply 1 | 1169 LAWRENCE RD | E13098798 |
|-------------------|-------------|----------------------|-----------|----------|------------------|-----------|

Comtech, Inc., Fayetteville, NC 28309

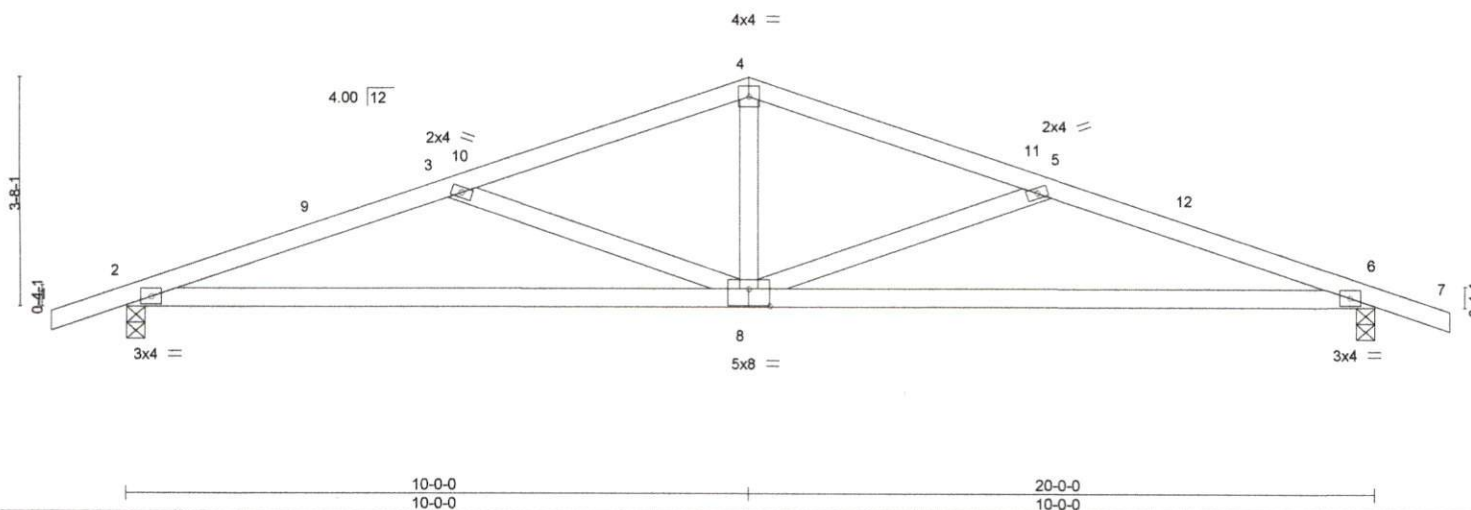
8.130 s Mar 11 2018 MiTek Industries, Inc. Tue May 28 14:11:34 2019 Page 1

ID:IKJl4F5cFll1wBaXe25Tzq7?H-1qAAAt17Hp919AdxKmH_Q9NsX0rrDMYzVH1VsWzBxyN

Job Reference (optional)



Scale = 1:35.9



| LOADING (psf) | SPACING- | CSL. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|------|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.27 | Vert(LL) | -0.19 | 2-8 | >999 | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.80 | Vert(CT) | -0.40 | 2-8 | >594 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.24 | Horz(CT) | 0.05 | 6 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | Wind(LL) | 0.05 | 8 | >999 | | |
| | Code IRC2015/TPI2014 | | | | | | Weight: 84 lb | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-4-7 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 9-8-11 oc bracing.

REACTIONS.

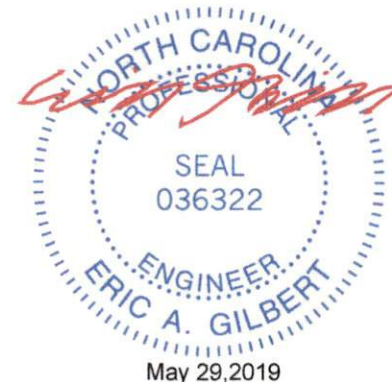
(lb/size) 6=870/0-3-8, 2=870/0-3-8
 Max Horz 2=-45(LC 17)
 Max Uplift 6=-112(LC 9), 2=-112(LC 8)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1779/477, 3-4=-1330/297, 4-5=-1330/297, 5-6=-1779/477
 BOT CHORD 2-8=-385/1648, 6-8=-398/1648
 WEBS 4-8=-31/578, 5-8=-483/269, 3-8=-483/269

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 10-0-0, Exterior(2) 10-0-0 to 14-4-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) except (jt=lb) 6=112, 2=112.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2016 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY
TRENCO
 A MITEK AFFILIATE

818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|-------------------|---------------|--------------------------------------|----------|----------|------------------|-----------|
| Job J0519-2500 | Truss A1GE | Truss Type Common Supported Gable | Qty 2 | Ply 1 | 1169 LAWRENCE RD | E13098799 |
|-------------------|---------------|--------------------------------------|----------|----------|------------------|-----------|

Comtech, Inc., Fayetteville, NC 28309

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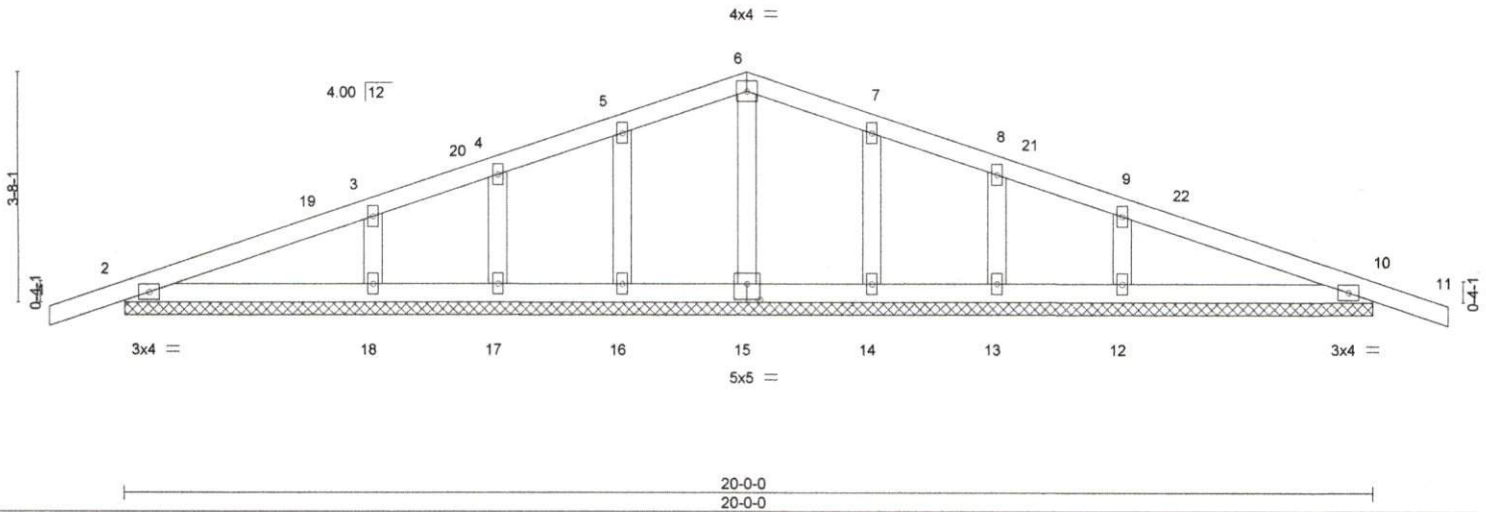


Plate Offsets (X,Y)-- [15:0-2-8,0-3-0]

| 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 0.12 | Vert(LL) | 0.00 | 11 | n/r | 120 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.08 | Vert(CT) | 0.01 | 11 | n/r | 120 | | |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.06 | Horz(CT) | 0.00 | 10 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | |
| | | | | | | | | Weight: 86 lb | FT = 20% | |

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
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.

REACTIONS.

All bearings 20-0-0.
(lb) - Max Horz 2=-76(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 17, 14, 13 except 18=-103(LC 12), 12=-102(LC 13), 10=-107(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 2, 15, 16, 17, 14, 13, 10 except 18=303(LC 23), 12=303(LC 24)

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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-2-8 to 3-2-5, Exterior(2) 3-2-5 to 10-0-0, Corner(3) 10-0-0 to 14-4-13 zone; C-C for members and forces & MWFRS for reactions shown; 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 2x4 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, 16, 17, 14, 13 except (t=lb) 18=103, 12=102, 10=107.



May 29, 2019

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

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A MiTek Affiliate

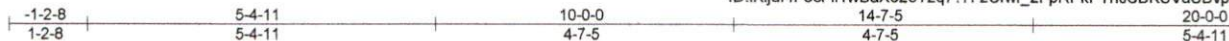
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-------------------|-------------|----------------------|----------|----------|--|-----------|
| Job J0519-2500 | Truss A2 | Truss Type Common | Qty 4 | Ply 1 | 1169 LAWRENCE RD Job Reference (optional) | E13098800 |
|-------------------|-------------|----------------------|----------|----------|--|-----------|

Comtech, Inc., Fayetteville, NC 28309

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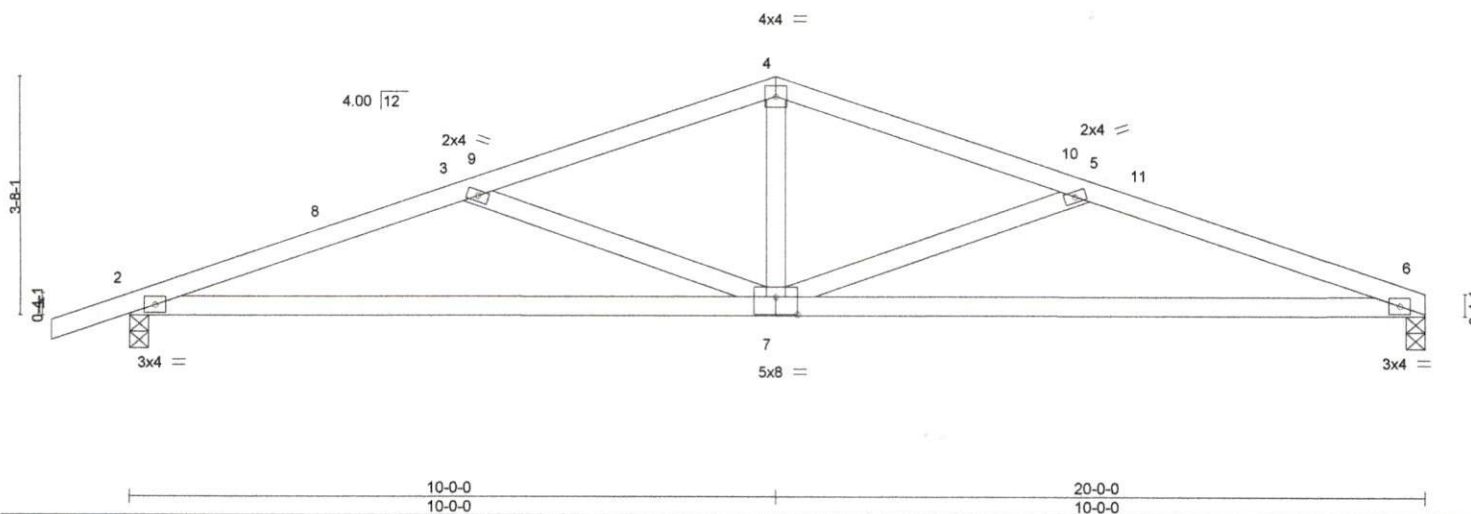


Plate Offsets (X,Y)-- [7:0-4-0,0-3-4]

| LOADING (psf) | SPACING- | CSI. | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------|----------|--------|------|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.34 | Vert(LL) | -0.19 | 6-7 | >999 | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.81 | Vert(CT) | -0.42 | 6-7 | >565 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.25 | Horz(CT) | 0.05 | 6 | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | Wind(LL) | 0.06 | 6-7 | >999 | | |
| | Code IRC2015/TPI2014 | | | | | | Weight: 82 lb | FT = 20% |

LUMBER-

TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-9 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 9-3-11 oc bracing.

REACTIONS.

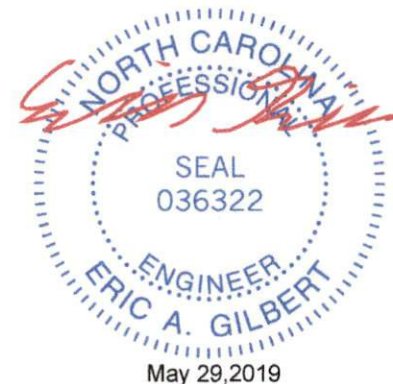
(lb/size) 6=786/0-3-8, 2=872/0-3-8
 Max Horz 2=50(LC 16)
 Max Uplift 6=62(LC 9), 2=113(LC 8)

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

TOP CHORD 2-3=-1788/501, 3-4=-1339/309, 4-5=-1340/322, 5-6=-1803/517
 BOT CHORD 2-7=-431/1657, 6-7=-435/1673
 WEBS 4-7=-52/581, 5-7=-500/279, 3-7=-483/270

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 10-0-0, Exterior(2) 10-0-0 to 14-4-13 zone; C-C for members and forces & MWFRS for reactions shown; 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) 6 except (jt=lb) 2=113.



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

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ENGINEERING BY
TRENCO
 A MiTek Affiliate

818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|-------------------|-------------|----------------------|----------|----------|--|-----------|
| Job J0519-2500 | Truss B1 | Truss Type Common | Qty 9 | Ply 1 | 1169 LAWRENCE RD Job Reference (optional) | E13098801 |
|-------------------|-------------|----------------------|----------|----------|--|-----------|

Comtech, Inc., Fayetteville, NC 28309

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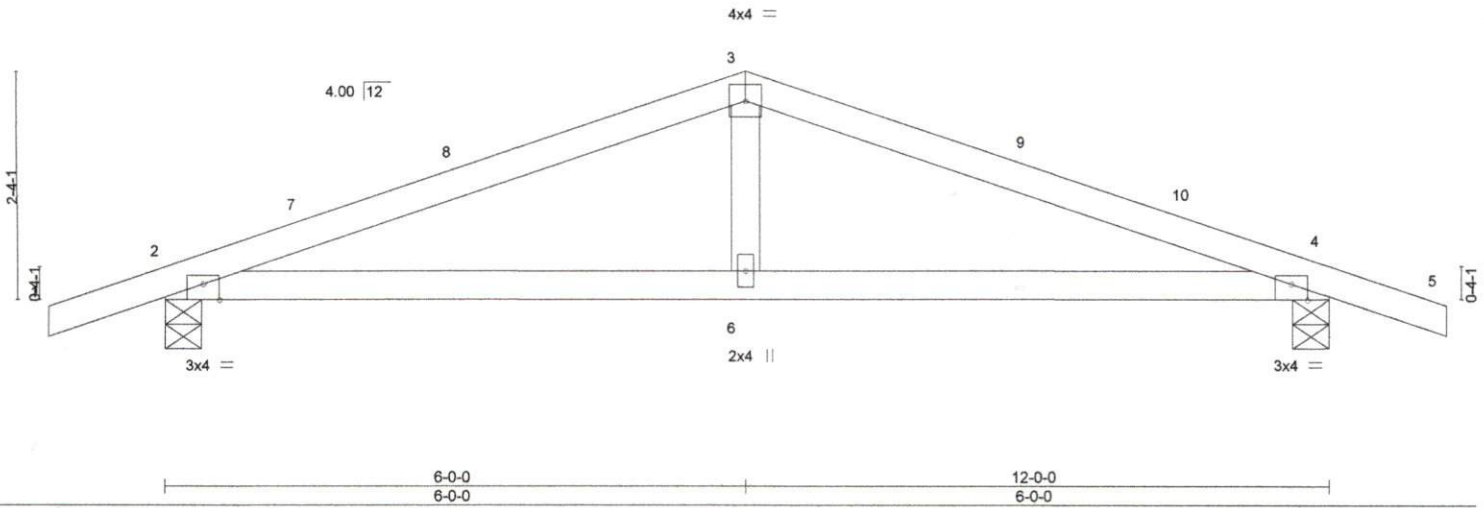


Plate Offsets (X,Y)-- [2:0-2-0,Edge], [4:0-2-0,Edge]

| LOADING (psf) | SPACING- | CSL | DEFL. | in (loc) | l/defl | L/d | PLATES | GRIP |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|----------|
| TCLL 20.0 | 2-0-0 | TC 0.35 | Vert(LL) 0.08 | 4-6 | >999 | 240 | MT20 | 244/190 |
| TCDL 10.0 | Plate Grip DOL 1.15 | BC 0.29 | Vert(CT) -0.07 | 2-6 | >999 | 240 | | |
| BCLL 0.0 * | Lumber DOL 1.15 | WB 0.11 | Horz(CT) 0.01 | 4 | n/a | n/a | | |
| BCDL 10.0 | Rep Stress Incr YES | Matrix-S | | | | | Weight: 43 lb | FT = 20% |
| | Code IRC2015/TPI2014 | | | | | | | |

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purtins.
BOT CHORD Rigid ceiling directly applied or 6-10-11 oc bracing.

REACTIONS.

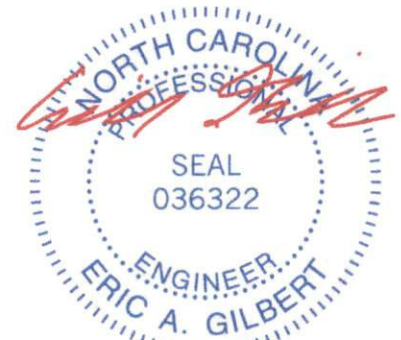
(lb/size) 2=549/0-4-8, 4=549/0-4-8
Max Horz 2=-29(LC 17)
Max Uplift 2=-219(LC 8), 4=-219(LC 9)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-830/899, 3-4=-830/899
BOT CHORD 2-6=-764/730, 4-6=-764/730
WEBS 3-6=-350/277

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-0-0, Exterior(2) 6-0-0 to 10-4-13 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) except (jt=lb) 2=219, 4=219.



May 29, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MH-7413 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

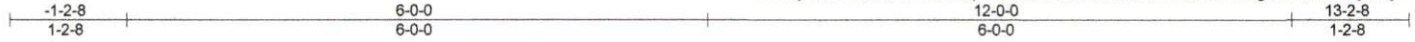


818 Soundside Road
Edenton, NC 27932

| | | | | | |
|-------------------|---------------|---------------------|----------|----------|-------------------------------|
| Job J0519-2500 | Truss B1GE | Truss Type GABLE | Qty 1 | Ply 1 | 1169 LAWRENCE RD E13098802 |
|-------------------|---------------|---------------------|----------|----------|-------------------------------|

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Tue May 28 14:11:39 2019 Page 1
ID:IKJl4F5cFll1wBaXe25Tzq7?H-Nnz3w0575MnJGxWu7Jt97C4i81gwufNI3ZkGXjzBxyl



Scale = 1:23.1

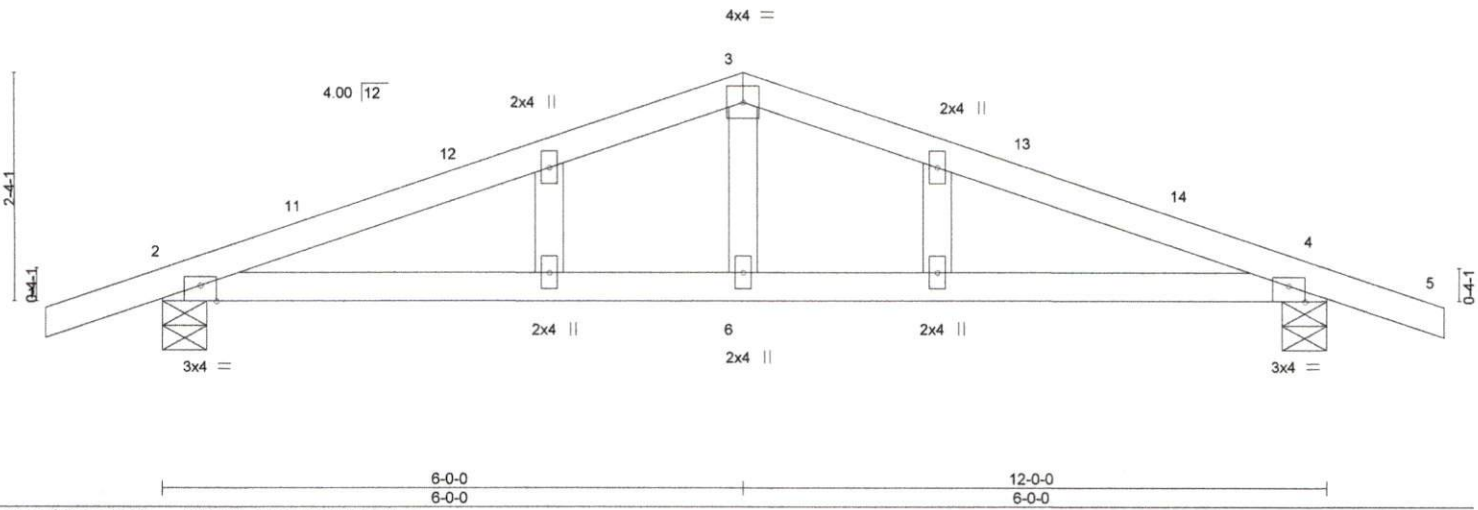


Plate Offsets (X,Y)-- [2:0-2-0,Edge], [4:0-2-0,Edge]

| 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 0.34 | Vert(LL) | 0.08 | 4-6 | >999 | 240 | MT20 | 244/190 |
| TCDL 10.0 | Lumber DOL | 1.15 | BC 0.29 | Vert(CT) | -0.06 | 2-6 | >999 | 240 | | |
| BCLL 0.0 * | Rep Stress Incr | YES | WB 0.10 | Horz(CT) | 0.01 | 4 | n/a | n/a | | |
| BCDL 10.0 | Code IRC2015/TPI2014 | | Matrix-S | | | | | | | |
| | | | | | | | | Weight: 47 lb | FT = 20% | |

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
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 6-11-8 oc bracing.

REACTIONS.

(lb/size) 2=548/0-5-8, 4=548/0-5-8
Max Horz 2=-49(LC 13)
Max Uplift 2=-312(LC 8), 4=-312(LC 9)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-817/885, 3-4=-817/885
BOT CHORD 2-6=-750/717, 4-6=-750/717
WEBS 3-6=-346/275

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-0-0, Exterior(2) 6-0-0 to 10-4-13 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- 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) except (it=lb) 2=312, 4=312.



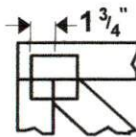
May 29, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-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 ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

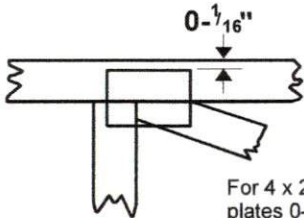
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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- $\frac{1}{16}$ " from outside edge of truss.



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

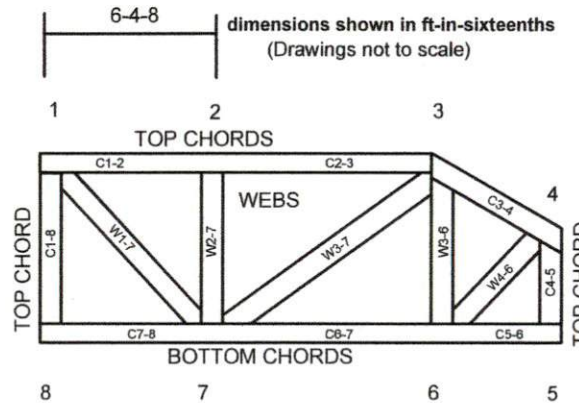


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

- ANSI/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



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

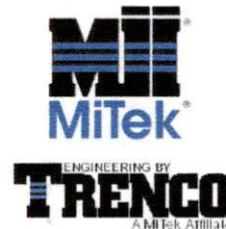
ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
 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: MII-7473 rev. 10/03/2015

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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.



ROOF & FLOOR TRUSSES & BEAMS

Reilly Road Industrial Park
 Fayetteville, N.C. 28309
 Phone: (910) 864-8787
 Fax: (910) 864-4444

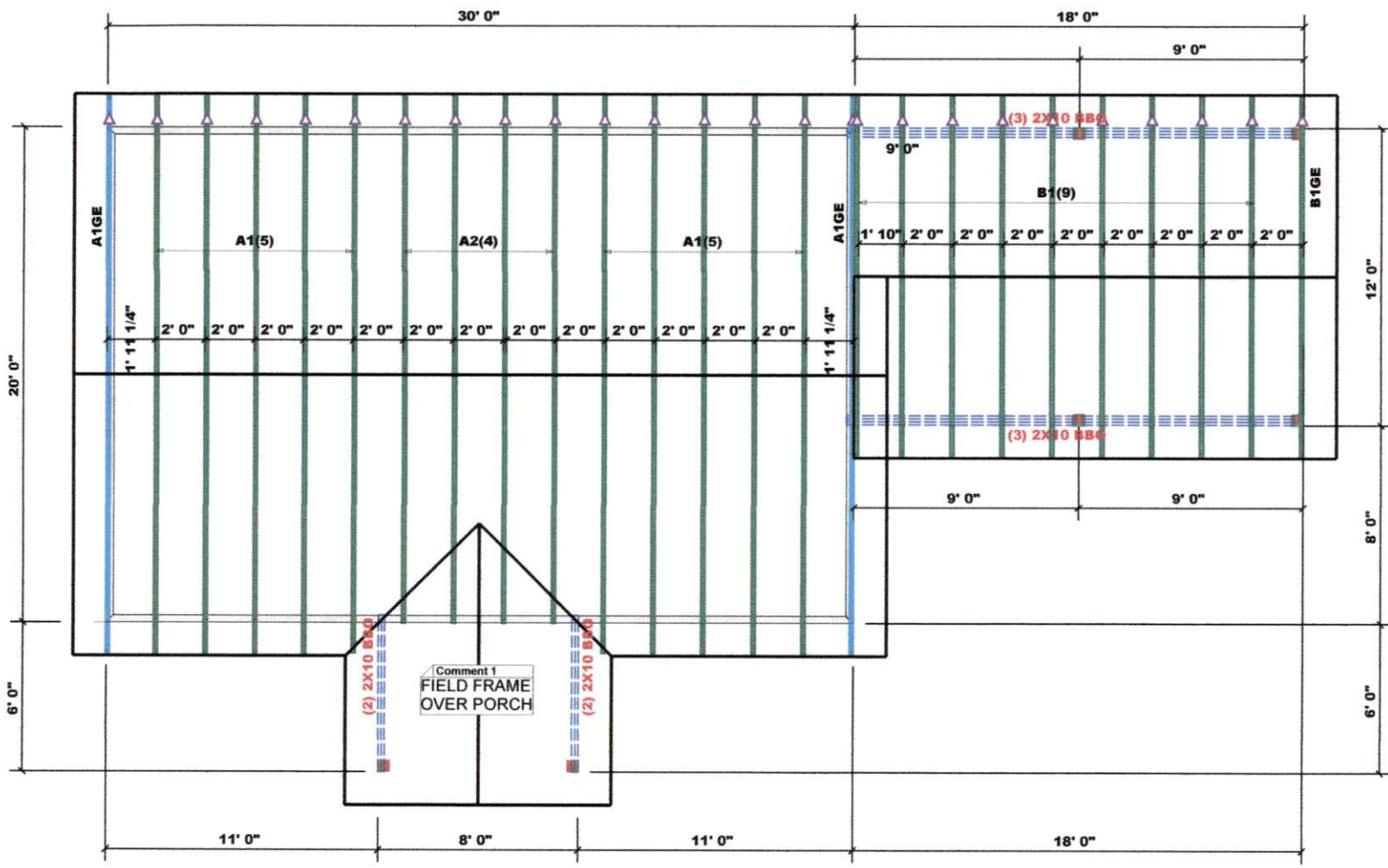
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The designer shall refer to the attached Tables 1 derived from the prescriptive Code requirements to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 7000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 7000#.

Designer: **Bob Lewis**
 Checker: **Bob Lewis**

LOAD CHART FOR JACK STUDS

TABLE 1 - JACK STUDS

| TRUSS HEIGHT (ft) | NO. OF JACKS PER TRUSS | MAXIMUM LOAD PER JACK (lb) | MAXIMUM LOAD PER TRUSS (lb) |
|-------------------|------------------------|----------------------------|-----------------------------|
| 17'00" | 1 | 2250 | 3400 |
| 34'00" | 2 | 5100 | 6800 |
| 51'00" | 3 | 7150 | 10200 |
| 68'00" | 4 | 10200 | 13600 |
| 85'00" | 5 | 12750 | 17000 |
| 102'00" | 6 | 15300 | |
| 119'00" | 7 | | |
| 136'00" | 8 | | |
| 153'00" | 9 | | |



Truss Placement Plan
 SCALE: NTS

▲ = Indicates Left End of Truss
 (Reference Engineered Truss Drawing)
 Do NOT Erect Truss Backwards

| | | | |
|-----------|----------------------------|------------|--------------------|
| BUILDER | THOMAS PROP. OF HARNETT CO | CITY / CO. | BROADWAY / HARNETT |
| JOB NAME | 1169 LAWRENCE RD | ADDRESS | 1169 LAWRENCE RD |
| PLAN | HANDBLOWN PLAN | MODEL | ROOF |
| SEAL DATE | NONE | DATE REV. | 05/28/19 |
| QUOTE # | Quote # | DRAWN BY | Bob Lewis |
| JOB # | J0519-2500 | SALES REP. | Bob Lewis |

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. The individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding trusses, consult IRC-R1 and IRC-R3 provided with the truss delivery package or contact @ shindlertruss.com

Reaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
 8611 Kelly Road Industrial Park P.O. Box 40408
 Fayetteville, N.C. 28309 (910) 864-TRUS
 Cary Office: (919) 815-0105

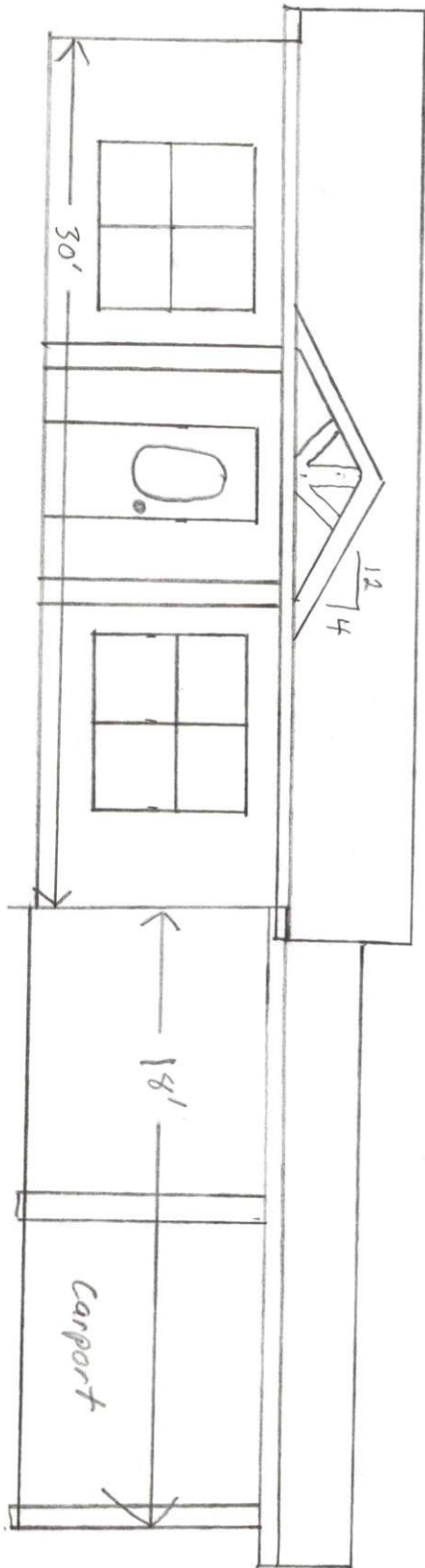
| | | | |
|-----------------|----------------|-----------------|------------|
| REQ. QUOTE DATE | // | ORDER # | J0519-2500 |
| ORDER DATE | 05/28/19 | QUOTE # | |
| DELIVERY DATE | // | CUSTOMER ACCT # | 0000006995 |
| DATE OF INVOICE | // | CUSTOMER PO # | |
| ORDERED BY | Steve Thomas | INVOICE # | |
| COUNTY | HARNETT | TERMS | |
| SUPERINTENDANT | Steve Thomas | SALES REP | Bob Lewis |
| JOBSITE PHONE # | (919) 906-4069 | SALES AREA | Bob Lewis |

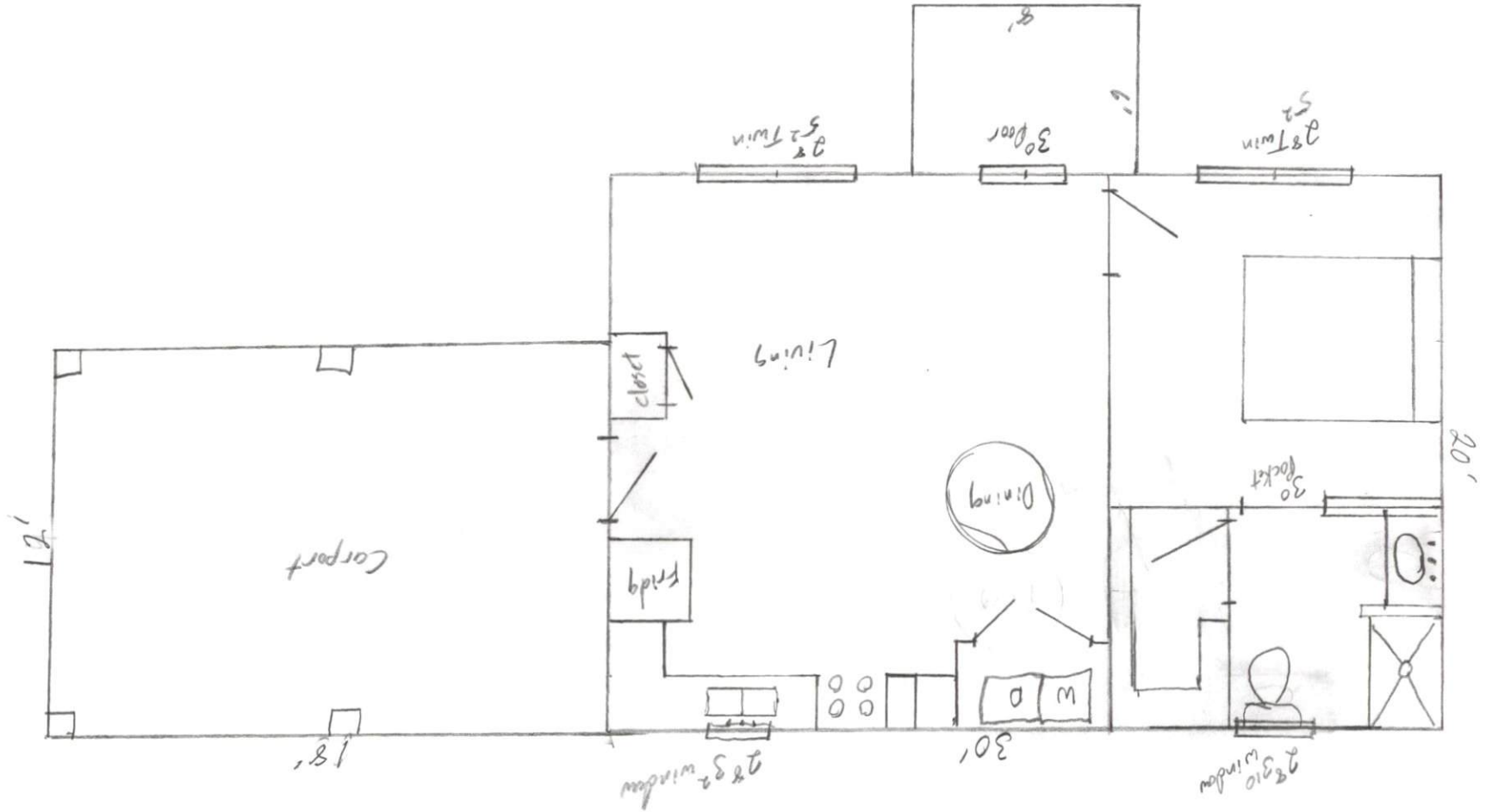
| | | | |
|---------|---|---|---|
| SOLD TO | Thomas Properties of Harnett PO Box 875 Broadway, NC 27505 (919) 258-9327/9064069 | JOB NAME: 1169 LAWRENCE RD MODEL: ROOF TAG: HANDDRAWN PLAN DELIVERY INSTRUCTIONS: | LOT # SUBDIV: JOB CATEGORY: Residential - Roof |
| | THOMAS PROP. OF 1169 LAWRENCE RD BROADWAY, NC | SPECIAL INSTRUCTIONS: | PLAN SEAL DATE: NONE |

| | | | | | | | | |
|---------------------|---------------|-------------|-------------|--------------|------------------|---------|----|----------|
| BUILDING DEPARTMENT | OVERHANG INFO | HEEL HEIGHT | 00-04-05 | REQ. LAYOUTS | REQ. ENGINEERING | QUOTE | BL | 05/28/19 |
| | END CUT | RETURN | | | | LAYOUT | BL | 05/28/19 |
| Roof Order | PLUMB | NO | GABLE STUDS | 24 IN. OC | JOBSITE 1 | CUTTING | BL | 05/28/19 |

ROOF TRUSSES LOADING INFORMATION TOLL-TCDL-BCLL-BCDL STRESS INCR. 20.0,10.0,0.0,10.0 1.15 ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.)

| PROFILE | QTY | PITCH | | TYPE ID | BASE O/A | LUMBER | | OVERHANG | | REACTIONS | | | | |
|---------|-----|-------|------|-------------|----------------------|--------|-------|----------|----------|--------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| | | TOP | BOT | | | TOP | BOT | LEFT | RIGHT | | | | | |
| | 10 | 4.00 | 0.00 | COMMON A1 | 20-00-00 20-00-00 | 2 X 4 | 2 X 4 | 01-02-08 | 01-02-08 | Joint 2 869.6 lbs. -112.3 lbs. | Joint 6 869.6 lbs. -112.3 lbs. | | | |
| | 2 | 4.00 | 0.00 | COMMON A1GE | 20-00-00 20-00-00 | 2 X 4 | 2 X 4 | 01-02-08 | 01-02-08 | Joint 2 219.6 lbs. -97.2 lbs. | Joint 10 219.6 lbs. -106.8 lbs. | Joint 12 303.5 lbs. -102.4 lbs. | Joint 13 98.1 lbs. -41.9 lbs. | Joint 14 184.5 lbs. -64.2 lbs. |
| | 4 | 4.00 | 0.00 | COMMON A2 | 20-00-00 20-00-00 | 2 X 4 | 2 X 4 | 01-02-08 | | Joint 2 872.4 lbs. -112.6 lbs. | Joint 6 785.5 lbs. -61.5 lbs. | | | |
| | 9 | 4.00 | 0.00 | COMMON B1 | 12-00-00 12-00-00 | 2 X 4 | 2 X 4 | 01-02-08 | 01-02-08 | Joint 2 548.8 lbs. -219.1 lbs. | Joint 4 548.8 lbs. -219.1 lbs. | | | |
| | 1 | 4.00 | 0.00 | GABLE B1GE | 12-00-00 12-00-00 | 2 X 4 | 2 X 4 | 01-02-08 | 01-02-08 | Joint 2 547.9 lbs. -312.2 lbs. | Joint 4 547.9 lbs. -312.2 lbs. | | | |





Living 18' x 12'
 Master 12' x 12'
 Kitchen 8' x 10'

600 & Hated

