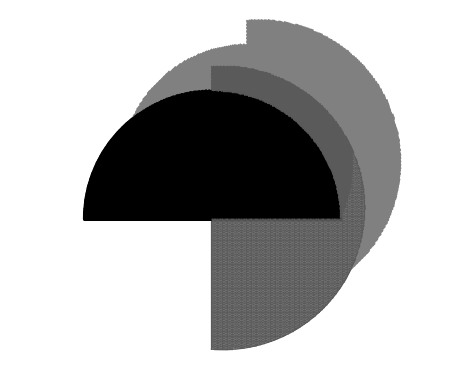


- WALL TYPES**
- 2x4 @ 16' O.C.
  - 2x4 @ 16' O.C. w/ 3/2" BATT INSUL.
  - 2x6 @ 16' O.C. w/ 5/2" BATT INSUL.
  - 2x4 @ 16' O.C. w/ 5/8" GYP. BD. EACH SIDE
  - 2x6 @ 16' O.C. - BALLOON FRAME
  - 2x6 @ 16' O.C. w/ BRICK VENEER

**AREAS:**

FIRST FLOOR :	2459 SF
HEATED AREA :	2459 SF
GARAGE :	632 SF
FRONT PORCH :	204 SF
REAR PORCH :	229 SF
TOTAL COVERED AREA :	3524 SF
BONUS ROOM :	261 SF

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



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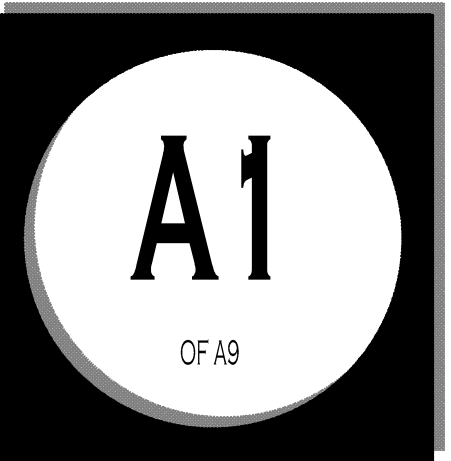
**WALNUT GROVE**  
PLAN 2459

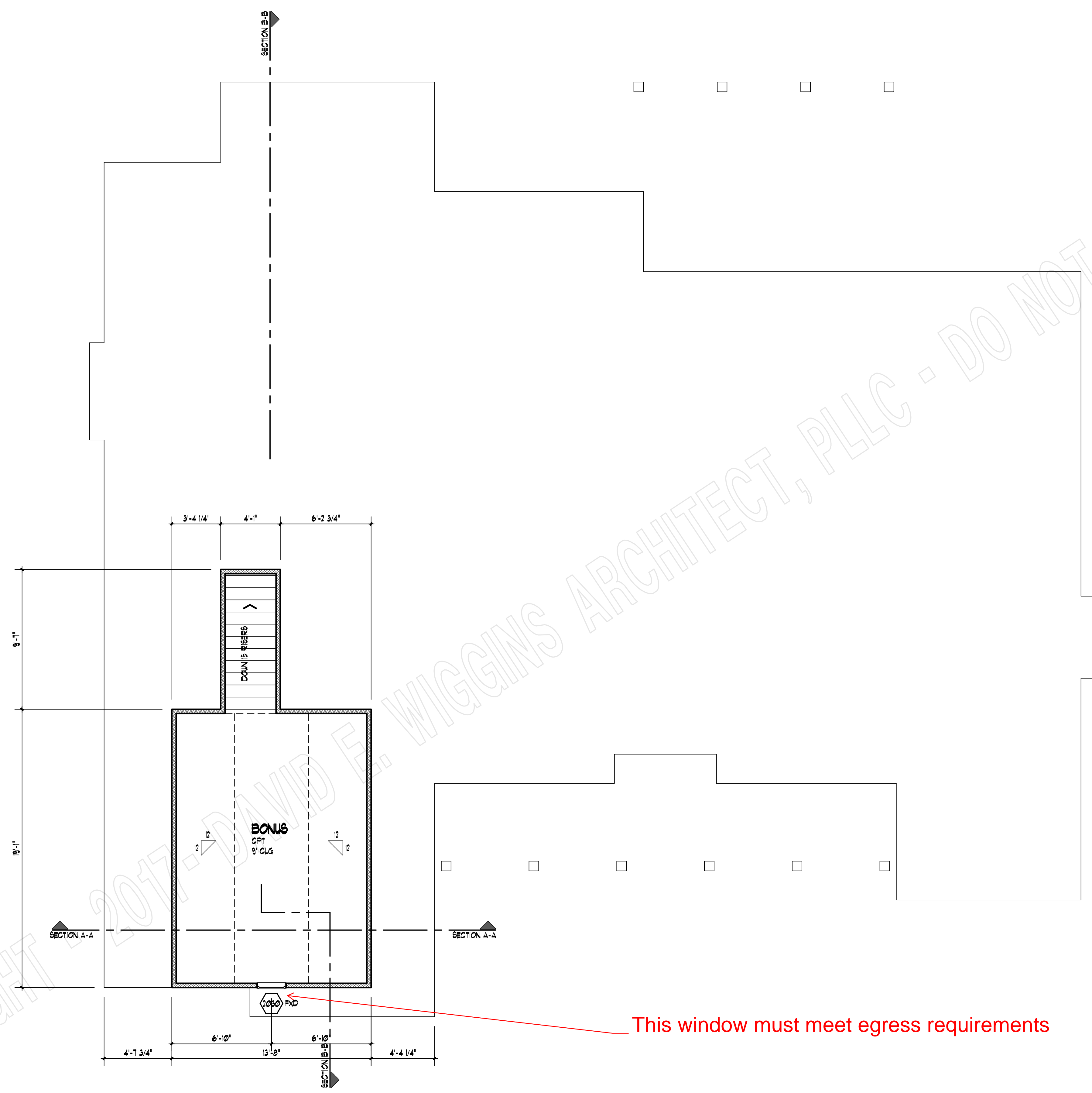
PROJECT:

REVISIONS:

DATE:

MAY 13, 2019





**SECOND FLOOR PLAN**

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

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PROJECT:

REVISIONS:

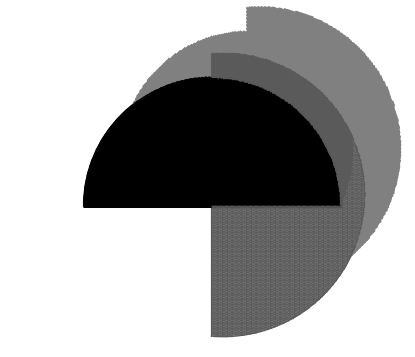
DATE:

MAY 13, 2019

A2  
OF A9

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**WALNUT GROVE**  
PLAN 2459



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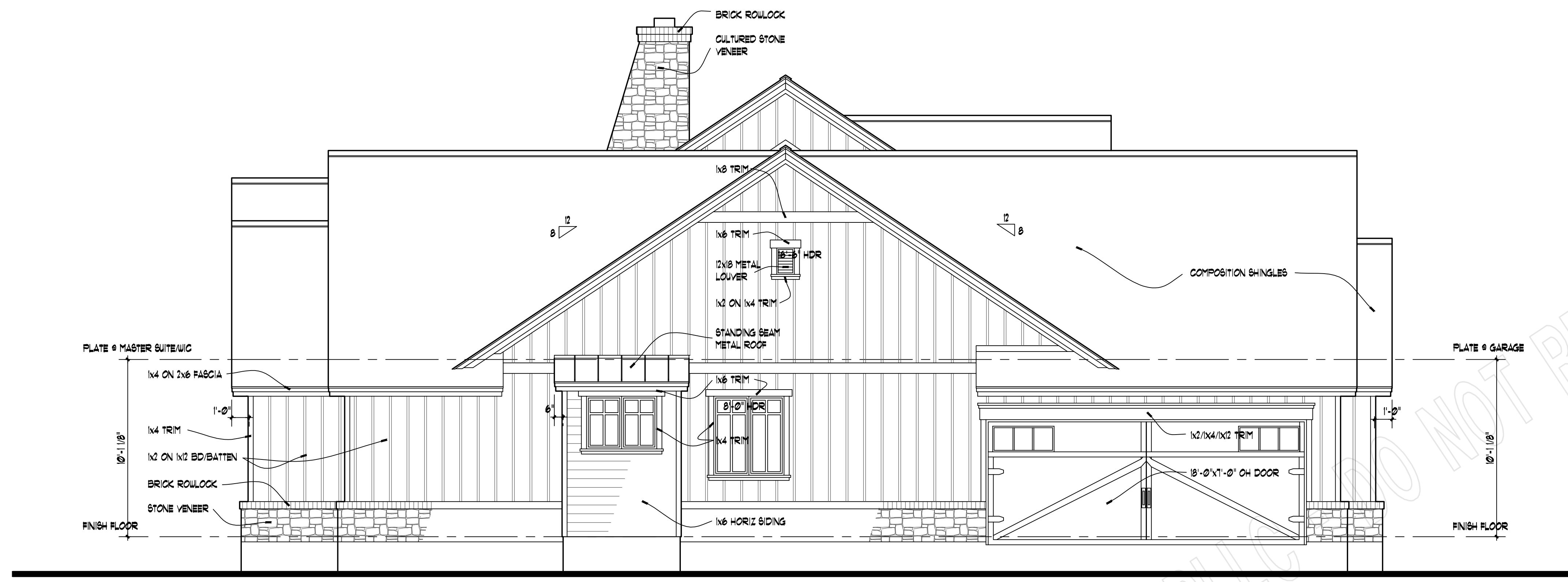
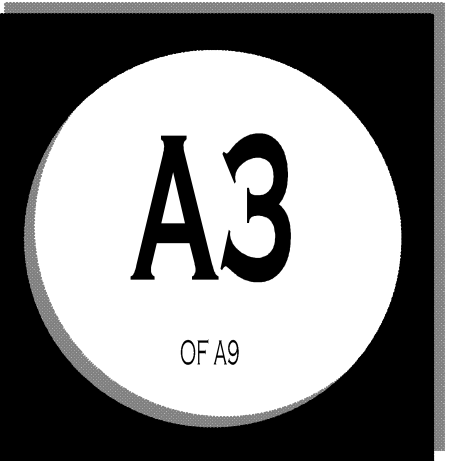
**WALNUT GROVE**  
 PLAN 2459

PROJECT:

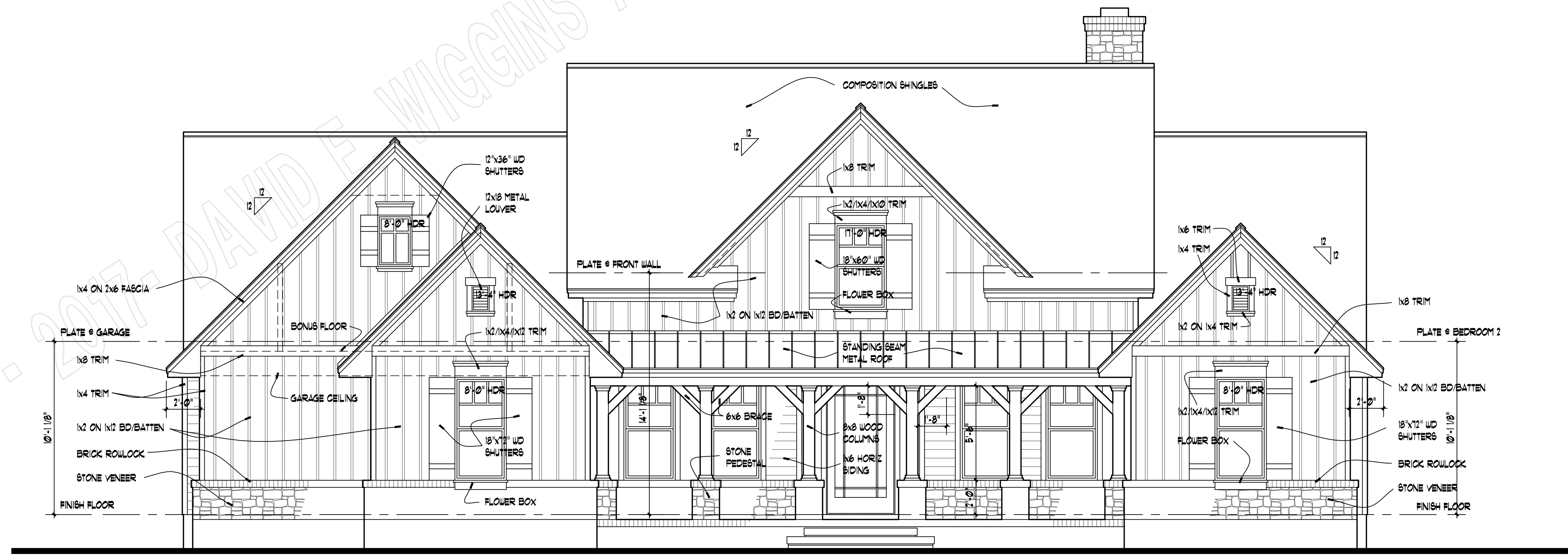
REVISIONS:

DATE:

MAY 13, 2019

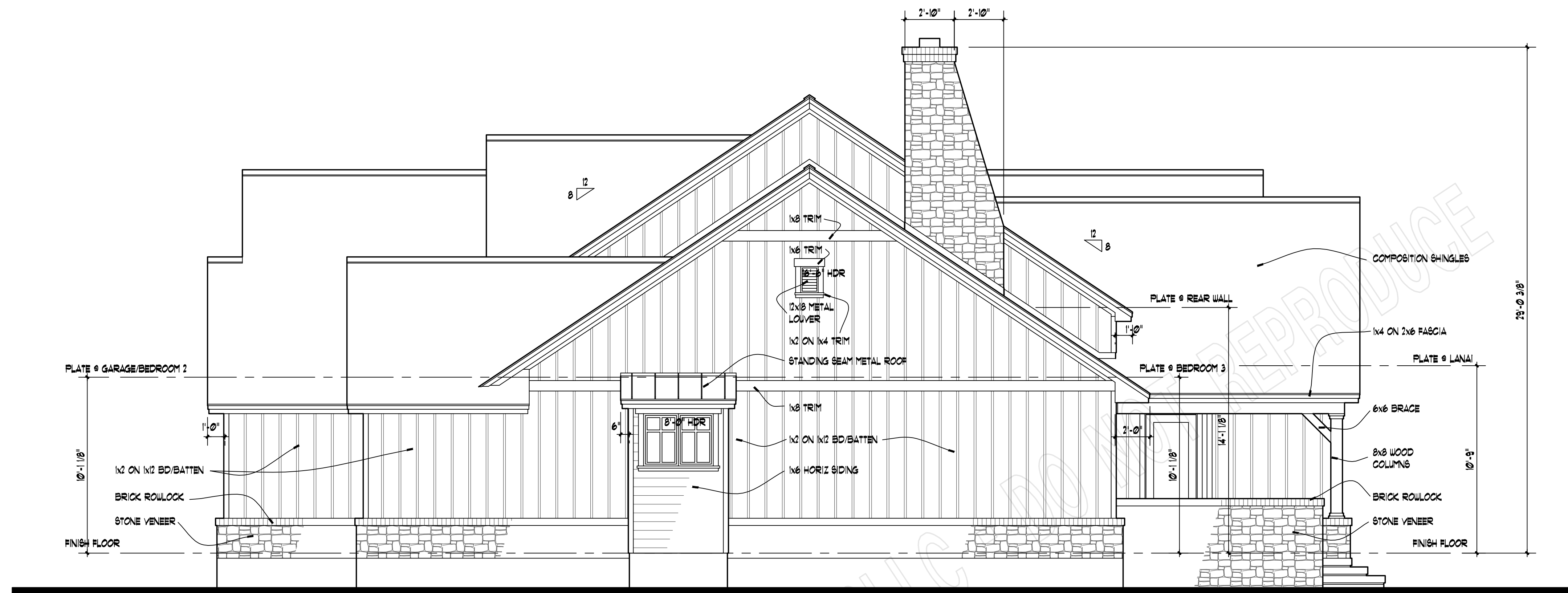


**LEFT ELEVATION**  
 SCALE: 1/4" = 1'-0"



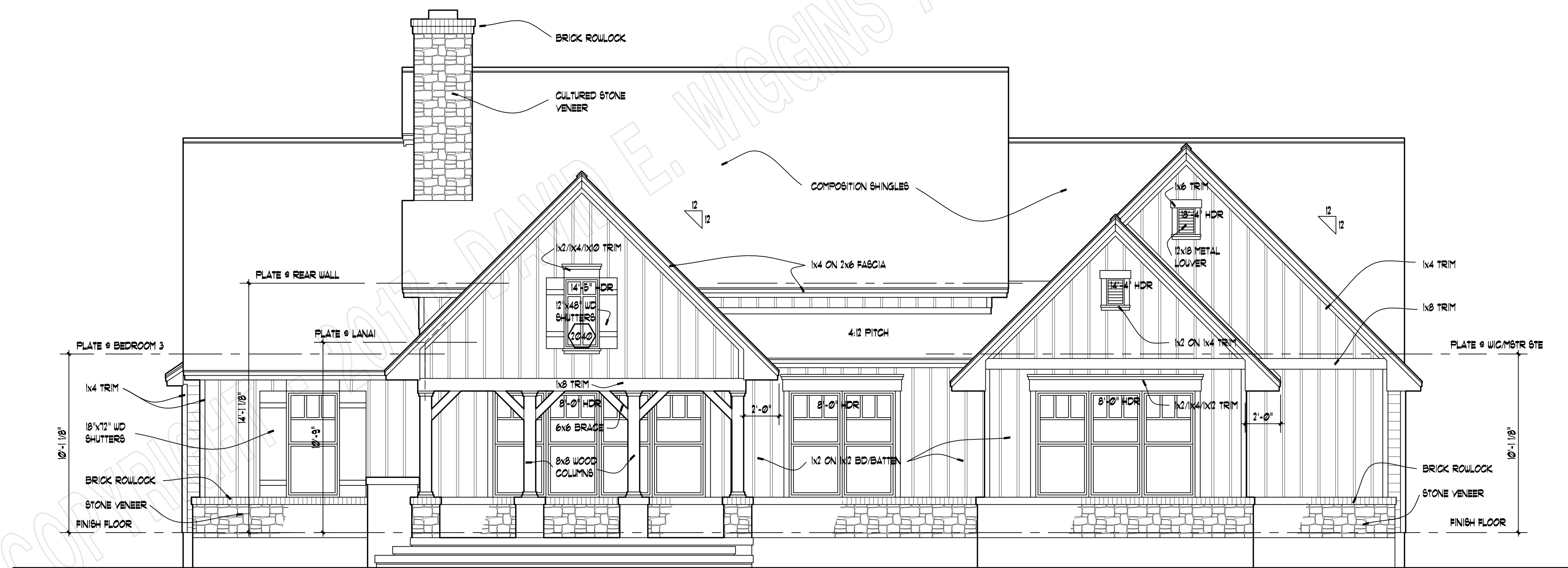
**FRONT ELEVATION**  
 SCALE: 1/4" = 1'-0"





**RIGHT ELEVATION**

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





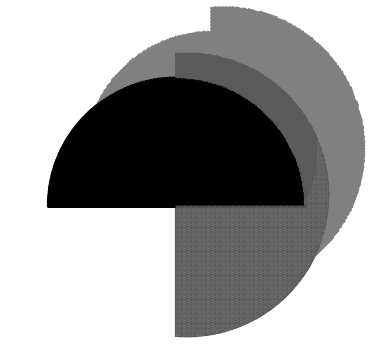
**REAR ELEVATION**

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

NOTICE TO CONTRACTOR  
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

APPROVED  
Limited building only review  
Permit holder responsible for full compliance with the code

09/10/2021

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**WALNUT GROVE**  
PLAN 2459

PROJECT: [Redacted]

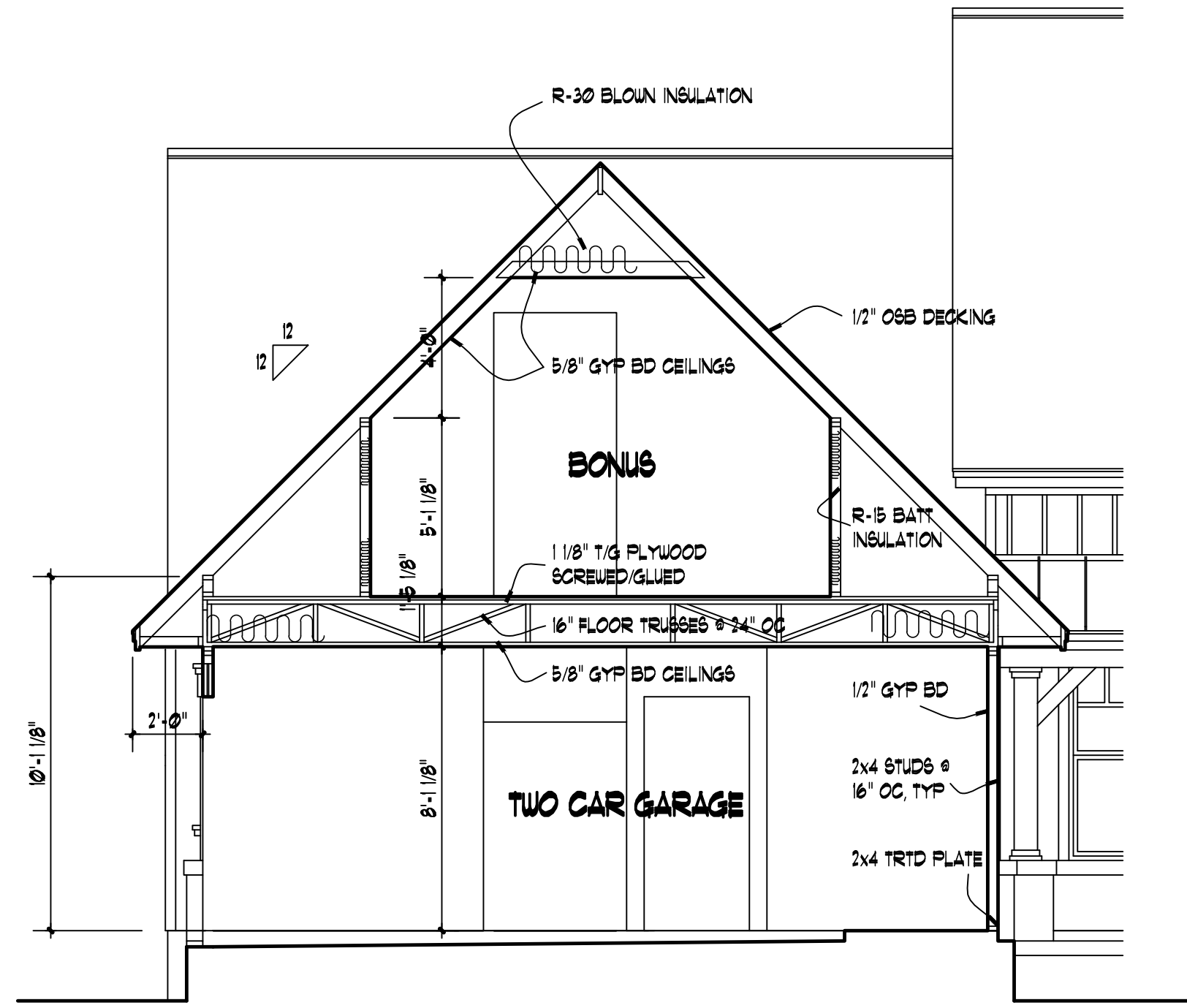
REVISIONS:

DATE:

MAY 13, 2019

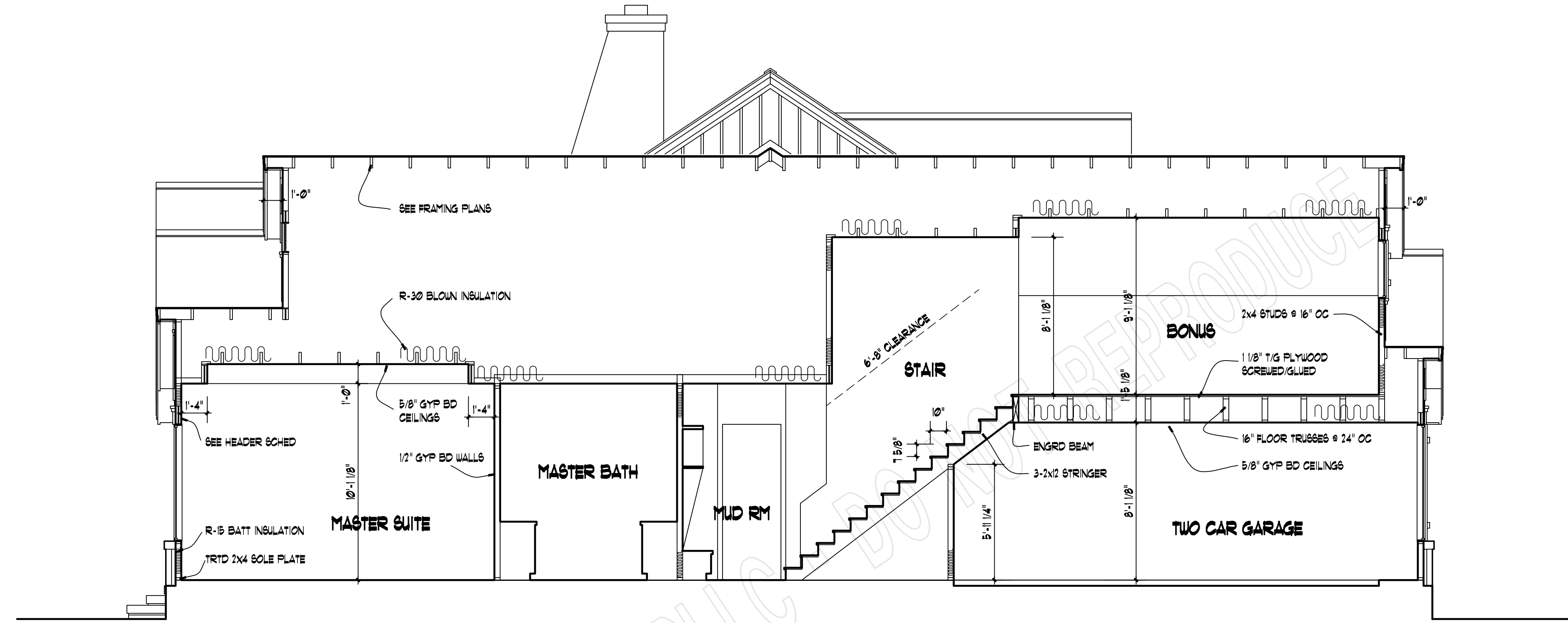
**A4**  
OF A9





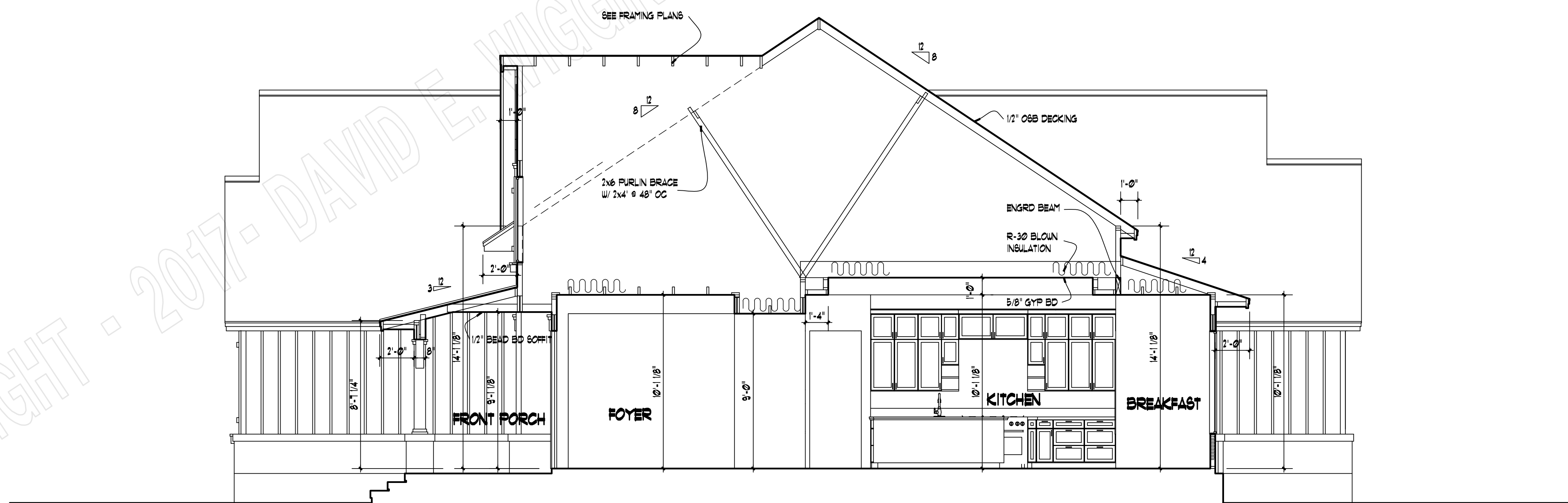
**BUILDING SECTION A-A**

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



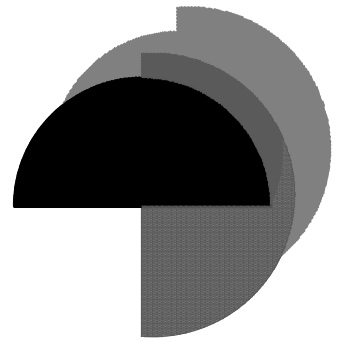
**BUILDING SECTION B-B**

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



**BUILDING SECTION C-C**

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



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**WALNUT GROVE**  
 PLAN 2459

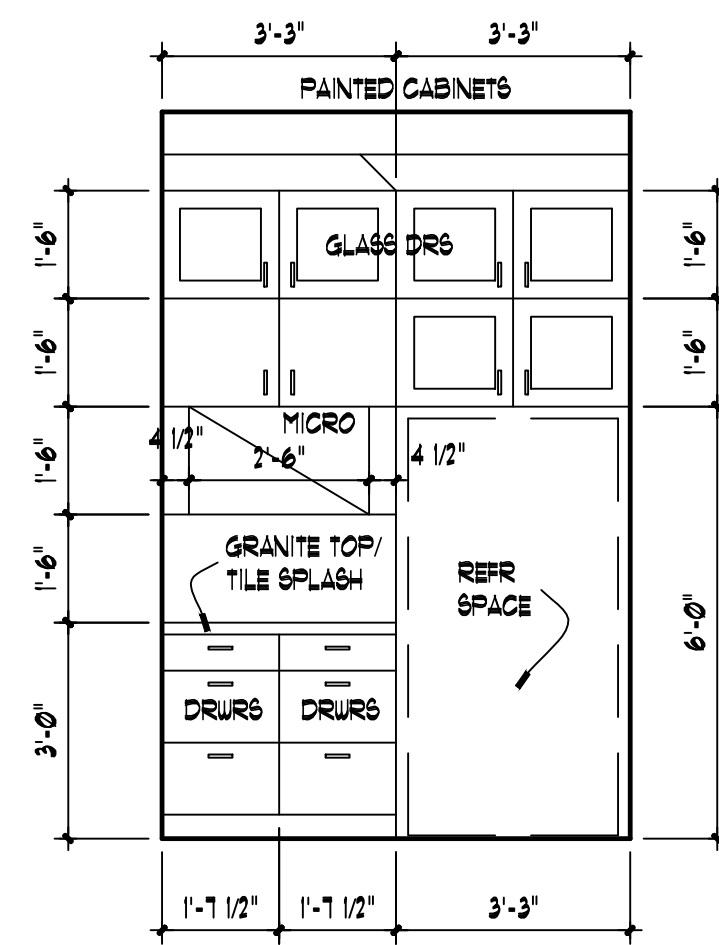
PROJECT:

REVISIONS:

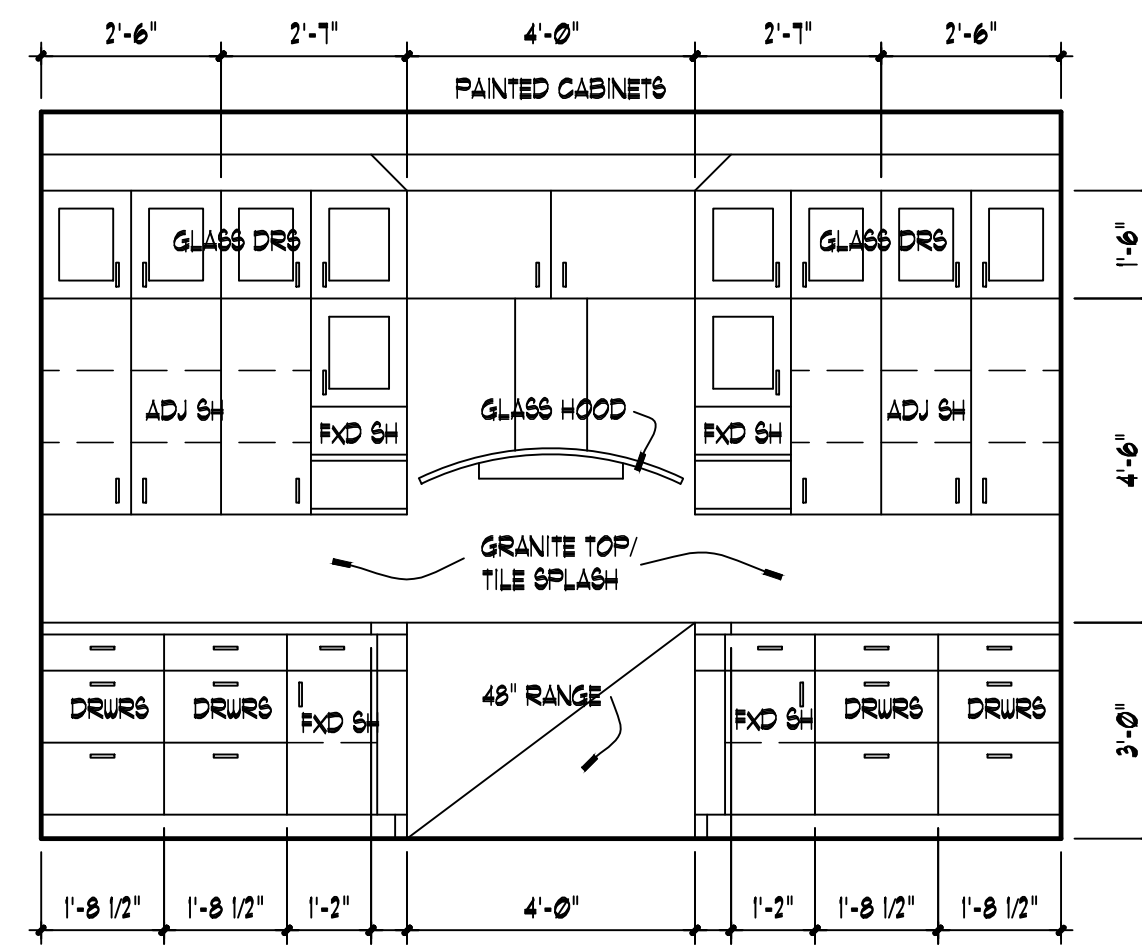
DATE:

MAY 13, 2019

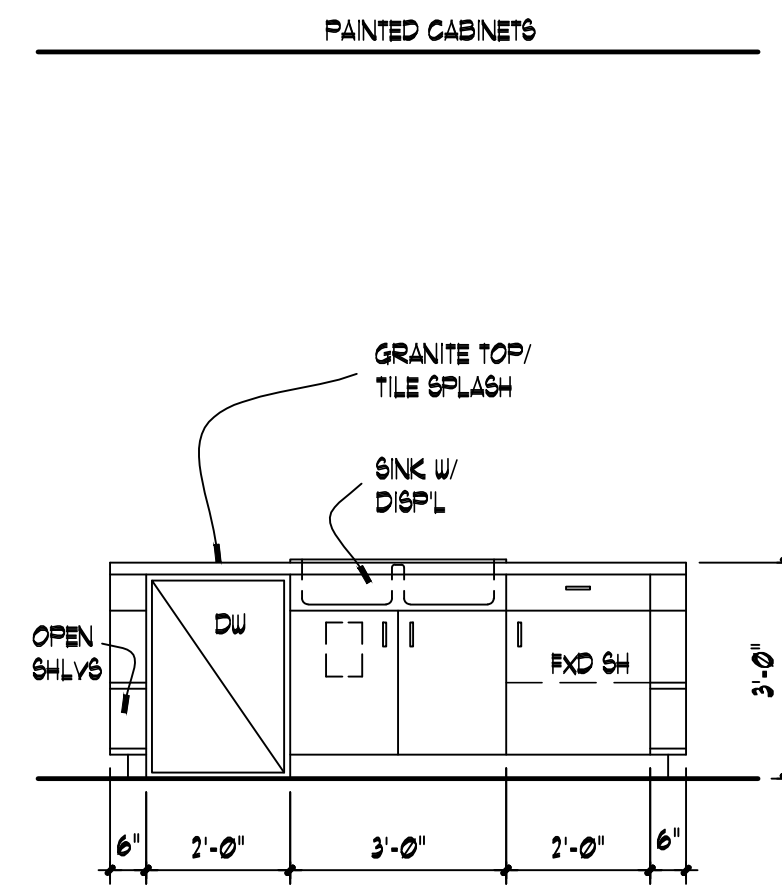




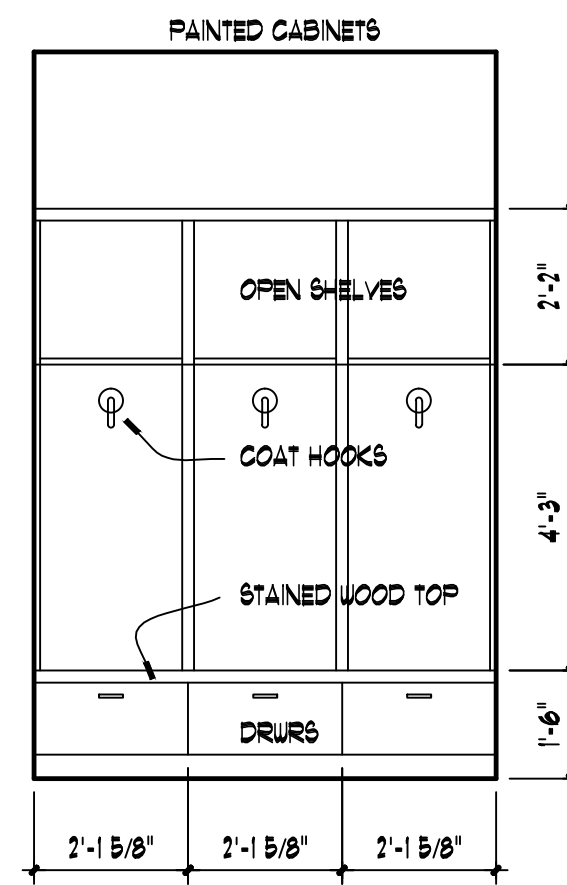
01  
A6  
**KITCHEN**  
3/8" = 1'-0"



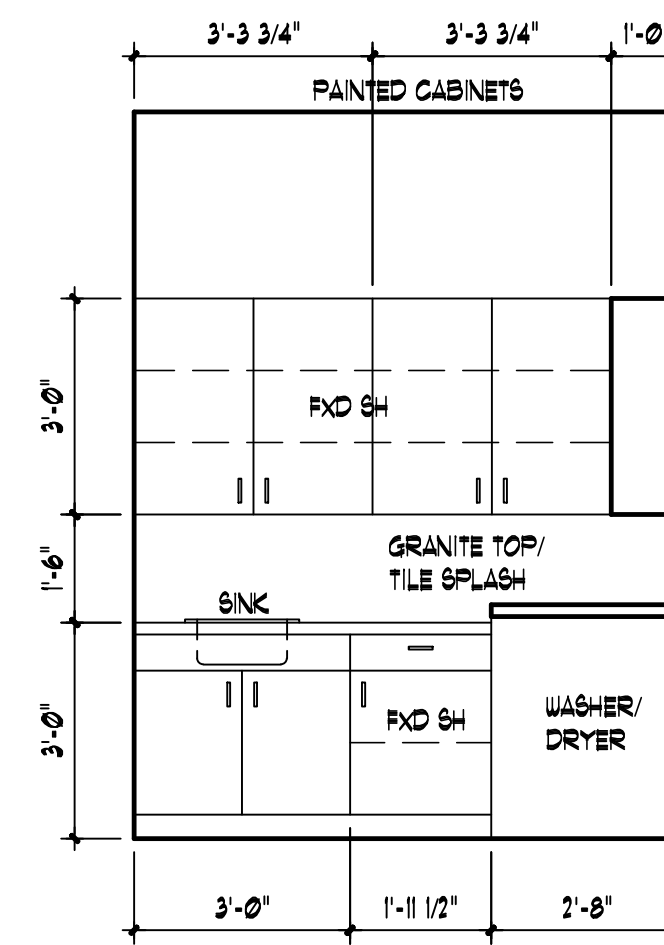
02  
A6  
**KITCHEN**  
3/8" = 1'-0"



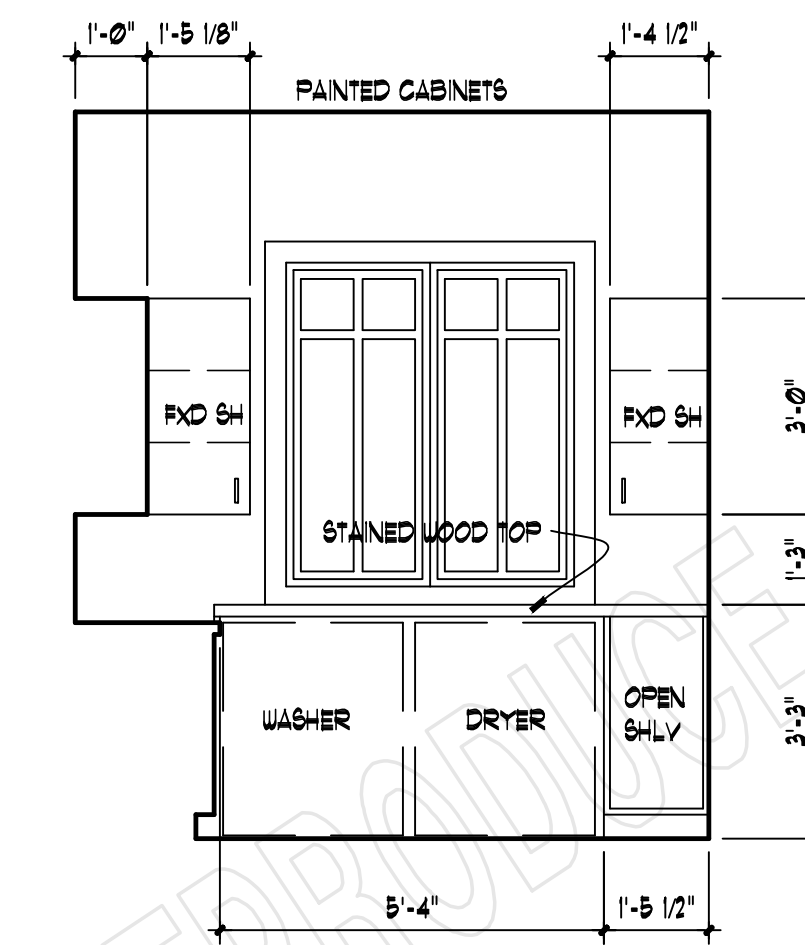
03  
A6  
**KITCHEN**  
3/8" = 1'-0"



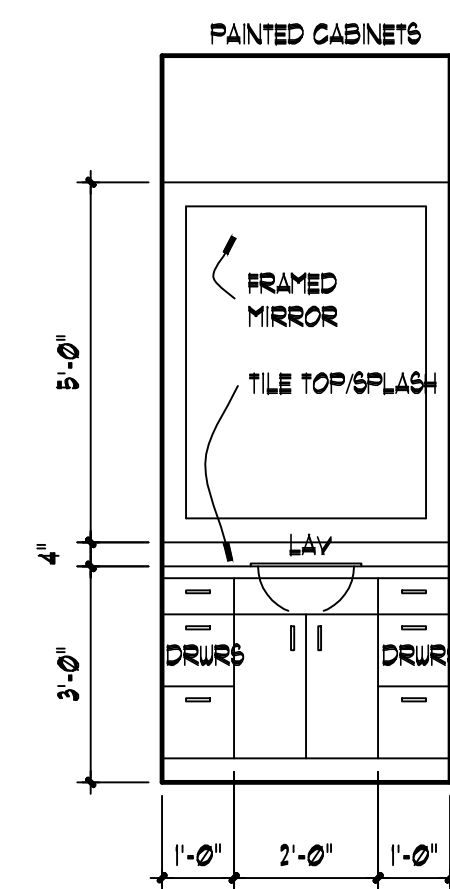
04  
A6  
**MUD ROOM**  
3/8" = 1'-0"



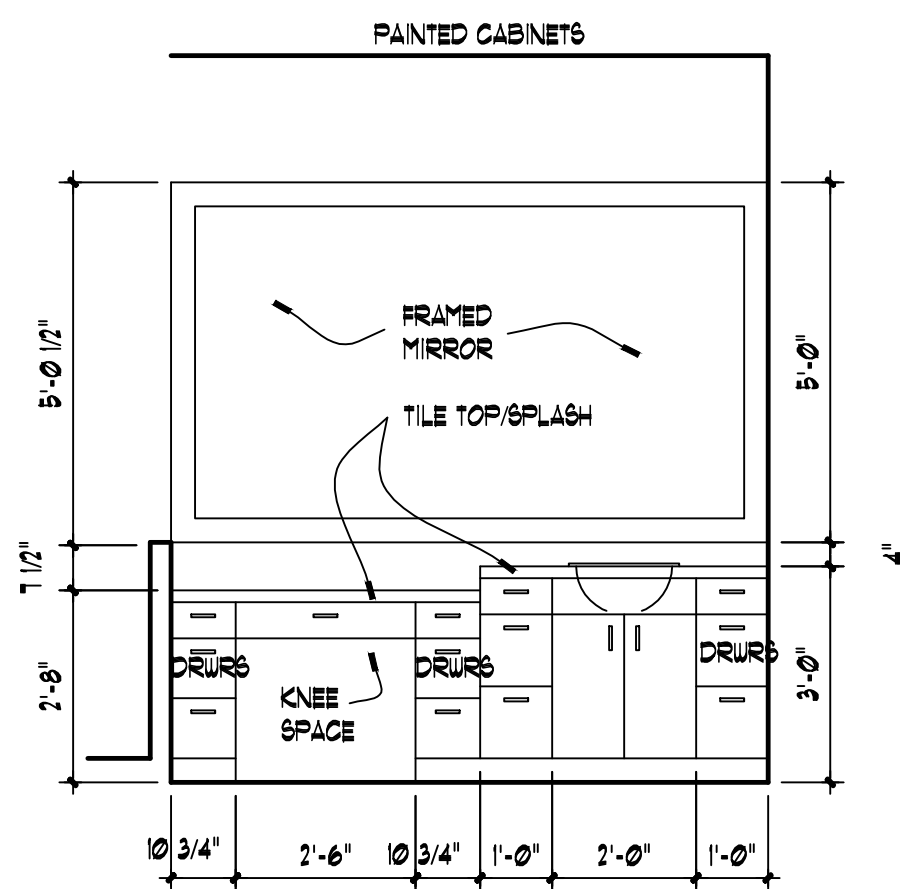
05  
A6  
**UTILITY**  
3/8" = 1'-0"



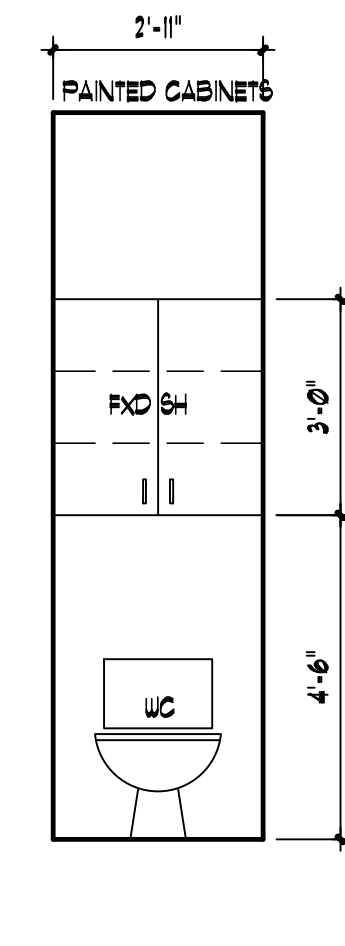
06  
A6  
**UTILITY**  
3/8" = 1'-0"



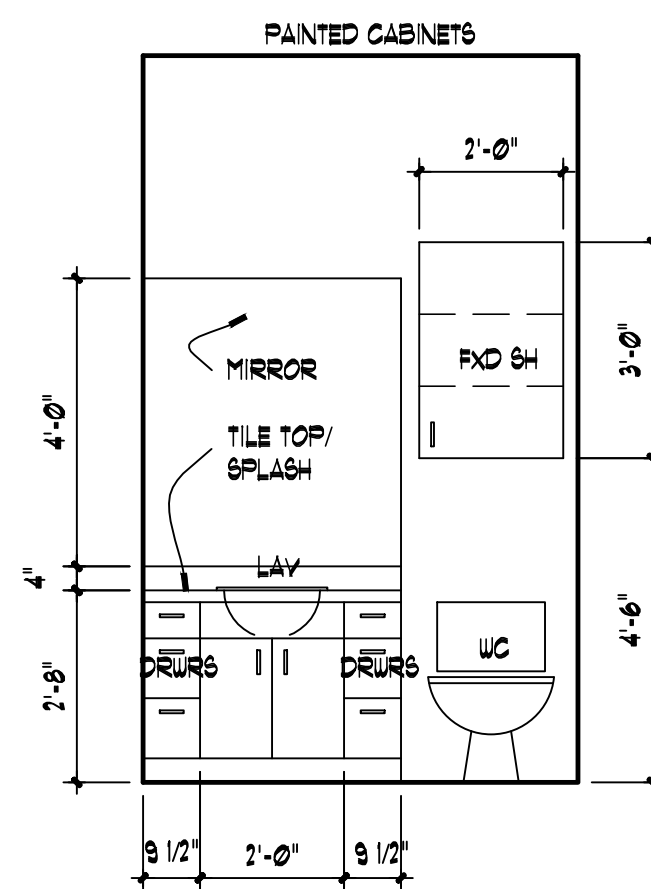
07  
A6  
**MASTER BATH**  
3/8" = 1'-0"



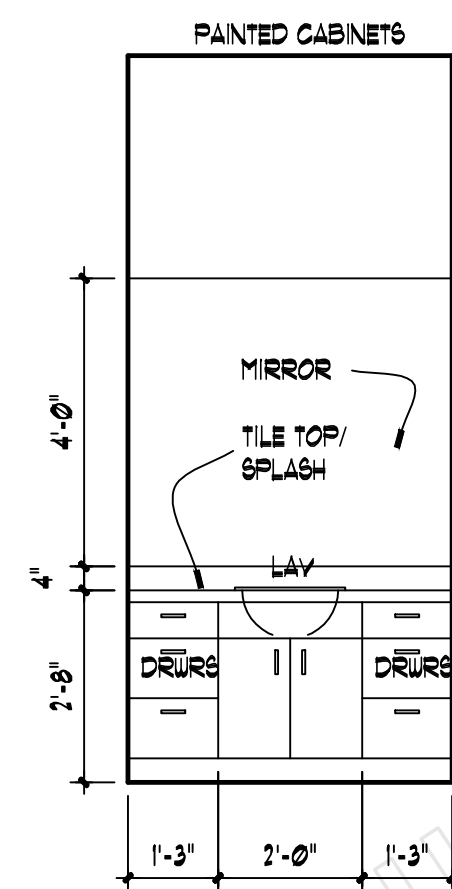
08  
A6  
**MASTER BATH**  
3/8" = 1'-0"



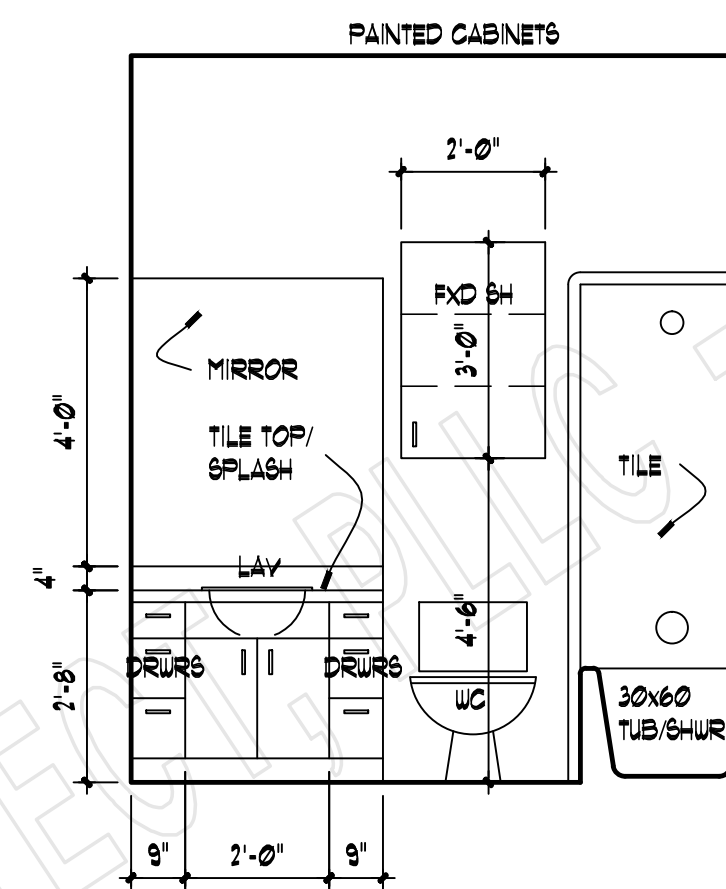
09  
A6  
**MASTER BATH**  
3/8" = 1'-0"



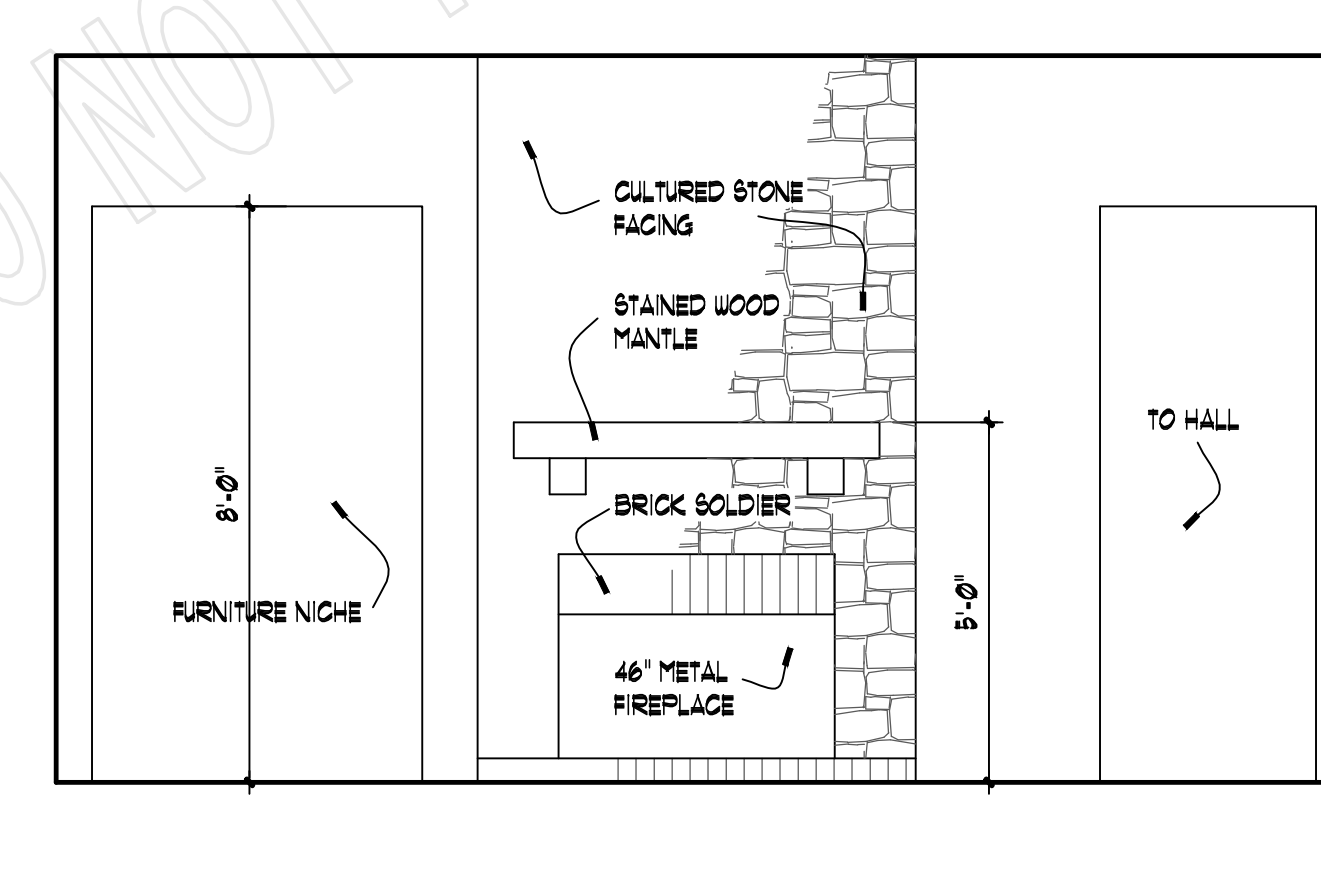
10  
A6  
**BATH 2**  
3/8" = 1'-0"



11  
A6  
**DRESS**  
3/8" = 1'-0"



12  
A6  
**BATH 3**  
3/8" = 1'-0"



13  
A6  
**FAMILY ROOM**  
3/8" = 1'-0"

**CABINET ELEVATIONS**  
SCALE: 3/8" = 1'-0"

PROJECT:

REVISIONS:

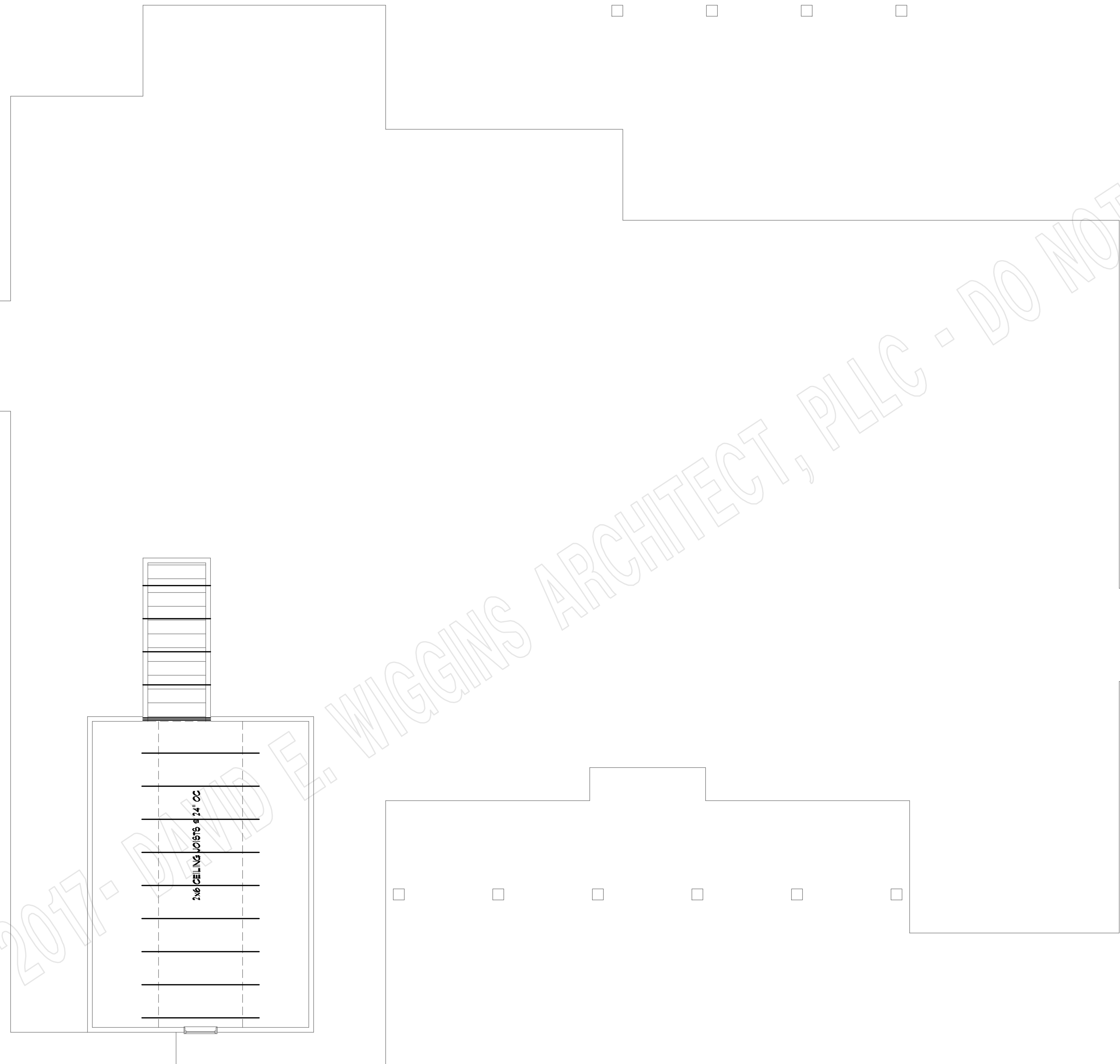
DATE:

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**CEILING FRAMING PLAN**

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

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PROJECT:

REVISIONS:

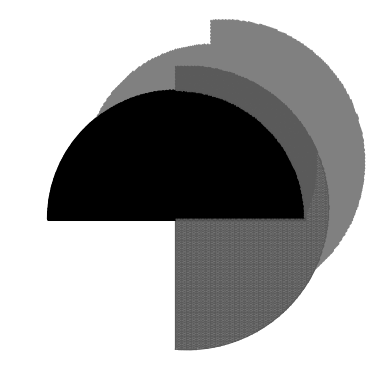
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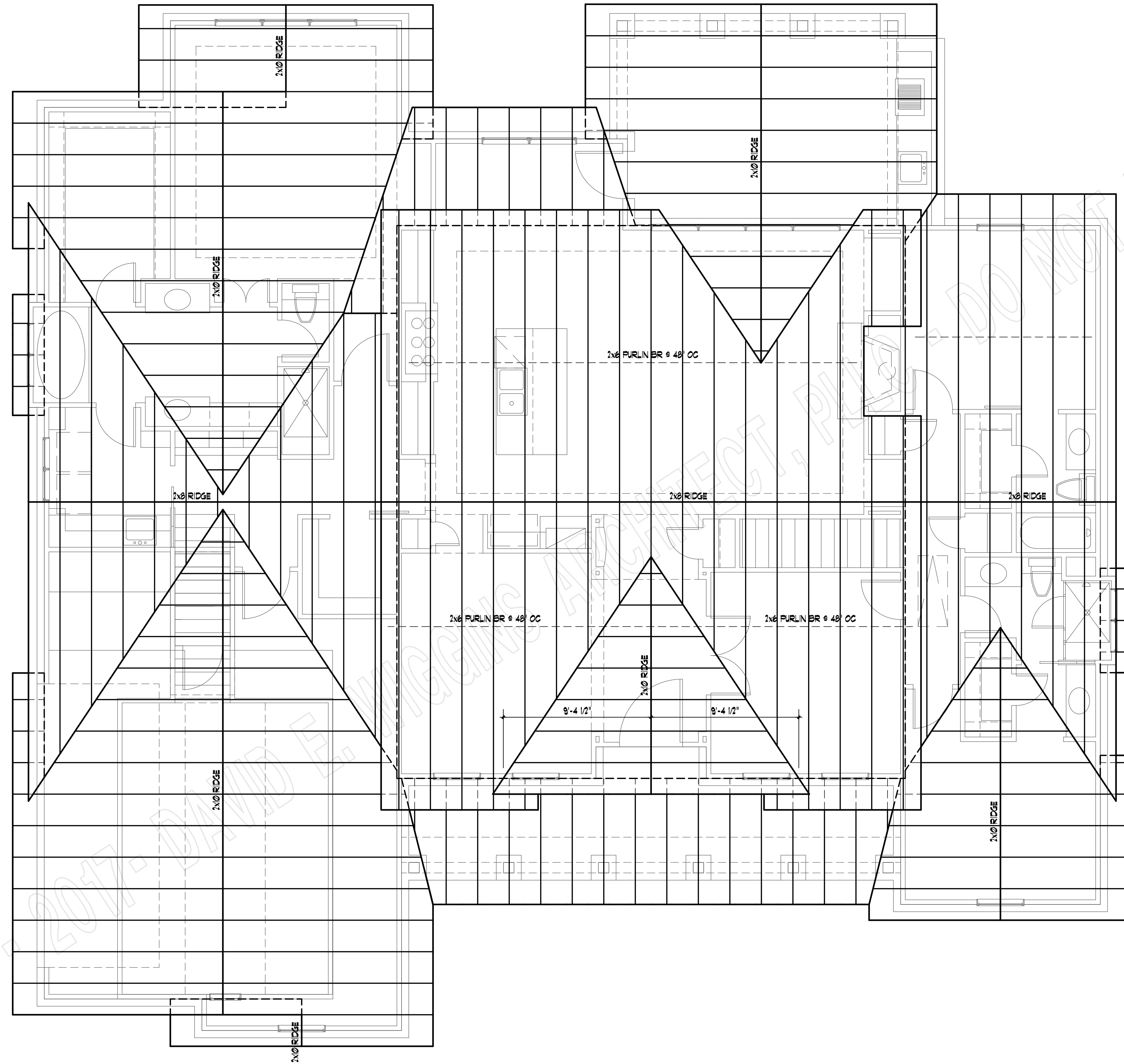
MAY 13, 2019

**A8**  
OF A9

**WALNUT GROVE**  
PLAN 2459

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**ROOF FRAMING PLAN**

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

**FRAMING NOTES:**

1. ALL MEMBERS SHALL BE NO. 2 GRADE SYP OR SFP LUMBER.
2. ALL FASCIAS ARE 2x8 GROOVED SFP OR BETTER.
3. ALL RAFTERS ARE 2x6 @ 24' O.C.
4. BRACE ALL INTERSECTIONS OF RIDGE, HIP OR VALLEYS DOWN TO LOAD BEARING WALLS.
5. ALL TRUSSES SHALL BE DESIGNED BY A LOCAL ENGINEER, PREFERABLY A TRUSS MANUFACTURER.

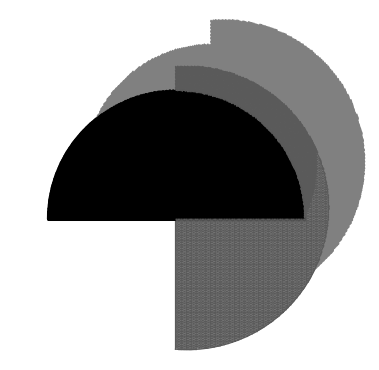
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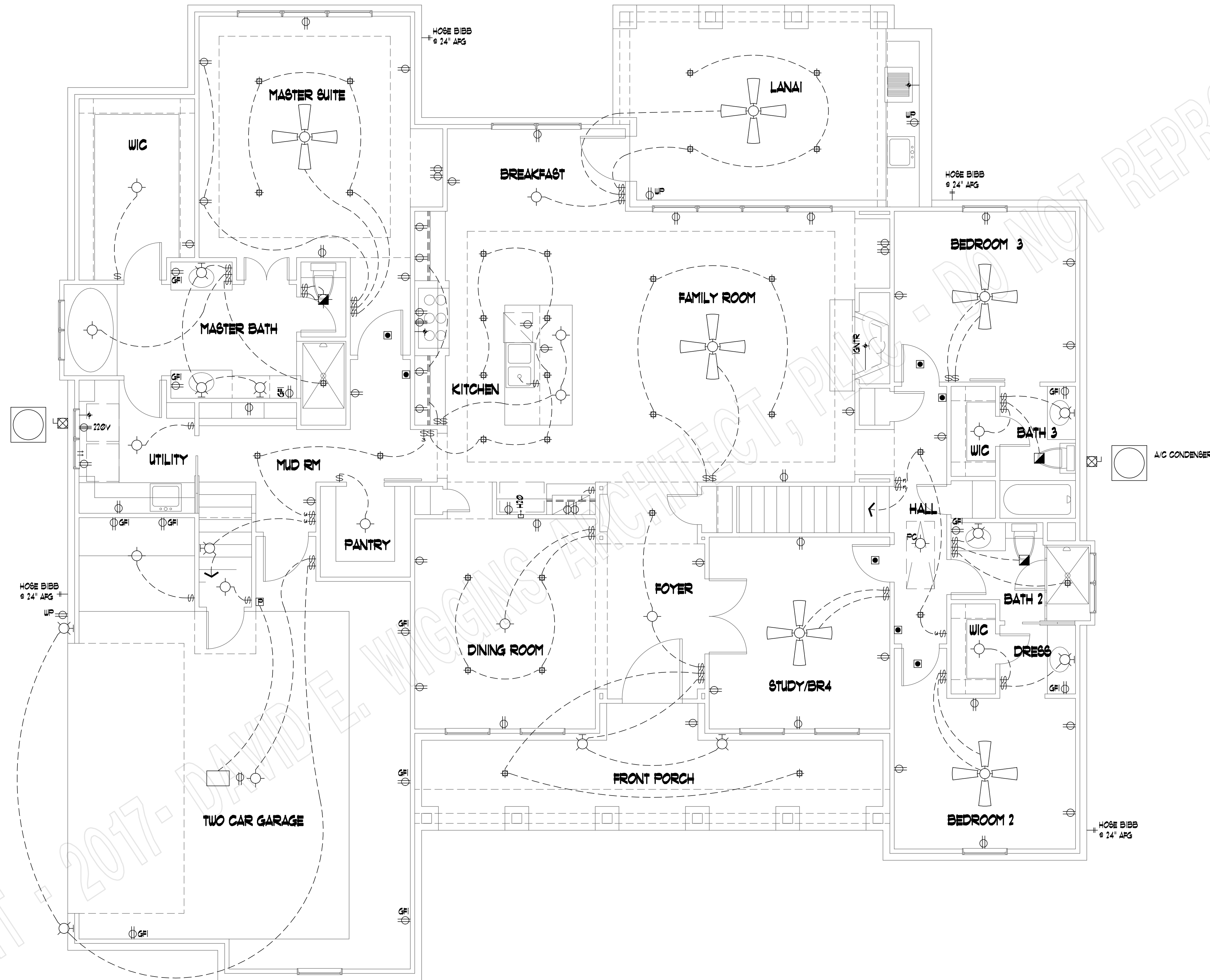
PROJECT:

REVISIONS:

DATE:

MAY 13, 2019





- LEGEND**
- 110V. FLOOR OUTLET
  - ⊕ 110V. DUPLEX OUTLET
  - ⊕ WP WATERPROOF OUTLET
  - ⊕ GFI GROUND FAULT INSULATED
  - ⊕ 220 220V. OUTLET
  - ⊕ 2 2 WAY SWITCH
  - ⊕ 3 3 WAY SWITCH
  - ⊕ 4 4 WAY SWITCH
  - ⊕ DIM DIMMER SWITCH
  - ⊕ GP GENERAL PURPOSE LTG.
  - ⊕ WB WALL BRACKET LTG.
  - ⊕ RC RECESSED CAN LTG.
  - ⊕ RE RECESSED EYEBALL LTG.
  - ⊕ FL FLOURESCENT LTG.
  - ⊕ DF DOUBLE FLOOD LTG.
  - ⊕ FT FLOURESCENT TUBE
  - ⊕ SD SMOKE DETECTOR
  - ⊕ GC GAS CONNECTION
  - ⊕ HB HOSE BIBB
  - ⊕ CF CEILING FAN
  - ⊕ EF EXHAUST FAN
  - ⊕ EFL EXHAUST FAN/LIGHT
  - ⊕ CH CHIMES
  - ⊕ JB JUNCTION BOX
  - ⊕ PJ PHONE JACK
  - ⊕ HE HEATER
  - ⊕ AD A/C DISCONNECT
  - ⊕ IC ICE MAKER CONNECTION
  - ⊕ WC WASHER CONNECTIONS
  - ⊕ CT CABLE TV
  - ⊕ TS THERMOSTAT
  - ⊕ PB PUSH BUTTON
  - ⊕ MR MINI RECESSED CAN LTG.

**FIRST FLOOR ELECTRICAL PLAN**

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

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**WALNUT GROVE**  
 PLAN 2459

PROJECT:

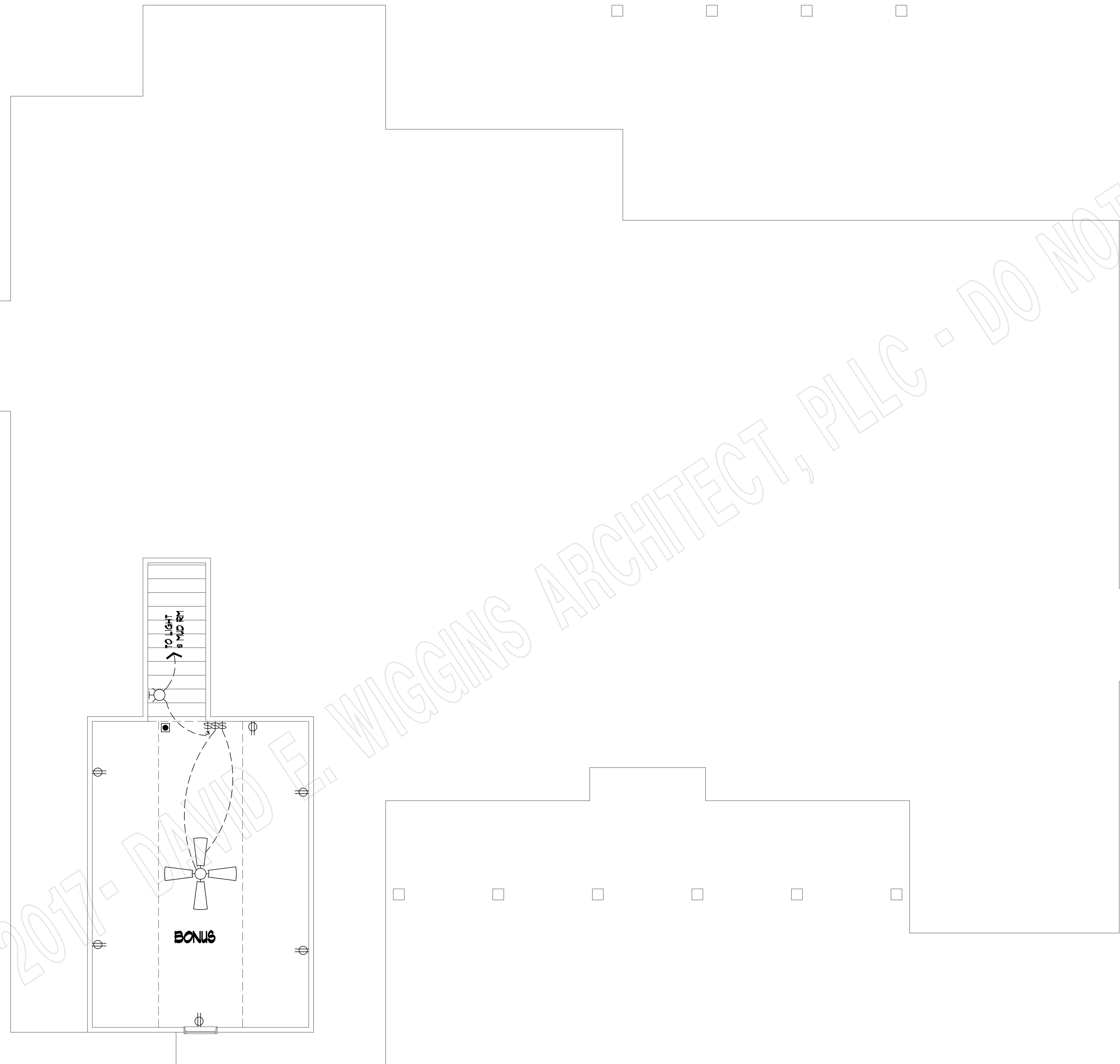
REVISIONS:

DATE:

MAY 13, 2019



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

- LEGEND**
- 110V. FLOOR OUTLET
  - ⊕ 110V. DUPLEX OUTLET
  - ⊕ WP WATERPROOF OUTLET
  - ⊕ GFI GROUND FAULT INSULATED
  - ⊕ 220 220V. OUTLET
  - ⊕ 2 2 WAY SWITCH
  - ⊕ 3 3 WAY SWITCH
  - ⊕ 4 4 WAY SWITCH
  - ⊕ DIM DIMMER SWITCH
  - ⊕ GFL GENERAL PURPOSE LTG.
  - ⊕ WB WALL BRACKET LTG.
  - ⊕ RCN RECESSED CAN LTG.
  - ⊕ REB RECESSED EYEBALL LTG.
  - ▭ FLOURESCENT LTG.
  - ⊕ DF DOUBLE FLOOD LTG.
  - FLOURESCENT TUBE
  - ⊕ SD SMOKE DETECTOR
  - GAS CONNECTION
  - + HOSE BIBB
  - ⊕ CF CEILING FAN
  - ⊕ EF EXHAUST FAN
  - ⊕ EFL EXHAUST FAN/LIGHT
  - ⊕ CH CHIMES
  - ⊕ JB JUNCTION BOX
  - ⊕ PJ PHONE JACK
  - ⊕ H HEATER
  - ⊕ A/C A/C DISCONNECT
  - ⊕ IC ICE MAKER CONNECTION
  - ⊕ WC WASHER CONNECTIONS
  - ⊕ CTV CABLE TV
  - ⊕ T THERMOSTAT
  - ⊕ PB PUSH BUTTON
  - ⊕ MR MINI RECESSED CAN LTG.

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PROJECT:

REVISIONS:

DATE:

MAY 13, 2019

E2

OF E2

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ARCHITECT

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WALNUT GROVE

PLAN 2459









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

Re: DO210811  
WALNUT GROVE

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

Pages or sheets covered by this seal: I47426010 thru I47426063

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

North Carolina COA: C-0844



August 13, 2021

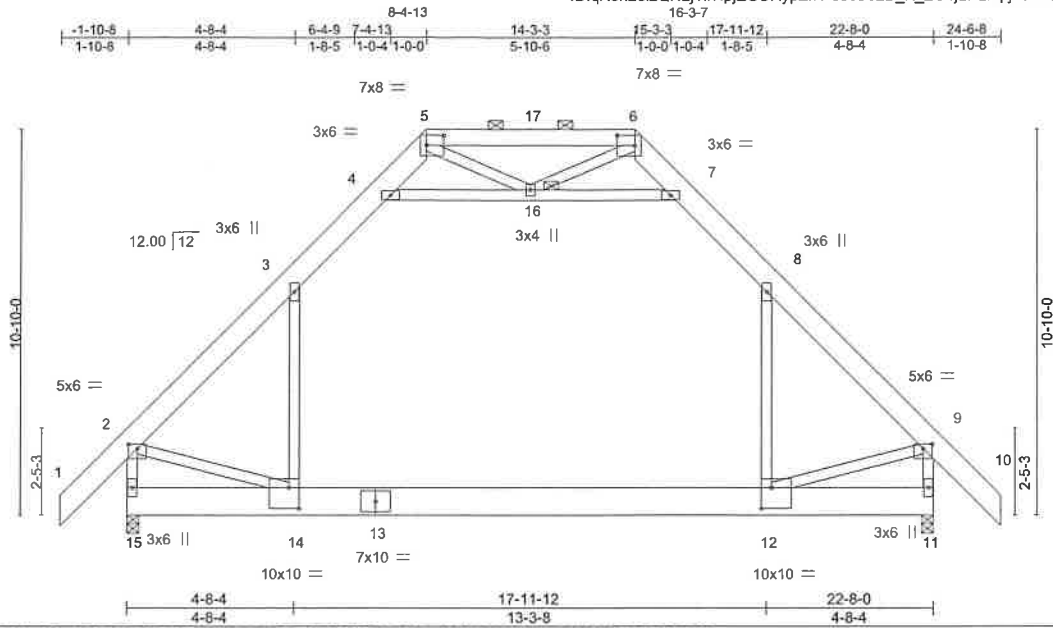
Sevier, Scott

**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	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426010
DO210811	AT1	Attic	3	1		

Truss Builders, Inc., Morrisville, NC - 27560.

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:12:55 2021 Page 1  
ID:qX5h23lzQN2jTlrHqjZGURypZh1-e80bbLD\_K\_ZU4jLRzmpjo0TZ9gXB2916eAnfPvyof\_c



Scale = 1:61.7

Plate Offsets (X,Y)- [2:0-3-0,0-1-8], [5:0-6-0,0-3-8], [6:0-6-0,0-3-8], [9:0-3-0,0-1-8], [12:0-3-8,0-7-0], [14:0-3-8,0-7-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0		TC 0.54	Vert(LL)	-0.24 12-14	>999	240	MT20	244/190
Snow (Pf)	15.0	Plate Grip DOL 1.15	BC 0.83	Vert(CT)	-0.31 12-14	>878	180		
TCDL	10.0	Lumber DOL 1.15	WB 0.34	Horz(CT)	0.01 11	n/a	n/a		
BCLL	0.0 *	Rep Stress Incr YES	Matrix-MR	Attic	-0.18 12-14	903	360		
BCDL	10.0	Code IBC2015/TPI2014						Weight: 251 lb	FT = 6%

**LUMBER-**  
TOP CHORD 2x8 SP No.2 \*Except\*  
5-6: 2x6 SP No.2  
BOT CHORD 2x10 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
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.); 5-6.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
JOINTS 1 Brace at Jt(s): 16

**REACTIONS.** (size) 15=0-4-0, 11=0-4-0  
Max Horz 15=253(LC 8)  
Max Grav 15=1350(LC 3), 11=1350(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=1349/22, 3-4=861/82, 4-5=-344/141, 5-6=-237/255, 6-7=-344/141, 7-8=-861/82,  
8-9=1349/22, 2-15=-1474/0, 9-11=-1474/0  
BOT CHORD 14-15=-224/286, 12-14=0/872  
WEBS 3-14=-27/674, 4-16=-1082/128, 7-16=-1082/128, 8-12=-27/674, 2-14=-13/848,  
9-12=-17/851

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - 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 1-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (5.0 psf) on member(s). 3-4, 7-8, 4-16, 7-16
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 12-14
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.



August 13, 2021

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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 ANSIT/TPH Quality Criteria, DSB-89 and BCS1 Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



816 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	I47426011
DO210811	AT1A	Attic	4	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:03 2021 Page 1  
ID:qx5h23lzQN2jTirHpjZGURypZh1-PhVcG4K?RRZM1xyzR1yb6iovHuG1wm\_HTTP4hRyof\_U

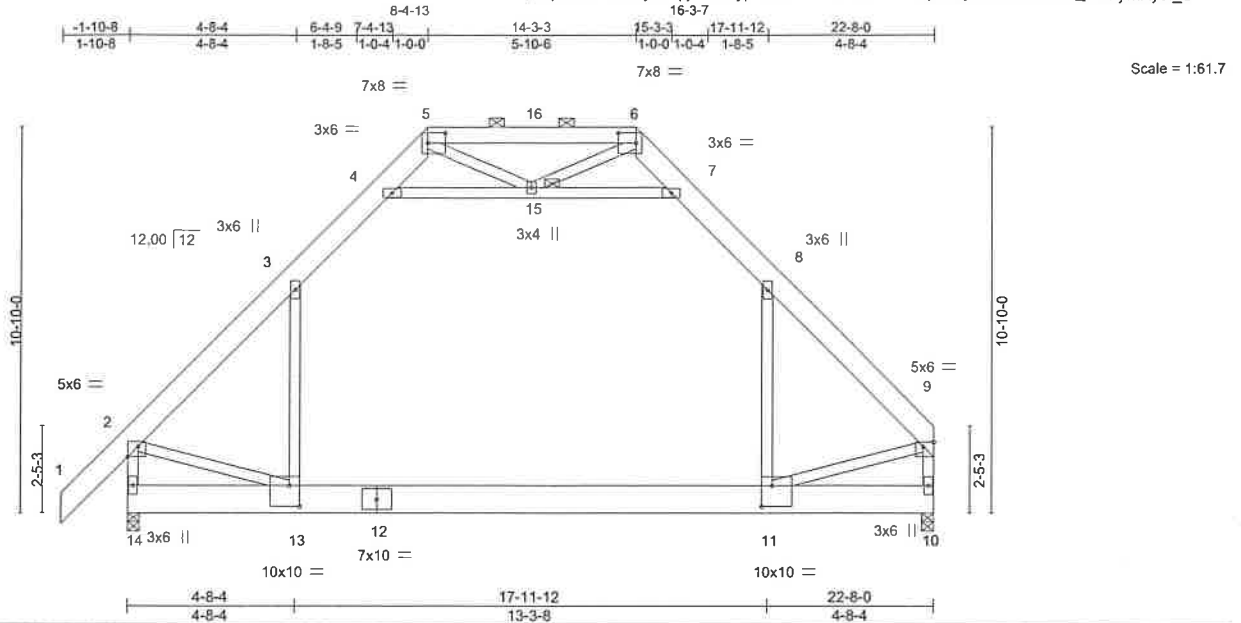


Plate Offsets (X,Y)-	[2:0-3-8,Edge], [5:0-6-0,0-3-8], [6:0-6-0,0-3-8], [9:Edge,0-1-8], [11:0-3-8,0-7-0], [13:0-3-8,0-7-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.60	Vert(LL)	-0.24 11-13	>999	240	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.83	Vert(CT)	-0.31 11-13	>876	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.34	Horz(CT)	0.01 10	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MR	Attic	-0.18 11-13	903	360		
BCDL 10.0	Code IBC2015/TPI2014						Weight: 243 lb	FT = 6%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x8 SP No.2 *Except*	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.): 5-6.
5-6: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
BOT CHORD 2x10 SP No.2	JOINTS 1 Brace at Jt(s): 15
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 14=0-4-0, 10=0-4-0  
 Max Horz 14=239(LC 7)  
 Max Grav 14=1355(LC 3), 10=1244(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1360/21, 3-4=-866/81, 4-5=-342/144, 5-6=-234/259, 6-7=-344/143, 7-8=-865/81, 8-9=-1353/16, 2-14=-1484/0, 9-10=-1366/0  
 BOT CHORD 13-14=233/260, 11-13=0/859  
 WEBS 3-13=-24/676, 4-15=-1088/128, 7-15=-1088/128, 8-11=-35/671, 2-13=-12/857, 9-11=-30/819

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* 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 1-0-0 wide will fit between the bottom chord and any other members.
  - 8) Ceiling dead load (5.0 psf) on member(s). 3-4, 7-8, 4-15, 7-15
  - 9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 11-13
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) Attic room checked for L/360 deflection.



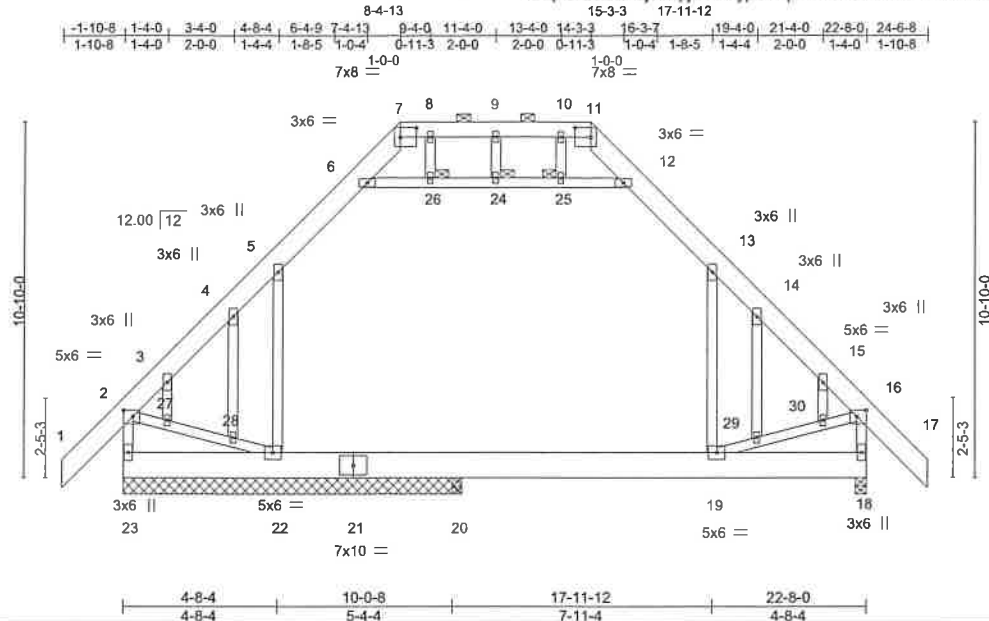
August 13, 2021

<p><b>WARNING</b> - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MI-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 ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY  <b>TRENCO</b>          A MiTek Affiliate</p> <p>818 Soundside Road          Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426012
DO210811	AT1GE	Attic Structural Gable	1	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MITEK Industries, Inc. Thu Aug 12 08:13:06 2021 Page 1  
ID:qX5h23lzQN2jTlRHpjZGURypZh1-pGBlv6MtkMxxuPhY69WlkkQVA6N577ZkANyklmyof\_R



Scale = 1:66.9

Plate Offsets (X,Y) - [2:0-3-8,0-2-4], [7:0-6-0,0-3-8], [11:0-6-0,0-3-8], [16:0-3-8,0-2-4]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	-0.05 19-20	>999	240	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.07 19-20	>999	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.35	Horz(CT)	0.00 18	n/a	n/a		
BCLL 0.0	Code IBC2015/TPI2014		Matrix-MR	Attic	-0.05 19-20	3740	360		
BCDL 10.0								Weight: 262 lb	FT = 6%

**LUMBER-**

TOP CHORD 2x8 SP No.2 \*Except\*  
7-11: 2x6 SP No.2  
BOT CHORD 2x10 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**

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.); 7-11.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 22-23.  
JOINTS 1 Brace at Jt(s): 24, 25, 26

**REACTIONS.**

All bearings 10-4-0 except (jt=length) 18=0-4-0, 20=0-3-8.  
(lb) - Max Horz 23=-253(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 23, 18 except 22=-262(LC 7)  
Max Grav All reactions 250 lb or less at joint(s) except 23=999(LC 24), 22=285(LC 8), 18=1008(LC 3), 20=915(LC 17)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-824/112, 3-4=-830/135, 4-5=-708/138, 5-6=-632/113, 6-7=-425/73, 7-8=-321/106, 8-9=-321/106, 9-10=-321/106, 10-11=-321/106, 11-12=-407/108, 12-13=-611/101, 13-14=-661/25, 14-15=-758/0, 15-16=-773/0, 2-23=-934/86, 16-18=-904/17  
BOT CHORD 20-22=0/472, 19-20=0/472  
WEBS 5-22=-293/183, 6-26=-402/177, 24-26=-401/176, 24-25=-401/176, 12-25=-401/176, 2-27=-78/526, 27-28=-75/499, 22-28=-79/526, 19-29=-2/451, 29-30=0/428, 16-30=0/451

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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 where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 5-6, 12-13, 6-26, 24-26, 24-25, 12-25
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 20-22, 19-20
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 18 except (jt=lb) 22=262.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.



August 13, 2021

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE Mil-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

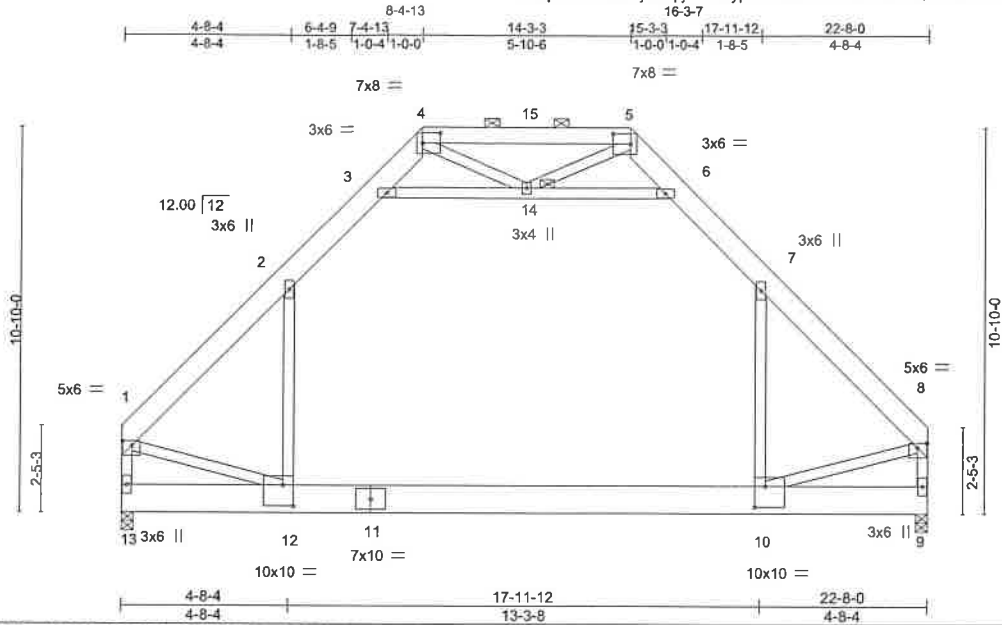


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426013
DO210811	CAT1A	Attic	2	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:09 2021 Page 1  
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16-3-7



Scale = 1:61.7

Plate Offsets (X,Y) - [1:0-3-4,0-1-8], [4:0-6-0,0-3-8], [5:0-6-0,0-3-8], [8:0-3-4,0-1-8], [10:0-3-8,0-7-0], [12:0-3-8,0-7-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.60	Vert(LL)	-0.24 10-12	>999	240	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.83	Vert(CT)	-0.31 10-12	>873	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.34	Horz(CT)	0.01 9	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-MR	Attic	-0.18 10-12	903	360		
BCDL 10.0	Code IBC2015/TPI2014						Weight: 234 lb	FT = 6%

**LUMBER-**  
 TOP CHORD 2x8 SP No.2 \*Except\*  
 4-5: 2x6 SP No.2  
 BOT CHORD 2x10 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**  
 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.): 4-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 14

**REACTIONS.** (size) 13=0-4-0, 9=0-4-0  
 Max Horz 13=214(LC 7)  
 Max Grav 13=1249(LC 3), 9=1249(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1364/16, 2-3=-871/80, 3-4=-342/146, 4-5=-224/262, 5-6=-342/146, 6-7=-871/80,  
 7-8=-1363/16, 1-13=-1377/0, 8-9=-1377/0  
 BOT CHORD 12-13=-215/272, 10-12=0/866  
 WEBS 2-12=-32/674, 3-14=-1094/128, 6-14=-1094/128, 7-10=-32/674, 1-12=-25/826,  
 8-10=-29/828

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - 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 1-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (5.0 psf) on member(s). 2-3, 6-7, 3-14, 6-14
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 10-12
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MH-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 ANSITPM1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

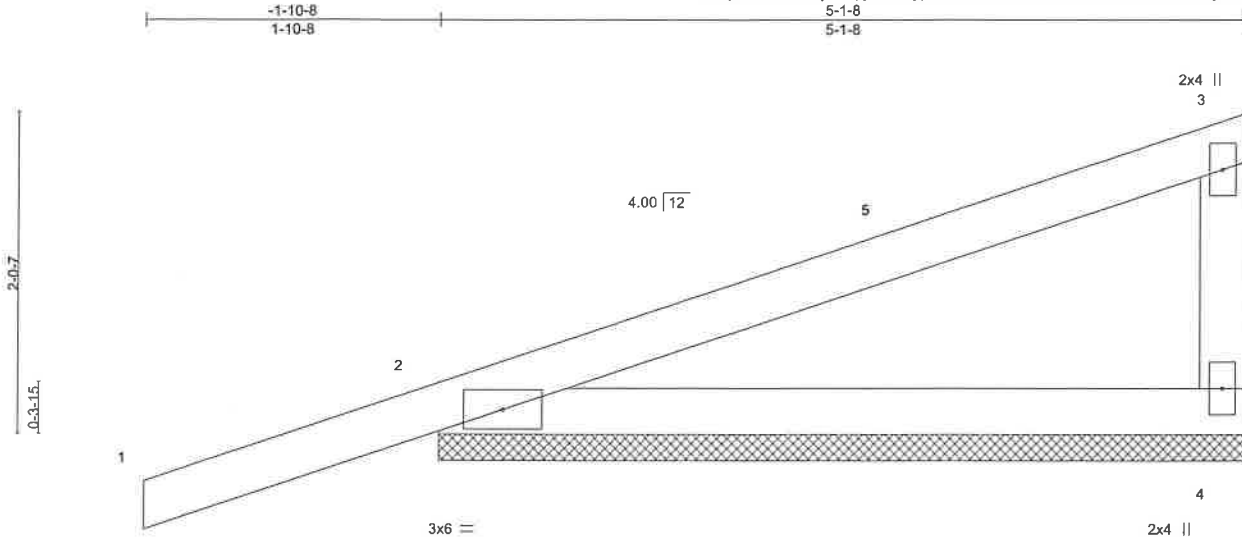
ENGINEERING BY  
**TRENCO**  
 A MITEK AFFILIATE

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426014
DO210811	CJ1	Jack-Open Supported Gable	1	1	Job Reference (optional)	

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 Mitek Industries, Inc. Thu Aug 12 08:13:10 2021 Page 1  
ID:qX5h23lzQN2jTlrHpjZGURypZh1-h1QGkUPOobSMN0?KL7aEvAbAFjnn301J4?wyRXyof\_N



Scale = 1:13.9

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.36	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.31	Vert(LL) 0.00 1 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) 0.01 1 n/r 120		
BCLL 0.0	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 4 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 21 lb	FT = 6%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-1-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 4=5-1-8, 2=5-1-8  
Max Horz 2=65(LC 9)  
Max Uplift 4=-14(LC 12), 2=-76(LC 8)  
Max Grav 4=178(LC 2), 2=333(LC 2)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) 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.
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* 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 1-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.



August 13, 2021

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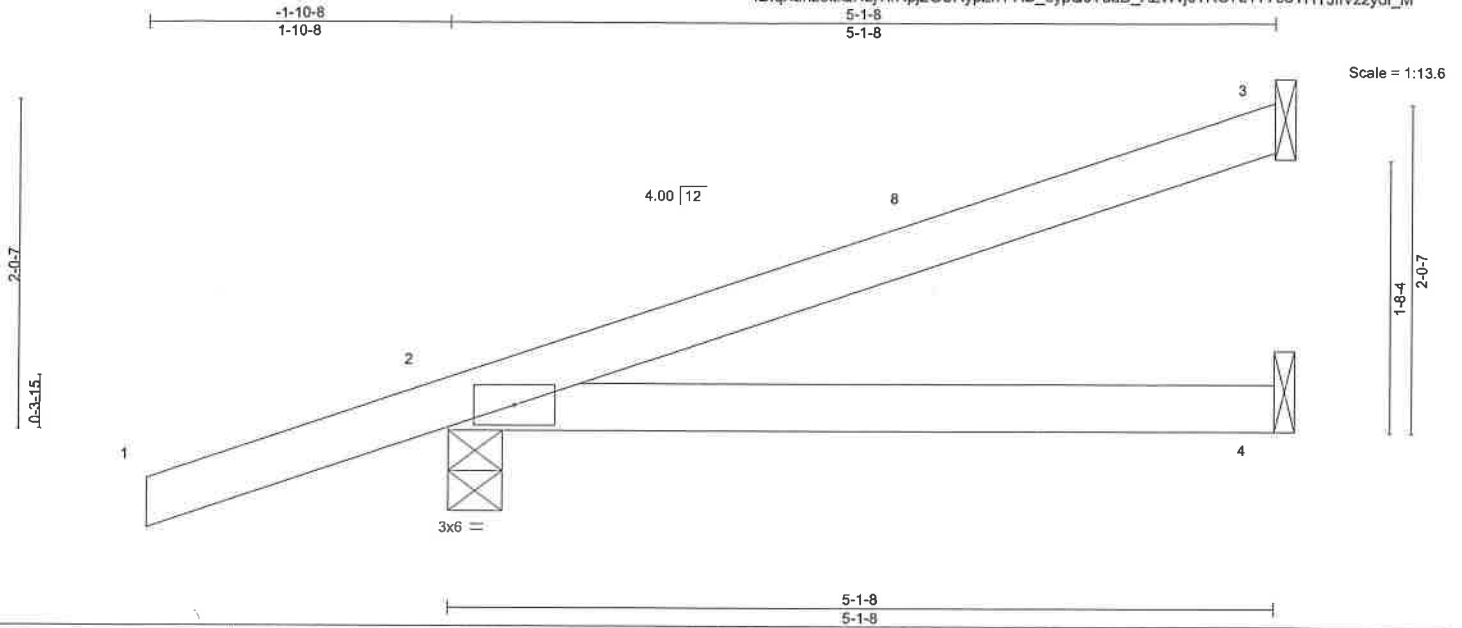


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426015
DO210811	CJ2	Jack-Open	6	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:11 2021 Page 1  
 ID:qX5h23lzQN2jTrHpjZGURypZh1-AD\_eypQ0YuaD\_AZWvj6TRO7LY773oTHTJfVzzyof\_M



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.32	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.24	Vert(LL) -0.02 4-7 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.06 4-7 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00 2 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 19 lb	FT = 6%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-1-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-4-0, 4=Mechanical  
 Max Horz 2=76(LC 8)  
 Max Uplift 3=-37(LC 12), 2=-71(LC 8)  
 Max Grav 3=123(LC 2), 2=336(LC 2), 4=89(LC 7)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* 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 1-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.



August 13, 2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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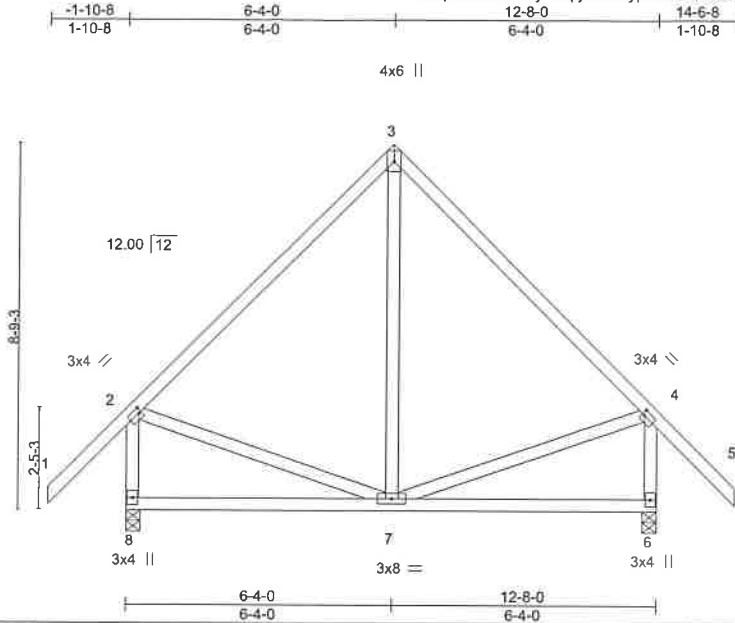
818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	I47426016
DO210811	CT1	Common	1	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:12 2021 Page 1  
 ID:qX5h23lzQN2jTlrHpiZGURypZh1-eQY099ReJci4ck8ITQdi\_bgVbWSaXvKcYJP2VQyof\_L



Scale = 1:52.5

Plate Offsets (X,Y)- [2:0-0-12,0-1-8], [4:0-0-12,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	1-11-4	TC 0.43	Vert(LL)	-0.02	7-8	>999	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.29	Vert(CT)	-0.05	7-8	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.08	Horz(CT)	0.00	6	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MR						
BCDL 10.0	Code IBC2015/TPI2014						Weight: 91 lb	FT = 6%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.**

(size) 8=0-4-0, 6=0-4-0  
 Max Horz 8=-215(LC 8)  
 Max Uplift 8=-16(LC 10), 6=-16(LC 11)  
 Max Grav 8=597(LC 2), 6=597(LC 2)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=397/88, 3-4=397/88, 2-8=539/47, 4-6=539/47

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 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 1-0-0 wide will fit 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) 8, 6.



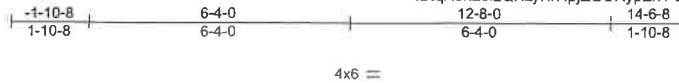
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 5/19/2020 BEFORE USE  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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/TPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	
DO210811	CT1GE	Common Supported Gable	1	1		147426017
Truss Builders, Inc., Morrisville, NC - 27560,					Job Reference (optional)	

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:14 2021 Page 1  
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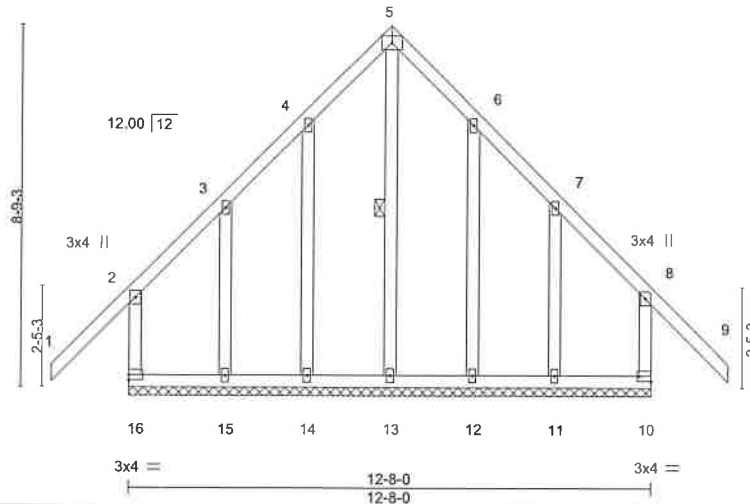


Plate Offsets (X,Y)- [10;Edge,0-1-8]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	1-11-4	TC 0.42	Vert(LL)	-0.03	9	n/r	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.24	Vert(CT)	-0.05	9	n/r		
TCDL 10.0	Lumber DOL 1.15	WB 0.10	Horz(CT)	-0.00	10	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R						
BCDL 10.0	Code IBC2015/TPI2014						Weight: 103 lb	FT = 6%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-13

**REACTIONS.**

All bearings 12-8-0.  
 (lb) - Max Horz 16=215(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 14, 12 except 16=132(LC 6), 10=126(LC 7), 15=154(LC 7), 11=150(LC 6)  
 Max Grav All reactions 250 lb or less at joint(s) 10, 14, 12 except 16=255(LC 23), 13=317(LC 25), 15=287(LC 22), 11=283(LC 23)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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 where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 12 except (jt=lb) 16=132, 10=126, 15=154, 11=150.



August 13, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	I47426018
DO210811	CT2	Common	1	1		

Truss Builders, Inc., Morrisville, NC - 27560.

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:15 2021 Page 1  
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4x6 ||

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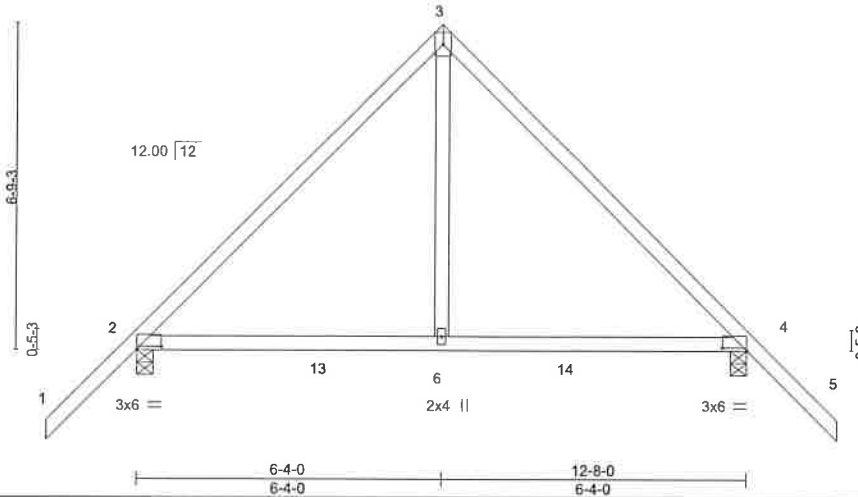


Plate Offsets (X,Y) - [2:0-6-0,0-0-10], [4:0-6-0,0-0-10]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.47	Vert(LL)	-0.04 6-12	>999	240	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.08 6-12	>999	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00 4	n/a	n/a		
BCLL 0.0	Code IBC2015/TPI2014		Matrix-MR					Weight: 63 lb	FT = 6%
BCDL 10.0									

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 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.**

(size) 2=0-4-0, 4=0-4-0  
Max Horz 2=-159(LC 8)  
Max Uplift 2=-27(LC 10), 4=-27(LC 11)  
Max Grav 2=632(LC 22), 4=632(LC 23)

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

TOP CHORD 2-3=581/62, 3-4=581/62  
BOT CHORD 2-6=0/388, 4-6=0/388  
WEBS 3-6=0/332

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



August 13, 2021

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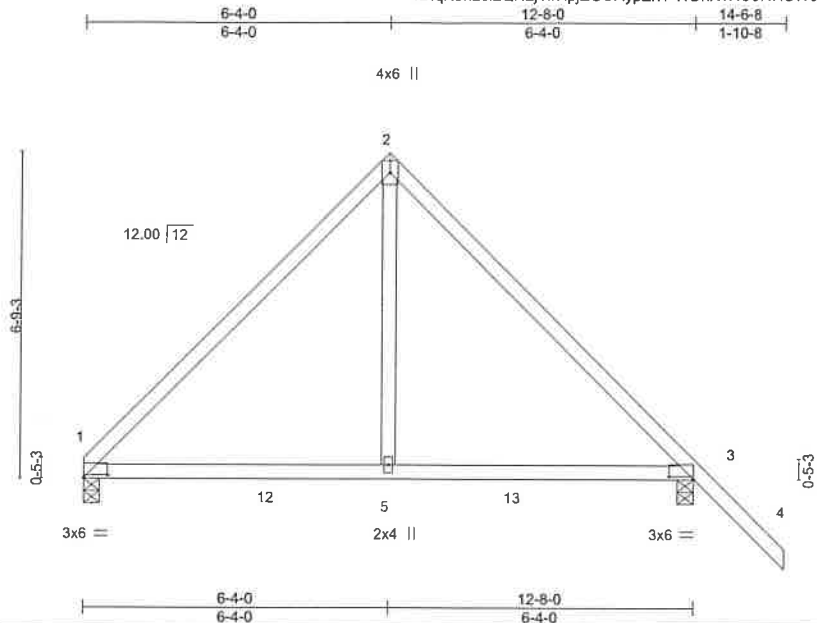


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	
DO210811	CT2A	Common	2	1		I47426019

Truss Builders, Inc., Morrisville, NC - 27560.

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:16 2021 Page 1  
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Scale = 1:45.5

Plate Offsets (X,Y) - [1:0-6-0,0-0-10], [3:0-6-0,0-0-10]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	0.06	5-8	>999	240	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.10	5-8	>999	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	1	n/a	n/a		
BCLL 0.0 *	Code IBC2015/TPI2014		Matrix-MR							
BCDL 10.0										
								Weight: 59 lb	FT = 6%	

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 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.**

(size) 1=0-4-0, 3=0-4-0  
 Max Horz 1=-147(LC 8)  
 Max Uplift 3=-29(LC 11)  
 Max Grav 1=521(LC 22), 3=637(LC 23)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-566/64, 2-3=-597/72  
 BOT CHORD 1-5=0/400, 3-5=0/400  
 WEBS 2-5=0/336

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.



August 13, 2021

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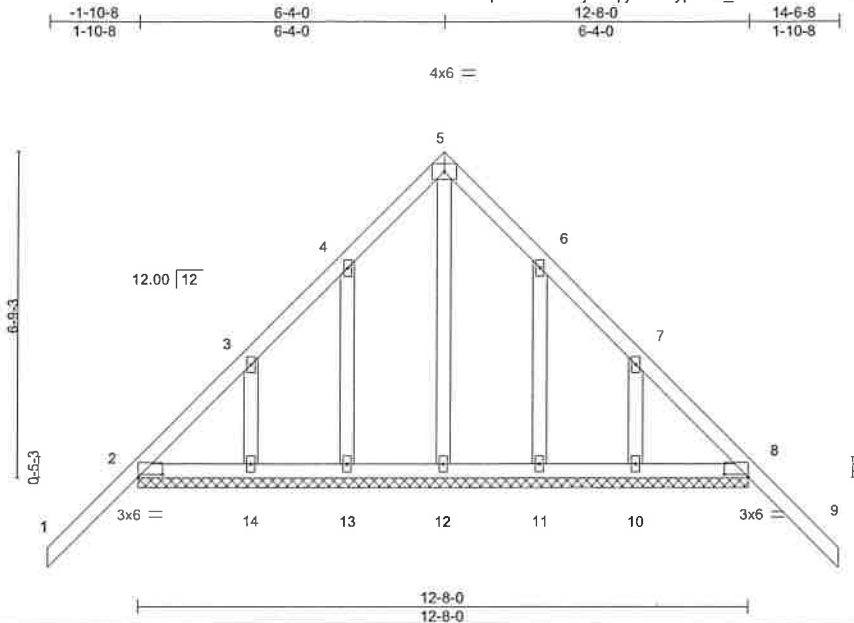


818 Soundside Road  
 Eden, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426020
DO210811	CT2GE	Common Supported Gable	1	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:17 2021 Page 1  
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Plate Offsets (X,Y) - [2:0-6-0,0-0-10], [8:0-6-0,0-0-10]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.02	9	n/r	120	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.03	9	n/r	120		
TCDL 10.0	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	8	n/a	n/a		
BCLL 0.0	Code IBC2015/TPI2014		Matrix-R							
BCDL 10.0										
								Weight: 82 lb	FT = 6%	

**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.

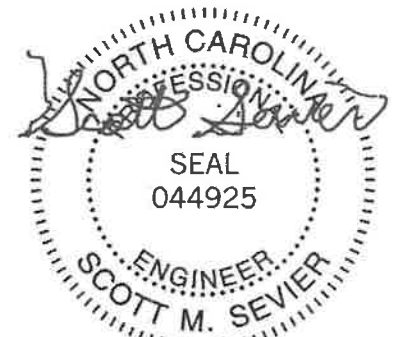
**REACTIONS.**

All bearings 12-8-0.  
(lb) - Max Horz 2=159(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 13, 14, 11, 10  
Max Grav All reactions 250 lb or less at joint(s) 12, 13, 14, 11, 10 except 2=269(LC 16), 8=269(LC 16)

**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=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 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 where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 13, 14, 11, 10.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



August 13, 2021

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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



818 Soundside Road  
Edenton, NC 27932



Job DO210811	Truss CT2GT	Truss Type Common Girder	Qty 1	Ply 2	WALNUT GROVE	147426021
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Truss Builders, Inc., Morrisville, NC - 27560,

8,430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:18 2021 Page 1  
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4x6 ||

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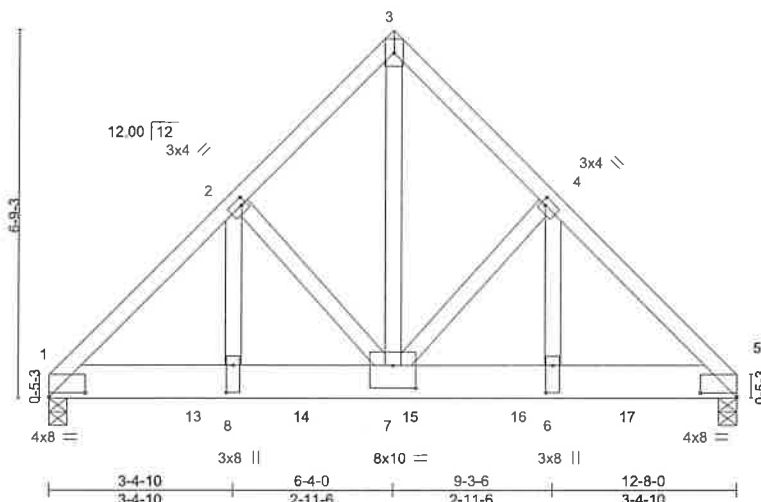


Plate Offsets (X,Y) - [1:0-8-0,0-0-15], [2:0-1-0,0-1-8], [4:0-1-0,0-1-8], [5:0-8-0,0-0-15], [6:0-6-0,0-1-8], [7:0-5-0,0-5-0], [8:0-6-0,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.04	7	>999	240	MT20	244/190
Snow (PF) 15.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.08	7	>999	180		
TCDL 10.0	Rep Stress Incr	NO	WB 1.00	Horz(CT)	0.02	5	n/a	n/a		
BCLL 0.0 *	Code IBC2015/TP12014		Matrix-MR							
BCDL 10.0									Weight: 191 lb	FT = 6%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-3-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=0-4-0, 5=0-4-0  
Max Horz 1=123(LC 32)  
Max Uplift 1=150(LC 10), 5=122(LC 10)  
Max Grav 1=5096(LC 2), 5=4203(LC 2)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=5232/189, 2-3=3608/186, 3-4=3606/187, 4-5=5183/190  
BOT CHORD 1-8=1411/3673, 7-8=141/3673, 6-7=92/3633, 5-6=92/3633  
WEBS 3-7=196/4809, 4-7=1654/145, 4-6=57/2195, 2-7=1714/147, 2-8=59/2268

**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 0-7-0 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 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load); Lumber DOL=1.15 Plate DOL=1.15; Pf=15.0 psf (flat roof snow); Lumber DOL=1.15 Plate DOL=1.15; Category II; Exp B; Fully Exp.; Ct=1.10
- 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 1-0-0 wide will fit 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) 1=150, 5=122.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1384 lb down and 51 lb up at 0-8-0, 1380 lb down and 54 lb up at 2-8-0, 1380 lb down and 54 lb up at 4-8-0, 1380 lb down and 54 lb up at 6-8-0, and 1380 lb down and 54 lb up at 8-8-0, and 1380 lb down and 54 lb up at 10-8-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

1) Dead + Snow (balanced); Lumber Increase=1.15, Plate Increase=1.15



August 13, 2021

Continued on page 2

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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



818 Soundside Road  
Edenon, NC 27932

Job DO210811	Truss CT2GT	Truss Type Common Girder	Qty 1	Ply 2	WALNUT GROVE Job Reference (optional)	I47426021
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Truss Builders, Inc., Morrisville, NC - 27560.

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:18 2021 Page 2  
ID:qX5h23lzQN2jTlrHpjZGURypZh1-SavHQDVPv2SEKFcshk6DswZxxPlxPTVwFsNj4yof\_F

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-3=-50, 3-5=-50, 1-5=-20

Concentrated Loads (lb)

Vert: 10=-1209(B) 13=-1205(B) 14=-1205(B) 15=-1205(B) 16=-1205(B) 17=-1205(B)

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	
DO210811	CT3	Common	2	1		I47426022

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MITek Industries, Inc. Thu Aug 12 08:13:19 2021 Page 1  
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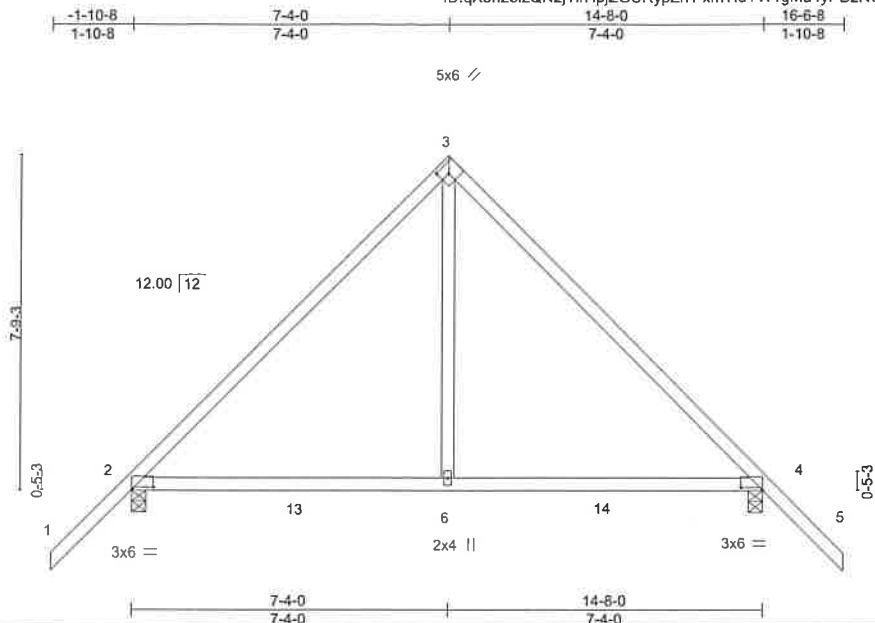


Plate Offsets (X,Y) - [2:0-6-0,0-0-10], [3:0-2-8,0-2-8], [4:0-6-0,0-0-10]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.08 6-12	>999	240	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.15 6-12	>999	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.01 4	n/a	n/a		
BCLL 0.0	Code IBC2015/TPI2014		Matrix-MR						
BCDL 10.0								Weight: 72 lb	FT = 6%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 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.**

(size) 2=0-4-0, 4=0-4-0  
 Max Horz 2=-178(LC 8)  
 Max Uplift 2=-26(LC 10), 4=-26(LC 11)  
 Max Grav 2=733(LC 22), 4=733(LC 23)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=700/75, 3-4=700/75  
 BOT CHORD 2-6=0/466, 4-6=0/466  
 WEBS 3-6=0/420

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1,10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



August 13, 2021

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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

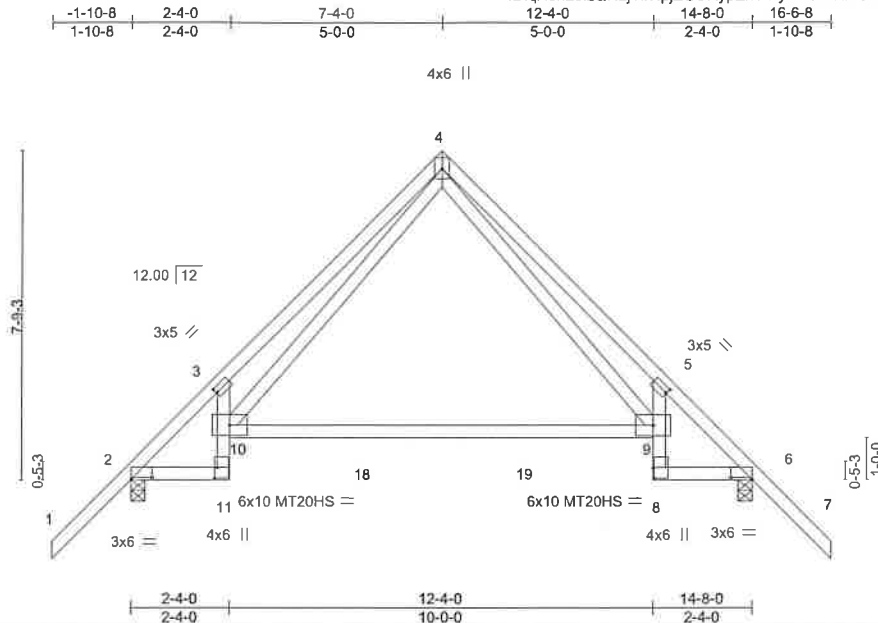


818 Soundside Road  
 Eden, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426023
DO210811	CT3A	Roof Special	1	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 Mitek Industries, Inc. Thu Aug 12 08:13:20 2021 Page 1  
ID:qX5h23lzQN2jTlrHpjZGURypZh1-Py12ruXfRfixaZIFx6maJH?sx12fPQLoOZLTnyof\_D



Scale = 1:51.8

Plate Offsets (X, Y) - [2:0-6-0,0-0-6], [3:0-0-4,0-1-8], [5:0-0-4,0-1-8], [6:0-6-0,0-0-6], [8:0-3-0,0-0-4], [11:0-3-0,0-0-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	-0.27 9-10	>646	240	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.56 9-10	>314	180	MT20HS	187/143
TCDL 10.0	Rep Stress Incr	YES	WB 0.46	Horz(CT)	0.16 6	n/a	n/a		
BCLL 0.0 *	Code	IBC2015/TPI2014	Matrix-MR						
BCDL 10.0								Weight: 91 lb	FT = 6%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
3-11,5-8: 2x4 SP No.1D  
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 10-0-0 oc bracing.

**REACTIONS.**

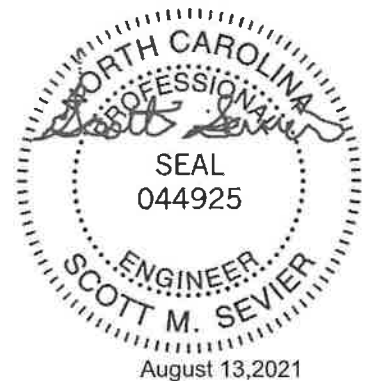
(size) 2=0-4-0, 6=0-4-0  
Max Horz 2=-178(LC 8)  
Max Uplift 2=-26(LC 10), 6=-26(LC 11)  
Max Grav 2=699(LC 2), 6=699(LC 2)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-764/0, 3-4=-1670/120, 4-5=-1540/2, 5-6=-788/0  
BOT CHORD 2-11=-20/542, 3-10=-639/171, 9-10=0/409, 5-9=-589/126, 6-8=0/472  
WEBS 4-9=0/1166, 4-10=-86/1283

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- All plates are MT20 plates unless otherwise indicated.
- 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

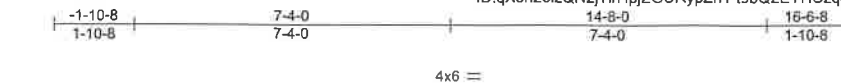
ENGINEERING BY  
**TRENCO**  
A Mitek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426024
DO210811	CT3GE	Common Supported Gable	1	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8,430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:21 2021 Page 1

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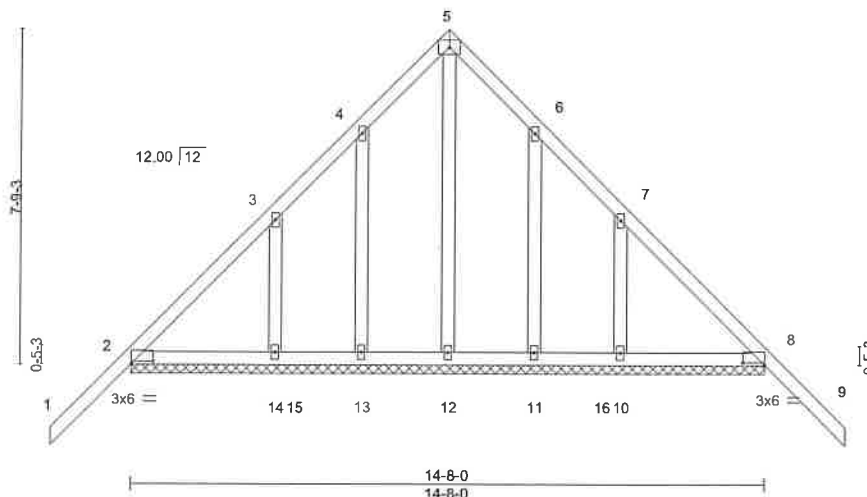


Plate Offsets (X,Y)--		[2:0-6-0,0-0-10], [8:0-6-0,0-0-10]
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>
TCLL (roof) 20.0	2-0-0	TC 0.35
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.17
TCDL 10.0	Lumber DOL 1.15	WB 0.13
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R
BCDL 10.0	Code IBC2015/TPI2014	
		<b>DEFL.</b>
		in (loc) l/defl L/d
		Vert(LL) -0.02 9 n/r 120
		Vert(CT) -0.03 9 n/r 120
		Horz(CT) 0.00 8 n/a n/a
		<b>PLATES</b>
		MT20
		<b>GRIP</b>
		244/190
		Weight: 97 lb FT = 6%

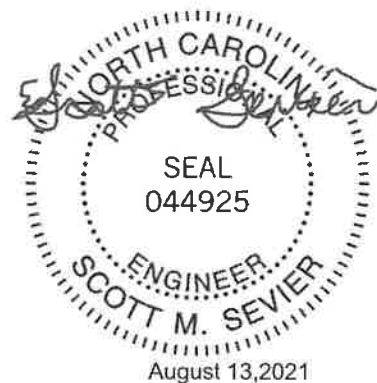
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**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.

**REACTIONS.** All bearings 14-8-0.  
(lb) - Max Horz 2=178(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 13, 14, 11, 10  
Max Grav All reactions 250 lb or less at joint(s) 12, 13, 14, 11, 10 except 2=285(LC 2), 8=285(LC 2)

**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=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 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.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - 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 where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 13, 14, 11, 10.



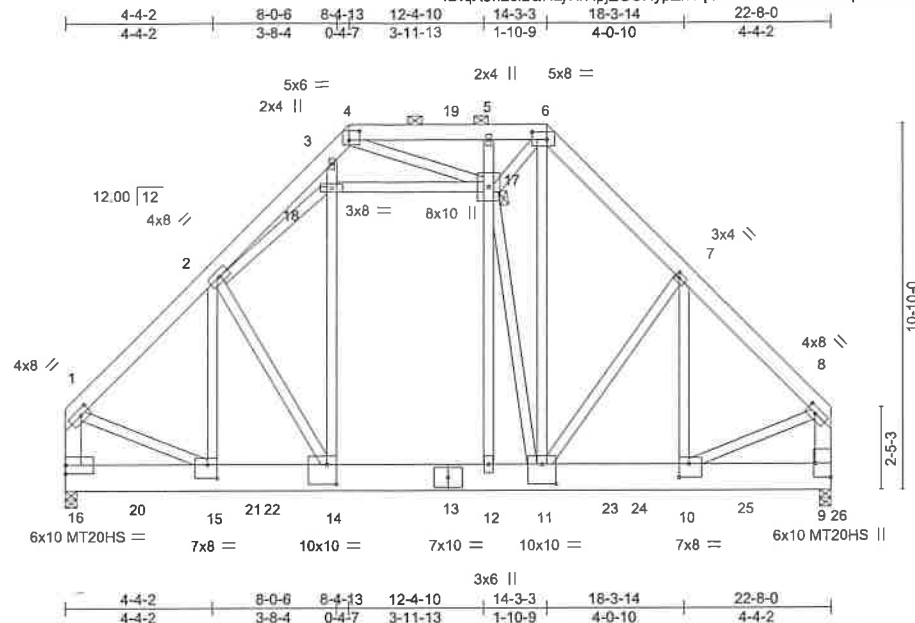
**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE M1-7473 rev. 6/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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

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



Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426025
DO210811	CT3GT	Piggyback Base Girder	1	2	Job Reference (optional)	

Truss Builders, Inc., Morrisville, NC - 27560, 8.430 s Jun 2 2021 MITek Industries, Inc. Thu Aug 12 06:13:23 2021 Page 1  
 ID:qX5h23lzQN2jTlrlHpjZGURypZh1-pXiATwZYka4WR0UpcEJHwwdMzy95bi2E4WZ8OHyoF\_A



Scale = 1:65.0

Plate Offsets (X,Y) - [1:0-3-8,0-2-0], [4:0-3-12,0-3-4], [6:0-5-4,0-2-12], [7:0-1-4,0-1-8], [8:0-3-4,0-2-0], [9:Edge,0-5-8], [10:0-3-8,0-4-12], [11:0-5-0,0-7-0], [14:0-3-8,0-7-0], [15:0-3-8,0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.49	in (loc) l/defl L/d	MT20	244/190
Snow (PF) 15.0	Plate Grip DOL 1.15	BC 0.55	Vert(LL) -0.05 14 >999 240	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.78	Vert(CT) -0.09 14-15 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MR	Horz(CT) 0.02 9 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 582 lb	FT = 6%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 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.): 4-6.
BOT CHORD 2x10 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 1-16,8-9: 2x6 SP No.2	JOINTS 1 Brace at Jt(s): 17

**REACTIONS.** (size) 16=0-4-0, 9=0-4-0 (req. 0-4-8)  
 Max Horz 16=-215(LC 6)  
 Max Uplift 16=-562(LC 10), 9=-513(LC 11)  
 Max Grav 16=6541(LC 3), 9=7605(LC 3)

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-5638/563, 2-3=-3369/458, 3-4=-2367/322, 4-5=-3865/517, 5-6=-3945/540, 6-7=-5153/609, 7-8=-5728/483, 1-16=-5688/554, 8-9=-5819/475  
 BOT CHORD 15-16=-228/584, 14-15=-466/3911, 12-14=-453/3733, 11-12=-453/3737, 10-11=-281/3937, 9-10=-75/582  
 WEBS 2-15=-47/757, 6-11=-318/2662, 7-11=-560/55, 7-10=-18/784, 1-15=-331/3774, 8-10=-270/3713, 12-17=-76/439, 5-17=-960/371, 14-18=-308/2232, 3-18=-192/1109, 4-17=-244/1871, 17-18=-1494/207, 6-17=-199/473, 11-17=-503/389, 2-14=-426/78, 2-18=-1718/241

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-7-0 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 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - WARNING: Required bearing size at joint(s) 9 greater than input bearing size.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)



Job DO210811	Truss CT3GT	Truss Type Piggyback Base Girder	Qty 1	Ply 2	WALNUT GROVE Job Reference (optional)	I47426025
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:23 2021 Page 2  
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**NOTES-**

- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1475 lb down and 413 lb up at 12-6-8, and 80 lb down and 37 lb up at 22-5-4 on top chord, and 1171 lb down and 40 lb up at 2-0-12, 1163 lb down and 40 lb up at 4-0-12, 1165 lb down and 40 lb up at 6-0-12, 1492 lb down and 421 lb up at 7-10-8, 1171 lb down and 40 lb up at 14-0-12, 1170 lb down and 40 lb up at 16-0-12, 1155 lb down and 40 lb up at 18-0-12, and 1171 lb down and 40 lb up at 20-0-12, and 1178 lb down and 34 lb up at 22-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S) Standard**

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-50, 4-6=-50, 6-8=-50, 9-16=-20

Concentrated Loads (lb)

Vert: 8=-37 15=-960(B) 11=-960(B) 10=-960(B) 5=-1241 14=-1271 20=-960(B) 22=-960(B) 23=-960(B) 25=-960(B) 26=-966(B)

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/18/2020 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

ENGINEERING BY  
**TRENCO**  
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 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426026
DO210811	CT4	Common	3	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8,430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:24 2021 Page 1

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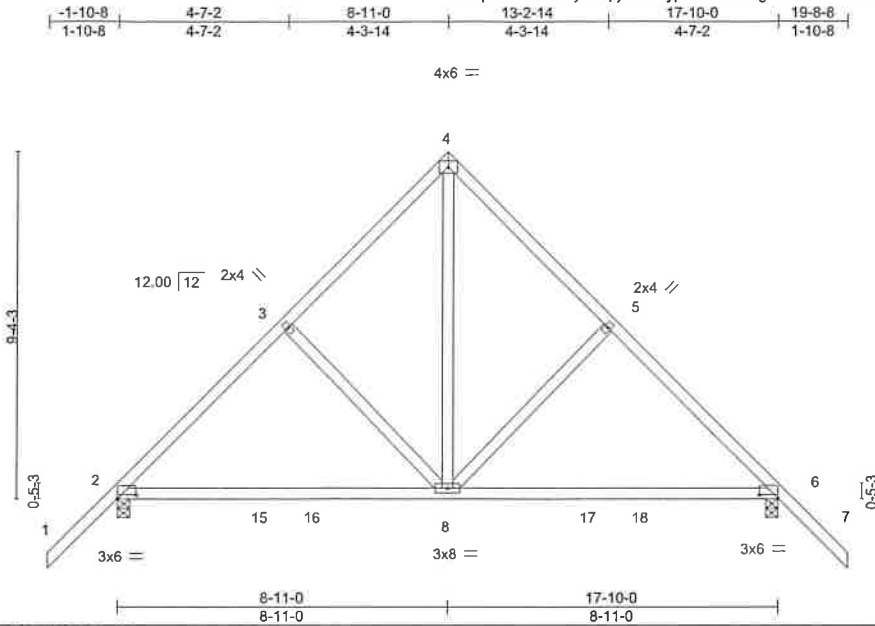


Plate Offsets (X,Y) - [2:0-6-0-0-1-2], [6:0-6-0-0-1-2]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.35	Vert(LL)	-0.11	8-11	>999	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.70	Vert(CT)	-0.22	8-14	>978		
TCDL 10.0	Lumber DOL 1.15	WB 0.20	Horz(CT)	0.01	6	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MR						
BCDL 10.0	Code IBC2015/TPI2014						Weight: 104 lb	FT = 6%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 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.**

(size) 2=0-4-0, 6=0-4-0  
 Max Horz 2=209(LC 9)  
 Max Uplift 2=-25(LC 10), 6=-25(LC 11)  
 Max Grav 2=826(LC 2), 6=826(LC 2)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=793/58, 3-4=617/96, 4-5=617/96, 5-6=793/58  
 BOT CHORD 2-8=22/599, 6-8=0/528  
 WEBS 4-8=31/529

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.



August 13, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426027
DO210811	CT4A	Common	2	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MITek Industries, Inc. Thu Aug 12 08:13:24 2021 Page 1

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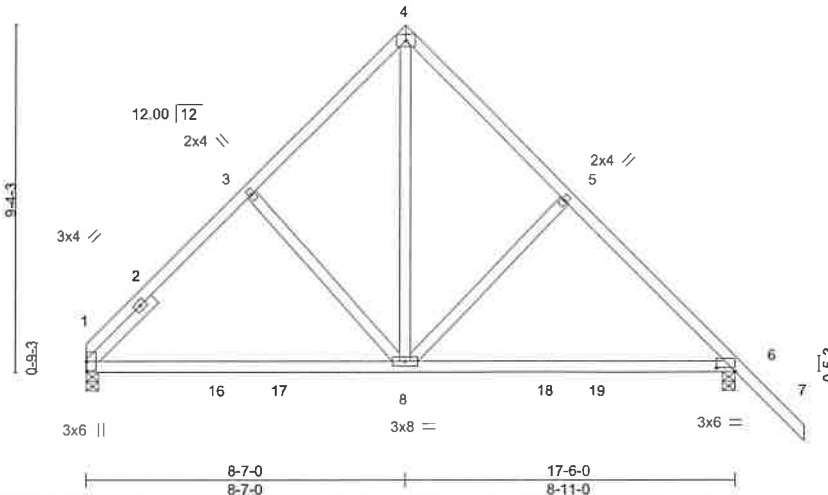


Plate Offsets (X,Y)-- [1:0-3-0,0-0-2], [6:0-6-0,0-1-2]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.35	Vert(LL) -0.11	8-15	>999	240	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.66	Vert(CT) -0.23	8-15	>904	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.20	Horz(CT) 0.01	1	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MR						
BCDL 10.0	Code IBC2015/TPI2014						Weight: 102 lb	FT = 6%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 2-6-0

**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.**

(size) 1=0-4-0, 6=0-4-0  
 Max Horz 1=-196(LC 6)  
 Max Uplift 6=-27(LC 11)  
 Max Grav 1=694(LC 2), 6=819(LC 2)

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

TOP CHORD 1-3=-678/61, 3-4=-599/100, 4-5=-606/103, 5-6=-764/65  
 BOT CHORD 1-8=-27/577, 6-8=0/523  
 WEBS 4-8=48/507

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.



August 13, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	
DO210811	CT4B	Common	1	1		147426028

Truss Builders, Inc., Morrisville, NC - 27560.

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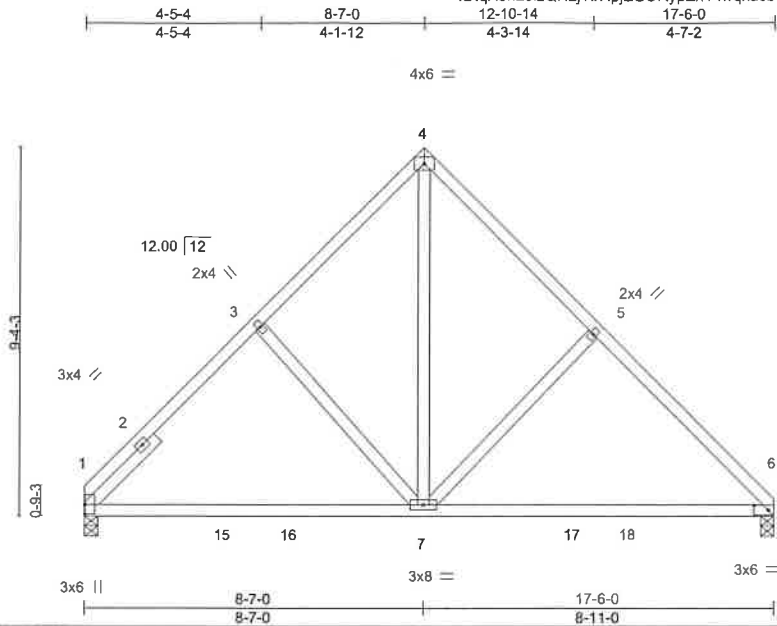


Plate Offsets (X,Y) - [1.0-3.0,0-0-2], [6.0-4.6,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.34	Vert(LL)	-0.11	7-14	>999	240	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.67	Vert(CT)	-0.24	7-14	>861	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.21	Horz(CT)	0.01	1	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MR							
BCDL 10.0	Code IBC2015/TPI2014							Weight: 98 lb	FT = 6%

**LUMBER-**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- WEBS 2x4 SP No.3
- SLIDER Left 2x4 SP No.3 2-6-0

**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.**

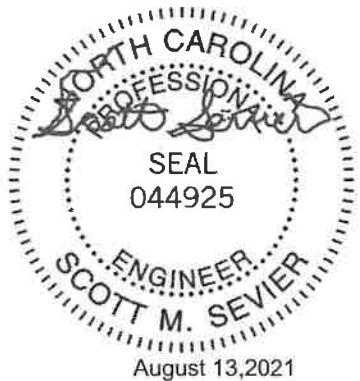
(size) 1=0-4-0, 6=0-4-0  
 Max Horz 1=-172(LC 6)  
 Max Grav 1=700(LC 2), 6=700(LC 2)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-687/68, 3-4=-608/107, 4-5=-618/106, 5-6=-776/67  
 BOT CHORD 1-7=-52/563, 6-7=0/517  
 WEBS 4-7=-52/513, 5-7=-252/156

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCCL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



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



Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426029
DO210811	CT4GE	Common Supported Gable	1	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:26 2021 Page 1  
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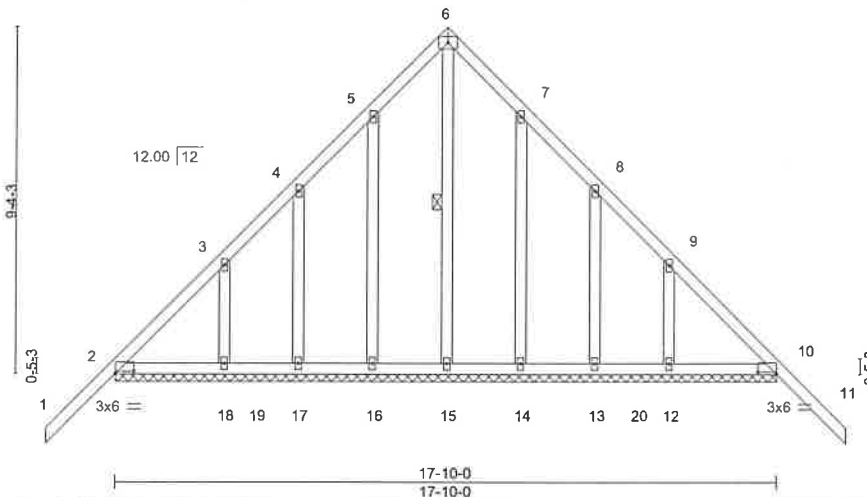
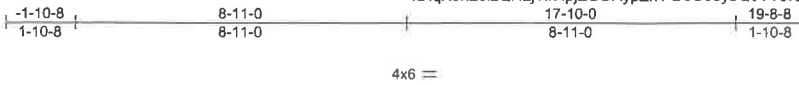


Plate Offsets (X,Y) - [2:0-6-0,0-0-10], [10:0-6-0,0-0-10]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.02	11	n/r	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.03	11	n/r		
TCDL 10.0	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	10	n/a		
BCLL 0.0 *	Code	IBC2015/TPI2014	Matrix-R						
BCDL 10.0								Weight: 128 lb	FT = 6%

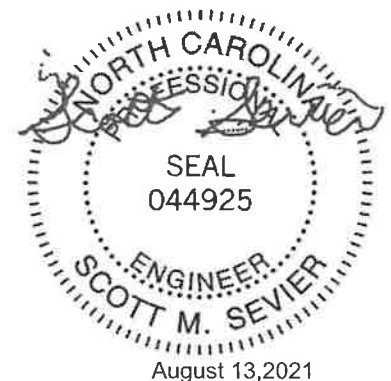
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**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.  
 WEBS 1 Row at midpt 6-15

**REACTIONS.** All bearings 17-10-0.  
 (lb) - Max Horz 2=209(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 17, 18, 14, 13, 12  
 Max Grav All reactions 250 lb or less at joint(s) 15, 16, 17, 18, 14, 13, 12 except 2=277(LC 2), 10=277(LC 2)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 3) 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.
  - 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - 6) All plates are 2x4 MT20 unless otherwise indicated.
  - 7) Gable requires continuous bottom chord bearing.
  - 8) Gable studs spaced at 2-0-0 oc.
  - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 10) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 17, 18, 14, 13, 12.
  - 12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 10.



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

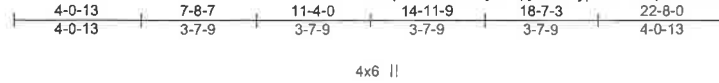


Job DO210811	Truss CT5GT	Truss Type Common Girder	Qty 1	Ply 3	WALNUT GROVE	147426031
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Truss Builders, Inc., Morrisville, NC - 27560,

8 430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:30 2021 Page 1

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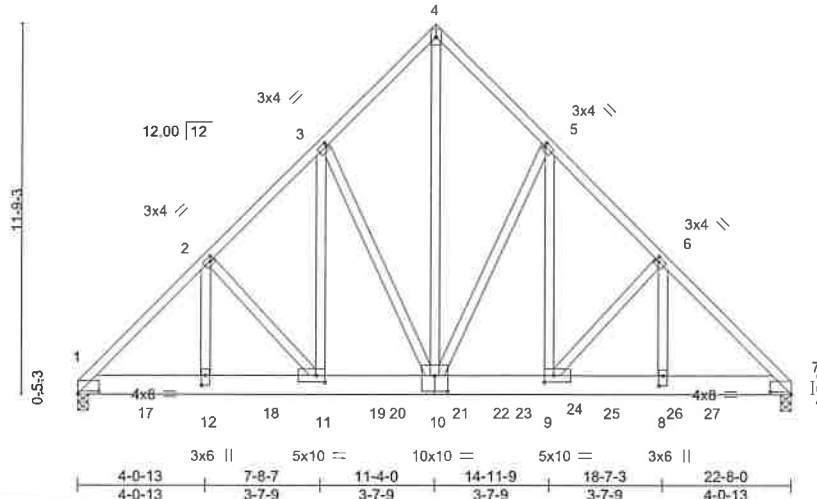


Plate Offsets (X,Y) - [1:0-8-0,0-0-15], [2:0-1-4,0-1-8], [3:0-0-12,0-1-8], [5:0-0-12,0-1-8], [6:0-1-4,0-1-8], [7:0-8-0,0-0-15], [8:0-3-12,0-1-8], [9:0-3-8,0-2-8], [10:0-5-0,0-6-0], [11:0-3-8,0-2-8], [12:0-3-12,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	1-11-4	TC 0.29	Vert(LL)	-0.09	9-10	>999	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.61	Vert(CT)	-0.17	9-10	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.62	Horz(CT)	0.04	7	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MR						
BCDL 10.0	Code IBC2015/TPI2014						Weight: 616 lb	FT = 6%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x8 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 4-10: 2x4 SP No.2

**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.** (size) 1=0-4-0, 7=0-4-0  
 Max Horz 1=213(LC 31)  
 Max Uplift 1=178(LC 10), 7=175(LC 11)  
 Max Grav 1=6849(LC 2), 7=7697(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-8970/276, 2-3=-7169/260, 3-4=-5597/230, 4-5=-5597/231, 5-6=-7364/243,  
 6-7=-9090/236  
 BOT CHORD 1-12=-253/6316, 11-12=-253/6316, 10-11=-125/5005, 9-10=-62/5142, 8-9=-120/6405,  
 7-8=-120/6405  
 WEBS 4-10=-244/7554, 5-10=-2785/262, 5-9=-177/3597, 6-9=-1878/163, 6-8=-57/2395,  
 3-10=-2466/295, 3-11=-221/3165, 2-11=-1949/190, 2-12=-96/2506

**NOTES-**

- 3-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 0-5-0 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 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=178, 7=175.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1108 lb down and 46 lb up at 2-0-12, 1108 lb down and 46 lb up at 4-0-12, 1108 lb down and 46 lb up at 6-0-12, 1286 lb down and 241 lb up at 7-10-8, 704 lb down at 10-0-12, 704 lb down at 12-0-12, 1291 lb down and 241 lb up at 12-6-8, 1101 lb down and 46 lb up at 14-0-12, 1108 lb down and 46 lb up at 16-0-12, 1108 lb down and 46 lb up at 18-0-12, and 1108 lb down and 46 lb up at 20-0-12, and 1112 lb down and 46 lb up at 22-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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 ANSIT/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job DO210811	Truss CT5GT	Truss Type Common Girder	Qty 1	Ply 3	WALNUT GROVE Job Reference (optional)	I47426031
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:30 2021 Page 2  
ID:qX5h23lzQN2jTlrHpjZGURypZh1-6tdqxJfx4kzXm5WAWCxwiOQcKnWokwLGH6m78Nyof\_3

**LOAD CASE(S) Standard**

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-48, 4-7=-48, 1-7=-19

Concentrated Loads (lb)

Vert: 11=-1122(F) 12=-961(F) 16=-964(F) 17=-961(F) 18=-961(F) 20=-614(F) 21=-614(F) 22=-1122(F) 24=-961(F) 25=-961(F) 26=-961(F) 27=-961(F)

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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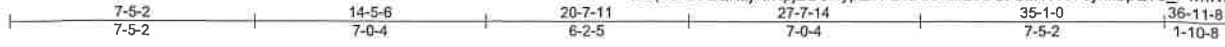


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426032
DO210811	CT6	Piggyback Base	6	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 Mitek Industries, Inc. Thu Aug 12 08:13:31 2021 Page 1  
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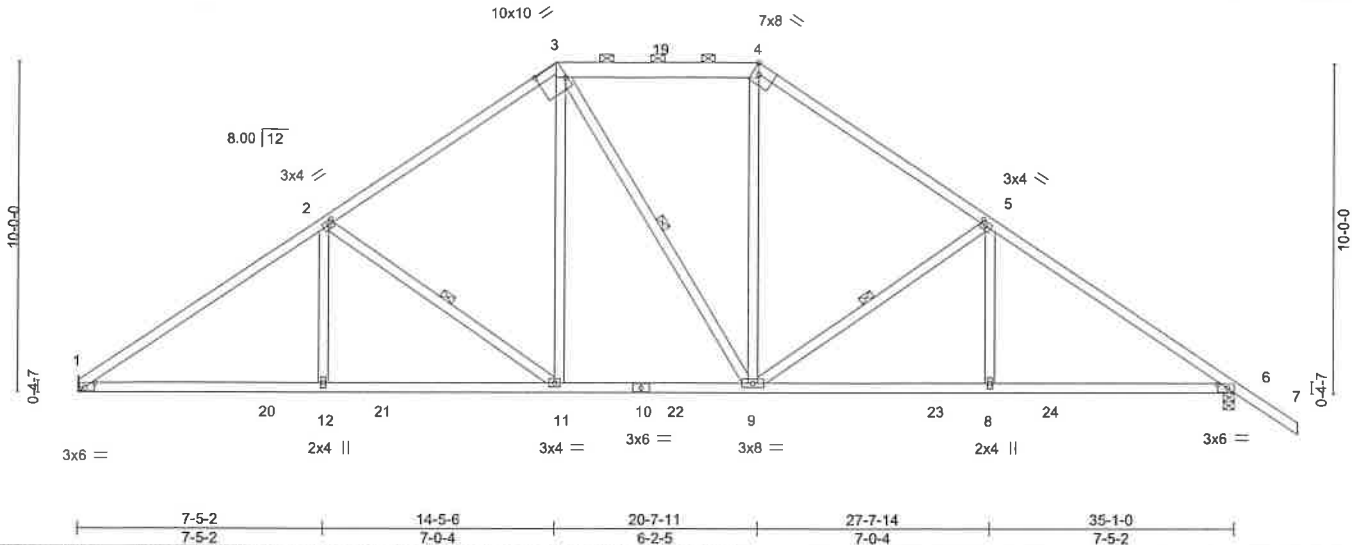


Plate Offsets (X,Y)-- [1:0-3-9,0-1-8], [2:0-1-12,0-1-8], [3:0-9-8,0-6-4], [5:0-1-12,0-1-8], [6:0-3-9,0-1-8]

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>2-0-0</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>in (loc)</b>	<b>I/defl</b>	<b>L/d</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.68	Vert(LL) -0.12	9-11	>999	240	MT20	244/190
Snow (Pf) 15.0	Lumber DOL 1.15		BC 0.77	Vert(CT) -0.22	12-15	>999	180		
TCDL 10.0	Rep Stress Incr YES		WB 0.27	Horz(CT) 0.09	6	n/a	n/a		
BCLL 0.0	Code IBC2015/TPI2014		Matrix-MR						
BCDL 10.0								Weight: 205 lb	FT = 6%

**LUMBER-**  
**TOP CHORD** 2x4 SP No.2 \*Except\*  
 3-4: 2x6 SP No.2  
**BOT CHORD** 2x4 SP No.2  
**WEBS** 2x4 SP No.3

**BRACING-**  
**TOP CHORD** Structural wood sheathing directly applied or 2-9-3 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-4.  
**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.  
**WEBS** 1 Row at midpt 2-11, 3-9, 5-9

**REACTIONS.** (size) 1=Mechanical, 6=0-4-0  
 Max Horz 1=-202(LC 8)  
 Max Uplift 1=-34(LC 10), 6=-62(LC 11)  
 Max Grav 1=1400(LC 2), 6=1519(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 1-2=-2173/70, 2-3=-1624/105, 3-4=-1257/133, 4-5=-1623/103, 5-6=-2151/62  
**BOT CHORD** 1-12=-75/1849, 11-12=-75/1849, 9-11=0/1304, 8-9=0/1712, 6-8=0/1712  
**WEBS** 2-12=0/320, 2-11=-675/146, 3-11=-3/588, 4-9=-1/545, 5-9=-654/138, 5-8=0/315

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); PF=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 13, 2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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

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

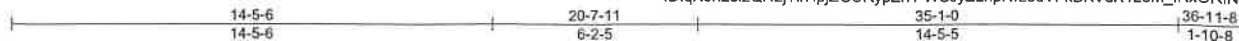


Job DO210811	Truss CT6GE	Truss Type GABLE	Qty 1	Ply 1	WALNUT GROVE	147426033
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Truss Builders, Inc., Morrisville, NC - 27560,

8,430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:33 2021 Page 1

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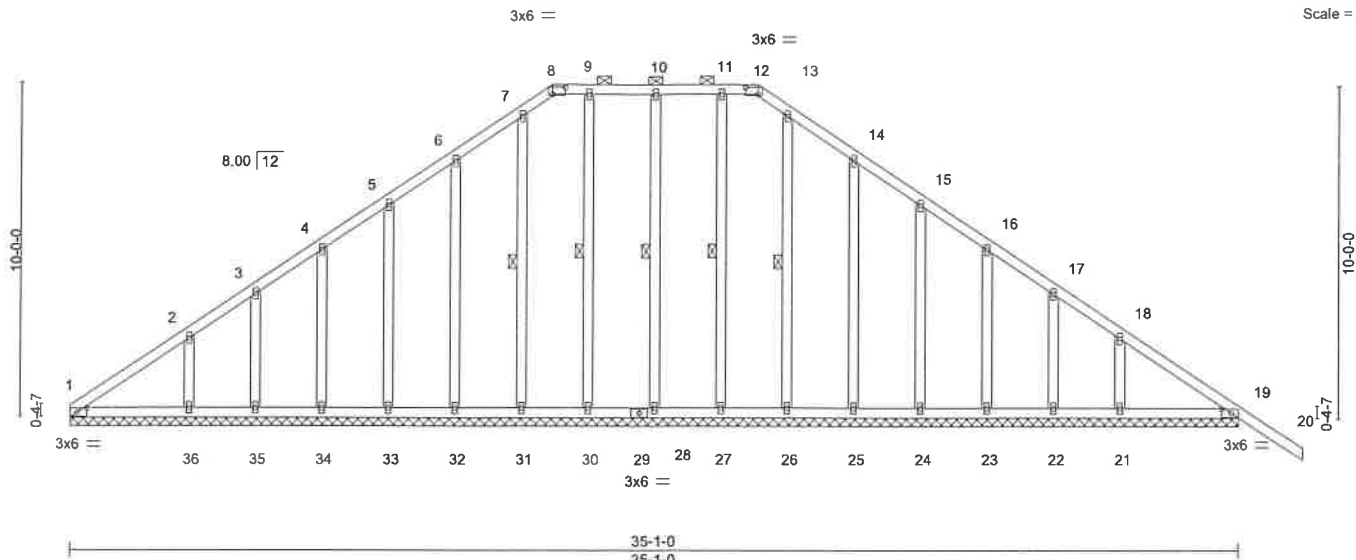


Plate Offsets (X,Y)- [1:0-3-9,0-1-8], [8:0-4-8,0-2-8], [12:0-4-8,0-2-8], [13:0-0-0,0-0-0], [14:0-0-0,0-0-0], [15:0-0-0,0-0-0], [16:0-0-0,0-0-0], [17:0-0-0,0-0-0], [18:0-0-0,0-0-0], [19:0-3-9,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.34	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) -0.02 20 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.02 20 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.01 19 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 257 lb	FT = 6%

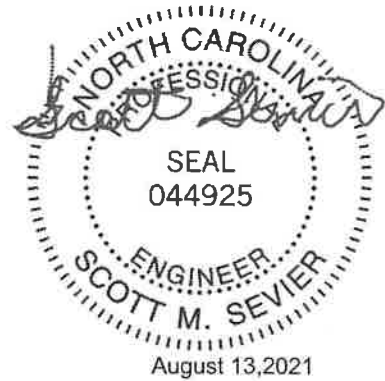
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.); 8-12.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 10-28, 9-30, 7-31, 11-27, 13-26

**REACTIONS.** All bearings 35-1-0.  
 (lb) - Max Horz 1=203(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 28, 30, 32, 33, 34, 35, 36, 27, 25, 24, 23, 22, 21  
 Max Grav All reactions 250 lb or less at joint(s) 1, 28, 30, 31, 32, 33, 34, 35, 27, 26, 25, 24, 23, 22, 21 except 36=293(LC 22), 19=281(LC 2)

**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=115mph Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 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.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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 where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 28, 30, 32, 33, 34, 35, 36, 27, 25, 24, 23, 22, 21.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



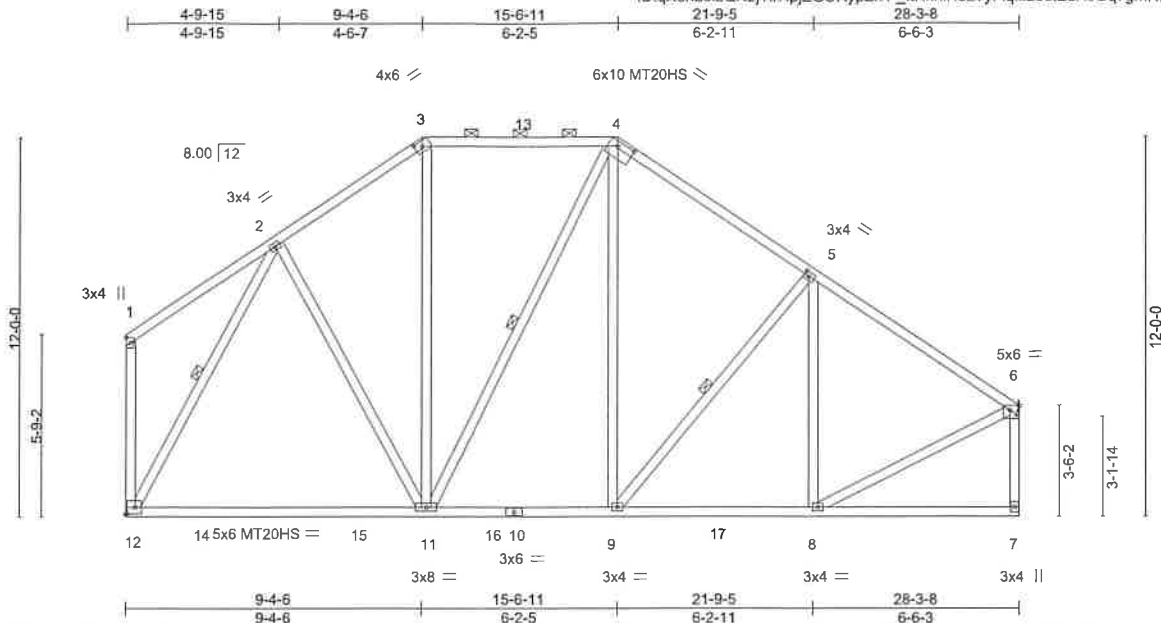
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
 Design valid for use only with MITTEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	
DO210811	CT7	Piggyback Base	8	1		147426034

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:34 2021 Page 1  
ID:qX5h23izQN2jTirHpjZGURypZh1- flKnhIR8zTyFiqxl20stEaA6Oq7gmNrokkDH8yof\_7



Scale = 1:69.5

Plate Offsets (X,Y)- [1:Edge,0-1-12], [3:0-2-12,0-2-0], [4:0-6-8,0-1-12], [5:0-1-12,0-1-8], [6:Edge,0-1-12], [12:Edge,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.75	Vert(LL) -0.27	11-12	>999	240	MT20	244/190
Snow (Pf) 15.0	Lumber DOL 1.15		BC 0.84	Vert(CT) -0.45	11-12	>752	180	MT20HS	187/143
TCDL 10.0	Rep Stress Incr YES		WB 0.49	Horz(CT) 0.01	6	n/a	n/a		
BCLL 0.0	Code IBC2015/TPI2014		Matrix-MR						
BCDL 10.0								Weight: 220 lb	FT = 6%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 4-11,1-12: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-3-2 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 4-11, 5-9, 2-12

**REACTIONS.** (size) 6=Mechanical, 12=Mechanical  
 Max Horz 12=279(LC 6)  
 Max Uplift 6=27(LC 11), 12=20(LC 10)  
 Max Grav 6=1127(LC 3), 12=1191(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-852/114, 3-4=-662/112, 4-5=-954/127, 5-6=-1047/59  
 BOT CHORD 11-12=-118/633, 9-11=-1739, 8-9=-5/801  
 WEBS 2-11=-54/328, 4-9=-31/362, 2-12=-977/47, 6-8=0/837

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCCL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - 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 1-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 12.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



August 13, 2021

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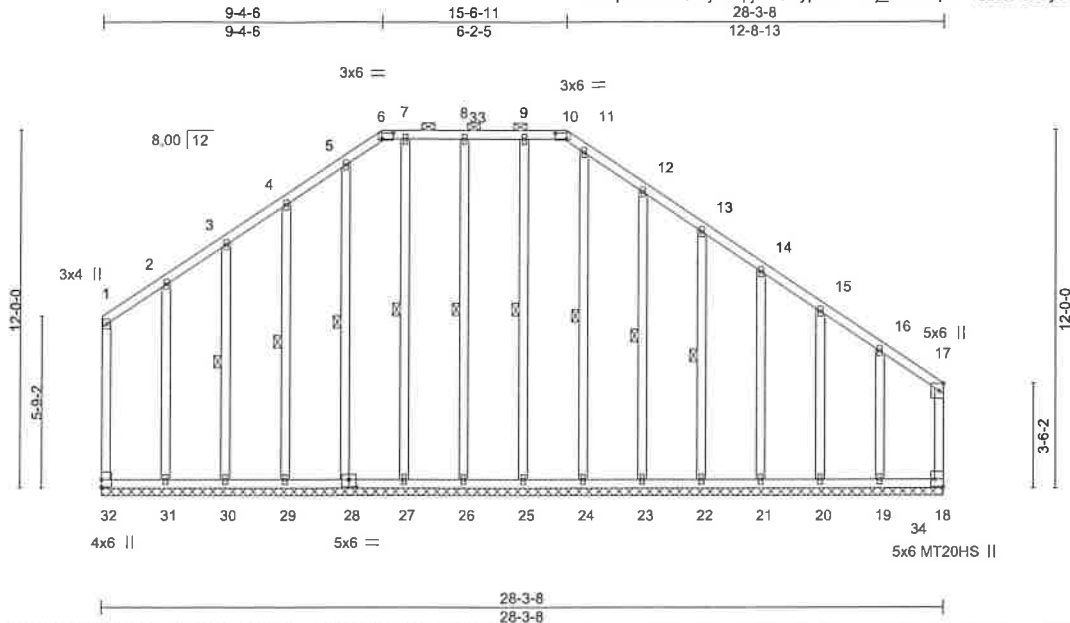
ENGINEERING BY  
**TRENCO**  
 A MiTek Alliance  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	47426035
DO210811	CT7GE	GABLE COMMON	1	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:35 2021 Page 1

ID:qX5h23lzQN2jTlrHpjZGURypZh1-TrRj\_113vGbpsP7JIX5PS7LyoE\_Plm?qOTmpayof



Scale = 1:73.7

Plate Offsets (X,Y)-- [6:0-4-8,0-2-8], [10:0-4-8,0-2-8], [18:Edge,0-3-8], [28:0-3-0,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	n/a	-	n/a	MT20HS	187/143
TCDL 10.0	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.01	18	n/a		
BCLL 0.0 *	Code IBC2015/TPI2014		Matrix-R						
BCDL 10.0								Weight: 275 lb	FT = 6%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
1-32: 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**  
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.): 6-10.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 9-25, 8-26, 7-27, 5-28, 4-29, 3-30, 11-24, 12-23, 13-22

**REACTIONS.** All bearings 28-3-8.  
(lb) - Max Horz 32--279(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 25, 26, 27, 29, 30, 24, 23, 22, 21, 20 except 32--146(LC 6), 18--365(LC 7), 31--181(LC 7), 19--443(LC 6)  
Max Grav All reactions 250 lb or less at joint(s) 32, 28, 25, 26, 27, 29, 30, 24, 23, 22, 21 except 18=460(LC 8), 31=384(LC 21), 20=257(LC 21), 19=539(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 16-17--273/236, 17-18--265/211  
WEBS 16-19--267/226

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 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.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 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 where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 26, 27, 29, 30, 24, 23, 22, 21, 20 except (jt=lb) 32=146, 18=365, 31=181, 19=443.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 13, 2021

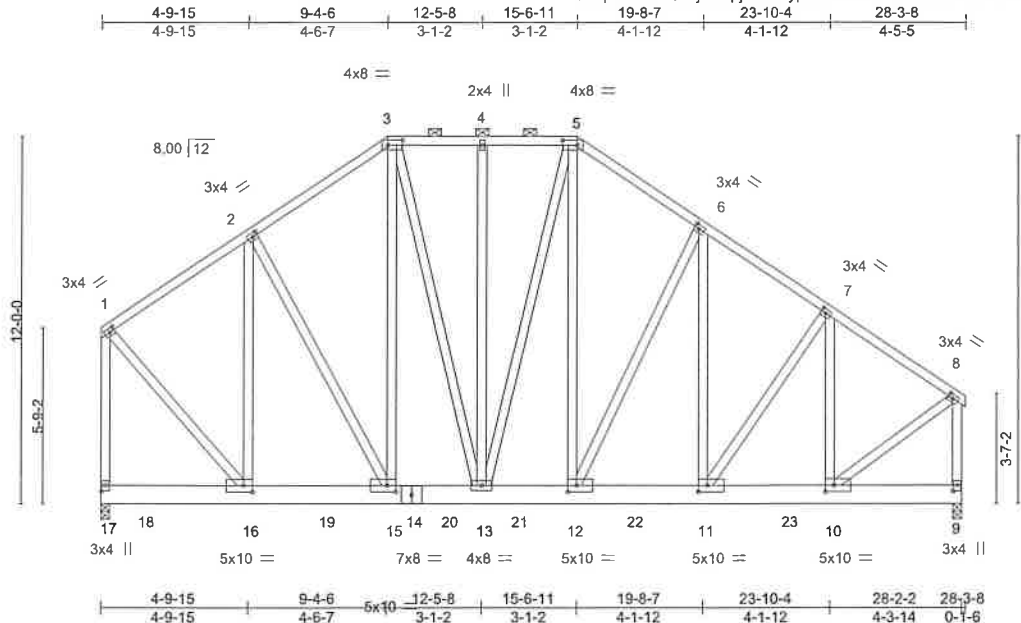
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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

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

Job DO210811	Truss CT7GT	Truss Type Piggyback Base Girder	Qty 2	Ply 2	WALNUT GROVE	147426036
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:37 2021 Page 1  
ID:qX5h23lzQN2jTlrHjZGURypZh1-PEYTPikKRurX6AZWQAZVICpbj1NtB8IlytTyoezy



Scale = 1:71.7

Plate Offsets (X,Y)- [1:0-1-12,0-1-8], [2:0-1-12,0-1-8], [3:0-5-12,0-2-0], [5:0-5-12,0-2-0], [6:0-1-12,0-1-8], [7:0-1-12,0-1-8], [8:0-1-12,0-1-8], [9:0-2-4,0-1-8], [10:0-3-8,0-2-8], [11:0-3-8,0-2-8], [12:0-3-8,0-2-8], [15:0-3-8,0-2-8], [16:0-3-8,0-2-8], [17:0-2-4,0-1-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.21	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.10	Vert(LL) -0.02 15 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.23	Vert(CT) -0.03 15 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MR	Horz(CT) 0.01 9 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 637 lb	FT = 6%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
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.): 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 17=0-3-8, 9=0-3-8  
Max Horz 17=274(LC 6)  
Max Uplift 17=401(LC 10), 9=220(LC 11)  
Max Grav 17=1623(LC 45), 9=1367(LC 45)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=1060/325, 2-3=1274/478, 3-4=1006/391, 4-5=1006/391, 5-6=1202/390, 6-7=1275/318, 7-8=1104/204, 1-17=1553/416, 8-9=1315/231  
BOT CHORD 15-16=319/938, 13-15=362/1091, 12-13=211/996, 11-12=160/1021, 10-11=152/854  
WEBS 2-16=734/277, 2-15=265/443, 3-15=385/536, 3-13=273/375, 5-13=339/330, 5-12=135/405, 6-12=321/198, 7-11=125/294, 7-10=526/156, 1-16=303/1217, 8-10=150/1028

- 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 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - 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 1-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (j=t=) 17=401, 9=220.
  - 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) 762 lb down and 583 lb up at 9-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



**LOAD CASE(S) Standard**

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	47426036
DO210811	CT7GT	Piggyback Base Girder	2	2	Job Reference (optional)	

Truss Builders, Inc., Morrisville, NC - 27560.

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:37 2021 Page 2  
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**LOAD CASE(S)** Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-50, 3-5=-50, 5-8=-50, 9-17=-20

Concentrated Loads (lb)

Vert: 15=-474(F)

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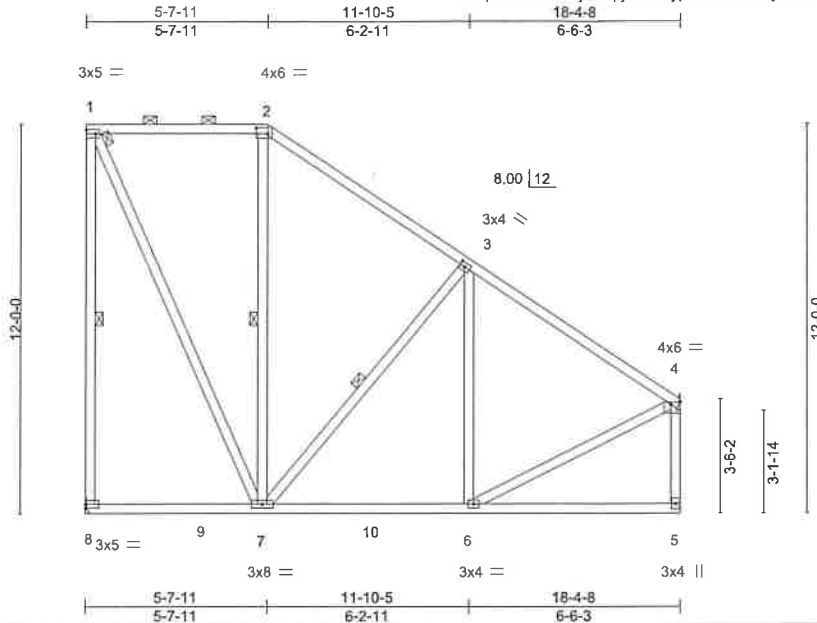


818 Soundside Road  
 Edenton, NC 27832

Job DO210811	Truss CT7S	Truss Type Piggyback Base	Qty 2	Ply 1	WALNUT GROVE Job Reference (optional)	147426037
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Truss Builders, Inc., Morrisville, NC - 27560,

8,430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:38 2021 Page 1  
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Scale = 1:67.7

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [2:0-4-4,0-2-4], [3:0-1-12,0-1-8], [4:Edge,0-0-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.89	Vert(LL)	-0.07	7-8	>999	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.47	Vert(CT)	-0.08	7-8	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.31	Horz(CT)	0.01	4	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-MR						
BCDL 10.0	Code IBC2015/TPI2014						Weight: 151 lb	FT = 6%

**LUMBER-**

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

**BRACING-**

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.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 1-8, 2-7, 3-7

**REACTIONS.**

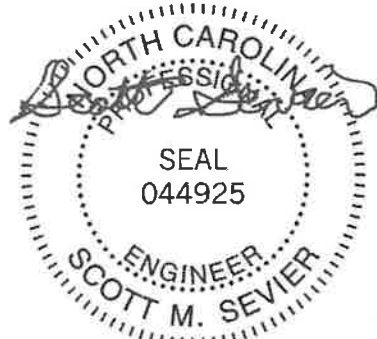
(size) 8=Mechanical, 4=Mechanical  
Max Horz 8=-342(LC 6)  
Max Uplift 8=-111(LC 6)  
Max Grav 8=783(LC 22), 4=723(LC 2)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-8=674/109, 1-2=-283/116, 2-3=-448/94, 3-4=-633/30  
BOT CHORD 7-8=-203/268, 6-7=0/486  
WEBS 1-7=-99/659, 3-7=-373/135, 4-6=0/483

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (t=lb) 8=111.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



August 13, 2021

**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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



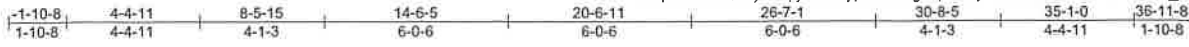
818 Soundside Road  
Edenton, NC 27932

Job DO210811	Truss CT8	Truss Type PIGGYBACK BASE	Qty 4	Ply 1	WALNUT GROVE	147426038
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:39 2021 Page 1

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Scale = 1:71.9

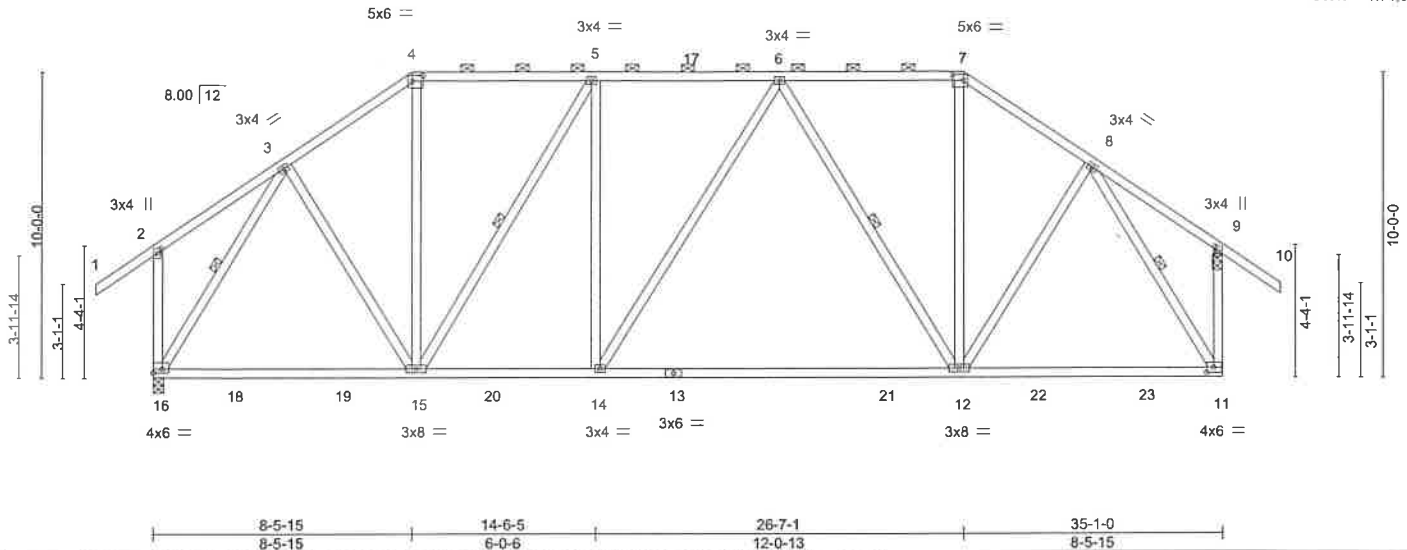


Plate Offsets (X,Y) - [2:0-2-0,0-1-4], [4:0-4-4,0-2-4], [7:0-4-4,0-2-4], [9:0-2-0,0-1-4], [11:0-2-12,0-2-0], [16:Edge,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	TC	Vert(LL)	-0.57	12-14	>739	240	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	BC	Vert(CT)	-0.92	12-14	>451	180		
TCDL	10.0	Rep Stress Incr	WB	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014	Matrix-MR							
BCDL	10.0								Weight: 265 lb	FT = 6%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.1D  
 WEBS 2x4 SP No.3 \*Except\*  
 2-16,9-11: 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-11-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-13 max.): 4-7.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 2-2-0 oc bracing: 12-14.  
 WEBS 1 Row at midpt 5-15, 6-12, 3-16, 8-11

**REACTIONS.**

(size) 2=0-4-0, 9=0-4-0  
 Max Horz 2=-251(LC 8)  
 Max Uplift 2=-69(LC 10), 9=-69(LC 11)  
 Max Grav 2=1578(LC 3), 9=1585(LC 3)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-329/243, 3-4=-1242/130, 4-5=-999/138, 5-6=-1357/115, 6-7=-1038/124,  
 7-8=-1290/112, 2-16=-79/1300, 9-11=0/1335  
 BOT CHORD 15-16=-34/758, 14-15=-54/1357, 12-14=-62/1290, 11-12=-20/779  
 WEBS 3-15=-29/471, 4-15=-9/403, 5-15=-728/66, 5-14=0/335, 6-12=-546/123, 7-12=0/429,  
 8-12=-36/506, 3-16=-1349/155, 8-11=-1448/15

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 9.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



August 13, 2021

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MH-7473 rev. 6/19/2020 BEFORE USE.  
 Design valid for use only with MITTEK 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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426039
DO210811	CT8A	PIGGYBACK BASE	2	1	Job Reference (optional)	

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 Mitek Industries, Inc. Thu Aug 12 08:13:40 2021 Page 1  
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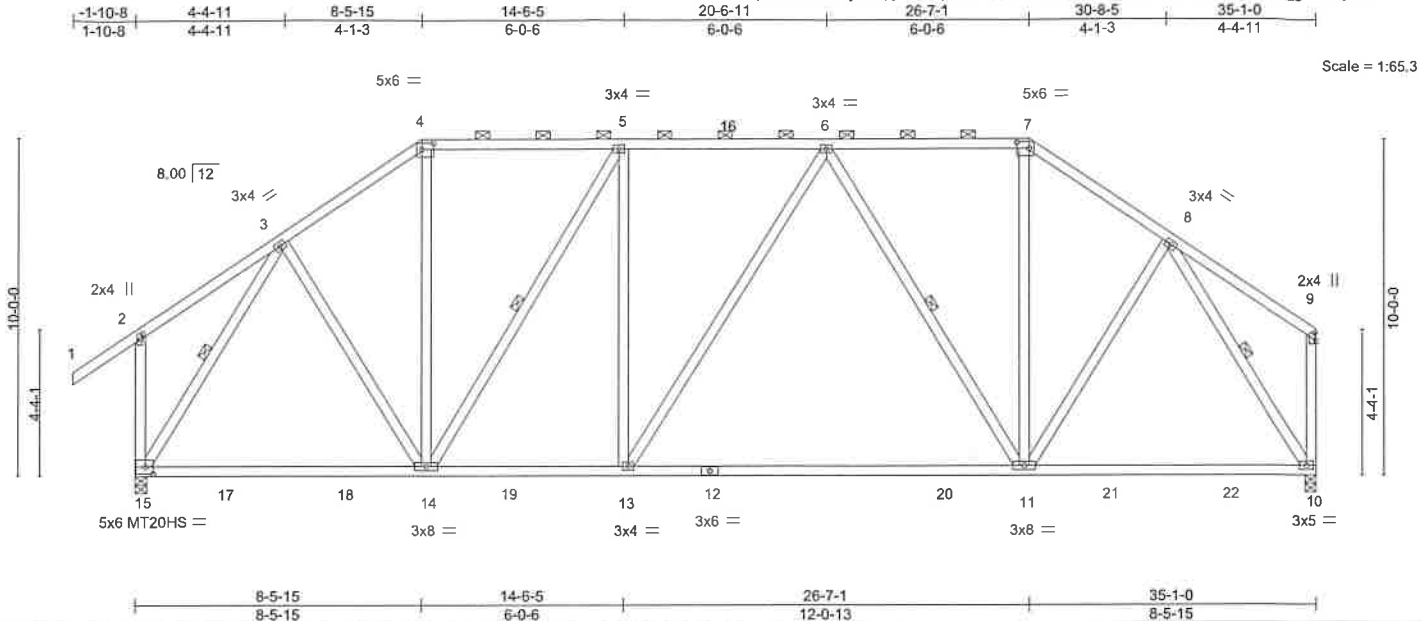


Plate Offsets (X,Y)-	[2:0-2-0,0-0-12], [4:0-4-4,0-2-4], [7:0-4-4,0-2-4], [9:0-2-15,0-0-8], [15:0-2-12,0-2-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.94	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.99	Vert(LL) -0.56 11-13 >742 240	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.53	Vert(CT) -0.92 11-13 >454 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MR	Horz(CT) 0.05 10 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 262 lb	FT = 6%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-11-2 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-11 max.): 4-7.
BOT CHORD 2x4 SP No.1D	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
WEBS 2x4 SP No.3	WEBS 2-2-0 oc bracing: 11-13.
	1 Row at midpt 5-14, 6-11, 3-15, 8-10

**REACTIONS.** (size) 15=0-4-0, 10=0-4-0  
 Max Horz 15=242(LC 7)  
 Max Uplift 15=69(LC 10), 10=45(LC 11)  
 Max Grav 15=1581(LC 3), 10=1481(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=1246/123, 4-5=1002/133, 5-6=1361/109, 6-7=1046/118, 7-8=1301/106, 2-15=331/86  
 BOT CHORD 14-15=166/804, 13-14=120/1361, 11-13=111/1296, 10-11=45/795  
 WEBS 3-14=56/472, 4-14=0/403, 5-14=732/96, 5-13=0/336, 6-11=545/156, 7-11=0/434, 8-11=54/499, 3-15=1361/39, 8-10=1455/48

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 10.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426040
DO210811	CT8GE	GABLE	1	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:42 2021 Page 1  
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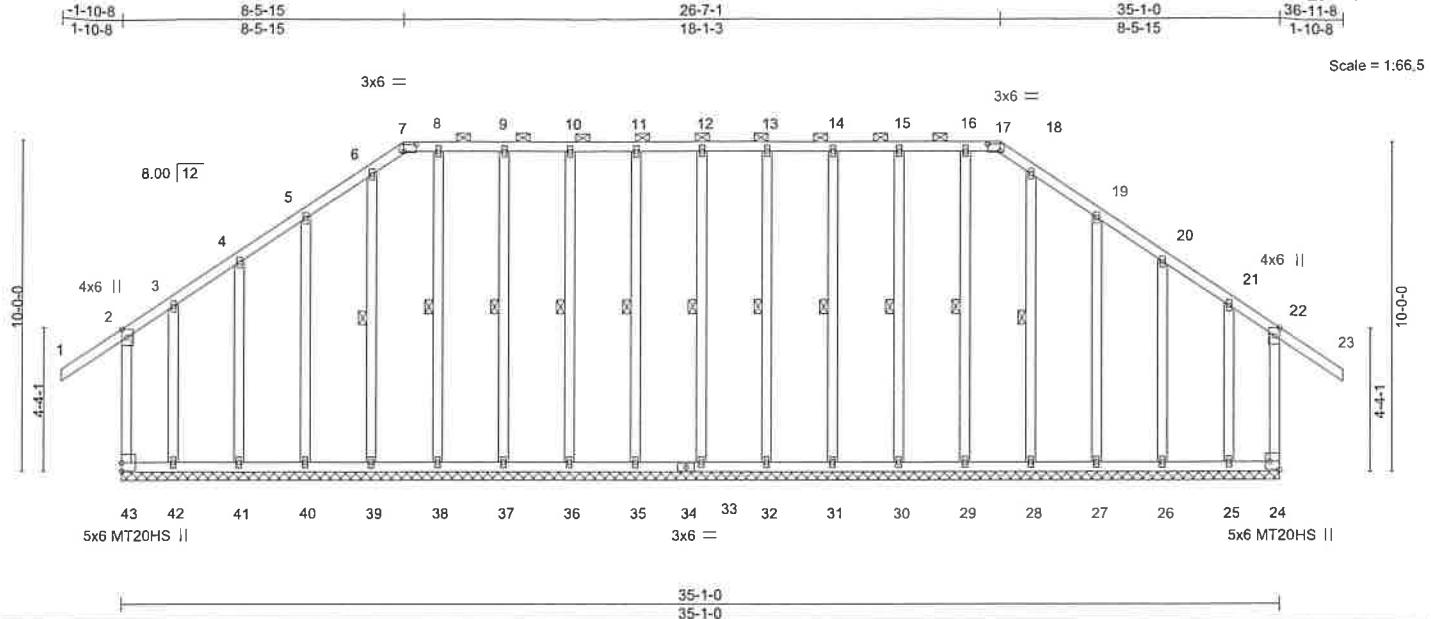


Plate Offsets (X,Y) - [2:0-3-0,Edge], [7:0-4-8,0-2-8], [17:0-4-8,0-2-8], [22:0-3-0,Edge], [24:Edge,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 1.00	Vert(LL)	-0.03 23	n/r	120	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	-0.05 22-23	n/r	120	MT20HS	187/143
TCDL 10.0	Rep Stress Incr	YES	WB 0.14	Horz(CT)	-0.01 24	n/a	n/a		
BCLL 0.0 *	Code IBC2015/TPI2014		Matrix-R						
BCDL 10.0								Weight: 335 lb	FT = 6%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 7-17.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 12-33, 11-35, 10-36, 9-37, 8-38, 6-39, 13-32, 14-31, 15-30, 16-29, 18-28

**REACTIONS.**

All bearings 35-1-0.  
 (lb) - Max Horz 43=251(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 33, 35, 36, 37, 40, 41, 32, 31, 30, 27, 26 except 43=328(LC 6), 24=-317(LC 7), 42=-350(LC 7), 25=-339(LC 6)  
 Max Grav All reactions 250 lb or less at joint(s) 33, 35, 36, 37, 38, 39, 40, 41, 32, 31, 30, 29, 28, 27, 26 except 43=440(LC 23), 24=431(LC 22), 42=456(LC 8), 25=444(LC 9)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-43=284/161, 22-24=279/155

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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 where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 35, 36, 37, 40, 41, 32, 31, 30, 27, 26 except (jt=lb) 43=328, 24=317, 42=350, 25=339.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 13, 2021

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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

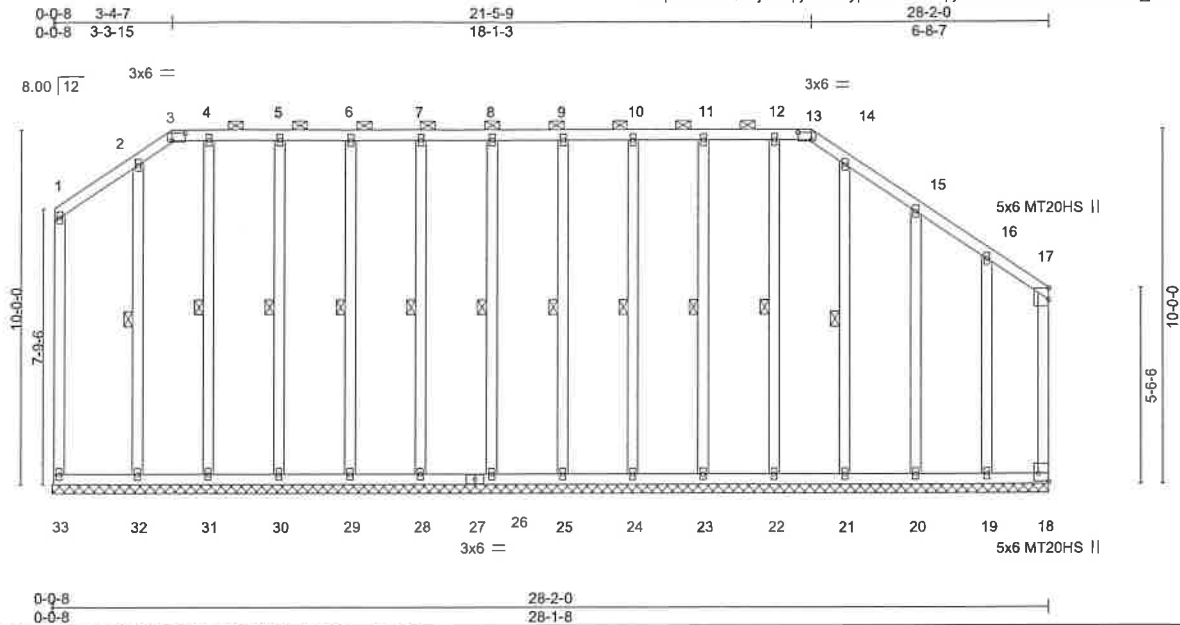


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	
DO210811	CT8S	GABLE	1	1		147426041
					Job Reference (optional)	

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MITek Industries, Inc. Thu Aug 12 08:13:44 2021 Page 1  
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Plate Offsets (X,Y) -- [3:0-4-8,0-2-8], [13:0-4-8,0-2-8], [18:Edge,0-3-8]

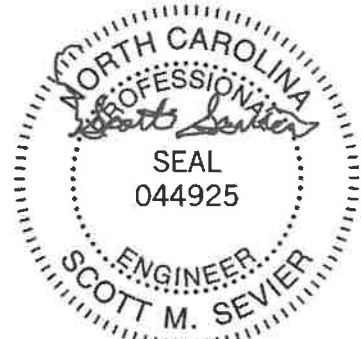
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.68	Vert(LL) n/a	-	n/a	999	MT20	244/190
Snow (Pf) 15.0	Lumber DOL 1.15		BC 0.74	Vert(CT) n/a	-	n/a	999	MT20HS	187/143
TCDL 10.0	Rep Stress Incr YES		WB 0.24	Horz(CT) -0.01	18	n/a	n/a		
BCLL 0.0 *	Code IBC2015/TPI2014		Matrix-R						
BCDL 10.0								Weight: 278 lb	FT = 6%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 3-13.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-7-14 oc bracing.
WEBS 2x4 SP No.1D *Except*	WEBS 1 Row at midpt 8-26, 7-28, 6-29, 5-30, 4-31, 2-32, 9-25, 10-24, 11-23, 12-22, 14-21
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 28-2-0.  
 (lb) - Max Horz 33=178(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 33, 26, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20 except 18=501(LC 9), 19=580(LC 6)  
 Max Grav All reactions 250 lb or less at joint(s) 33, 26, 28, 29, 30, 31, 25, 24, 23, 22, 21, 20 except 18=546(LC 6), 32=257(LC 21), 19=687(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 17-18=256/224  
 WEBS 16-19=301/266

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 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.
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 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 where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 26, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20 except (jt=lb) 18=501, 19=580.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 13, 2021

<p><b>WARNING</b> - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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</p>	<p>ENGINEERING BY  <b>TRENCO</b>          A MITek Affiliate          818 Soundside Road          Edenonton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426042
DO210811	CT9	Piggyback Base	4	1		

Truss Builders, Inc., Morrisville, NC - 27560, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:46 2021 Page 1  
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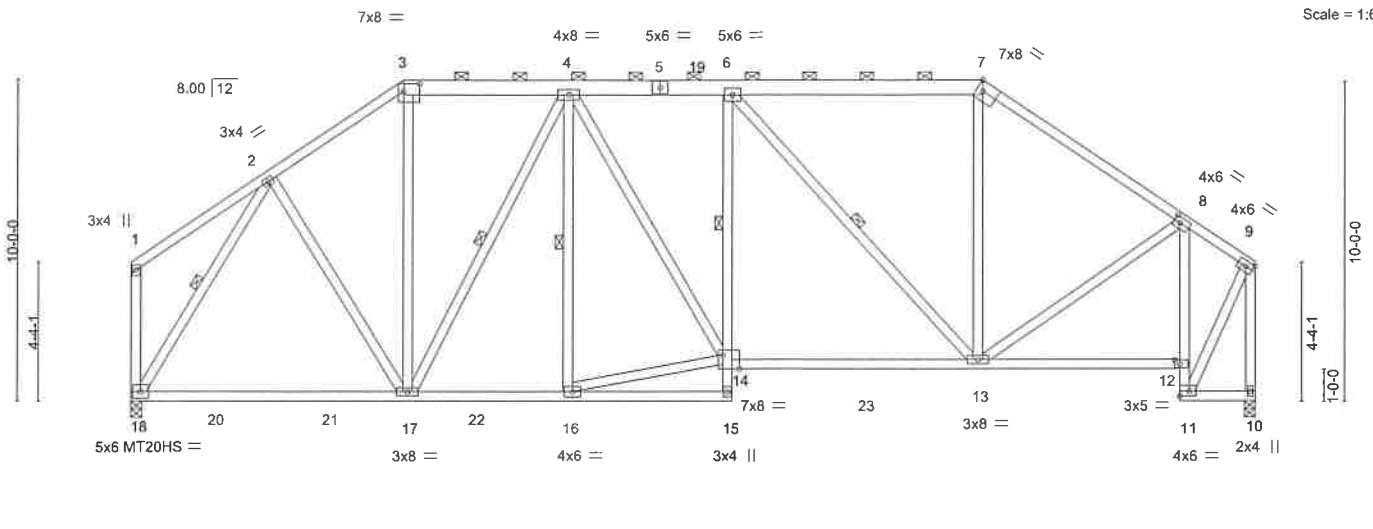


Plate Offsets (X,Y)--	[3:0-6-0,0-2-14], [8:0-2-4,0-2-0], [11:Edge,0-1-12], [12:0-2-0,0-1-8], [14:0-6-4,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.92	Vert(LL)	-0.16 17-18	>999	240	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.73	Vert(CT)	-0.28 17-18	>999	180	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.54	Horz(CT)	0.13 10	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-MR						
BCDL 10.0	Code IBC2015/TPI2014						Weight: 292 lb	FT = 6%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 3-5,5-7: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-5-11 oc purlins, except end verticals, and 2-0-0 oc purlins (5-11-2 max.): 3-7.
BOT CHORD 2x4 SP No.2 *Except* 6-15: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16 5-0-4 oc bracing: 11-12.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-14 1 Row at midpt 4-17, 4-16, 6-13, 2-18

**REACTIONS.** (size) 10=0-4-0, 18=0-4-0  
 Max Horz 18=224(LC 6)  
 Max Uplift 10=44(LC 11), 18=44(LC 10)  
 Max Grav 10=1392(LC 2), 18=1421(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1206/113, 3-4=-968/122, 4-6=-1479/95, 6-7=-1071/130, 7-8=-1375/102,  
 8-9=-682/22, 9-10=-1493/55  
 BOT CHORD 17-18=-158/788, 16-17=-125/1224, 13-14=-127/1495, 12-13=-56/617, 11-12=-918/70,  
 8-12=-883/104  
 WEBS 2-17=-52/437, 3-17=0/409, 4-17=-627/122, 14-16=-97/1308, 4-14=-54/518,  
 6-13=-702/134, 7-13=0/389, 8-13=-68/568, 2-18=-1337/70, 9-11=-62/1184

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); PF=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 18.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job DO210811	Truss CT9A	Truss Type Piggyback Base	Qty 4	Ply 1	WALNUT GROVE	147426043
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:47 2021 Page 1  
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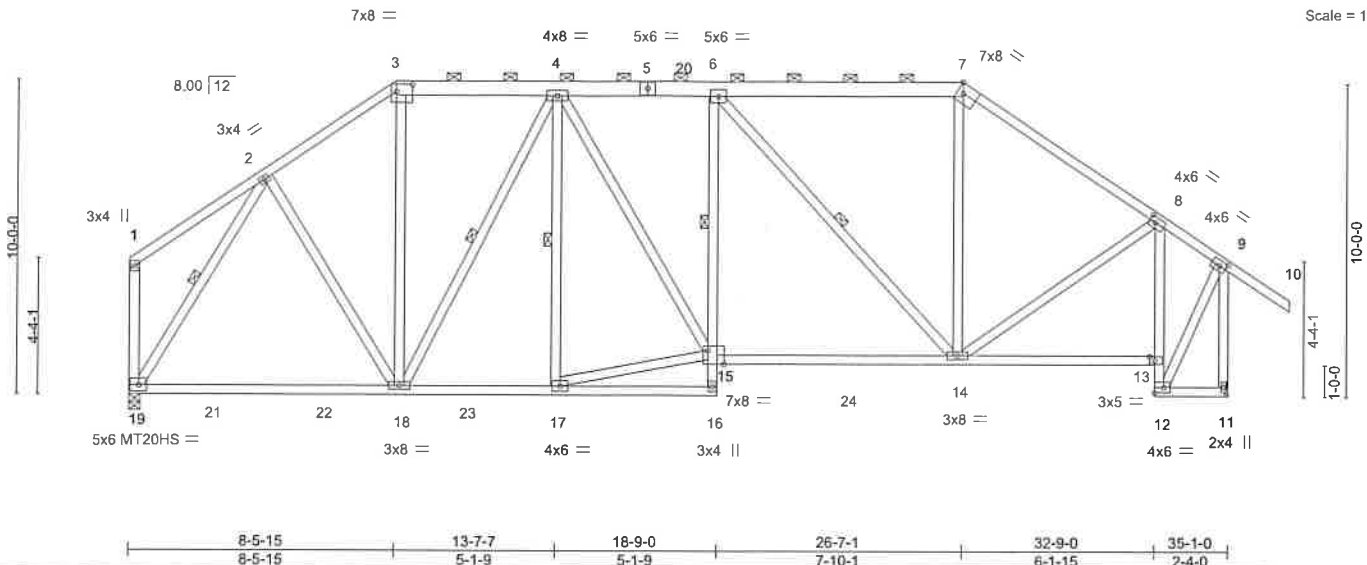


Plate Offsets (X, Y) - [3:0-6-0,0-2-14], [8:0-2-4,0-2-0], [9:0-2-14,0-2-0], [12:Edge,0-2-0], [13:0-2-0,0-1-8], [15:0-6-4,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.92	Vert(LL)	-0.16 18-19	>999	240	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.28 18-19	>999	180	MT20HS	187/143
TCDL 10.0	Rep Stress Incr	YES	WB 0.54	Horz(CT)	0.13 11	n/a	n/a		
BCLL 0.0 *	Code	IBC2015/TPI2014	Matrix-MR						
BCDL 10.0								Weight: 295 lb	FT = 6%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 3-5,5-7: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-5-13 oc purlins, except end verticals, and 2-0-0 oc purlins (5-11-5 max.): 3-7.
BOT CHORD 2x4 SP No.2 *Except* 6-16: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 5-2-0 oc bracing. Except: 1 Row at midpt 6-15
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-18, 4-17, 6-14, 2-19

**REACTIONS.** (size) 11=Mechanical, 19=0-4-0  
Max Horz 19=241(LC 6)  
Max Uplift 11=-69(LC 11), 19=-45(LC 10)  
Max Grav 11=1516(LC 2), 19=1418(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1203/115, 3-4=-966/123, 4-6=-1473/96, 6-7=-1060/134, 7-8=-1362/106,  
8-9=-676/42, 9-11=-1618/78  
BOT CHORD 18-19=-148/799, 17-18=-117/1220, 14-15=-117/1489, 13-14=-33/591, 12-13=-894/40,  
8-13=-857/74  
WEBS 2-18=-53/436, 3-18=0/407, 4-18=-623/124, 15-17=-88/1305, 4-15=-49/513,  
6-14=-703/132, 7-14=0/386, 8-14=-62/580, 2-19=-1333/72, 9-12=-27/1157

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - 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 1-0-0 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 100 lb uplift at joint(s) 11, 19.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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**ENGINEERING BY**  
**TRENCO**  
A MITEK AFFILIATE  
818 Soundside Road  
Edenton, NC 27932

Job DO210811	Truss CT9B	Truss Type Piggyback Base	Qty 1	Ply 1	WALNUT GROVE	147426044
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:48 2021 Page 1

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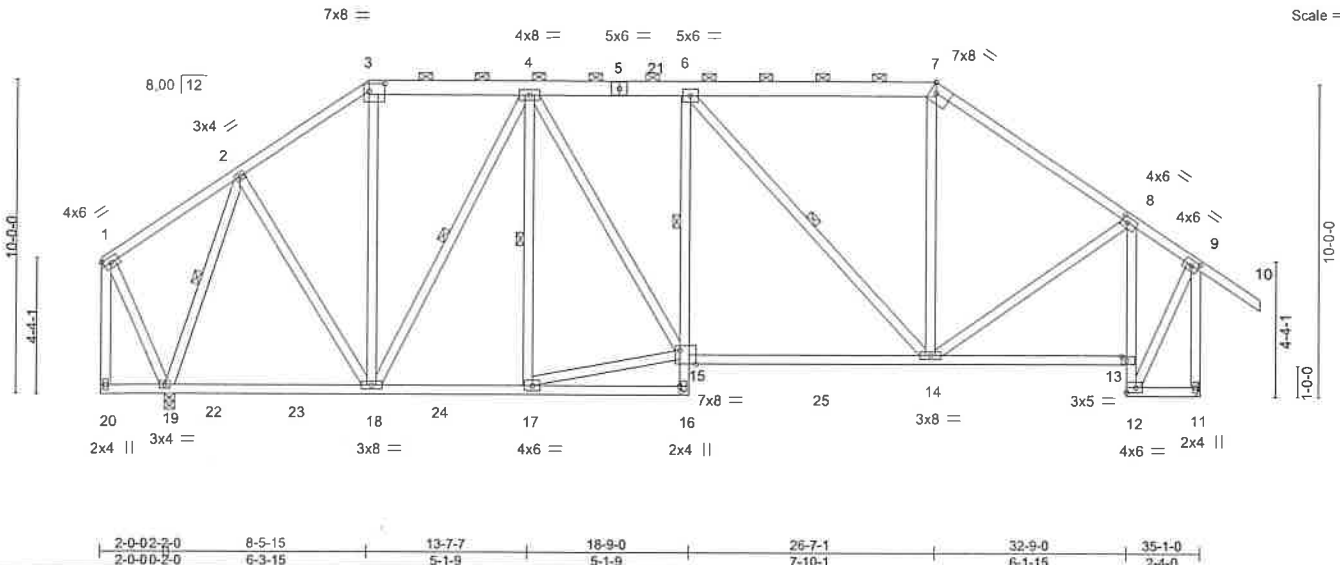


Plate Offsets (X,Y)- [3:0-6-0,0-2-14], [8:0-2-4,0-2-0], [9:0-2-14,0-2-0], [12:Edge,0-2-0], [13:0-2-0,0-1-8], [15:0-6-4,Edge], [16:0-2-0,0-0-8]

LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.12 14-15 >999 240	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.23 14-15 >999 180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.11 11 n/a n/a		
BCLL	0.0	Code IBC2015/TPI2014		Matrix-MR					
BCDL	10.0							Weight: 301 lb	FT = 6%

**LUMBER-**

TOP CHORD 2x4 SP No.2 \*Except\*  
3-5,5-7: 2x6 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
6-16: 2x4 SP No.3  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-8-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-7.  
BOT CHORD Rigid ceiling directly applied or 5-5-5 oc bracing. Except:  
1 Row at midpt 6-15  
WEBS 1 Row at midpt 2-19, 4-18, 4-17, 6-14

**REACTIONS.**

(size) 11=Mechanical, 19=0-4-0  
Max Horz 19=241(LC 6)  
Max Uplift 11=-72(LC 11), 19=-48(LC 10)  
Max Grav 11=1433(LC 2), 19=1477(LC 3)

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

TOP CHORD 2-3=-917/110, 3-4=-722/119, 4-6=-1308/102, 6-7=-978/137, 7-8=-1264/110,  
8-9=-634/44, 9-11=-1527/81  
BOT CHORD 18-19=-155/477, 17-18=-122/1033, 14-15=-123/1323, 13-14=-34/555, 12-13=-837/43,  
8-13=-798/76  
WEBS 2-19=-1328/81, 2-18=-50/626, 3-18=-3/280, 4-18=-709/109, 15-17=-91/1130,  
4-15=-48/549, 6-14=-585/136, 7-14=0/345, 8-14=-64/523, 9-12=-30/1085

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 19.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 13, 2021

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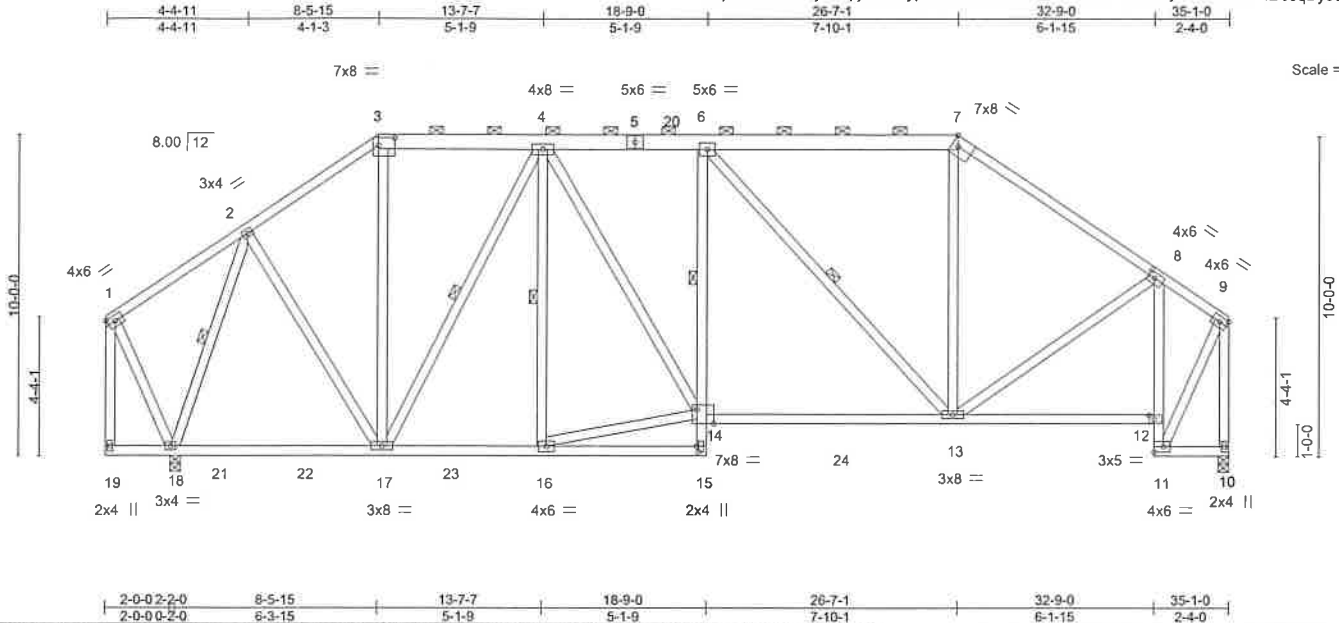


818 Soundside Road  
Edenton, NC 27932

Job DO210811	Truss CT9C	Truss Type Piggyback Base	Qty 2	Ply 1	WALNUT GROVE	147426045
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:50 2021 Page 1  
ID:qX5h23lzQN2jTlRHpjZGURypZh1-XkrN89uUNUhAA20hPlcWcFyQrK7Q?cCHDC3qDyoezl



Scale = 1:68.5

Plate Offsets (X,Y) -	[3:0-6-0,0-2-14], [8:0-2-8,0-2-0], [11:Edge,0-2-0], [12:0-2-0,0-1-8], [14:0-6-4,Edge], [15:0-2-0,0-0-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.53	Vert(LL) -0.12	13-14	>999	240	MT20	244/190
Snow (Pf) 15.0	Lumber DOL 1.15		BC 0.70	Vert(CT) -0.23	13-14	>999	180		
TCDL 10.0	Rep Stress Incr YES		WB 0.47	Horz(CT) 0.12	10	n/a	n/a		
BCLL 0.0 *	Code IBC2015/TPI2014		Matrix-MR						
BCDL 10.0								Weight: 297 lb	FT = 6%

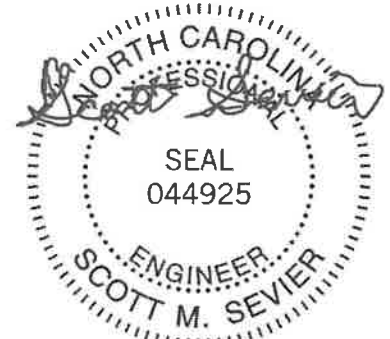
**LUMBER-**  
**TOP CHORD** 2x4 SP No.2 \*Except\*  
 3-5,5-7: 2x6 SP No.2  
**BOT CHORD** 2x4 SP No.2 \*Except\*  
 6-15: 2x4 SP No.3  
**WEBS** 2x4 SP No.3

**BRACING-**  
**TOP CHORD** Structural wood sheathing directly applied or 4-7-14 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-7.  
**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16  
 5-3-8 oc bracing: 11-12.  
**WEBS** 1 Row at midpt 6-14  
 1 Row at midpt 2-18, 4-17, 4-16, 6-13

**REACTIONS.** (size) 10=0-4-0, 18=0-4-0  
 Max Horz 18=224(LC 8)  
 Max Uplift 10=47(LC 11), 18=46(LC 10)  
 Max Grav 10=1308(LC 2), 18=1480(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=919/109, 3-4=724/118, 4-6=-1314/102, 6-7=-989/134, 7-8=-1277/105,  
 8-9=641/25, 9-10=-1402/58  
**BOT CHORD** 17-18=-166/465, 16-17=-131/1036, 13-14=-132/1329, 12-13=-57/580, 11-12=-861/72,  
 8-12=824/107  
**WEBS** 2-18=-1332/79, 2-17=-49/628, 3-17=-2/281, 4-17=-713/107, 14-16=-100/1133,  
 4-14=-53/554, 6-13=-584/138, 7-13=0/348, 8-13=-70/512, 9-11=-65/1112

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - 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 1-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 18.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 13, 2021

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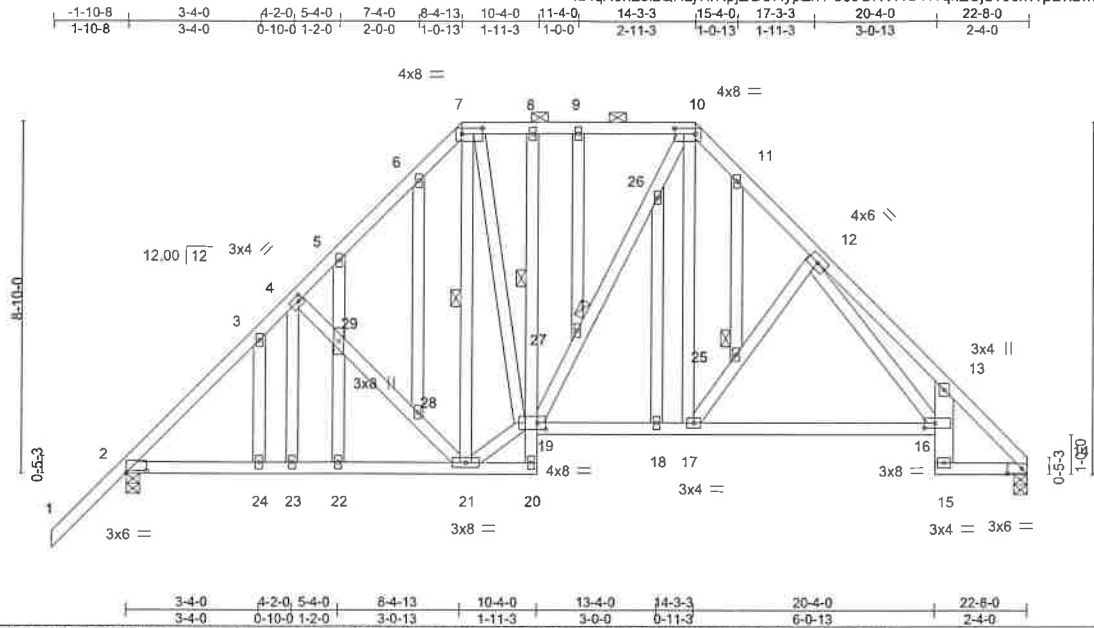
ENGINEERING BY  
**TRENCO**  
 A MITEK AFFILIATE  
 818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426046
DO210811	CT16	ROOF SPECIAL	1	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:13 2021 Page 1  
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Scale = 1:55,1

Plate Offsets (X,Y) - [2:0-6-0,0-0-10], [4:0-1-4,0-1-8], [7:0-6-4,0-1-12], [10:0-6-4,0-1-12], [14:0-4-6,0-1-8], [16:0-3-4,0-1-8], [19:0-2-8,0-2-0]

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.35	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.68	Vert(LL) -0.07 16-17 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.39	Vert(CT) -0.16 16-17 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MR	Horz(CT) 0.09 14 n/a n/a		
BCDL 10.0	Code IBC2015/TP12014			Weight: 223 lb	FT = 6%

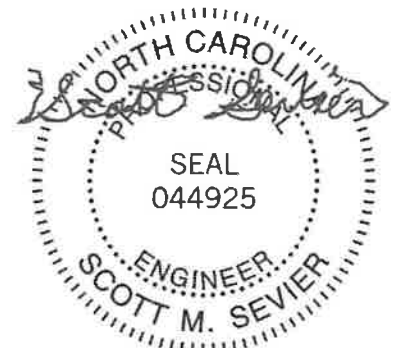
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 8-20: 2x4 SP No.3, 13-15: 2x6 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-11-7 oc purlins, except  
 2-0-0 oc purlins (6-0-0 max.): 7-10.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
 6-0-0 oc bracing: 19-20.  
 1 Row at midpt 8-19  
 1 Row at midpt 7-21  
 JOINTS 1 Brace at Jt(s): 25, 27

**REACTIONS.** (size) 14=0-4-0, 2=0-4-0  
 Max Horz 2=188(LC 7)  
 Max Uplift 2=-20(LC 10)  
 Max Grav 14=902(LC 2), 2=1024(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=1106/0, 3-4=1013/40, 4-5=-848/7, 5-6=-838/55, 6-7=-777/80, 10-11=-900/54,  
 11-12=-990/33, 12-13=-1994/31, 13-14=-1230/0, 7-8=-664/70, 8-9=-669/70,  
 9-10=-669/70  
 BOT CHORD 2-24=-44/726, 23-24=-44/726, 22-23=-44/726, 21-22=-44/726, 18-19=0/655,  
 17-18=0/655, 16-17=0/840, 13-16=-541/79, 14-15=0/786  
 WEBS 10-17=-29/432, 17-25=-328/131, 12-25=-321/118, 12-16=-28/934, 28-29=-252/108,  
 21-28=-270/122, 19-21=-21/620, 7-19=0/466

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - 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 1-0-0 wide will fit 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 13, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426047
DO210811	FL1G	Flat Girder	1	3		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:53 2021 Page 1  
ID:qX5h23lzQNz2TlrHjZGURypZh1-xJWWmBwMfosG1dnaMXsJ8FtRO2KhdG9ezBrjRYoezi



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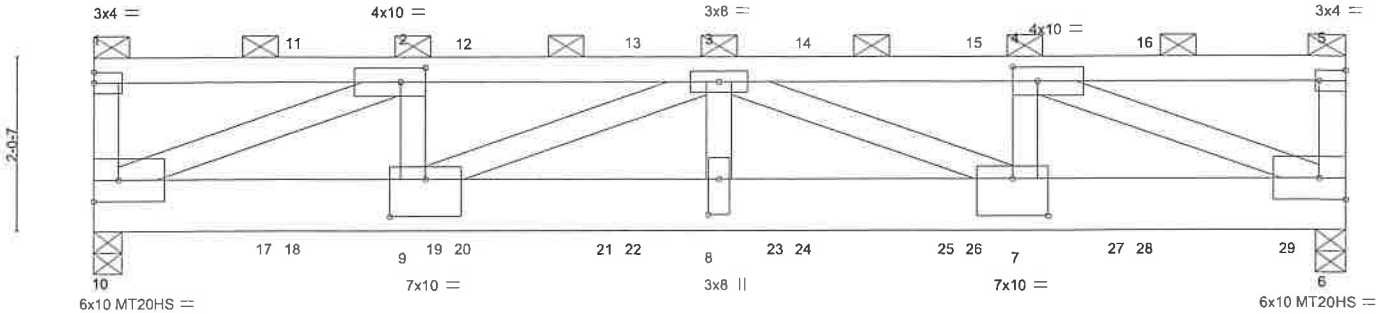


Plate Offsets (X,Y) - [2:0-3-8,0-2-0], [4:0-3-8,0-2-0], [5:Edge,0-1-8], [7:0-5-0,0-5-4], [8:0-5-0,0-1-8], [9:0-5-0,0-5-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.68	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.83	Vert(LL) -0.12 8 >999 240	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.87	Vert(CT) -0.23 8-9 >751 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MR	Horz(CT) 0.04 6 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 289 lb	FT = 6%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP No.1D  
WEBS 2x4 SP No.3 \*Except\*  
1-10,5-6: 2x4 SP No.2

**BRACING-**  
TOP CHORD 2-0-0 oc purlins (5-10-1 max.): 1-5, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 10=0-4-0, 6=0-4-0  
Max Horz 10=-45(LC 26)  
Max Uplift 10=-392(LC 6), 6=-398(LC 7)  
Max Grav 10=6581(LC 2), 6=7002(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-10=-286/46, 1-2=-779/66, 2-3=-12319/726, 3-4=-11130/631, 4-5=-746/62,  
5-6=-269/45  
BOT CHORD 9-10=-745/12319, 8-9=-938/16088, 7-8=-938/16088, 6-7=-638/11130  
WEBS 2-10=-12617/730, 2-9=-216/4986, 3-9=-4121/224, 3-8=-117/3439, 3-7=-5421/328,  
4-7=-162/4442, 4-6=-11353/629

- NOTES-**
- 3-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 0-4-0 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 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - 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 1-0-0 wide will fit 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) 10=392, 6=398.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 13, 2021

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426047
DO210811	FL1G	Flat Girder	1	3	Job Reference (optional)	

Truss Builders, Inc., Morrisville, NC - 27560,

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 ID:qX5h23lzQN2jTlrHjzGURypZh1-xJWWmBwMfosG1dnaMXsJ8FtRO2KhdG9ezBrjRYoezi

**NOTES-**

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 66 lb down and 35 lb up at 2-4-12, 66 lb down and 35 lb up at 4-4-12, 66 lb down and 35 lb up at 6-4-12, 66 lb down and 35 lb up at 8-4-12, and 66 lb down and 35 lb up at 10-4-12, and 66 lb down and 35 lb up at 12-4-12 on top chord, and 1545 lb down and 109 lb up at 2-0-12, 49 lb down at 2-4-12, 1545 lb down and 109 lb up at 4-0-12, 49 lb down at 4-4-12, 1545 lb down and 109 lb up at 4-5-4, 1496 lb down and 89 lb up at 6-0-12, 49 lb down at 6-4-12, 1496 lb down and 89 lb up at 8-0-12, 49 lb down at 8-4-12, 1496 lb down and 89 lb up at 10-0-12, 49 lb down at 10-4-12, 1496 lb down and 89 lb up at 12-0-12, and 49 lb down at 12-4-12, and 1418 lb down and 87 lb up at 14-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S) Standard**

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-5=-50, 6-10=-20

Concentrated Loads (lb)

Vert: 11=-66(B) 12=-66(B) 13=-66(B) 14=-66(B) 15=-66(B) 16=-66(B) 17=-1279(F) 18=-37(B) 19=-1279(F) 20=-1316(F=-1279, B=-37) 21=-1302(F) 22=-37(B) 23=-1302(F) 24=-37(B) 25=-1302(F) 26=-37(B) 27=-1302(F) 28=-37(B) 29=-1234(F)

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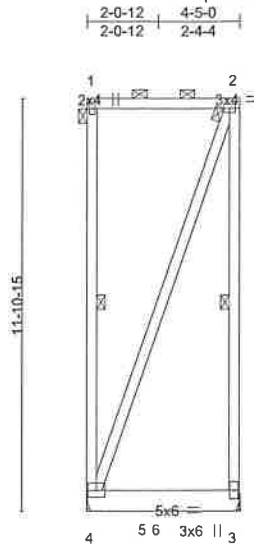
818 Soundside Road  
 Edenon, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	
DO210811	FL2G	Flat Girder	1	2		147426048

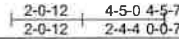
Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:54 2021 Page 1

ID:qX5h23lzQN2jTlrHpjZGURypZh1-PV4uzWx\_Q6\_7fnMnwFNYhSPY1SoHMsv0CraHz\_yoezh



Scale: 3/16"=1'



<b>LOADING (psf)</b>		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.01	3-4	>999	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.02	3-4	>999		
TCDL	10.0	Rep Stress Incr	NO	WB	0.26	Horz(CT)	-0.00	3	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-MP							
BCDL	10.0									Weight: 141 lb	FT = 6%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x8 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 2-4: 2x4 SP No.2

**BRACING-**

TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 1-4, 2-3

**REACTIONS.**

(size) 4=Mechanical, 3=Mechanical  
 Max Horz 4=-324(LC 6)  
 Max Uplift 4=-529(LC 6), 3=-639(LC 7)  
 Max Grav 4=819(LC 41), 3=1457(LC 40)

**FORCES.**

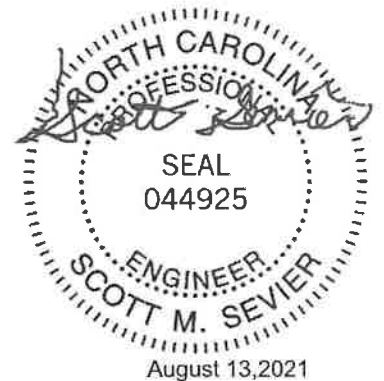
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=448/489  
 WEBS 2-4=479/479

**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.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 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 1-0-0 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 100 lb uplift at joint(s) except (jt=lb) 4=529, 3=639.
- 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) 728 lb down and 131 lb up at 2-0-12, and 738 lb down and 123 lb up at 4-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15



Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 5/19/2020 BEFORE USE**  
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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426048
DO210811	FL2G	Flat Girder	1	2	Job Reference (optional)	

Truss Builders, Inc., Morrisville, NC - 27560.

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:54 2021 Page 2  
 ID:qX5h23lzQN2jTlRHpjZGURypZh1-PV4uzWx\_Q6\_7fnMnwFNyhSPY1SoHMsvoCraHz\_yoezh

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 3-4=-20, 1-2=-50

Concentrated Loads (lb)

Vert: 3=-621(B) 6=-613(B)

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426049
DO210811	PB1	Piggyback	16	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:55 2021 Page 1  
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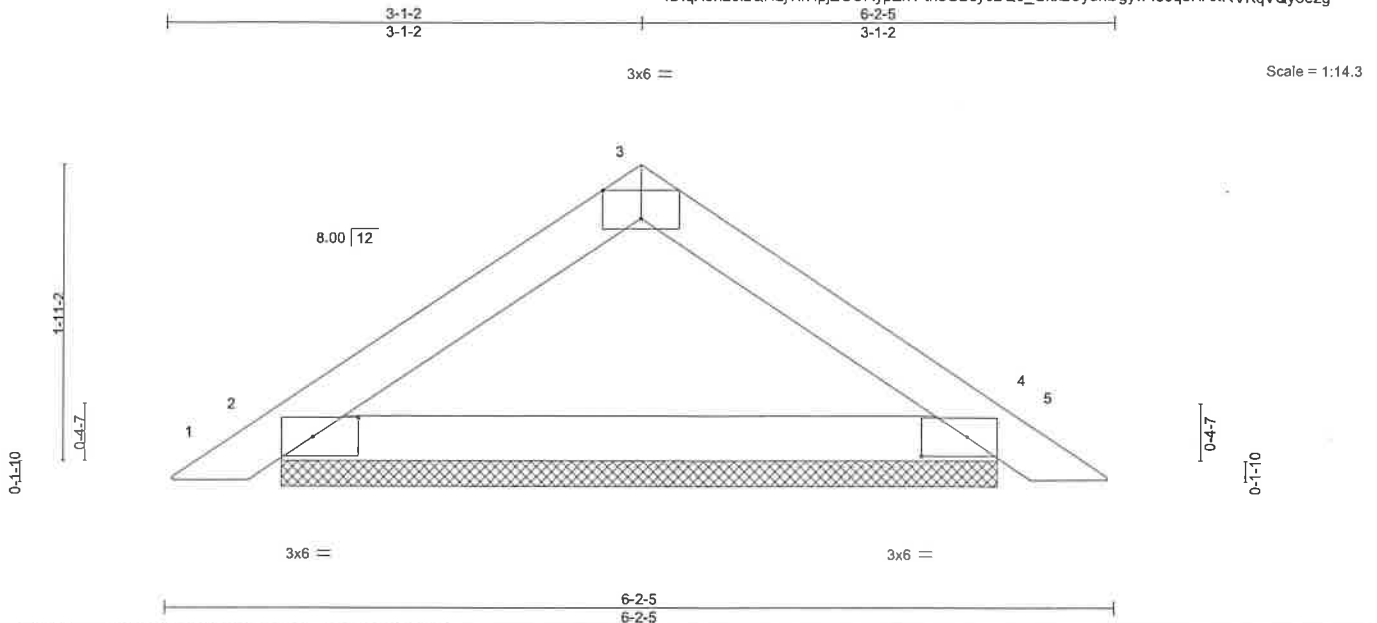


Plate Offsets (X,Y) -		[2:0-3-9,0-1-8], [3:0-3-0,Edge], [4:0-3-9,0-1-8]									
<b>LOADING (psf)</b>		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00 5	n/r	120	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	0.00 5	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00 4	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-P						Weight: 18 lb	FT = 6%
BCDL	10.0										

**LUMBER-**

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

**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.

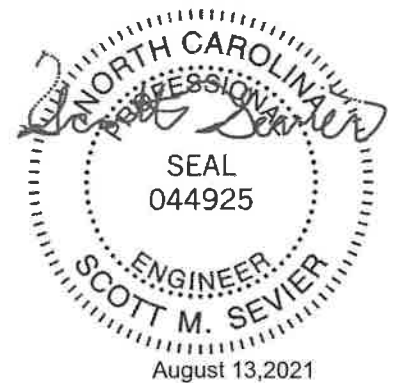
**REACTIONS.**

(size) 2=4-8-1, 4=4-8-1  
Max Horz 2=-36(LC 8)  
Max Uplift 2=-10(LC 10), 4=-10(LC 11)  
Max Grav 2=215(LC 2), 4=215(LC 2)

**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=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- 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 1-0-0 wide will fit 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, 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 13, 2021

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

Job DO210811	Truss PB1GE	Truss Type Piggyback	Qty 2	Ply 1	WALNUT GROVE	147426050
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:56 2021 Page 1  
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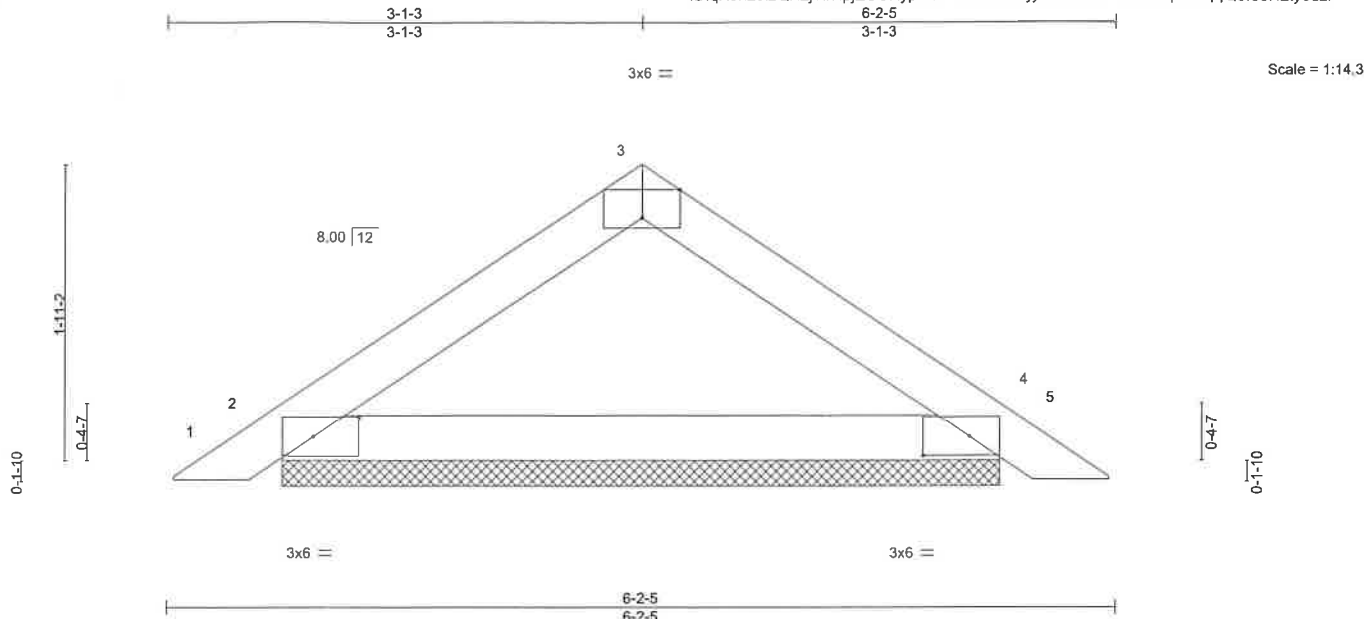


Plate Offsets (X,Y) --		[2:0-3-9,0-1-8], [3:0-3-0,Edge], [4:0-3-9,0-1-8]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL (roof)	20.0	Plate Grip DOL	1.15
Snow (Pf)	15.0	Lumber DOL	1.15
TCDL	10.0	Rep Stress Incr	YES
BCLL	0.0	Code	IBC2015/TPI2014
BCDL	10.0		
		<b>CSI.</b>	
		TC	0.09
		BC	0.28
		WB	0.00
		Matrix-P	
		<b>DEFL.</b>	
		Vert(LL)	0.00 5 n/r 120
		Vert(CT)	0.00 5 n/r 120
		Horz(CT)	0.00 4 n/a n/a
		<b>PLATES</b>	MT20
		<b>GRIP</b>	244/190
		Weight:	18 lb
		FT =	6%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

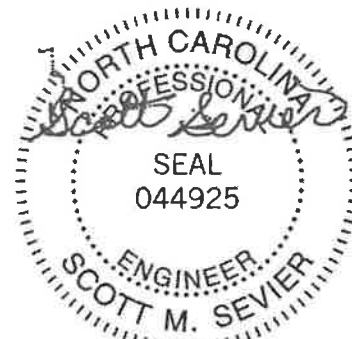
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=4-8-2, 4=4-8-2  
Max Horz 2=36(LC 9)  
Max Uplift 2=-10(LC 10), 4=-10(LC 11)  
Max Grav 2=215(LC 2), 4=215(LC 2)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* 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 1-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 13, 2021

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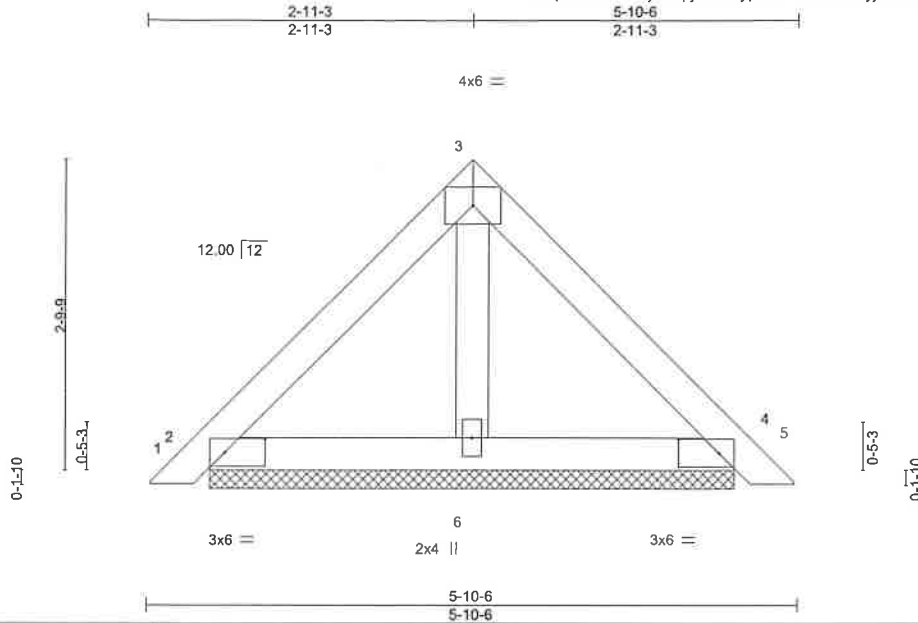
818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	
DO210811	PB2	PIGGYBACK	16	1		47426051

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:56 2021 Page 1  
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Scale = 1:19.8

Plate Offsets (X,Y)-- [2:0-4-6,0-1-8], [4:0-4-6,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (oc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.10	Vert(LL)	0.00	5	n/r	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.06	Vert(CT)	0.00	5	n/r		
TCDL 10.0	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	4	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IBC2015/TPI2014						Weight: 22 lb	FT = 6%

**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 5-10-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 2=4-8-12, 4=4-8-12, 6=4-8-12  
Max Horz 2=52(LC 8)  
Max Uplift 2=18(LC 11), 4=-21(LC 11)  
Max Grav 2=136(LC 2), 4=136(LC 2), 6=147(LC 5)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- 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 1-0-0 wide will fit 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, 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 13, 2021

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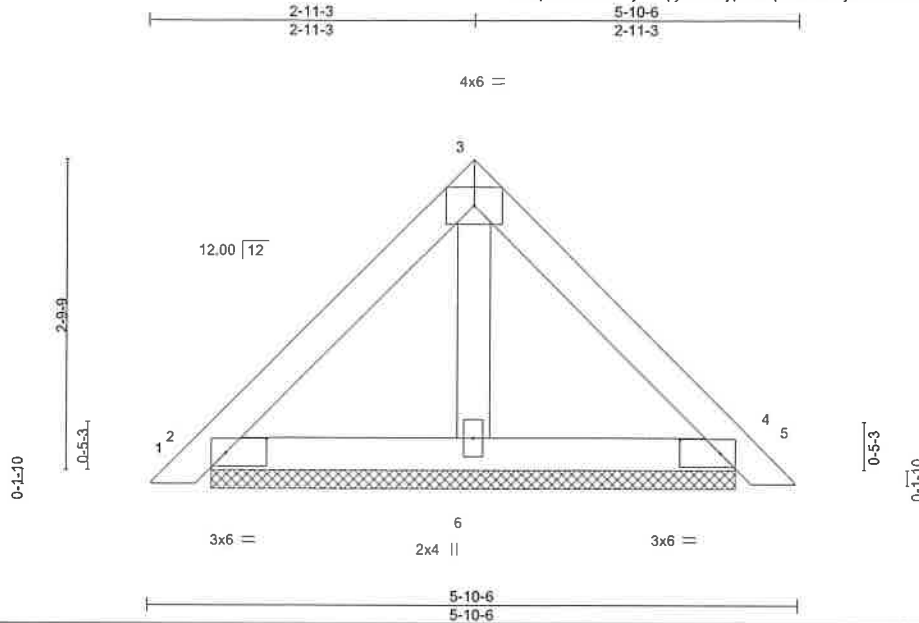


818 Soundside Road  
Edenton, NC 27932

Job DO210811	Truss PB2GE	Truss Type Piggyback	Qty 1	Ply 1	WALNUT GROVE	147426052
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:57 2021 Page 1  
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Scale = 1:19.8

Plate Offsets (X,Y) - [2:0-4-6,0-1-8], [4:0-4-6,0-1-8]		CSI		DEFL.		PLATES		GRIP	
LOADING (psf)		SPACING- 2-0-0	TC 0.10	in (oc)	l/defl	L/d	MT20	244/190	
TCLL (roof) 20.0		Plate Grip DOL 1.15	BC 0.06	0.00	5	n/r			
Snow (Pf) 15.0		Lumber DOL 1.15	WB 0.02	0.00	5	n/r			
TCDL 10.0		Rep Stress Incr YES	Matrix-P	0.00	4	n/a			
BCLL 0.0 *		Code IBC2015/TPI2014							
BCDL 10.0							Weight: 22 lb	FT = 6%	

**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 5-10-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 2=4-8-12, 4=4-8-12, 6=4-8-12  
Max Horz 2=-52(LC 8)  
Max Uplift 2=-18(LC 11), 4=-21(LC 11)  
Max Grav 2=136(LC 2), 4=136(LC 2), 6=147(LC 5)

**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=115mph Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- 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 1-0-0 wide will fit 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, 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 13, 2021

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job DO210811	Truss PB3	Truss Type Piggyback	Qty 17	Ply 1	WALNUT GROVE	147426053
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Truss Builders, Inc., Morrisville, NC - 27560.

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:13:58 2021 Page 1  
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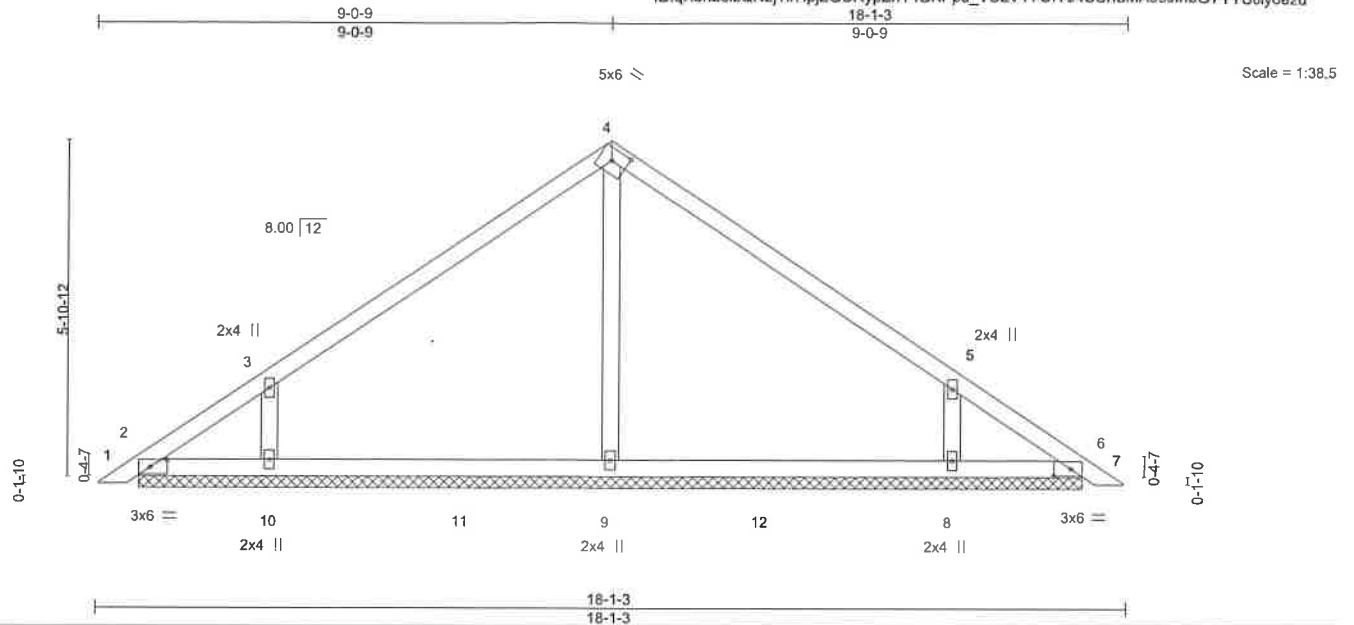


Plate Offsets (X,Y) -	[2:0-3-9,0-1-8], [4:0-3-4,0-2-8], [6:0-3-9,0-1-8]							
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) -0.00	7	n/r	120	MT20	244/190
Snow (Pf) 15.0	Lumber DOL 1.15	BC 0.29	Vert(CT) -0.00	7	n/r	120		
TCDL 10.0	Rep Stress Incr YES	WB 0.18	Horz(CT) 0.00	6	n/a	n/a		
BCLL 0.0 *	Code IBC2015/TPI2014	Matrix-R					Weight: 69 lb	FT = 6%
BCDL 10.0								

**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.

**REACTIONS.** All bearings 16-6-15.  
(lb) - Max Horz 2=113(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=109(LC 10), 8=108(LC 11)  
Max Grav All reactions 250 lb or less at joint(s) 2, 6 except 9=538(LC 22), 10=428(LC 22), 8=427(LC 23)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 4-9=302/27, 3-10=327/176, 5-8=327/175

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6 except (jt=lb) 10=109, 8=108.
  - 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 13, 2021

<p><b>WARNING</b> - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-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 ANSIT/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY  <b>TRENCO</b>  A MiTek Affiliate  818 Soundside Road  Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	I47426055
DO210811	PB8	Piggyback	2	1		

Truss Builders, Inc., Morrisville, NC - 27560,

8,430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:14:00 2021 Page 1  
ID:qX5h23lzQN2jTlRHpjZGURypZh1-EfR9Ea0l0yIGNipxHVUywjfnlr?mdQgan1bBeyoezb

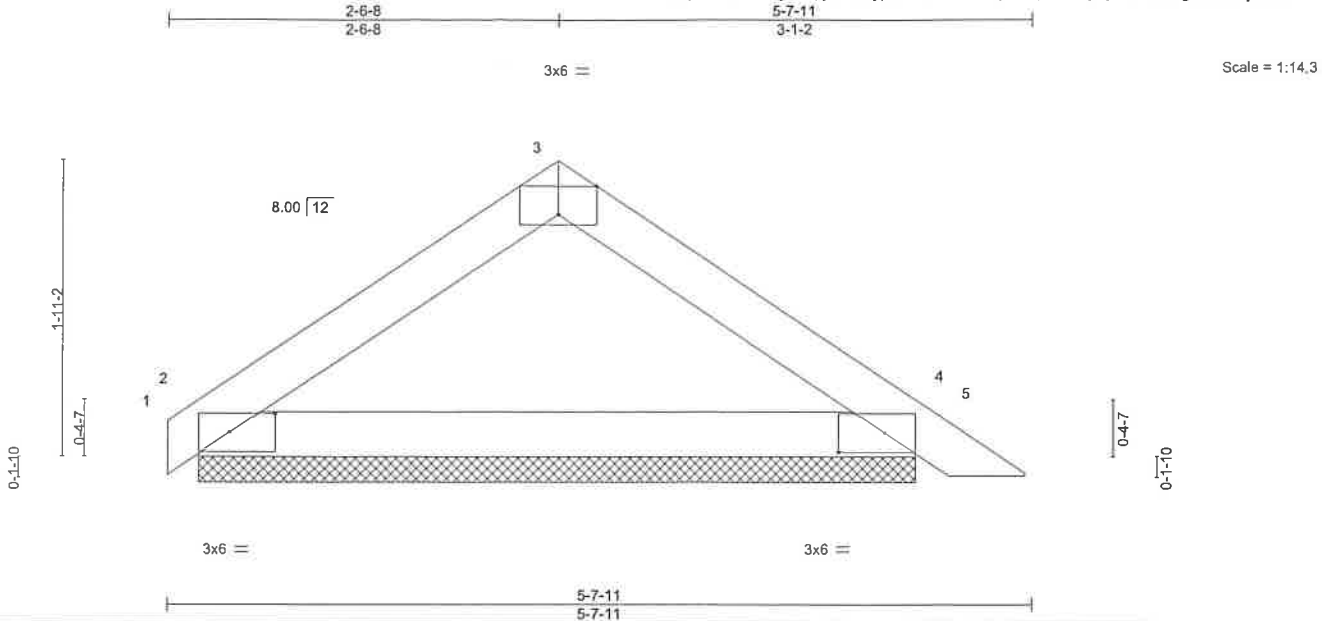


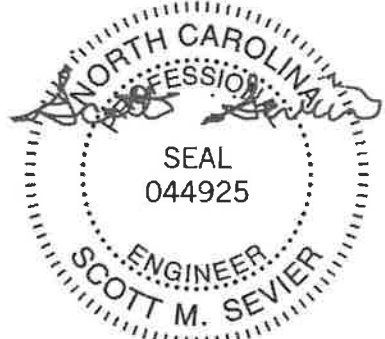
Plate Offsets (X,Y) - [2:0-3-9,0-1-8], [3:0-3-0,Edge], [4:0-3-9,0-1-8]					
<b>LOADING</b> (psf)	<b>SPACING</b> 2-0-0	<b>CSI</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.10	Vert(LL) 0.00 5 n/r 120	MT20	244/190
Snow (PF) 15.0	Lumber DOL 1.15	BC 0.28	Vert(CT) 0.00 5 n/r 120		
TCDL 10.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 4 n/a n/a		
BCLL 0.0 *	Code IBC2015/TPI2014	Matrix-P			
BCDL 10.0				Weight: 17 lb	FT = 6%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-7-11 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=4-8-1, 4=4-8-1  
 Max Horz 2=35(LC 6)  
 Max Uplift 2=6(LC 10), 4=10(LC 11)  
 Max Grav 2=190(LC 2), 4=216(LC 2)

**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=115mph Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs non-concurrent with other live loads.
  - Gable requires continuous bottom chord bearing.
  - 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 1-0-0 wide will fit 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, 4.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

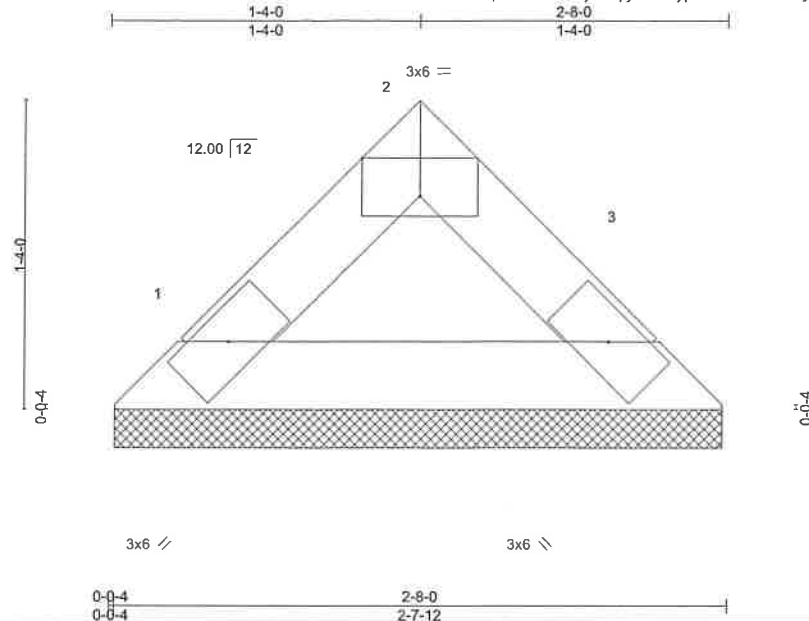


August 13, 2021

Job DO210811	Truss V1	Truss Type Valley	Qty 4	Ply 1	WALNUT GROVE	I47426056
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MITek Industries, Inc. Thu Aug 12 08:14:00 2021 Page 1  
ID:qX5h23lzQN2jTlrHjZGURypZh1-Efr9Ea0l0yIGNipxHVUywjfoztvdmdQgan1bBeyoezb



Scale = 1:9.5

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.02	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 15.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCLL 0.0 *	Code IBC2015/TPI2014		Matrix-P					Weight: 8 lb	FT = 6%
BCDL 10.0									

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-8-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-7-8, 3=2-7-8  
Max Horz 1=19(LC 6)  
Max Grav 1=79(LC 2), 3=79(LC 2)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* 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 1-0-0 wide will fit between the bottom chord and any other members.



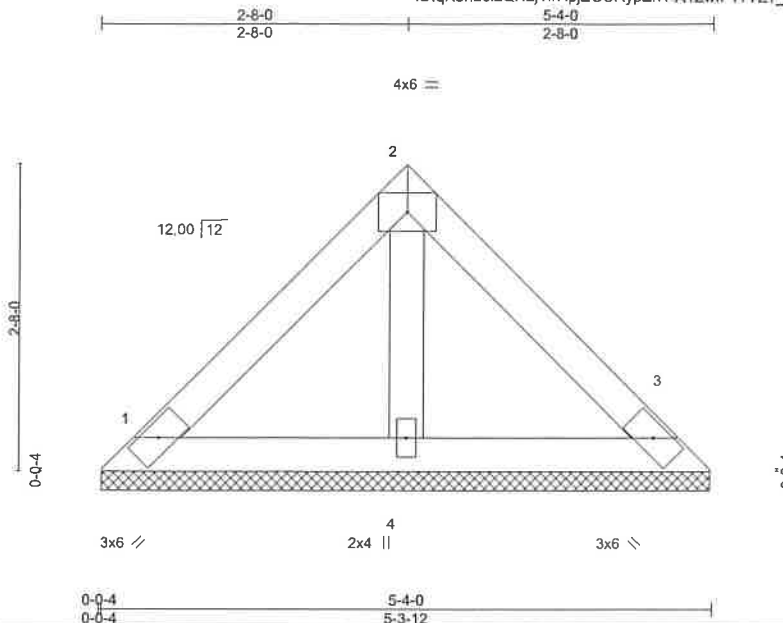
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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

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

Job DO210811	Truss V2	Truss Type Valley	Qty 4	Ply 1	WALNUT GROVE	147426057
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:14:02 2021 Page 1  
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Scale = 1:19.1

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.10	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.02	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 21 lb	FT = 6%

**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 5-4-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-3-8, 3=5-3-8, 4=5-3-8  
Max Horz 1=45(LC 7)  
Max Uplift 1=-15(LC 11), 3=-15(LC 11)  
Max Grav 1=112(LC 2), 3=112(LC 2), 4=147(LC 2)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - 4) Gable requires continuous bottom chord bearing.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* 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 1-0-0 wide will fit between the bottom chord and any other members.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

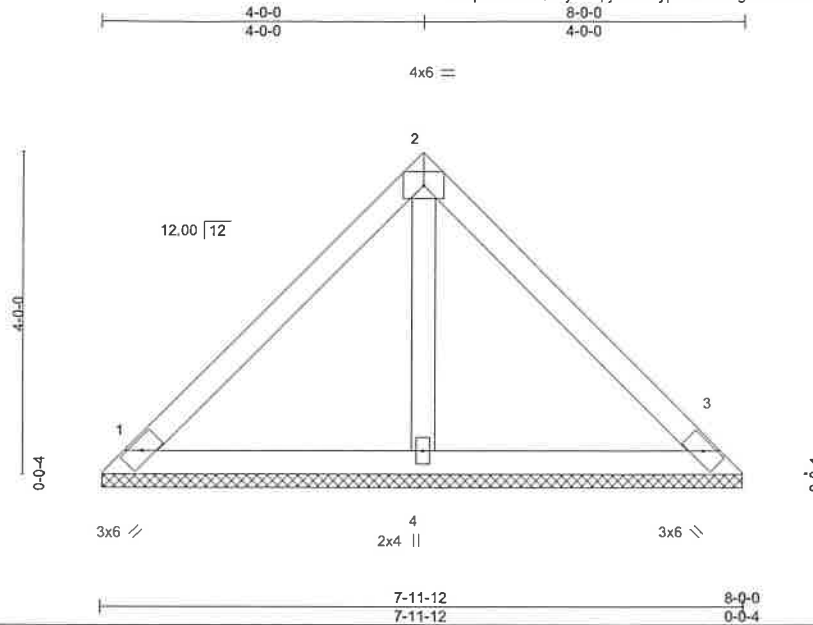




Job DO210811	Truss V3	Truss Type Valley	Qty 4	Ply 1	WALNUT GROVE	I47426058
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:14:04 2021 Page 1  
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Scale = 1:27.3

<b>LOADING (psf)</b>		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	//defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-P						Weight: 32 lb	FT = 6%
BCDL	10.0										

**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.

**REACTIONS.**

(size) 1=7-11-8, 3=7-11-8, 4=7-11-8  
Max Horz 1=71(LC 8)  
Max Uplift 1=24(LC 11), 3=24(LC 11)  
Max Grav 1=176(LC 2), 3=176(LC 2), 4=231(LC 2)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* 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 1-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 5/19/2020 BEFORE USE.  
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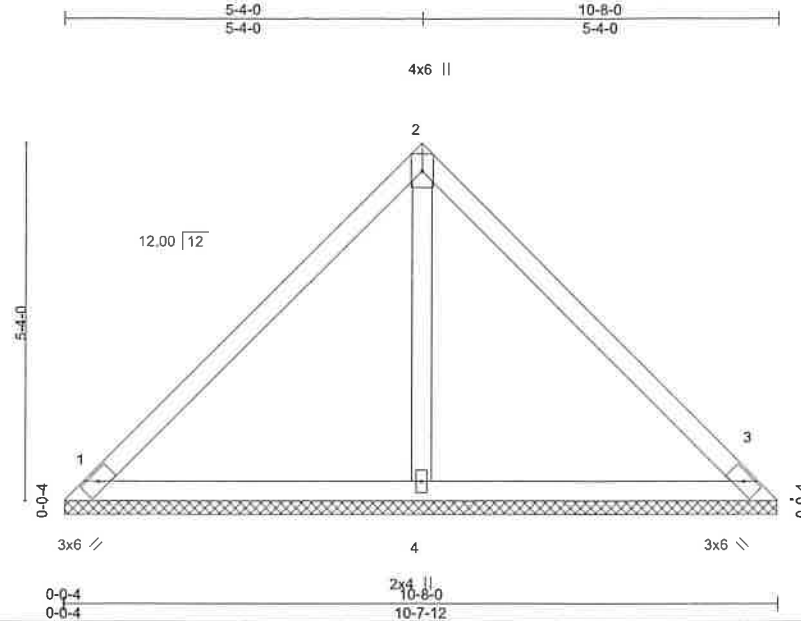
ENGINEERING BY  
**TRENCO**  
A MiTek Alliance

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426059
DO210811	V4	Valley	2	1	Job Reference (optional)	

Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:14:05 2021 Page 1  
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Scale = 1:32.7

<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	n/a	-	n/a		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	3	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-R						Weight: 44 lb	FT = 6%
BCDL	10.0										

**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.

**REACTIONS.**

(size) 1=10-7-8, 3=10-7-8, 4=10-7-8  
 Max Horz 1=-96(LC 6)  
 Max Uplift 1=-14(LC 11), 3=-14(LC 11)  
 Max Grav 1=215(LC 2), 3=215(LC 2), 4=366(LC 2)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* 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 1-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



August 13, 2021

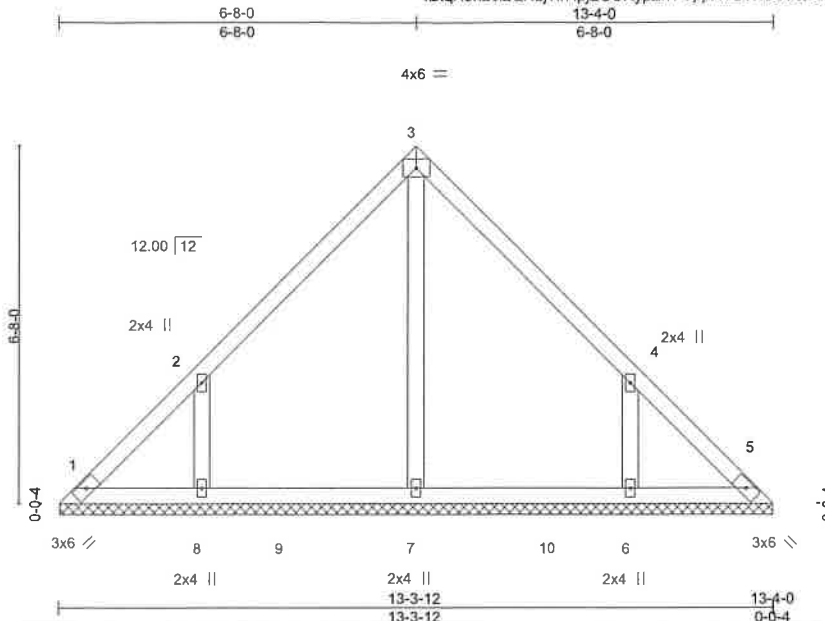
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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818 Soundside Road  
 Edenton, NC 27932

Job DO210811	Truss V5	Truss Type Valley	Qty 2	Ply 1	WALNUT GROVE	147426060
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Truss Builders, Inc., Morrisville, NC - 27560, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:14:06 2021 Page 1  
 ID:qX5h23lzQNz2TirHpiZGURypZh1-3ppRVd4WboVQ5dH4dmbMA\_vnplwAAK2ZzjUvOHyoezV



Scale = 1:40.9

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.18	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.12	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 62 lb	FT = 6%

**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.

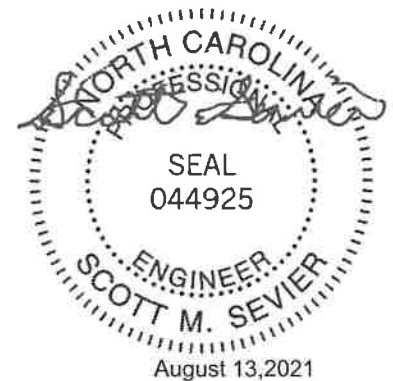
**REACTIONS.**

All bearings 13-3-8.  
 (lb) - Max Horz 1=122(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=135(LC 10), 6=135(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=345(LC 21), 8=333(LC 21), 6=333(LC 22)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Cl=1.10
- Gable requires continuous bottom chord bearing.
- 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=) 8=135, 6=135.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 6/19/2020 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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information - available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	WALNUT GROVE	147426061
DO210811	V6	Valley	2	1	Job Reference (optional)	

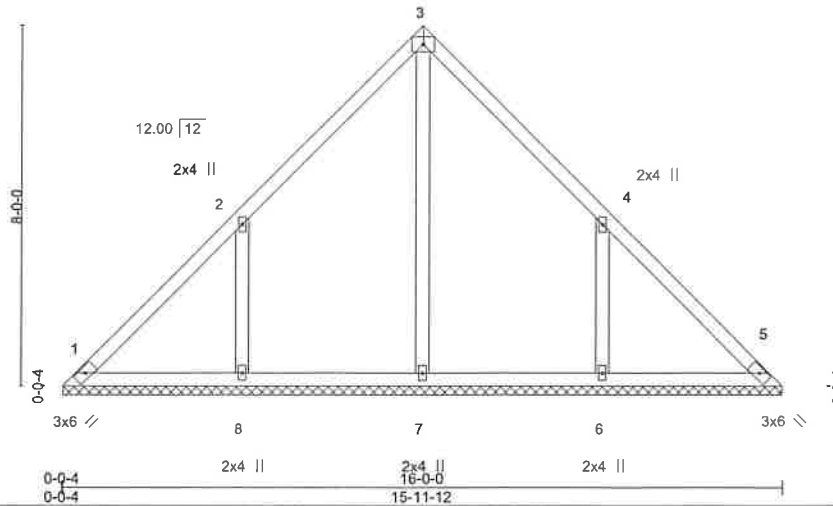
Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:14:07 2021 Page 1  
ID:qX5h23lzQN2jTlrHpjZGURypZh1-X?Mpiz58M8dHnrHBT6biCSyUhg2vmXIBNETxkyoezU



4x6 =

Scale = 1:48.7



<b>LOADING (psf)</b>		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	5	n/a		
BCLL	0.0	Code IBC2015/TPI2014		Matrix-R						Weight: 77 lb	FT = 6%
BCDL	10.0										

**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.

**REACTIONS.**

All bearings 15-11-8.  
(lb) - Max Horz 1=-148(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-162(LC 10), 6=-162(LC 11)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=361(LC 24), 8=435(LC 21), 6=435(LC 22)

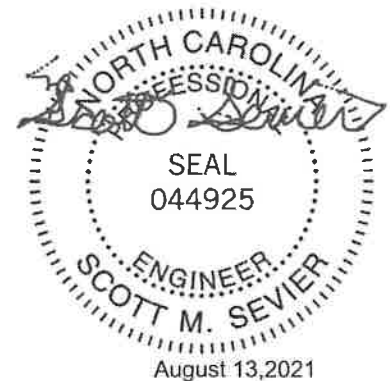
**FORCES.**

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

WEBS 2-8=-277/198, 4-6=-276/198

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (t=lb) 8=162, 6=162.



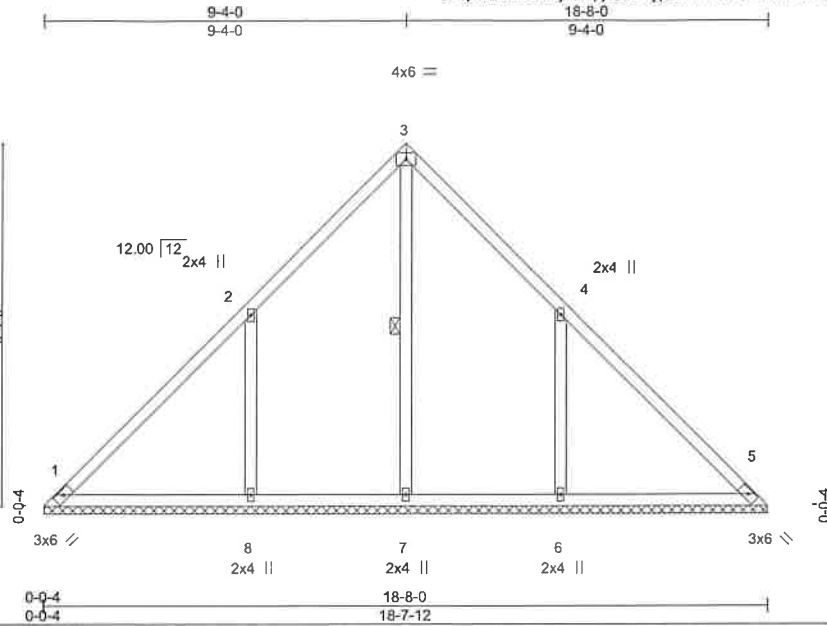
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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

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

Job DO210811	Truss V7	Truss Type Valley	Qty 2	Ply 1	WALNUT GROVE Job Reference (optional)	147426062
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MITEK Industries, Inc. Thu Aug 12 08:14:08 2021 Page 1  
ID:qX5h23lzQN2jTlrHpjZGURypZh1-7BwBvJ6m7PI8KxQTIBdqFP\_5d5bteDusQ0z0TAYoezT



Scale = 1:56.5

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.29	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.21	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.16	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 93 lb	FT = 6%

**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.  
WEBS 1 Row at midpt 3-7

**REACTIONS.** All bearings 18-7-8.  
(lb) - Max Horz 1=-174(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-199(LC 10), 6=-198(LC 11)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=352(LC 24), 8=523(LC 21), 6=522(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-335/236, 4-6=-334/236

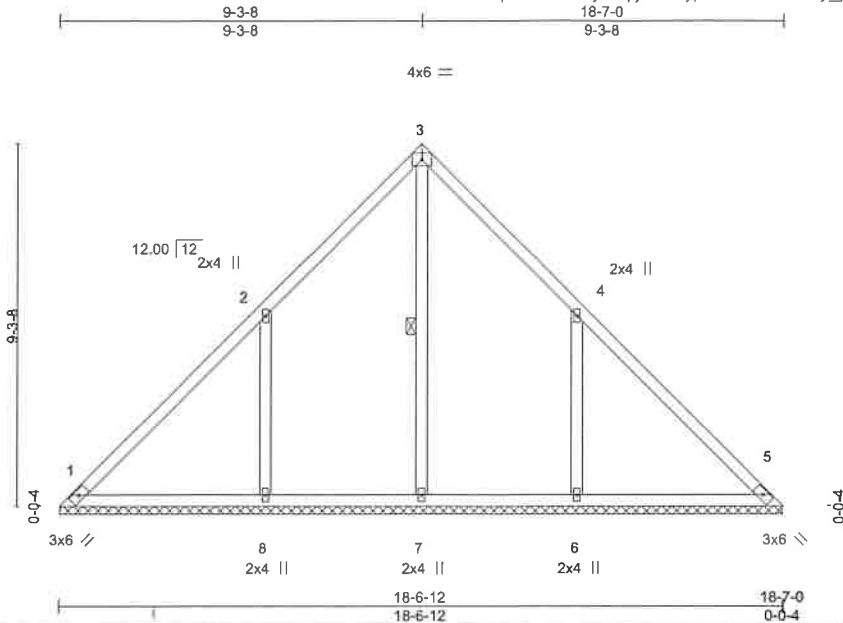
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
  - 4) Gable requires continuous bottom chord bearing.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=199, 6=198.



Job DO210811	Truss V8GE	Truss Type Valley	Qty 1	Ply 1	WALNUT GROVE	147426063
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Truss Builders, Inc., Morrisville, NC - 27560,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Aug 12 08:14:09 2021 Page 1  
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Scale = 1:56.3

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.29	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 15.0	Plate Grip DOL 1.15	BC 0.21	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.16	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IBC2015/TPI2014			Weight: 92 lb	FT = 6%

**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.  
WEBS 1 Row at midpt 3-7

**REACTIONS.**

All bearings 18-6-8.  
(lb) - Max Horz 1=-173(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-197(LC 10), 6=-197(LC 11)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=352(LC 24), 8=520(LC 21), 6=519(LC 22)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-333/235, 4-6=-332/234

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Gable requires continuous bottom chord bearing.
- 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=197, 6=197.

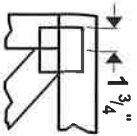


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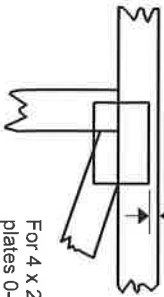


# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in feet-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 **MITtek 2020 software** or upon request.

## PLATE SIZE

4 X 4

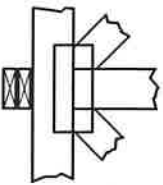
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or L bracing if indicated.

## BEARING



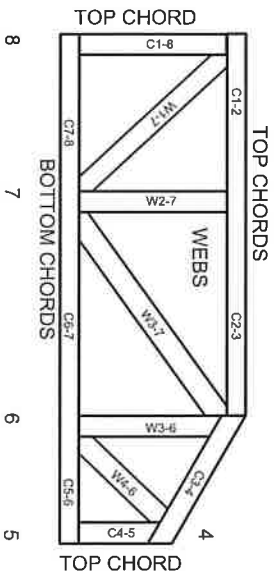
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## 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 feet-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/TP1 section 6.3. These truss designs rely on lumber values established by others.

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MITtek Engineering Reference Sheet: MIL-7473 rev. 5/19/2020

# 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 Torl bracing should be considered.
3. Never exceed the design loading shown and never slack 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.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
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.