Columbia County New Building Permit Application

For Office Use Only Application # 44284 Date Received 1/6/20 By MS Permit # 39292

Zoning Official LW Date 1/7/20 Flood Zone A Land Use Ag Zoning A-3

FEMA Map # _____ Elevation _____ MFE _____ River _____ Plans Examiner T.C. Date 2-11-20

Comments SFLP 2003

☑ NOC ☑ EH ☐ Deed or PA ☑ Site Plan ☐ State Road Info ☑ Well letter ☑ 911 Sheet ☐ Parent Parcel # _____

☐ Dev Permit # _____ ☐ In Floodway ☐ Letter of Auth. from Contractor ☐ F W Comp. letter

☑ Owner Builder Disclosure Statement ☐ Land Owner Affidavit ☐ Ellisville Water ☑ App Fee Paid ☑ ~~Sub~~ VF Form

Septic Permit No. 19-0218 OR City Water ☐ Fax _____

Applicant (Who will sign/pickup the permit) Connie Ratliff Phone _____

Address _____

Owners Name Connie Ratliff Phone 386-365-2689

911 Address 489 NE Manatee PL Lake City FL 32055

Contractors Name N/A Phone _____

Address _____

Contractor Email feaglelogging@yahoo.com ***Include to get updates on this job.

Fee Simple Owner Name & Address N/A

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address M. Disosway 163 SW Midtown Pl Lake City FL

Mortgage Lenders Name & Address _____

Circle the correct power company ☑ FL Power & Light ☐ Clay Elec. ☐ Suwannee Valley Elec. ☐ Duke Energy

Property ID Number 04-3S-17-04838-107 Estimated Construction Cost 70,000

Subdivision Name Osceola Plantations Lot 7 Block ____ Unit ____ Phase ____

Driving Directions from a Major Road Hwy 441 N to Cheschire Rd TR Follow to Triple RVN TL Follow to Manatee PL TR Follow to site on (L)

Construction of New ____ Commercial OR ☑ Residential

Proposed Use/Occupancy S/F Number of Existing Dwellings on Property ____

Is the Building Fire Sprinkled? NO If Yes, blueprints included ____ Or Explain _____

Circle Proposed ☐ Culvert Permit or ☐ Culvert Waiver or ☐ D.O.T. Permit or ☑ Have an Existing Drive

Actual Distance of Structure from Property Lines - Front 92' Side 34' Side 37' Rear 53'

Number of Stories 1 Heated Floor Area 1419.6 Total Floor Area 1921.4 Acreage 1.20

Zoning Applications applied for (Site & Development Plan, Special Exception, etc.) S/F

Columbia County Building Permit Application

CODE: Florida Building Code 2017 and the 2014 National Electrical Code.

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

TIME LIMITATIONS OF APPLICATION : An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless pursued in good faith or a permit has been issued.

TIME LIMITATIONS OF PERMITS: Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time work is commenced. A valid permit receives an approved inspection every 180 days. Work shall be considered not suspended, abandoned or invalid when the permit has received an approved inspection within 180 days of the previous approved inspection.

FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment: According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

NOTICE OF RESPONSIBILITY TO CONTRACTOR AND AGENT: ***YOU ARE HEREBY NOTIFIED*** as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

OWNERS CERTIFICATION: I CERTIFY THAT ALL THE FOREGOING INFORMATION IS ACCURATE AND THAT ALL WORK WILL BE DONE IN COMPLIANCE WITH ALL APPLICABLE LAWS REGULATING CONSTRUCTION AND ZONING.

NOTICE TO OWNER: There are some properties that may have deed restrictions recorded upon them. These restrictions may limit or prohibit the work applied for in your building permit. You must verify if your property is encumbered by any restrictions or face possible litigation and or fines.

Connie Rathff — Connie Rathff

Print Owners Name **Owners Signature**

****Property owners must sign here before any permit will be issued.**

****If this is an Owner Builder Permit Application then, ONLY the owner can sign the building permit when it is issued.**

CONTRACTORS AFFIDAVIT: By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit including all application and permit time limitations.

Contractor's Signature

Contractor's License Number _____
Columbia County
Competency Card Number _____

Affirmed under penalty of perjury to by the Contractor and subscribed before me this ____ day of _____ 20___.

Personally known ☐ **or Produced Identification** _____

SEAL:

State of Florida Notary Signature (For the Contractor)

Inst. Number: 202012002813 Book: 1404 Page: 2646 Page 1 of 3 Date: 2/4/2020 Time: 3:51 PM
P.DeWitt Cason Clerk of Courts, Columbia County, Florida Doc Mort: 0.00 Int Tax: 0.00 Doc Deed: 0.70

Prepared by and return to:
Lake City Title
426 SW Commerce Drive, Ste. 145
Lake City, FL 32025

This deed was given without the benefit
of a search or issuance of Title Insurance.

----------SPACE ABOVE THIS LINE FOR RECORDING DATA----------

THIS WARRANTY DEED made this 31st day of January, 2020 by **Shelton Feagle, Jr. and Tocha C. Feagle, Husband and Wife,** whose address is 805 NE Indigo Drive, Lake City, FL 32055, hereinafter called the Grantor, to **Connie Ratliff, a Single Woman,** hereinafter called the Grantee, whose address is 489 NE Manatee Pl, Lake City, Fl 32055, conveying the property herein described for a Life Estate, without any liability for waste, and with full power and authority in the life of the tenant to sell, convey, mortgage, lease or otherwise manage and dispose of the property described herein, in fee simple, with or without consideration, without joinder of the remainderman, and with full power and authority to retain any and all proceeds generated thereby, and upon the death of the life tenant, the remainder, if any, to **Shelton Feagle, Jr. and Tocha C. Feagle, Husband and Wife,** (Wherever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations).

WITNESSETH: That the grantor, for and in consideration of the sum of TEN AND 00/100'S ($10.00) Dollars, and other variable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situated in COLUMBIA County, Florida, viz:

SEE EXHIBIT "A" ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF

NOTE: The Grantor specifically reserves the right (i) to revoke the remainder interest hereunder and divest the remainderman and re-vest the life tenant with fee simple title without joinder of the remainderman, or (ii) to convey the remainder interest created hereunder to another remainderman; all without joinder of the remainderman established under this deed.

SUBJECT TO restrictions, reservations, easements and limitations of record, if any, provided that this shall not serve to reimpose same, zoning ordinances, and taxes for the current year and subsequent years.

TOGETHER with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; and hereby warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except as mentioned above.

IN WITNESS WHEREOF, the said grantor has signed and sealed the day and year first above written.

Signed, sealed and delivered in the presence of:

Witness

Witness Regina Simpkins

Shelton Feagle, Jr.

Tocha Feagle

STATE OF: FLORIDA

COUNTY OF: COLUMBIA

The foregoing instrument was acknowledged before me this 31st day of January, 2020 by **Shelton Feagle, Jr. and Tocha C. Feagle, Husband and Wife,** who personally appeared before me and is personally known to me or has produced *Driver's License* as identification and who did not take an oath.

Notary Public

Regina Simpkins

Printed Notary Name

REGINA SIMPKINS
MY COMMISSION # GG059915
EXPIRES January 04, 2021

EXHIBIT "A"

A Parcel of land lying in Section 4, Township 3 South, Range 17 East, in Columbia County, Florida, also being a portion of Lot 7, Osceola Plantations, an unrecorded subdivision as surveyed by Mark Duren, LS 4708, being more particularly described as follows:

Begin at the Southwest Corner of Lot 7, Osceola Plantations, an unrecorded subdivision as surveyed by Mark Duren, LS 4708, and run N 00°09'01" E along the West line of said Lot 7, a distance of 240.68 feet; thence run N 76°12'53" E., a distance of 157.18 feet; thence run S 08°11'52" E, a distance of 353.28 feet to the South line of said Lot 7; thence run N 70°38'37" W along said South line of Lot 7, a distance of 215.86 feet to the Point of Beginning.

ALONG WITH AND SUBJECT TO: An Ingress/Egress easement as described and recorded in Official Records Book 829, Pages 1694-1723, of the Public Records of Columbia County, Florida.

FAMILY RELATIONSHIP AFFIDAVIT

Inst: 202012003476 Date: 02/12/2020 Time: 2:09PM
Page 1 of 2 B: 1405 P: 1198, P.DeWitt Cason, Clerk of Court
Columbia, County, By: BS
Deputy Clerk

STATE OF FLORIDA
COUNTY OF COLUMBIA

BEFORE ME the undersigned Notary Public personally appeared, Shelton and Tocha Feagle, the Owner of the parent parcel which has been subdivided for Connie Ratliff, the Immediate Family Member of the Owner, and which is intended for the Immediate Family Members primary residence use. The Immediate Family Member is related to the Owner as Mother of Tocha. Both individuals being first duly sworn according to law, depose and say:

1. Affiant acknowledges Immediate Family Member is defined as parent, grandparent, step-parent, adopted parent, sibling, child, step-child, adopted child or grandchild.

2. Both the Owner and the Immediate Family Member have personal knowledge of all matters set forth in this Affidavit.

3. The Owner holds fee simple title to certain real property situated in Columbia County, and more particularly described by reference with the Columbia County Property Appraiser Parent Tract Tax Parcel No. 04-3S-17-04838-107.

4. The Immediate Family Member holds fee simple title to certain real property divided from the Owners' parent parcel situated in Columbia County and more particularly described by reference to the Columbia County Property Appraiser Tax Parcel No. 04-3S-17-04838-111.

5. No person or entity other than the Owner and Immediate Family Member to whom permit is being issued, including persons residing with the family member claims or is presently entitled to the right of possession or is in possession of the property, and there are no tenancies, leases or other occupancies that affect the property.

6. This Affidavit is made for the specific purpose of inducing Columbia County to recognize a family division for an Immediate Family Member being in compliance with the density requirements of the Columbia County's Comprehensive Plan and Land Development Regulations (LDR's).

7. This Affidavit and Agreement is made and given by Affiants with full knowledge that the facts contained herein are accurate and complete, and with full knowledge that the penalties under Florida law for perjury include conviction of a felony of the third degree.

We Hereby Certify that the facts represented by us in this Affidavit are true and correct and we accept the terms of the Agreement and agree to comply with it.

× Shelton Feagle
× Tocha Feagle
Owner

× Connie Ratliff
Immediate Family Member

Shelton Feagle | Tocha Feagle
Typed or Printed Name

Connie Ratliff
Typed or Printed Name

Subscribed and sworn to (or affirmed) before me this 16th day of January, 2020 by Shelton Feagle and Tocha Feagle (Owner) who is personally known to me or has produced _____ as identification.

Paula R. Thomas
Notary Public

PAULA R. THOMAS
Notary Public - State of Florida
Commission # GG 206323
My Comm. Expires Apr 13, 2022
Bonded through National Notary Assn.

Subscribed and sworn to (or affirmed) before me this 16th day of January, 2020 by Connie Ratliff (Family Member) who is personally known to me or has produced _____ as identification.

Paula R. Thomas
Notary Public

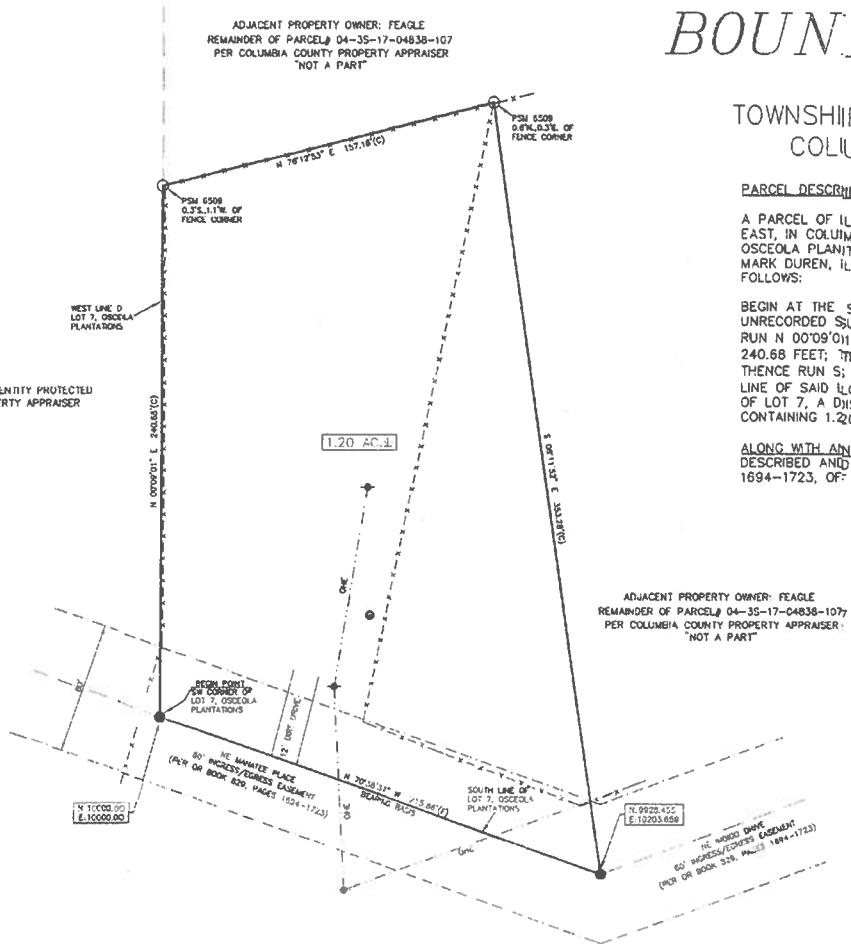
PAULA R. THOMAS
Notary Public - State of Florida
Commission # GG 206323
My Comm. Expires Apr 13, 2022
Bonded through National Notary Assn.

APPROVED:
COLUMBIA COUNTY, FLORIDA
By: Liza Williams
Name: Liza Williams
Title: Planning Technician

ZONING DEPARTMENT
COLUMBIA COUNTY
GATEWAY TO FLORIDA
APPROVED

BOUNDARY SURVEY

IN SECTION 4
TOWNSHIP 3 SOUTH, RANGE 17 EAST
COLUMBIA COUNTY, FLORIDA



0' 40' 80' 120'

PARCEL DESCRIPTION

A PARCEL OF LAND LYING IN SECTION 4, TOWNSHIP 3 SOUTH, RANGE 17 EAST, IN COLUMBIA COUNTY, FLORIDA, ALSO BEING A PORTION OF LOT 7, OSCEOLA PLANTATIONS, AN UNRECORDED SUBDIVISION AS SURVEYED BY MARK DUREN, LS 4708, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF LOT 7, OSCEOLA PLANTATIONS, AN UNRECORDED SUBDIVISION AS SURVEYED BY MARK DUREN, LS 4708, AND RUN N 00°09'01" E ALONG THE WEST LINE OF SAID LOT 7, A DISTANCE OF 240.68 FEET; THENCE RUN N 76°12'53" E, A DISTANCE OF 157.18 FEET; THENCE RUN S 08°11'52" E, A DISTANCE OF 353.28 FEET TO THE SOUTH LINE OF SAID LOT 7; THENCE RUN N 70°38'37" W ALONG SAID SOUTH LINE OF LOT 7, A DISTANCE OF 215.86 FEET TO THE POINT OF BEGINNING. CONTAINING 1.20 ACRES, MORE OR LESS.

ALONG WITH AND SUBJECT TO: AN INGRESS/EGRESS EASEMENT AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 829, PAGES 1694-1723, OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA.

LEGEND

These standard symbols may be found in the drawing.

⊕	GAS METER
⊕	ELECTRIC METER
○	WATER METER
●	WELL
OHE	OVERHEAD ELECTRIC
OHT	OVERHEAD TELEPHONE
◆	POWER POLE
E	SERVICE POLE
✱	LIGHT POLE
(F)	FIELD MEASUREMENT
(P)	PRIOR SURVEY MEASUREMENT
(C)	CALCULATED MEASUREMENT
R/W	RIGHT OF WAY
COR.	CORNER
—x—	FENCE
AC.	ACRES
■	FOUND 3"X3" CONCRETE MONUMENT, NO ID
●	FOUND 5/8" REBAR & CAP, LS 4708
○	SET 5/8" REBAR & CAP PSM 6509
◍	FOUND 5/8" REBAR & CAP, PSM 4093
PSM	PROFESSIONAL SURVEYOR AND MAPPER
LS	LICENSED SURVEYOR
PROP.	PROPERTY
FEN.	FENCE
CON.	CONCRETE
ID	IDENTIFICATION
LB	LICENSED BUSINESS
FD.	FOUND
MON.	MONUMENT
BLK.	BLOCK
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
N 9598.10 E 2943.53	HORIZONTAL CONTROL COORDINATES (ASSUMED)

SURVEYOR'S NOTES:

THIS SURVEY IS BASED ON INSTRUCTION FROM CLIENT; ON CURRENT DEED OF RECORD (OFFICIAL RECORDS BOOK 1364, PAGE 1117); ON ADJOINING CURRENT DEEDS OF RECORD; ON EXISTING DEED (OFFICIAL RECORDS BOOK 829, PAGES 1694-1723) DESCRIBING LOTS AND INGRESS/EGRESS EASEMENT FOR OSCEOLA PLANTATIONS, AN UNRECORDED SUBDIVISION, SURVEYED BY MARK DIREN, LS; AND ON EXISTING MONUMENTATION FOUND IN PLACE AS SHOWN HEREON.

BEARINGS ARE BASED ON SAID CURRENT RECORDED DEED DESCRIPTION AND IS REFERENCED TO THE MONUMENTED SOUTH LINE OF DESCRIBED PARCEL, AS BEING N 70°38'37" W.

HORIZONTAL CONTROL IS BASED ON AN ASSUMED DATUM.

IF THEY EXIST, NO UNDERGROUND ENCROACHMENTS AND/OR UTILITIES WERE LOCATED FOR THIS SURVEY EXCEPT AS SHOWN HEREON.

THERE MAY BE EASEMENTS AND/OR RESTRICTIONS FOR THE DESCRIBED LAND IN THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA, THAT ARE NOT SHOWN HEREON.

FOR THE PURPOSES OF CLARITY FENCE LINES SHOWN MAY NOT BE TO SCALE.

THIS SURVEY WAS REQUESTED BY SHELTON FEAGLE.

JOHN C. DRIGGERS
PROFESSIONAL SURVEYOR AND MAPPER NO. 6509

1-27-2020
DATE OF SIGNATURE

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

JOHN C. DRIGGERS
PROFESSIONAL SURVEYOR AND MAPPER
5377 SOUTHWEST 35TH AVENUE
JASPER, FLORIDA 32052 (386) 938-4856

DATE OF FIELD SURVEY: JANUARY 17, 2020		
DRAWN: JCD	CHECKED BY: JCD	FIELD BOOK 003
SCALE 1" = 40'	PROJECT NO. 19-052	

SUBCONTRACTOR VERIFICATION

APPLICATION/PERMIT # _____ JOB NAME _____

THIS FORM MUST BE SUBMITTED BEFORE A PERMIT WILL BE ISSUED

Columbia County issues combination permits. One permit will cover all trades doing work at the permitted site. It is REQUIRED that we have records of the subcontractors who actually did the trade specific work under the general contractors permit.

NOTE: *It shall be the responsibility of the general contractor to make sure that all of the subcontractors are licensed with the Columbia County Building Department.*
Use website to confirm licenses: http://www.columbiacountyfla.com/PermitSearch/ContractorSearch.aspx

NOTE: If this should change prior to completion of the project, it is your responsibility to have a corrected form submitted to our office, before that work has begun.

Violations will result in stop work orders and/or fines.

ELECTRICAL ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #: _____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
MECHANICAL/ A/C ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #: _____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
PLUMBING/ GAS ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #: _____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
ROOFING ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #: _____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
SHEET METAL ☐ CC#_____	Print Name_____ Signature_____ Company Name: _____ License #: _____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
FIRE SYSTEM/ SPRINKLER ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License#: _____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
SOLAR ☐ CC#_____	Print Name_____ Signature_____ Company Name: _____ License #: _____ Phone #: _____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
STATE SPECIALTY ☐ CC#_____	Print Name_____ Signature_____ Company Name: _____ License #: _____ Phone #: _____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE

Ref: F.S. 440.103; ORD. 2016-30

NOTICE OF COMMENCEMENT

Clerk's Office Stamp

Inst: 202012000620 Date: 01/08/2020 Time: 4:00PM
Page 1 of 1 B: 1402 P: 2397, P.DeWitt Cason, Clerk of Court
Columbia, County, By: PT
Deputy Clerk

Tax Parcel Identification Number:

04-3S-17-04838-107

THE UNDERSIGNED hereby gives notice that improvements will be made to certain real property, and in accordance with Section 713.13 of the Florida Statutes, the following information is provided in this **NOTICE OF COMMENCEMENT**.

1. Description of property *(legal description)*: 489 NE Manatee Pl Lake City FL 32055
   a) Street *(job)* Address: 489 NE Manatee Pl
2. General description of improvements: New Construction
3. Owner Information or Lessee information if the Lessee contracted for the improvements:
   a) Name and address: Shelton Feagle/Connie Ratliff
   b) Name and address of fee simple titleholder (if other than owner) _____
   c) Interest in property _____
4. Contractor Information
   a) Name and address: N/A
   b) Telephone No.: _____
5. Surety Information (if applicable, a copy of the payment bond is attached):
   a) Name and address: N/A
   b) Amount of Bond: _____
   c) Telephone No.: _____
6. Lender
   a) Name and address: N/A
   b) Phone No. _____
7. Person within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1)(a)7., Florida Statutes:
   a) Name and address: N/A
   b) Telephone No.: _____
8. In addition to himself or herself, Owner designates the following person to receive a copy of the Lienor's Notice as provided in Section 713.13(l)(b), Florida Statutes:
   a) Name: _____ OF _____
   b) Telephone No.: _____
9. Expiration date of Notice of Commencement **(the expiration date will be 1 year from the date of recording unless a different date is specified)**: _____

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY; A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

STATE OF FLORIDA
COUNTY OF COLUMBIA

10. _____
Signature of Owner or Lessee, or Owner's or Lessee's Authorized Office/Director/Partner/Manager

Shelton Feagle / Owner
Printed Name and Signatory's Title/Office

The foregoing instrument was acknowledged before me, a Florida Notary, this 8th day of January, 20 20, by:

Shelton Feagle as owner for _____.
(Name of Person) (Type of Authority) (name of party on behalf of whom instrument was executed)

Personally Known ✓ OR Produced Identification _____ Type _____

Notary Signature Paula R. Thomas Notary Stamp or Seal:

PAULA R. THOMAS
Notary Public - State of Florida
Commission # GG 206323
My Comm. Expires Apr 13, 2022
Bonded through National Notary Assn.

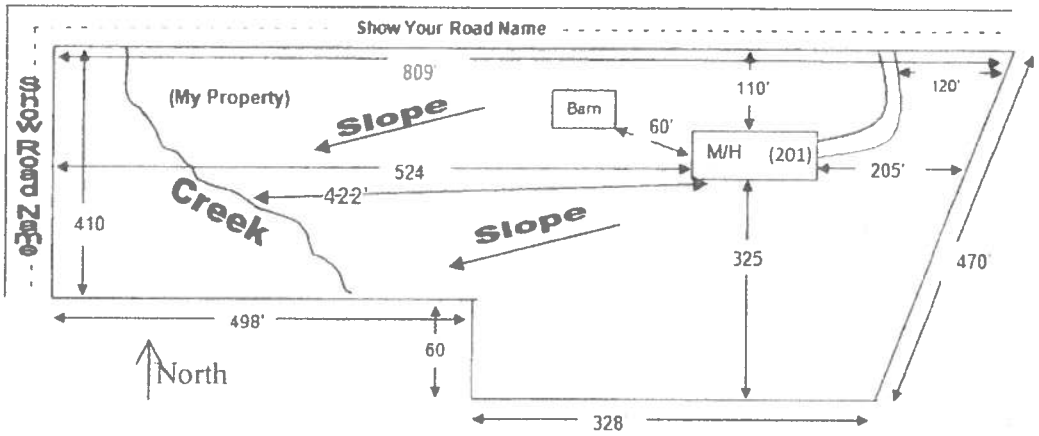
SITE PLAN CHECKLIST

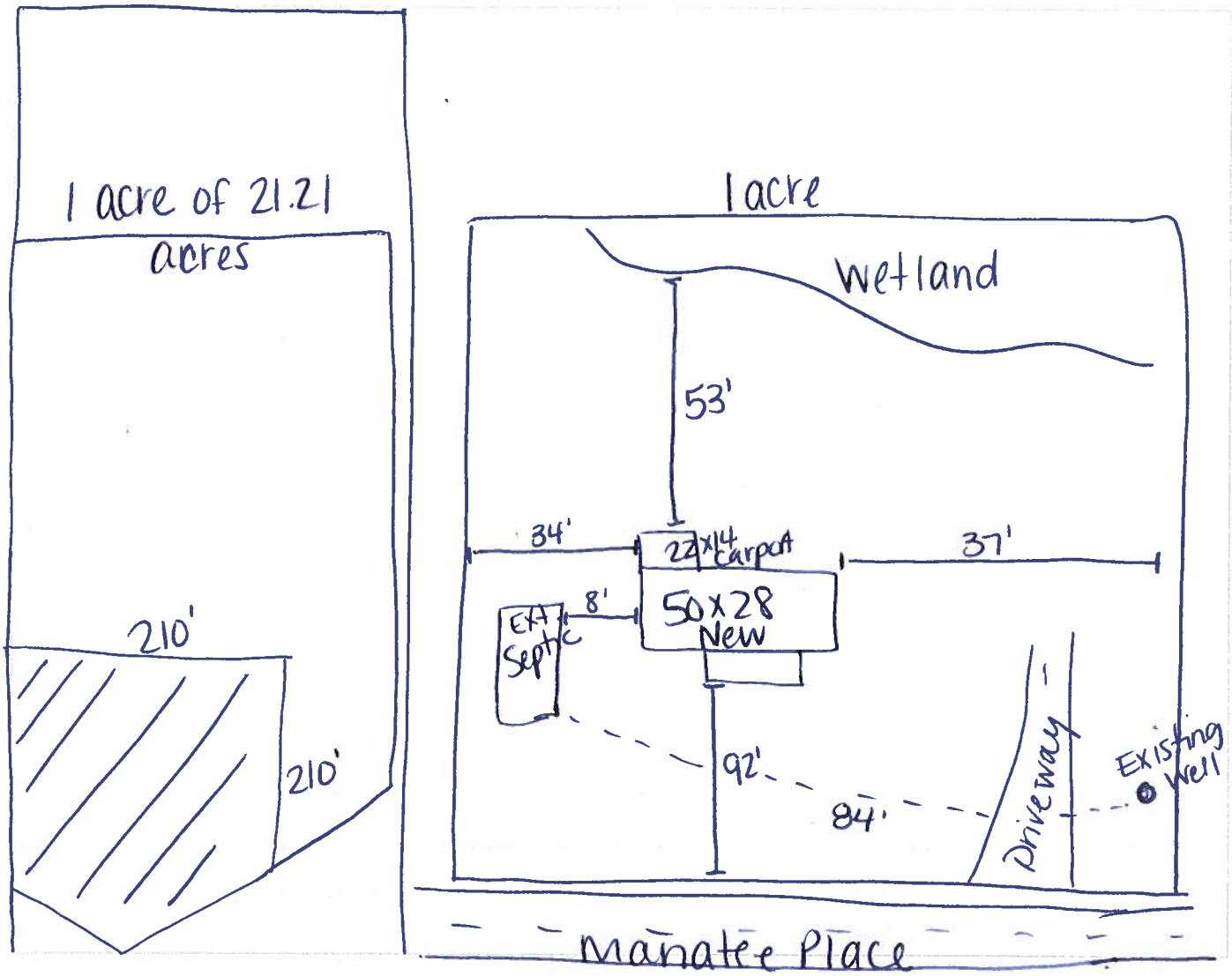
___1) Property Dimensions
___2) Footprint of proposed and existing structures (including decks), label these with existing addresses
___3) Distance from structures to all property lines
___4) Location and size of easements
___5) Driveway path and distance at the entrance to the nearest property line
___6) Location and distance from any waters; sink holes; wetlands; and etc.
___7) Show slopes and or drainage paths
___8) Arrow showing North direction

SITE PLAN EXAMPLE

Revised 7/1/15

NOTE:
This site plan can be copied and used with the 911 Addressing Dept. application forms.





District No. 1 - Ronald Williams
District No. 2 - Rocky Ford
District No. 3 - Bucky Nash
District No. 4 - Toby Witt
District No. 5 - Tim Murphy

BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY

Address Assignment and Maintenance Document

To maintain the county wide Addressing Policy you must make application for a 9-1-1 Address at the time you apply for a building permit. The established standards for addressing and posting numbers to all principal buildings, dwellings, businesses and industries are contained in Columbia County Ordinance 2001-9. The addressing system is to enable Emergency Services Agencies to locate you in an emergency, and to assist the United States Postal Service and the public in the timely and efficient provision of services to residents and businesses of Columbia County

Date/Time Issued:	**4/18/2019 12:48:44 PM**
Address:	**489 NE MANATEE Pl**
City:	**LAKE CITY**
State:	**FL**
Zip Code	**32055**
Parcel ID	**04838-107**

REMARKS: Address for proposed structure on parcel.

NOTICE: THIS ADDRESS WAS ISSUED BASED ON LOCATION AND ACCESS INFORMATION RECEIVED FROM THE REQUESTER. SHOULD, AT A LATER DATE, THE LOCATION AND/OR ACCESS INFORMATION BE FOUND TO BE IN ERROR OR CHANGED, THIS ADDRESS IS SUBJECT TO CHANGE.

Address Issued By: **Signed:/ Matt Crews**

Columbia County GIS/911 Addressing Coordinator

COLUMBIA COUNTY
911 ADDRESSING / GIS DEPARTMENT
263 NW Lake City Ave., Lake City, FL 32055 Telephone: (386) 758-1125
Email: gis@columbiacountyfla.com

Columbia County Property Appraiser

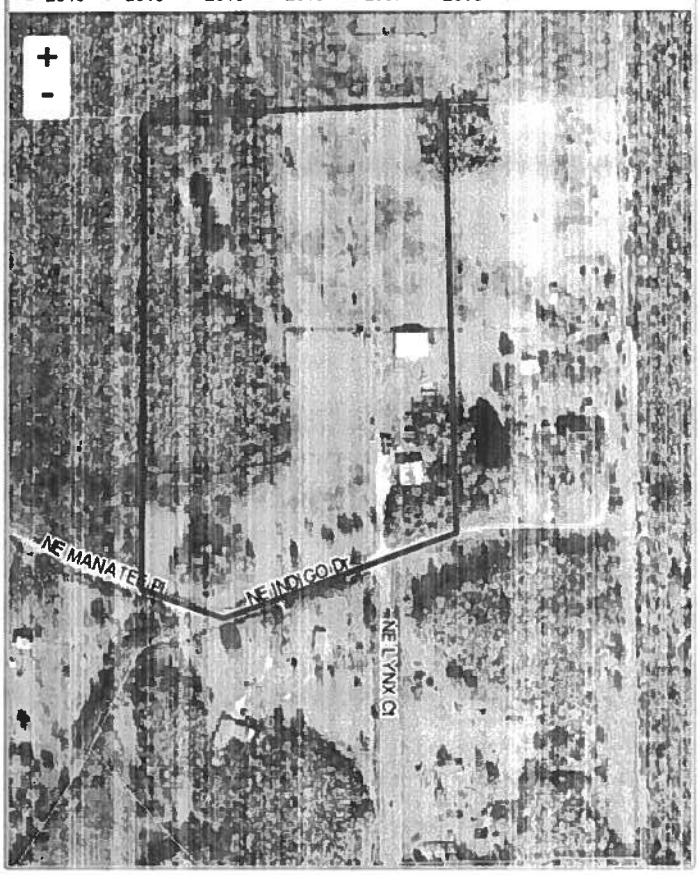
Jeff Hampton

2020 Working Values
updated: 11/27/2019

Parcel: << 04-3S-17-04838-107 >>

Aerial Viewer | Pictometery | Google Maps

2019 | 2016 | 2013 | 2010 | 2007 | 2005 | Sales



Owner & Property Info

Result: 1 of 1

Owner	FEAGLE SHELTON JR 805 NE INDIGO DR LAKE CITY, FL 32055		
Site	489 MANATEE PL, LAKE CITY		
Description*	COMM NE COR OF E1/2, RUN S 1538.94 FT, W 444.14 FT, FOR POB, CONT S 1082.89 FT, SW 625.24 FT, NW 215.78 FT, N 1196.67 FT, E 753.13 FT TO POB (AKA LOT 7 OSCEOLA PLANTATIONS UNR). 830-482, 913-2231, WD 1364-1116,		
Area	21.21 AC	S/T/R	04-3S-17E
Use Code**	TIMBERLAND (005500)	Tax District	3

*The Description above is not to be used as the Legal Description for this parcel in any legal transaction.
**The Use Code is a FL Dept. of Revenue (DOR) code and is not maintained by the Property Appraiser's office. Please contact your city or county Planning & Zoning office for specific zoning information.

Property & Assessment Values

2019 Certified Values		2020 Working Values	
Mkt Land (1)	$1,126	Mkt Land (1)	$1,126
Ag Land (1)	$6,433	Ag Land (1)	$6,433
Building (0)	$0	Building (0)	$0
XFOB (0)	$0	XFOB (0)	$0
Just	$45,307	Just	$45,307
Class	$7,559	Class	$7,559
Appraised	$7,559	Appraised	$7,559
SOH Cap [?]	$0	SOH Cap [?]	$0
Assessed	$7,559	Assessed	$7,559
Exempt	$0	Exempt	$0
Total Taxable	county:$7,559 city:$7,559 other:$7,559 school:$7,559	Total Taxable	county:$7,559 city:$7,559 other:$7,559 school:$7,559

Sales History

Sale Date	Sale Price	Book/Page	Deed	V/I	Quality (Codes)	RCode
7/12/2018	$100	1364/1116	WD	V	U	11
8/18/2000	$17,600	913/2231	QC	V	U	01
10/25/1996	$20,900	830/0482	WD	V	Q	

Building Characteristics

Bldg Sketch	Bldg Item	Bldg Desc*	Year Blt	Base SF	Actual SF	Bldg Value
NONE						

Extra Features & Out Buildings (Codes)

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
NONE						

Land Breakdown

Land Code	Desc	Units	Adjustments	Eff Rate	Land Value
005500	TIMBER 2 (AG)	16.710 AC	1.00/1.00 1.00/1.00	$385	$6,433
009630	SWAMP (MKT)	4.500 AC	1.00/1.00 1.00/1.00	$250	$1,126
009910	MKT.VAL.AG (MKT)	16.710 AC	1.00/1.00 1.00/1.00	$0	$44,181

Search Result: 1 of 1

by: GrizzlyLogic.com

Legend

LidarElevations

Parcels

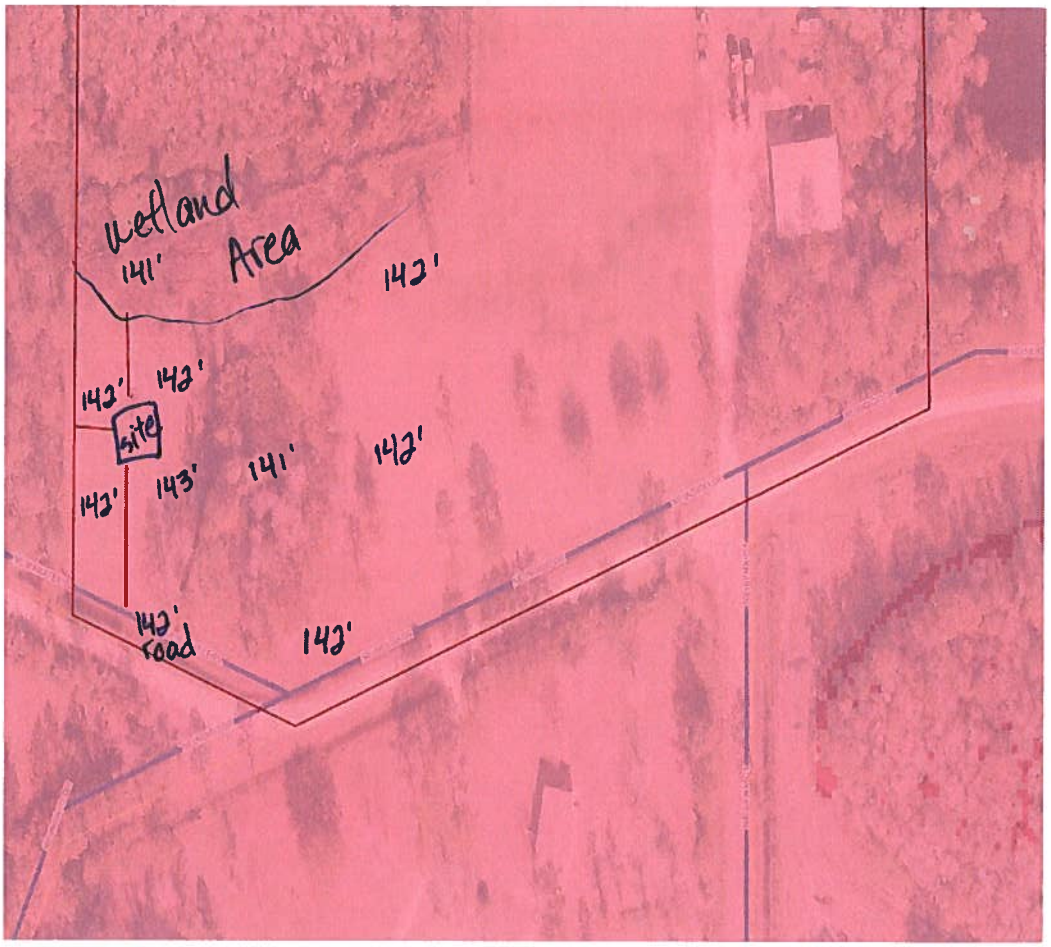
2018Aerials

Roads

Roads
others
Dirt
Interstate
Main
Other
Paved
Private

Columbia County, FLA - Building & Zoning Property Map

Printed: Tue Jan 07 2020 08:41:10 GMT-0500 (Eastern Standard Time)



Parcel Information

Parcel No: 04-3S-17-04838-107

Owner: FEAGLE SHELTON JR

Subdivision: OSCEOLA PLANTATIONS UNR

Lot: 7

Acres: 21.2667427

Deed Acres: 21.21 Ac

District: District 1 Ronald Williams

Future Land Uses: Agriculture - 3

Flood Zones: A

Official Zoning Atlas: A-3

04838-107

STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM
APPLICATION FOR CONSTRUCTION PERMIT

PERMIT NO. 19-0218
DATE PAID: 3/19/19
FEE PAID: 310.00
RECEIPT #: 1403708

APPLICATION FOR:
[✓] New System [ ] Existing System [ ] Holding Tank [ ] Innovative
[ ] Repair [ ] Abandonment [ ] Temporary [ ] _____

APPLICANT: Shelton Feagle Jr

AGENT: Robert W Ford Jr NEST INC. TELEPHONE: 386 755-6372

MAILING ADDRESS: 741 SE State Rd 100 Lc FLA 32025

TO BE COMPLETED BY APPLICANT OR APPLICANT'S AUTHORIZED AGENT. SYSTEMS MUST BE CONSTRUCTED BY A PERSON LICENSED PURSUANT TO 489.105(3)(m) OR 489.552, FLORIDA STATUTES. IT IS THE APPLICANT'S RESPONSIBILITY TO PROVIDE DOCUMENTATION OF THE DATE THE LOT WAS CREATED OR PLATTED (MM/DD/YY) IF REQUESTING CONSIDERATION OF STATUTORY GRANDFATHER PROVISIONS.

PROPERTY INFORMATION
LOT: AKA Lot 6 BLOCK: ____ SUBDIVISION: Osceola Plantation meet+bonds PLATTED: 2009

PROPERTY ID #: 04-3S-17-04838-106 ZONING: S/F I/M OR EQUIVALENT: [Y / N]

PROPERTY SIZE: 21.21 ACRES WATER SUPPLY: [✓] PRIVATE PUBLIC [ ]<=2000GPD [ ]>2000GPD

IS SEWER AVAILABLE AS PER 381.0065, FS? [Y / N] DISTANCE TO SEWER: NA FT

PROPERTY ADDRESS: 520 Manatee Place Lake City Fl

DIRECTIONS TO PROPERTY: Hwy 441 North to Cheschire Rd TR Follow to Triple RVN TL Follow to Manatee TR Follow to site on left

BUILDING INFORMATION [✓] RESIDENTIAL [ ] COMMERCIAL

Unit No	Type of Establishment	No. of Bedrooms	Building Area Sqft	Commercial/Institutional System Design Table 1, Chapter 64E-6, FAC
1	Single family	3	1568	Used
2				
3				
4				

[ ] Floor/Equipment Drains [ ] Other (Specify) _____

SIGNATURE: Robert W Ford Jr DATE: 3/11/19

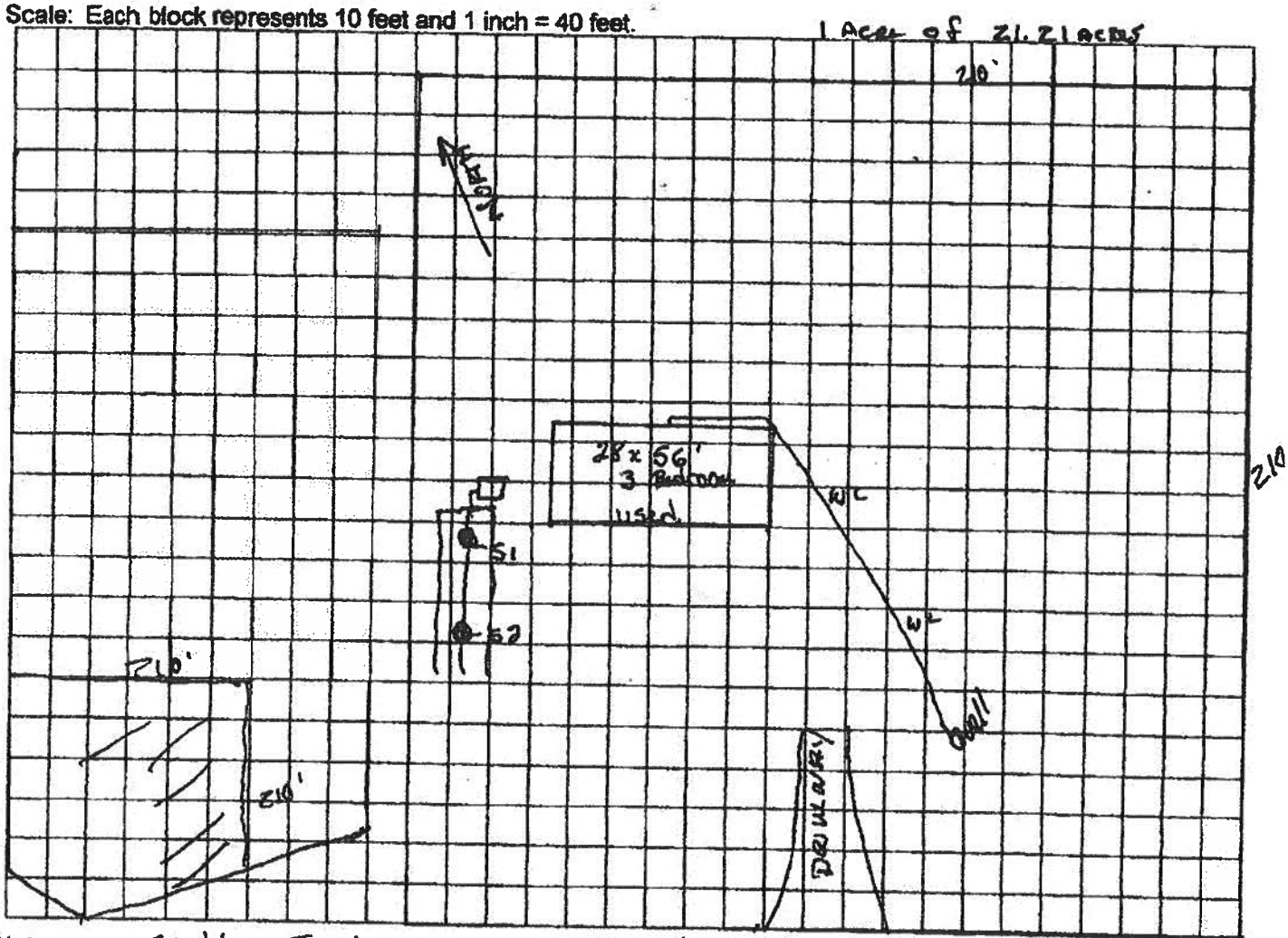
DH 4015, 08/09 (Obsoletes previous editions which may not be used)
Incorporated 64E-6.001, FAC

STATE OF FLORIDA
DEPARTMENT OF HEALTH
APPLICATION FOR CONSTRUCTION PERMIT

Permit Application Number 19-0215

---------- PART II - SITEPLAN ----------

Scale: Each block represents 10 feet and 1 inch = 40 feet.



Notes: Shelton Feagle Manatee Rd

Site Plan submitted by: Robert W. Ford Jr. Date 3/11/19

Plan Approved_____ Not Approved_____ Date_____

By_____ County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

*CORRECTED ONE

STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM
APPLICATION FOR CONSTRUCTION PERMIT

PERMIT NO. 19-0218
DATE PAID: 3/18/19
FEE PAID: 310.00
RECEIPT #: 4033708

APPLICATION FOR:
[✓] New System [ ] Existing System [ ] Holding Tank [ ] Innovative
[ ] Repair [ ] Abandonment [ ] Temporary [ ]

APPLICANT: Shelton Feagle Jr

AGENT: Robert W Ford JR NFST INC. TELEPHONE: 386 755-6372

MAILING ADDRESS: 741 SE STATE Rd 100 LC FLA 32025

TO BE COMPLETED BY APPLICANT OR APPLICANT'S AUTHORIZED AGENT. SYSTEMS MUST BE CONSTRUCTED BY A PERSON LICENSED PURSUANT TO 489.105(3)(m) OR 489.552, FLORIDA STATUTES. IT IS THE APPLICANT'S RESPONSIBILITY TO PROVIDE DOCUMENTATION OF THE DATE THE LOT WAS CREATED OR PLATTED (MM/DD/YY) IF REQUESTING CONSIDERATION OF STATUTORY GRANDFATHER PROVISIONS.

PROPERTY INFORMATION

LOT: AKA LOT 78 BLOCK: ____ SUBDIVISION: Osceola Plantation meets bonds PLATTED: 2009

PROPERTY ID #: 04-3S-17-04838-187 (was 186) ZONING: S/F I/M OR EQUIVALENT: [Y / N]

PROPERTY SIZE: 21.21 ACRES WATER SUPPLY: [✓] PRIVATE PUBLIC [ ]<=2000GPD [ ]>2000GPD

IS SEWER AVAILABLE AS PER 381.0065, FS? [Y / N] DISTANCE TO SEWER: NA FT

PROPERTY ADDRESS: 520 (was 489 NE) Manatee Place Lake City Fl

DIRECTIONS TO PROPERTY: Hwy 441 North to Cheshire Rd TR Follow to Triple RVN TL Follow to Manatee TR Follow to site on left

BUILDING INFORMATION [✓] RESIDENTIAL [ ] COMMERCIAL

Unit No	Type of Establishment	No. of Bedrooms	Building Area Sqft	Commercial/Institutional System Design Table 1, Chapter 64E-6, FAC
1	Single family	3	1568	~~Used~~ Site built
2				
3				
4				

[ ] Floor/Equipment Drains [ ] Other (Specify)

SIGNATURE: Robert W Ford Jr DATE: 3/11/19

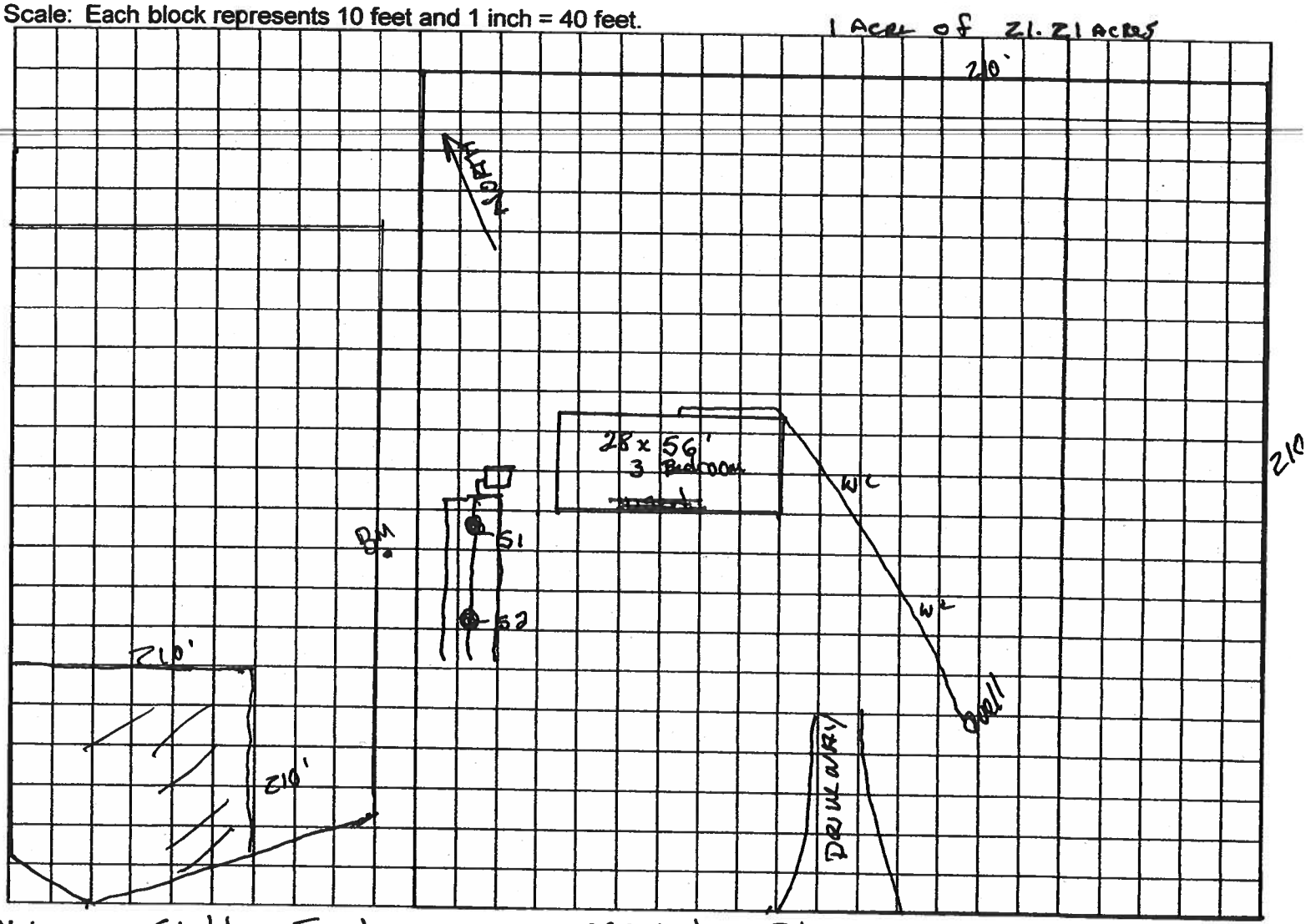
DH 4015, 08/09 (Obsoletes previous editions which may not be used)
Incorporated 64E-6.001, FAC

STATE OF FLORIDA
DEPARTMENT OF HEALTH
APPLICATION FOR CONSTRUCTION PERMIT

Permit Application Number 19-0218

---------- PART II - SITEPLAN ----------

Scale: Each block represents 10 feet and 1 inch = 40 feet.



Notes: Skeltons Feagle MANATEE Rd

Site Plan submitted by: Robert W Ford, Jr. DATE 3/11/19

Plan Approved ✓ Not Approved ____ Date 4/30/19

By [signature] EZI Columbia County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

Hall's Pump and Well Services, Inc.

904 NW Main Blvd.
Lake City, FL 32055
hallspumpandwell@bellsouth.net

Contractor #	1503	Submitted By	Benjamin D. Dicks
1/7/2020			

Parcel ID 04-3S-17-04838-107
Well Letter of Compliance
Property Owners: Shelton Feagle
Columbia County
Drop pipe size, 1-1/4" inch
4 Inch black steel well casing, 235mm wall thickness
Tank sized, PC 244, 81 gallon, will supply a 23.9 gal. draw down at 40/60 pressure setting.
All wells will have a pump and tank combination that will be sufficient for 1 minute of runtime
If you have any questions please call our office @ 386-752-1854

Pump size 1.0 hp, 230 volt, single ph, pump and motor of 4" in diameter

Benjamin Dicks,
Office Coordinator,
Hall's Pump and Well Services, Inc.
904 NW Main Blvd.
Lake City, FL 32055
(P): (386)752-1854
Thanks,

Columbia County Tax Collector

generated on 1/16/2020 9:41:46 AM EST

Last Update: 1/16/2020 9:41:03 AM EST

Register for eBill

Ad Valorem Taxes and Non-Ad Valorem Assessments

The information contained herein does not constitute a title search and should not be relied on as such.

Account Number	Tax Type	Tax Year
R04838-107	REAL ESTATE	2019

Mailing Address
FEAGLE SHELTON JR
805 NE INDIGO DR
LAKE CITY FL 32055

Property Address
489 MANATEE NE LAKE CITY

GEO Number
043S17-04838-107

Exempt Amount	Taxable Value
See Below	See Below

Exemption Detail NO EXEMPTIONS

Millage Code 003

Escrow Code

Legal Description (click for full description)
04-3S-17 5500/550021.21 Acres COMM NE COR OF E1/2, RUN S 1538.94 FT, W 444.14 FT, FOR POB, CONT S 1082.89 FT, SW 625.24 FT, NW 215.78 FT, N 1196.67 FT, E 753.13 FT TO POB (AKA LOT 7 OSCEOLA PLANTATIONS UNR). 830-482, 913-2231, WD 1364-1116,

Ad Valorem Taxes

Taxing Authority	Rate	Assessed Value	Exemption Amount	Taxable Value	Taxes Levied
BOARD OF COUNTY COMMISSIONERS	8.0150	7,559	0	$7,559	$60.59
COLUMBIA COUNTY SCHOOL BOARD					
DISCRETIONARY	0.7480	7,559	0	$7,559	$5.65
LOCAL	3.9880	7,559	0	$7,559	$30.15
CAPITAL OUTLAY	1.5000	7,559	0	$7,559	$11.34
SUWANNEE RIVER WATER MGT DIST	0.3840	7,559	0	$7,559	$2.90
LAKE SHORE HOSPITAL AUTHORITY	0.9620	7,559	0	$7,559	$7.27
Total Millage	15.5970	**Total Taxes**			$117.90

Non-Ad Valorem Assessments

Code	Levying Authority	Amount
FFIR	FIRE ASSESSMENTS	$0.00
	Total Assessments	$0.00
	Taxes & Assessments	$117.90

If Paid By	Amount Due
	$0.00

Date Paid	Transaction	Receipt	Item	Amount Paid
11/19/2019	PAYMENT	9920660.0003	2019	$113.18

Prior Years Payment History

Prior Year Taxes Due

NO DELINQUENT TAXES

COLUMBIA COUNTY BUILDING DEPARTMENT
135 NE Hernando Ave., Suite B-21
Lake City, FL 32055
Office: 386-758-1008 Fax: 386-758-2160

OWNER BUILDER DISCLOSURE STATEMENT

Florida Statutes Chapter 489.103:

1. I understand that state law requires construction to be done by a licensed contractor and have applied for an owner-builder permit under an exemption from the law. The exemption specifies that I, as the owner of the property listed, may act as my own contractor with certain restrictions even though I do not have a license.

2. I understand that building permits are not required to be signed by a property owner unless he or she is responsible for the construction and is not hiring a licensed contractor to assume responsibility.

3. I understand that, as an owner-builder, I am the responsible party of record on a permit. I understand that I may protect myself from potential financial risk by hiring a licensed contractor and having the permit filed in his or her name instead of my own name. I also understand that a contractor is required by law to be licensed in Florida and to list his or her license numbers on permits and contracts.

4. I understand that I may build or improve a one-family or two-family residence or a farm outbuilding. I may also build or improve a commercial building if the costs do not exceed $75,000. The building or residence must be for my own use or occupancy. It may not be built or substantially improved for sale or lease, unless I am completing the requirements of a building permit where the contractor listed on the permit substantially completed the project. If a building or residence that I have built or substantially improved myself is sold or leased within 1 year after the construction is complete, the law will presume that I built or substantially improved it for sale or lease, which violates the exemption.

5. I understand that, as the owner-builder, I must provide direct, onsite supervision of the construction.

6. I understand that I may not hire an unlicensed person to act as my contractor or to supervise persons working on my building or residence. It is my responsibility to ensure that the persons whom I employ have the licenses required by law and by county or municipal ordinance.

7. I understand that it is a frequent practice of unlicensed persons to have the property owner obtain an owner-builder permit that erroneously implies that the property owner is providing his or her own labor and materials. I, as an owner-builder, may be held liable and subjected to serious financial risk for any injuries sustained by an unlicensed person or his or her employees while working on my property. My homeowner's insurance may not provide coverage for those injuries. I am willfully acting as an owner-builder and am aware of the limits of my insurance coverage for injuries to workers on my property.

8. I understand that I may not delegate the responsibility for supervising work to a licensed contractor who is not licensed to perform the work being done. Any person working on my building who is not licensed must work under my direct supervision and must be employed by me, which means that I must comply with laws requiring the withholding of federal income tax and social security contributions under the Federal Insurance Contributions Act (FICA) and must provide workers' compensation for the employee. I understand that my failure to follow these laws may subject me to serious financial risk.

9. I agree that, as the party legally and financially responsible for this proposed construction activity, I will abide by all applicable laws and requirements that govern owner-builders as well as employers. I also understand that the construction must comply with all applicable laws, ordinances, building codes, and zoning regulations.

10. I understand that I may obtain more information regarding my obligations as an employer from the Internal Revenue Service, the United States Small Business Administration, the Florida Department of Financial Services, and the Florida Department of Revenue. I also understand that I may contact the Florida Construction Industry Licensing Board at **850-487-1395** or **http://www.myfloridalicense.com/** for more information about licensed contractors.

11. I am aware of, and consent to, an owner-builder building permit applied for in my name and understand that I am the party legally and financially responsible for the proposed construction activity at the following address:

489 NE Manatee Pl Lake City fl 32055

(Write in the address of jobsite property)

12. I agree to notify Columbia County Building Department immediately of any additions, deletions, or changes to any of the information that I have provided on this disclosure. Licensed contractors are regulated by laws designed to protect the public. If you contract with a person who does not have a license, the Construction Industry Licensing Board and Department of Business and Professional Regulation may be unable to assist you with any financial loss that you sustain as a result of a complaint. Your only remedy against an unlicensed contractor may be in civil court. It is also important for you to understand that, if an unlicensed contractor or employee of an individual or firm is injured while working on your property, you may be held liable for damages. If you obtain an owner-builder permit and wish to hire a licensed contractor, you will be responsible for verifying whether the contractor is properly licensed and the status of the contractor's workers' compensation coverage.

Florida Statutes Chapter 489.503:

State law requires electrical contracting to be done by licensed electrical contractors. You have applied for a permit under an exemption to that law. The exemption allows you, as the owner of your property, to act as your own electrical contractor even though you do not have a license. You may install electrical wiring for a farm outbuilding or a single-family or duplex residence. You may install electrical wiring in a commercial building the aggregate construction costs of which are under $75,000. The home or building must be for your own use and occupancy. It may not be built for sale or lease, unless you are completing the requirements of a building permit where the contractor listed on the permit substantially completed the project. If you sell or lease more than one building you have wired yourself within 1 year after the construction is complete, the law will presume that you built it for sale or lease, which is a violation of this exemption. You may not hire an unlicensed person as your electrical contractor. Your construction shall be done according to building codes and zoning regulations. It is your responsibility to make sure that people employed by you have licenses required by state law and by county or municipal licensing ordinances.

An owner of property completing the requirements of a building permit, where the contractor listed on the permit substantially completed the project as determined by the local permitting agency, for a one-family or two family residence, townhome, accessory structure of a one-family or two-family residence or townhome or individual residential condominium unit or cooperative unit. Prior to the owner qualifying for the exemption, the owner must receive approval from the local permitting agency, and the local permitting agency must determine that the contractor substantially completed the project. An owner who qualifies for the exemption under this paragraph is not required to occupy the dwelling or unit for at least 1 year after the completion of the project.

Before a building permit shall be issued, this notarized disclosure statement must be completed and signed by the property owner and returned to the local permitting agency responsible for issuing the permit.

TYPE OF CONSTRUCTION

(X) Single Family Dwelling *( ) Two-Family Residence* *( ) Farm Outbuilding*

( ) Addition, Alteration, Modification or other Improvement *( ) Electrical*

*( ) Other*_____

( ) Contractor substantially completed project, of a _____

*( ) Commercial, Cost of Construction*_____ *for construction of*_____

I Connie Ratliff, have been advised of the above disclosure
(Print Property Owners Name)
statement for exemption from contractor licensing as an owner/builder. I agree to comply with all requirements provided for in Florida Statutes allowing this exception for the construction permitted by Columbia County Building Permit.

Signature: Connie Ratliff Date: 2/12/2020
(Signature of property owner)

NOTARY OF OWNER BUILDER SIGNATURE

The above signer is personally known to me or produced identification FLDL

Notary Signature _____ Date 2/12/2020 (Seal)

LAURIE HODSON
MY COMMISSION # FF 976102
EXPIRES: July 14, 2020
Bonded Thru Notary Public Underwriters

COLUMBIA COUNTY BUILDING DEPARTMENT
RESIDENTIAL CHECK LIST

MINIMUM PLAN REQUIREMENTS: FLORIDA BUILDING CODE RESIDENTIAL 2017 EFFECTIVE 1 JANUARY 2018 AND THE NATIONAL ELECTRICAL 2014 EFFECTIVE 1 JANUARY 2018

ALL REQUIREMENTS ARE SUBJECT TO CHANGE

ALL BUILDING PLANS MUST INDICATE COMPLIANCE WITH THE CURRENT FLORIDA BUILDING CODES RESIDENTIAL AND THE NATIONAL ELECTRICAL CODE. ALL PLANS OR DRAWINGS SHALL PROVIDE CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY DWELLINGS, FBC 1609.3.1 THRU 1609.3.3.

FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEEDS ARE PER FLORIDA BUILDING CODE FIGURE 1609-A THROUGH 1609-C ULTIMATE DESIGN WIND SPEEDS FOR RISK CATEGORY AND BUILDINGS AND OTHER STRUCTURES
Revised 7/1/18

Website: http://www.columbiacountyfla.com/BuildingandZoning.asp

	GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL			Items to Include- Each Box shall be Circled as Applicable		
				Select From Drop down		
1	Two (2) complete sets of plans containing the following:			✓		
2	All drawings must be clear, concise, drawn to scale, details that are not used shall be marked void			✓		
3	**Condition space (Sq. Ft.)**	1419	**Total (Sq. Ft.) under roof** 1921	Yes	No	NA

Designers name and signature shall be on all documents and a licensed architect or engineer, signature and official embossed seal shall be affixed to the plans and documents as per the FLORIDA BUILDING CODES RESIDENTIAL 107.1.

Site Plan information including:

4	Dimensions of lot or parcel of land	Yes		
5	Dimensions of all building set backs	Yes		
6	Location of all other structures (include square footage of structures) on parcel, existing or proposed well and septic tank and all utility easements.	Yes		
7	Provide a full legal description of property.	Yes		

Wind-load Engineering Summary, calculations and any details are required.

	GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL	Items to Include- Each Box shall be Circled as Applicable		
8	**Plans or specifications must show compliance with FBCR Chapter 3**	Yes	No	NA

		Select From Drop down		
9	Basic wind speed (3-second gust), miles per hour	Yes		
10	(Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated)	Yes		
11	Wind importance factor and nature of occupancy	Yes		
12	The applicable internal pressure coefficient, Components and Cladding	Yes		
13	The design wind pressure in terms of psf (kN/m²), to be used for the design of exterior component, cladding materials not specifally designed by the registered design professional.	Yes		

Elevations Drawing including:

14	All side views of the structure	Yes		
15	Roof pitch	Yes		
16	Overhang dimensions and detail with attic ventilation	Yes		
17	Location, size and height above roof of chimneys	NA		
18	Location and size of skylights with Florida Product Approval	NA		
19	Number of stories	Yes		
20	Building height from the established grade to the roofs highest peak	Yes		

Floor Plan Including:

21	Dimensioned area plan showing rooms, attached garage, breeze ways, covered porches, deck, balconies	Yes		
22	Raised floor surfaces located more than 30 inches above the floor or grade	NA		
23	All exterior and interior shear walls indicated	NA		
24	Shear wall opening shown (Windows, Doors and Garage doors)	NA		
25	Show compliance with Section FBCR 310 Emergency escape and rescue opening shown in each bedroom (net clear opening shown) and Show compliance with Section FBC 1405.13.2 where the opening of an operable window is located more than 72 inches above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches above the finished floor of the room in which the window is located. Glazing between the floor and 24 inches shall be fixed or have openings through which a 4-inch-diameter sphere cannot pass.	Yes		
26	Safety glazing of glass where needed	NA		
27	Fireplaces types (gas appliance) (vented or non-vented) or wood burning with Hearth (see chapter 10 and chapter 24 of FBCR)	NA		
28	Show stairs with dimensions (width, tread and riser and total run) details of guardrails, Handrails	NA		
29	Identify accessibility of bathroom (see FBCR SECTION 320)	Yes		

All materials placed within opening or onto/into exterior walls, soffits or roofs shall have Florida product approval number and mfg. installation information submitted with the plans
(see Florida product approval form)

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL	Items to Include- Each Box shall be Circled as Applicable

FBCR 403: Foundation Plans

		Select From Drop down		
30	Location of all load-bearing walls footings indicated as standard, monolithic, dimensions, size and type of reinforcing.	Yes		
31	All posts and/or column footing including size and reinforcing	Yes		
32	Any special support required by soil analysis such as piling.	Yes		
33	Assumed load-bearing valve of soil Pound Per Square Foot	Yes		
34	Location of horizontal and vertical steel, for foundation or walls (include # size and type) For structures with foundation which establish new electrical utility companies service connection a Concrete Encased Electrode will be required within the foundation to serve as an grounding electrode system. Per the National Electrical Code article 250.52.3	Yes		

FBCR 506: CONCRETE SLAB ON GRADE

35	Show Vapor retarder (6mil. Polyethylene with joints lapped 6 inches and sealed)	Yes		
36	Show control joints, synthetic fiber reinforcement or welded fire fabric reinforcement and Supports	Yes		

FBCR 318: PROTECTION AGAINST TERMITES

37	Indicate on the foundation plan if soil treatment is used for subterranean termite prevention or Submit other approved termite protection methods. **Protection shall be provided by registered termiticides**	Yes		

FBCR 606: Masonry Walls and Stem walls (load bearing & shear Walls)

38	Show all materials making up walls, wall height, and Block size, mortar type	NA		
39	Show all Lintel sizes, type, spans and tie-beam sizes and spacing of reinforcement	No		

Metal frame shear wall and roof systems shall be designed, signed and sealed by Florida Prof. Engineer or Architect

ROOF ASSEMBLIES FRC Chapter 9

72	Include all materials which will make up the roof assembles covering	Yes		
73	Submit Florida Product Approval numbers for each component of the roof assembles covering	Yes		

FBCR Chapter 11 Energy Efficiency Code for Residential Building

Residential construction shall comply with this code by using the following compliance methods in the FBCR Chapter 11 Residential buildings compliance methods. **Two of the required forms are to be submitted,** *N1100.1.1.1 As an alternative to the computerized Compliance Method A, the Alternate Residential Point System Method hand calculation, Alternate Form 600A, may be used. All requirements specific to this calculation are located in Sub appendix C to Appendix G. Buildings complying by this alternative shall meet all mandatory requirements of this chapter. Computerized versions of the Alternate Residential Point System Method shall not be acceptable for code compliance.*

	GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL	Items to Include- Each Box shall be Circled as Applicable		
		Select from Drop Down		
74	Show the insulation R value for the following areas of the structure	Yes		
75	Attic space	Yes		
76	Exterior wall cavity	Yes		
77	Crawl space	NA		

HVAC information

78	Submit two copies of a Manual J sizing equipment or equivalent computation study	Yes		
79	Exhaust fans shown in bathrooms **Mechanical exhaust capacity of 50 cfm intermittent or 20 cfm continuous required**	Yes		
80	Show clothes dryer route and total run of exhaust duct	Yes		

Plumbing Fixture layout shown

81	All fixtures waste water lines shall be shown on the foundation plan	Yes		
82	Show the location of water heater	Yes		

Private Potable Water

83	Pump motor horse power	Yes N/A		
84	Reservoir pressure tank gallon capacity	Yes N/A		
85	Rating of cycle stop valve if used	Yes N/A		

Electrical layout shown including

86	Show Switches, receptacles outlets, lighting fixtures and Ceiling fans	Yes		
87	Show all 120-volt, single phase, 15- and 20-ampere branch circuits outlets required to be protected by **Ground-Fault Circuit Interrupter (GFCI) Article 210.8 A**	Yes		
88	Show the location of smoke detectors & Carbon monoxide detectors	Yes		
89	Show service panel, sub-panel, location(s) and total ampere ratings	Yes		
90	On the electrical plans identify the electrical service overcurrent protection device for the main electrical service. This device shall be installed on the exterior of structures to serve as a disconnecting means for the utility company electrical service. Conductors used from the exterior disconnecting means to a panel or sub panel shall have four-wire conductors, of which one conductor shall be used as an equipment ground. Indicate if the utility company service entrance cable will be of the overhead or underground type. **For structures** with foundation which establish new electrical utility companies service connection a Concrete Encased Electrode will be required within the foundation to serve as an Grounding electrode system. Per the National Electrical Code article 250.52.3	Yes		
91	Appliances and HVAC equipment and disconnects	Yes		
92	Show all 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas shall be protected by a listed **Combination arc-fault circuit interrupter,** Protection device.	Yes		

Notice Of Commencement:

A notice of commencement form RECORDED in the Columbia County Clerk Office is required to be filed with the Building Department BEFORE ANY INSPECTIONS can be performed.

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL	Items to Include- Each Box shall be Circled as Applicable

****ITEMS 95, 96, & 98 Are Required After APPROVAL from the ZONING DEPT.****

Select from Drop down

93	**Building Permit Application** A current Building Permit Application is to be completed, by following the Checklist all supporting documents must be submitted. There is a **$15.00** application fee. The completed application with attached documents and application fee can be mailed.	Yes		
94	**Parcel Number** The parcel number (Tax ID number) from the Property Appraisers Office (386) 758-1083 is required. A copy of property deed is also required. www.columbiacountyfla.com	Yes		
95	**Environmental Health Permit or Sewer Tap Approval** A copy of a approved Columbia County Environmental Health (386) 758-1058	Yes		
96	**City of Lake City** A City Water and/or Sewer letter. Call 386-752-2031	NA		
97	**Toilet facilities shall be provided for all construction sites**	Yes		
98	**Town of Fort White** (386) 497-2321 If the parcel in the application for building permit is within the Corporate city limits of Fort White, an approval land use development letter issued by the Town of Fort is required to be submitted with the application for a building permit.	NA		
99	**Flood Information:** All projects within the Floodway of the Suwannee or Santa Fe Rivers shall require permitting through the Suwannee River Water Management District, before submitting a application to this office. Any project located within a flood zone where the base flood elevation (100 year flood) has been established shall meet the requirements of Section 8.5.2 of the Columbia County Land Development Regulations. Any project located within a flood zone where the base flood elevation has not been established (Zone A) shall meet the requirements of Section 8.5.3 of the Columbia County Land Development Regulations (Municode.com)	Yes		
100	**CERTIFIED FINISHED FLOOR ELEVATIONS** will be required on any project where the approved FIRM Flood Maps show the property is in a AE, Floodway, and AH flood zones. Additionally One Foot Rise letters are required for AE and AH zones. In the Floodway Flood zones a Zero Rise letter is required.	Yes		
101	A Flood development permit is also required for AE, Floodway & AH. Development permit cost is **$50.00**	NA		
102	**Driveway Connection:** If the property does not have an existing access to a public road, then an application for a culvert permit **($25.00)** must be made. County Public Works Dept. determines the size and length of every culvert before instillation and completes a final inspection before permanent power is granted. If the applicant feels that a culvert is not needed, they may apply for a culvert waiver **($50.00)** Separate Check when issued. If the project is to be located on an F.D.O.T. maintained road, then an F.D.O.T. access permit is required.	Yes		
103	**911 Address:** An application for a 911address must be applied for and **received** through the Columbia County Emergency Management Office of 911 Addressing Department (386) 758-1125.	Yes		

Ordinance Sec. 90-75. - Construction debris. (e) It shall be unlawful for any person to dispose of or discard solid waste, including construction or demolition debris at any place within the county other than on an authorized disposal site or at the county's solid waste facilities. The temporary storage, not to exceed seven days of solid waste (excluding construction and demolition debris) on the premises where generated or vegetative trash pending disposition as authorized by law or ordinance, shall not be deemed a violation of this section. The temporary storage of construction and demolition debris on the premises where generated or vegetative trash pending disposition as authorized by law or ordinance shall not be deemed in violation of this section; provided, however, such construction and demolition debris must be disposed of in accordance with this article prior to the county's issuance of a certificate of occupancy for the premises. The burning of lumber from a construction or demolition project or vegetative trash when done so with legal and proper permits from the authorized agencies and in accordance with such agencies' rules and regulations, shall not be deemed a violation of this section. No person shall bury, throw, place, or deposit, or cause to be buried, thrown, placed, or deposited, any solid waste, special waste, or debris of any kind into or on any of the public streets, road right-of-way, highways, bridges, alleys, lanes, thoroughfares, waters, canals, or vacant lots or lands within the county. No person shall bury any vegetative trash on any of the public streets, road right-of-way, highways, bridges, lanes, thoroughfares, waters, canals, or lots less than ten acres in size within the county.

FLORIDA PRODUCT APPROVALS
10-16-15

Rogue Valley Wood FL-13137

Item:	Manufacturer	Product Description:	Approval Number:	
Exterior Doors:	Masonite	Inswing & Outswing Fiberglass	FL-8228-R7	
	Masonite	Inswing & Outswing Steel	FL-~~4904-R7~~ 22513.6 w/glass 22521.1	5-17-1[illegible] Per O[illegible] SF 6[illegible]
	Plastpro	8'0" Inswing & Outswing Fiberglass	FL-15220-R1	
	Plastpro	Inswing & Outswing Steel	FL-15962-R2	
	Plastpro	6'8" Inswing & Outswing Fiberglass	FL-15215-R3 flush glazed SD w/ insert	17347
		6'8" Fib- glazed Door	FL-17347 11-17	
Windows:	MI	Aluminum 185 Single Hung	FL-17499	
		Aluminum 185 Picture Window	FL-15349	
	* 53"x50"	3580 Hor. Slider	FL-13349.2	
1-7-16 Finless covers flange & finless per Jason		Vinyl 3540 Single Hung	FL-17676-~~R1~~ R6	11-17
		Vinyl 3500 Picture Window	FL-18644	
	Atrium	150/160	FL-11834	
	Magnolia	Vinyl 400 Single Hung	FL-16475-R3	
		Vinyl 400 Picture Window	FL-16474-R2	
5-16	63"x44"	400 Hor. Slider	FL 16476.1	
Soffit:	Kaycan	Vinyl/PVC & Aluminum Soffit	FL-16503	
		Vinyl Siding	FL-15867-R1	
	LCIHW (House Wrap)	International Bldg Code	ESR3774	
Underlayment:	Woodland	30# Felt	FL-17206-R3	
	Interwrap	Rhino	FL-15216	
Roofing:	Certainteed	Asphalt Shingles	FL-5444	
	GAF	Asphalt Shingles	FL-10124-~~R16~~ R20	11-17
	Tamko	Asphalt Shingles	FL-18355	
Polyglass A.P. FL-1654 R20	Certainteed	Flintlastic SBS & APP	FL-16709.1	
Siding:	Allura of Plycem	Cement board lap siding	FL-17482-R2	
	James Hardie	Cement board lap siding	FL-13192-R4	
Simpson		LSTA – MSTA, SPH4	FL-13872-R2	
	GAF	Tiger Paw Underlayment	FL-15487-R5	
Metal Roofing		5V Roofing Master Rib Roofing	FL-9555-R3 FL-9557-R3	

Hardie Union — CemPlank — 13192.1

NORRIS KATLIFF

RESIDENTIAL ENERGY CONSERVATION CODE DOCUMENTATION CHECKLIST

Florida Department of Business and Professional Regulation
Simulated Performance Alternative (Performance) Method

Applications for compliance with the 2017 Florida Building Code, Energy Conservation via the residential Simulated Performance Method shall include:

- ☐ *This checklist*
- ☐ *A Form R405 report that documents that the Proposed Design complies with Section R405.3 of the Florida Energy Code. This form shall include a summary page indicating home address, e-ratio and the pass or fail status along with summary areas and types of components, whether the home was simulated as a worst-case orientation, name and version of the compliance software tool, name of individual completing the compliance report (one page) and an input summary checklist that can be used for field verification (usually four pages/may be greater).*
- ☐ *Energy Performance Level (EPL) Display Card (one page)*
- ☐ *HVAC system sizing and selection based on ACCA Manual S or per exceptions provided in Section R403.7*
- ☐ *Mandatory Requirements (five pages)*

Required prior to CO for the Performance Method:

- ☐ *Air Barrier and Insulation Inspection Component Criteria checklist (Table R402.4.1.1 - one page)*
- ☐ *A completed Envelope Leakage Test Report (usually one page)*
- ☐ *If Form R405 duct leakage type indicates anything other than "default leakage", then a completed Form R405 Duct Leakage Test Report (usually one page)*

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for FILE COPY
Code Compliance
PLANS EXAMINER

FORM R405-2017

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Norris-Ratliff	Builder Name:	John Norris Construction
Street:	489 NE Manatee PL	Permit Office:	
City, State, Zip:	Lake City , FL , 32055	Permit Number:	
Owner:	Connie Ratliff	Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia (Florida Climate Zone 2)

1. New construction or existing	New (From Plans)
2. Single family or multiple family	Single-family
3. Number of units, if multiple family	1
4. Number of Bedrooms	2
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	1420
Conditioned floor area below grade (ft²)	0

7. Windows(150.0 sqft.)	Description	Area
a. U-Factor: SHGC:	Dbl, U=0.33 SHGC=0.21	150.00 ft²
b. U-Factor: SHGC:	N/A	ft²
c. U-Factor: SHGC:	N/A	ft²
d. U-Factor: SHGC:	N/A	ft²
Area Weighted Average Overhang Depth:		1.500 ft.
Area Weighted Average SHGC:		0.210

8. Floor Types (1420.0 sqft.)	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	1420.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

9. Wall Types (1248.0 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1248.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10. Ceiling Types (1420.0 sqft.)	Insulation	Area
a. Under Attic (Vented)	R=38.0	1420.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts	R	ft²
a. Sup: Attic, Ret: Attic, AH: Main	6	150

12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	36.0	SEER:14.00

13. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	36.0	HSPF:8.20

14. Hot water systems	
a. Electric	Cap: 40 gallons EF: 0.950
b. Conservation features None	
15. Credits	CF, CV

Glass/Floor Area: 0.106

Total Proposed Modified Loads: 36.95

Total Baseline Loads: 38.64

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: _____

DATE: 11-15-19

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____

DATE: _____

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: _____

DATE: _____

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.

- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 7.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Norris-Ratliff	Bedrooms:	2	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1420	Lot #	
Owner Name:	Connie Ratliff	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	John Norris Construction	Rotate Angle:	0	Street:	489 NE Manatee PL
Permit Office:		Cross Ventilation:	Yes	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City , FL , 32055
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

√	Design Location	TMY Site	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
_____	FL, Gainesville	FL_GAINESVILLE_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1420	11360

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1420	11360	Yes	1	2	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	156 ft	0	1420 ft²	----	0.25	0.5	0.25

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Gable or shed	Composition shingles	1538 ft²	296 ft²	Light	N	0.8	No	0.9	No	0	22.6

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	1420 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	38	Blown	1420 ft²	0.11	Wood

INPUT SUMMARY CHECKLIST REPORT

WALLS

√	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
___	1	N	Exterior	Frame - Wood	Main	13	50		8		400.0 ft²	1	0.23	0.75	0
___	2	E	Exterior	Frame - Wood	Main	13	28		8		224.0 ft²	1	0.23	0.75	0
___	3	S	Exterior	Frame - Wood	Main	13	34		8		272.0 ft²	1	0.23	0.75	0
___	4	S	Exterior	Frame - Wood	Main	13	16		8		128.0 ft²	1	0.23	0.75	0
___	5	W	Exterior	Frame - Wood	Main	13	28		8		224.0 ft²	1	0.23	0.75	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
___	1	N	Insulated	Main	None	.46	3		6	8	20 ft²
___	2	S	Insulated	Main	None	.46	3		6	8	20 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
___	1	N	1	Metal	Double (Tinted)	Yes	0.33	0.21	N	9.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
___	2	N	1	Metal	Double (Tinted)	Yes	0.33	0.21	N	15.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
___	3	E	2	Metal	Double (Tinted)	Yes	0.33	0.21	N	45.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
___	4	S	3	Metal	Double (Tinted)	Yes	0.33	0.21	N	30.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
___	5	S	4	Metal	Double (Tinted)	Yes	0.33	0.21	N	15.0 ft²	1 ft 6 in	10 ft 0 in	Drapes/blinds	None
___	6	W	5	Metal	Double (Tinted)	Yes	0.33	0.21	N	30.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
___	7	W	5	Metal	Double (Tinted)	Yes	0.33	0.21	N	6.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000356	1325.3	72.76	136.83	.1339	7

HEATING SYSTEM

√	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
___	1	Electric Heat Pump/	Split	Singl	HSPF:8.2	36 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
___	1	Central Unit/	Split	Singl	SEER: 14	36 kBtu/hr	1080 cfm	0.75	1	sys#1

FORM R405-2017

INPUT SUMMARY CHECKLIST REPORT

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
____	1	Electric	None	Main	0.95	40 gal	50 gal	120 deg	None

SOLAR HOT WATER SYSTEM

√	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
					ft²		
____	None	None					

DUCTS

√	#	Supply Location	Supply R-Value	Supply Area	Return Location	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
____	1	Attic	6	150 ft²	Attic	50 ft²	Default Leakage	Main	(Default)	(Default)			1	1

TEMPERATURES

Programable Thermostat: N

Ceiling Fans:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]
Heating	[X]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]
Venting	[ ]	[ ]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[ ]

Thermostat Schedule: HERS 2006 Reference

Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	68	68	68	68	68	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68
Heating (WEH)	AM	68	68	68	68	68	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
Default(8 lbs/sq.ft.	0 ft²	0 ft	0.3	Main

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 96

The lower the Energy Performance Index, the more efficient the home.

1. New home or, addition	1. New (From Plans)
2. Single-family or multiple-family	2. Single-family
3. No. of units (if multiple-family)	3. 1
4. Number of bedrooms	4. 2
5. Is this a worst case? (yes/no)	5. No
6. Conditioned floor area (sq. ft.)	6. 1420
7. Windows, type and area	
a) U-factor:(weighted average)	7a. 0.330
b) Solar Heat Gain Coefficient (SHGC)	7b. 0.210
c) Area	7c. 150.0
8. Skylights	
a) U-factor:(weighted average)	8a. NA
b) Solar Heat Gain Coefficient (SHGC)	8b. NA
9. Floor type, insulation level:	
a) Slab-on-grade (R-value)	9a. 0.0
b) Wood, raised (R-value)	9b.
c) Concrete, raised (R-value)	9c.
10. Wall type and insulation:	
A. Exterior:	
1. Wood frame (Insulation R-value)	10A1. 13.0
2. Masonry (Insulation R-value)	10A2.
B. Adjacent:	
1. Wood frame (Insulation R-value)	10B1.
2. Masonry (Insulation R-value)	10B2.
11. Ceiling type and insulation level	
a) Under attic	11a. 38.0
b) Single assembly	11b.
c) Knee walls/skylight walls	11c.
d) Radiant barrier installed	11d. No

12. Ducts, location & insulation level	
a) Supply ducts	R 6.0
b) Return ducts	R 6.0
c) AHU location	Main
13. Cooling system:	Capacity 36.0
a) Split system	SEER 14.0
b) Single package	SEER
c) Ground/water source	SEER/COP
d) Room unit/PTAC	EER
e) Other	
14. Heating system:	Capacity 36.0
a) Split system heat pump	HSPF 8.2
b) Single package heat pump	HSPF
c) Electric resistance	COP
d) Gas furnace, natural gas	AFUE
e) Gas furnace, LPG	AFUE
f) Other	
15. Water heating system	
a) Electric resistance	EF 0.95
b) Gas fired, natural gas	EF
c) Gas fired, LPG	EF
d) Solar system with tank	EF
e) Dedicated heat pump with tank	EF
f) Heat recovery unit	HeatRec%
g) Other	
16. HVAC credits claimed (Performance Method)	
a) Ceiling fans	Yes
b) Cross ventilation	Yes
c) Whole house fan	No
d) Multizone cooling credit	
e) Multizone heating credit	
f) Programmable thermostat	No

*Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

I certify that this home has complied with the Florida Building Code, Energy Conservation, through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL display card will be completed based on installed code compliant features.

Builder Signature:_____ Date:_____

Address of New Home: 489 NE Manatee PL City/FL Zip: Lake City, FL 32055

Florida Building Code, Energy Conservation, 6th Edition (2017)
Mandatory Requirements for Residential Performance, Prescriptive and ERI Methods

ADDRESS:	489 NE Manatee PL Lake City , FL , 32055	Permit Number:

MANDATORY REQUIREMENTS See individual code sections for full details.

✓

SECTION R401 GENERAL

☐ **R401.3 Energy Performance Level (EPL) display card (Mandatory).** The building official shall require that an energy performance level (EPL) display card be completed and certified by the builder to be accurate and correct before final approval of the building for occupancy. Florida law (Section 553.9085, Florida Statutes) requires the EPL display card to be included as an addendum to each sales contract for both presold and nonpresold residential buildings. The EPL display card contains information indicating the energy performance level and efficiencies of components installed in a dwelling unit. The building official shall verify that the EPL display card completed and signed by the builder accurately reflects the plans and specifications submitted to demonstrate code compliance for the building. A copy of the EPL display card can be found in Appendix RD.

☐ **R402.4 Air leakage (Mandatory).** The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.5.

Exception: Dwelling units of R-2 Occupancies and multiple attached single family dwellings shall be permitted to comply with Section C402.5.

☐ **R402.4.1 Building thermal envelope.** The building thermal envelope shall comply with Sections R402.4.1.1 and R402.4.1.2. The sealing methods between dissimilar materials shall allow for differential expansion and contraction.

☐ **R402.4.1.1 Installation.** The components of the building thermal envelope as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction. Where required by the code official, an approved third party shall inspect all components and verify compliance.

☐ **R402.4.1.2 Testing.** The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

Exception: Testing is not required for additions, alterations, renovations, or repairs, of the building thermal envelope of existing buildings in which the new construction is less than 85 percent of the building thermal envelope.

During testing:
1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.

☐ **R402.4.2 Fireplaces.** New wood-burning fireplaces shall have tight-fitting flue dampers or doors, and outdoor combustion air. Where using tight-fitting doors on factory-built fireplaces listed and labeled in accordance with UL 127, the doors shall be tested and listed for the fireplace. Where using tight-fitting doors on masonry fireplaces, the doors shall be listed and labeled in accordance with UL 907.

☐ **R402.4.3 Fenestration air leakage.** Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m2), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m2), when tested according to NFRC 400 or AAMA/ WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and listed and labeled by the manufacturer.

Exception: Site-built windows, skylights and doors.

MANDATORY REQUIREMENTS - (Continued)

☐ **R402.4.4 Rooms containing fuel-burning appliances.** In Climate Zones 3 through 8, where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening shall be located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope. Such rooms shall be sealed and insulated in accordance with the envelope requirements of Table R402.1.2, where the walls, floors and ceilings shall meet not less than the basement wall R-value requirement. The door into the room shall be fully gasketed and any water lines and ducts in the room insulated in accordance with Section R403. The combustion air duct shall be insulated where it passes through conditioned space to a minimum of R-8.

Exceptions:

1. Direct vent appliances with both intake and exhaust pipes installed continuous to the outside.
2. Fireplaces and stoves complying with Section R402.4.2 and Section R1006 of the Florida Building Code, Residential.

☐ **R402.4.5 Recessed lighting.** Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as having an air leakage rate not more than 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

SECTION R403 SYSTEMS

R403.1 Controls.

☐ **R403.1.1 Thermostat provision (Mandatory).** At least one thermostat shall be provided for each separate heating and cooling system.

☐ **R403.1.3 Heat pump supplementary heat (Mandatory).** Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

☐ **R403.3.2 Sealing (Mandatory)** All ducts, air handlers, filter boxes and building cavities that form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section C403.2.9.2 of the Commercial Provisions of this code and shall be shown to meet duct tightness criteria below.

Duct tightness shall be verified by testing in accordance with ANSI/RESNET/ICC 380 by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i), Florida Statutes, to be "substantially leak free" in accordance with Section R403.3.3.

☐ **R403.3.2.1 Sealed air handler.** Air handlers shall have a manufacturer's designation for an air leakage of no more than 2 percent of the design airflow rate when tested in accordance with ASHRAE 193.

☐ **R403.3.3 Duct testing (Mandatory).** Ducts shall be pressure tested to determine air leakage by one of the following methods:

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure if installed at the time of the test. All registers shall be taped or otherwise sealed during the test.
2. Postconstruction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. Registers shall be taped or otherwise sealed during the test.

Exceptions:

1. A duct air leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope.
2. Duct testing is not mandatory for buildings complying by Section 405 of this code.

A written report of the results of the test shall be signed by the party conducting the test and provided to the code official.

☐ **R403.3.5 Building cavities (Mandatory).** Building framing cavities shall not be used as ducts or plenums.

☐ **R403.4 Mechanical system piping insulation (Mandatory).** Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-3.

☐ **R403.4.1 Protection of piping insulation.** Piping insulation exposed to weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.

☐ **R403.5.1 Heated water circulation and temperature maintenance systems (Mandatory).** Heated water circulation systems shall be in accordance with Section R403.5.1.1. Heat trace temperature maintenance systems shall be in accordance with Section R403.5.1.2. Automatic controls, temperature sensors and pumps shall be accessible. Manual controls shall be readily accessible.

☐ **R403.5.1.1 Circulation systems.** Heated water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe or a cold water supply pipe. Gravity and thermosiphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water.

☐ **R403.5.1.2 Heat trace systems.** Electric heat trace systems shall comply with IEEE 515.1 or UL 515. Controls for such systems shall automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping in accordance with the times when heated water is used in the occupancy.

MANDATORY REQUIREMENTS - (Continued)

☐ **R403.5.5 Heat traps (Mandatory).** Storage water heaters not equipped with integral heat traps and having vertical pipe risers shall have heat traps installed on both the inlets and outlets. External heat traps shall consist of either a commercially available heat trap or a downward and upward bend of at least 3 ½ inches (89 mm) in the hot water distribution line and cold water line located as close as possible to the storage tank.

R403.5.6 Water heater efficiencies (Mandatory).

☐ **R403.5.6.1.1 Automatic controls.** Service water-heating systems shall be equipped with automatic temperature controls capable of adjustment from the lowest to the highest acceptable temperature settings for the intended use. The minimum temperature setting range shall be from 100°F to 140°F (38°C to 60°C).

☐ **R403.5.6.1.2 Shut down.** A separate switch or a clearly marked circuit breaker shall be provided to permit the power supplied to electric service systems to be turned off. A separate valve shall be provided to permit the energy supplied to the main burner(s) of combustion types of service water-heating systems to be turned off.

☐ **R403.5.6.2 Water-heating equipment.** Water-heating equipment installed in residential units shall meet the minimum efficiencies of Table C404.2 in Chapter 4 of the Florida Building Code, Energy Conservation, Commercial Provisions, for the type of equipment installed. Equipment used to provide heating functions as part of a combination system shall satisfy all stated requirements for the appropriate water-heating category. Solar water heaters shall meet the criteria of Section R403.5.6.2.1.

☐ **R403.5.6.2.1 Solar water-heating systems.** Solar systems for domestic hot water production are rated by the annual solar energy factor of the system. The solar energy factor of a system shall be determined from the Florida Solar Energy Center Directory of Certified Solar Systems. Solar collectors shall be tested in accordance with ISO Standard 9806, Test Methods for Solar Collectors, and SRCC Standard TM-1, Solar Domestic Hot Water System and Component Test Protocol. Collectors in installed solar water-heating systems should meet the following criteria:

1. Be installed with a tilt angle between 10 degrees and 40 degrees of the horizontal; and
2. Be installed at an orientation within 45 degrees of true south.

☐ **R403.6 Mechanical ventilation (Mandatory).** The building shall be provided with ventilation that meets the requirements of the Florida Building Code, Residential, or Florida Building Code, Mechanical, as applicable, or with other approved means of ventilation including: Natural, Infiltration or Mechanical means. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

☐ **R403.6.1 Whole-house mechanical ventilation system fan efficacy.** When installed to function as a whole-house mechanical ventilation system, fans shall meet the efficacy requirements of Table R403.6.1.

Exception: Where whole-house mechanical ventilation fans are integral to tested and listed HVAC equipment, they shall be powered by an electronically commutated motor.

☐ **R403.6.2 Ventilation air.** Residential buildings designed to be operated at a positive indoor pressure or for mechanical ventilation shall meet the following criteria:

1. The design air change per hour minimums for residential buildings in ASHRAE 62.2, Ventilation for Acceptable Indoor Air Quality, shall be the maximum rates allowed for residential applications.
2. No ventilation or air-conditioning system make-up air shall be provided to conditioned space from attics, crawlspaces, attached enclosed garages or outdoor spaces adjacent to swimming pools or spas.
3. If ventilation air is drawn from enclosed space(s), then the walls of the space(s) from which air is drawn shall be insulated to a minimum of R-11 and the ceiling shall be insulated to a minimum of R-19, space permitting, or R-10 otherwise.

R403.7 Heating and cooling equipment (Mandatory).

☐ **R403.7.1 Equipment sizing.** Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on the equipment loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies, based on building loads for the directional orientation of the building. The manufacturer and model number of the outdoor and indoor units (if split system) shall be submitted along with the sensible and total cooling capacities at the design conditions described in Section R302.1. This Code does not allow designer safety factors, provisions for future expansion or other factors that affect equipment sizing. System sizing calculations shall not include loads created by local intermittent mechanical ventilation such as standard kitchen and bathroom exhaust systems. New or replacement heating and cooling equipment shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the equipment is installed.

TABLE R403.6.1
WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICACY

FAN LOCATION	AIRFLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY [a] (CFM/WATT)	AIRFLOW RATE MAXIMUM (CFM)
Range hoods	Any	2.8 cfm/watt	Any
In-line fan	Any	2.8 cfm/watt	Any
Bathroom, utility room	10	1.4 cfm/watt	<90
Bathroom, utility room	90	2.8 cfm/watt	Any

For SI: 1 cfm = 28.3 L/min. a. When tested in accordance with HVI Standard 916

MANDATORY REQUIREMENTS - (Continued)

☐ **R403.7.1.1 Cooling equipment capacity.** Cooling only equipment shall be selected so that its total capacity is not less than the calculated total load but not more than 1.15 times greater than the total load calculated according to the procedure selected in Section 403.7, or the closest available size provided by the manufacturer's product lines. The corresponding latent capacity of the equipment shall not be less than the calculated latent load.

The published value for AHRI total capacity is a nominal, rating-test value and shall not be used for equipment sizing. Manufacturer's expanded performance data shall be used to select cooling-only equipment. This selection shall be based on the outdoor design dry-bulb temperature for the load calculation (or entering water temperature for water-source equipment), the blower CFM provided by the expanded performance data, the design value for entering wet-bulb temperature and the design value for entering dry-bulb temperature.

Design values for entering wet-bulb and dry-bulb temperatures shall be for the indoor dry bulb and relative humidity used for the load calculation and shall be adjusted for return side gains if the return duct(s) is installed in an unconditioned space.

Exceptions:

1. Attached single- and multiple-family residential equipment sizing may be selected so that its cooling capacity is less than the calculated total sensible load but not less than 80 percent of that load.
2. When signed and sealed by a Florida-registered engineer, in attached single- and multiple-family units, the capacity of equipment may be sized in accordance with good design practice.

R403.7.1.2 Heating equipment capacity.

☐ **R403.7.1.2.1 Heat pumps.** Heat pump sizing shall be based on the cooling requirements as calculated according to Section R403.7.1.1, and the heat pump total cooling capacity shall not be more than 1.15 times greater than the design cooling load even if the design heating load is 1.15 times greater than the design cooling load.

☐ **R403.7.1.2.2 Electric resistance furnaces.** Electric resistance furnaces shall be sized within 4 kW of the design requirements calculated according to the procedure selected in Section R403.7.1.

☐ **R403.7.1.2.3 Fossil fuel heating equipment.** The capacity of fossil fuel heating equipment with natural draft atmospheric burners shall not be less than the design load calculated in accordance with Section R403.7.1.

☐ **R403.7.1.3 Extra capacity required for special occasions.** Residences requiring excess cooling or heating equipment capacity on an intermittent basis, such as anticipated additional loads caused by major entertainment events, shall have equipment sized or controlled to prevent continuous space cooling or heating within that space by one or more of the following options:

1. A separate cooling or heating system is utilized to provide cooling or heating to the major entertainment areas.
2. A variable capacity system sized for optimum performance during base load periods is utilized.

☐ **R403.8 Systems serving multiple dwelling units (Mandatory).** Systems serving multiple dwelling units shall comply with Sections C403 and C404 of the IECC—Commercial Provisions in lieu of Section R403.

☐ **R403.9 Snow melt and ice system controls (Mandatory)** Snow- and ice-melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50°F (10°C), and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F (4.8°C).

☐ **R403.10 Pools and permanent spa energy consumption (Mandatory).** The energy consumption of pools and permanent spas shall be in accordance with Sections R403.10.1 through R403.10.5.

☐ **R403.10.1 Heaters.** The electric power to heaters shall be controlled by a readily accessible on-off switch that is an integral part of the heater mounted on the exterior of the heater, or external to and within 3 feet (914 mm) of the heater. Operation of such switch shall not change the setting of the heater thermostat. Such switches shall be in addition to a circuit breaker for the power to the heater. Gas-fired heaters shall not be equipped with continuously burning ignition pilots.

☐ **R403.10.2 Time switches.** Time switches or other control methods that can automatically turn off and on according to a preset schedule shall be installed for heaters and pump motors. Heaters and pump motors that have built-in time switches shall be in compliance with this section.

Exceptions:

1. Where public health standards require 24-hour pump operation.
2. Pumps that operate solar- and waste-heat-recovery pool heating systems.
3. Where pumps are powered exclusively from on-site renewable generation.

☐ **R403.10.3 Covers.** Outdoor heated swimming pools and outdoor permanent spas shall be equipped with a vapor-retardant cover on or at the water surface or a liquid cover or other means proven to reduce heat loss.

Exception: Where more than 70 percent of the energy for heating, computed over an operation season, is from site-recovered energy, such as from a heat pump or solar energy source, covers or other vapor-retardant means shall not be required.

☐ **R403.10.4 Gas- and oil-fired pool and spa heaters.** All gas- and oil-fired pool and spa heaters shall have a minimum thermal efficiency of 82 percent for heaters manufactured on or after April 16, 2013, when tested in accordance with ANSI Z 21.56. Pool heaters fired by natural or LP gas shall not have continuously burning pilot lights.

☐ **R403.10.5 Heat pump pool heaters.** Heat pump pool heaters shall have a minimum COP of 4.0 when tested in accordance with AHRI 1160, Table 2, Standard Rating Conditions-Low Air Temperature. A test report from an independent laboratory is required to verify procedure compliance. Geothermal swimming pool heat pumps are not required to meet this standard.

☐ **R403.11 Portable spas (Mandatory).** The energy consumption of electric-powered portable spas shall be controlled by the requirements of APSP-14.

SECTION R404

ELECTRICAL POWER AND LIGHTING SYSTEMS

☐ **R404.1 Lighting equipment (Mandatory).** Not less than 75 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps or not less than 75 percent of the permanently installed lighting fixtures shall contain only high-efficacy lamps.

Exception: Low-voltage lighting.

R404.1.1 Lighting equipment (Mandatory). Fuel gas lighting systems shall not have continuously burning pilot lights.

2017 - AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

TABLE 402.4.1.1
AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

				CHECK
Project Name:	Norris-Ratliff	Builder Name:	John Norris Construction	
Street:	489 NE Manatee PL	Permit Office:		
City, State, Zip:	Lake City , FL , 32055	Permit Number:		
Owner:	Connie Ratliff	Jurisdiction:		
Design Location:	FL, Gainesville			

COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA	
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.	
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed. Access openings, drop down stairs or knee wall doors to unconditioned attic spaces shall be sealed.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.	
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of R-3 per inch minimum. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.	
Windows, skylights and doors	The space between window/door jambs and framing, and skylights and framing shall be sealed.		
Rim joists	Rim joists shall include the air barrier.	Rim joists shall be insulated.	
Floors (including above-garage and cantilevered floors)	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking, or floor framing cavity insulation shall be permitted to be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.	
Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Where provided instead of floor insulation, insulation shall be permanently attached to the crawlspace	
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.		
Narrow cavities		Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity spaces.	
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.		
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the drywall.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.	
Plumbing and wiring		Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.	
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate them from the showers and tubs.	Exterior walls adjacent to showers and tubs shall be insulated.	
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.		
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the sub-floor or drywall.		
Concealed sprinklers	When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.		

a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

Envelope Leakage Test Report (Blower Door Test)

Residential Prescriptive, Performance or ERI Method Compliance

2017 Florida Building Code, Energy Conservation, 6th Edition

Jurisdiction:	Permit #:

Job Information

Builder: John Norris Construction Community: Lot: NA

Address: 489 NE Manatee PL

City: Lake City State: FL Zip: 32055

Air Leakage Test Results *Passing results must meet either the Performance, Prescriptive, or ERI Method*

○ **PRESCRIPTIVE METHOD**-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 Pascals) in Climate Zones 1 and 2.

○ **PERFORMANCE or ERI METHOD**-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on Form R405-2017 (Performance) or R406-2017 (ERI), section labeled as infiltration, sub-section ACH50.

ACH(50) specified on Form R405-2017-Energy Calc (Performance) or R406-2017 (ERI): 7.000

_____ x 60 ÷ 11360 = _____
CFM(50) Building Volume ACH(50)

☐ **PASS**

☐ When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.

Method for calculating building volume:

○ Retrieved from architectural plans

● Code software calculated

○ Field measured and calculated

R402.4.1.2 Testing. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), *Florida Statues.*or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the*code official.* Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope.*

During testing:
1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.

Testing Company

Company Name: _____ Phone: _____

I hereby verify that the above Air Leakage results are in accordance with the 2017 6th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above.

Signature of Tester: _____ Date of Test: _____

Printed Name of Tester: _____

License/Certification #: _____ Issuing Authority: _____

Residential System Sizing Calculation

Summary

Project Title:
Norris-Ratliff

Connie Ratliff
489 NE Manatee PL
Lake City, FL 32055

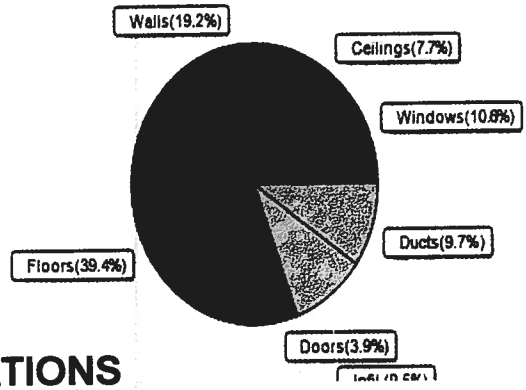
11/15/2019

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)					
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)					
Winter design temperature(TMY3 99%)	30	F	Summer design temperature(TMY3 99%)	94	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	40	F	Summer temperature difference	19	F
Total heating load calculation	**18712**	**Btuh**	**Total cooling load calculation**	**13511**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	192.4	36000	Sensible (SHR = 0.75)	254.9	27000
Heat Pump + Auxiliary(0.0kW)	192.4	36000	Latent	308.2	9000
			Total (Electric Heat Pump)	266.5	36000

WINTER CALCULATIONS

Winter Heating Load (for 1420 sqft)

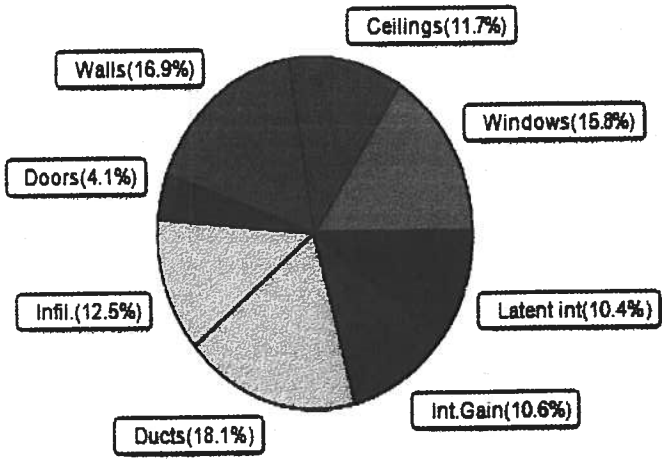
Load component			Load	
Window total	150	sqft	1980	Btuh
Wall total	1058	sqft	3591	Btuh
Door total	40	sqft	736	Btuh
Ceiling total	1420	sqft	1442	Btuh
Floor total	1420	sqft	7363	Btuh
Infiltration	41	cfm	1776	Btuh
Duct loss			1824	Btuh
Subtotal			**18712**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**18712**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 1420 sqft)

Load component			Load	
Window total	150	sqft	2130	Btuh
Wall total	1058	sqft	2289	Btuh
Door total	40	sqft	552	Btuh
Ceiling total	1420	sqft	1586	Btuh
Floor total			0	Btuh
Infiltration	30	cfm	633	Btuh
Internal gain			1430	Btuh
Duct gain			1971	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Blower Load			0	Btuh
Total sensible gain			**10591**	**Btuh**
Latent gain(ducts)			470	Btuh
Latent gain(infiltration)			1050	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1400	Btuh
Total latent gain			**2920**	**Btuh**
TOTAL HEAT GAIN			**13511**	**Btuh**



EnergyGauge® System Sizing
PREPARED BY:
DATE: 11-15-19

8th Edition

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Connie Ratliff
489 NE Manatee PL
Lake City, FL 32055

Project Title:
Norris-Ratliff
Building Type: User

11/15/2019

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 F (TMY3 99%)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft) X	HTM=	Load
1	2, NFRC 0.21	Metal	0.33	N	9.0	13.2	119 Btuh
2	2, NFRC 0.21	Metal	0.33	N	15.0	13.2	198 Btuh
3	2, NFRC 0.21	Metal	0.33	E	45.0	13.2	594 Btuh
4	2, NFRC 0.21	Metal	0.33	S	30.0	13.2	396 Btuh
5	2, NFRC 0.21	Metal	0.33	S	15.0	13.2	198 Btuh
6	2, NFRC 0.21	Metal	0.33	W	30.0	13.2	396 Btuh
7	2, NFRC 0.21	Metal	0.33	W	6.0	13.2	79 Btuh
	Window Total				150.0(sqft)		1980 Btuh

Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
1	Frame - Wood	- Ext	(0.085)	13.0/1.0	356	3.39	1208 Btuh
2	Frame - Wood	- Ext	(0.085)	13.0/1.0	179	3.39	608 Btuh
3	Frame - Wood	- Ext	(0.085)	13.0/1.0	242	3.39	821 Btuh
4	Frame - Wood	- Ext	(0.085)	13.0/1.0	93	3.39	316 Btuh
5	Frame - Wood	- Ext	(0.085)	13.0/1.0	188	3.39	638 Btuh
	Wall Total				1058(sqft)		3591 Btuh

Doors	Type	Storm	Ueff.	Area X	HTM=	Load
1	Insulated - Exterior,	n	(0.460)	20	18.4	368 Btuh
2	Insulated - Exterior,	n	(0.460)	20	18.4	368 Btuh
	Door Total			40(sqft)		736Btuh

Ceilings	Type/Color/Surface	Ueff.	R-Value	Area X	HTM=	Load
1	Vented Attic/L/Shing	(0.025)	38.0/0.0	1420	1.0	1442 Btuh
	Ceiling Total			1420(sqft)		1442Btuh

Floors	Type	Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade	(1.180)	0.0	156.0 ft(perim.)	47.2	7363 Btuh
	Floor Total			1420 sqft		7363 Btuh

	Envelope Subtotal:	15112 Btuh

Infiltration	Type	Wholehouse ACH	Volume(cuft)	Wall Ratio	CFM=	
	Natural	0.21	11360	1.00	40.6	1776 Btuh

Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.108)	1824 Btuh
All Zones	**Sensible Subtotal All Zones**	**18712 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

Connie Ratliff
489 NE Manatee PL
Lake City, FL 32055

Project Title:
Norris-Ratliff
Building Type: User

11/15/2019

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	18712 Btuh
	Ventilation Sensible Heat Loss	0 Btuh
	Total Heat Loss	18712 Btuh

EQUIPMENT

1. Electric Heat Pump	#	36000 Btuh

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)
U - (Window U-Factor)
HTM - (ManualJ Heat Transfer Multiplier)

Version 8

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Connie Ratliff
489 NE Manatee PL
Lake City, FL 32055

Project Title:
Norris-Ratliff

11/15/2019

Reference City: Gainesville, FL Temperature Difference: 19.0F(TMY3 99%) Humidity difference: 51gr.

Component Loads for Whole House

Window	Type* Panes	SHGC	U	InSh	IS	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	2 NFRC	0.21, 0.33	B-L	No	N	1.5ft	1.0ft	9.0	0.0	9.0	8	8	75	Btuh
2	2 NFRC	0.21, 0.33	B-L	No	N	1.5ft	1.0ft	15.0	0.0	15.0	8	8	125	Btuh
3	2 NFRC	0.21, 0.33	B-L	No	E	1.5ft	1.0ft	45.0	2.2	42.8	8	19	853	Btuh
4	2 NFRC	0.21, 0.33	B-L	No	S	1.5ft	1.0ft	30.0	30.0	0.0	8	10	250	Btuh
5	2 NFRC	0.21, 0.33	B-L	No	S	1.5ft	10.0f	15.0	0.0	15.0	8	10	147	Btuh
6	2 NFRC	0.21, 0.33	B-L	No	W	1.5ft	1.0ft	30.0	1.5	28.5	8	19	568	Btuh
7	2 NFRC	0.21, 0.33	B-L	No	W	1.5ft	1.0ft	6.0	0.5	5.5	8	19	111	Btuh
	Window Total								150 (sqft)				2130	Btuh

Walls	Type	U-Value	R-Value Cav/Sheath	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	0.08	13.0/1.0	356.0	2.2	770 Btuh
2	Frame - Wood - Ext	0.08	13.0/1.0	179.0	2.2	387 Btuh
3	Frame - Wood - Ext	0.08	13.0/1.0	242.0	2.2	524 Btuh
4	Frame - Wood - Ext	0.08	13.0/1.0	93.0	2.2	201 Btuh
5	Frame - Wood - Ext	0.08	13.0/1.0	188.0	2.2	407 Btuh
	Wall Total			1058 (sqft)		2289 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Exterior	20.0	13.8	276 Btuh
2	Insulated - Exterior	20.0	13.8	276 Btuh
	Door Total	40 (sqft)		552 Btuh

Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/Light/Shingle	0.025	38.0/0.0	1420.0	1.12	1586 Btuh
	Ceiling Total			1420 (sqft)		1586 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	1420 (ft-perimeter)	0.0	0 Btuh
	Floor Total		1420.0 (sqft)		0 Btuh

			Load
	Envelope Subtotal:		6556 Btuh

Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=	Load
	Natural	0.16	11360	1	30.4	633 Btuh

Internal gain	Occupants	Btuh/occupant		Appliance	Load
	1	X 230	+	1200	1430 Btuh

	Sensible Envelope Load:	8619 Btuh
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic) (DGM of 0.229)	1971 Btuh
	Sensible Load All Zones	**10591 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Connie Ratliff
489 NE Manatee PL
Lake City, FL 32055

Project Title: Norris-Ratliff

Climate:FL_GAINESVILLE_REGIONAL_A

11/15/2019

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**8619 Btuh**
	Sensible Duct Load	1971 Btuh
	Total Sensible Zone Loads	**10591 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**10591 Btuh**
	Latent infiltration gain (for 51 gr. humidity difference)	1050 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	470 Btuh
	Latent occupant gain (1.0 people @ 200 Btuh per person)	200 Btuh
	Latent other gain	1200 Btuh
	Latent total gain	**2920 Btuh**
	TOTAL GAIN	**13511 Btuh**

EQUIPMENT

1. Central Unit	#	36000 Btuh

*Key: Window types (Panes - Number and type of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value)
(U - Window U-Factor)
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
- For Blinds: Assume medium color, half closed
For Draperies: Assume medium weave, half closed
For Roller shades: Assume translucent, half closed
(IS - Insect screen: none(N), Full(F) or Half(½))
(Ornt - compass orientation)

Version 8

39292

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

RE: 2145911 - NORRIS - RATLIFF RES.

MiTek USA, Inc.
6904 Parke East Blvd.
Tampa, FL 33610-4115

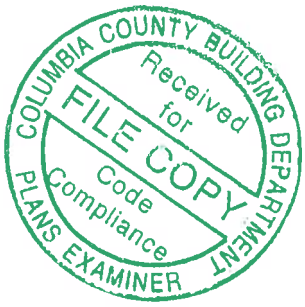
Site Information:
Customer Info: John Norris Project Name: Ratliff Res. Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: 489 NE Manatee Place, N/A
City: Columbia Cty State: FL

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

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):
Design Code: FBC2017/TPI2014 Design Program: MiTek 20/20 8.2
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 37.0 psf Floor Load: N/A psf

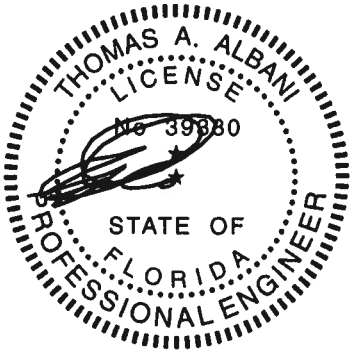
This package includes 17 individual, Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T19043142	CJ01	1/6/20
2	T19043143	CJ03	1/6/20
3	T19043144	CJ05	1/6/20
4	T19043145	EJ01	1/6/20
5	T19043146	HJ10	1/6/20
6	T19043147	T01	1/6/20
7	T19043148	T01G	1/6/20
8	T19043149	T02	1/6/20
9	T19043150	T02G	1/6/20
10	T19043151	T03	1/6/20
11	T19043152	T03G	1/6/20
12	T19043153	T04	1/6/20
13	T19043154	T04A	1/6/20
14	T19043155	T05	1/6/20
15	T19043156	T06	1/6/20
16	T19043157	T07	1/6/20
17	T19043158	T08	1/6/20



The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Jacksonville.

Truss Design Engineer's Name: Albani, Thomas
My license renewal date for the state of Florida is February 28, 2021.



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.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	CJ01	JACK-OPEN	4	1	T19043142
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:00 2020 Page 1
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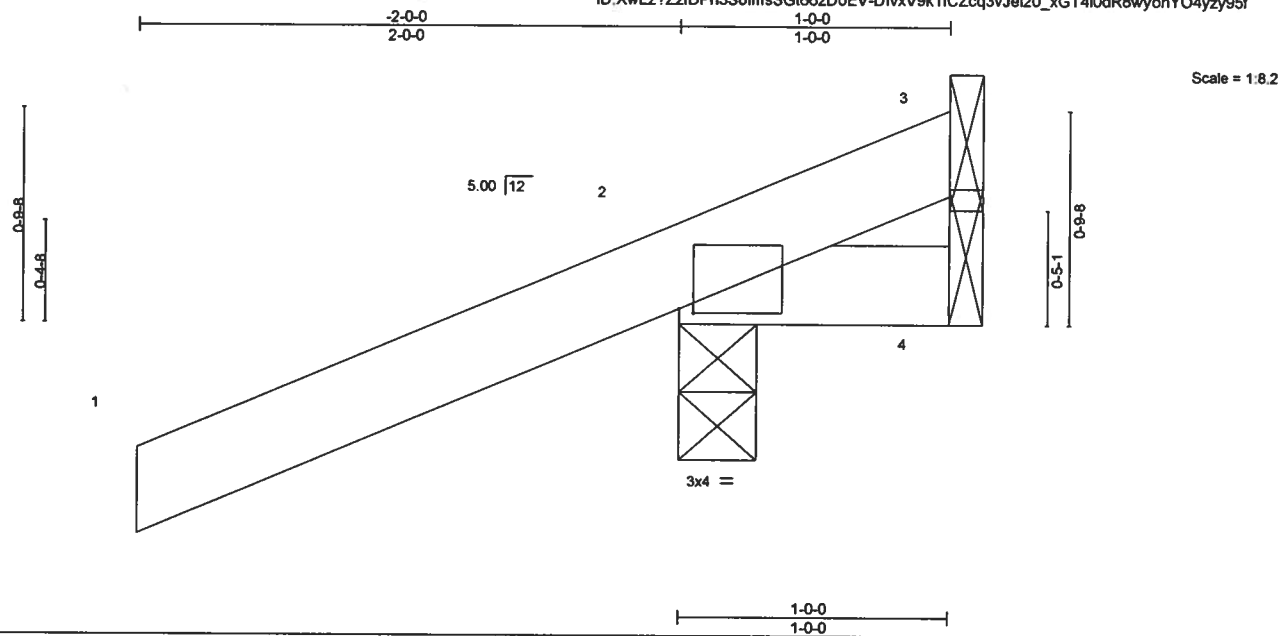

Plate Offsets (X,Y)— [2:0-0-10,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.30	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MP							Weight: 6 lb	FT = 20%

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

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

REACTIONS. (lb/size) 3=-27/Mechanical, 2=254/0-3-8, 4=-46/Mechanical
Max Horz 2=57(LC 8)
Max Uplift 3=-27(LC 1), 2=-205(LC 8), 4=-46(LC 1)
Max Grav 3=31(LC 8), 2=254(LC 1), 4=45(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 2-0-0 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 3, 205 lb uplift at joint 2 and 46 lb uplift at joint 4.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	CJ03	JACK-OPEN	4	1	T19043143
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:01 2020 Page 1
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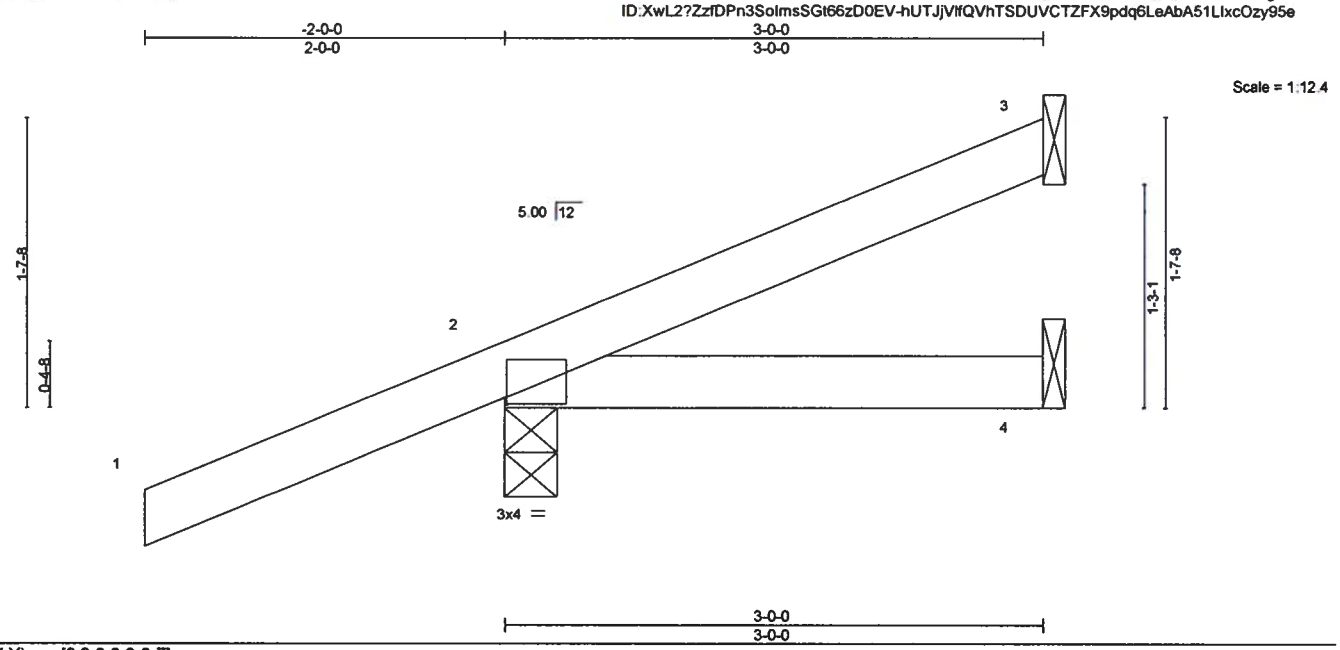

Plate Offsets (X,Y)— [2:0-0-2,0-0-7]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.30	Vert(LL)	0.01	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.07	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MP							Weight: 13 lb	FT = 20%

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

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

REACTIONS. (lb/size) 3=52/Mechanical, 2=253/0-3-8, 4=20/Mechanical
Max Horz 2=94(LC 12)
Max Uplift 3=-44(LC 12), 2=-174(LC 8), 4=-22(LC 9)
Max Grav 3=52(LC 1), 2=253(LC 1), 4=47(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 2-0-0 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 3, 174 lb uplift at joint 2 and 22 lb uplift at joint 4.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.	T19043144
2145911	CJ05	JACK-OPEN	4	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:01 2020 Page 1
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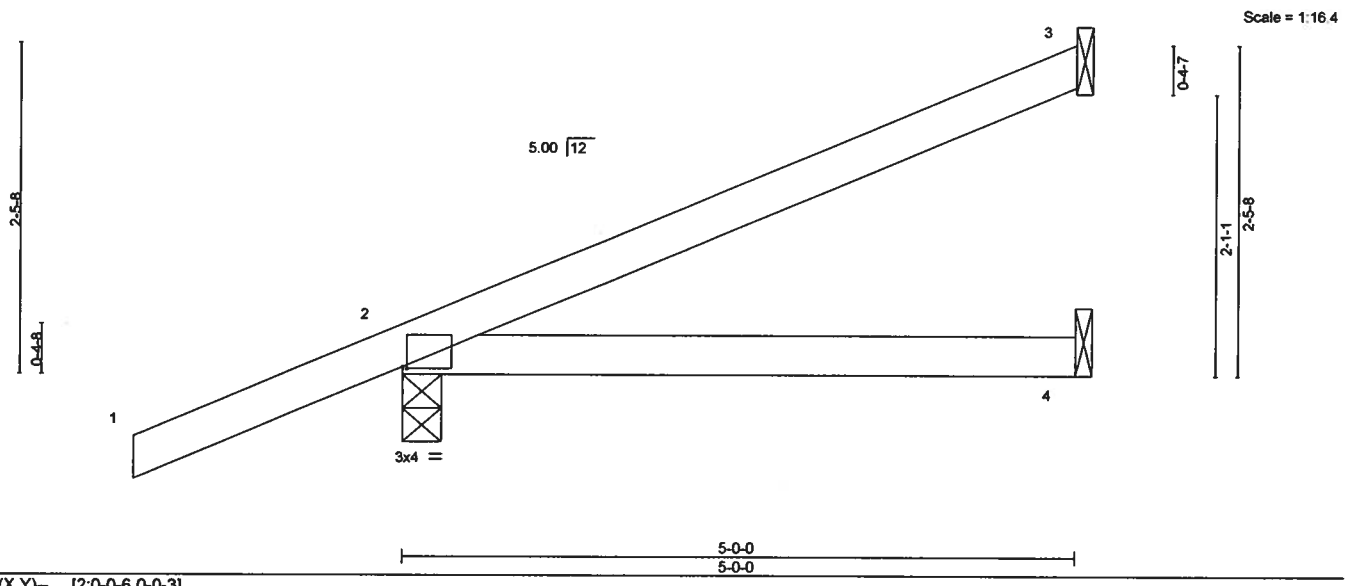

Plate Offsets (X,Y)-- [2:0-0-6,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.35	Vert(LL)	0.08	4-7	>772	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.33	Vert(CT)	0.07	4-7	>883	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MP							Weight: 19 lb	FT = 20%

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

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

REACTIONS. (lb/size) 3=108/Mechanical, 2=313/0-3-8, 4=53/Mechanical
Max Horz 2=135(LC 12)
Max Uplift 3=-91(LC 12), 2=-198(LC 8), 4=-44(LC 9)
Max Grav 3=108(LC 1), 2=313(LC 1), 4=86(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 2-0-0 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 3, 198 lb uplift at joint 2 and 44 lb uplift at joint 4.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	EJ01	JACK-PARTIAL	6	1	T19043145
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:02 2020 Page 1
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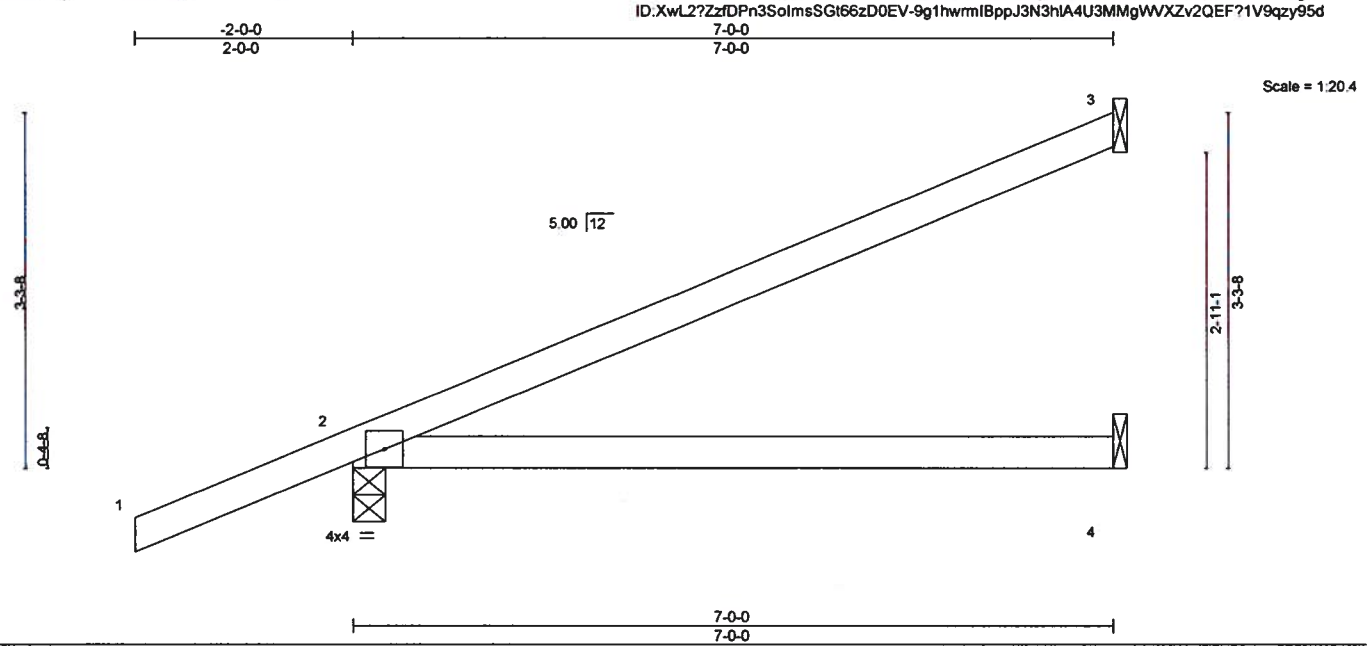

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.82	Vert(LL)	0.32	4-7	>258	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.73	Vert(CT)	0.28	4-7	>298	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 25 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-3-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 3=160/Mechanical, 2=380/0-3-8, 4=81/Mechanical
Max Horz 2=175(LC 12)
Max Uplift 3=-134(LC 12), 2=-230(LC 8), 4=-64(LC 9)
Max Grav 3=160(LC 1), 2=380(LC 1), 4=124(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 2-0-0 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 3, 230 lb uplift at joint 2 and 64 lb uplift at joint 4.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 6,2020

6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	HJ10	DIAGONAL HIP GIRDER	2	1	T19043146
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:03 2020 Page 1
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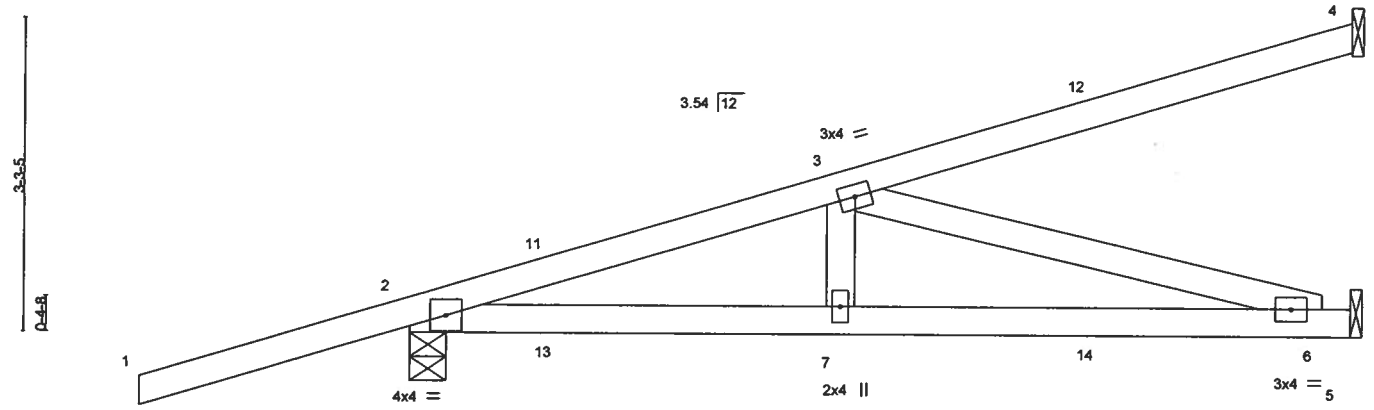


4-6-0 / 4-6-0 | 9-9-5 / 5-3-5 | 9-10-1 / 0-0-12

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.59	Vert(LL)	0.12	6-7	>960	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.63	Vert(CT)	-0.13	6-7	>926	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 44 lb	FT = 20%

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 7-5-9 oc bracing.

REACTIONS. (lb/size) 4=151/Mechanical, 2=463/0-4-9, 5=251/Mechanical
Max Horz 2=194(LC 4)
Max Uplift 4=-134(LC 4), 2=-312(LC 4), 5=-197(LC 5)
Max Grav 4=151(LC 1), 2=463(LC 1), 5=265(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-718/467
BOT CHORD 2-7=-524/673, 6-7=-524/673
WEBS 3-6=-698/544

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 2-0-0 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 4, 312 lb uplift at joint 2 and 197 lb uplift at joint 5.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 93 lb down and 104 lb up at 1-6-1, 93 lb down and 104 lb up at 1-6-1, 25 lb down and 33 lb up at 4-4-0, 25 lb down and 33 lb up at 4-4-0, and 49 lb down and 89 lb up at 7-1-15, and 49 lb down and 89 lb up at 7-1-15 on top chord, and 72 lb down and 74 lb up at 1-6-1, 72 lb down and 74 lb up at 1-6-1, 52 lb down and 29 lb up at 4-4-0, 52 lb down and 29 lb up at 4-4-0, and 40 lb down and 59 lb up at 7-1-15, and 40 lb down and 59 lb up at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 5-8=-20
Concentrated Loads (lb)
Vert: 7=4(F=2, B=2) 11=49(F=25, B=25) 12=-63(F=-32, B=-32) 13=70(F=35, B=35) 14=-49(F=-25, B=-25)

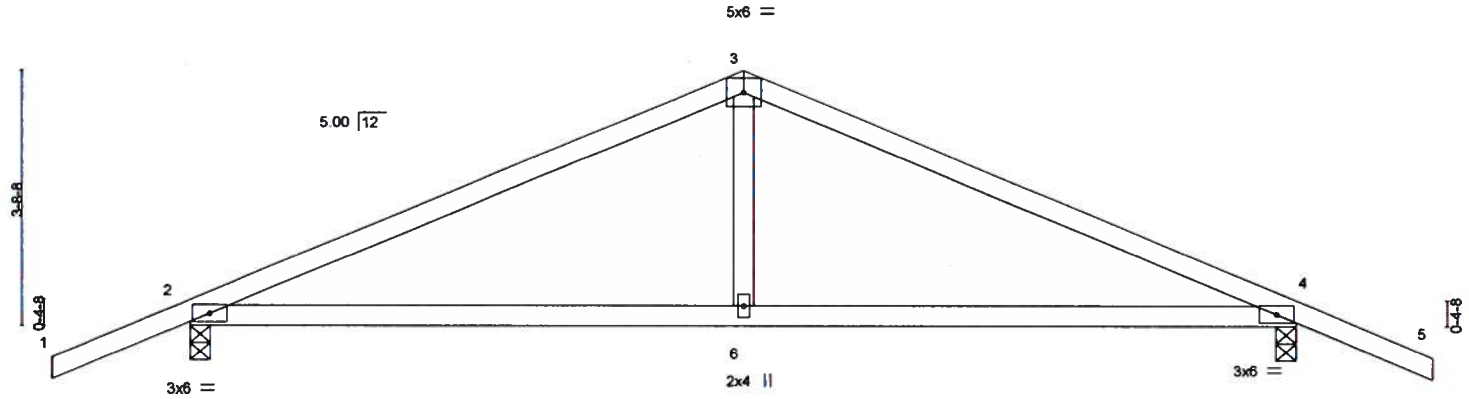
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	T01	COMMON	4	1	T19043147
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:04 2020 Page 1
ID:XwL2?ZzfDPn3SoImsSGt66zD0EV-639RLXoYjQ31JhD4tb7y9nR1HJEtNwlXjJWbDjzy95b

-2-0-0 2-0-0 | 8-0-0 8-0-0 | 16-0-0 8-0-0 | 18-0-0 2-0-0

Scale: 3/8"=1'



8-0-0 8-0-0 | 16-0-0 8-0-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.73	Vert(LL)	0.25	6-12	>755	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.68	Vert(CT)	0.22	6-12	>886	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 61 lb	FT = 20%

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 3-11-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-11-12 oc bracing.

REACTIONS. (lb/size) 2=700/0-3-8, 4=700/0-3-8
Max Horz 2=88(LC 12)
Max Uplift 2=-433(LC 8), 4=-433(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-914/1225, 3-4=-914/1225
BOT CHORD 2-6=-987/774, 4-6=-987/774
WEBS 3-6=-551/363

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 433 lb uplift at joint 2 and 433 lb uplift at joint 4.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

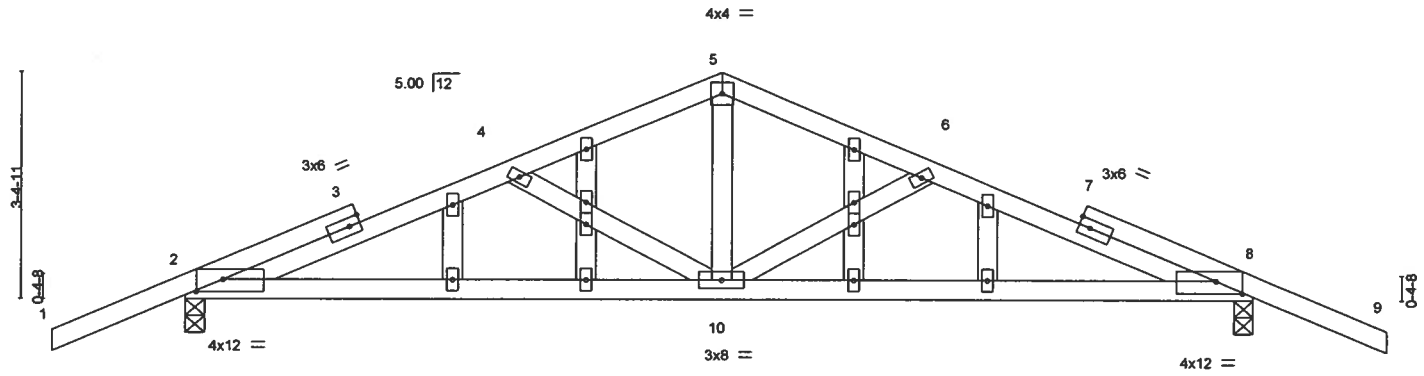
January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	T01G	GABLE	1	1	T19043148
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:05 2020 Page 1
ID:XwL2?ZzfDPn3SoImsSGt66zD0EV-aFjqZtoAUkBuwqoGRIeBh?zH5jdz6M4hxzG9l9zy95a

-2-0-0	5-0-0	8-0-0	11-0-0	16-0-0	18-0-0
2-0-0	5-0-0	3-0-0	3-0-0	5-0-0	2-0-0

Scale = 1:33.1



8-0-0	16-0-0
8-0-0	8-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.41	Vert(LL)	0.15	10-27	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	0.13	10-27	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.20	Horz(CT)	-0.02	8	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 86 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
2-5,5-8: 2x4 SP M 31
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 5-3-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-1-11 oc bracing.

REACTIONS. (lb/size) 2=697/0-3-8, 8=697/0-3-8
Max Horz 2=-81(LC 13)
Max Uplift 2=-434(LC 8), 8=-434(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1150/1544, 4-5=-868/1251, 5-6=-868/1253, 6-8=-1150/1547
BOT CHORD 2-10=-1121/781, 8-10=-1142/781
WEBS 5-10=-883/518, 4-10=-375/489, 6-10=-375/490

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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 2-0-0 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 434 lb uplift at joint 2 and 434 lb uplift at joint 8.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 6,2020

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	T02	COMMON	11	1	T19043149
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:06 2020 Page 1
ID:XwL2?ZzfDPn3SoImsSGt66zD0EV-2RGCmDpoF2JIY_NT_09QECWP87sbroYqAd?ilbzy95Z

7-3-7	14-0-0	20-8-10	28-0-0	30-0-0
7-3-7	6-8-9	6-8-9	7-3-7	2-0-0

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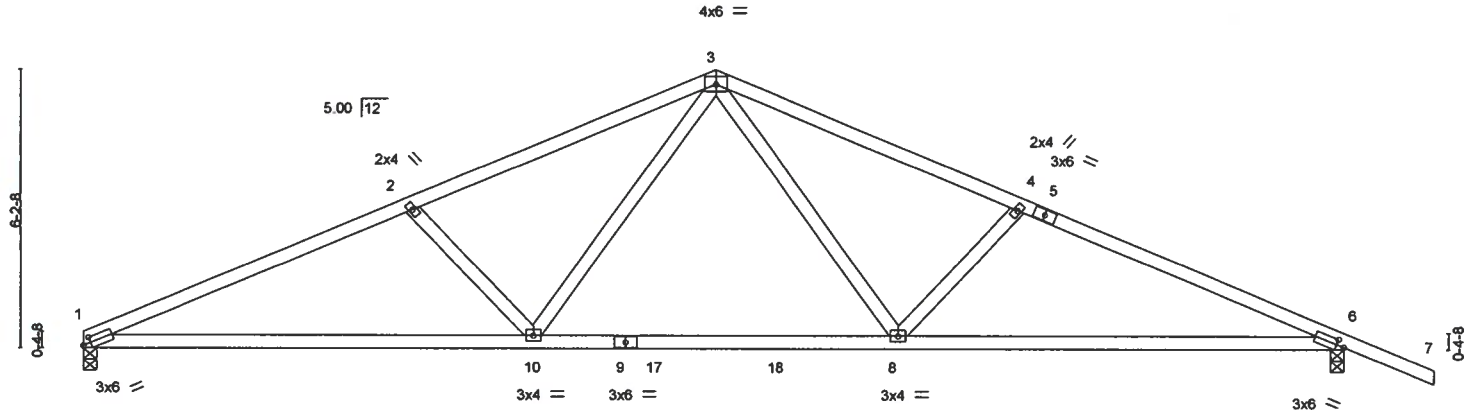

9-11-4	18-0-12	28-0-0
9-11-4	8-1-7	9-11-4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.58	Vert(LL)	-0.22	10-13	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.92	Vert(CT)	-0.48	10-13	>694	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.07	6	n/a	n/a		
BCDL	10.0	Code	FBC2017/TPI2014	Matrix-MS							Weight: 123 lb	FT = 20%

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 3-4-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (lb/size) 1=1032/0-3-8, 6=1148/0-3-8
Max Horz 1=-157(LC 17)
Max Uplift 1=-392(LC 12), 6=-462(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2056/1132, 2-3=-1792/1021, 3-4=-1777/1008, 4-6=-2036/1116
BOT CHORD 1-10=-918/1862, 8-10=-473/1233, 6-8=-899/1840
WEBS 3-8=-290/605, 4-8=-421/390, 3-10=-312/627, 2-10=-434/401

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 392 lb uplift at joint 1 and 462 lb uplift at joint 6.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	T02G	COMMON SUPPORTED GAB	1	1	T19043150
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:07 2020 Page 1
ID:XwL2?ZzfDPn3SolmsSGt66zD0EV-Weqa_ZqQ0LRcA8yfYjgfmQ3fSWOXaHX_PHIFq2zy95Y

14-0-0 | 28-0-0 | 30-0-0
14-0-0 | 14-0-0 | 2-0-0

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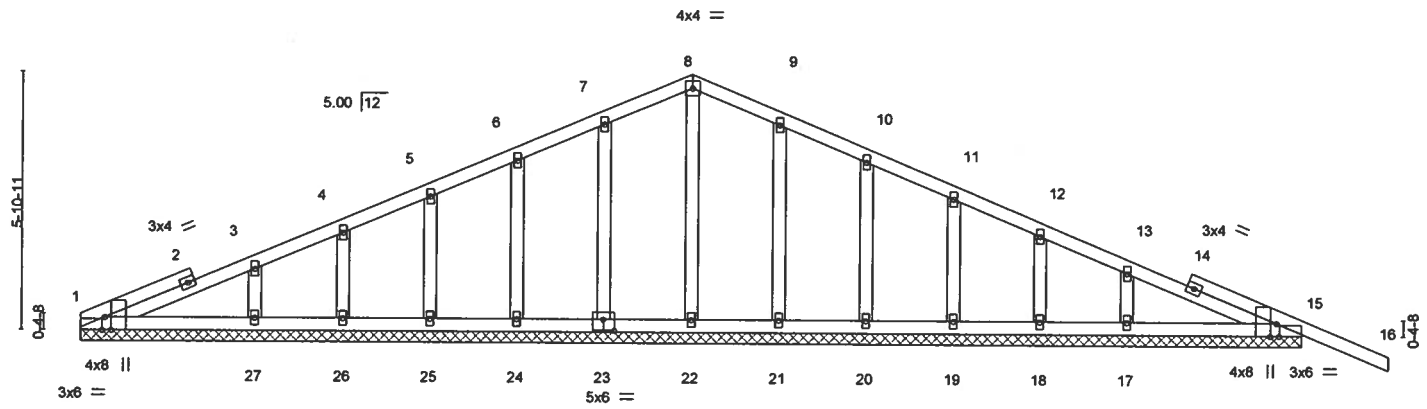

28-0-0
28-0-0

Plate Offsets (X,Y)-- [1:0-3-8,Edge], [1:0-0-12,Edge], [15:0-3-8,Edge], [15:0-0-12,Edge], [23:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.29	Vert(LL)	-0.01	16	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.11	Vert(CT)	-0.02	16	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01	15	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-S							Weight: 147 lb	FT = 20%

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

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

REACTIONS. All bearings 28-0-0.
(lb) - Max Horz 1=-149(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 23, 24, 25, 26, 21, 20, 19, 18 except 15=-142(LC 9), 27=-141(LC 12), 17=-114(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 22, 23, 24, 25, 26, 21, 20, 19, 18, 17 except 15=267(LC 24), 27=279(LC 23)

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=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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 2-0-0 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 23, 24, 25, 26, 21, 20, 19, 18 except (jt=lb) 15=142, 27=141, 17=114.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

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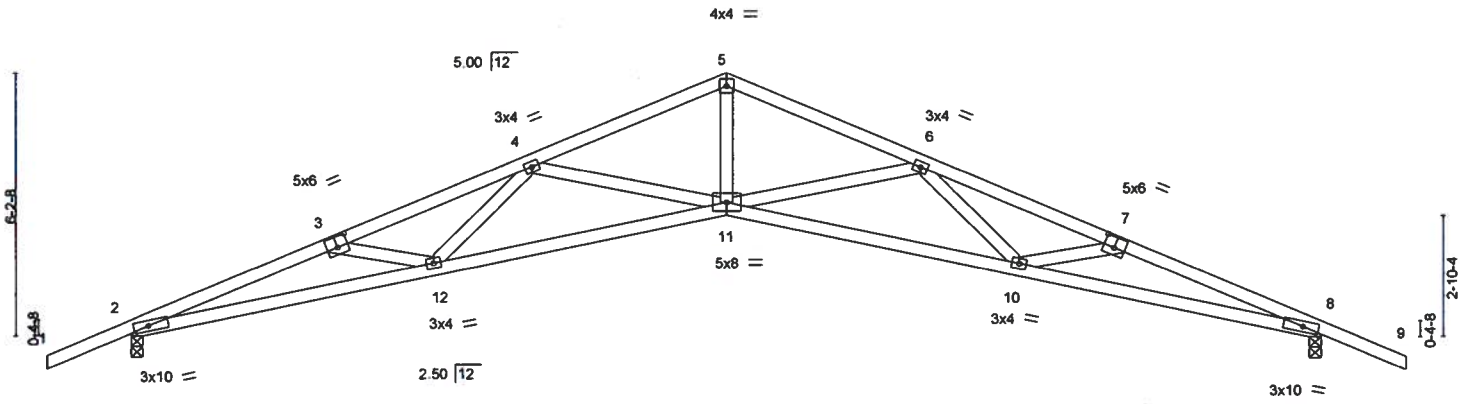
Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES. T19043151
2145911	T03	SCISSORS	4	1	Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:09 2020 Page 1
ID:XwL2?ZzfDPn3SolmsSGt66zD0EV-S0yKOErhYziKPS62g8i7rr8wQKt922gGsbEMuwzy95W

-2-0-0	4-10-8	9-5-4	14-0-0	18-6-12	23-1-8	28-0-0	30-0-0
2-0-0	4-10-8	4-6-12	4-6-12	4-6-12	4-6-12	4-10-8	2-0-0

Scale = 1:52.1



7-1-6	14-0-0	20-10-10	28-0-0
7-1-6	6-10-10	6-10-10	7-1-6

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

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.58	Vert(LL) -0.40 11-12 >838 240	MT20 244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.93	Vert(CT) -0.79 11-12 >427 180	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.67	Horz(CT) 0.44 8 n/a n/a	
BCDL 10.0	Code FBC2017/TPI2014	Matrix-MS		Weight: 129 lb FT = 20%

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 2-6-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (lb/size) 2=1144/0-3-8, 8=1144/0-3-8
Max Horz 2=-140(LC 13)
Max Uplift 2=-461(LC 12), 8=-461(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3815/1918, 3-4=-3571/1729, 4-5=-2631/1271, 5-6=-2631/1271, 6-7=-3571/1760, 7-8=-3815/1948
BOT CHORD 2-12=-1655/3542, 11-12=-1381/3133, 10-11=-1395/3133, 8-10=-1714/3542
WEBS 5-11=-789/1763, 6-11=-720/515, 6-10=-106/456, 7-10=-225/261, 4-11=-720/516, 4-12=-102/456, 3-12=-225/263

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=461, 8=461.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 6,2020

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	T03G	GABLE	1	1	T19043152
					Job Reference (optional)

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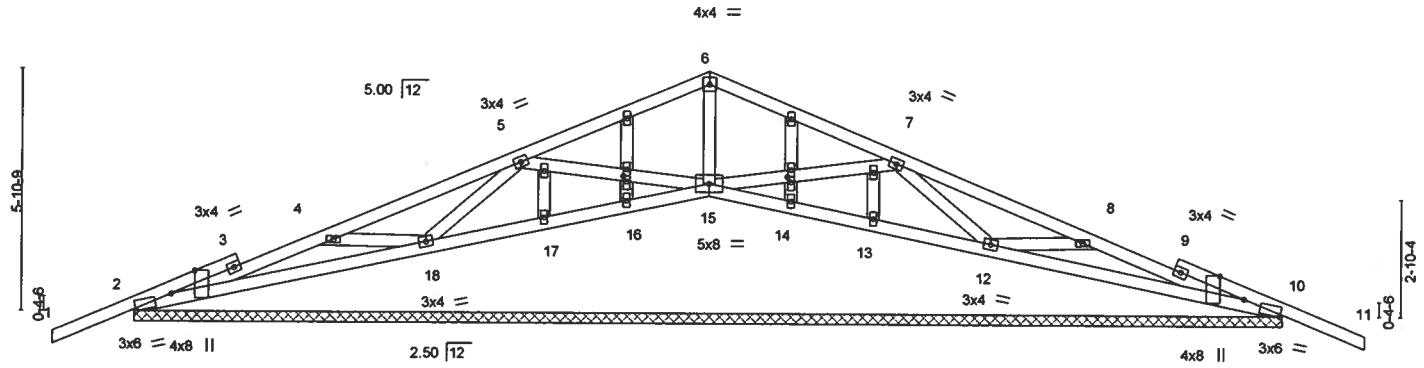
ID:XwL2?ZzfDPn3SoImsSGt66zD0EV-wDWjcasJJGqB1cgEDsEMO2h9DkM1nd?Q5FzwRNzy95V

-2-0-0	4-10-8	9-5-4	14-0-0	18-6-12	23-1-8	28-0-0	30-0-0
2-0-0	4-10-8	4-6-12	4-6-12	4-6-12	4-6-12	4-10-8	2-0-0

Scale = 1:53.9



7-1-6	14-0-0	20-10-10	28-0-0
7-1-6	6-10-10	6-10-10	7-1-6

Plate Offsets (X,Y)— [2:0-6-12,Edge], [2:0-11-3,Edge], [10:0-6-12,Edge], [10:0-11-3,Edge], [19:0-1-9,0-1-0], [23:0-1-9,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	-0.01	11	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	-0.01	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-S							Weight: 142 lb	FT = 20%

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.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 2-18,10-12.

REACTIONS. All bearings 28-0-0.
(lb) - Max Horz 2=-133(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) except 2=-164(LC 8), 10=-184(LC 13), 15=-158(LC 12), 12=-304(LC 13), 18=-307(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 16, 17, 14, 13 except 2=321(LC 23), 10=321(LC 24), 15=392(LC 1), 12=584(LC 24), 18=584(LC 23)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-287/426, 7-8=-247/426
WEBS 6-15=-309/177, 7-12=-538/421, 8-12=-536/515, 5-18=-538/418, 4-18=-536/517

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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 2-0-0 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 2, 184 lb uplift at joint 10, 158 lb uplift at joint 15, 304 lb uplift at joint 12 and 307 lb uplift at joint 18.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 15, 12, 18, 16, 17, 14, 13.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 6,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see *ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information* available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

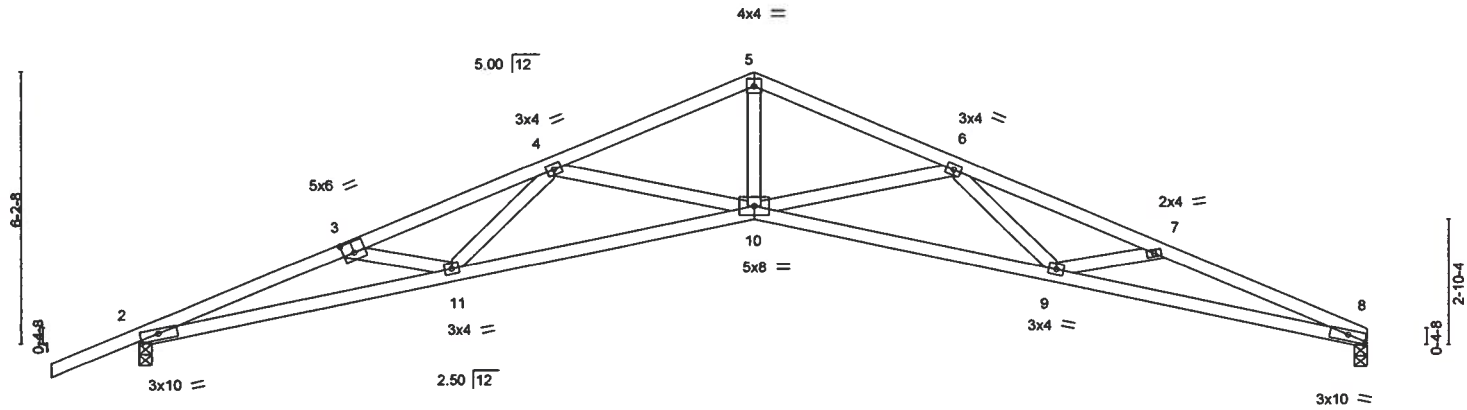
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.	T19043153
2145911	T04	SCISSORS	8	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:11 2020 Page 1
ID:XwL2?ZzfDPn3SolmsSGt66zD0EV-OP45pwtx4ay2elFQnZlbxGDGj8ZZWy3ZKvjTzpzy95U

-2-0-0	4-10-8	9-5-4	14-0-0	18-6-12	23-1-8	28-0-0
2-0-0	4-10-8	4-6-12	4-6-12	4-6-12	4-6-12	4-10-8

Scale = 1:50.6



7-1-6	14-0-0	20-10-10	28-0-0
7-1-6	6-10-10	6-10-10	7-1-6

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.59	Vert(LL)	-0.41	10-11	>829	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.93	Vert(CT)	-0.79	10-11	>424	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.44	8	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 126 lb	FT = 20%

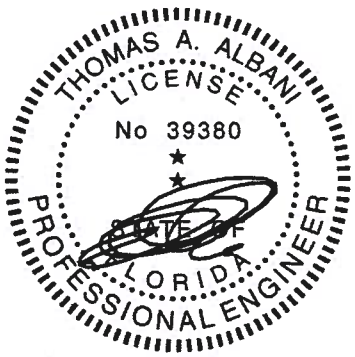
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (lb/size) 2=1148/0-3-8, 8=1032/0-3-8
Max Horz 2=157(LC 12)
Max Uplift 2=-462(LC 12), 8=-392(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3833/2011, 3-4=-3589/1826, 4-5=-2649/1342, 5-6=-2650/1342, 6-7=-3632/1855, 7-8=-3913/2084
BOT CHORD 2-11=-1813/3558, 10-11=-1500/3151, 9-10=-1518/3172, 8-9=-1889/3642
WEBS 5-10=-844/1778, 6-10=-742/532, 6-9=-116/463, 7-9=-269/301, 4-10=-721/513, 4-11=-96/456, 3-11=-225/257

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 462 lb uplift at joint 2 and 392 lb uplift at joint 8.



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

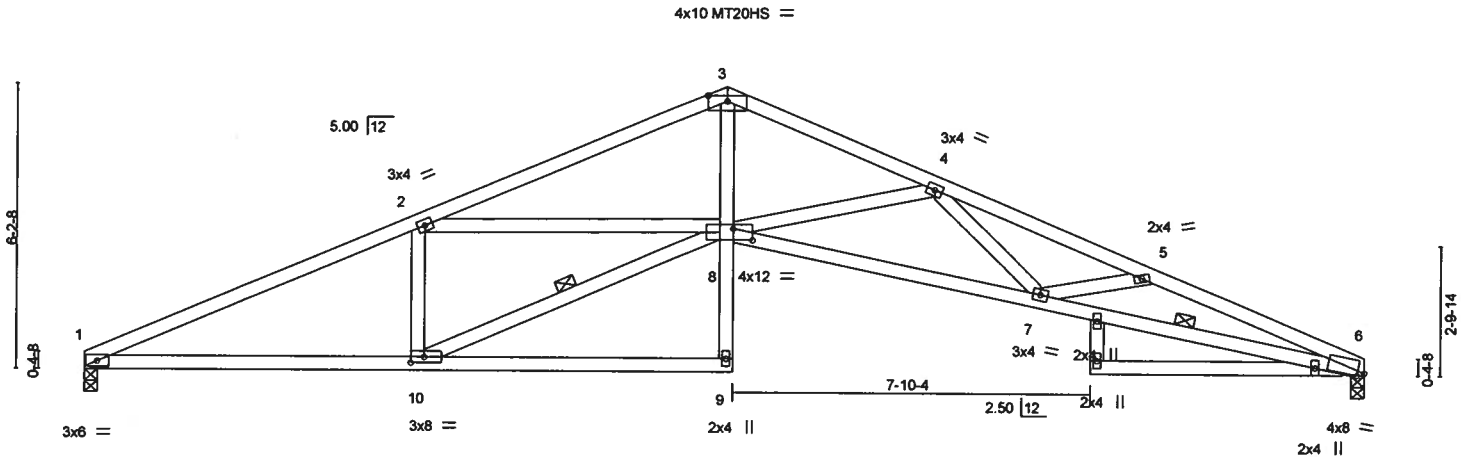
January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	T04A	ROOF SPECIAL	1	1	T19043154
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:12 2020 Page 1
ID:XwL2?ZzfDPn3SoImsSGt66zD0EV-tbeT1GuZru4vGvqcLGGqTTmQNXuqFNjjYZS0VFzy95T

7-3-7	14-0-0	18-6-12	23-1-8	28-0-0
7-3-7	6-8-9	4-6-12	4-6-12	4-10-8

Scale: 1/4"=1'



7-3-7	14-0-0	20-10-11	22-0-0	28-0-0
7-3-7	6-8-9	6-10-11	1-1-6	6-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.66	Vert(LL)	-0.33	7-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.99	Vert(CT)	-0.66	7-8	>512	180	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.31	6	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 145 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
3-9,6-11: 2x4 SP No.3
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-8-8 oc bracing. Except:
4-3-0 oc bracing: 6-7
WEBS 1 Row at midpt 8-10

REACTIONS. (lb/size) 1=1036/0-3-8, 6=1036/0-3-8
Max Horz 1=-123(LC 17)
Max Uplift 1=-393(LC 12), 6=-393(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2131/1130, 2-3=-2649/1337, 3-4=-2640/1349, 4-5=-3653/1870, 5-6=-3933/2100
BOT CHORD 1-10=-953/1912, 3-8=-800/1714, 7-8=-1521/3167, 6-7=-1903/3661
WEBS 2-10=-627/426, 8-10=-1027/2046, 2-8=-49/515, 4-8=-745/528, 4-7=-126/488, 5-7=-269/301

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
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 2-0-0 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 393 lb uplift at joint 1 and 393 lb uplift at joint 6.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 6,2020

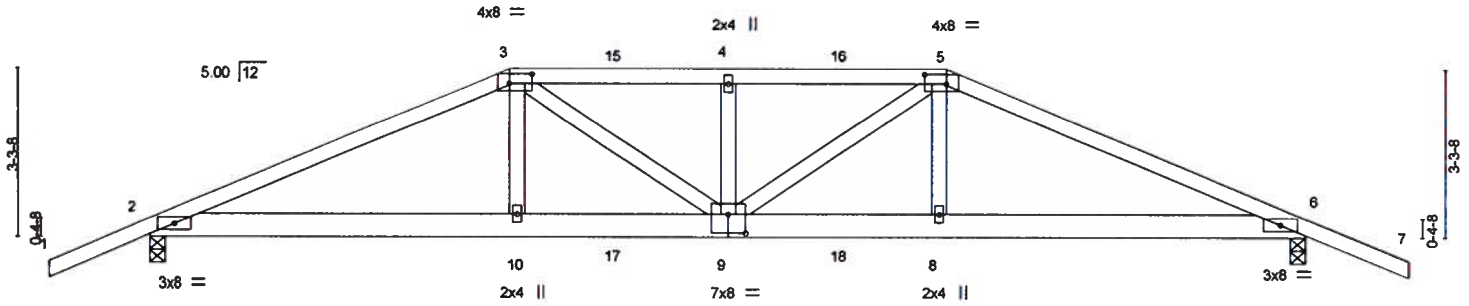
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.	T19043155
2145911	T05	HIP GIRDER	1	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:13 2020 Page 1
ID:XwL2?ZzfDPn3SoImsSGt66zD0EV-LoCrEcuBbBCmu3Ppv_n30hJZQxG1_yLsnDCa1hzy95S

-2-0-0	7-0-0	11-3-0	15-6-0	22-6-0	24-6-0
2-0-0	7-0-0	4-3-0	4-3-0	7-0-0	2-0-0

Scale = 1:43.2



7-0-0	11-3-0	15-6-0	22-6-0
7-0-0	4-3-0	4-3-0	7-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.77	Vert(LL)	0.28	9	>955	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.80	Vert(CT)	-0.29	9	>942	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.31	Horz(CT)	0.08	6	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 120 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP M 31 *Except*
3-5: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-4-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-6-4 oc bracing.

REACTIONS. (lb/size) 2=1687/0-3-8, 6=1716/0-3-8
Max Horz 2=79(LC 8)
Max Uplift 2=-1281(LC 4), 6=-1313(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3522/2733, 3-4=-3785/3070, 4-5=-3785/3070, 5-6=-3595/2820
BOT CHORD 2-10=-2439/3191, 9-10=-2459/3217, 8-9=-2540/3283, 6-8=-2519/3257
WEBS 3-10=-415/626, 3-9=-668/797, 4-9=-578/473, 5-9=-531/701, 5-8=-413/626

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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 2-0-0 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1281 lb uplift at joint 2 and 1313 lb uplift at joint 6.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 135 lb up at 7-0-0, 106 lb down and 135 lb up at 9-0-12, 106 lb down and 135 lb up at 11-0-12, 106 lb down and 135 lb up at 11-5-4, and 106 lb down and 135 lb up at 13-5-4, and 228 lb down and 270 lb up at 15-6-0 on top chord, and 292 lb down and 321 lb up at 7-0-0, 84 lb down and 86 lb up at 9-0-12, 84 lb down and 86 lb up at 11-0-12, 84 lb down and 86 lb up at 11-5-4, and 84 lb down and 86 lb up at 13-5-4, and 292 lb down and 321 lb up at 15-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-5=-54, 5-7=-54, 2-6=-20
Concentrated Loads (lb)
Vert: 3=-106(B) 5=-181(B) 10=-283(B) 9=-122(B) 4=-213(B) 8=-283(B) 15=-106(B) 16=-106(B) 17=-61(B) 18=-61(B)

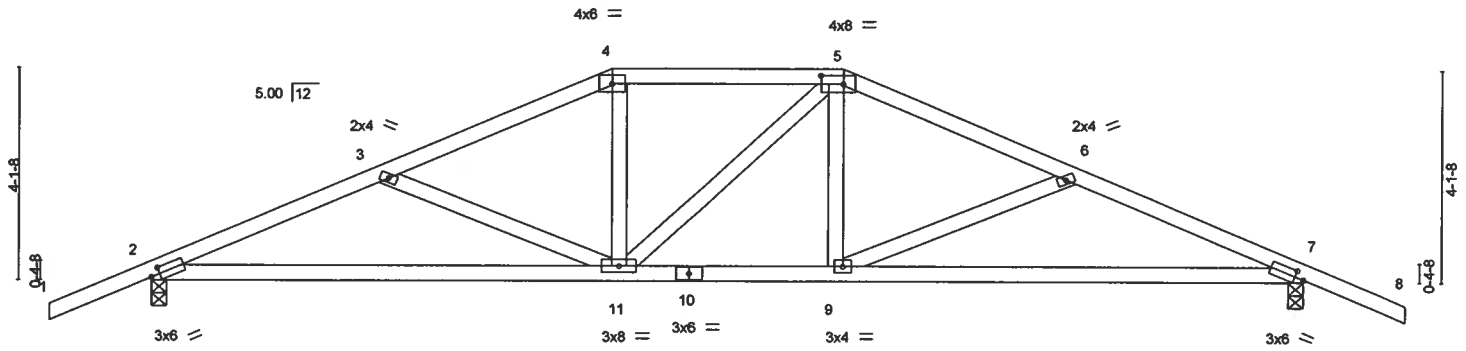
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.	T19043156
2145911	T06	HIP	1	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:14 2020 Page 1
ID.XwL2?ZzfDPn3SolmsSGt66zD0EV-p_IDSyvpMVKdVD_?ShIlYurmDLdcjRl00sx7a8zy95R

-2-0-0	4-7-10	9-0-0	13-6-0	17-10-6	22-6-0	24-6-0
2-0-0	4-7-10	4-4-6	4-6-0	4-4-6	4-7-10	2-0-0

Scale = 1:43.2



9-0-0	13-6-0	22-6-0
9-0-0	4-6-0	9-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.64	Vert(LL)	0.34	9-17	>788	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.72	Vert(CT)	-0.33	9-17	>830	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 109 lb	FT = 20%

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 4-5-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 3-0-2 oc bracing.

REACTIONS. (lb/size) 2=941/0-3-8, 7=941/0-3-8
Max Horz 2=97(LC 12)
Max Uplift 2=-606(LC 8), 7=-606(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1634/2006, 3-4=-1322/1711, 4-5=-1182/1634, 5-6=-1321/1711, 6-7=-1634/2006
BOT CHORD 2-11=-1748/1486, 9-11=-1392/1182, 7-9=-1779/1486
WEBS 3-11=-343/437, 4-11=-480/321, 5-9=-486/321, 6-9=-343/437

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 2-0-0 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 606 lb uplift at joint 2 and 606 lb uplift at joint 7.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

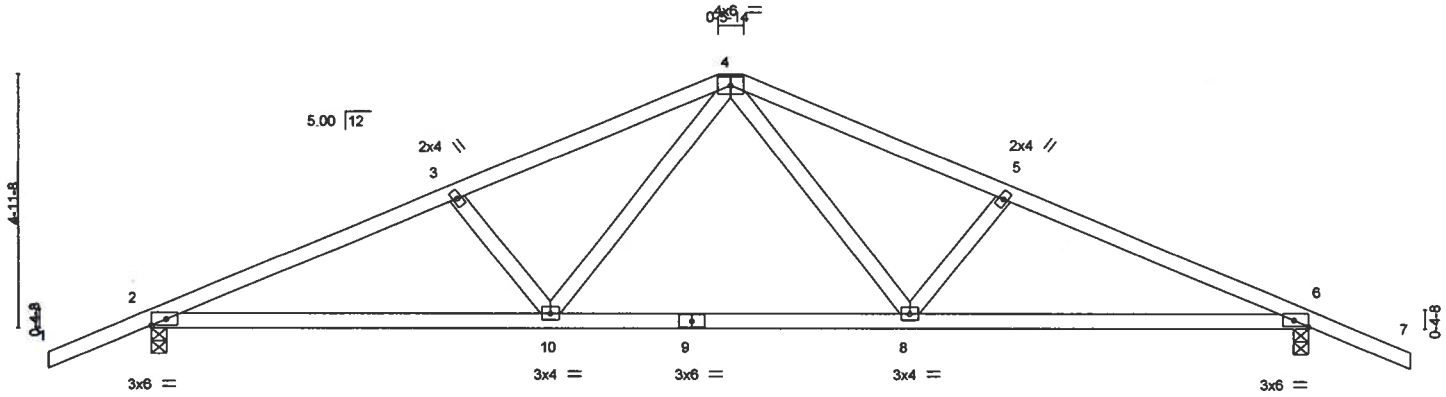
January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.
2145911	T07	FINK	1	1	T19043157
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:15 2020 Page 1
ID:XwL2?ZzfDPn3SolmsSGt66zD0EV-HAJbfIwS7pST7NZB0PpX56Oyfl?tSol9FWhh6azy95Q

-2-0-0	5-11-6	11-3-0	16-6-10	22-6-0	24-6-0
2-0-0	5-11-6	5-3-10	5-3-10	5-11-6	2-0-0

Scale = 1:43.2



7-9-0	14-9-0	22-6-0
7-9-0	7-0-1	7-9-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.60	Vert(LL)	0.21	8-16	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.59	Vert(CT)	-0.18	10-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 102 lb	FT = 20%

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 4-4-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 3-11-14 oc bracing.

REACTIONS. (lb/size) 2=941/0-3-8, 6=941/0-3-8
Max Horz 2=115(LC 12)
Max Uplift 2=-572(LC 8), 6=-572(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1609/2006, 3-4=-1425/1943, 4-5=-1425/1943, 5-6=-1609/2006
BOT CHORD 2-10=-1725/1441, 8-10=-1087/979, 6-8=-1747/1441
WEBS 3-10=-307/318, 4-10=-785/492, 4-8=-785/492, 5-8=-307/318

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 572 lb uplift at joint 2 and 572 lb uplift at joint 6.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

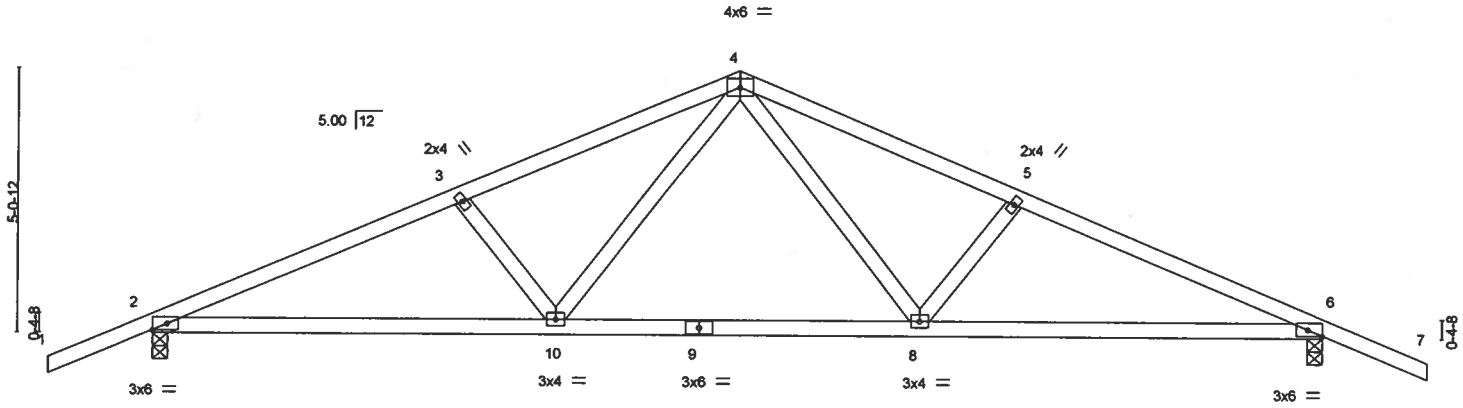
January 6,2020

Job	Truss	Truss Type	Qty	Ply	NORRIS - RATLIFF RES.	
2145911	T08	COMMON	1	1		T19043158
					Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Dec 6 2019 MiTek Industries, Inc. Mon Jan 6 06:59:16 2020 Page 1
ID:XwL2?ZzfDPn3SolmsSGt66zD0EV-lNt_sex4u6aKlX8Oa6KmeJx7P9L6BFOITAQEe0zy95P

-2-0-0	5-11-6	11-3-0	16-6-10	22-6-0	24-6-0
2-0-0	5-11-6	5-3-10	5-3-10	5-11-6	2-0-0

Scale = 1:42.5



7-9-0	14-9-0	22-6-0
7-9-0	7-0-1	7-9-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.60	Vert(LL)	0.21	8-16	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.59	Vert(CT)	-0.18	10-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 102 lb	FT = 20%

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 4-4-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 3-11-14 oc bracing.

REACTIONS. (lb/size) 2=941/0-3-8, 6=941/0-3-8
Max Horz 2=116(LC 12)
Max Uplift 2=-572(LC 8), 6=-572(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1609/2006, 3-4=-1423/1940, 4-5=-1423/1940, 5-6=-1609/2006
BOT CHORD 2-10=-1725/1441, 8-10=-1072/968, 6-8=-1747/1441
WEBS 4-8=-798/499, 5-8=-316/335, 4-10=-798/499, 3-10=-316/335

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 572 lb uplift at joint 2 and 572 lb uplift at joint 6.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
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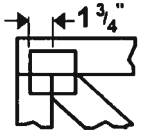
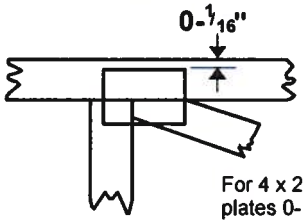
Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

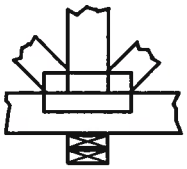
4 x 4

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

LATERAL BRACING LOCATION

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

BEARING

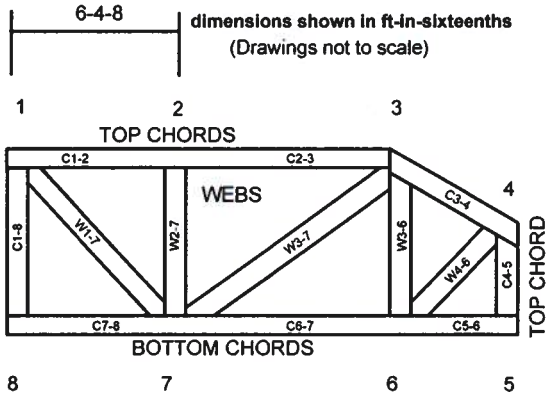


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

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

MiTek®

MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

AUGUST 1, 2016	T-BRACE / I-BRACE DETAIL WITH 2X BRACE ONLY	MII-T-BRACE 2

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Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

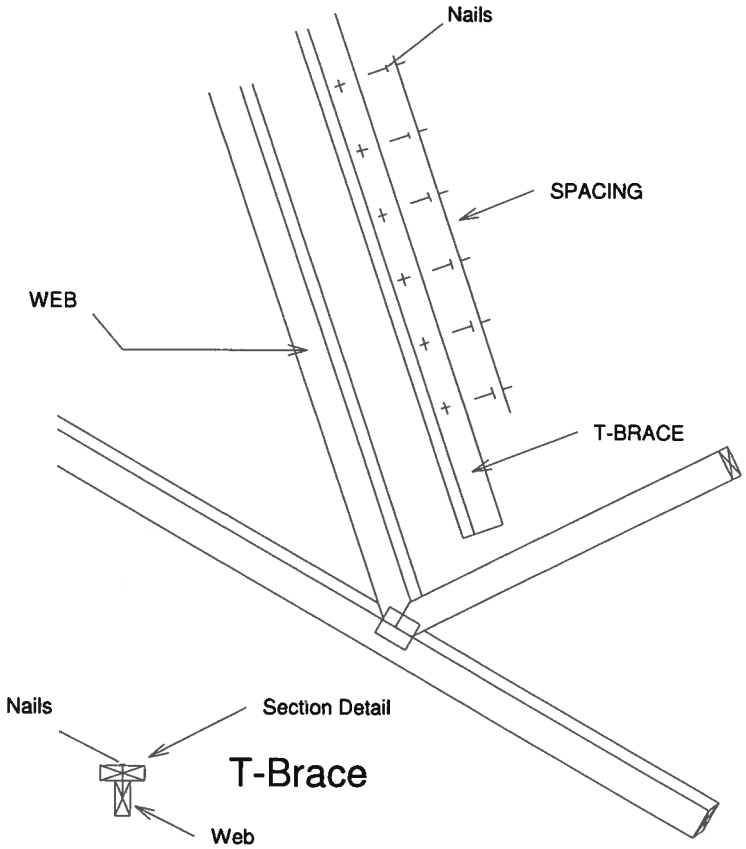
Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

Nailing Pattern		
T-Brace size	Nail Size	Nail Spacing
2x4 or 2x6 or 2x8	10d (0.131" X 3")	6" o.c.
Note: Nail along entire length of T-Brace / I-Brace (On Two-Ply's Nail to Both Plies)		

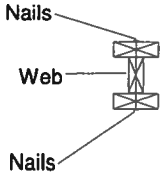
	Brace Size for One-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

	Brace Size for Two-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

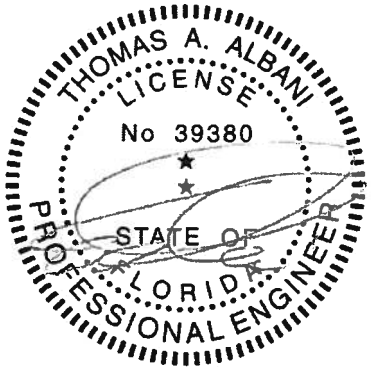
T-Brace / I-Brace must be same species and grade (or better) as web member.



T-Brace



I-Brace



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	SCAB-BRACE DETAIL	MII-SCAB-BRACE

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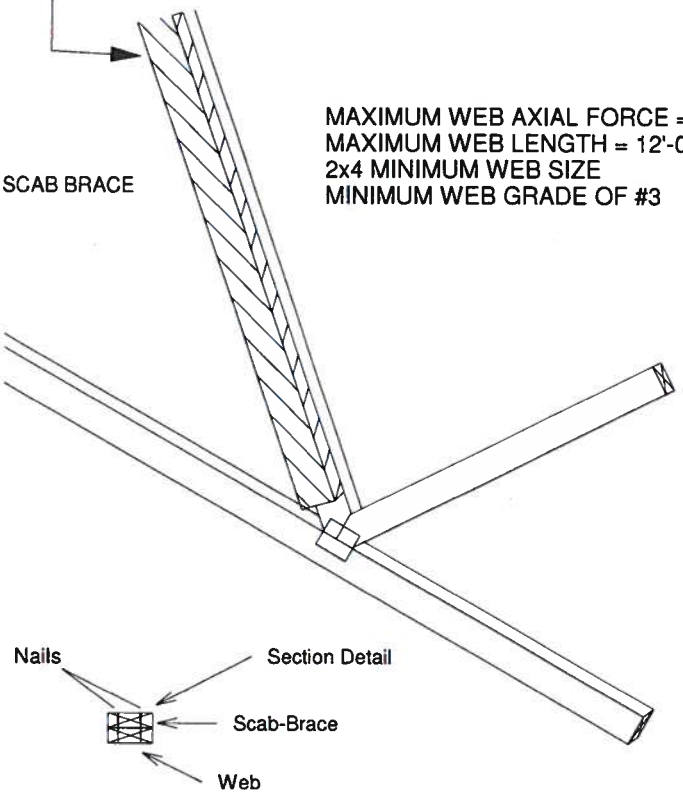
Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.
Scab must cover full length of web +/- 6".

*** THIS DETAIL IS NOT APLICABLE WHEN BRACING IS *** REQUIRED AT 1/3 POINTS OR I-BRACE IS SPECIFIED.

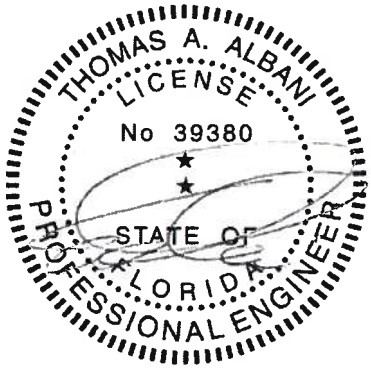
APPLY 2x___ SCAB TO ONE FACE OF WEB WITH
2 ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
SCAB MUST BE THE SAME GRADE, SIZE AND
SPECIES (OR BETTER) AS THE WEB.

SCAB BRACE

MAXIMUM WEB AXIAL FORCE = 2500 lbs
MAXIMUM WEB LENGTH = 12'-0"
2x4 MINIMUM WEB SIZE
MINIMUM WEB GRADE OF #3



Scab-Brace must be same species grade (or better) as web member.



Thomas A. Albani PE No.39380
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6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	STANDARD REPAIR TO REMOVE END VERTICAL (RIBBON NOTCH VERTICAL)	MII-REP05

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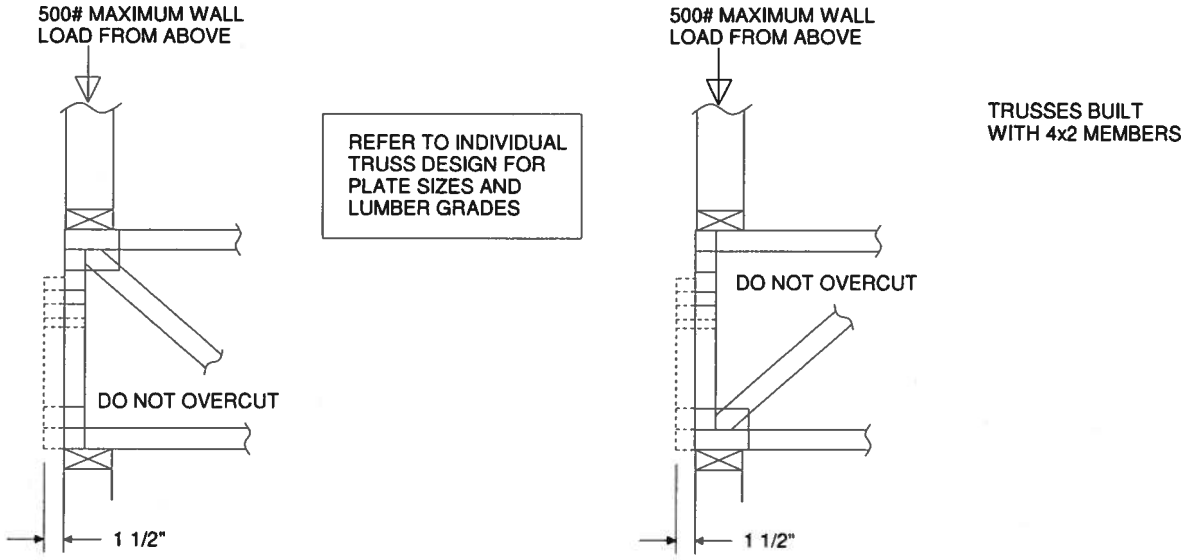
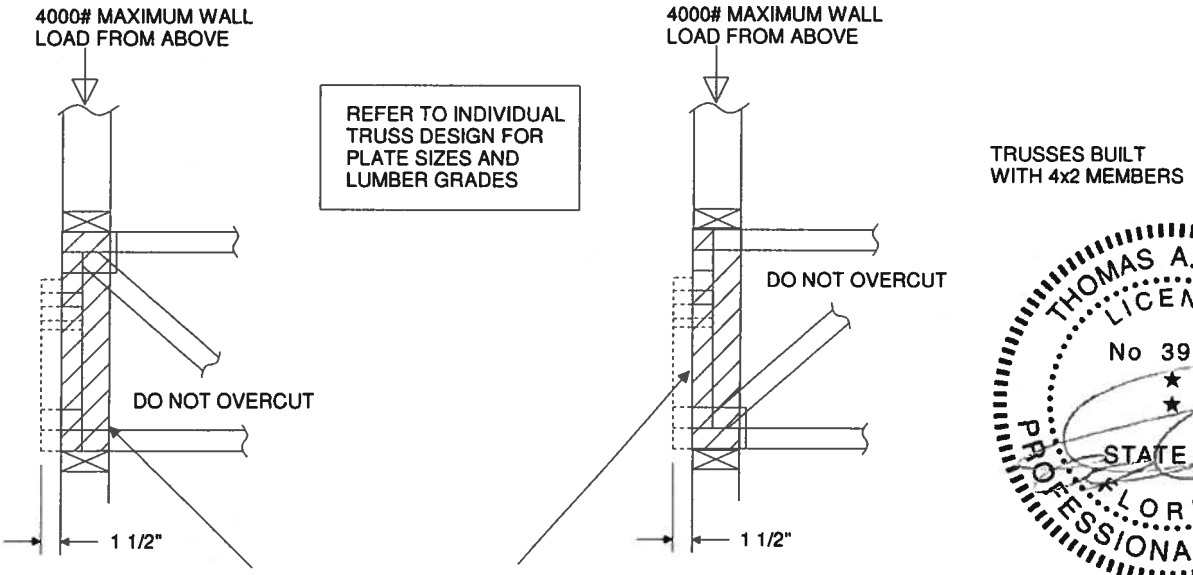
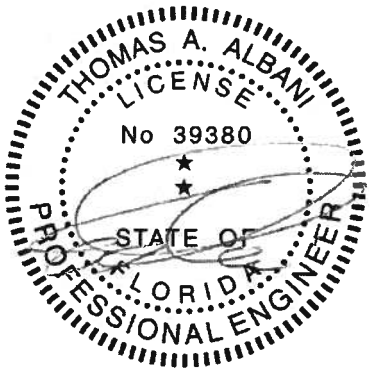
1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
4. LUMBER MUST BE CUT CLEANLY AND ACCURATELY AND THE REMAINING WOOD MUST BE UNDAMAGED.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 4X_ ORIENTATION ONLY.
6. CONNECTOR PLATES MUST BE FULLY IMBEDDED AND UNDISTURBED.





ATTACH 2x4 SQUASH BLOCK (CUT TO FIT TIGHTLY) TO BOTH SIDES OF THE TRUSS AS SHOWN WITH 10d (0.131" X 3") NAILS SPACED 3" O.C.



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
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AUGUST 1, 2016	Standard Gable End Detail	MII-GE130-D-SP

MiTek USA, Inc. Page 1 of 2

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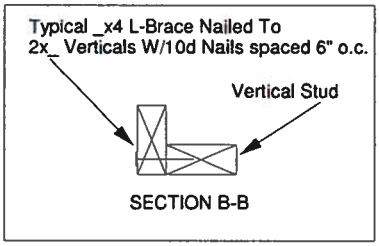
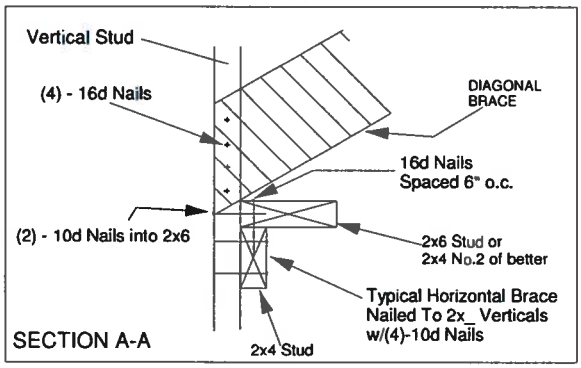
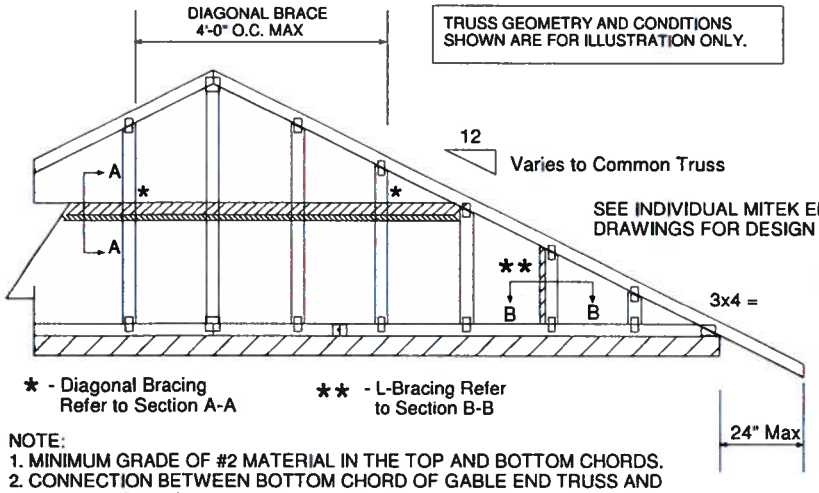




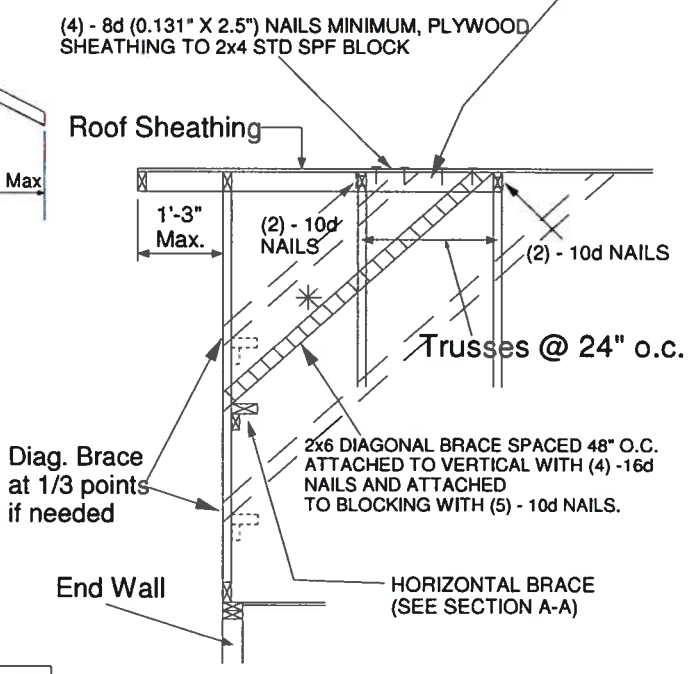
TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.



* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.



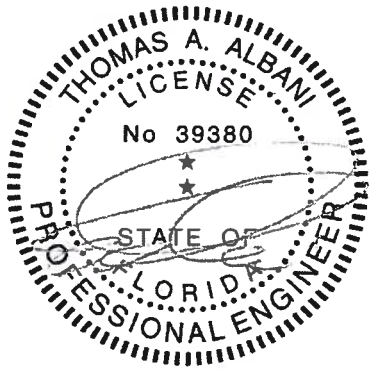
NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 SP No. 3 / Stud	12" O.C.	3-9-13	4-1-1	5-9-6	7-1-3	11-5-7
2x4 SP No. 3 / Stud	16" O.C.	3-5-4	3-6-8	5-0-2	6-10-8	10-3-13
2x4 SP No. 3 / Stud	24" O.C.	2-9-11	2-10-11	4-1-1	5-7-6	8-5-1

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE D
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH
ASCE 7-10 160 MPH
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	Standard Gable End Detail	MII-GE130-SP

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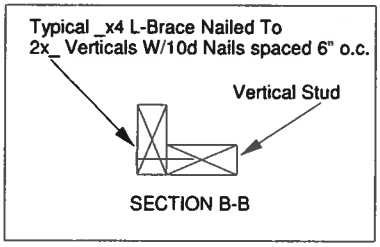
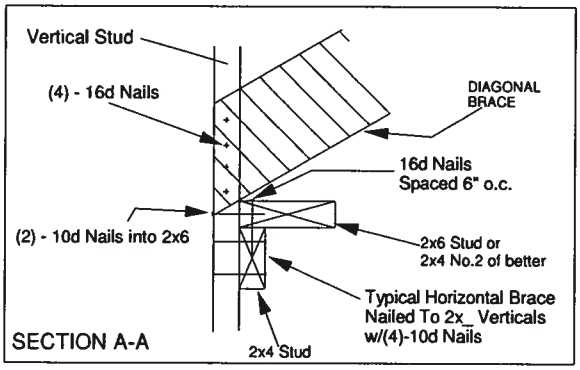
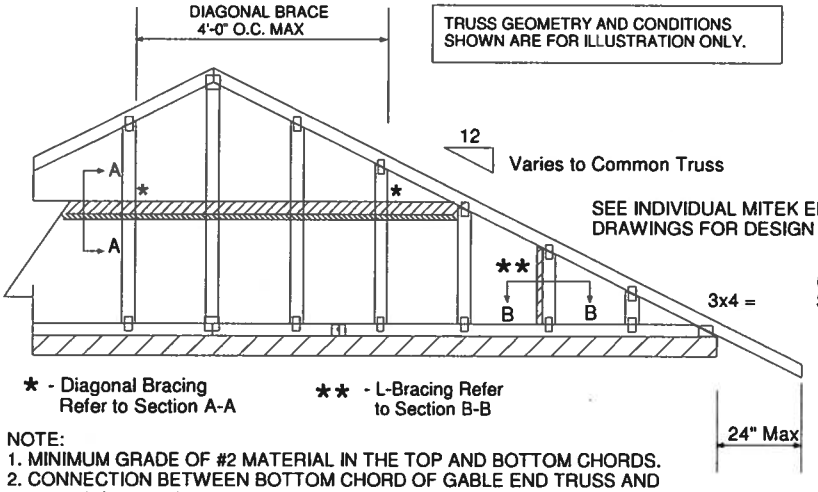




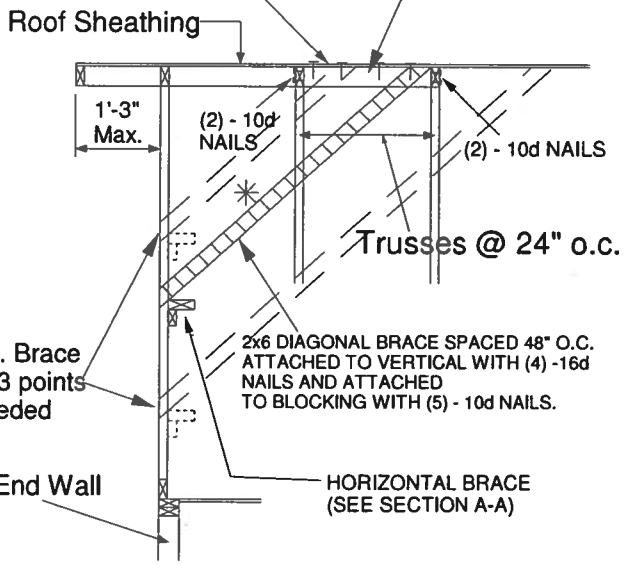


TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

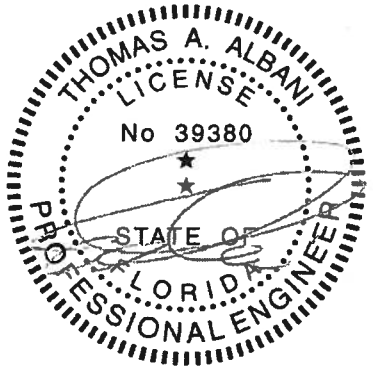
NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 SP No. 3 / Stud	12" O.C.	4-0-7	4-5-6	6-3-8	8-0-15	12-1-6
2x4 SP No. 3 / Stud	16" O.C.	3-8-0	3-10-4	5-5-6	7-4-1	11-0-1
2x4 SP No. 3 / Stud	24" O.C.	3-0-10	3-1-12	4-5-6	6-1-5	9-1-15

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH
ASCE 7-10 160 MPH
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

JANUARY 6, 2017	Standard Gable End Detail	MII-GE140-001

MiTek USA, Inc. Page 1 of 2

MiTek USA, Inc.
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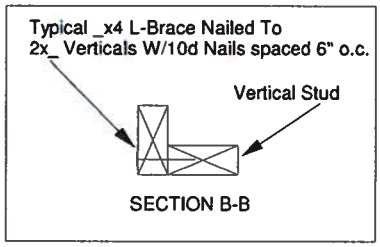
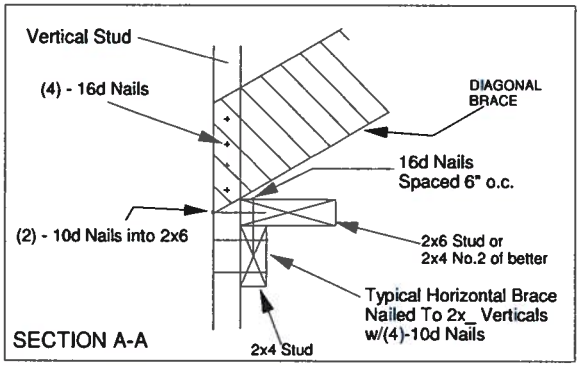
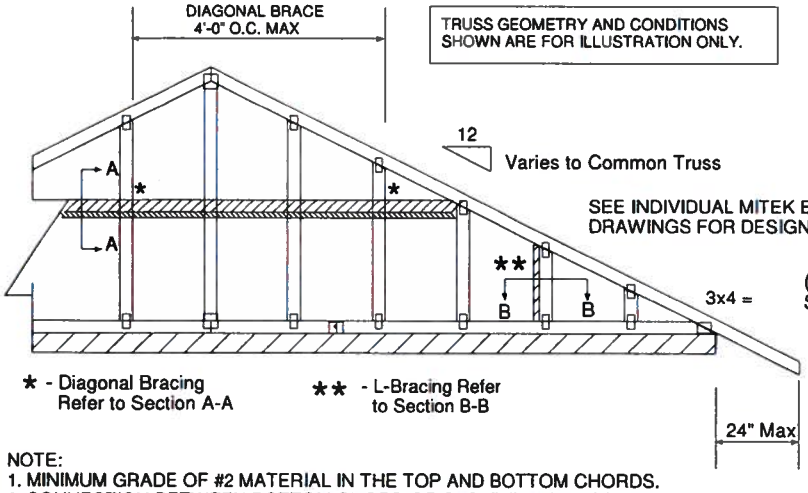






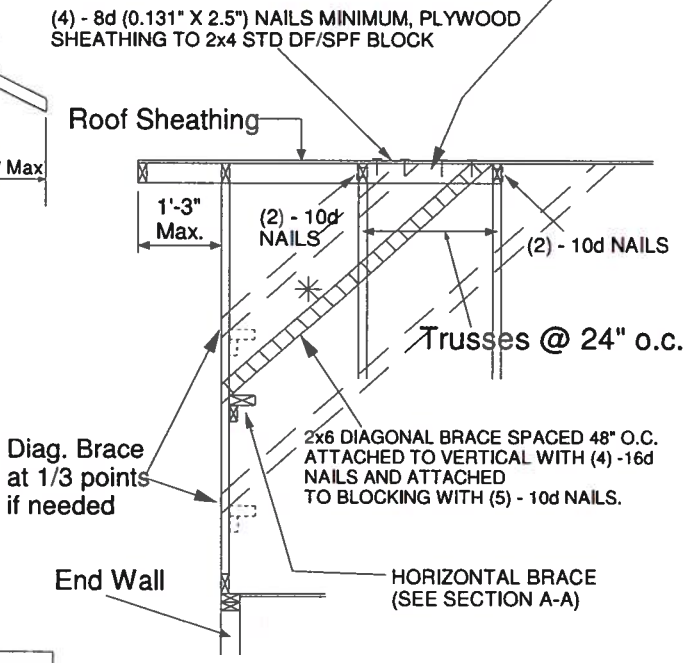
TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.



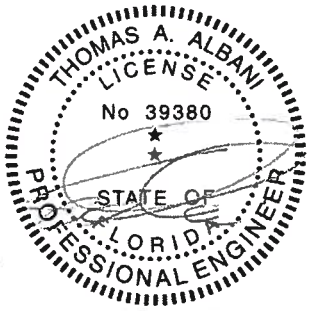
NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 DF/SPF Std/Stud	12" O.C.	3-10-1	3-11-7	5-7-2	7-8-2	11-6-4
2x4 DF/SPF Std/Stud	16" O.C.	3-3-14	3-5-1	4-10-2	6-7-13	9-11-11
2x4 DF/SPF Std/Stud	24" O.C.	2-8-9	2-9-8	3-11-7	5-5-2	8-1-12

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAXIMUM WIND SPEED = 140 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 19, 2018

AUGUST 1, 2016	Standard Gable End Detail	MII-GE170-D-SP

MiTek USA, Inc.
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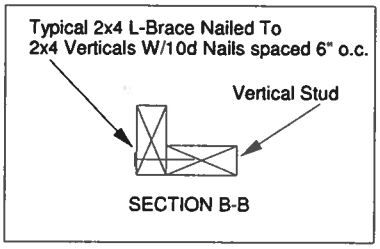
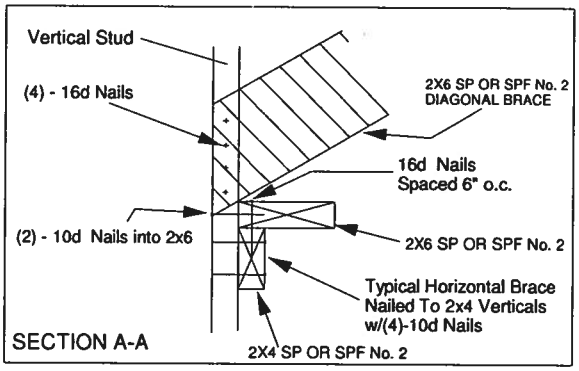
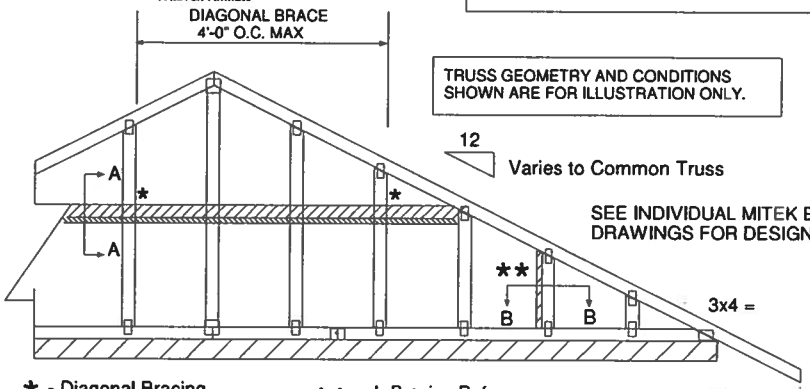
A MiTek Affiliate



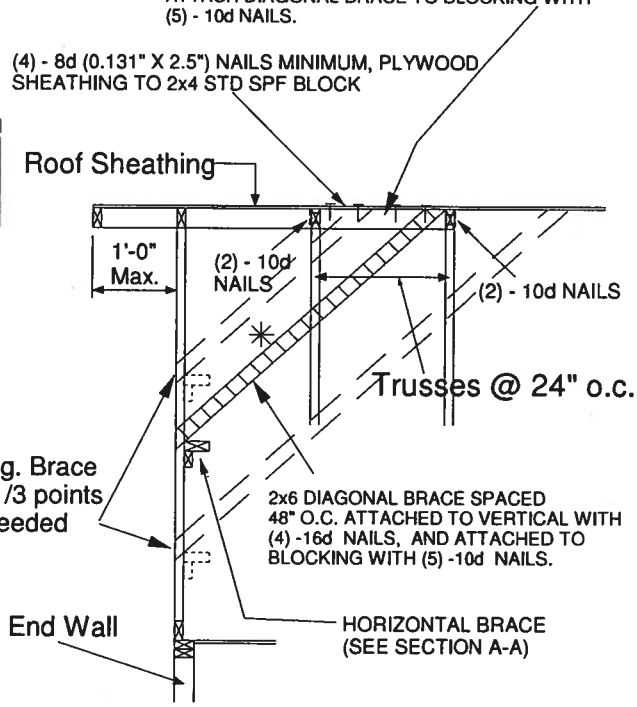




* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.



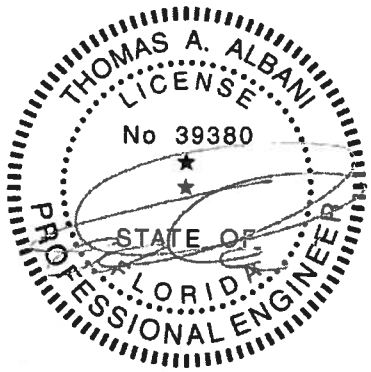
NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	3-9-7	5-8-8	6-11-1	11-4-4
2x4 SP No. 3 / Stud	16" O.C.	3-4-12	4-11-15	6-9-8	10-2-3
2x4 SP No. 3 / Stud	24" O.C.	2-9-4	4-0-7	5-6-8	8-3-13
2x4 SP No. 2	12" O.C.	3-11-13	5-8-8	6-11-1	11-11-7
2x4 SP No. 2	16" O.C.	3-7-7	4-11-5	6-11-1	10-10-5
2x4 SP No. 2	24" O.C.	3-1-15	4-0-7	6-3-14	9-5-14

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length. T or I braces must be 2x4 SPF No. 2 or SP No. 2.

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE D
ASCE 7-10 170 MPH
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.

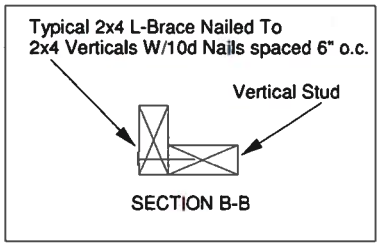


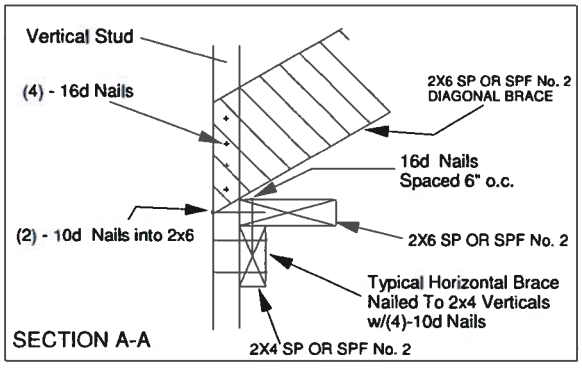
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

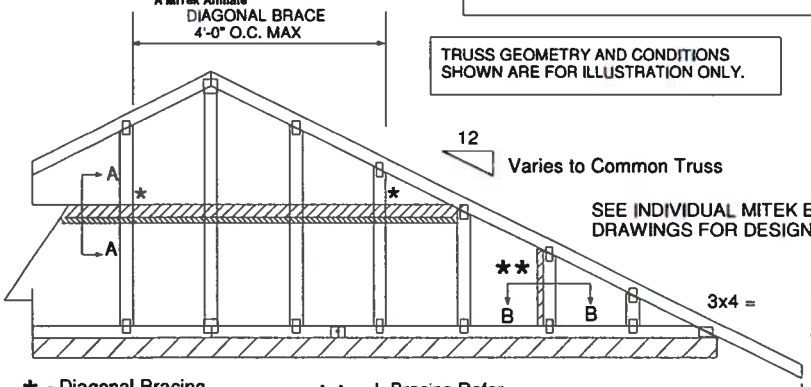
AUGUST 1, 2016	Standard Gable End Detail	MII-GE180-D-SP

MiTek USA, Inc.

ENGINEERED BY TRENCO
A MiTek Affiliate







TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

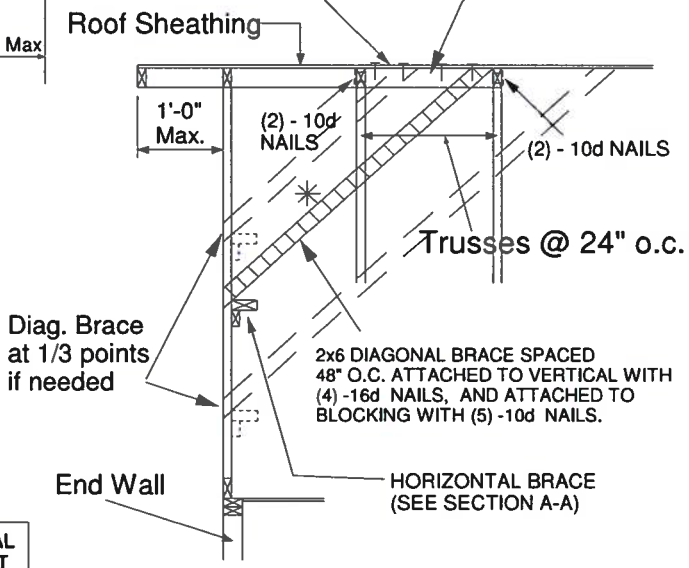
* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

24" Max

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



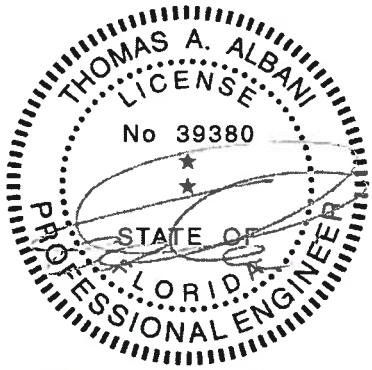
NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	3-7-12	5-4-11	6-2-1	10-11-3
2x4 SP No. 3 / Stud	16" O.C.	3-2-8	4-8-1	6-2-1	9-7-7
2x4 SP No. 3 / Stud	24" O.C.	2-7-7	3-9-12	5-2-13	7-10-4
2x4 SP No. 2	12" O.C.	3-10-0	5-4-11	6-2-1	11-6-1
2x4 SP No. 2	16" O.C.	3-5-13	4-8-1	6-2-1	10-5-7
2x4 SP No. 2	24" O.C.	3-0-8	3-9-12	6-1-1	9-1-9

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length. T or I braces must be 2x4 SPF No. 2 or SP No. 2.

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE D
ASCE 7-10 180 MPH
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	STANDARD PIGGYBACK TRUSS CONNECTION DETAIL	MII-PIGGY-7-10

MiTek USA, Inc. Page 1 of 1

MiTek USA, Inc.
ENGINEERED BY TRENCO
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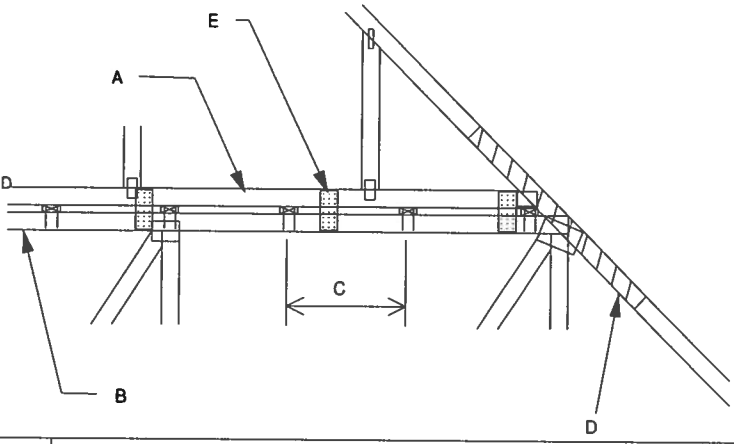
MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E MAX MEAN ROOF HEIGHT = 30 FEET MAX TRUSS SPACING = 24 " O.C. CATEGORY II BUILDING EXPOSURE B or C ASCE 7-10 DURATION OF LOAD INCREASE : 1.60
DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERING DRAG LOADS (SHEAR TRUSSES). ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED.

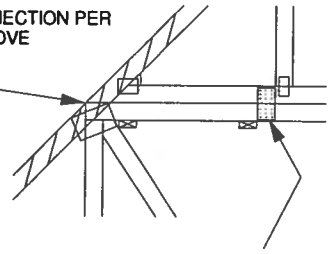
A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
D - 2 X__ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
  1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
  2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
E - FOR WIND SPEEDS BETWEEN 126 AND 160 MPH, ATTACH MITEK 3X8 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



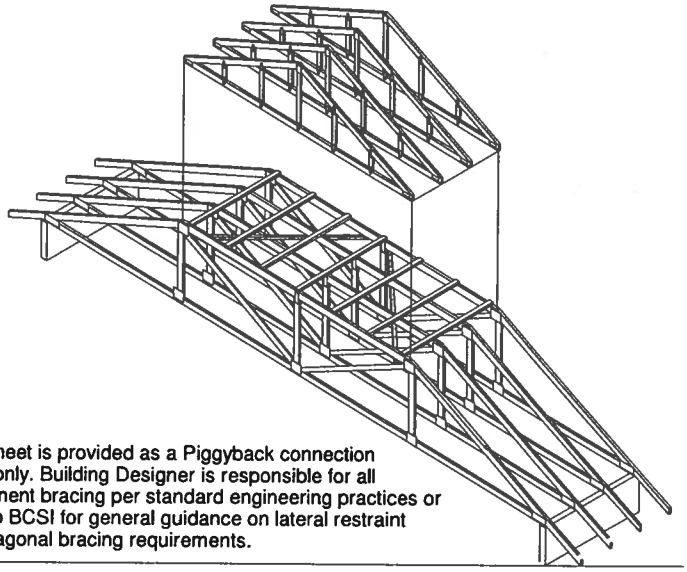
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER NOTE D ABOVE

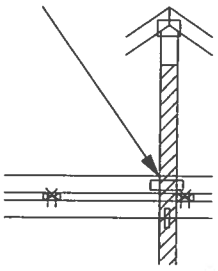


FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



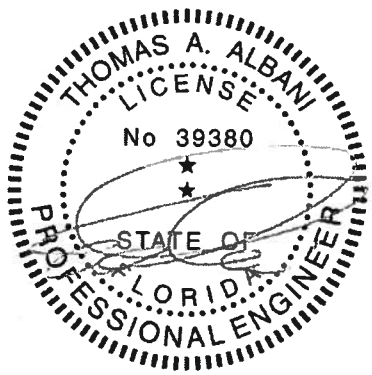
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
2) ATTACH 2 x ___ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	STANDARD PIGGYBACK TRUSS CONNECTION DETAIL	MII-PIGGY-ALT 7-10

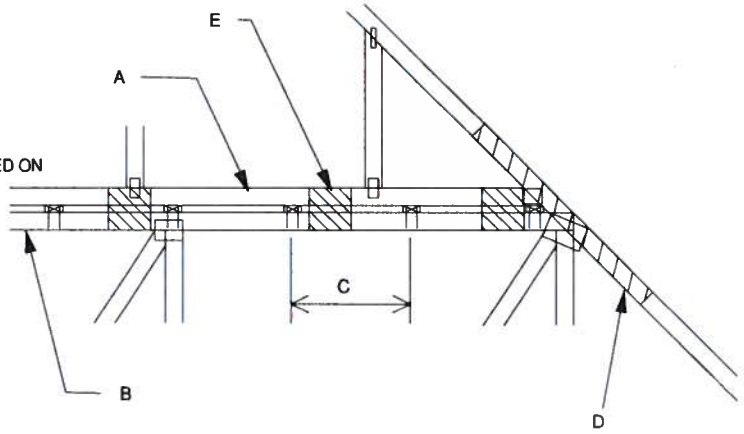
MiTek USA, Inc.

ENGINEERED BY TRENCO
A MiTek Affiliate

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E
MAX MEAN ROOF HEIGHT = 30 FEET
MAX TRUSS SPACING = 24 " O.C.
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-10
DURATION OF LOAD INCREASE : 1.60

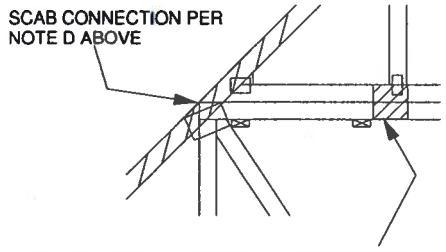
DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERING DRAG LOADS (SHEAR TRUSSES). ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED.

A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131" X 3.5") TOE-NAILED.
B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
D - 2 X___ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
  1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
  2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
E - FOR WIND SPEED IN THE RANGE 126 MPH - 160 MPH ADD 9" x 9" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)

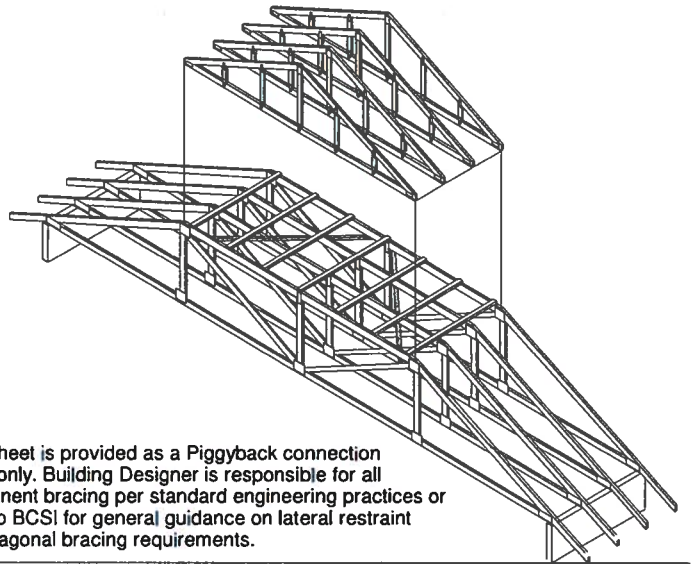


WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

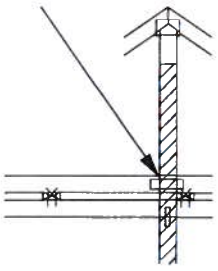


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



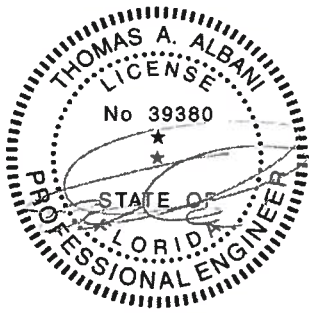
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
2) ATTACH 2 x ___ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 19, 2018

AUGUST 1, 2016	STANDARD REPAIR DETAIL FOR BROKEN CHORDS, WEBS AND DAMAGED OR MISSING CHORD SPLICE PLATES	MII-REP01A1

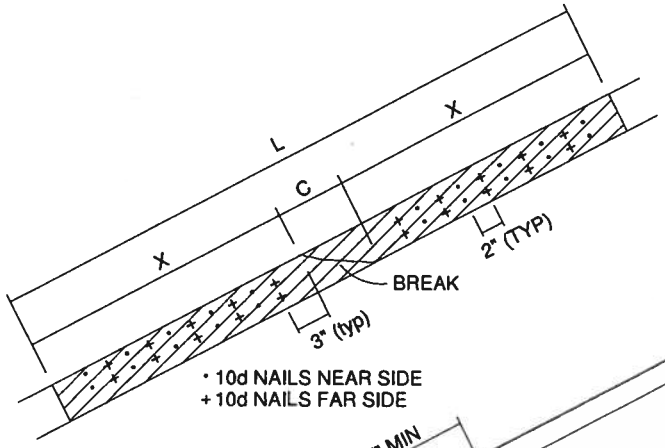
MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

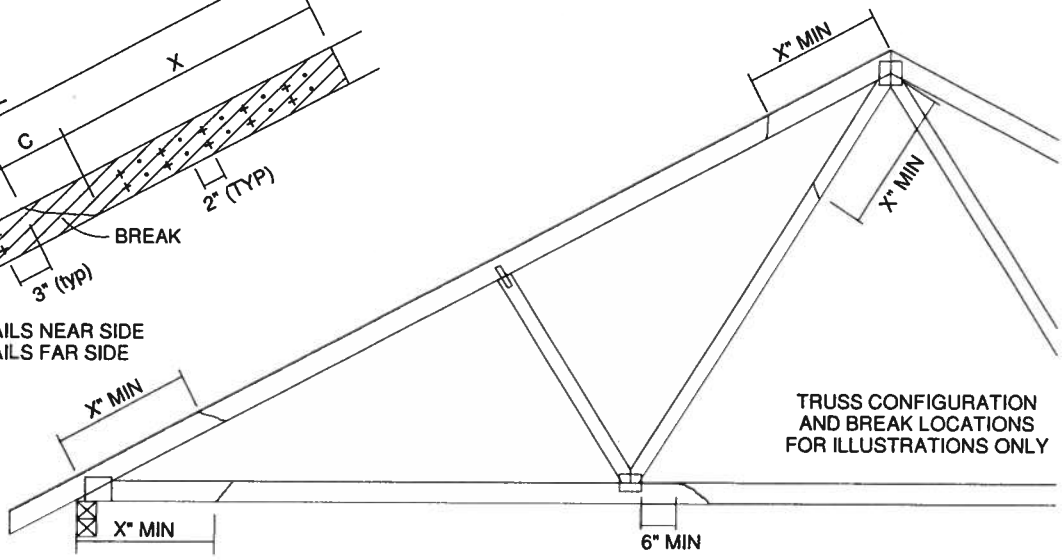
TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	3187
38	57	42"	3169	4754	2900	4350	2451	3677	2511	3767
44	66	48"	3657	5485	3346	5019	2829	4243	2898	4347

* DIVIDE EQUALLY FRONT AND BACK

ATTACH 2x_ SCAB OF THE SAME SIZE AND GRADE AS THE BROKEN MEMBER TO EACH FACE OF THE TRUSS (CENTER ON BREAK OR SPLICE) WITH 10d (0.131" X 3") NAILS (TWO ROWS FOR 2x4, THREE ROWS FOR 2x6) SPACED 4" O.C. AS SHOWN. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 0-2-0 O.C. SPACING IN THE MAIN MEMBER. USE A MIN. 0-3-0 MEMBER END DISTANCE.

THE LENGTH OF THE BREAK (C) SHALL NOT EXCEED 12". (C=PLATE LENGTH FOR SPLICE REPAIRS)
THE MINIMUM OVERALL SCAB LENGTH REQUIRED (L) IS CALCULATED AS FOLLOWS:
L = (2) X + C



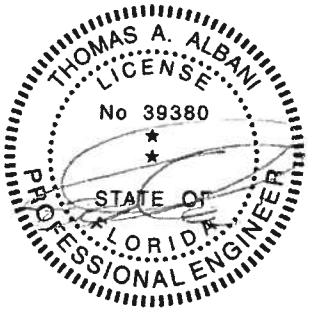


TRUSS CONFIGURATION AND BREAK LOCATIONS FOR ILLUSTRATIONS ONLY

THE LOCATION OF THE BREAK MUST BE GREATER THAN OR EQUAL TO THE REQUIRED X DIMENSION FROM ANY PERIMETER BREAK OR HEEL JOINT AND A MINIMUM OF 6" FROM ANY INTERIOR JOINT (SEE SKETCH ABOVE)

DO NOT USE REPAIR FOR JOINT SPLICES

NOTES:
1. THIS REPAIR DETAIL IS TO BE USED ONLY FOR THE APPLICATION SHOWN. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
4. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 2x_ ORIENTATION ONLY.
6. THIS REPAIR IS LIMITED TO TRUSSES WITH NO MORE THAN THREE BROKEN MEMBERS.



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
January 19, 2018

AUGUST 1, 2016	LATERAL TOE-NAIL DETAIL	MII-TOENAIL_SP

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

NOTES:
1. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES.

THIS DETAIL APPLICABLE TO THE THREE END DETAILS SHOWN BELOW

TOE-NAIL SINGLE SHEAR VALUES PER NDS 2001 (lb/nail)

	DIAM.	SP	DF	HF	SPF	SPF-S
3.5" LONG	.131	88.0	80.6	69.9	68.4	59.7
	.135	93.5	85.6	74.2	72.6	63.4
	.162	108.8	99.6	86.4	84.5	73.8
3.25" LONG	.128	74.2	67.9	58.9	57.6	50.3
	.131	75.9	69.5	60.3	59.0	51.1
	.148	81.4	74.5	64.6	63.2	52.5

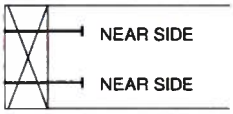
VALUES SHOWN ARE CAPACITY PER TOE-NAIL.
APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

EXAMPLE:
(3) - 16d (0.162" X 3.5") NAILS WITH SPF SPECIES BOTTOM CHORD

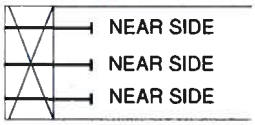
For load duration increase of 1.15:
3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

VIEWS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY

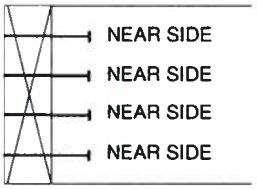
SIDE VIEW
(2x3)
2 NAILS

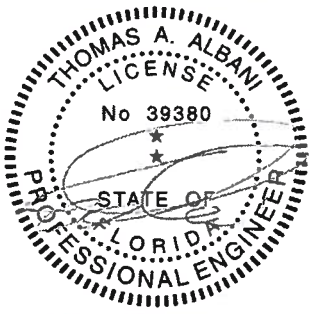


SIDE VIEW
(2x4)
3 NAILS



SIDE VIEW
(2x6)
4 NAILS





Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
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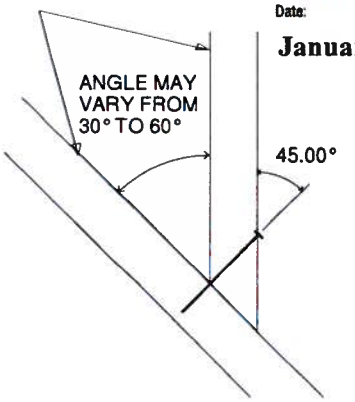
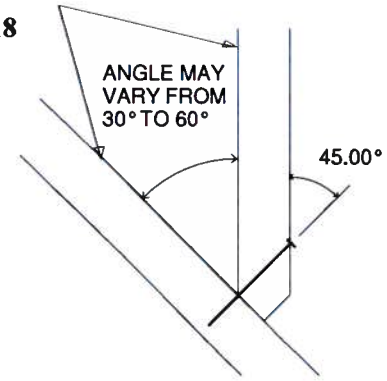
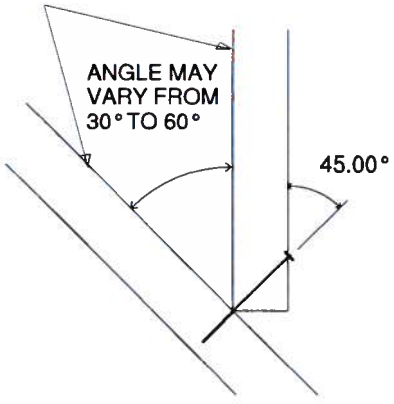






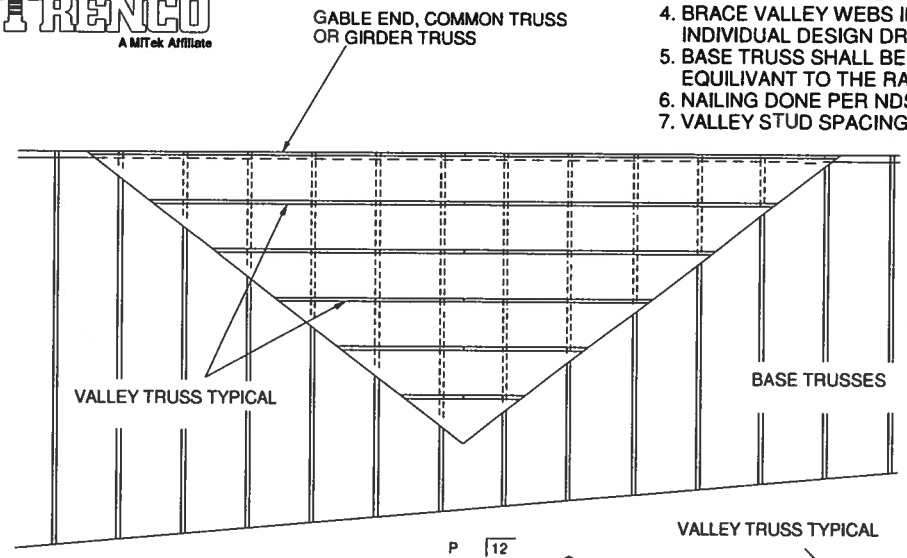
AUGUST 1, 2016	TRUSSED VALLEY SET DETAIL	MII-VALLEY HIGH WIND1

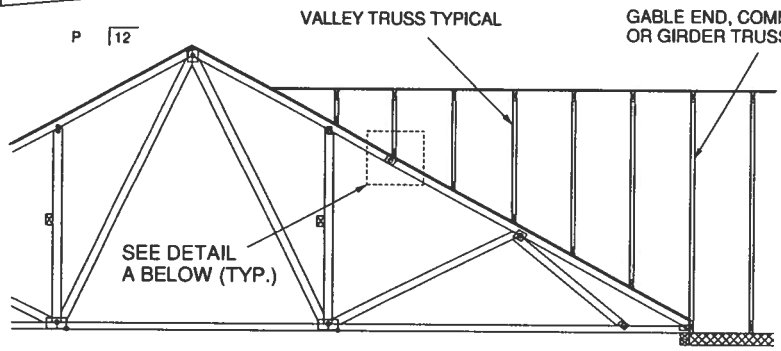
MiTek USA, Inc. Page 1 of 1

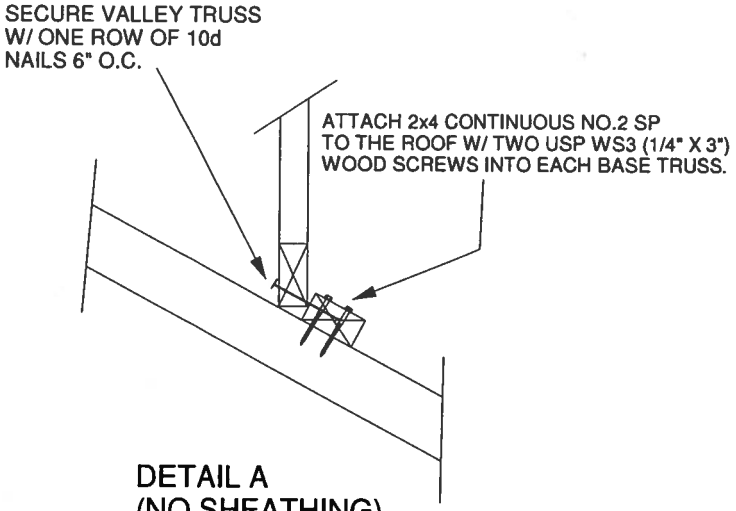
MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

GENERAL SPECIFICATIONS

1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 3" WS3 USP OR EQUIVALENT
   DO NOT USE DRYWALL OR DECKING TYPE SCREW
3. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND
   SECURE PER DETAIL A
4. BRACE VALLEY WEBS IN ACCORDANCE WITH THE
   INDIVIDUAL DESIGN DRAWINGS.
5. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING
   EQUILIVANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
6. NAILING DONE PER NDS - 01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.

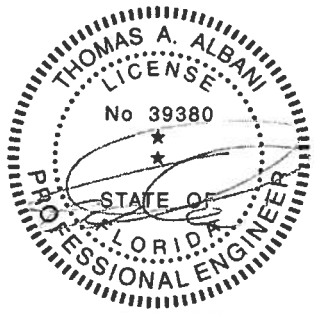






DETAIL A
(NO SHEATHING)
N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10 160 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12
CATEGORY II BUILDING
EXPOSURE C
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 6 PSF
ON THE TRUSSES



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

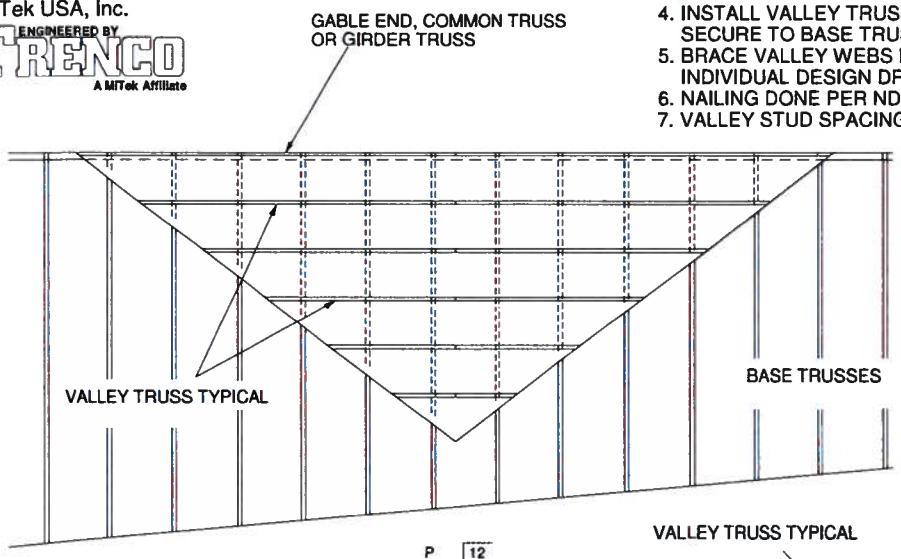
January 19, 2018

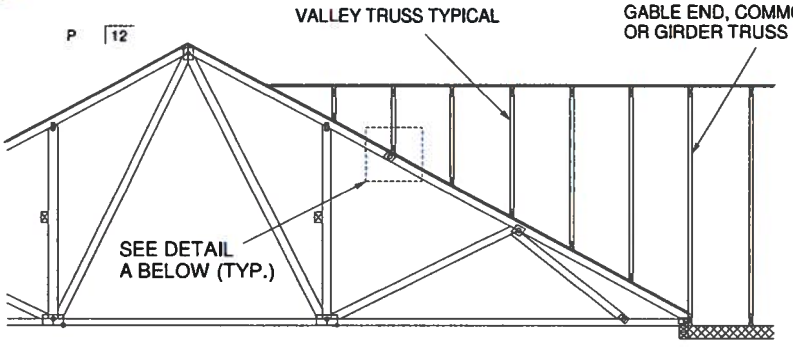
AUGUST 1, 2016	TRUSSED VALLEY SET DETAIL	MII-VALLEY HIGH WIND2

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

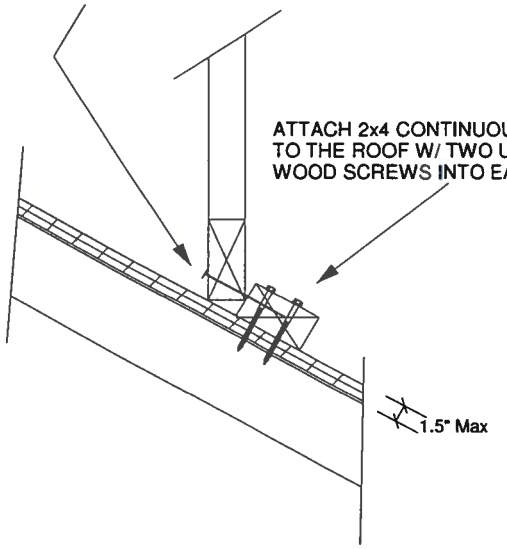
GENERAL SPECIFICATIONS

1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 4.5" WS45 USP OR EQUILIVANT
3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.
4. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A
5. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
6. NAILING DONE PER NDS-01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.

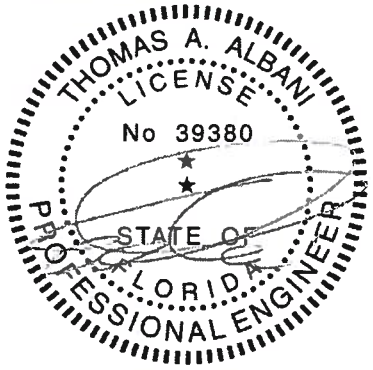




SECURE VALLEY TRUSS W/ ONE ROW OF 10d NAILS 6" O.C.



WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10 160 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12
CATEGORY II BUILDING
EXPOSURE C
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 6 PSF ON THE TRUSSES



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

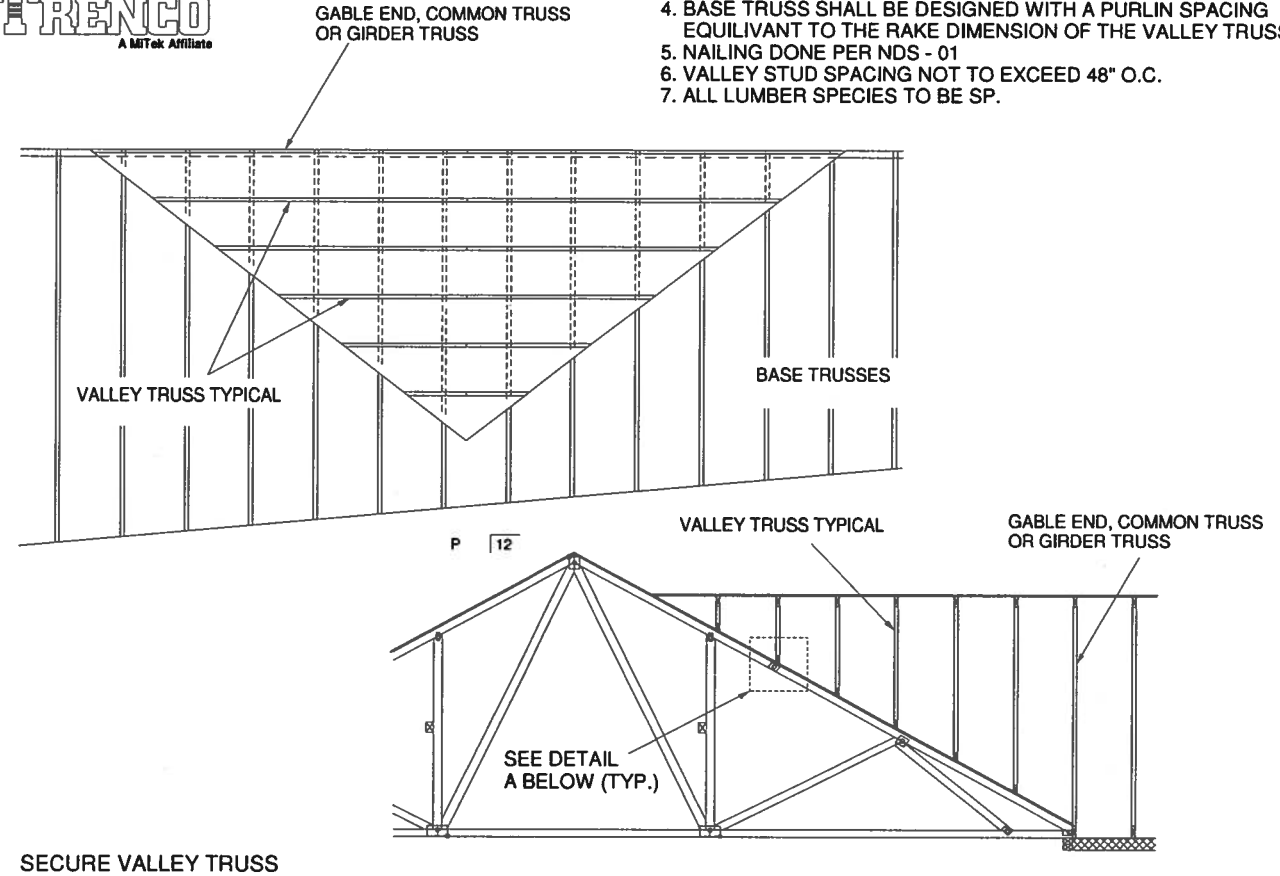
AUGUST 1, 2016	TRUSSED VALLEY SET DETAIL	MII-VALLEY SP

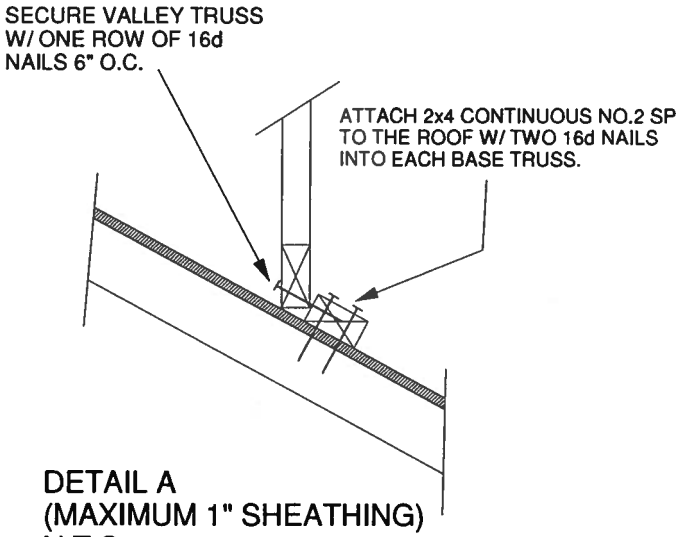
MiTek USA, Inc.

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

GENERAL SPECIFICATIONS

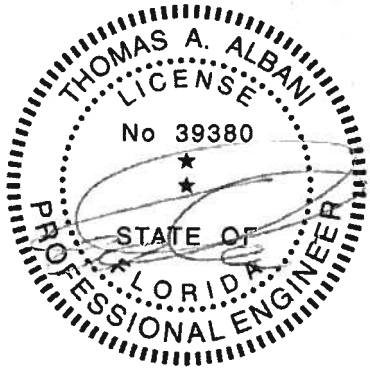
1. NAIL SIZE 16d (0.131" X 3.5")
2. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
3. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
4. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUILIVANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
5. NAILING DONE PER NDS - 01
6. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.
7. ALL LUMBER SPECIES TO BE SP.





DETAIL A
(MAXIMUM 1" SHEATHING)
N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH
WIND DESIGN PER ASCE 7-10 150 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12
CATEGORY II BUILDING
EXPOSURE C OR B
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 60 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF ON THE TRUSSES



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	TRUSSED VALLEY SET DETAIL (HIGH WIND VELOCITY)	MII-VALLEY

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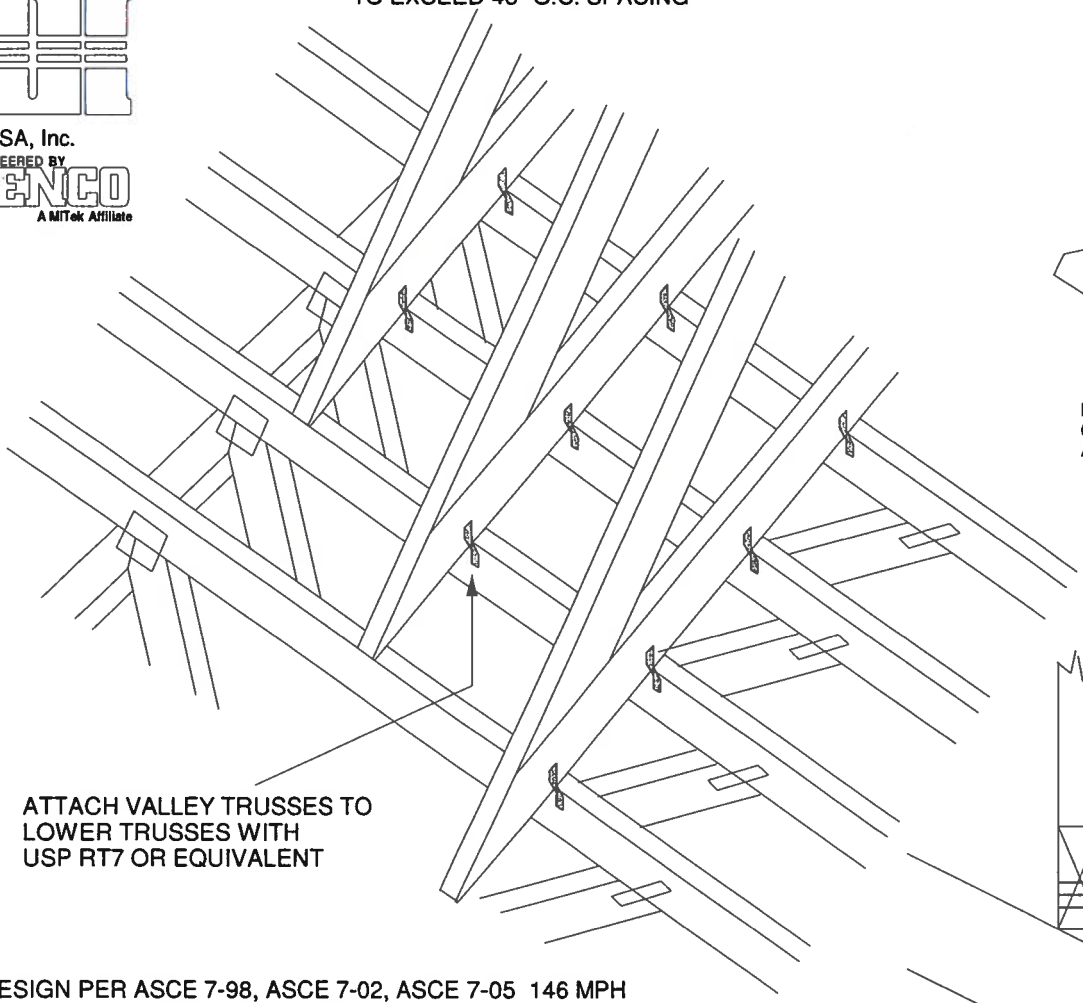
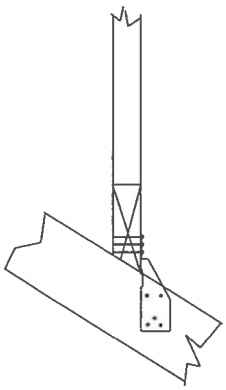
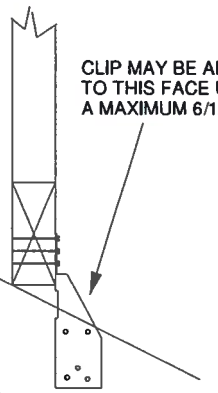
NOTE: VALLEY STUD SPACING NOT TO EXCEED 48" O.C. SPACING



ATTACH VALLEY TRUSSES TO LOWER TRUSSES WITH USP RT7 OR EQUIVALENT



FOR BEVELED BOTTOM CHORD, CLIP MAY BE APPLIED TO EITHER FACE



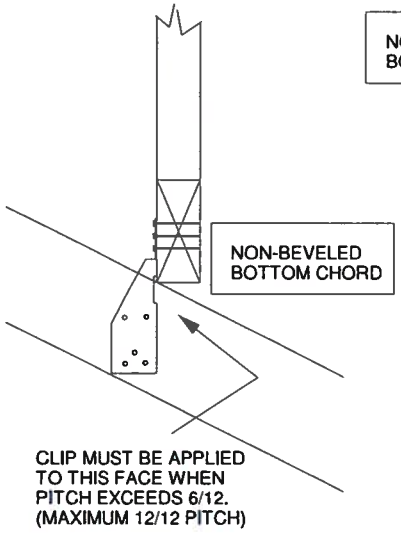
CLIP MAY BE APPLIED TO THIS FACE UP TO A MAXIMUM 6/12 PITCH

NON-BEVELED BOTTOM CHORD

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10 160 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
WIND DURATION OF LOAD INCREASE : 1.6
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)

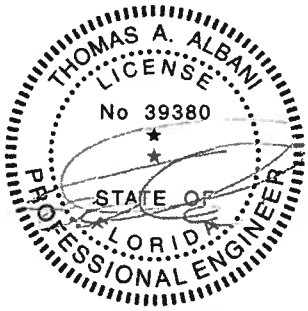
SUPPORTING TRUSSES DIRECTLY UNDER VALLEY TRUSSES MUST BE DESIGNED WITH A MAXIMUM UNBRACED LENGTH OF 2'-10" ON AFFECTED TOP CHORDS.

NOTES:
- SHEATHING APPLIED AFTER INSTALLATION OF VALLEY TRUSSES
- THIS DETAIL IS NOT APPLICABLE FOR SPF-S SPECIES LUMBER.



NON-BEVELED BOTTOM CHORD

CLIP MUST BE APPLIED TO THIS FACE WHEN PITCH EXCEEDS 6/12. (MAXIMUM 12/12 PITCH)



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
January 19, 2018

AUGUST 1, 2016	Standard Gable End Detail	MII-GE146-001

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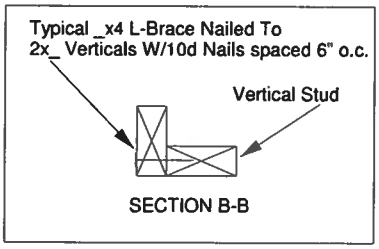
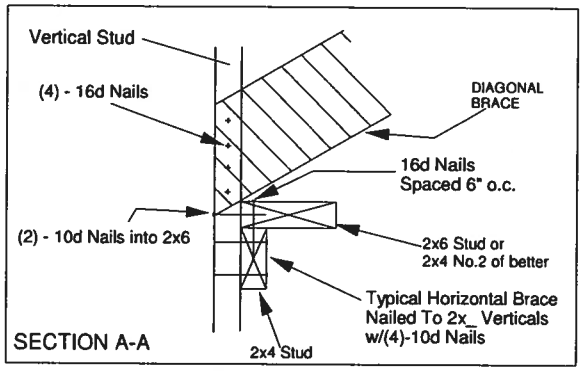
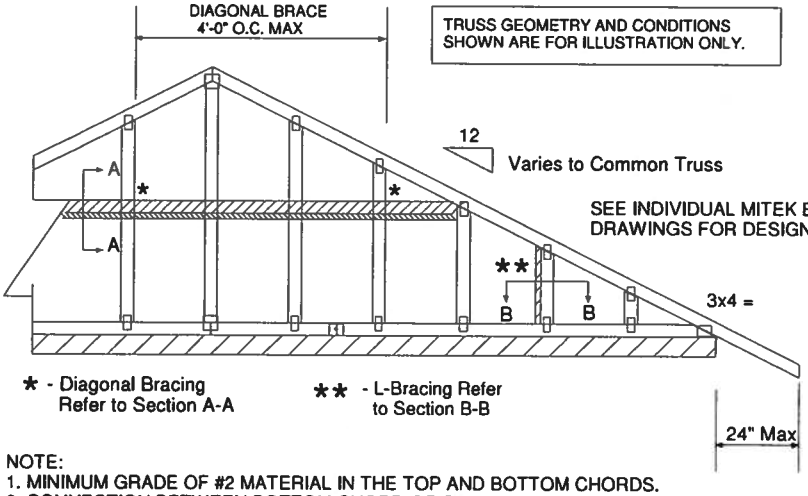




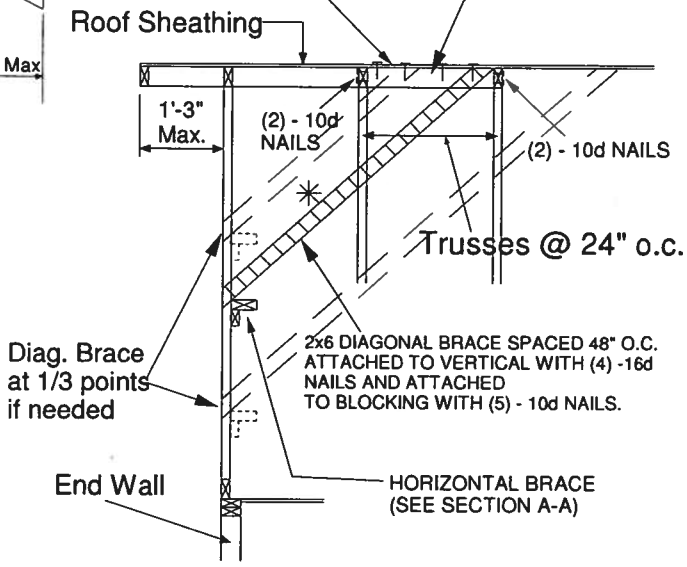


TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SP BLOCK



* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

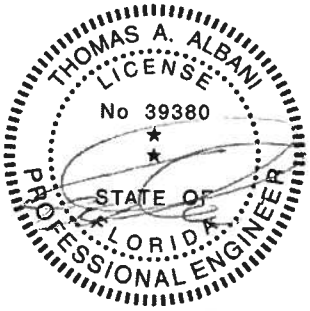
NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 2x4 No 3/STUD SP OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No 3/Stud	12" O.C.	3-11-3	6-8-0	7-2-14	11-9-10
2x4 SP No 3/Stud	16" O.C.	3-6-14	5-9-5	7-1-13	10-8-11
2x4 SP No 3/Stud	24" O.C.	3-1-8	4-8-9	6-2-15	9-4-7

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAXIMUM WIND SPEED = 146 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 19, 2018

OCTOBER 5, 2016	REPLACE BROKEN OVERHANG	MII-REP13B

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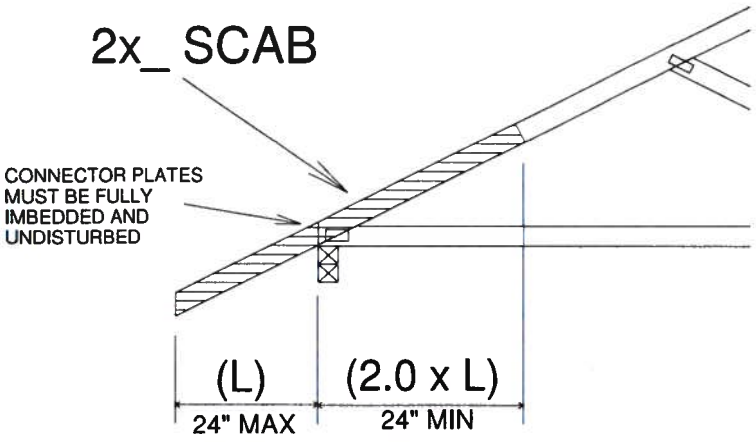
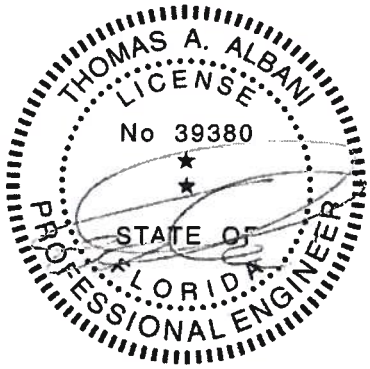
TRUSS CRITERIA:
LOADING: 40-10-0-10
DURATION FACTOR: 1.15
SPACING: 24" O.C.
TOP CHORD: 2x4 OR 2x6
PITCH: 4/12 - 12/12
HEEL HEIGHT: STANDARD HEEL UP TO 12" ENERGY HEEL
END BEARING CONDITION

NOTES:
1. ATTACH 2x_ SCAB (MINIMUM NO.2 GRADE SPF, HF, SP, DF) TO ONE FACE OF TRUSS WITH TWO ROWS OF 10d (0.131" X 3") SPACED 6" O.C.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.



IMPORTANT
This detail to be used only with trusses (spans less than 40') spaced 24" o.c. maximum and having pitches between 4/12 and 12/12 and total top chord loads not exceeding 50 psf.
Trusses not fitting these criteria should be examined individually.

REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	LATERAL BRACING RECOMMENDATIONS	MII-STRGBCK

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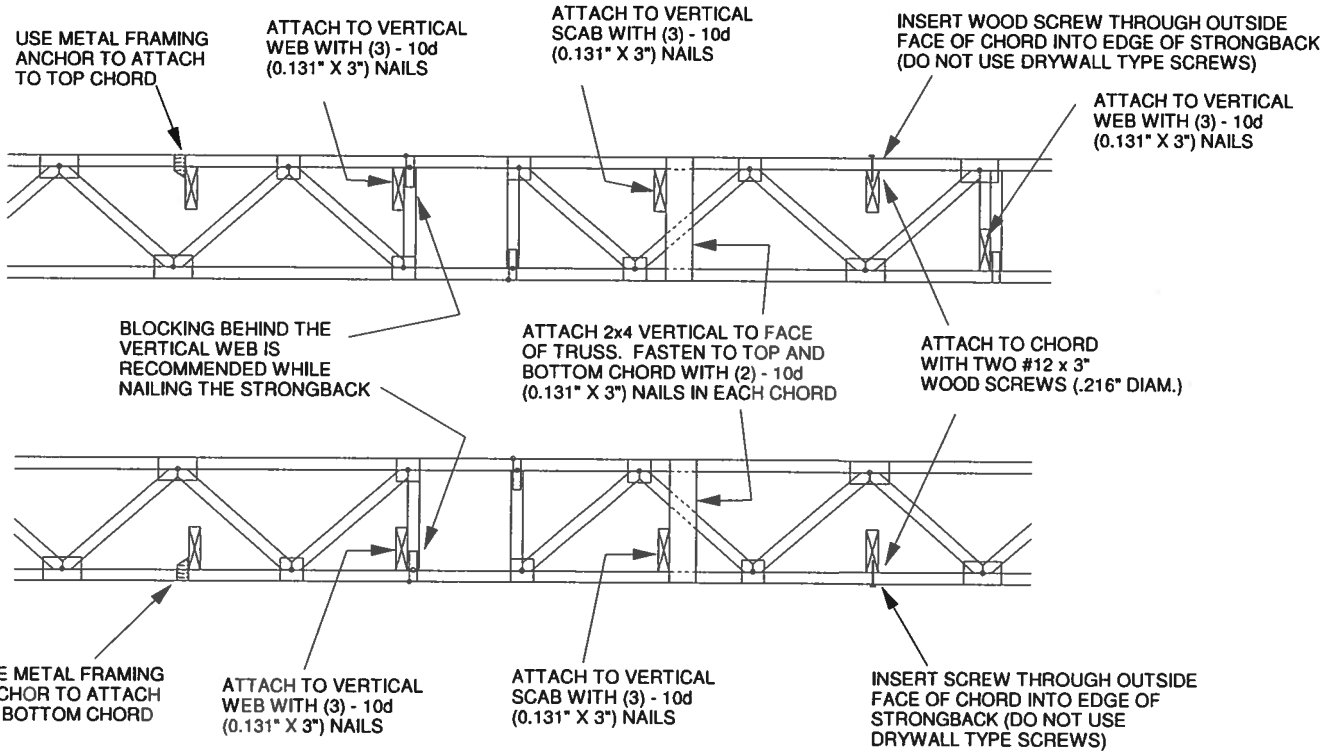
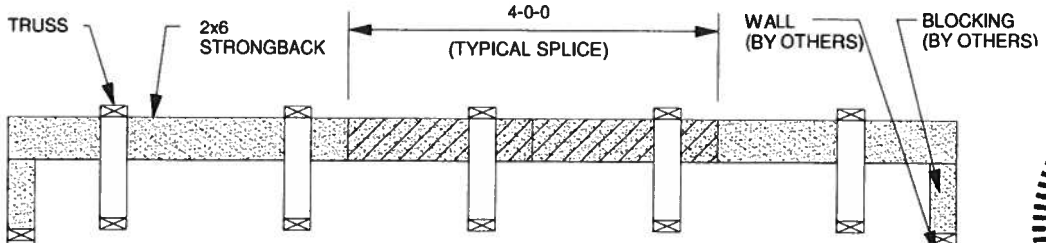
TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

NOTE 1: 2X6 STRONGBACK ORIENTED VERTICALLY MAY BE POSITIONED DIRECTLY UNDER THE TOP CHORD OR DIRECTLY ABOVE THE BOTTOM CHORD. SECURELY FASTENED TO THE TRUSS USING ANY OF THE METHODS ILLUSTRATED BELOW.

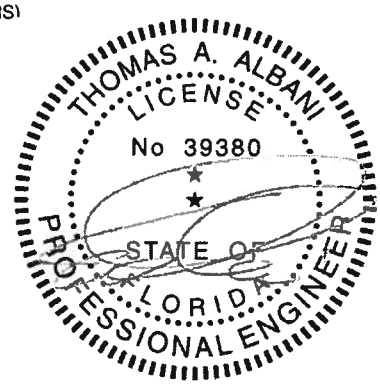
NOTE 2: STRONGBACK BRACING ALSO SATISFIES THE LATERAL BRACING REQUIREMENTS FOR THE BOTTOM CHORD OF THE TRUSS WHEN IT IS PLACED ON TOP OF THE BOTTOM CHORD, IS CONTINUOUS FROM END TO END, CONNECTED WITH A METHOD OTHER THAN METAL FRAMING ANCHOR, AND PROPERLY CONNECTED, BY OTHERS, AT THE ENDS.





THE STRONGBACKS SHALL BE SECURED AT THEIR ENDS TO ADEQUATE SUPPORT, DESIGNED BY OTHERS. IF SPLICING IS NECESSARY, USE A 4'-0" LONG SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d (0.131" X 3") NAILS EQUALLY SPACED.

ALTERNATE METHOD OF SPLICING:
OVERLAP STRONGBACK MEMBERS A MINIMUM OF 4'-0" AND FASTEN WITH (12) - 10d (0.131" X 3") NAILS STAGGERED AND EQUALLY SPACED.
(TO BE USED ONLY WHEN STRONGBACK IS NOT ALIGNED WITH A VERTICAL)



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
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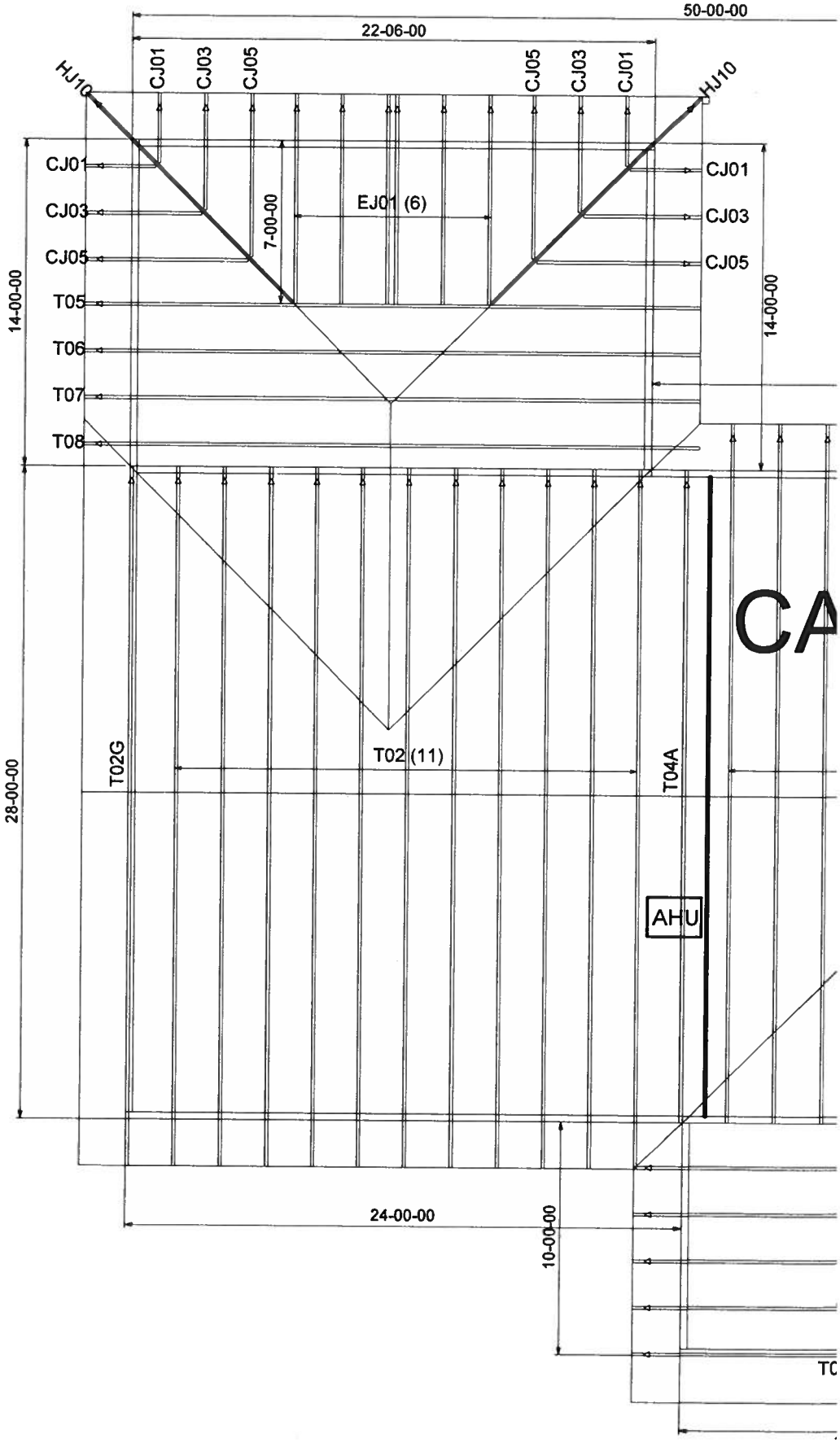
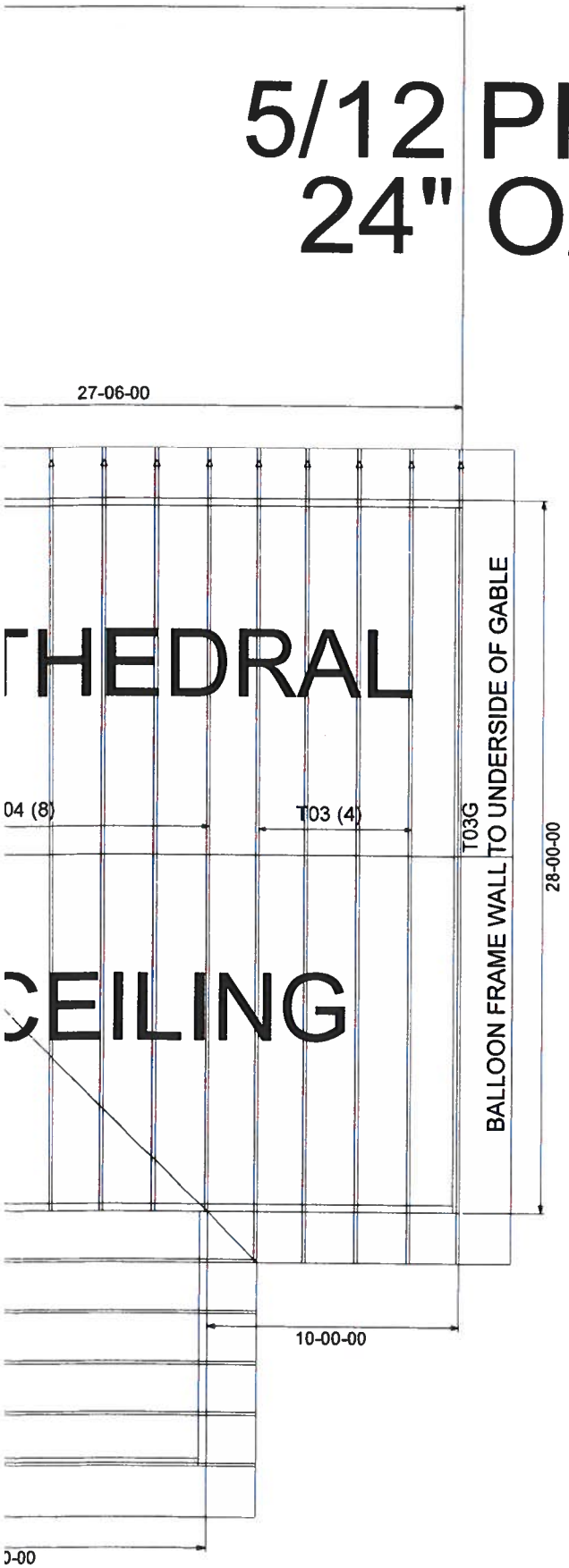


FL Approval Codes - Mitek Plates #'s 2197.2 - 2197.4, V

5/12 PITCH
24" O/H



BEARING HEIGHT SCHEDULE

	8' 1-1/8"
	9' 1-1/8"
	10' 1-1/8"
	11' 1-1/8"
	12' 1-1/8"

NOTES:

1) REFER TO HIB 91 (RECOMMENDATIONS FOR HANDLING INSTALLATION AND TEMPORARY BRACING.) REFER TO ENGINEERED DRAWINGS FOR PERMANENT BRACING REQUIRED.
2) ALL TRUSSES (INCLUDING TRUSSES UNDER VALLEY FRAMING) MUST BE COMPLETELY DECKED OR REFER TO DETAIL V105 FOR ALTERNATE BRACING REQUIREMENTS.
3) ALL VALLEYS ARE TO BE CONVENTIONALLY FRAMED BY BUILDER.
4.) ALL TRUSSES ARE DESIGNED FOR 2' o.c. MAXIMUM SPACING. UNLESS OTHERWISE NOTED.
5) ALL WALLS SHOWN ON PLACEMENT PLAN ARE CONSIDERED TO BE LOAD BEARING, UNLESS OTHERWISE NOTED.
6.) SY42 TRUSSES MUST BE INSTALLED WITH THE TOP BEING UP.
7.) BEAM/HEADER/LINTEL (HDR) TO BE FURNISHED BY BUILDER.

Builders FirstSource

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PHONE: 813-621-4831 FAX: 813-628-8456

Lake City
PHONE: 386-755-6894 FAX: 386-755-7473

BUILDER: NORRIS CONST.

LEGAL ADDRESS: RATLIFF RES.

MODEL:		Revision:
		Rev. By:
DATE: 10-26-19	DRAWN BY: KLH	Original Reference #: 2145911
1st Level doff:	2nd Level doff:	Roof doff: 2145911

'sa-Lam #1644-R4 & BCI Joists #1392-R4