Columbia County New Building Permit Application

For Office Use Only Application # 4505 Date Received 2/11 By JW Permit # 39440/39441

Zoning Official LW/LH Date 2-12-20 Flood Zone X Land Use Ag Zoning A-3

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

Comments SFLP20-04

☑ 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. 20-0154 OR City Water ☐ Fax _____

Applicant (Who will sign/pickup the permit) MELISSA ROBINSON Phone 904 352 9566

Address c/o 297 297 NW FRIENDSHIP WAY, LAKE CITY, FL 32055

Owners Name MELISSA ROBINSON Phone 904.352.9566

911 Address 347 NW FRIENDSHIP WAY, LAKE CITY, FL 32055

Contractors Name MELISSA ROBINSON Phone 904.352.9566

Address c/o 297 NW FRIENDSHIP WAY, LAKE CITY, FL 32055

Contractor Email — ***Include to get updates on this job.

Fee Simple Owner Name & Address —

Bonding Co. Name & Address _____

Architect/Engineer Name & Address MARK DISOSWAY, PE 163 SW MIDTOWN PL, STE. 130-M LAKE CITY, FL 32055

Mortgage Lenders Name & Address N/A

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

Property ID Number 28.2S.16.01772.023 Estimated Construction Cost 80,000

Subdivision Name PINE HILLS - PART OF Lot 12 Block ____ Unit ____ Phase ____

Driving Directions from a Major Road 41-N TO BAUGHN,TL TO FRIENDSHIP AND IT'S @ THE CORNER OF FRIENDSHIP & BAUGHN,

Construction of SFD ____ Commercial OR X Residential

Proposed Use/Occupancy RESIDENTIAL Number of Existing Dwellings on Property 0

Is the Building Fire Sprinkled? _____ 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 69 Side 27 Side 27 Rear _____

Number of Stories 1 Heated Floor Area 2690 Total Floor Area 2810 Acreage 1.00

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

TW/LH MSG for MELISSA 2.25.20 & SPOKE W/MELISSA 2.25.20

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.

Melissa Robinson — **Print Owners Name**

M. Robinson — **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

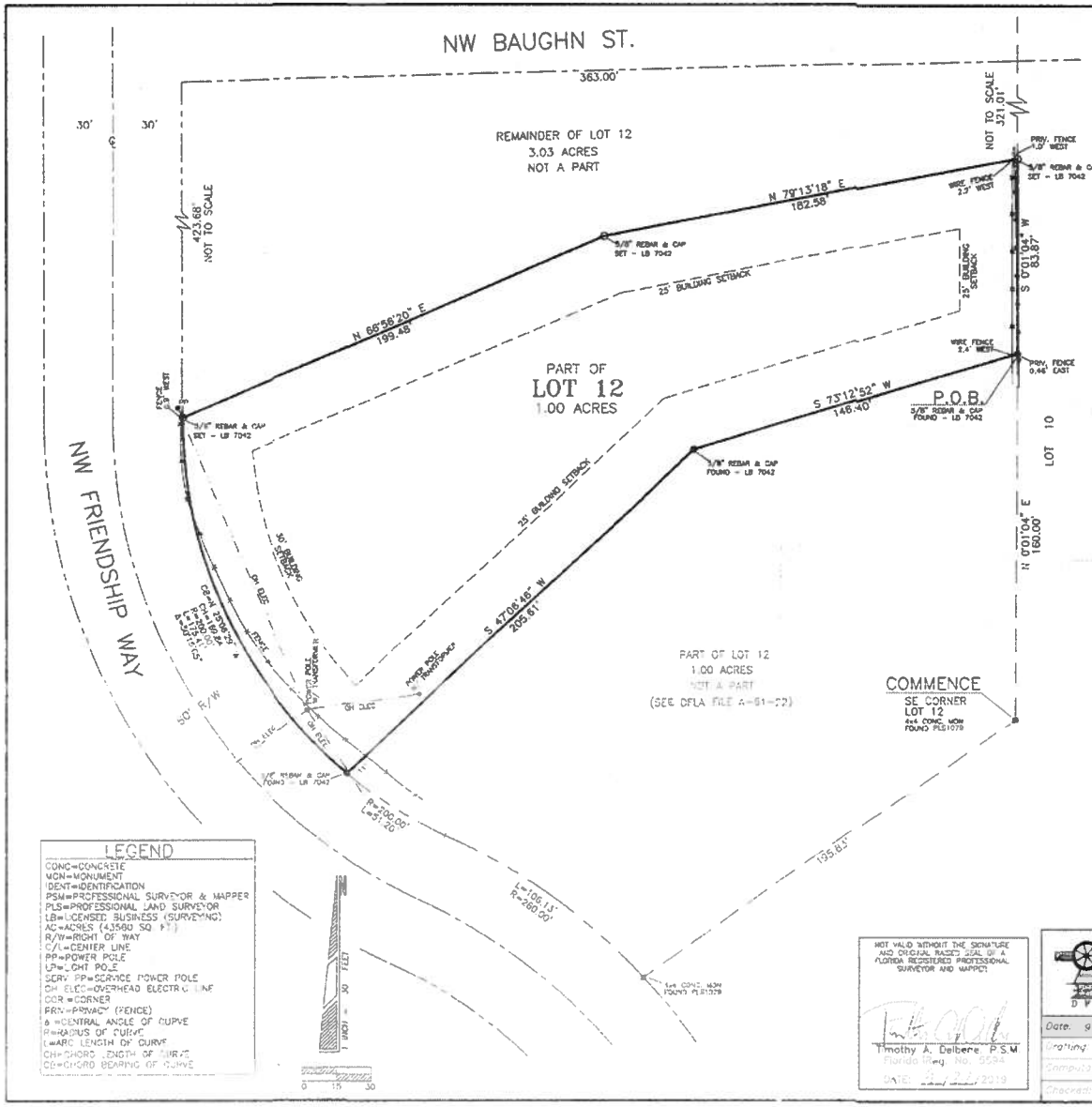
Contractor's License Number _____
Columbia County
Competency Card Number _____

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)



BOUNDARY SURVEY

PART OF LOT 12
PINEHILLS
IN SECTION 28
TOWNSHIP 2 SOUTH, RANGE 16 EAST
COLUMBIA COUNTY, FLORIDA

DESCRIPTION:

A PARCEL OF LAND in Section 28, Township 2 South, Range 16 East, Columbia County, Florida, being a portion of Lot No. 12 of PINEHILLS, a subdivision as recorded in Plat Book 5, Pages 58 and 58A of the Public Records of Columbia County, Florida, and being more particularly described as follows: COMMENCE at the Southeast corner of said Lot No. 12 of PINEHILLS and run N.00°01'04"E. along the East line of said Lot 12 a distance of 160.00 feet to the POINT OF BEGINNING; thence S.73°12'52"W. 146.40 feet; thence S.47°06'46"W. 205.61 feet; to a point on the Easterly Right-of-Way line of NW Friendship Way, said point being on the arc of a curve concave to the East having a radius of 200.00 feet and a central angle of 50°15'05", said curve also having a Chord bearing and distance of N.25°06'29"W. 169.84 feet; thence Northerly along the arc of said curve, being said Easterly Right-of-Way line of NW Friendship Way a distance of 175.41 feet to the end of said curve; thence N.88°58'20"E. 199.48 feet; thence N.79°13'18"E. 182.58 feet to a point on the East line of said Lot 12; thence S.00°01'04"W. along said East line 83.87 feet to the POINT OF BEGINNING. Containing 1.00 acres, more or less.

NOTES:

1.) Monumentation is as shown and designated on the face of the plat.

2.) Boundary based on monumentation found in place, instruction by client, record subdivision plat of PINEHILLS, prior survey by this Company.

3.) Bearings projected from South lot line and taken from above referenced prior survey.

4.) Interior improvements, if present, were located by field ties.

5.) Underground encroachments, if present, were not located with this survey.

6.) This survey was made without benefit of a title search. There may be additional easements, restrictions, etc. not shown hereon but found in the Public Records. Issues regarding title, land use & zoning, easements & other encumberances are not a part of the scope of a Boundary Survey and can only be revealed with a title search.

7.) Date of field survey completion: 9/26/2019.

8.) Examination of the Flood Insurance Rate Maps (FIRM) for Columbia County shows that, per said maps, the described parcel lies within Flood Zone "X" (outside 0.2% annual chance flood plane, aka 500 year flood). Reference FIRM map No. 12023C0185C

LEGEND

CONC=CONCRETE
MON=MONUMENT
IDENT=IDENTIFICATION
PSM=PROFESSIONAL SURVEYOR & MAPPER
PLS=PROFESSIONAL LAND SURVEYOR
LB=LICENSED BUSINESS (SURVEYING)
AC=ACRES (43,560 SQ. FT.)
R/W=RIGHT OF WAY
C/L=CENTER LINE
PP=POWER POLE
LP=LIGHT POLE
SERV. PP=SERVICE POWER POLE
OH ELEC=OVERHEAD ELECTRIC LINE
COR.=CORNER
PRIV.=PRIVACY (FENCE)
Δ =CENTRAL ANGLE OF CURVE
R=RADIUS OF CURVE
L=ARC LENGTH OF CURVE
CH=CHORD LENGTH OF CURVE
CB=CHORD BEARING OF CURVE

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA REGISTERED PROFESSIONAL SURVEYOR AND MAPPER

Timothy A. Delbene, P.S.M.
Florida Reg. No. 6584
DATE: Oct. 2, 2019

Donald F. Lee and Associates, Inc.
SURVEYORS
140 Northwest Ridgewood Avenue, Lake City, Florida 32055
Phone: (386) 755-6166 FAX: (386) 755-6167
Certificate of Authorization # LB 7042

Date: 9-26-19	TERRANCE JONES	Scale: 1" = 30'
Drafting: T.A.D.		Field Book: 17-650
Computations: T.A.D.		Work Order: 19-650
Checked: D.F.L.		File: A-61-22 A

Legend

Parcels

2018 Flood Zones
- 0.2 PCT ANNUAL CHANCE
- A
- AE
- AH

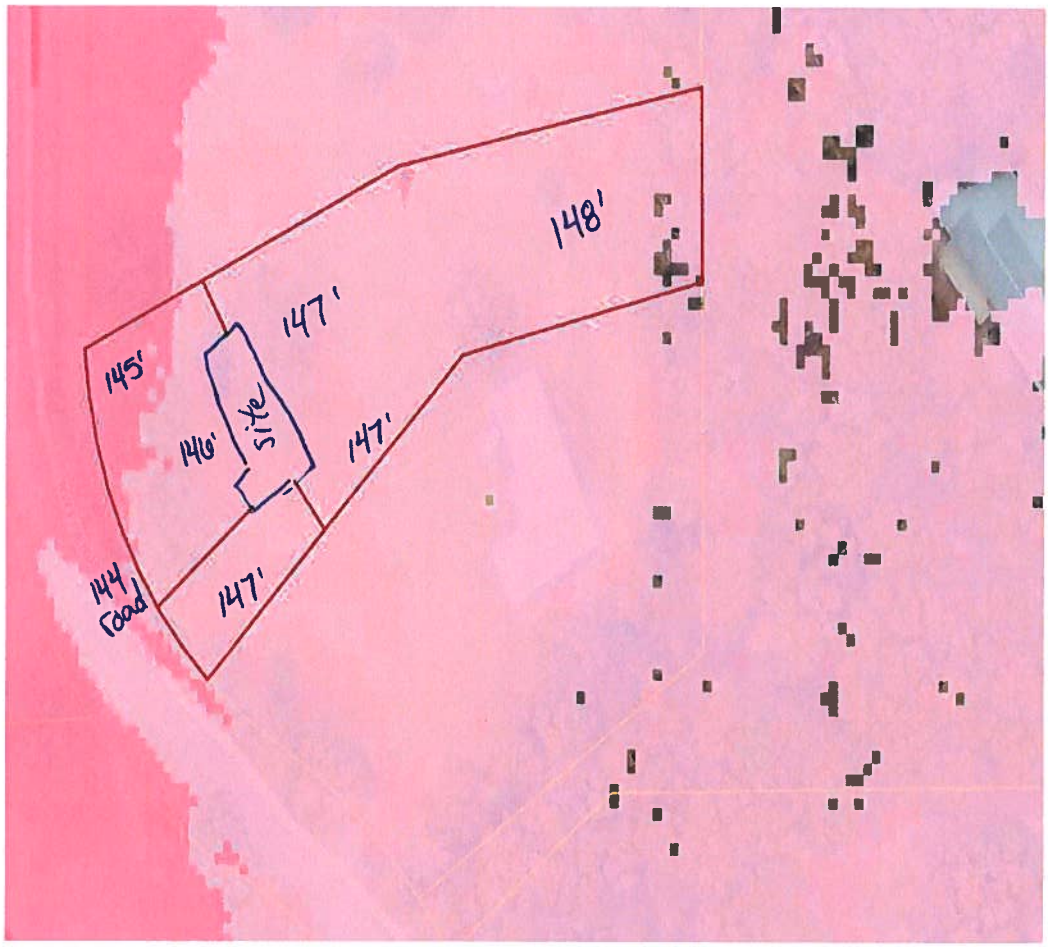
LidarElevations

2018Aerials

Roads
- Roads
- others
- Dirt
- Interstate
- Main
- Other

Columbia County, FLA - Building & Zoning Property Map

Printed: Wed Feb 12 2020 15:55:23 GMT-0500 (Eastern Standard Time)



Parcel Information

Parcel No: 28-2S-16-01772-023

Owner: JONES TERRANCE LAVAIR JR

Subdivision: PINEHILLS

Lot: 12

Acres: 0.93009764

Deed Acres:

District: District 1 Ronald Williams

Future Land Uses: Agriculture - 3

Flood Zones:

Official Zoning Atlas: A-3

(2)

THIS INSTRUMENT PREPARED BY AND RETURN TO::

MARLIN M. FEAGLE, ESQUIRE
MARLIN M. FEAGLE, ATTORNEY AT LAW, P.A.
153 NE Madison Street
Post Office Box 1653
Lake City, Florida 32056-1653
Florida Bar No. 0173248

The preparer of this instrument has performed no title examination nor has the preparer issued any title insurance or furnished any opinion regarding the title, existence of liens, the quantity of lands included, or the location of the boundaries. The names, addresses, tax identification numbers and legal description were furnished by the parties to this instrument.

Inst: 202012002085 Date: 01/27/2020 Time: 11:27AM
Page 1 of 2 B: 1404 P: 687, P.DeWitt Cason, Clerk of Court Colum County, By: BD
Deputy ClerkDoc Stamp-Deed: 0.70

QUIT CLAIM DEED

THIS QUIT-CLAIM DEED made this 23 day of January, 2020, by **TERRANCE LAVAIR JONES, SR.**, not residing on the property, whose mailing address is 297 NW Friendship Way, Lake City, Florida 32055, Grantor, to **MELISSA ROBINSON** whose mailing address is 2045 Jammes Road, Apt. #270, Jacksonville, Florida 32210 , Grantee.

W I T N E S S E T H:

That the said grantor, for and in consideration of the sum of **TEN AND NO/100** ($10.00) **DOLLARS**, in hand paid by the said grantee, receipt whereof is hereby acknowledged, do hereby remise, release and quit-claim unto the said grantee forever, all the right, title, interest, claim and demand which the said grantor have in and to the following described lot, piece or parcel of land, situate, lying and being in the Columbia, State of Florida, to-wit:

TOWNSHIP 2 SOUTH, RANGE 16 EAST

SECTION 28: A PARCEL OF LAND in section 28, township 2 South, Range 16 East, Columbia County, Florida, being a portion of Lot No. 12 of PINEHILLS, a subdivision as recorded in Plat Book 5, Pages 58 and 58A of the Public Records of Columbia County, Florida, and being more particularly described as follows, Commence at the Southeast corner of said Lot No. 12 of PINEHILLS and run N 00° 01' 04" E. Along the East line of said Lot 12 a distance of 160.00 feet to the POINT OF BEGINNING; thence S. 73° 12' 52" W. 146.40 feet; thence S. 47° 06' 46" W. 205.61 feet; to a point on the Easterly Right-of-Way line of N W Friendship Way, said point being on the are of a curve concave to the East having a radius of 200.00 feet and a central angle of 50° 15' 05", said curve also having a chord bearing and distance of N. 25° 06' 29" W. 169.84 feet; thence Northerly along the arc of said curve, being said Easterly Right-of-way line of NW Friendship Way a distance 175.41 feet to the end of said curve; thence N. 66° 56' 20" E. 199.48 feet; thence N. 79° 13' 18" E. 182.58 feet to a point on the East line of said Lot No. 12; thence S. 00° 01' 04" W. Along said East line 83.87 feet to the POINT OF BEGINNING. Containing 1.00 acres, more or less.

SUBJECT TO COVENANTS, RESTRICTIONS AND EASEMENTS OF RECORD, IF ANY.

N.B. No portion of the above described property constitutes the homestead of Grantor, and is not contiguous to Grantor's homestead property.

N. B. Grantee is the sibling (sister) of Grantor.

TO HAVE AND TO HOLD, the same together with all and singular the appurtenances thereunto belonging or in anywise appertaining, and all the estate, right, title, interest, lien, equity and claim whatsoever of the said grantor, either in law or equity, to the only proper use, benefit and behoof of the said grantee forever.

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

Signed, sealed and delivered
in the presence of:

Natalia Vicenzi
Witness

Natalia Vicenzi
Print or Type Name

Terri B. Brown
Witness

Terri B. Brown
Print or Type Name

Terrance Lavair Jones Sr (SEAL)
TERRANCE LAVAIR JONES, SR.

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization this 23 day of January, 2020, by **TERRANCE LAVAIR JONES, SR.** who is personally know to me or who has produced a _____ as identification.

Terri B. Brown
Notary Public, State of Florida

My Commission Expires: 8/30

NOTARIAL SEAL
TERRI BROWN
Commission # GG 132685
Expires August 30, 2021
Bonded Thru Trey Fain Insurance 800-385-7019

FAMILY RELATIONSHIP AFFIDAVIT

STATE OF FLORIDA
COUNTY OF COLUMBIA

BEFORE ME the undersigned Notary Public personally appeared, Terrance Lavair Jones Sr., the Owner of the parent parcel which has been subdivided for Melissa Robinson, 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 Sister. 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. 28-25-16-01772-012

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. 28-25-16-01772-023.

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.

Inst: 202012003332 Date: 02/11/2020 Time: 12:15PM
Page 1 of 2 B: 1405 P: 936, P.DeWitt Cason, Clerk of Court Colu
County, By: BD
Deputy Clerk

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.

Terrance Jones
Owner

Melissa Robinson
Immediate Family Member

Terrance Jones Sr
Typed or Printed Name

Melissa Robinson
Typed or Printed Name

Subscribed and sworn to (or affirmed) before me this 27th day of January, 2020 by Terrance Jones (Owner) who is personally known to me or has produced Personally Known as identification.

Margo B. Combs
Notary Public

MARGO B. COMBS
Notary Public, State of Florida
My Comm. Expires February 17, 2023
Commission No. GG 302765

Subscribed and sworn to (or affirmed) before me this 27th day of January, 2020 by Melissa Robinson (Family Member) who is personally known to me or has produced Personally Known as identification.

Margo B Combs
Notary Public

MARGO B. COMBS
Notary Public, State of Florida
My Comm. Expires February 17, 2023
Commission No. GG 302765

APPROVED:
COLUMBIA COUNTY, FLORIDA

By: Liza Williams
Name: Liza Williams
Title: Planning Technician

ZONING DEPARTMENT
COLUMBIA COUNTY
GATEWAY TO FLORIDA
APPROVED

SUBCONTRACTOR VERIFICATION

APPLICATION/PERMIT # 44505 JOB NAME MELISSA ROBINSON

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

M. Robinson - OWNER Builder 2-11-20

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

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:

347 NW Friendship Way

(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

(✓) 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 Melissa Robinson, 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: M. Robinson Date: 2.11.20
(Signature of property owner)

NOTARY OF OWNER BUILDER SIGNATURE

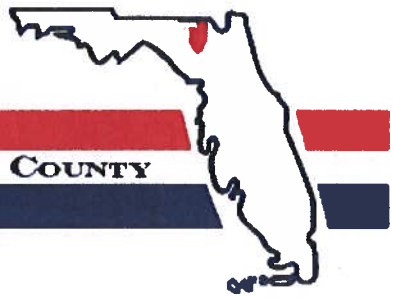
The above signer is personally known to me or produced identification DL

Notary Signature Laurie Hodson Date 2.11.20 (Seal)

LAURIE HODSON
MY COMMISSION # FF 978102
EXPIRES: July 14, 2020
Bonded Thru Notary Public Underwriters

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:	**9/30/2019 1:23:44 PM**
Address:	**347 NW FRIENDSHIP Way**
City:	**LAKE CITY**
State:	**FL**
Zip Code	**32055**
Parcel ID	**01772-023**

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

A&B Well Drilling, Inc.

5673 NW Lake Jeffery Road
Lake City, FL 32055
Telephone: (386) 758-3409
Cell: (386) 623-3151
Fax: (386) 758-3410
Owner: Bruce Park

December 13, 2019

To: Columbia County Building Department

Description of Well to be installed for Customer _____Terrance Jones Jr_____

Located @ Address: _____Friendship Way_____

1 HP 20 GPM submersible pump, 11/4" drop pipe, 85 gallon captive tank, and backflow prevention. With SRWMD permit.

_Bruce Park_____

Sincerely,
Bruce N. Park
President

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

PERMIT NO. 20-0154
DATE PAID: 2/27/20
FEE PAID: 310.00
RECEIPT #: 14-20396

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

APPLICANT: Terrance Jones (Melissa Robinson)

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: 12 BLOCK: — SUBDIVISION: Punchills PLATTED: —

PROPERTY ID #: 28-2S-16-01772-023 ZONING: SF I/M OR EQUIVALENT: [Y / N]

PROPERTY SIZE: 1 ACRES WATER SUPPLY: [V] PRIVATE PUBLIC [ ]<=2000GPD [ ]>2000GPD

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

PROPERTY ADDRESS: TBD, Friendship Way Lake City

DIRECTIONS TO PROPERTY: (TR)on 41N, (TL)on NW Baughn St, (TL)on Friendship Way, Property on (L) after 297

BUILDING INFORMATION [V] RESIDENTIAL [ ] COMMERCIAL

Unit No	Type of Establishment	No. of Bedrooms	Building Area Sqft	Commercial/Institutional System Design Table 1, Chapter 64E-6, FAC
1	New Home	5	2690	
2				
3				
4				

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

SIGNATURE: Robert W Ford Jr DATE: 2/26/2020

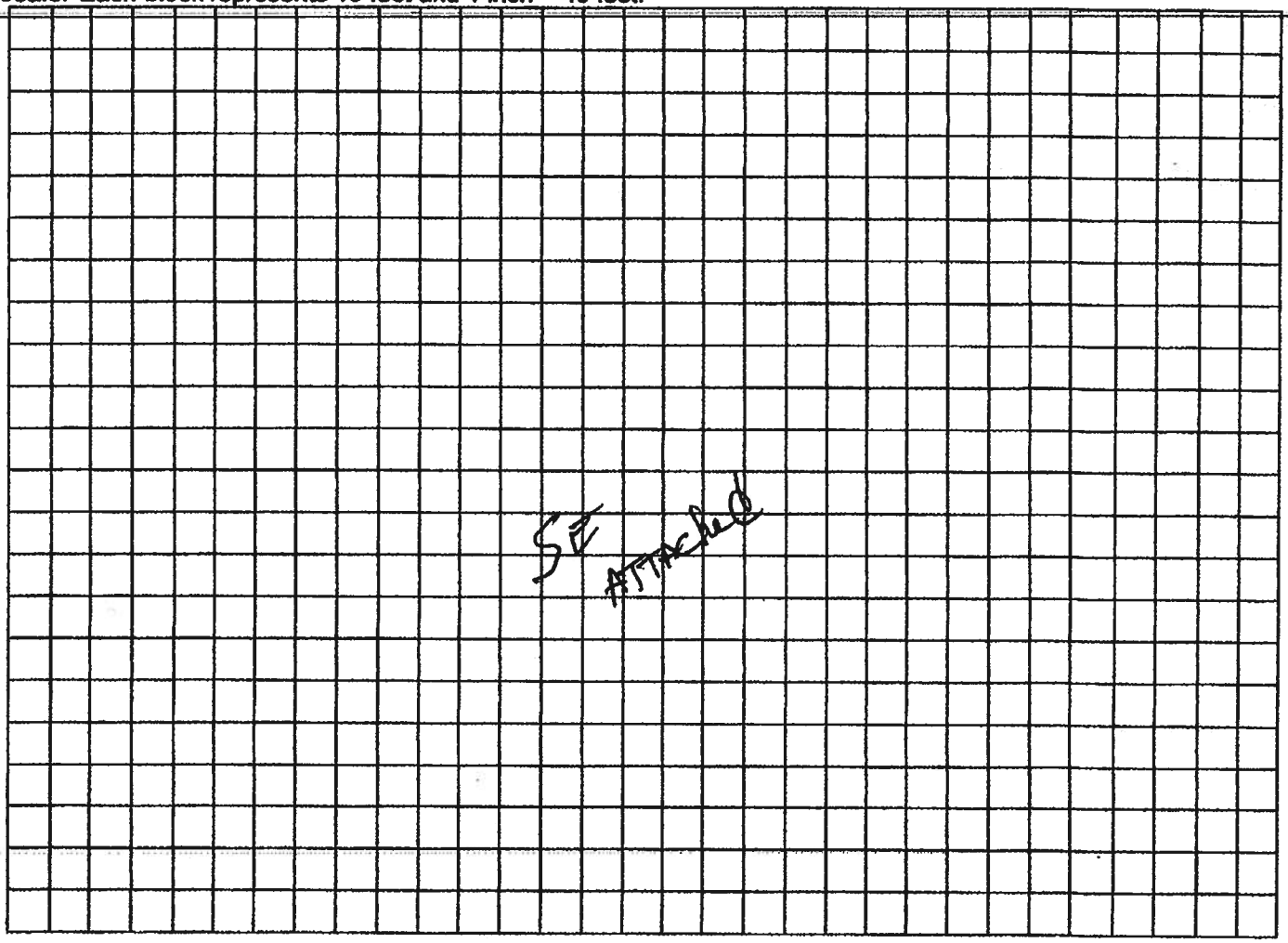
DH 4015, 08/09 (Obsoletes previous editions which may not be used)
Incorporated 64E-6.001, FAC

STATE OF FLORIDA
DEPARTMENT OF HEALTH
APPLICATION FOR CONSTRUCTION PERMIT

Permit Application Number 20-0154

PART II - SITEPLAN Robinson

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



Notes: _____

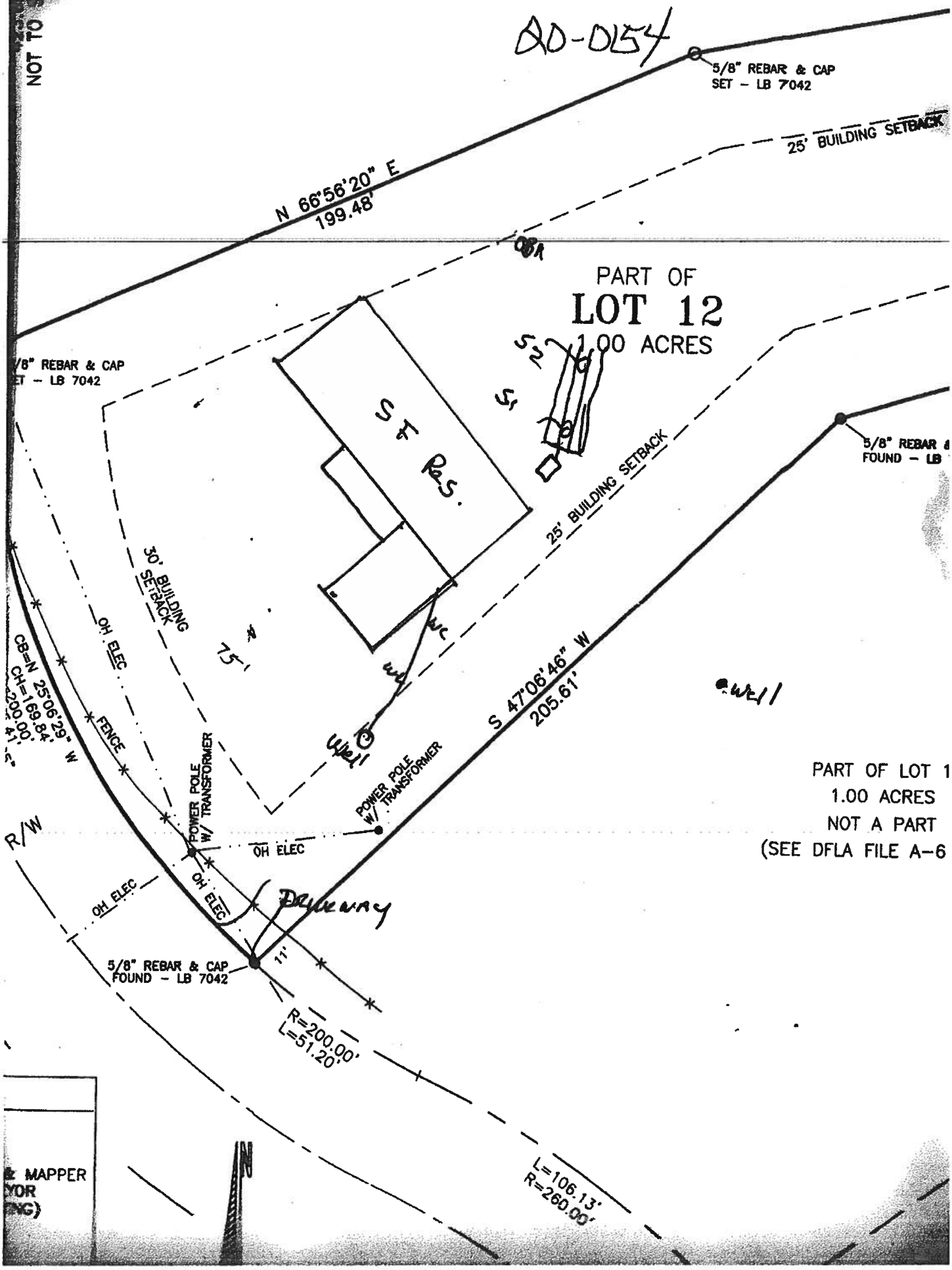
Site Plan submitted by: Robert W Ford Jr. DATE 2/26/2020

Plan Approved X Not Approved _____ Date 3/2/20

By _____ Columbia County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

AD-0154


NOT TO
5/8" REBAR & CAP
SET - LB 7042
25' BUILDING SETBACK
N 66°56'20" E
199.48'
PART OF
LOT 12
1.00 ACRES
S1
S2
ST RES.
5/8" REBAR & CAP
ET - LB 7042
5/8" REBAR &
FOUND - LB
25' BUILDING SETBACK
30' BUILDING SETBACK
75'
S 47°06'46" W
205.61'
well
well
OH ELEC
FENCE
CB=N 25°06'29" W
CH=169.84'
200.00'
POWER POLE W/ TRANSFORMER
POWER POLE W/ TRANSFORMER
R/W
OH ELEC
OH ELEC
OH ELEC
Driveway
11'
5/8" REBAR & CAP
FOUND - LB 7042
R=200.00'
L=51.20'
L=106.13'
R=260.00'
PART OF LOT 1
1.00 ACRES
NOT A PART
(SEE DFLA FILE A-6
& MAPPER
YOR
NG)

NOTICE OF COMMENCEMENT

Tax Parcel Identification Number:

28-2S-16-01772-023

Clerk's Office Stamp

Inst: 202012005850 Date: 03/11/2020 Time: 3:47PM
Page 1 of 1 B: 1407 P: 2040, P.DeWitt Cason, Clerk of Court
Columbia, County, By: PT
Deputy Clerk

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)*: Robinson, Melissa
   a) Street *(job)* Address: 347 NW ~~Friendship~~ Friendship Way
2. General description of improvements: SFD
3. Owner Information or Lessee information if the Lessee contracted for the improvements:
   a) Name and address: 347 NW ~~Friendship~~ Friendship Way
   b) Name and address of fee simple titleholder (if other than owner) _____
   c) Interest in property OWNER
4. Contractor Information
   a) Name and address: owner
   b) Telephone No.: 904-352-9566
5. Surety Information (if applicable, a copy of the payment bond is attached):
   a) Name and address: _____
   b) Amount of Bond: _____
   c) Telephone No.: _____
6. Lender
   a) Name and address: _____
   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: _____
   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. Melissa Robinson
Signature of Owner or Lessee, or Owner's or Lessee's Authorized Office/Director/Partner/Manager

MELISSA ROBINSON
Printed Name and Signatory's Title/Office

The foregoing instrument was acknowledged before me, a Florida Notary, this 11th day of March, 2020, by:

Melissa Robinson as Self for _____.
(Name of Person) (Type of Authority) (name of party on behalf of whom instrument was executed)

Personally Known ____ OR Produced Identification ✓ Type FLDL R152-556-74-756-0

Notary Signature M Garber

Notary Stamp or Seal

MELISSA GARBER
MY COMMISSION # GG 952236
EXPIRES: January 28, 2024
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.)** : 2690 **Total (Sq. Ft.) under roof** 2810	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	- ✓		
5	Dimensions of all building set backs	- ✓		
6	Location of all other structures (include square footage of structures) on parcel, existing or proposed well and septic tank and all utility easements.	- ✓		
7	Provide a full legal description of property.	- ✓		

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	- ✓		
10	(Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated)	- ✓		
11	Wind importance factor and nature of occupancy	- ✓		
12	The applicable internal pressure coefficient, Components and Cladding	- ✓		
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.	- ✓		

Elevations Drawing including:

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

Floor Plan Including:

21	Dimensioned area plan showing rooms, attached garage, breeze ways, covered porches, deck, balconies	- ✓		
22	Raised floor surfaces located more than 30 inches above the floor or grade	- ✓		
23	All exterior and interior shear walls indicated	- ✓		
24	Shear wall opening shown (Windows, Doors and Garage doors)	- ✓		
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.	✓ -		
26	Safety glazing of glass where needed	- ✓		
27	Fireplaces types (gas appliance) (vented or non-vented) or wood burning with Hearth (see chapter 10 and chapter 24 of FBCR)	-		✓
28	Show stairs with dimensions (width, tread and riser and total run) details of guardrails, Handrails	-		✓
29	Identify accessibility of bathroom (see FBCR SECTION 320)	- ✓		

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.	- ✓		
31	All posts and/or column footing including size and reinforcing	- ✓		
32	Any special support required by soil analysis such as piling.	-		✓
33	Assumed load-bearing valve of soil 386.466.579[illegible] Pound Per Square Foot	-		✓
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	- ✓		

FBCR 506: CONCRETE SLAB ON GRADE

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

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**	- ✓		

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	- ✓		
39	Show all Lintel sizes, type, spans and tie-beam sizes and spacing of reinforcement	- ✓		

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

Floor Framing System: First and/or second story

40	Floor truss package shall including layout and details, signed and sealed by Florida Registered Professional Engineer	-		✓
41	Show conventional floor joist type, size, span, spacing and attachment to load bearing walls, stem walls and/or priers	-		✓
42	Girder type, size and spacing to load bearing walls, stem wall and/or priers	-		✓
43	Attachment of joist to girder	- ✓		
44	Wind load requirements where applicable	-		
45	Show required under-floor crawl space	-		✓
46	Show required amount of ventilation opening for under-floor spaces	-		✓
47	Show required covering of ventilation opening	-		✓
48	Show the required access opening to access to under-floor spaces	-		✓
49	Show the sub-floor structural panel sheathing type, thickness and fastener schedule on the edges & intermediate of the areas structural panel sheathing	-		✓
50	Show Draftstopping, Fire caulking and Fire blocking	- ✓		
51	Show fireproofing requirements for garages attached to living spaces, per FBCR section 302.6	- ✓		✓
52	Provide live and dead load rating of floor framing systems (psf).	-		✓

FBCR CHAPTER 6 WOOD WALL FRAMING CONSTRUCTION

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

Select from Drop down

53	Stud type, grade, size, wall height and oc spacing for all load bearing or shear walls	- ✓			
54	Fastener schedule for structural members per table FBC-R602.3.2 are to be shown	- ✓			
55	Show Wood structural panel's sheathing attachment to studs, joist, trusses, rafters and structural members, showing fastener schedule attachment on the edges & intermediate of the areas structural panel sheathing	- ✓			
56	Show all required connectors with a max uplift rating and required number of connectors and oc spacing for continuous connection of structural walls to foundation and roof trusses or rafter systems	- ✓			
57	Show sizes, type, span lengths and required number of support jack studs, king studs for shear wall opening and girder or header per FBC-R602.7.	- ✓			
58	Indicate where pressure treated wood will be placed	- ✓			
59	Show all wall structural panel sheathing, grade, thickness and show fastener schedule for structural panel sheathing edges & intermediate areas	- ✓			
60	A detail showing gable truss bracing, wall balloon framing details or/ and wall hinge bracing detail	- ✓			

FBCR :ROOF SYSTEMS:

61	Truss design drawing shall meet section FBC-R 802.10. 1 Wood trusses	- ✓			
62	Include a layout and truss details, signed and sealed by Florida Professional Engineer	- ✓			
63	Show types of connector's assemblies' and resistance uplift rating for all trusses and rafters	- ✓			
64	Show gable ends with rake beams showing reinforcement or gable truss and wall bracing details	- ✓			
65	Provide dead load rating of trusses	- ✓			

FBCR 802:Conventional Roof Framing Layout

66	Rafter and ridge beams sizes, span, species and spacing	-			✓
67	Connectors to wall assemblies' include assemblies' resistance to uplift rating	-			✓
68	Valley framing and support details	-			✓
69	Provide dead load rating of rafter system	-			✓

FBCR 803 ROOF SHEATHING

70	Include all materials which will make up the roof decking, identification of structural panel sheathing, grade, thickness	- ✓			
71	Show fastener Size and schedule for structural panel sheathing on the edges & intermediate areas	- ✓			

ROOF ASSEMBLIES FRC Chapter 9

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

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	-	✓		
75	Attic space	-	✓		
76	Exterior wall cavity	-	✓		
77	Crawl space	-			✓

HVAC information

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

Plumbing Fixture layout shown

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

Private Potable Water

83	Pump motor horse power	-	✓		
84	Reservoir pressure tank gallon capacity	-	✓		
85	Rating of cycle stop valve if used	-	✓		

Electrical layout shown including

86	Show Switches, receptacles outlets, lighting fixtures and Ceiling fans	-	✓		
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**	-	✓		
88	Show the location of smoke detectors & Carbon monoxide detectors	-	✓		
89	Show service panel, sub-panel, location(s) and total ampere ratings	-	✓		
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	-	✓		
91	Appliances and HVAC equipment and disconnects	-	✓		
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.	-	✓		

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.	- ✓		
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	- ✓		
95	**Environmental Health Permit or Sewer Tap Approval** A copy of a approved Columbia County Environmental Health (386) 758-1058	- ✓		
96	**City of Lake City** A City Water and/or Sewer letter. Call 386-752-2031	-		✓
97	**Toilet facilities shall be provided for all construction sites**	- ✓		
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.	-		✓
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)	- ✓		
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.	-		✓
101	A Flood development permit is also required for AE, Floodway & AH. Development permit cost is **$50.00**	-		
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.	-		✓
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.	- ✓		

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.

Disclosure Statement for Owner Builders:

If you as the Applicant will be acting as your own contractor or owner/builder under section 489.103(7) Florida Statutes, you must submit the required notarized Owner Builder Disclosure Statement form.

****This form can be printed from the Columbia County Website on the Building and Zoning page under Documents. Web address is - http://www.columbiacountyfla.com/BuildingandZoning.asp**

Section 105 of the Florida Building Code defines the:

Time limitation 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 such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

Single-family residential dwelling.

Section 105.3.4 A building permit for a single-family residential dwelling must be issued within 30 working days of application therefor unless unusual circumstances require a longer time for processing the application or unless the permit application fails to satisfy the Florida Building Code or the enforcing agency's laws or ordinances.

Permit intent.

Section 105.4.1: A permit issued shall be constructed to be a license to proceed with the work and not as authority to violate, cancel, alter or set aside any of the provisions of the technical codes, nor shall issuance of a permit prevent the building official from thereafter requiring a correction of errors in plans, construction or violations of this code. Every permit issued shall become invalid unless the work authorized by such permit is commenced within six months after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of six months after the time the work is commenced.

If work has commenced.

Section 105.4.1.1: If work has commenced and the permit is revoked, becomes null and void, or expires because of lack of progress or abandonment, a new permit covering the proposed construction shall be obtained before proceeding with the work.

New Permit.

Section 105.4.1.2: If a new permit is not obtained within 180 days from the date the initial permit became null and void, the building official is authorized to require that any work which has been commenced or completed be removed from the building site. Alternately, a new permit may be issued on application, providing the work in place and required to complete the structure meets all applicable regulations in effect at the time the initial permit became null and void and any regulations which may have become effective between the date of expiration and the date if issuance of the new permit.

Work Shall Be:

Section 105.4.1.3: Work shall be considered to be in active progress when the permit has received an approved inspection within 180 days. This provision shall not be applicable in case of civil commotion or strike or when the building work is halted due directly to judicial injunction, order or similar process.

The Fee:

Section 105.4.1.4: The fee for renewal reissuance and extension of a permit shall be set forth by the administrative authority.

Notification:

When the application is approved for permitting the applicant will be notified by phone as to the status by the Columbia County Building & Zoning Department.

dbpr

Product Approval
USER: Public User

Search Criteria

Code Version	2014	FL#
Application Type	ALL	Product Manufacturer
Category	Windows	Subcategory
Application Status	ALL	Compliance Method
Quality Assurance Entity	ALL	Quality Assurance Entity Contract Expire
Product Model, Number or Name	ALL	Product Description
Approved for use in HVHZ	ALL	Approved for use outside HVHZ
Impact Resistant	ALL	Design Pressure
Other	ALL	

Search Results - Applications

FL#	Type	Manufacturer	Validated By
FL10970-R5 History	Revision	JELD-WEN **Category:** Windows **Subcategory:** Single Hung	National Accreditation & Manag (804) 684-5124
FL11120-R12 History	Revision	JELD-WEN **Category:** Windows **Subcategory:** Single Hung	National Accreditation & Manag (804) 684-5124
FL12269-R9 History	Revision	JELD-WEN **Category:** Windows **Subcategory:** Single Hung	American Architectural Manufac (214) 878-1642
FL14095-R8 History	Revision	JELD-WEN **Category:** Windows **Subcategory:** Single Hung	National Accreditation & Manag (804) 684-5124
FL14104-R13 History	Revision	JELD-WEN **Category:** Windows **Subcategory:** Single Hung	American Architectural Manufac (214) 878-1642
FL14462-R3 History	Affirmation	JELD-WEN **Category:** Windows **Subcategory:** Single Hung	National Accreditation & Manag (804) 684-5124
FL14888-R5 History	Revision	JELD-WEN **Category:** Windows **Subcategory:** Single Hung	Window and Door Manufacturer (715) 551-5062

dbpr

Product Approval
USER: Public User

Search Criteria

Code Version	2014	FL#	
Application Type	ALL	Product Manufacturer	
Category	Exterior Doors	Subcategory	
Application Status	ALL	Compliance Method	
Quality Assurance Entity	ALL	Quality Assurance Entity Contract	
Product Model, Number or Name	ALL	Product Description	
Approved for use in HVHZ	ALL	Approved for use outside HVHZ	
Impact Resistant	ALL	Design Pressure	
Other	ALL		

Search Results - Applications

FL#	Type	Manufacturer	Validated By
FL4334-R9 History	Revision	Masonite International **Category:** Exterior Doors **Subcategory:** Swinging Exterior Door Assemblies	National Accr Institute (804) 684-51
FL4904-R7 History	Affirmation	Masonite International **Category:** Exterior Doors **Subcategory:** Swinging Exterior Door Assemblies	National Accr Institute (804) 684-51
FL4940-R7 History	Revision	Masonite International **Category:** Exterior Doors **Subcategory:** Swinging Exterior Door Assemblies	National Accr Institute (804) 684-51
FL5465-R7 History	Revision	Masonite International **Category:** Exterior Doors **Subcategory:** Swinging Exterior Door Assemblies	National Accr Institute (804) 684-51
FL5507-R7 History	Revision	Masonite International **Category:** Exterior Doors **Subcategory:** Swinging Exterior Door Assemblies	National Accr Institute (804) 684-51

This document has been electronically signed and sealed using a Digital Signature. Printed copies without an original signature must be verified using the original electronic version.

ALPINE AN ITW COMPANY

FL REG# 278, Yoonhwak Kim, FL PE #86367

Alpine, an ITW Company
6750 Forum Drive, Suite 305
Orlando, FL 32821
Phone: (800)755-6001
www.alpineitw.com

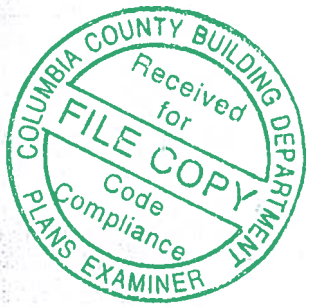
Site Information:	Page 1:
Customer: W. B. Howland Company, Inc.	*Job Number:* 19-3781
Job Description: /JONES ADDT. /MO PERKINS	
Address: FL	

Job Engineering Criteria:	
Design Code: FBC 2017 RES	*IntelliVIEW Version:* 18.02.01B *JRef #:* 1WQP2150003
Wind Standard: ASCE 7-10 *Wind Speed (mph):* 130 *Building Type:* Closed	*Roof Load (psf):* 20.00-10.00- 0.00-10.00 *Floor Load (psf):* None

This package contains general notes pages, 19 truss drawing(s) and 3 detail(s).

Item	Seal #	Truss
1	336.19.1413.56783	A01
3	336.19.1413.58740	A03
5	336.19.1414.01383	B01
7	336.19.1413.26743	B2A
9	336.19.1413.29477	B04
11	336.19.1413.30943	B06
13	336.19.1413.37803	C01
15	336.19.1413.40290	C03
17	336.19.1413.42493	D01
19	336.19.1413.44850	D03
21	GBLLETIN0118	

Item	Seal #	Truss
2	336.19.1413.57720	A02
4	336.19.1414.00043	A04
6	336.19.1414.04683	B02
8	336.19.1413.28737	B03
10	336.19.1413.30257	B05
12	336.19.1413.32133	B07
14	336.19.1413.38883	C02
16	336.19.1413.41447	C04
18	336.19.1413.43710	D02
20	A14015ENC101014	
22	BRCLBSUB0119	



General Notes

Truss Design Engineer Scope of Work, Design Assumptions and Design Responsibilities:
The design responsibilities assumed in the preparation of these design drawings are those specified in ANSI/TPI 1, Chapter 2; and the National Design Standard for Metal Plate Connected Wood Truss Construction, by the Truss Plate Institute. The truss component designs conform to the applicable provisions of ANSI/TPI 1 and NDS, the National Design Specification for Wood Construction by AF&PA. The truss component designs are based on the specified loading and dimension information furnished by others to the Truss Design Engineer. The Truss Design Engineer has no duty to independently verify the accuracy or completeness of the information provided by others and may rely on that information without liability. The responsibility for verification of that information remains with others neither employed nor controlled by the Truss Design Engineer. The Truss Design Engineer's seal and signature on the attached drawings, or cover page listing these drawings, indicates acceptance of professional engineering responsibility solely for the truss component designs and not for the technical information furnished by others which technical information and consequences thereof remain their sole responsibility.

The suitability and use of these drawings for any particular structure is the responsibility of the Building Designer in accordance with ANSI/TPI 1 Chapter 2. The Building Designer is responsible for determining that the dimensions and loads for each truss component match those required by the plans and by the actual use of the individual component, and for ascertaining that the loads shown on the drawings meet or exceed applicable building code requirements and any additional factors required in the particular application. Truss components using metal connector plates with integral teeth shall not be placed in environments that will cause the moisture content of the wood in which plates are embedded to exceed 19% and/or cause corrosion of connector plates and other metal fasteners.

The Truss Design Engineer shall not be responsible for items beyond the specific scope of the agreed contracted work set forth herein, including but not limited to: verifying the dimensions of the truss component, calculation of any of the truss component design loads, inspection of the truss components before or after installation, the design of temporary or permanent bracing and their attachment required in the roof and/or floor systems, the design of diaphragms or shear walls, the design of load transfer connections to and from diaphragms and shear walls, the design of load transfer to the foundation, the design of connections for truss components to their bearing supports, the design of the bearing supports, installation of the truss components, observation of the truss component installation process, review of truss assembly procedures, sequencing of the truss component installation, construction means and methods, site and/or worker safety in the installation of the truss components and/or its connections.

This document may be a high quality facsimile of the original engineering document which is a digitally signed electronic file with third party authentication. A wet or embossed seal copy of this engineering document is available upon request.

Temporary Lateral Restraint and Bracing:
Temporary lateral restraint and diagonal bracing shall be installed according to the provisions of BCSI chapters B1, B2, B7 and/or B10 (Building Component Safety Information, by TPI and SBCA), or as specified by the Building Designer or other Registered Design Professional. The required locations for lateral restraint and/or bracing depicted on these drawings are only for the permanent lateral support of the truss members to reduce buckling lengths, and do not apply to and may not be relied upon for the temporary stability of the truss components during their installation.

Permanent Lateral Restraint and Bracing:
The required locations for lateral restraint or bracing depicted on these drawings are for the permanent lateral support of the truss members to reduce buckling lengths. Permanent lateral support shall be installed according to the provisions of BCSI chapters B3, B7 and/or B10, or as specified by the Building Designer or other Registered Design Professional. These drawings do not depict or specify installation/erection bracing, wind bracing, portal bracing or similar building stability bracing which are parts of the overall building design to be specified, designed and detailed by the Building Designer.

Connector Plate Information:
Alpine connector plates are made of ASTM A653 or ASTM A1063 galvanized steel with the following designations, gauges and grades: W=Wave, 20ga, grade 40; H=High Strength, 20ga, grade 60; S=Super Strength, 18ga, grade 60. Information on model code compliance is contained in the ICC Evaluation Service report ESR-1118, available on-line at www.icc-es.org.

General Notes (continued)

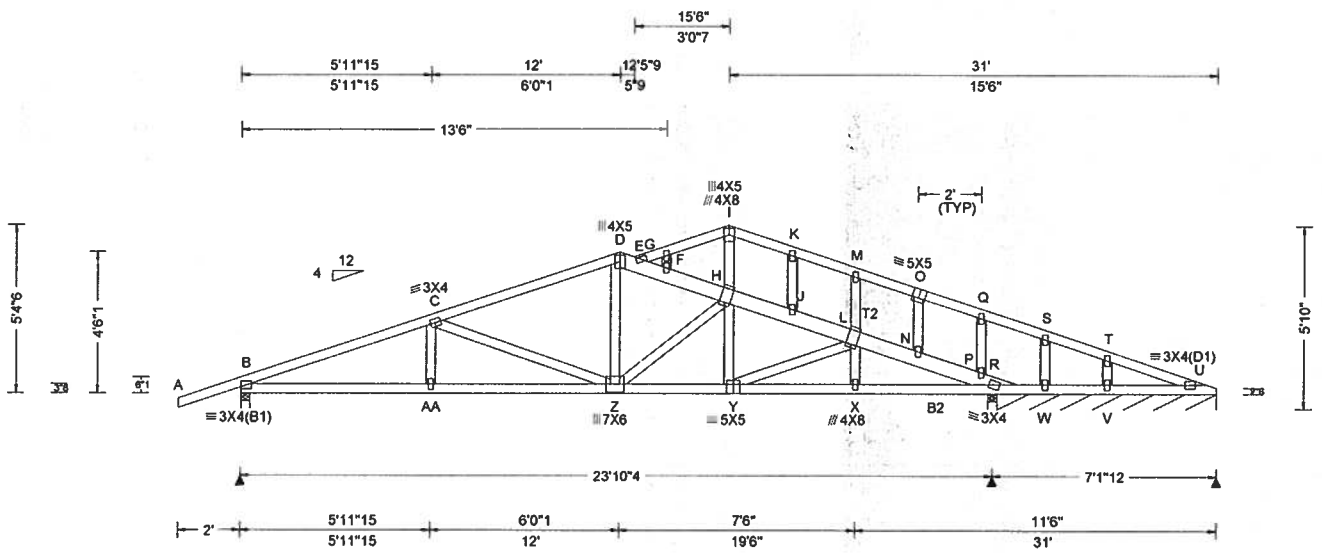
Key to Terms:
Information provided on drawings reflects a summary of the pertinent information required for the truss design. Detailed information on load cases, reactions, member lengths, forces and members requiring permanent lateral support may be found in calculation sheets available upon written request.

BCDL = Bottom Chord standard design Dead Load in pounds per square foot.
BCLL = Bottom Chord standard design Live Load in pounds per square foot.
Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.
HORZ(LL) = maximum Horizontal panel point deflection due to Live Load, in inches.
HORZ(TL) = maximum Horizontal panel point long term deflection in inches, due to Total Load, including creep adjustment.
HPL = additional Horizontal Load added to a truss Piece in pounds per linear foot or pounds.
L/# = user specified divisor for limiting span/deflection ratio for evaluation of actual L/defl value.
L/defl = ratio of Length between bearings, in inches, divided by the immediate vertical Deflection, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.
Loc = Location, starting location of left end of bearing or panel point (joint) location of deflection.
Max BC CSI = Maximum bending and axial Combined Stress Index for Bottom Chords for of all load cases.
Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for of all load cases.
Max Web CSI= Maximum bending and axial Combined Stress Index for Webs for of all load cases.
NCBCLL = Non-Concurrent Bottom Chord design Live Load in pounds per square foot.
PL = additional Load applied at a user specified angle on a truss Piece in pounds per linear foot or pounds.
PLB = additional vertical load added to a Bottom chord Piece of a truss in pounds per linear foot or pounds
PLT = additional vertical load added to a Top chord Piece of a truss in pounds per linear foot or pounds.
PP = Panel Point.
R = maximum downward design Reaction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
-R = maximum upward design Reaction, in pounds, from all specified gravity load cases, at the identified location (Loc).
Rh = maximum horizontal design Reaction in either direction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
RL = maximum horizontal design Reaction in either direction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
Rw = maximum downward design Reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the identified location (Loc).
TCDL = Top Chord standard design Dead Load in pounds per square foot.
TCLL = Top Chord standard design Live Load in pounds per square foot.
U = maximum Upward design reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
VERT(CL) = maximum Vertical panel point deflection in inches due to Live Load and Creep Component of Dead Load in inches.
VERT(LL) = maximum Vertical panel point deflection in inches due to Live Load.
VERT(TL) = maximum Vertical panel point long term deflection in inches due to Total load, including creep adjustment.
W = Width of non-hanger bearing, in inches.

Refer to ASCE-7 for Wind and Seismic abbreviations.
Uppercase Acronyms not explained above are as defined in TPI 1.

References:
1. AF&PA: American Forest & Paper Association, 1111 19th Street, NW, Suite 800, Washington, DC 20036; www.afandpa.org.
2. ICC: International Code Council; www.iccsafe.org.
3. Alpine, a division of ITW Building Components Group Inc.: 13723 Riverport Drive, Suite 200, Maryland Heights, MO 63043; www.alpineitw.com.
4. TPI: Truss Plate Institute, 218 North Lee Street, Suite 312, Alexandria, VA 22314; www.tpinst.org.
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; www.sbcindustry.co

SEQN: 569616 COMN FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** A01	Cust: R 215 JRef: 1WQP2150003 T28 DrwNo: 336.19.1413.56783 SSB / YK 12/02/2019



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: > 2h
C&C Dist a: 3.10 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#	
VERT(LL): 0.098	C	999	240	
VERT(CL): 0.194	C	999	180	
HORZ(LL): 0.034	S	-	-	
HORZ(TL): 0.067	S	-	-	

Creep Factor: 2.0
Max TC CSI: 0.662
Max BC CSI: 0.668
Max Web CSI: 0.396

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs), or *=PLF

Loc	R+	/ R-	/ Rh	Gravity / Rw	Non-Gravity / U	/ RL
B	1101	/-	/-	/670	/85	/135
R	1072	/-	/-	/565	/42	/-
U*	65	/-	/-	/39	/5	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
R Brg Width = 3.5 Min Req = 1.5
U Brg Width = 84.0 Min Req = -
Bearings B, R, & R are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	516	- 2050	H - J	467	- 1689
C - D	449	- 1544	J - L	477	- 1715
D - E	440	- 1421	L - N	536	- 1913
E - F	409	- 1373	N - P	544	- 1930
F - H	423	- 1394	P - R	567	- 1997

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B -AA	1881	- 455	Y - X	1903	- 456
AA- Z	1879	- 457	X - R	1905	- 455
Z - Y	1707	- 387			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - Z	134	- 530	Z - H	127	- 440
Z - D	568	- 105			

Lumber

Top chord: 2x4 SP #2; T2 2x6 SP 2400f-2.0E;
Bot chord: 2x4 SP M-31; B2 2x4 SP #2;
Webs: 2x4 SP #3;

Plating Notes

All plates are 2X4 except as noted.

Wind

Wind loads based on MWFRS with additional C&C member design.

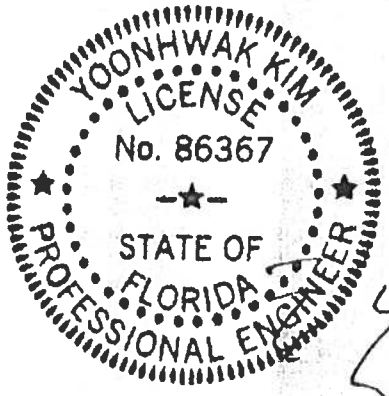
Blocking

Full Height Blocking reinforcement required to prevent buckling of members over the bearings:
bearing 2 located at 23.7'

Additional Notes

The overall height of this truss excluding overhang is 5-4-6.

Laterally brace chord above/below filler at 24" OC (or as designed) including a lateral brace on chord directly above/ below both ends of filler (if no rigid diaphragm exists at that point)



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

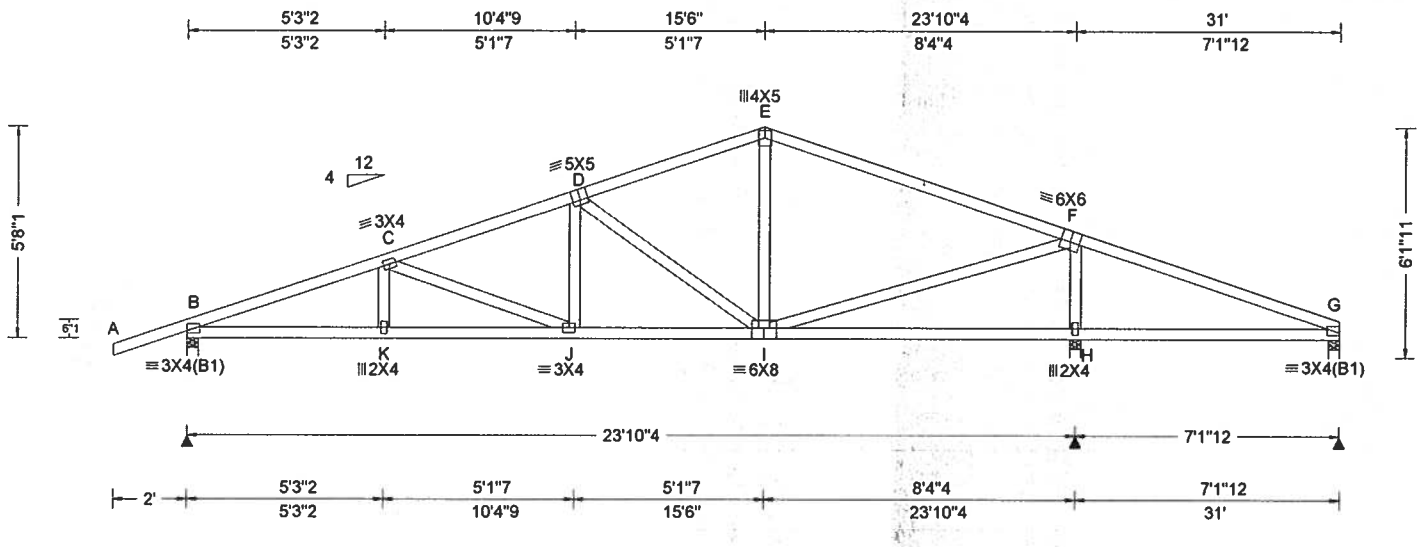
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise,top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing,any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trussesA seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com, TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569617 SPEC FROM: CDM	Ply: 1 Qty: 5	Job Number: 19-3781 /JONES ADDT. /MO PERKINS Truss Label: A02	Cust: R 215 JRef: 1WQP2150003 T21 DrwNo: 336.19.1413.57720 SSB / YK 12/02/2019	



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: > 2h
C&C Dist a: 3.10 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.096	C	999	240
VERT(CL): 0.185	C	999	180
HORZ(LL): 0.024	I	-	-
HORZ(TL): 0.047	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.981
Max BC CSI: 0.971
Max Web CSI: 0.481

VIEW Ver: 18.02.01B.0321.08

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1060	/-	/-	/647	/88	/136
H	1361	/-	/-	/711	/49	/-
G	291	/-21	/-	/146	/47	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
H Brg Width = 3.5 Min Req = 1.5
G Brg Width = 3.5 Min Req = 1.5
Bearings B, H, & G are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	449	- 1945	D - E	314	- 993
C - D	412	- 1558	E - F	318	- 1036

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - K	1782	- 387	J - I	1419	- 304
K - J	1781	- 389			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - J	90	- 381	I - F	1162	- 181
D - I	181	- 641	F - H	324	- 1163

Lumber
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Wind
Wind loads based on MWFRS with additional C&C member design.

Additional Notes
The overall height of this truss excluding overhang is 5-8-1.

YOONHWAK KIM
LICENSE
No. 86367
STATE OF FLORIDA
PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

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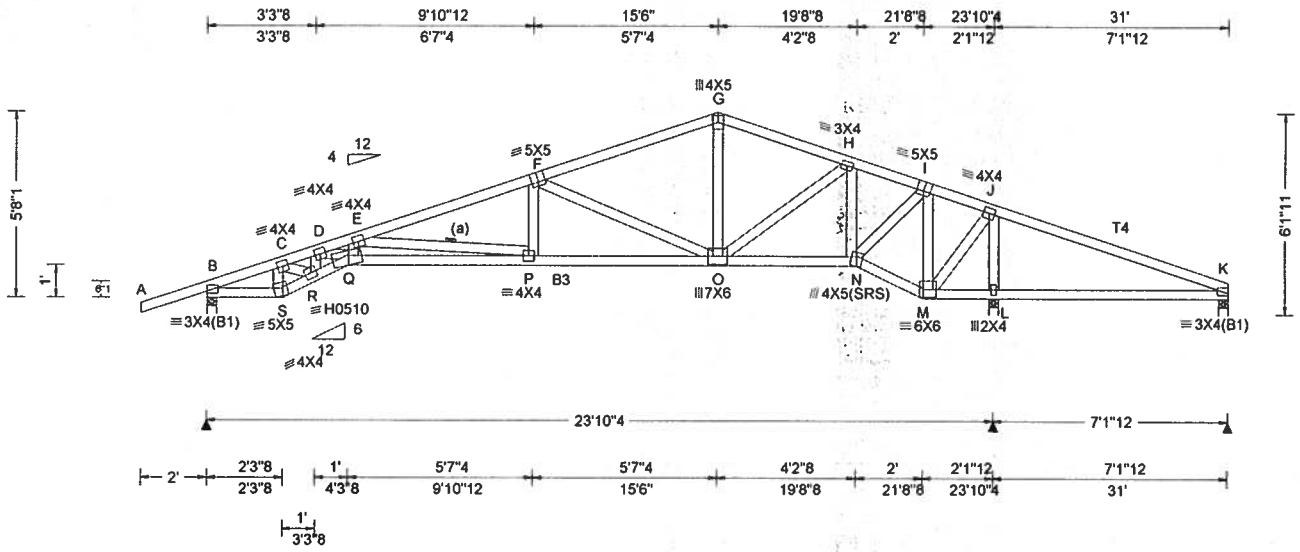
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. **A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.**

For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569618 COMN FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** A03	Cust: R 215 JRef: 1WQP2150003 T22 DrwNo: 336.19.1413.58740 SSB / YK 12/02/2019



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00
Load Duration:	1.25
Spacing:	24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.10 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.197	E	999	240
VERT(CL): 0.383	E	742	180
HORZ(LL): 0.075	M	-	-
HORZ(TL): 0.148	M	-	-

Creep Factor: 2.0
Max TC CSI: 0.515
Max BC CSI: 0.900
Max Web CSI: 0.771

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	973	/-	/-	/593	/87	/136
L	1745	/-	/-	/904	/55	/-
K	125	/-297	/-	/87	/159	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
L Brg Width = 3.5 Min Req = 1.7
K Brg Width = 3.5 Min Req = 1.5
Bearings B, L, & K are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	319	-1456	F - G	273	-869
C - D	564	-2517	G - H	286	-847
D - E	919	-4149	J - K	1152	-164
E - F	474	-1923			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - S	1305	-273	P - O	1747	-362
S - R	1443	-302	M - L	163	-1001
R - Q	2890	-607	L - K	177	-1055
Q - P	3671	-786			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - S	176	-770	F - O	276	-1075
C - R	1254	-272	O - H	551	-91
R - D	233	-1093	H - N	162	-711
D - Q	1406	-299	N - I	848	-162
Q - E	818	-137	M - I	120	-792
E - P	424	-1902	M - J	1120	-169
P - F	459	-44	J - L	362	-1502

Lumber

Top chord: 2x4 SP #2; T4 2x4 SP M-31;
Bot chord: 2x4 SP #2; B3 2x4 SP M-31;
Webs: 2x4 SP #3;

Bracing

(a) Continuous lateral restraint equally spaced on member.

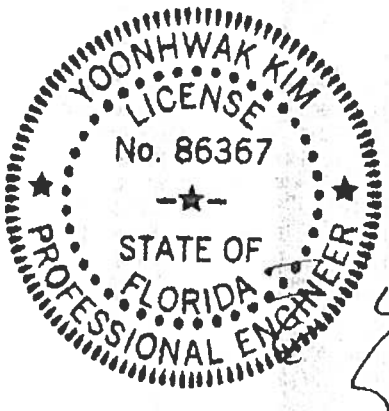
Wind

Wind loads based on MWFRS with additional C&C member design.

Additional Notes

Negative reaction(s) of -297# MAX. from a non-wind load case requires uplift connection. See Maximum Reactions.

The overall height of this truss excluding overhang is 5-8-1.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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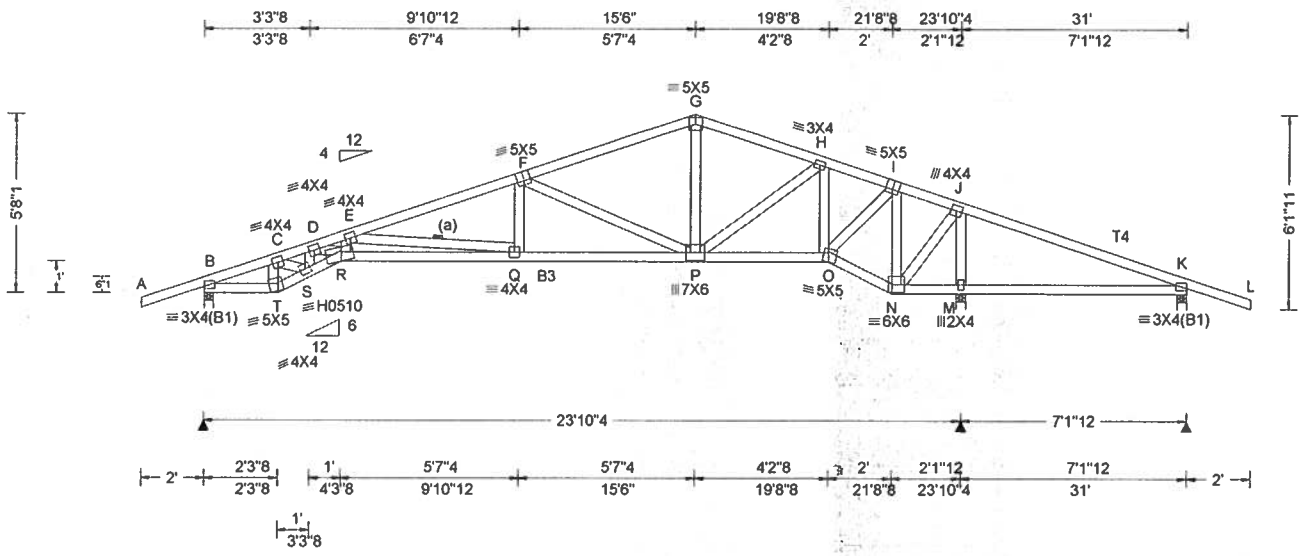
For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569619 COMN FROM: CDM	Ply: 1 Qty: 3	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** A04		Cust: R 215 JRef: 1WQP2150003 T6 DrwNo: 336.19.1414.00043 SSB / YK 12/02/2019



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.10 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.196	E	999	240
VERT(CL): 0.381	E	747	180
HORZ(LL): 0.074	N	-	-
HORZ(TL): 0.144	N	-	-

Creep Factor: 2.0
Max TC CSI: 0.510
Max BC CSI: 0.885
Max Web CSI: 0.768

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	963	/-	/-	/592	/86	/148
M	1770	/-	/-	/911	/56	/-
K	239	/-254	/-	/165	/159	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
M Brg Width = 3.5 Min Req = 1.7
K Brg Width = 3.5 Min Req = 1.5
Bearings B, M, & K are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	303	- 1434	F - G	260	- 831
C - D	504	- 2477	G - H	254	- 808
D - E	793	- 4082	J - K	1195	- 268
E - F	417	- 1880			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - T	1284	- 214	Q - P	1706	- 273
T - S	1420	- 237	O - N	205	- 388
S - R	2845	- 485	N - M	327	- 1044
R - Q	3611	- 631	M - K	342	- 1098

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - T	144	- 758	F - P	264	- 1071
C - S	1234	- 253	P - H	565	- 131
S - D	214	- 1075	H - O	191	- 722
D - R	1382	- 257	O - I	844	- 151
R - E	807	- 105	N - I	118	- 799
E - Q	372	- 1884	N - J	1148	- 248
Q - F	458	- 36	J - M	392	- 1540

Lumber

Top chord: 2x4 SP #2; T4 2x4 SP M-31;
Bot chord: 2x4 SP #2; B3 2x4 SP M-31;
Webs: 2x4 SP #3;

Bracing

(a) Continuous lateral restraint equally spaced on member.

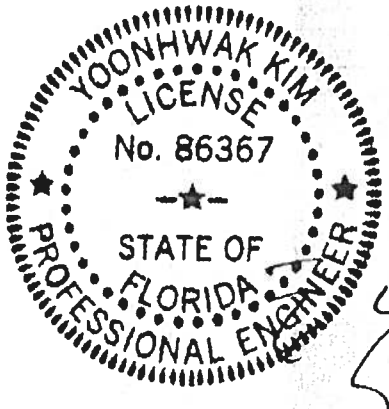
Wind

Wind loads based on MWFRS with additional C&C member design.

Additional Notes

Negative reaction(s) of -254# MAX. from a non-wind load case requires uplift connection. See Maximum Reactions.

The overall height of this truss excluding overhang is 5-8-1.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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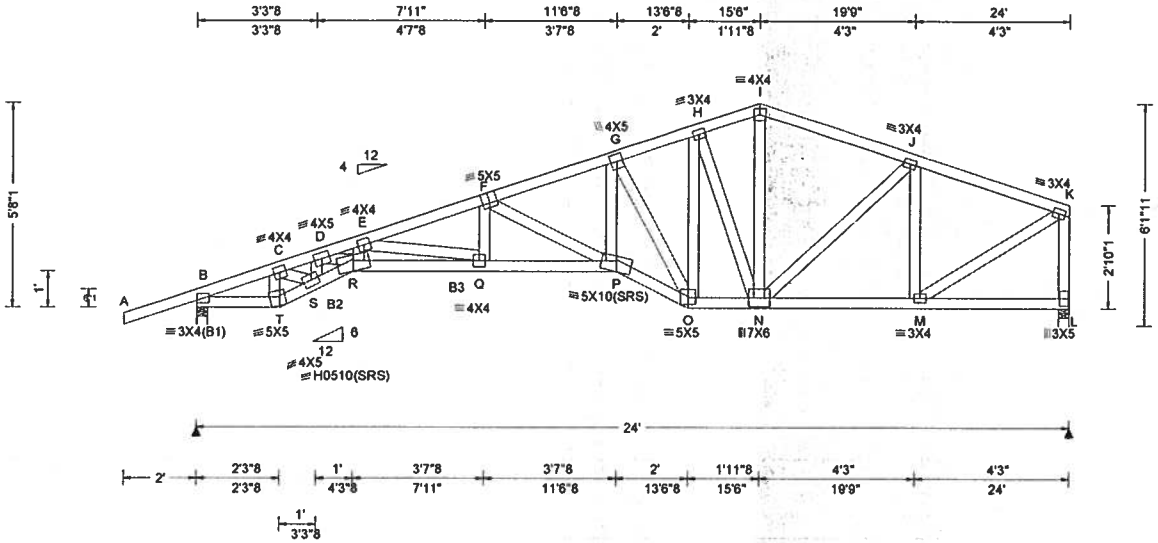
For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569620 COMN FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** B01	Cust: R 215 JRef: 1WQP2150003 T25 DrwNo: 336.19.1414.01383 SSB / YK 12/02/2019	



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 20.00	Wind Std: ASCE 7-10	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.206 Q 999 240
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.406 Q 704 180
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.083 L - -
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.164 L - -
NCBCLL: 10.00	Mean Height: 15.00 ft	**Code / Misc Criteria**	Creep Factor: 2.0
Soffit: 2.00	TCDL: 5.0 psf	Bldg Code: FBC 2017 RES	Max TC CSI: 0.576
Load Duration: 1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.833
Spacing: 24.0 "	MWFRS Parallel Dist: h to 2h	Rep Fac: Yes	Max Web CSI: 0.622
	C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)	
	Loc. from endwall: not in 9.00 ft	Plate Type(s):	
	GCpi: 0.18	WAVE, HS	VIEW Ver: 18.02.01B.0321.08
	Wind Duration: 1.60		

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2; B2,B3 2x4 SP M-31;
Webs: 2x4 SP #3;

Wind

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Additional Notes

The overall height of this truss excluding overhang is 5-8-1.

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1100	/-	/-	/670	/85	/117
L	948	/-	/-	/487	/35	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
L Brg Width = 3.5 Min Req = 1.5
Bearings B & L are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

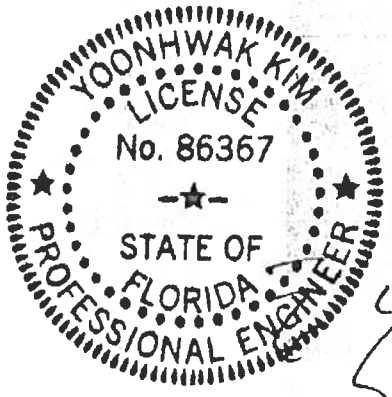
Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	352	- 1717	G - H	363	- 1266
C - D	672	- 2995	H - I	326	- 1039
D - E	1141	- 4918	I - J	326	- 1073
E - F	684	- 2906	J - K	256	- 930
F - G	502	- 1976			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - T	1546	- 372	Q - P	2678	- 637
T - S	1706	- 410	P - O	2078	- 498
S - R	3455	- 822	O - N	1156	- 277
R - Q	4332	- 1036	N - M	876	- 217

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - T	231	- 913	G - P	1400	- 310
C - S	1504	- 358	G - O	363	- 1500
S - D	321	- 1335	O - H	472	- 106
D - R	1621	- 386	H - N	166	- 535
R - E	970	- 209	I - N	470	- 140
E - Q	398	- 1631	J - M	144	- 430
Q - F	478	- 83	M - K	990	- 241
F - P	228	- 950	K - L	265	- 913



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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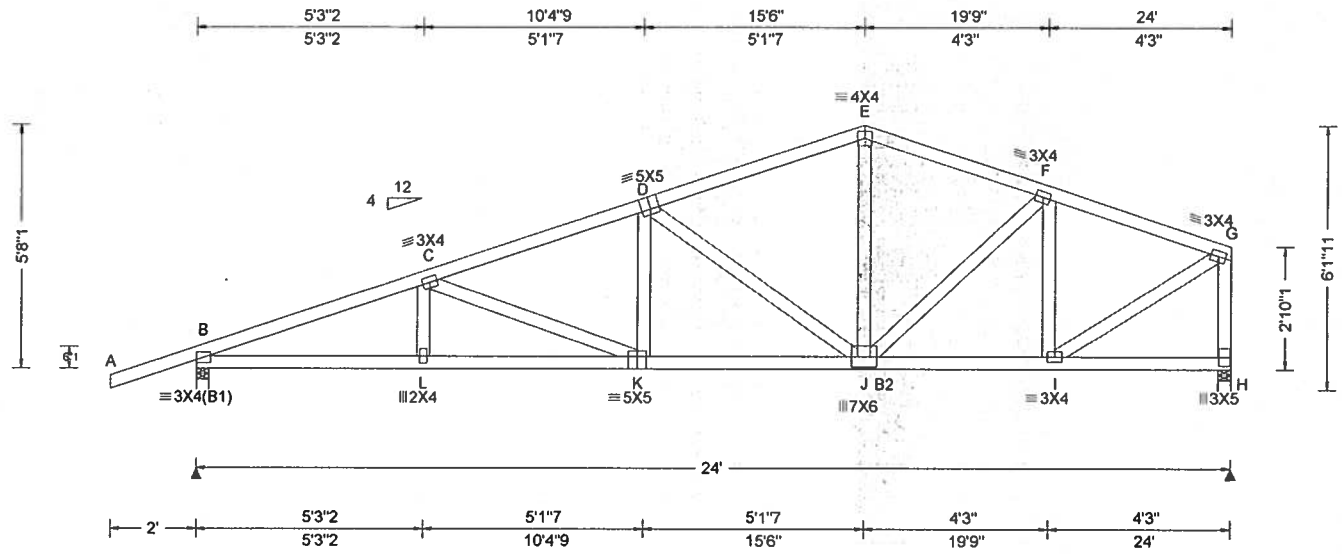
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569621 COMN FROM: CDM	Ply: 1 Qty: 3	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** B02	Cust: R 215 JRef: 1WQP2150003 T12 DrwNo: 336.19.1414.04683 SSB / YK 12/02/2019



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.089	K	999	240
VERT(CL): 0.175	K	999	180
HORZ(LL): 0.024	H	-	-
HORZ(TL): 0.046	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.640
Max BC CSI: 0.456
Max Web CSI: 0.515

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1099	/-	/-	/671	/212	/117
H	947	/-	/-	/487	/178	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
H Brg Width = 3.5 Min Req = 1.5
Bearings B & H are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	449	- 2040	E - F	331	- 1076
C - D	418	- 1679	F - G	257	- 927
D - E	318	- 1087			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - L	1873	- 457	K - J	1535	- 380
L - K	1873	- 459	J - I	873	- 218

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
D - J	189	- 686	I - G	986	- 241
E - J	409	- 85	G - H	267	- 911
F - I	143	- 431			

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP M-31; B2 2x4 SP #2;
Webs: 2x4 SP #3;

Wind

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Additional Notes

The overall height of this truss excluding overhang is 5-8-1.

YOONHWAK KIM
LICENSE
No. 86367
STATE OF FLORIDA
PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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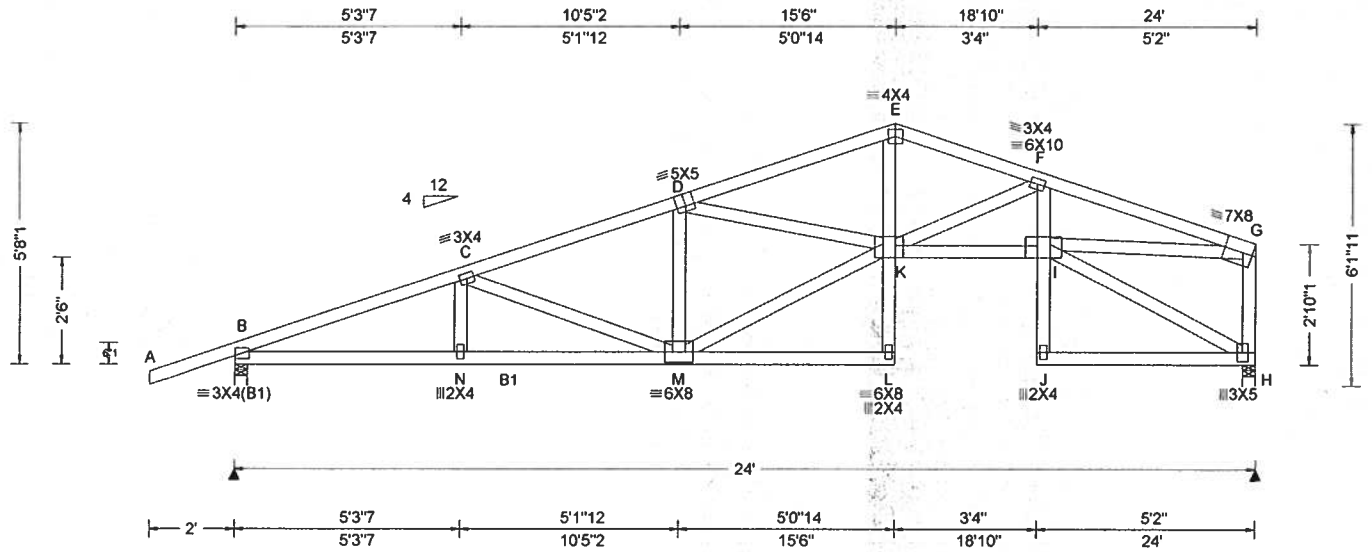
For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569622 COMN FROM: CDM	Ply: 1 Qty: 2	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** B2A		Cust: R 215 JRef: 1WQP2150003 T1 DrwNo: 336.19.1413.26743 SSB / YK 12/02/2019



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#	
VERT(LL): 0.151	K	999	240	
VERT(CL): 0.298	K	960	180	
HORZ(LL): 0.106	H	-	-	
HORZ(TL): 0.208	H	-	-	

Creep Factor: 2.0
Max TC CSI: 0.640
Max BC CSI: 0.597
Max Web CSI: 0.919

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1099	/-	/-	/670	/89	/117
H	947	/-	/-	/486	/35	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
H Brg Width = 3.5 Min Req = 1.5
Bearings B & H are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	448	-2041	E - F	565	-2057
C - D	414	-1669	F - G	677	-2604
D - E	553	-2093			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - N	1874	-455	K - I	2472	-612
N - M	1873	-457			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
M - D	182	-549	K - F	186	-607
M - K	1745	-430	I - G	2412	-595
D - K	386	-72	G - H	268	-886
K - E	1054	-246			

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2; B1 2x4 SP M-31;
Webs: 2x4 SP #3;

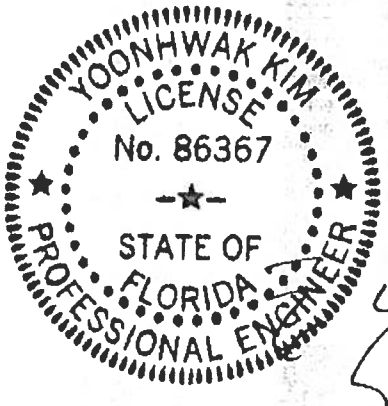
Wind

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Additional Notes

The overall height of this truss excluding overhang is 5-8-1.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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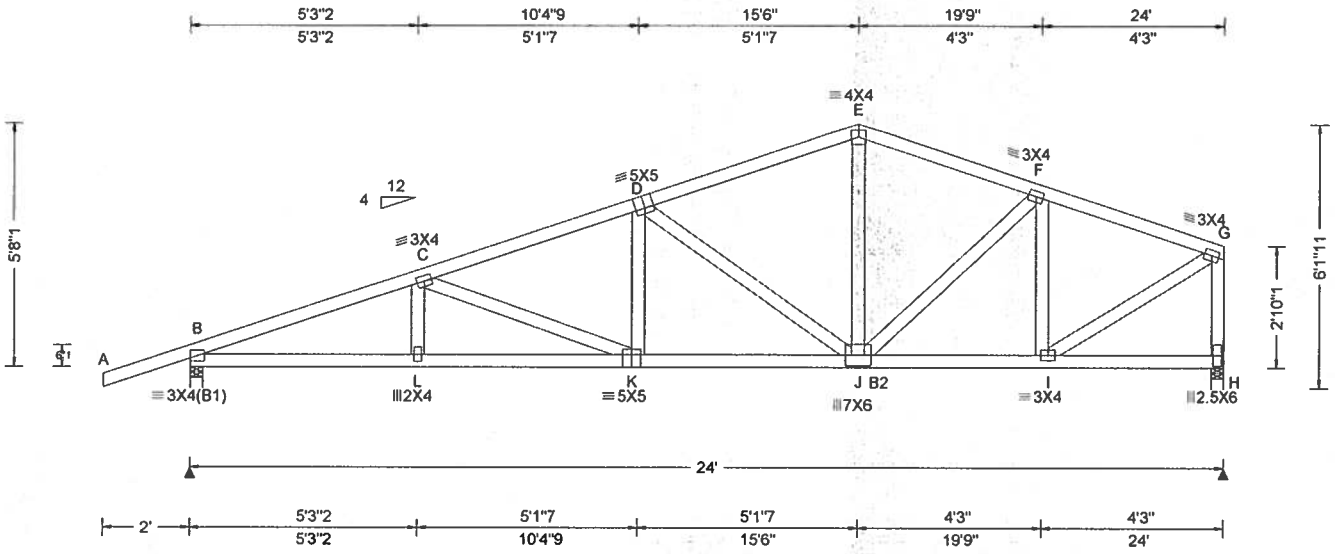
For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569623 COMN FROM: CDM	Ply: 1 Qty: 5	Job Number: 19-3781 /JONES ADDT. /MO PERKINS Truss Label: B03		Cust: R 215 JRef: 1WQP2150003 T18 DrwNo: 336.19.1413.28737 SSB / YK 12/02/2019	



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.089	K	999	240
VERT(CL): 0.175	K	999	180
HORZ(LL): 0.024	H	-	-
HORZ(TL): 0.046	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.640
Max BC CSI: 0.456
Max Web CSI: 0.515

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs)

	Gravity		Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
B	1099 /-	/-	/671	/212	/117
H	947 /-	/-	/487	/178	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
H Brg Width = 3.5 Min Req = 1.5
Bearings B & H are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	868	-2040	E - F	615	-1076
C - D	795	-1679	F - G	485	-927
D - E	589	-1087			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - L	1873	-872	K - J	1535	-733
L - K	1873	-875	J - I	873	-423

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
D - J	351	-686	I - G	986	-470
E - J	409	-165	G - H	514	-911
F - I	264	-431			

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP M-31; B2 2x4 SP #2;
Webs: 2x4 SP #3;

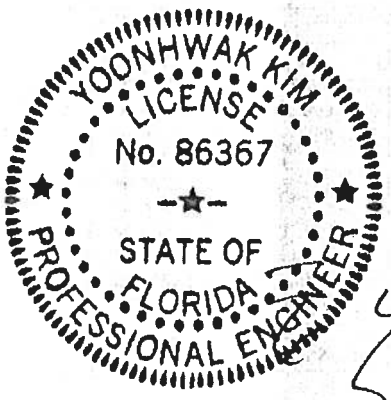
Wind

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Additional Notes

The overall height of this truss excluding overhang is 5-8-1.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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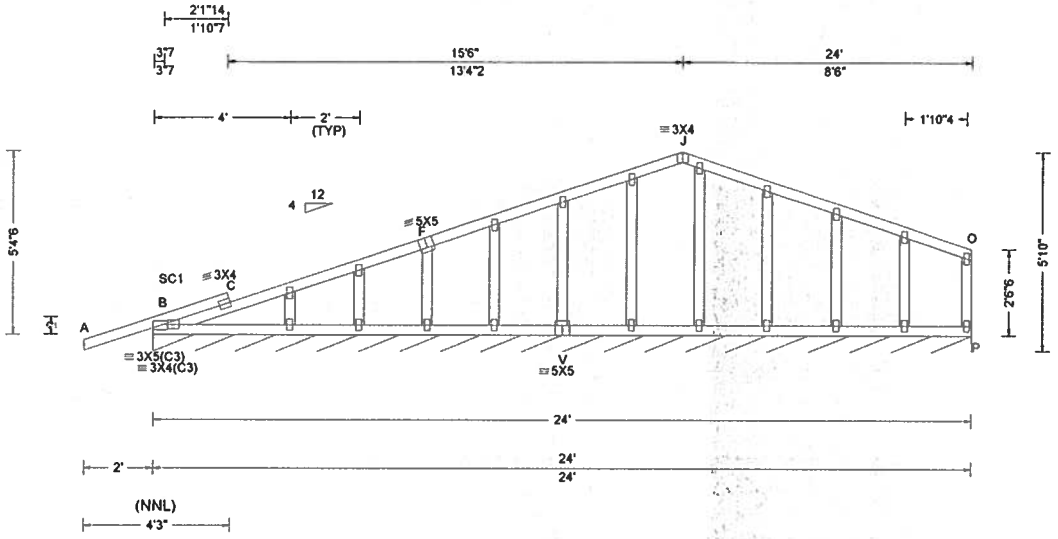
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569624 GABL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** B04		Cust: R 215 JRef: 1WQP2150003 T23 DrwNo: 336.19.1413.29477 SSB / YK 12/02/2019



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-10 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA **Code / Misc Criteria** Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.004 C 999 240 VERT(CL): 0.007 C 999 180 HORZ(LL): 0.002 O - - HORZ(TL): 0.003 O - - Creep Factor: 2.0 Max TC CSI: 0.341 Max BC CSI: 0.128 Max Web CSI: 0.062 VIEW Ver: 18.02.01B.0321.08	Gravity / Non-Gravity Loc R+ / R- / Rh / Rw / U / RL P* 85 /- /- /47 /16 /5 Wind reactions based on MWFRS P Brg Width = 288 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375# **Maximum Top Chord Forces Per Ply (lbs)** Chords Tens.Comp. B - C 522 -612

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;
Stack Chord: SC1 2x4 SP #2;

Plating Notes

All plates are 2X4 except as noted.

Wind

Wind loads based on MWFRS with additional C&C member design.

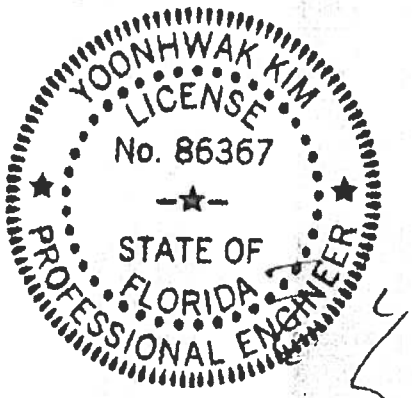
Right end vertical not exposed to wind pressure.

Additional Notes

See DWGS A14015ENC101014 & GBLLETIN0118 for gable wind bracing and other requirements.

Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.

The overall height of this truss excluding overhang is 5-4-6.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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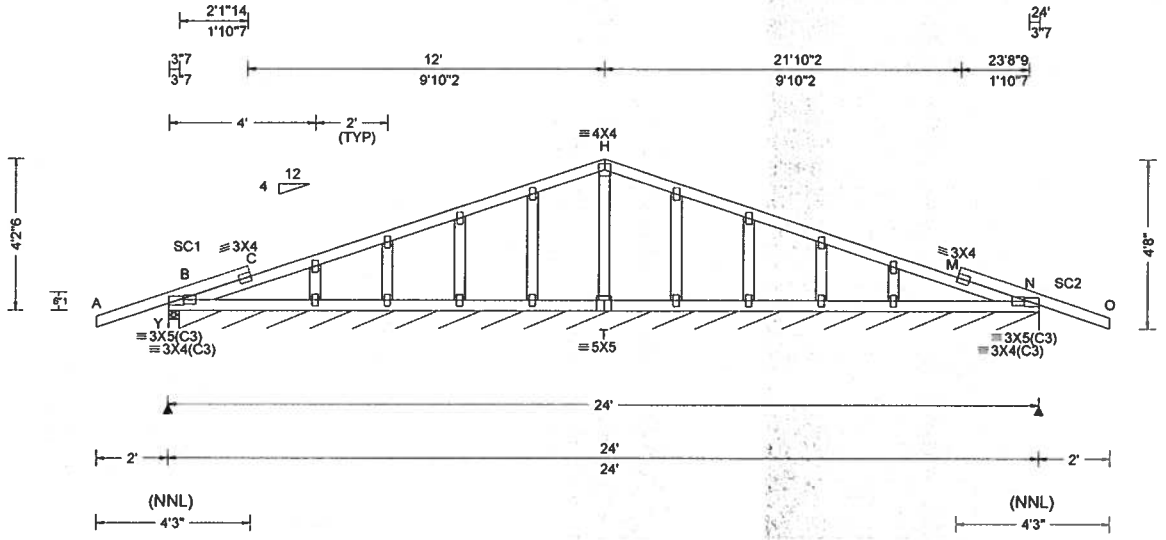
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569625 GABL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** B05		Cust: R 215 JRef: 1WQP2150003 T4 DrwNo: 336.19.1413.30257 SSB / YK 12/02/2019



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-10 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA **Code / Misc Criteria** Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.004 M 999 240 VERT(CL): 0.007 M 999 180 HORZ(LL): 0.002 M - - HORZ(TL): 0.002 M - - Creep Factor: 2.0 Max TC CSI: 0.349 Max BC CSI: 0.132 Max Web CSI: 0.046 VIEW Ver: 18.02.01B.0321.08

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
Y	327	/-	/-	/218	/89	/119
N*	78	/-	/-	/41	/15	/-

Wind reactions based on MWFRS
Y Brg Width = 3.5 Min Req = 1.5
N Brg Width = 284 Min Req = -
Bearings Y & Y are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
M - N	571	-574

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;
Stack Chord: SC1 2x4 SP #2;
Stack Chord: SC2 2x4 SP #2;

Plating Notes

All plates are 2X4 except as noted.

Wind

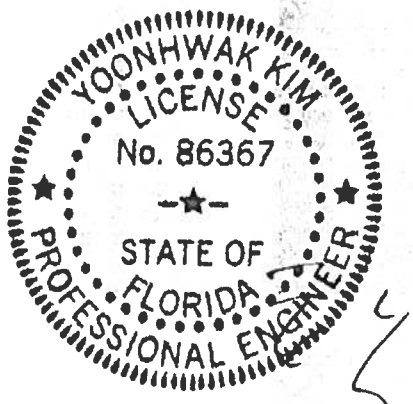
Wind loads based on MWFRS with additional C&C member design.

Additional Notes

See DWGS A14015ENC101014 & GBLLETIN0118 for gable wind bracing and other requirements.

Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.

The overall height of this truss excluding overhang is 4-2-6.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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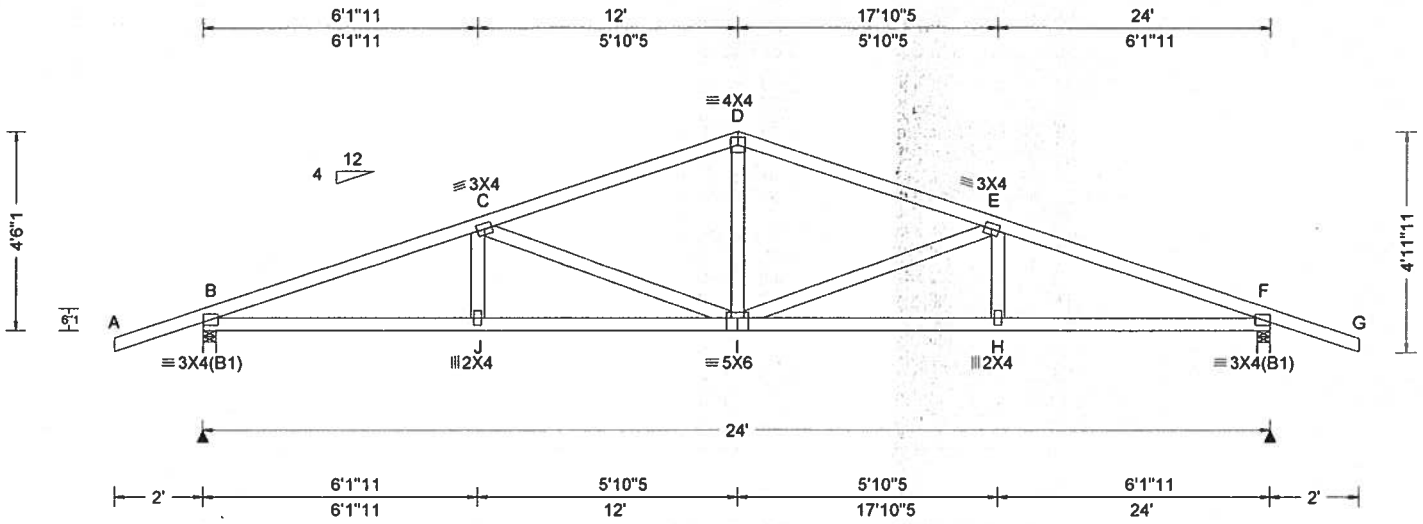
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569626 COMN FROM: CDM	Ply: 1 Qty: 11	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** B06	Cust: R 215 JRef: 1WQP2150003 T5 DrwNo: 336.19.1413.30943 SSB / YK 12/02/2019	



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.133	I	999	240
VERT(CL): 0.259	I	999	180
HORZ(LL): 0.047	H	-	-
HORZ(TL): 0.091	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.697
Max BC CSI: 0.968
Max Web CSI: 0.381

VIEW Ver: 18.02.01B.0321.08

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1088	/-	/-	/638	/213	/120
F	1088	/-	/-	/638	/213	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
F Brg Width = 3.5 Min Req = 1.5
Bearings B & F are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	893	-2010	D - E	743	-1489
C - D	742	-1489	E - F	892	-2010

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - J	1840	-742	I - H	1838	-757
J - I	1838	-745	H - F	1840	-755

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - I	273	-508	I - E	273	-508
D - I	550	-176			

Lumber

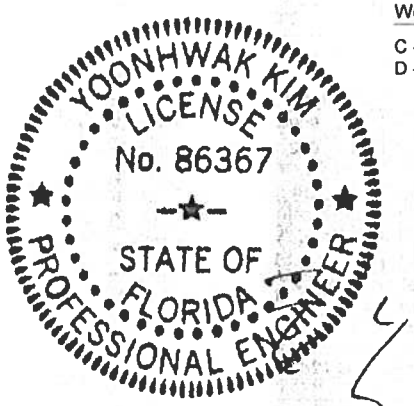
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Wind

Wind loads based on MWFRS with additional C&C member design.

Additional Notes

The overall height of this truss excluding overhang is 4-6-1.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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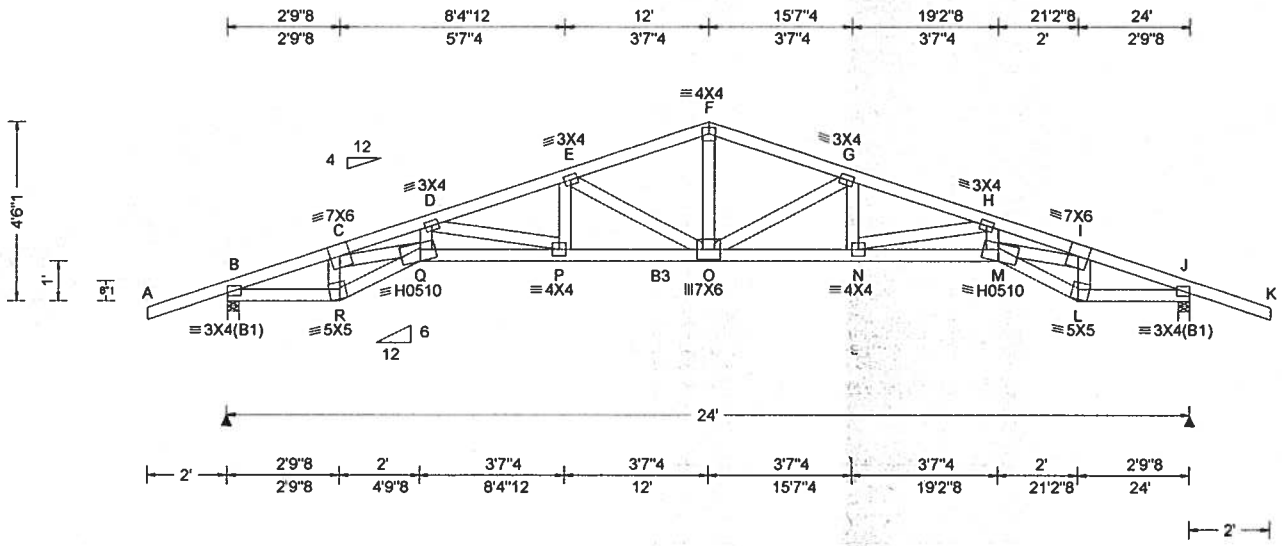
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569627 COMN FROM: CDM	Ply: 1 Qty: 6	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** B07	Cust: R 215 JRef: 1WQP2150003 T8 DrwNo: 336.19.1413.32133 SSB / YK 12/02/2019



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.261	O	999	240
VERT(CL): 0.506	O	561	180
HORZ(LL): 0.123	L	-	-
HORZ(TL): 0.239	L	-	-

Creep Factor: 2.0
Max TC CSI: 0.621
Max BC CSI: 0.921
Max Web CSI: 0.921

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1088	/-	/-	/637	/210	/120
J	1088	/-	/-	/637	/210	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
J Brg Width = 3.5 Min Req = 1.5
Bearings B & J are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	404	- 1859	F - G	443	- 1858
C - D	875	- 4303	G - H	608	- 2697
D - E	596	- 2697	H - I	903	- 4303
E - F	450	- 1858	I - J	402	- 1859

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - R	1690	- 308	O - N	2482	- 473
R - Q	1852	- 337	N - M	3869	- 757
Q - P	3869	- 708	M - L	1852	- 361
P - O	2482	- 436	L - J	1690	- 331

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - R	179	- 877	O - G	225	- 870
C - Q	2418	- 475	G - N	462	- 67
Q - D	741	- 114	N - H	286	- 1381
D - P	274	- 1381	H - M	741	- 123
P - E	462	- 63	M - I	2418	- 474
E - O	220	- 870	L - I	190	- 877
F - O	952	- 186			

Lumber

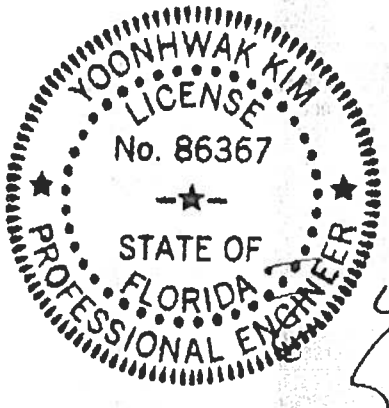
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2; B3 2x4 SP M-31;
Webs: 2x4 SP #3;

Wind

Wind loads based on MWFRS with additional C&C member design.

Additional Notes

The overall height of this truss excluding overhang is 4-6-1.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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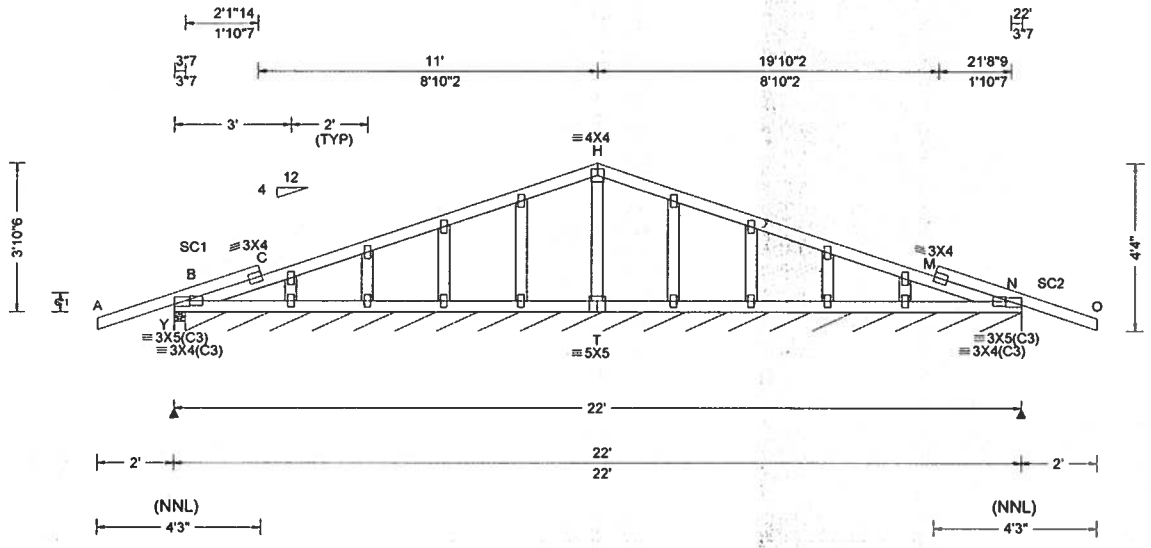
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569628 GABL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** C01	Cust: R 215 JRef: 1WQP2150003 T15 DrwNo: 336.19.1413.37803 SSB / YK 12/02/2019	



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.002	P	999	240
VERT(CL): 0.005	P	765	180
HORZ(LL): 0.001	P	-	-
HORZ(TL): 0.001	P	-	-

Creep Factor: 2.0
Max TC CSI: 0.350
Max BC CSI: 0.142
Max Web CSI: 0.046

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
Y	314	/-	/-	/213	/95	/112
N*	78	/-	/-	/42	/15	/-

Wind reactions based on MWFRS
Y Brg Width = 3.5 Min Req = 1.5
N Brg Width = 260 Min Req = -
Bearings Y & Y are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
M - N	511	-515

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;
Stack Chord: SC1 2x4 SP #2;
Stack Chord: SC2 2x4 SP #2;

Plating Notes

All plates are 2X4 except as noted.

Wind

Wind loads based on MWFRS with additional C&C member design.

Additional Notes

See DWGS A14015ENC101014 & GBLLETIN0118 for gable wind bracing and other requirements.

Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.

The overall height of this truss excluding overhang is 3-10-6.

YOONHWAK KIM
LICENSE
No. 86367
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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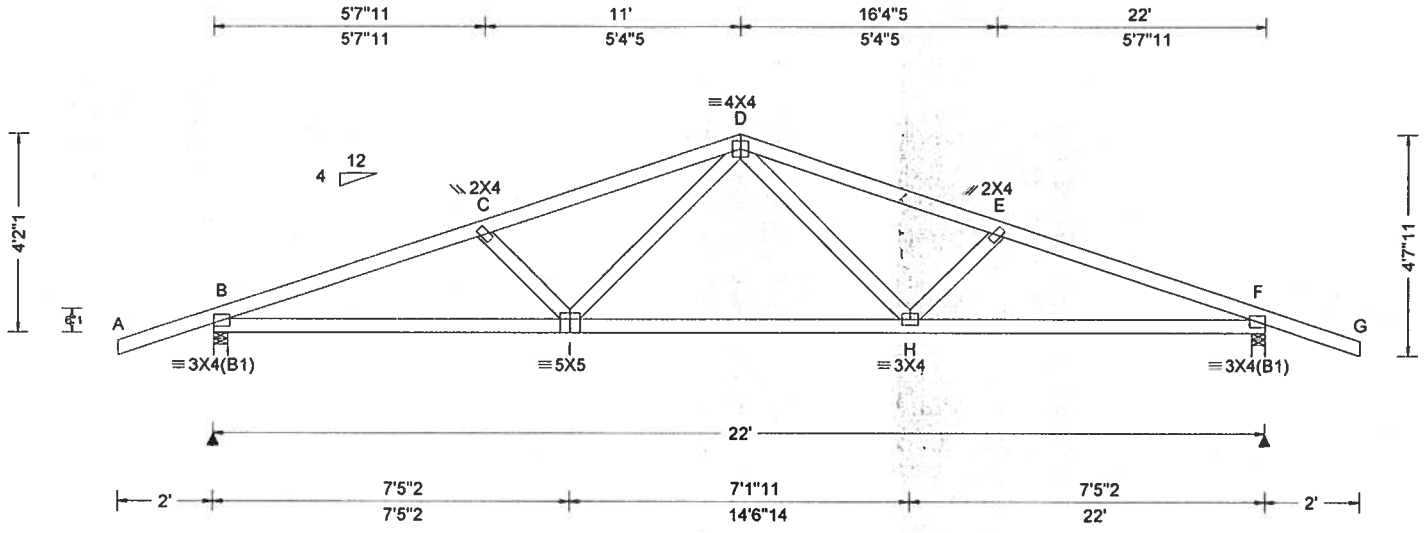
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569629 COMN FROM: CDM	Ply: 1 Qty: 4	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** C02	Cust: R 215 JRef: 1WQP2150003 T11 DrwNo: 336.19.1413.38883 SSB / YK 12/02/2019



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.113	D	999	240
VERT(CL): 0.219	D	999	180
HORZ(LL): 0.038	H	-	-
HORZ(TL): 0.074	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.657
Max BC CSI: 0.869
Max Web CSI: 0.172

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs)

	Gravity		Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
B	1008 /-	/-	/594	/198	/112
F	1008 /-	/-	/594	/198	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
F Brg Width = 3.5 Min Req = 1.5
Bearings B & F are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	841	- 1818	D - E	773	- 1615
C - D	774	- 1614	E - F	840	- 1819

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - I	1662	- 697	H - F	1662	- 709
I - H	1197	- 452			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
I - D	449	- 169	D - H	452	- 168

Lumber

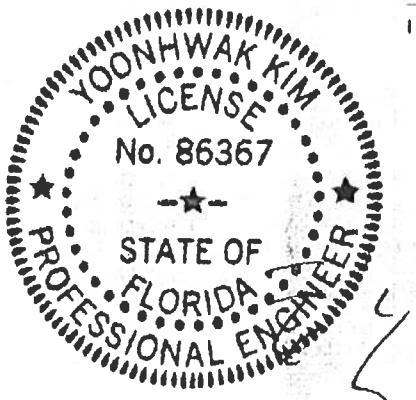
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Wind

Wind loads based on MWFRS with additional C&C member design.

Additional Notes

The overall height of this truss excluding overhang is 4-2-1.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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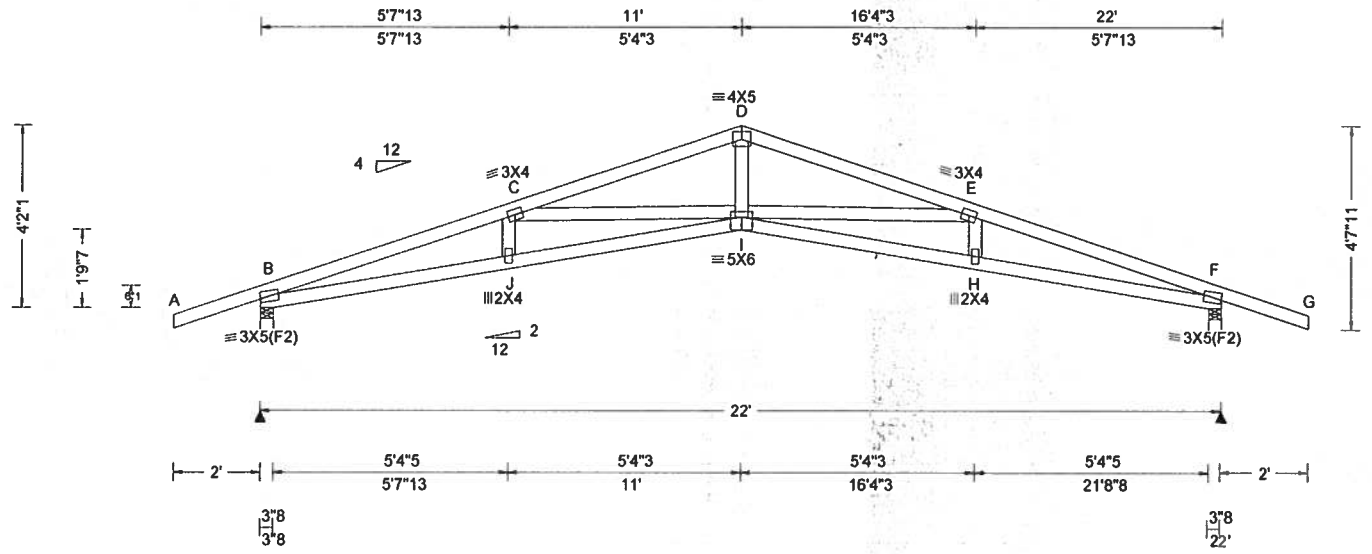
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569630 COMN FROM: CDM	Ply: 1 Qty: 5	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** C03	Cust: R215 JRef: 1WQP2150003 T10 DrwNo: 336.19.1413.40290 SSB / YK 12/02/2019



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.254	I	999	240
VERT(CL): 0.492	I	529	180
HORZ(LL): 0.126	H	-	-
HORZ(TL): 0.245	H	-	-

Creep Factor: 2.0
Max TC CSI: 0.520
Max BC CSI: 0.594
Max Web CSI: 0.436

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1008	/-	/-	/587	/198	/112
F	1008	/-	/-	/587	/198	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
F Brg Width = 3.5 Min Req = 1.5
Bearings B & F are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	611	-2900	D - E	529	-2488
C - D	539	-2488	E - F	626	-2900

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - J	2702	-496	I - H	2729	-538
J - I	2729	-499	H - F	2702	-535

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.
D - I	1144	-176

Lumber
Top chord: 2x4 SP M-31;
Bot chord: 2x4 SP M-31;
Webs: 2x4 SP #3;

Wind
Wind loads based on MWFRS with additional C&C member design.

Additional Notes
The overall height of this truss excluding overhang is 4-2-1.

YOONHWAK KIM
LICENSE
No. 86367
STATE OF FLORIDA
PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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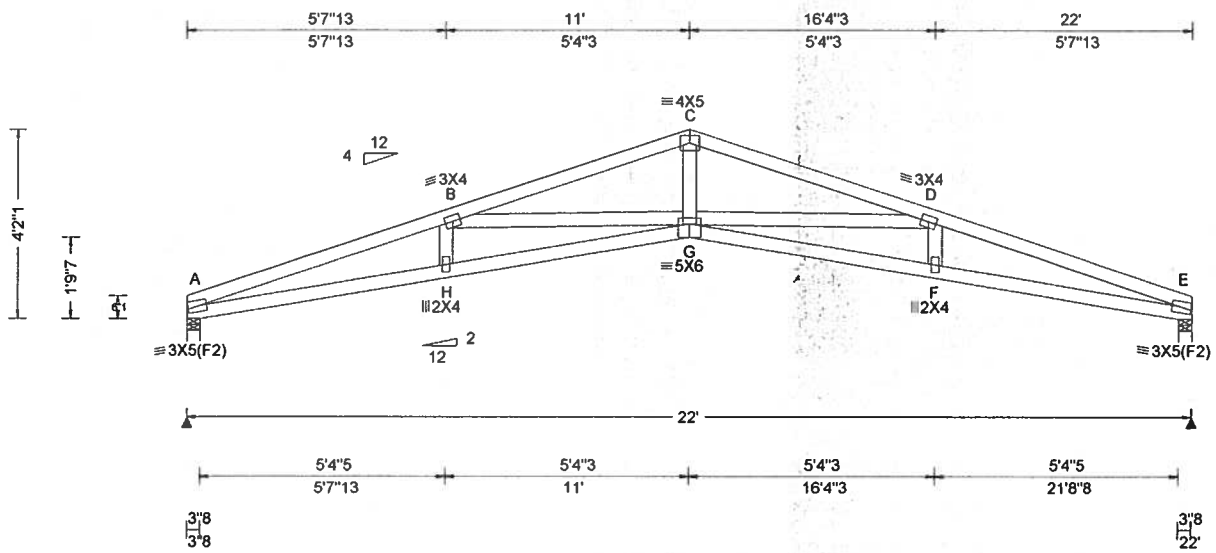
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569631 COMN FROM: CDM	Ply: 1 Qty: 5	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** C04	Cust: R 215 JRef: 1WQP2150003 T14 DrwNo: 336.19.1413.41447 SSB / YK 12/02/2019	



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.246	G	999	240
VERT(CL): 0.491	G	530	180
HORZ(LL): 0.122	F	-	-
HORZ(TL): 0.244	F	-	-

Creep Factor: 2.0
Max TC CSI: 0.420
Max BC CSI: 0.576
Max Web CSI: 0.456

VIEW Ver: 18.02.01B.0321.08

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	880	/-	/-	/482	/39	/80
E	880	/-	/-	/482	/39	/-

Wind reactions based on MWFRS
A Brg Width = 3.5 Min Req = 1.5
E Brg Width = 3.5 Min Req = 1.5
Bearings A & E are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - B	738	-3048	C - D	625	-2558
B - C	625	-2558	D - E	738	-3048

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - H	2851	-653	G - F	2876	-654
H - G	2876	-655	F - E	2851	-652

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
B - G	160	-430	G - D	163	-430
C - G	1198	-239			

Lumber

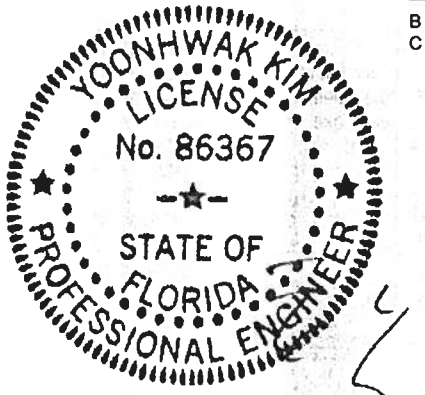
Top chord: 2x4 SP M-31;
Bot chord: 2x4 SP M-31;
Webs: 2x4 SP #3;

Wind

Wind loads based on MWFRS with additional C&C member design.

Additional Notes

The overall height of this truss excluding overhang is 4-2-1.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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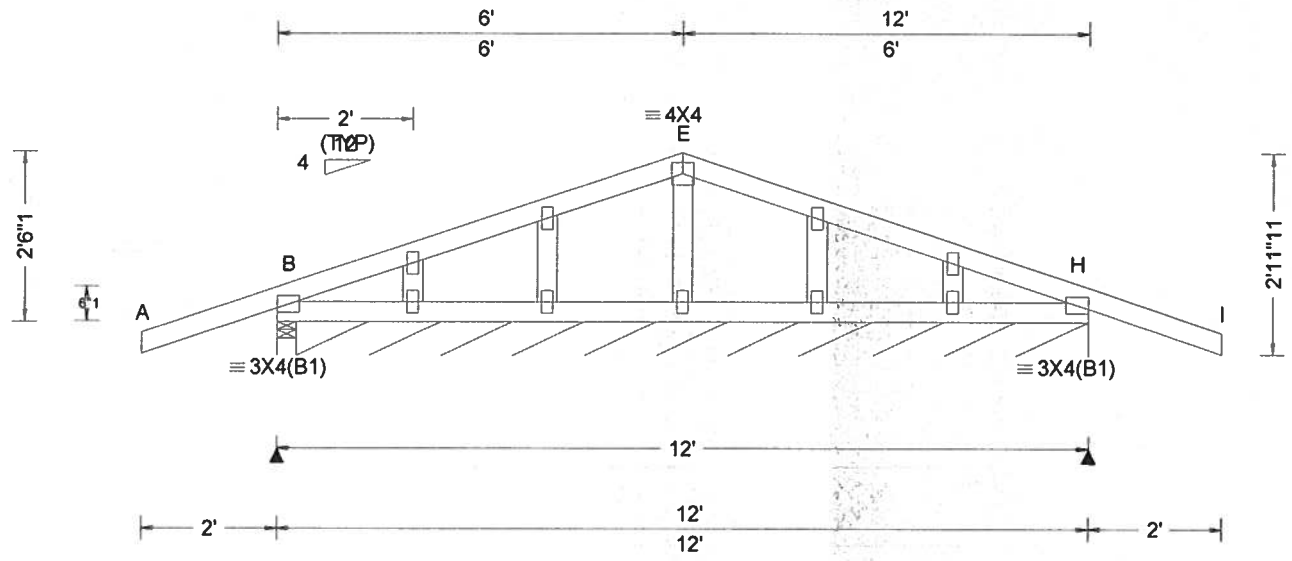
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569632 GABL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** D01	Cust: R 215 JRef: 1WQP2150003 T9 DrwNo: 336.19.1413.42493 SSB / YK 12/02/2019	



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#	
VERT(LL): 0.000	E	999	240	
VERT(CL): 0.001	E	999	180	
HORZ(LL): -0.001	N	-	-	
HORZ(TL): 0.002	N	-	-	

Creep Factor: 2.0
Max TC CSI: 0.408
Max BC CSI: 0.062
Max Web CSI: 0.046

VIEW Ver: 18.02.01B.0321.08

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	258	/-	/-	/191	/96	/76
H*	82	/-	/-	/47	/16	/-

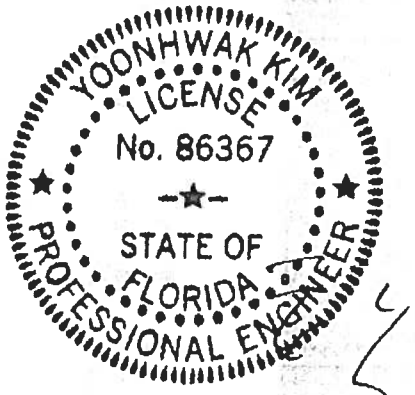
Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
H Brg Width = 140 Min Req = -
Bearings B & B are a rigid surface.
Members not listed have forces less than 375#

Lumber
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Plating Notes
All plates are 2X4 except as noted.

Wind
Wind loads based on MWFRS with additional C&C member design.

Additional Notes
See DWGS A14015ENC101014 & GBLLETIN0118 for gable wind bracing and other requirements.
The overall height of this truss excluding overhang is 2-6-1.



FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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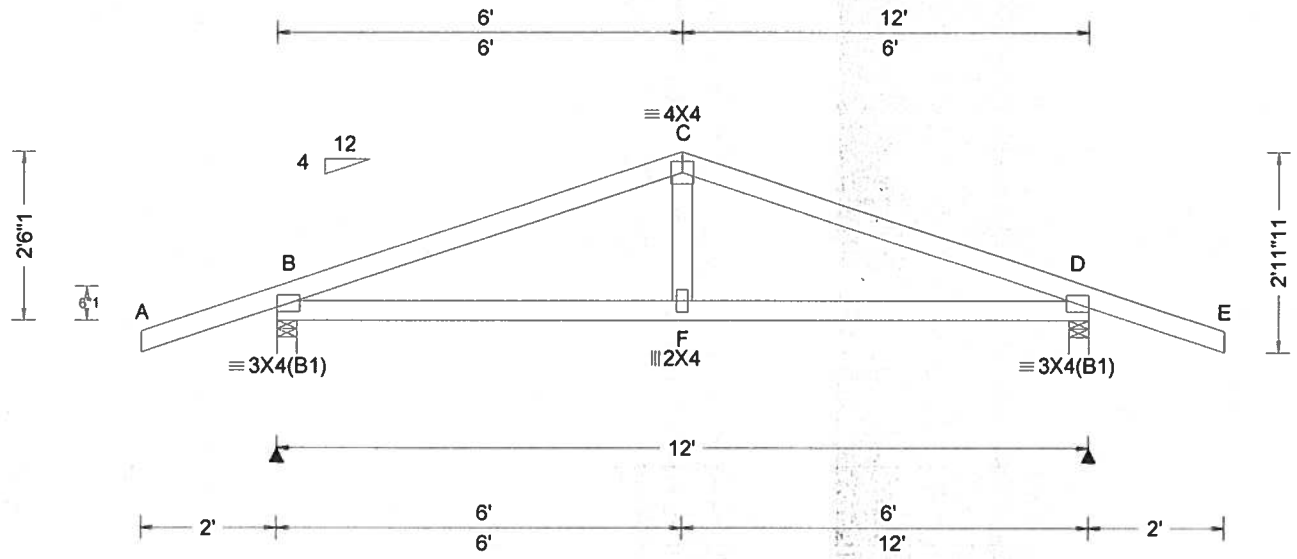
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569633 COMN FROM: CDM	Ply: 1 Qty: 3	**Job Number:** 19-3781 /JONES ADDT. /MO PERKINS **Truss Label:** D02	Cust: R 215 JRef: 1WQP2150003 T7 DrwNo: 336.19.1413.43710 SSB / YK 12/02/2019



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.024	F	999	240
VERT(CL): 0.045	F	999	180
HORZ(LL): 0.008	F	-	-
HORZ(TL): 0.015	F	-	-

Creep Factor: 2.0
Max TC CSI: 0.421
Max BC CSI: 0.338
Max Web CSI: 0.090

VIEW Ver: 18.02.01B.0321.08

▲ Maximum Reactions (lbs)

	Gravity		Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
B	608 / -	/ -	/375	/123	/76
D	608 / -	/ -	/375	/123	/ -

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
D Brg Width = 3.5 Min Req = 1.5
Bearings B & D are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	399	-712	C - D	400	-712

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - F	619	-248	F - D	619	-248

Lumber
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Wind
Wind loads based on MWFRS with additional C&C member design.

Additional Notes
The overall height of this truss excluding overhang is 2-6-1.

YOONHWAK KIM
LICENSE
No. 86367
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
12/02/2019

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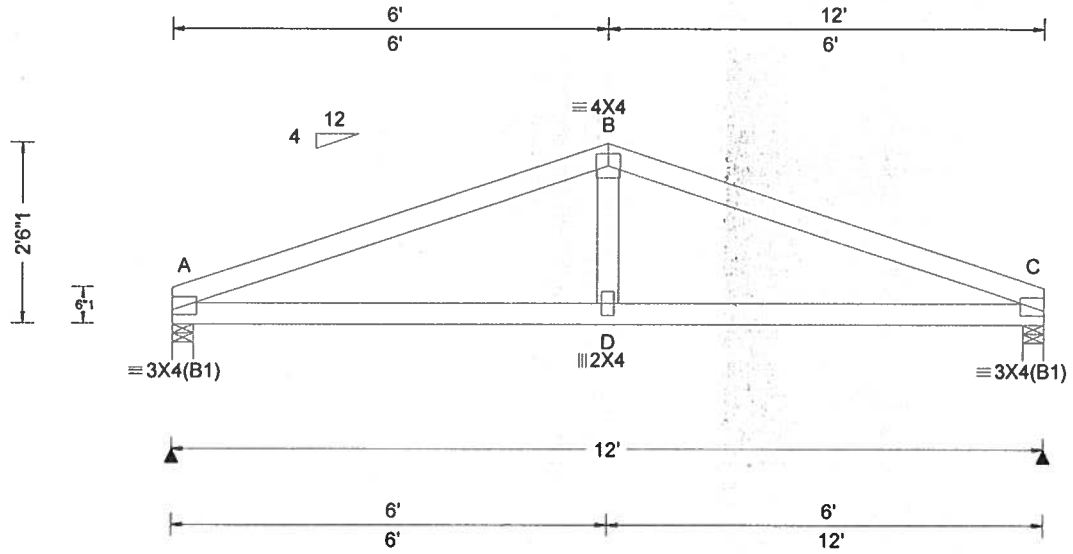
ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

SEQN: 569634 COMN FROM: CDM	Ply: 1 Qty: 2	Job Number: 19-3781 /JONES ADDT, /MO PERKINS Truss Label: D03	Cust: R 215 JRef: 1WQP2150003 T3 DrwNo: 336.19.1413.44850 SSB / YK 12/02/2019



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.018	D	999	240
VERT(CL): 0.036	D	999	180
HORZ(LL): 0.006	D	-	-
HORZ(TL): 0.013	D	-	-

Creep Factor: 2.0
Max TC CSI: 0.306
Max BC CSI: 0.363
Max Web CSI: 0.093

VIEW Ver: 18.02.01B.0321.08

▲Maximum Reactions (lbs)

	Gravity		Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
A	480 / -	/ -	/267	/87	/44
C	480 / -	/ -	/267	/87	/ -

Wind reactions based on MWFRS
A Brg Width = 3.5 Min Req = 1.5
C Brg Width = 3.5 Min Req = 1.5
Bearings A & C are a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - B	283	-805	B - C	283	-805

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - D	713	-215	D - C	713	-215

Lumber

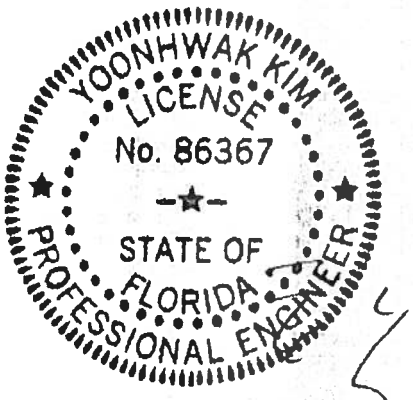
Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Wind

Wind loads based on MWFRS with additional C&C member design.

Additional Notes

The overall height of this truss excluding overhang is 2-6-1.



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12/02/2019

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ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

Gable Stud Reinforcement Detail

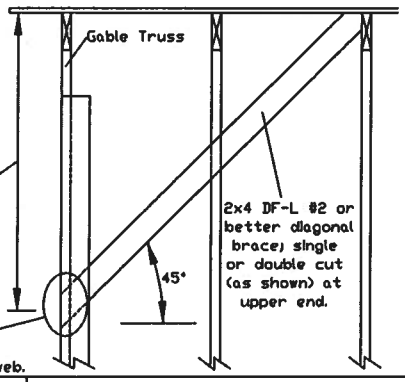
ASCE 7-10: 140 mph Wind Speed, 15' Mean Height, Enclosed, Exposure C

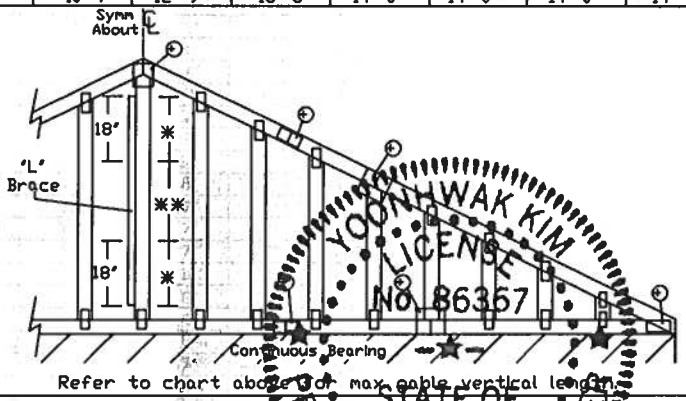
Or: 120 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00
Or: 120 mph Wind Speed, 15' Mean Height, Enclosed, Exposure D, Kzt = 1.00
Or: 100 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure D, Kzt = 1.00

Max Gable Vertical Length

2x4 Gable Vertical Spacing	Species	Brace Grade	No Braces	(1) 1x4 'L' Brace * Group A	(1) 1x4 'L' Brace * Group B	(1) 2x4 'L' Brace * Group A	(1) 2x4 'L' Brace * Group B	(2) 2x4 'L' Brace ** Group A	(2) 2x4 'L' Brace ** Group B	(1) 2x6 'L' Brace * Group A	(1) 2x6 'L' Brace * Group B	(2) 2x6 'L' Brace ** Group A	(2) 2x6 'L' Brace ** Group B
24" o.c.	SPF HF	#1 / #2	4' 3"	7' 3"	7' 7"	8' 7"	8' 11"	10' 3"	10' 8"	13' 6"	14' 0"	14' 0"	14' 0"
		#3	4' 1"	6' 7"	7' 1"	8' 6"	8' 10"	10' 1"	10' 6"	13' 4"	13' 10"	14' 0"	14' 0"
		Stud	4' 1"	6' 7"	7' 0"	8' 6"	8' 10"	10' 1"	10' 6"	13' 4"	13' 10"	14' 0"	14' 0"
		Standard	4' 1"	5' 8"	6' 0"	7' 7"	8' 1"	10' 1"	10' 6"	11' 10"	12' 8"	14' 0"	14' 0"
	SP DFL	#1	4' 6"	7' 4"	7' 8"	8' 8"	9' 0"	10' 4"	10' 9"	13' 8"	14' 0"	14' 0"	14' 0"
		#2	4' 3"	7' 3"	7' 7"	8' 7"	8' 11"	10' 3"	10' 8"	13' 6"	14' 0"	14' 0"	14' 0"
		#3	4' 2"	6' 0"	6' 4"	7' 11"	8' 6"	10' 2"	10' 7"	12' 5"	13' 4"	14' 0"	14' 0"
		Stud	4' 2"	6' 0"	6' 4"	7' 11"	8' 6"	10' 2"	10' 7"	12' 5"	13' 4"	14' 0"	14' 0"
		Standard	4' 0"	5' 3"	5' 7"	7' 0"	7' 6"	9' 6"	10' 2"	11' 0"	11' 10"	14' 0"	14' 0"
16" o.c.	SPF HF	#1 / #2	4' 11"	8' 4"	8' 8"	9' 10"	10' 3"	11' 8"	12' 2"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	4' 8"	8' 1"	8' 8"	9' 8"	10' 1"	11' 7"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	4' 8"	8' 1"	8' 6"	9' 8"	10' 1"	11' 7"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	4' 8"	6' 11"	7' 5"	9' 3"	9' 11"	11' 7"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
	SP DFL	#1	5' 1"	8' 5"	8' 9"	9' 11"	10' 4"	11' 10"	12' 4"	14' 0"	14' 0"	14' 0"	14' 0"
		#2	4' 11"	8' 4"	8' 8"	9' 10"	10' 3"	11' 8"	12' 2"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	4' 9"	7' 4"	7' 9"	9' 9"	10' 2"	11' 8"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	4' 9"	7' 4"	7' 9"	9' 9"	10' 2"	11' 8"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	4' 8"	6' 5"	6' 10"	8' 7"	9' 2"	11' 7"	12' 1"	13' 6"	14' 0"	14' 0"	14' 0"
12" o.c.	SPF HF	#1 / #2	5' 5"	9' 2"	9' 6"	10' 10"	11' 3"	11' 8"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	5' 1"	9' 0"	9' 4"	10' 8"	11' 1"	12' 9"	13' 3"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	5' 1"	9' 0"	9' 4"	10' 8"	11' 1"	12' 9"	13' 3"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	5' 1"	8' 0"	8' 6"	10' 8"	11' 1"	12' 9"	13' 3"	14' 0"	14' 0"	14' 0"	14' 0"
	SP DFL	#1	5' 8"	9' 3"	9' 8"	10' 11"	11' 4"	13' 0"	13' 6"	14' 0"	14' 0"	14' 0"	14' 0"
		#2	5' 5"	9' 2"	9' 6"	10' 10"	11' 3"	12' 11"	13' 5"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	5' 3"	8' 5"	9' 0"	10' 9"	11' 2"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	5' 3"	8' 5"	9' 0"	10' 9"	11' 2"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	5' 1"	7' 5"	7' 11"	9' 11"	10' 7"	12' 9"	13' 3"	14' 0"	14' 0"	14' 0"	14' 0"

Diagonal brace option: vertical length may be doubled when diagonal brace is used. Connect diagonal brace for 450# at each end. Max web total length is 14'.





Refer to chart above for max gable vertical length.

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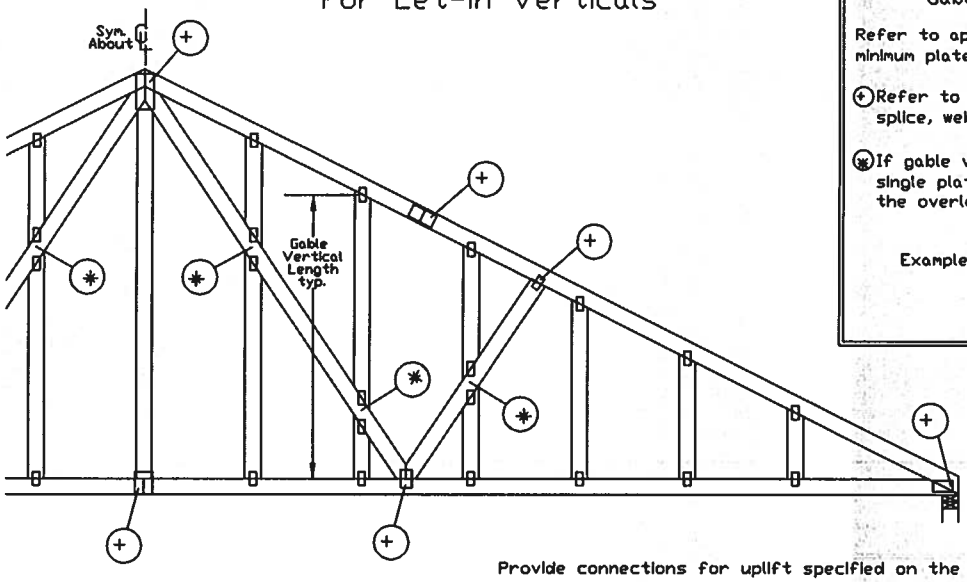
MAX. TOT. LI
MAX. SPACIN

12/02/2019
FL REG# 278, Yoonhwak Kim, FL PE #86367

Gable Detail
For Let-In Verticals



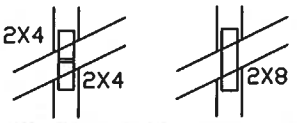
Gable Truss Plate Sizes

Refer to appropriate Alpine gable detail for minimum plate sizes for vertical studs.

(+) Refer to Engineered truss design for peak, splice, web, and heel plates.

(*) If gable vertical plates overlap, use a single plate that covers the total area of the overlapped plates to span the web.

Example:



Provide connections for uplift specified on the engineered truss design.

Attach each 'T' reinforcing member with

End Driven Nails:
10d Common (0.148"x 3",min) Nails at 4" o.c. plus
(4) nails in the top and bottom chords.

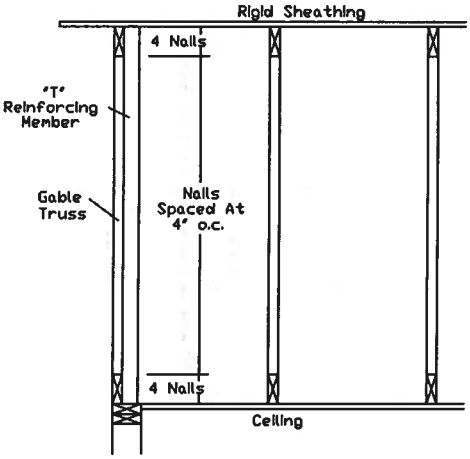
Toenailed Nails:
10d Common (0.148"x3",min) Toenails at 4" o.c. plus
(4) toenails in the top and bottom chords.

This detail to be used with the appropriate Alpine gable detail for ASCE wind load.

ASCE 7-05 Gable Detail Drawings
A13015051014, A12015051014, A11015051014, A10015051014, A14015051014,
A13030051014, A12030051014, A11030051014, A10030051014, A14030051014

ASCE 7-10 & ASCE 7-16 Gable Detail Drawings
A11515ENC100118, A12015ENC100118, A14015ENC100118, A16015ENC100118,
A18015ENC100118, A20015ENC100118, A20015END100118, A20015PED100118,
A11530ENC100118, A12030ENC100118, A14030ENC100118, A16030ENC100118,
A18030ENC100118, A20030ENC100118, A20030END100118, A20030PED100118,
S11515ENC100118, S12015ENC100118, S14015ENC100118, S16015ENC100118,
S18015ENC100118, S20015ENC100118, S20015END100118, S20015PED100118,
S11530ENC100118, S12030ENC100118, S14030ENC100118, S16030ENC100118,
S18030ENC100118, S20030ENC100118, S20030END100118, S20030PED100118

See appropriate Alpine gable detail for maximum unreinforced gable vertical length.



'T' Re
'T' R
M

Toe-nail

To convert
multiply 'T'
appropriate

Maximum allo
length is 14
'T' reinforc
specie, and

Web Leng

Example:
ASCE 7-10
Mean Roof
Gable Ver
'T' Reinfo
'T' Brace
(1) 2x4 'L
Maximum 'T

YOONHWAK KIM
NO. 86367
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ALPINE
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4/9/2019
FL#ENG# 278, Yoonhwak Kim, FL PE #86367

MAX. TOT.
DUR. FAC.
MAX. SPAC

CLR Reinforcing Member Substituti

This detail is to be used when a Continuous Lateral Restraint (CLR) is specified on a truss design but an alternative web reinforcement method is desired.

Notes:

This detail is only applicable for changing the specified CLR shown on single ply sealed designs to T-reinforcement or L-reinforecement or scab reinforcement.

Alternative reinforcement specified in chart below may be conservative. For minimum alternative reinforcement, re-run design with appropriate reinforcement type.

Use scabs instead of L- or T- reinforcement on webs with intersecting truss joints, such as K-web joints, that may interfere with proper application along the narrow face of the web.

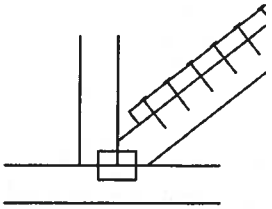
Web Member Size	Specified CLR Restraint	Alternative Reinforecement T- or L- Reinf.	Scab Reinf.
2x3 or 2x4	1 row	2x4	1-2x4
2x3 or 2x4	2 rows	2x6	2-2x4
2x6	1 row	2x4	1-2x6
2x6	2 rows	2x6	2-2x4(*)
2x8	1 row	2x6	1-2x8
2x8	2 rows	2x6	2-2x6(*)

T-reinforcement, L-reinforcement, or scab reinforcement to be same species and grade or better than web member unless specified otherwise on Engineer's sealed design.

(*) Center scab on wide face of web. Apply (1) scab to each face of web.

T-Reinforcement or L-Reinforcement:

Apply to either side of web narrow face. Attach with 10d (0.128"x3.0",min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.



Scab Reinforcement:

Apply scab(s) to wide face of web. No more than (1) scab per face. Attach with 10d (0.128"x3.0",min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.

YOONHWAK KIM LICENSE No. 86367 STATE OF FLORIDA PROFESSIONAL ENGINEER

ALPINE AN ITW COMPANY

13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

****WARNING** READ AND FOLLOW ALL NOTES ON THIS DRAWING!**
****IMPORTANT** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.**

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

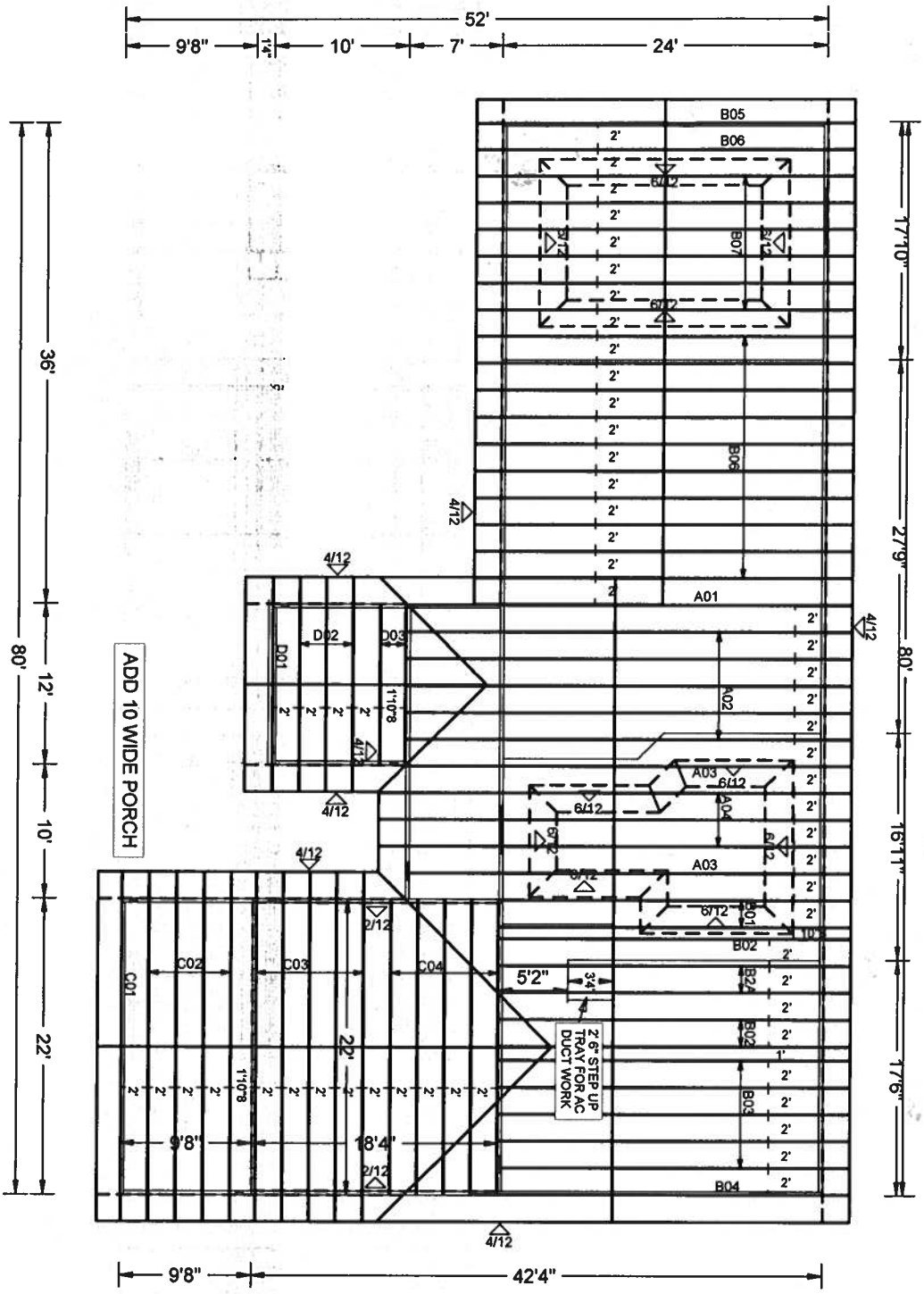
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec2.

For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.org; ICC: www.iccsafe.org

TC LL	
TC DL	
BC DL	
BC LL	
TOT. LD.	
DUR. FAC.	
SPACING	

12/02/2019
FL REG# 278, Yoonhwak Kim, FL PE #86367



W.B. Howland Truss Co.
610 11TH STREET SW
Live Oak, FL 32064
(386) 362-1235
(386) 362-7124 (Fax)

ROOF PITCH: 4/12
CLG PITCH: TRAY LR & MBR
OVERHANG: 24"
PLUMB CUT
LOADING: 40
WIND LOAD: 130
EXPOSURE: C
EXT WALLS: 2X4
DATE: 12/2/19

PAGE NO: 1 OF 1	JOB NO: 19-3781	Job Name: JONES ADDT. Customer: MO PERKINS Designer: Lynn Bell ADDRESS: SALESMAN: BW : <Not Found>	JOB #: 19-3781	WB HOWLAND

RESIDENTIAL ENERGY CONSERVATION CODE DOCUMENTATION CHECKLIST

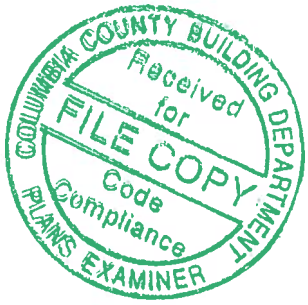
Florida Department of Business and Professional Regulation
Simulated Performance Alternative (Performance) Method

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)*



FORM R405-2017

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	191327 Jones	Builder Name:	
Street:		Permit Office:	
City, State, Zip:	, FL ,	Permit Number:	
Owner:	Terrance Jones	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	4
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	2690
Conditioned floor area below grade (ft²)	0

7. Windows(237.0 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.30	237.00 ft²
SHGC:	SHGC=0.20	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
d. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		2.506 ft.
Area Weighted Average SHGC:		0.200

8. Floor Types (2690.0 sqft.)	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	2690.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

9. Wall Types (2640.0 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	2640.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10. Ceiling Types (2690.0 sqft.)	Insulation	Area
a. Under Attic (Vented)	R=38.0	2690.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts	R	ft²
a. Sup: Attic, Ret: Attic, AH: Main	6	538

12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	47.0	SEER:16.00

13. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	47.0	HSPF:8.90

14. Hot water systems	
a. Electric	Cap: 50 gallons
	EF: 0.950
b. Conservation features	
None	
15. Credits	Pstat

Glass/Floor Area: 0.088

Total Proposed Modified Loads: 71.19

Total Baseline Loads: 71.56

PASS

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

PREPARED BY: Evan Beamsley
DATE: 2019-12-11

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).

FORM R405-2017

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	191327 Jones	Bedrooms:	4	Address Type:	Lot Information
Building Type:	User	Conditioned Area:	2690	Lot #	12
Owner Name:	Terrance Jones	Total Stories:	1	Block/Subdivision:	Pinehills
# of Units:	1	Worst Case:	No	PlatBook:	Sec 28, Town 2 south,
Builder Name:		Rotate Angle:	45	Street:	
Permit Office:		Cross Ventilation:		County:	Columbia
Jurisdiction:		Whole House Fan:		City, State, Zip:	, FL ,
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	2690	26900

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	2690	26900	Yes	8	4	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	264 ft	0	2690 ft²	----	0.3	0.3	0.4

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Composition shingles	2835 ft²	0 ft²	Dark	N	0.92	No	0.9	No	0	18.4

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	2690 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	38	Blown	2690 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=>NE	Exterior	Frame - Wood	Main	13	80		10		800.0 ft²		0.23	0.75	0
____	2	E=>SE	Exterior	Frame - Wood	Main	13	52		10		520.0 ft²		0.23	0.75	0
____	3	S=>SW	Exterior	Frame - Wood	Main	13	22		10		220.0 ft²		0.23	0.75	0
____	4	W=>NW	Exterior	Frame - Wood	Main	13	21	0	10		210.0 ft²		0.23	0.75	0
____	5	S=>SW	Exterior	Frame - Wood	Main	13	10		10		100.0 ft²		0.23	0.75	0
____	6	S=>SW	Exterior	Frame - Wood	Main	13	12	0	10		120.0 ft²		0.23	0.75	0
____	7	W=>NW	Exterior	Frame - Wood	Main	13	7	0	10		70.0 ft²		0.23	0.75	0
____	8	S=>SW	Exterior	Frame - Wood	Main	13	36	0	10		360.0 ft²		0.23	0.75	0
____	9	W=>NW	Exterior	Frame - Wood	Main	13	24	0	10		240.0 ft²		0.23	0.75	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
_____	1	N=>NE	Insulated	Main	None	.4	3		6	8	20 ft²
_____	2	N=>NE	Insulated	Main	None	.4	3		6	8	20 ft²
_____	3	S=>SW	Insulated	Main	None	.4	3		6	8	20 ft²

WINDOWS

Orientation shown is the entered orientation (=>) changed to As Built (rotated 45 degrees).

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
_____	1	N=>NE	1	Metal	Low-E Double	Yes	0.3	0.2	N	60.0 ft²	2 ft 0 in	2 ft 0 in	None	None
_____	2	N=>NE	1	Metal	Low-E Double	Yes	0.3	0.2	N	12.0 ft²	2 ft 0 in	2 ft 0 in	None	None
_____	3	E=>SE	2	Metal	Low-E Double	Yes	0.3	0.2	N	30.0 ft²	2 ft 0 in	6 ft 0 in	None	None
_____	4	S=>SW	3	Metal	Low-E Double	Yes	0.3	0.2	N	30.0 ft²	2 ft 0 in	5 ft 8 in	None	None
_____	5	W=>NW	4	Metal	Low-E Double	Yes	0.3	0.2	N	15.0 ft²	2 ft 0 in	2 ft 0 in	None	None
_____	6	S=>SW	5	Metal	Low-E Double	Yes	0.3	0.2	N	15.0 ft²	2 ft 0 in	2 ft 0 in	None	None
_____	7	S=>SW	6	Metal	Low-E Double	Yes	0.3	0.2	N	15.0 ft²	10 ft 0 in	2 ft 0 in	None	None
_____	8	S=>SW	8	Metal	Low-E Double	Yes	0.3	0.2	N	30.0 ft²	2 ft 0 in	2 ft 0 in	None	None
_____	9	W=>NW	9	Metal	Low-E Double	Yes	0.3	0.2	N	30.0 ft²	2 ft 0 in	4 ft 0 in	None	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000445	3138.3	172.29	324.02	.183	7

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump/	None	HSPF:8.9	47 kBtu/hr	1	sys#1

FORM R405-2017

INPUT SUMMARY CHECKLIST REPORT

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit/	None	SEER: 16	47 kBtu/hr	1410 cfm	0.75	1	sys#1

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	Main	0.95	50 gal	70 gal	120 deg	None

SOLAR HOT WATER SYSTEM

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

DUCTS

√	#	---- Supply ---- Location	R-Value	Area	---- Return ---- Location	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	Cool
_____	1	Attic	6	538 ft²	Attic	134.5 ft	Default Leakage	Main	(Default)	(Default)			1	1

TEMPERATURES

Programable Thermostat: Y

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	80	80	80	80
	PM	80	80	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	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66

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* = 99

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. 4
5. Is this a worst case? (yes/no)	5. No
6. Conditioned floor area (sq. ft.)	6. 2690
7. Windows, type and area	
a) U-factor:(weighted average)	7a. 0.300
b) Solar Heat Gain Coefficient (SHGC)	7b. 0.200
c) Area	7c. 237.0
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 47.0
a) Split system	SEER
b) Single package	SEER
c) Ground/water source	SEER/COP
d) Room unit/PTAC	EER
e) Other	16.0
14. Heating system:	Capacity 47.0
a) Split system heat pump	HSPF
b) Single package heat pump	HSPF
c) Electric resistance	COP
d) Gas furnace, natural gas	AFUE
e) Gas furnace, LPG	AFUE
f) Other	8.90
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	
b) Cross ventilation	No
c) Whole house fan	No
d) Multizone cooling credit	
e) Multizone heating credit	
f) Programmable thermostat	Yes

*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:_____ City/FL Zip: , FL

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

ADDRESS: , FL ,	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 manufa 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:	191327 Jones	Builder Name:		
Street:		Permit Office:		
City, State, Zip:	, FL ,	Permit Number:		
Owner:	Terrance Jones	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:	Community:	Lot: 12
Address:		
City:	State: FL	Zip:

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 ÷ 26900 = _____
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

Terrance Jones

, FL

Project Title:
191327 Jones

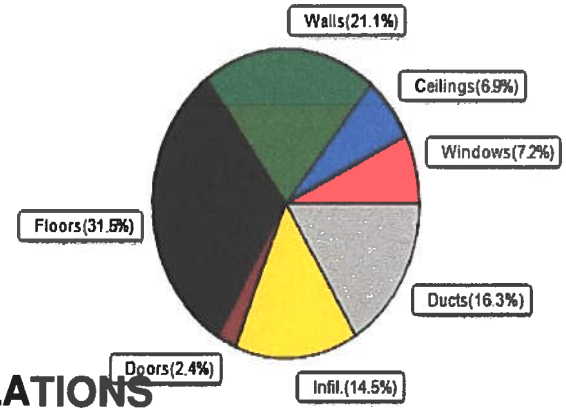
2019-12-11

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	**39500**	**Btuh**	**Total cooling load calculation**	**35082**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	119.0	47000	Sensible (SHR = 0.75)	123.5	35250
Heat Pump + Auxiliary(0.0kW)	119.0	47000	Latent	179.7	11750
			Total (Electric Heat Pump)	134.0	47000

WINTER CALCULATIONS

Winter Heating Load (for 2690 sqft)

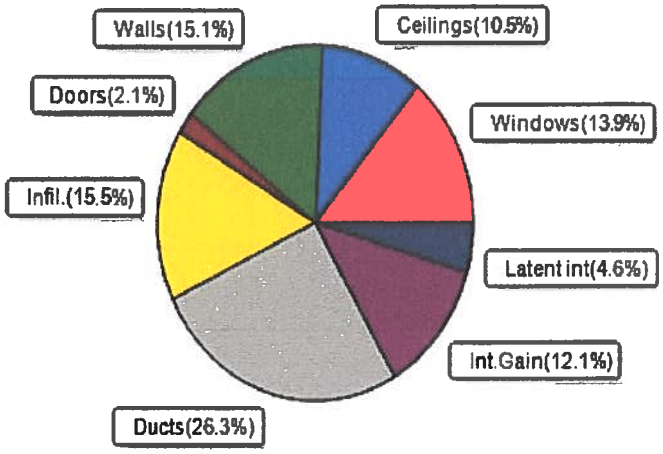
Load component			Load	
Window total	237	sqft	2844	Btuh
Wall total	2343	sqft	8318	Btuh
Door total	60	sqft	960	Btuh
Ceiling total	2690	sqft	2731	Btuh
Floor total	2690	sqft	12461	Btuh
Infiltration	131	cfm	5747	Btuh
Duct loss			6439	Btuh
Subtotal			**39500**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**39500**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2690 sqft)

Load component			Load	
Window total	237	sqft	4860	Btuh
Wall total	2343	sqft	5303	Btuh
Door total	60	sqft	720	Btuh
Ceiling total	2690	sqft	3687	Btuh
Floor total			0	Btuh
Infiltration	98	cfm	2047	Btuh
Internal gain			4240	Btuh
Duct gain			7687	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Blower Load			0	Btuh
Total sensible gain			**28545**	**Btuh**
Latent gain(ducts)			1540	Btuh
Latent gain(infiltration)			3397	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1600	Btuh
Total latent gain			**6538**	**Btuh**
TOTAL HEAT GAIN			**35082**	**Btuh**



Manual J 8th Edition

EnergyGauge® System Sizing
PREPARED BY: Evan Beamsley
DATE: 2019-12-11

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Terrance Jones
, FL

Project Title:
191327 Jones
Building Type: User

2019-12-11

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 0.20	Metal	0.30	NE	60.0	12.0	720 Btuh
2	2, NFRC 0.20	Metal	0.30	NE	12.0	12.0	144 Btuh
3	2, NFRC 0.20	Metal	0.30	SE	30.0	12.0	360 Btuh
4	2, NFRC 0.20	Metal	0.30	SW	30.0	12.0	360 Btuh
5	2, NFRC 0.20	Metal	0.30	NW	15.0	12.0	180 Btuh
6	2, NFRC 0.20	Metal	0.30	SW	15.0	12.0	180 Btuh
7	2, NFRC 0.20	Metal	0.30	SW	15.0	12.0	180 Btuh
8	2, NFRC 0.20	Metal	0.30	SW	30.0	12.0	360 Btuh
9	2, NFRC 0.20	Metal	0.30	NW	30.0	12.0	360 Btuh
	Window Total				237.0(sqft)		2844 Btuh

Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	688	3.55	2443 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	490	3.55	1740 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	190	3.55	675 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	195	3.55	692 Btuh
5	Frame - Wood	- Ext	(0.089)	13.0/0.0	85	3.55	302 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	85	3.55	302 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	70	3.55	249 Btuh
8	Frame - Wood	- Ext	(0.089)	13.0/0.0	330	3.55	1172 Btuh
9	Frame - Wood	- Ext	(0.089)	13.0/0.0	210	3.55	746 Btuh
	Wall Total				2343(sqft)		8318 Btuh

Doors	Type	Storm	Ueff.	Area X	HTM=	Load
1	Insulated - Exterior,	n	(0.400)	20	16.0	320 Btuh
2	Insulated - Exterior,	n	(0.400)	20	16.0	320 Btuh
3	Insulated - Exterior,	n	(0.400)	20	16.0	320 Btuh
	Door Total			60(sqft)		960Btuh

Ceilings	Type/Color/Surface	Ueff.	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shing	(0.025)	38.0/0.0	2690	1.0	2731 Btuh
	Ceiling Total			2690(sqft)		2731Btuh

Floors	Type	Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade	(1.180)	0.0	264.0 ft(perim.)	47.2	12461 Btuh
	Floor Total			2690 sqft		12461 Btuh

	Envelope Subtotal:	27314 Btuh

Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=	
	Natural		0.29	26900	1.00	131.2	5747 Btuh

Duct load	Average sealed, R6.0, Supply(Att), Return(Att)	(DLM of 0.195)	6439 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Terrance Jones
, FL

Project Title:
191327 Jones
Building Type: User

2019-12-11

All Zones	**Sensible Subtotal All Zones**	**39500 Btuh**

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sensible Heat Loss Total Heat Loss	39500 Btuh 0 Btuh 39500 Btuh

EQUIPMENT

1. Electric Heat Pump	#	47000 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

Terrance Jones

Project Title:
191327 Jones

, FL

2019-12-11

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	0.20, 0.30	No	No	NE	2.0ft.	2.0ft.	60.0	0.0	60.0	10	19	1148	Btuh
2	2 NFRC	0.20, 0.30	No	No	NE	2.0ft.	2.0ft.	12.0	0.0	12.0	10	19	230	Btuh
3	2 NFRC	0.20, 0.30	No	No	SE	2.0ft.	6.0ft.	30.0	0.0	30.0	10	20	601	Btuh
4	2 NFRC	0.20, 0.30	No	No	SW	2.0ft.	5.7ft.	30.0	0.0	30.0	10	20	601	Btuh
5	2 NFRC	0.20, 0.30	No	No	NW	2.0ft.	2.0ft.	15.0	0.0	15.0	10	19	287	Btuh
6	2 NFRC	0.20, 0.30	No	No	SW	2.0ft.	2.0ft.	15.0	3.9	11.1	10	20	261	Btuh
7	2 NFRC	0.20, 0.30	No	No	SW	10.0f	2.0ft.	15.0	15.0	0.0	10	20	149	Btuh
8	2 NFRC	0.20, 0.30	No	No	SW	2.0ft.	2.0ft.	30.0	7.7	22.3	10	20	522	Btuh
9	2 NFRC	0.20, 0.30	No	No	NW	2.0ft.	4.0ft.	30.0	0.0	30.0	10	19	574	Btuh
	Excursion												487	Btuh
	Window Total							237 (sqft)					4860	Btuh

Walls	Type	U-Value	R-Value Cav/Sheath	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	0.09	13.0/0.0	688.0	2.3	1557 Btuh
2	Frame - Wood - Ext	0.09	13.0/0.0	490.0	2.3	1109 Btuh
3	Frame - Wood - Ext	0.09	13.0/0.0	190.0	2.3	430 Btuh
4	Frame - Wood - Ext	0.09	13.0/0.0	195.0	2.3	441 Btuh
5	Frame - Wood - Ext	0.09	13.0/0.0	85.0	2.3	192 Btuh
6	Frame - Wood - Ext	0.09	13.0/0.0	85.0	2.3	192 Btuh
7	Frame - Wood - Ext	0.09	13.0/0.0	70.0	2.3	158 Btuh
8	Frame - Wood - Ext	0.09	13.0/0.0	330.0	2.3	747 Btuh
9	Frame - Wood - Ext	0.09	13.0/0.0	210.0	2.3	475 Btuh
	Wall Total			2343 (sqft)		5303 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Exterior	20.0	12.0	240 Btuh
2	Insulated - Exterior	20.0	12.0	240 Btuh
3	Insulated - Exterior	20.0	12.0	240 Btuh
	Door Total	60 (sqft)		720 Btuh

Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	0.025	38.0/0.0	2690.0	1.37	3687 Btuh
	Ceiling Total			2690 (sqft)		3687 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	2690 (ft-perimeter)	0.0	0 Btuh
	Floor Total		2690.0 (sqft)		0 Btuh

Envelope Subtotal: 14570 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Terrance Jones
, FL

Project Title: 191327 Jones

Climate:FL_GAINESVILLE_REGIONAL_A

2019-12-11

Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio		CFM=	Load
	Natural	0.22	26900	1		98.4	2047 Btuh
Internal gain		Occupants	Btuh/occupant			Appliance	Load
		8	X 230	+		2400	4240 Btuh
					Sensible Envelope Load:		20857 Btuh
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic)				(DGM of 0.369)		7687 Btuh
					Sensible Load All Zones		**28545 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Terrance Jones
, FL

Project Title: 191327 Jones
Climate:FL_GAINESVILLE_REGIONAL_A

2019-12-11

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**20857 Btuh**
	Sensible Duct Load	7687 Btuh
	Total Sensible Zone Loads	**28545 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**28545 Btuh**
	Latent infiltration gain (for 51 gr. humidity difference)	3397 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	1540 Btuh
	Latent occupant gain (8.0 people @ 200 Btuh per person)	1600 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**6538 Btuh**
	TOTAL GAIN	**35082 Btuh**

EQUIPMENT

1. Central Unit	#	47000 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