

**Columbia County Building Permit Application**

4/10/05  
left message  
3/19/06

Revised 9-23-04

**For Office Use Only** Application # 002-88 Date Received 3/27 By JW Permit # 24211/992  
 Application Approved by - Zoning Official BLK Date 08-03-06 Plans Examiner OK JTH Date 3-7-06  
 Flood Zone X Development Permit N/A Zoning A-3 Land Use Plan Map Category A-3  
 Comments Section 2.3.1

NOC

Applicants Name Glenn L. Keen Phone (386) 961-8223  
 Address 1534 SW DEKLE Rd. LAKE CITY, FL 32024  
 Owners Name Glenn Keen / John Keen / A&B PLANNING Phone (386) 867-0156  
 911 Address 3037 SE County Rd. 245 LAKE CITY, FL 32025  
 Contractors Name JASON ELIXSON Phone (386)-961-8223  
 Address 1534 SW DEKLE Rd. LAKE CITY, FL 32024  
 Fee Simple Owner Name & Address \_\_\_\_\_  
 Bonding Co. Name & Address \_\_\_\_\_  
 Architect/Engineer Name & Address BEN SPARKS / MARK DISOWAY P.O. Box 868  
 Mortgage Lenders Name & Address NA LAKE CITY, FL 32026

Circle the correct power company FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progressive Energy  
 Property ID Number 14-45-M-08354-115 Estimated Cost of Construction 72,600.00  
 Subdivision Name Price Creek Landing Lot 15 Block \_\_\_\_\_ Unit \_\_\_\_\_ Phase \_\_\_\_\_  
 Driving Directions GO 90 EAST to SR 100 turn right on 100 south, go 1/4 mile to CRD 245 (Price Creek) turn right and go 2 1/2 miles to P. Creek subdivision, turn left on Andrew 1st Lot (House) on left.  
 Type of Construction Residential home Number of Existing Dwellings on Property \_\_\_\_\_  
 Total Acreage 1/2 AC Lot Size \_\_\_\_\_ Do you need a Culvert Permit or Culvert Waiver or Have an Existing Drive  
 Actual Distance of Structure from Property Lines - Front 35' Side 35' Side 35' Rear 50'  
 Total Building Height 17'1" Number of Stories 1 Heated Floor Area 1415 Roof Pitch 6/12  
Porch 15 GARAGE 389 TOTAL 1819

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.

**OWNERS AFFIDAVIT:** I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning.

**WARNING TO OWNER:** YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

Glenn L. Keen  
 Owner Builder or Agent (Including Contractor)

STATE OF FLORIDA  
 COUNTY OF COLUMBIA

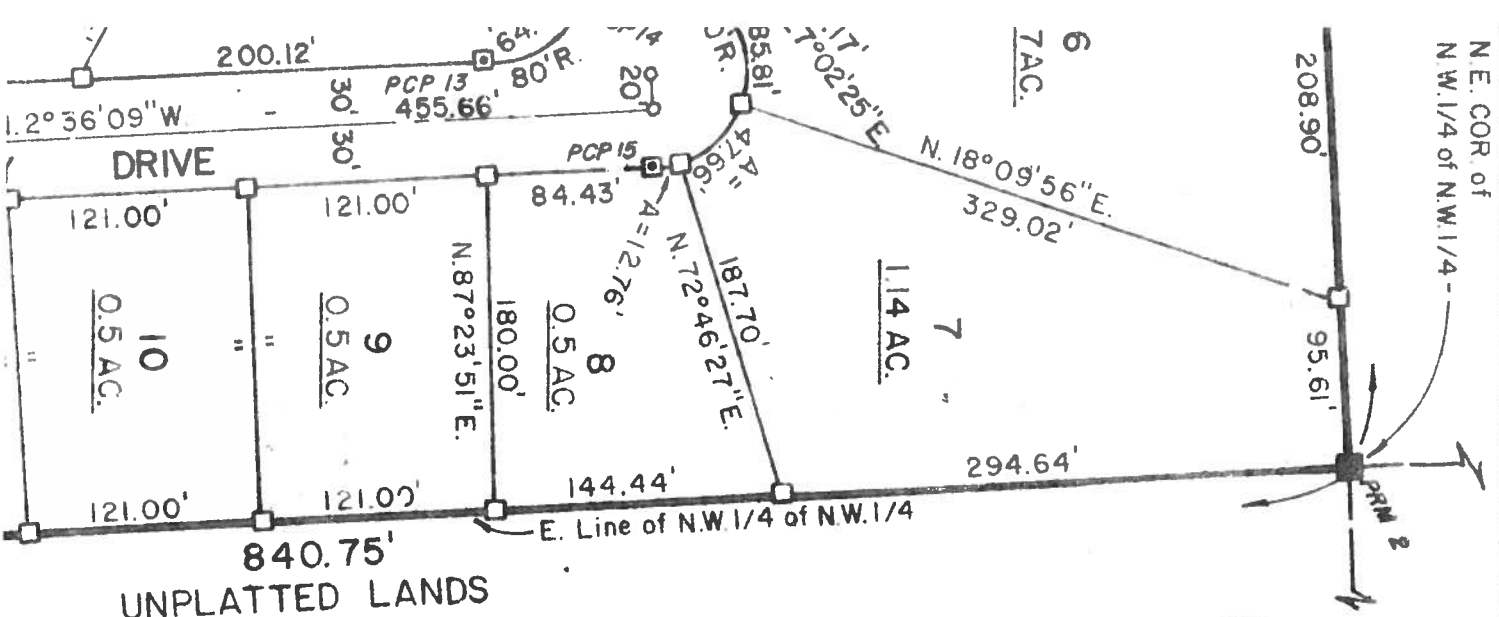
Sworn to (or affirmed) and subscribed before me  
 this 24th day of Feb. 2006.  
 Personally known ✓ or Produced Identification \_\_\_\_\_



Glenn L. Keen  
 Contractor Signature  
 Contractors License Number CBC 1250331  
 Competency Card Number \_\_\_\_\_  
 NOTARY STAMP/SEAL  
[Signature]  
 Notary Signature

# "PRICE CREEK LANDING"

SECTION 14, TWP. 4-S., RGE. 17-E.  
COLUMBIA COUNTY, FLORIDA



## DESCRIPTION

COMMENCE at the Northwest corner of Section 14, Township 4 South, Range 17 East, Columbia County, Florida and run N. 87°14'30"E. along the North line of said Section 14 a distance of 210.73 feet to a point on the East line of the Price Creek Cemetery and the POINT OF BEGINNING; thence continue N. 87°14'30"E. still along the North line of said Section 14 a distance of 1109.19 feet to the Northeast corner of the Northwest 1/4 of the Northwest 1/4; thence S. 02°36'09"E. along the East line of said Northwest 1/4 of the Northwest 1/4 a distance of 840.75 feet to a point on the Westerly Right-of-Way line of Andrews Road; thence continue S. 02°36'09"E. along said Westerly Right-of-Way line (still being the East line of said Northwest 1/4 of the Northwest 1/4) a distance of 519.42 feet to the Southeast corner of said Northwest 1/4 of the Northwest 1/4; thence continue S. 02°36'09"E. still along said Westerly Right-of-Way line 136.59 feet to a point on the Northeasterly Right-of-Way line of County Road No. 245; thence N. 61°17'51"W. along said Northeasterly Right-of-Way line 871.77 feet to the Point of Curve of a curve concave to the Northeast having a radius of 1096.28 feet and a central angle of 60°24'21", said curve also having a Chord bearing of N. 31°05'41"W. and a Chord distance of 1103.00 feet; thence Northeasterly along the arc of said curve, being also said Northeasterly Right-of-Way line 1155.79 feet to the Southwest corner of the Price Creek Cemetery; thence N. 85°24'39"E. along the South line of said Price Creek Cemetery 169.01 feet; thence N. 08°46'18"W. along the East line of said Price Creek Cemetery 65.90 feet to the POINT OF BEGINNING. Containing 30.71 acres, more or less.

## LEGEND

1.) ☒ = P.R.M. Set. 4"x4" Concrete Monument with cap stamped

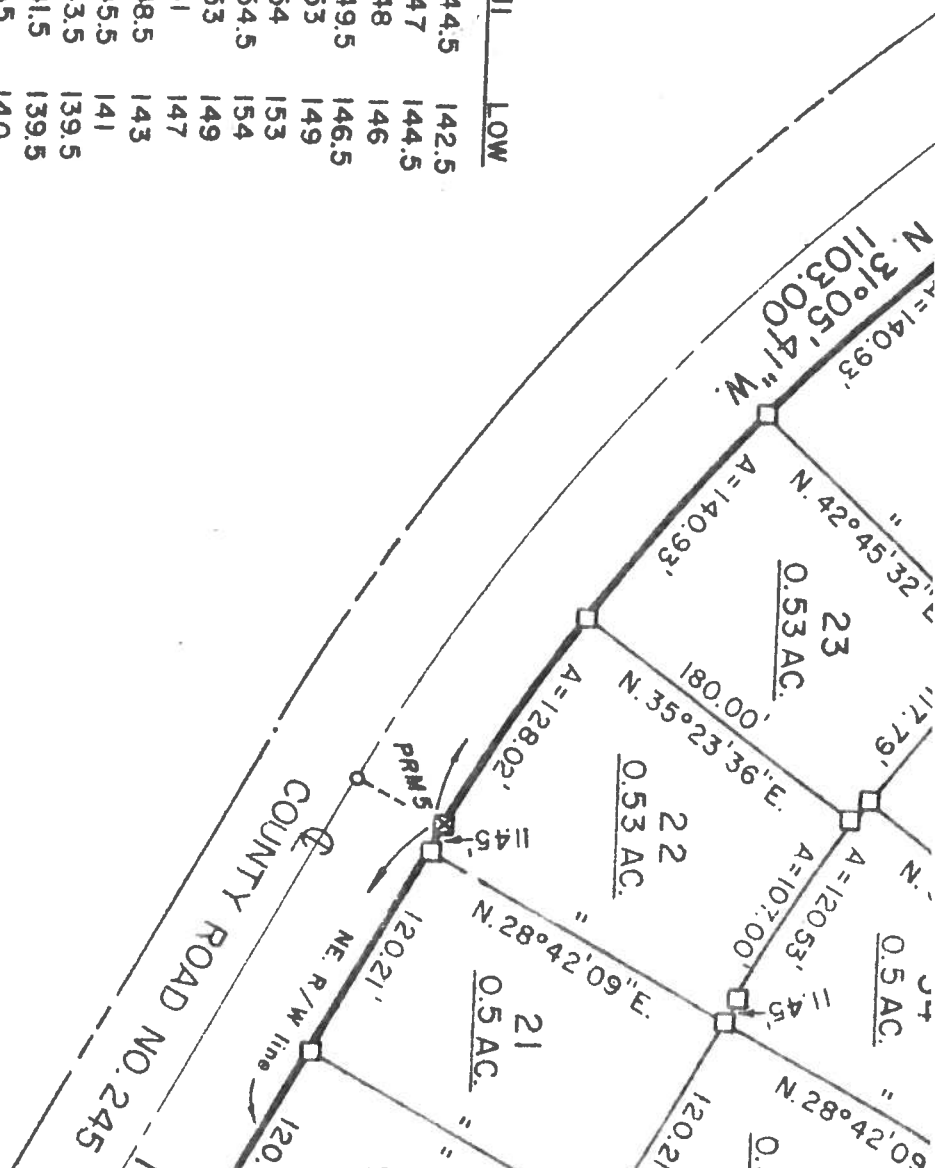
P.L.S. 362R and P.R.M. #

87 JUL 20 A8 27  
8:27

May 3, 1987  
CLERK OF COURT  
COLUMBIA COUNTY, FLA.

HI / LOW LOT ELEVATIONS

LOT	HI	LOW	LOT	HI	LOW
1	143	139	31	144.5	142.5
2	144	142	32	147	144.5
3	142.5	140	33	148	146
4	140	139.5	34	149.5	146.5
5	140	137	35	153	149
6	141	124	36	154	153
7	142	126	37	154.5	154
8	144.5	142	38	153	149
9	147.5	144.5	39	151	147
10	150	147	40	148.5	143
11	152.5	149.5	41	145.5	141
12	155	153	42	143.5	139.5
13	156	155	43	141.5	139.5
14	156	154	44	145	140
15	156	154	45	148	144
16	153.5	153			
17	154	153.5			
18	155	154.5			
19	154	152			
20	153	151.5			
21	152	150			
22	151	149			
23	151	148			
24	150.5	146			
25	148	144			
26	146.5	143			
27	144	142			
28	142	140			
29	142	141			
30	143	141			



100 YEAR FLOOD ELEV. = 123.0  
(per Florida Dept. of Transportation)

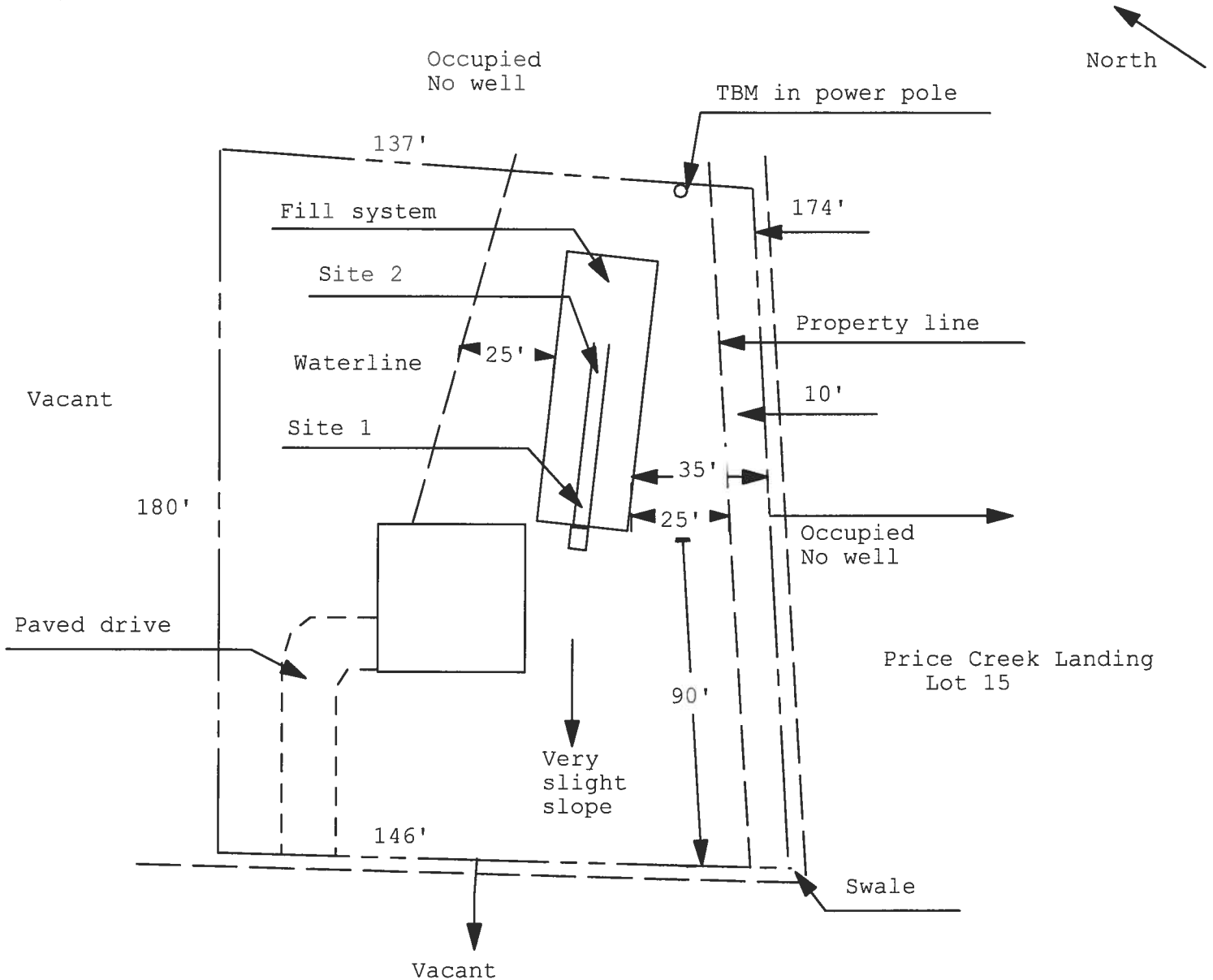
ZONING DISTRICT: RSF-1

# Application for Onsite Sewage Disposal System Construction Permit. Part II Site Plan

Permit Application Number: 010-0130N

**ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT**

KEEN/CR 05-3326



1 inch = 40 feet

Site Plan Submitted By Paul L. Lyle Date 2/1/06  
 Plan Approved ☒ Not Approved ☐ Date 2-15-06

By Mr. J. M. Lyle Columbia CPHU

Notes: \_\_\_\_\_

## WARRANTY DEED

This Warranty Deed made and executed the 7<sup>th</sup> day of October A.D. 2005, by **SUBRANDY LIMITED PARTNERSHIP**, hereinafter called the grantor, to **A & B MANAGEMENT, L.L.C. AND JOHN W. KEEN, EACH AS TO AN UNDIVIDED ONE HALF INTEREST AS JOINT TENANTS WITH RIGHTS OF SURVIVORSHIP, AND NOT AS TENANTS IN COMMON**, Whose post office address is 1534 SW DEKLE ROAD, LAKE CITY, FL 32024, hereinafter called the grantee:

(Wherever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporation)

**Witnesseth:** That the grantor, for the consideration of the sum of \$ 10.00 and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situate in Columbia County, Florida, viz:

**LOT 15, PRICE CREEK LANDING, a subdivision as recorded in Plat Book 5, Pages 98-98A, Columbia County, Florida, and subject to Restrictions recorded in O.R. Book 0628, Pages 0174-0176, and Restrictive Covenants recorded in O.R. Book 0862, Page 0329, Columbia County, Florida, and subject to Power Line Easment.**

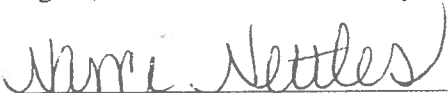
**Together** with all the tenements, hereditaments and appurtenances thereto belong or in any-wise appertaining.

**To Have and to Hold**, the same in fee simple forever.

**And** the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple: that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2000.

**In Witness Whereof**, the said grantor has signed and sealed these presents the day and year first above written.

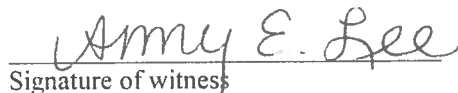
Signed, sealed and delivered in our presence:



Signature of witness  
Nanci Nettles



Bradley N. Dicks, General Partner  
Subrandy Limited Partnership



Signature of witness  
Amy E. Lee

Inst:2005025030 Date:10/07/2005 Time:14:26

Doc Stamp-Deed : 63.00

 DC, P. DeWitt Cason, Columbia County B:1061 P:403

State of Florida  
County of Columbia

I HEREBY CERTIFY that on this day, before me, an officer duly authorized in the State aforesaid and in the County aforesaid to take acknowledgments, personally appeared Bradley N. Dicks, who is personally known to me to be the person described in and who executed the foregoing instrument, who was not required to furnish identification, and he acknowledged before me that he executed the same and who did not take an oath.

WITNESS my hand and official seal in the County and State last aforesaid this 7<sup>TH</sup> day of October, A.D. 2005

  
Nanci Nettles, State of Florida

Nanci Nettles  
Signature of witness  
Nanci Nettles

Bradley N. Dicks  
Bradley N. Dicks, General Partner  
Subrandy Limited Partnership

Amy E. Lee  
Signature of witness  
Amy E. Lee

Inst: 2005025030 Date: 10/07/2005 Time: 14:26  
Doc Stamp-Deed : 63.00

YMK DC, P. DeWitt Cason, Columbia County B: 1061 P: 403

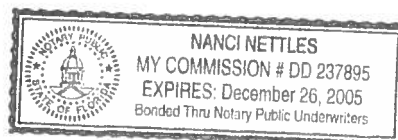
State of Florida  
County of Columbia

I HEREBY CERTIFY that on this day, before me, an officer duly authorized in the State aforesaid and in the County aforesaid to take acknowledgments, personally appeared Bradley N. Dicks, who is personally known to me to be the person described in and who executed the foregoing instrument, who was not required to furnish identification, and he acknowledged before me that he executed the same and who did not take an oath.

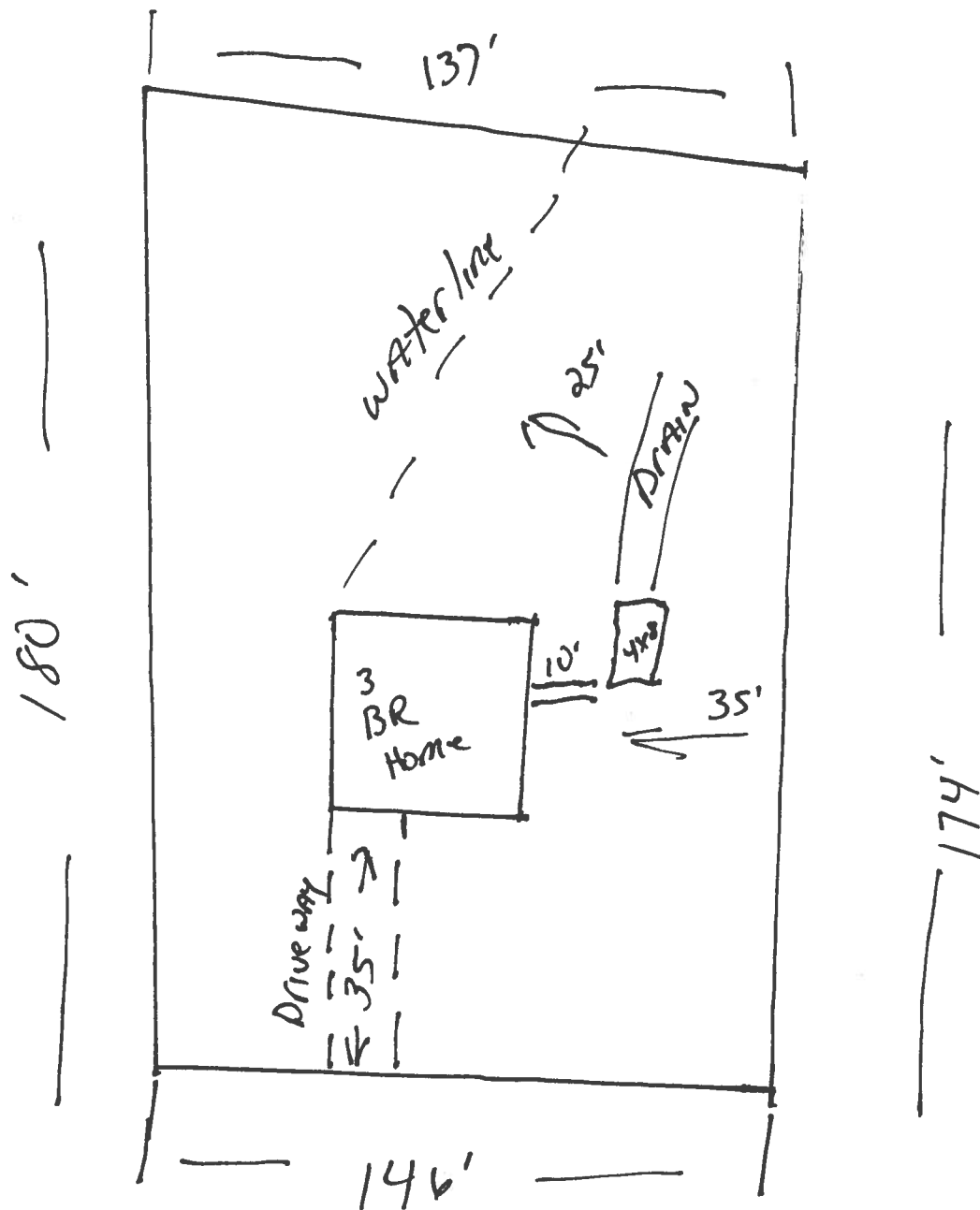
WITNESS my hand and official seal in the County and State last aforesaid this 7<sup>TH</sup> day of October, A.D. 2005

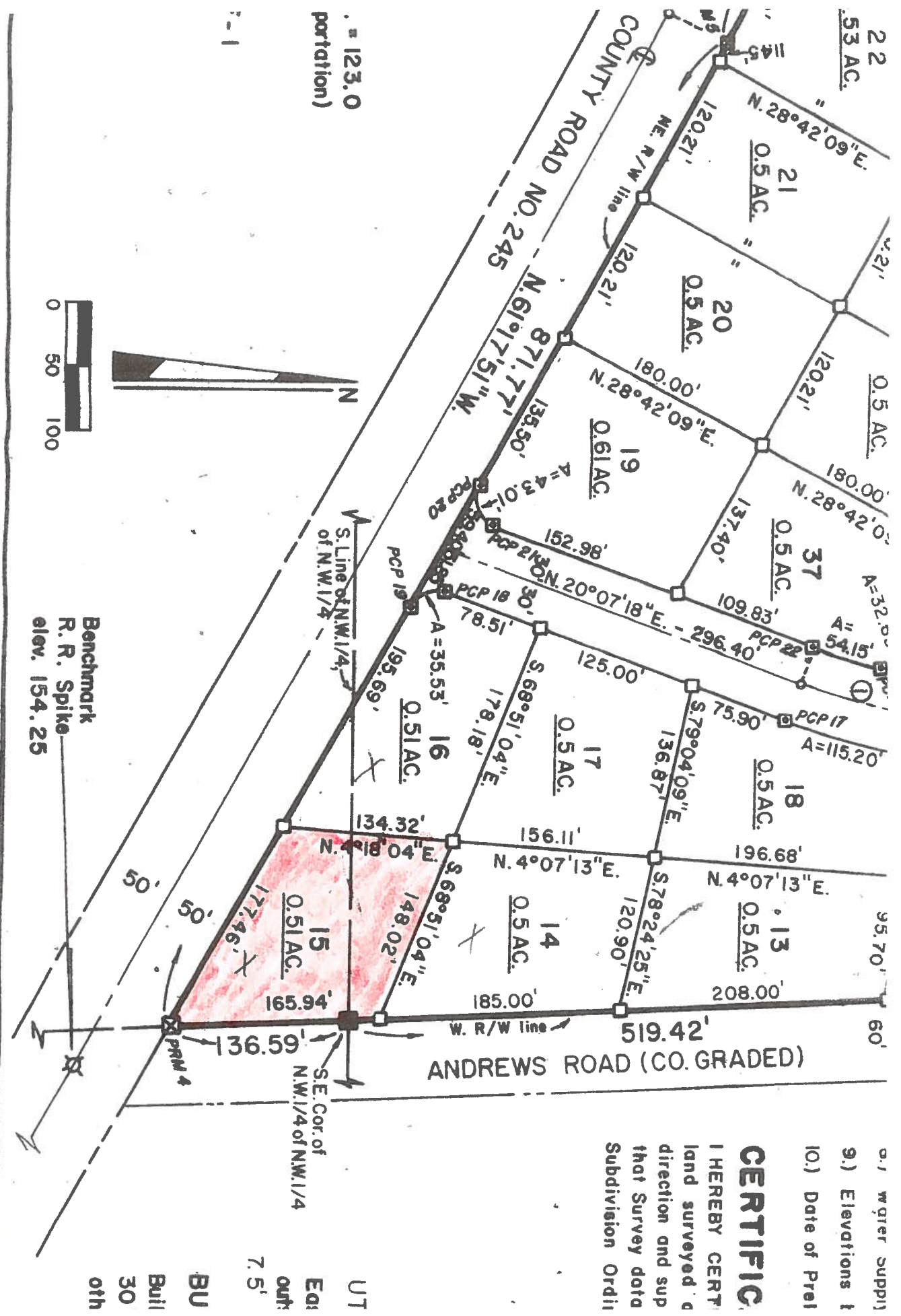
Nanci Nettles  
Notary Public, State of Florida

This instrument prepared by: Bradley N. Dicks  
Address: P.O. Box 513 Lake City, FL 32056



Go 90 EAST to St. Rd. 100 turn right and go South  $\frac{1}{4}$  mile to CRd 245, turn right and go  $2\frac{1}{2}$  miles to Price Creek Subdivision (Left), turn left on Andrew 4<sup>th</sup> Lot (have on corner of Andrew & 245).





9.) Elevations to  
 10.) Date of Preliminary  
 water supply  
 I HEREBY CERTIFY  
 land surveyed in  
 direction and sub-  
 that Survey data  
 Subdivision Ordinance

**CERTIFICATE**

UT  
 Ed  
 out  
 7.5'  
 BU  
 Buil  
 30  
 oth



Subrandy Limited  
Partnership

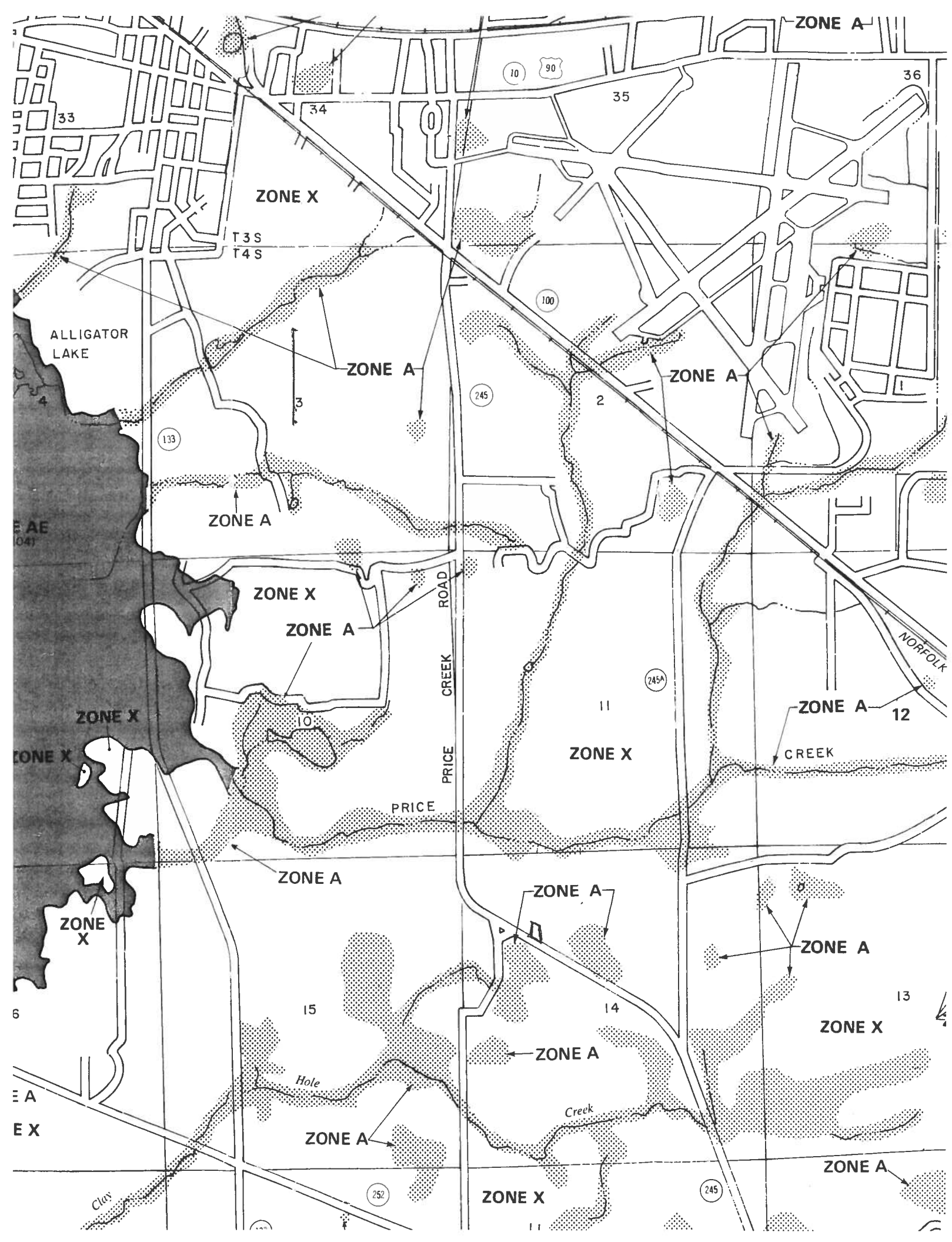
February 23, 2006

To: Whom It May Concern

Re: Lot #15

This letter is to confirm that the lot (lot#15) located at 337 SE CR 245, Lake City, Florida 32025 in Price Creek Landing does not have a well, but is supplied by a water system owned by Subrandy Limited Partnership.

Thank you.



# Columbia County Building Department Culvert Permit

**Culvert Permit No.**  
**000000992**

DATE 03/09/2006 PARCEL ID # 14-4S-17-08354-115  
APPLICANT GLENN KEEN PHONE 961-8223  
ADDRESS 1534 SW DEKLE RD LAKE CITY FL 32024  
OWNER GLENN&JOHN KEEN/A&B MANAGEMENT PHONE 867-0156  
ADDRESS 3037 SE CR 245 LAKE CITY FL 32025  
CONTRACTOR JASON ELIXSON PHONE 961-8223  
LOCATION OF PROPERTY 90 E, R 100, R 245, L ANDREW (PRICE CREEK LANDING)  
1ST LOT ON LEFT \_\_\_\_\_

SUBDIVISION/LOT/BLOCK/PHASE/UNIT PRICE CREEK LANDING 15

SIGNATURE



## INSTALLATION REQUIREMENTS

☒ X

Culvert size will be 18 inches in diameter with a total length of 32 feet, leaving 24 feet of driving surface. Both ends will be mitered 4 foot with a 4 : 1 slope and poured with a 4 inch thick reinforced concrete slab.

INSTALLATION NOTE: Turnouts will be required as follows:

- a) a majority of the current and existing driveway turnouts are paved, or;
- b) the driveway to be served will be paved or formed with concrete.

Turnouts shall be concrete or paved a minimum of 12 feet wide or the width of the concrete or paved driveway, whichever is greater. The width shall conform to the current and existing paved or concreted turnouts.

☐

Culvert installation shall conform to the approved site plan standards.

☐

Department of Transportation Permit installation approved standards.

☐

Other \_\_\_\_\_

**ALL PROPER SAFETY REQUIREMENTS SHOULD BE FOLLOWED  
DURING THE INSTALATION OF THE CULVERT.**

135 NE Hernando Ave., Suite B-21  
Lake City, FL 32055  
Phone: 386-758-1008 Fax: 386-758-2160

**Amount Paid** **25.00**



THE UNDERSIGNED hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

Tax Parcel ID Number 08354-115

PERMIT NUMBER \_\_\_\_\_

1. Description of property: (legal description of the property and street address or 911 address)

3037 SE County Rd. 245 LAKE CITY, FL 32025  
Go 90 EAST to 100 South, Turn right go to CR 245  
(Price Creek) Turn right and go 2 1/2 miles to Price Creek  
Subdivision, Turn left on Andrew, 1st Lot (house) on  
right

2. General description of improvement: New Residential 3 BD / 2 Bath  
Dwelling

3. Owner Name & Address Glenn Keen 1534 SW DEKLE RD. LAKE CITY, FL  
John W. Keen 4062 SW Old Wm Rd. Fort White, FL 32029

4. Name & Address of Fee Simple Owner (if other than owner): \_\_\_\_\_

5. Contractor Name Glenn Keen / Jason Elixson Phone Number (386) 961-8223  
Address 1534 SW DEKLE RD. LAKE CITY, FL 32024

6. Surety Holders Name NA Phone Number \_\_\_\_\_  
Address \_\_\_\_\_  
Amount of Bond \_\_\_\_\_

7. Lender Name NA Phone Number \_\_\_\_\_  
Address \_\_\_\_\_

8. Persons within the State of Florida designated by the Owner upon whom notices or other documents may be served as provided by section 718.13 (1)(a) 7; Florida Statutes:

Name \_\_\_\_\_ Phone Number \_\_\_\_\_  
Address \_\_\_\_\_

9. In addition to himself/herself the owner designates \_\_\_\_\_ of \_\_\_\_\_  
\_\_\_\_\_ to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) -  
(a) 7. Phone Number of the designee \_\_\_\_\_

10. Expiration date of the Notice of Commencement (the expiration date is 1 (one) year from the date of recording,  
(Unless a different date is specified) \_\_\_\_\_

**NOTICE AS PER CHAPTER 713, Florida Statutes:**

The owner must sign the notice of commencement and no one else may be permitted to sign in his/her stead.

Sworn to (or affirmed) and subscribed before  
day of 24th Feb, 2006

NOTARY STAMP/SEAL



Barry Coleman  
My Commission DD144654  
Expires August 26, 2006

Signature of Notary

Signature of Owner

Inst: 2006004656 Date: 02/27/2006 Time: 09:00

DC, P. DeWitt Cason, Columbia County B: 1075 P: 785

24211

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

## Florida Department of Community Affairs Residential Whole Building Performance Method A

<b>Project Name:</b> 512121K&H Framing <b>Address:</b> Lot: 15, Sub: Price Creek SD, Plat: <b>City, State:</b> Lake City, FL <b>Owner:</b> Spec House <b>Climate Zone:</b> North	<b>Builder:</b> <b>Permitting Office:</b> <i>Polk County</i> <b>Permit Number:</b> 24211 <b>Jurisdiction Number:</b> 221000
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<ol style="list-style-type: none"> <li>1. New construction or existing <span style="float: right;">New</span> <input type="checkbox"/></li> <li>2. Single family or multi-family <span style="float: right;">Single family</span> <input type="checkbox"/></li> <li>3. Number of units, if multi-family <span style="float: right;">1</span> <input type="checkbox"/></li> <li>4. Number of Bedrooms <span style="float: right;">3</span> <input type="checkbox"/></li> <li>5. Is this a worst case? <span style="float: right;">Yes</span> <input type="checkbox"/></li> <li>6. Conditioned floor area (ft²) <span style="float: right;">1415 ft²</span> <input type="checkbox"/></li> <li>7. Glass type<sup>1</sup> and area: (Label reqd. by 13-104.4.5 if not default)           <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">a. U-factor:</td> <td style="width: 30%;">Description</td> <td style="width: 40%;">Area</td> </tr> <tr> <td>(or Single or Double DEFAULT)</td> <td>7a. (Dble Default)</td> <td>102.0 ft²</td> </tr> <tr> <td colspan="3">b. SHGC:</td> </tr> <tr> <td>(or Clear or Tint DEFAULT)</td> <td>7b. (Clear)</td> <td>102.0 ft²</td> </tr> </table> </li> <li>8. Floor types           <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">a. Slab-On-Grade Edge Insulation</td> <td style="width: 30%;">R=0.0, 189.0(p) ft</td> <td style="width: 40%;"></td> </tr> <tr> <td>b. N/A</td> <td></td> <td></td> </tr> <tr> <td>c. N/A</td> <td></td> <td></td> </tr> </table> </li> <li>9. Wall types           <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">a. Frame, Wood, Exterior</td> <td style="width: 30%;">R=13.0, 1400.0 ft²</td> <td style="width: 40%;"></td> </tr> <tr> <td>b. Frame, Wood, Exterior</td> <td>R=13.0, 199.0 ft²</td> <td></td> </tr> <tr> <td>c. N/A</td> <td></td> <td></td> </tr> <tr> <td>d. N/A</td> <td></td> <td></td> </tr> <tr> <td>e. N/A</td> <td></td> <td></td> </tr> </table> </li> <li>10. Ceiling types           <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">a. Under Attic</td> <td style="width: 30%;">R=30.0, 1415.0 ft²</td> <td style="width: 40%;"></td> </tr> <tr> <td>b. N/A</td> <td></td> <td></td> </tr> <tr> <td>c. N/A</td> <td></td> <td></td> </tr> </table> </li> <li>11. Ducts           <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">a. Sup: Unc. Ret: Unc. AH: Garage</td> <td style="width: 30%;">Sup. R=6.0, 140.0 ft</td> <td style="width: 40%;"></td> </tr> <tr> <td>b. N/A</td> <td></td> <td></td> </tr> </table> </li> </ol>	a. U-factor:	Description	Area	(or Single or Double DEFAULT)	7a. (Dble Default)	102.0 ft²	b. SHGC:			(or Clear or Tint DEFAULT)	7b. (Clear)	102.0 ft²	a. Slab-On-Grade Edge Insulation	R=0.0, 189.0(p) ft		b. N/A			c. N/A			a. Frame, Wood, Exterior	R=13.0, 1400.0 ft²		b. Frame, Wood, Exterior	R=13.0, 199.0 ft²		c. N/A			d. N/A			e. N/A			a. Under Attic	R=30.0, 1415.0 ft²		b. N/A			c. N/A			a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 140.0 ft		b. N/A			<ol style="list-style-type: none"> <li>12. Cooling systems           <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">a. Central Unit</td> <td style="width: 30%;">Cap: 31.0 kBtu/hr</td> <td style="width: 40%;"></td> </tr> <tr> <td></td> <td>SEER: 10.00</td> <td></td> </tr> <tr> <td>b. N/A</td> <td></td> <td></td> </tr> <tr> <td>c. N/A</td> <td></td> <td></td> </tr> </table> </li> <li>13. Heating systems           <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">a. Electric Heat Pump</td> <td style="width: 30%;">Cap: 31.0 kBtu/hr</td> <td style="width: 40%;"></td> </tr> <tr> <td></td> <td>HSPF: 7.00</td> <td></td> </tr> <tr> <td>b. N/A</td> <td></td> <td></td> </tr> <tr> <td>c. N/A</td> <td></td> <td></td> </tr> </table> </li> <li>14. Hot water systems           <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">a. Electric Resistance</td> <td style="width: 30%;">Cap: 40.0 gallons</td> <td style="width: 40%;"></td> </tr> <tr> <td></td> <td>EF: 0.93</td> <td></td> </tr> <tr> <td>b. N/A</td> <td></td> <td></td> </tr> <tr> <td>c. Conservation credits</td> <td></td> <td></td> </tr> <tr> <td colspan="3">(HR-Heat recovery, Solar DHP-Dedicated heat pump)</td> </tr> </table> </li> <li>15. HVAC credits           <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">(CF-Ceiling fan, CV-Cross ventilation,</td> <td style="width: 30%;"></td> <td style="width: 40%;"></td> </tr> <tr> <td>HF-Whole house fan,</td> <td></td> <td></td> </tr> <tr> <td>PT-Programmable Thermostat,</td> <td></td> <td></td> </tr> <tr> <td>MZ-C-Multizone cooling,</td> <td></td> <td></td> </tr> <tr> <td>MZ-H-Multizone heating)</td> <td></td> <td></td> </tr> </table> </li> </ol>	a. Central Unit	Cap: 31.0 kBtu/hr			SEER: 10.00		b. N/A			c. N/A			a. Electric Heat Pump	Cap: 31.0 kBtu/hr			HSPF: 7.00		b. N/A			c. N/A			a. Electric Resistance	Cap: 40.0 gallons			EF: 0.93		b. N/A			c. Conservation credits			(HR-Heat recovery, Solar DHP-Dedicated heat pump)			(CF-Ceiling fan, CV-Cross ventilation,			HF-Whole house fan,			PT-Programmable Thermostat,			MZ-C-Multizone cooling,			MZ-H-Multizone heating)		
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c. N/A																																																																																																										
d. N/A																																																																																																										
e. N/A																																																																																																										
a. Under Attic	R=30.0, 1415.0 ft²																																																																																																									
b. N/A																																																																																																										
c. N/A																																																																																																										
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 140.0 ft																																																																																																									
b. N/A																																																																																																										
a. Central Unit	Cap: 31.0 kBtu/hr																																																																																																									
	SEER: 10.00																																																																																																									
b. N/A																																																																																																										
c. N/A																																																																																																										
a. Electric Heat Pump	Cap: 31.0 kBtu/hr																																																																																																									
	HSPF: 7.00																																																																																																									
b. N/A																																																																																																										
c. N/A																																																																																																										
a. Electric Resistance	Cap: 40.0 gallons																																																																																																									
	EF: 0.93																																																																																																									
b. N/A																																																																																																										
c. Conservation credits																																																																																																										
(HR-Heat recovery, Solar DHP-Dedicated heat pump)																																																																																																										
(CF-Ceiling fan, CV-Cross ventilation,																																																																																																										
HF-Whole house fan,																																																																																																										
PT-Programmable Thermostat,																																																																																																										
MZ-C-Multizone cooling,																																																																																																										
MZ-H-Multizone heating)																																																																																																										

Glass/Floor Area: 0.07

Total as-built points: 22482

Total base points: 23890

**PASS**

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

**PREPARED BY:** *[Signature]*

**DATE:** *1-23-06*

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:** \_\_\_\_\_



<sup>1</sup> Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

# SUMMER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 15, Sub: Price Creek SD, Plat: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned X BSPM = Points Floor Area											
				Type/SC	Overhang Ornt Len Hgt		Area X SPM X SOF = Points				
.18	1415.0	20.04	5104.2	Double, Clear	NW	1.5	5.5	45.0	25.97	0.91	1065.5
				Double, Clear	NW	1.5	7.0	10.0	25.97	0.95	246.0
				Double, Clear	SE	1.5	5.5	15.0	42.75	0.86	552.1
				Double, Clear	SE	1.5	0.0	20.0	42.75	0.38	324.4
				Double, Clear	SE	1.5	0.0	6.0	42.75	0.38	97.3
				Double, Clear	SW	1.5	3.5	6.0	40.16	0.72	174.5
				As-Built Total:							102.0
WALL TYPES Area X BSPM = Points				Type	R-Value		Area X SPM = Points				
Adjacent	0.0	0.00	0.0	Frame, Wood, Exterior	13.0		1400.0	1.50	2100.0		
Exterior	1599.0	1.70	2718.3	Frame, Wood, Exterior	13.0		199.0	1.50	298.5		
Base Total: 1599.0 2718.3				As-Built Total:				1599.0	2398.5		
DOOR TYPES Area X BSPM = Points				Type			Area X SPM = Points				
Adjacent	20.0	1.60	32.0	Exterior Insulated			10.0	4.10	41.0		
Exterior	30.0	4.10	123.0	Exterior Insulated			20.0	4.10	82.0		
				Adjacent Insulated			20.0	1.60	32.0		
Base Total: 50.0 155.0				As-Built Total:				50.0	155.0		
CEILING TYPES Area X BSPM = Points				Type	R-Value		Area X SPM X SCM = Points				
Under Attic	1415.0	1.73	2447.9	Under Attic	30.0		1415.0	1.73 X 1.00	2447.9		
Base Total: 1415.0 2447.9				As-Built Total:				1415.0	2447.9		
FLOOR TYPES Area X BSPM = Points				Type	R-Value		Area X SPM = Points				
Slab	189.0(p)	-37.0	-6993.0	Slab-On-Grade Edge Insulation	0.0		189.0(p)	-41.20	-7786.8		
Raised	0.0	0.00	0.0								
Base Total: -6993.0				As-Built Total:				189.0	-7786.8		
INFILTRATION Area X BSPM = Points								Area X SPM = Points			
1415.0 10.21 14447.2								1415.0	10.21	14447.2	

**SUMMER CALCULATIONS****Residential Whole Building Performance Method A - Details**

ADDRESS: Lot: 15, Sub: Price Creek SD, Plat: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT						
<b>Summer Base Points: 17879.6</b>				<b>Summer As-Built Points: 14121.8</b>						
Total Summer Points	X System Multiplier	=	Cooling Points	Total Component (System - Points)	X Cap Ratio (DM x DSM x AHU)	X Duct Multiplier (1.09 x 1.147 x 1.00)	X System Multiplier	X Credit Multiplier	=	Cooling Points
17879.6	0.4266		7627.4	14122	1.00	0.341	1.000			6025.8
				<b>14121.8</b>	<b>1.00</b>	<b>1.250</b>	<b>0.341</b>	<b>1.000</b>		<b>6025.8</b>

(sys 1: Central Unit 31000 btuh ,SEER/EFF(10.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0(INS)

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 15, Sub: Price Creek SD, Plat: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES											
.18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang		Ornt Len Hgt Area X WPM X WOF = Points				
.18	1415.0	12.74	3244.9	Double, Clear	NW	1.5	5.5	45.0	24.30	1.00	1097.8
				Double, Clear	NW	1.5	7.0	10.0	24.30	1.00	243.4
				Double, Clear	SE	1.5	5.5	15.0	14.71	1.11	245.8
				Double, Clear	SE	1.5	0.0	20.0	14.71	2.65	779.4
				Double, Clear	SE	1.5	0.0	6.0	14.71	2.65	233.8
				Double, Clear	SW	1.5	3.5	6.0	16.74	1.18	119.0
				As-Built Total:				102.0			
WALL TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Adjacent	0.0	0.00	0.0	Frame, Wood, Exterior	13.0		1400.0	3.40	4760.0		
Exterior	1599.0	3.70	5916.3	Frame, Wood, Exterior	13.0		199.0	3.40	676.6		
Base Total: 1599.0 5916.3				As-Built Total:				1599.0 5436.6			
DOOR TYPES Area X BWPM = Points				Type			Area X WPM = Points				
Adjacent	20.0	8.00	160.0	Exterior Insulated			10.0	8.40	84.0		
Exterior	30.0	8.40	252.0	Exterior Insulated			20.0	8.40	168.0		
				Adjacent Insulated			20.0	8.00	160.0		
Base Total: 50.0 412.0				As-Built Total:				50.0 412.0			
CEILING TYPESArea X BWPM = Points				Type	R-Value		Area X WPM X WCM = Points				
Under Attic	1415.0	2.05	2900.8	Under Attic	30.0		1415.0	2.05 X 1.00	2900.8		
Base Total: 1415.0 2900.8				As-Built Total:				1415.0 2900.8			
FLOOR TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Slab	189.0(p)	8.9	1682.1	Slab-On-Grade Edge Insulation	0.0		189.0(p)	18.80	3553.2		
Raised	0.0	0.00	0.0								
Base Total: 1682.1				As-Built Total:				189.0 3553.2			
INFILTRATION Area X BWPM = Points								Area X WPM = Points			
1415.0 -0.59 -834.8								1415.0 -0.59 -834.8			



# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 15, Sub: Price Creek SD, Plat: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT									
Winter Base Points: 13321.2				Winter As-Built Points: 14186.9									
Total Winter Points	X	System Multiplier	= Heating Points	Total Component (System - Points)	X	Cap Ratio (DM x DSM x AHU)	X	Duct Multiplier	X	System Multiplier	X	Credit Multiplier	= Heating Points
13321.2		0.6274	8357.7	(sys 1: Electric Heat Pump 31000 btuh ,EFF(7.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0 14186.9 1.000 (1.069 x 1.169 x 1.00) 0.487 1.000 8636.5 14186.9 1.00 1.250 0.487 1.000 8636.5									

## Residential Whole Building Performance Method A - Details

PERMIT #:

CODE COMPLIANCE STATUS											
BASE						AS-BUILT					
Cooling Points	+	Heating Points	+	Hot Water Points	= Total Points	Cooling Points	+	Heating Points	+	Hot Water Points	= Total Points
7627		8358		7905	23890	6026		8636		7820	22482

# PASS



# Code Compliance Checklist

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 15, Sub: Price Creek SD, Plat: , Lake City, FL,

PERMIT #:

**6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST**

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	606.1.ABC.1.2.3	Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

**6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)**

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

**ESTIMATED ENERGY PERFORMANCE SCORE\* = 84.0**

**The higher the score, the more efficient the home.**

Spec House, Lot: 15, Sub: Price Creek SD, Plat: , Lake City, FL,

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 31.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 10.00
4. Number of Bedrooms	3	b. N/A	
5. Is this a worst case?	Yes	c. N/A	
6. Conditioned floor area (ft <sup>2</sup> )	1415 ft <sup>2</sup>		
7. Glass type <sup>1</sup> and area: (Label reqd. by 13-104.4.5 if not default)		13. Heating systems	
a. U-factor:	Description Area	a. Electric Heat Pump	Cap: 31.0 kBtu/hr
(or Single or Double DEFAULT)	7a. (Dble Default) 102.0 ft <sup>2</sup>		HSPF: 7.00
b. SHGC:		b. N/A	
(or Clear or Tint DEFAULT)	7b. (Clear) 102.0 ft <sup>2</sup>	c. N/A	
8. Floor types			
a. Slab-On-Grade Edge Insulation	R=0.0, 189.0(p) ft	14. Hot water systems	
b. N/A		a. Electric Resistance	Cap: 40.0 gallons
c. N/A			EF: 0.93
9. Wall types		b. N/A	
a. Frame, Wood, Exterior	R=13.0, 1400.0 ft <sup>2</sup>	c. Conservation credits	
b. Frame, Wood, Exterior	R=13.0, 199.0 ft <sup>2</sup>	(HR-Heat recovery, Solar	
c. N/A		DHP-Dedicated heat pump)	
d. N/A		15. HVAC credits	
e. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
10. Ceiling types		HF-Whole house fan,	
a. Under Attic	R=30.0, 1415.0 ft <sup>2</sup>	PT-Programmable Thermostat,	
b. N/A		MZ-C-Multizone cooling,	
c. N/A		MZ-H-Multizone heating)	
11. Ducts			
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 140.0 ft		
b. N/A			

I certify that this home has complied with the Florida Energy Efficiency Code For Building Construction 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: \_\_\_\_\_



\*NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar<sup>TM</sup> designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at [www.fsec.ucf.edu](http://www.fsec.ucf.edu) for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.

<sup>1</sup> Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.  
EnergyGauge® (Version: FLR2PB v4.1)

**STEEL SECTION**  
 100% (OPTIONAL) GALVANIZED STEEL  
 ROLL-FOAMED WITH WOOD GRAIN EMBOSSED PANELS  
 CLASSIC 307 THICK GALVANIZED STEEL  
 ROLL-FOAMED WITH STUCCO EMBOSSED PANELS  
 DECADÉ 203 THICK GALVANIZED STEEL  
 ROLL-FOAMED WITH WOOD GRAIN EMBOSSED PANELS

DOOR		SECTION SCHEDULE				TOP		INTERIOR		INTERIOR		BOTTOM	
HEIGHT	SECTION	SECTION	SECTION	SECTION	SECTION	SECTION	SECTION	SECTION	SECTION	SECTION	SECTION	SECTION	SECTION
6'-0"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"
6'-6"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"
7'-0"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"
7'-6"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"
8'-0"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"
8'-6"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"
9'-0"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"	18-1/2"

**END STILES**  
 100% (OPTIONAL) GALVANIZED STEEL  
 RIVETED AND SPOTWELDED TO PANEL

**CENTER STILES**  
 100% (OPTIONAL) GALVANIZED STEEL  
 RIVETED AND SPOTWELDED TO PANEL

DOOR		TRACK BRACKET SPACING			
HEIGHT	SECTION	SECTION	SECTION	SECTION	SECTION
6'-0"	12"	12"	12"	12"	12"
6'-6"	12"	12"	12"	12"	12"
7'-0"	12"	12"	12"	12"	12"
7'-6"	12"	12"	12"	12"	12"
8'-0"	12"	12"	12"	12"	12"
8'-6"	12"	12"	12"	12"	12"
9'-0"	12"	12"	12"	12"	12"

**SPRING COUNTERBALANCE**  
 SPRING WIRE NOMINALLY CALCULATED  
 QUANTITY AND SIZE OF  
 SPRINGS WILL VARY

**LIFTING CABLES**  
 PRE-FORMED GALVANIZED  
 ANTI-CORROSIVE CABLE  
 SAFETY FACTOR 5:1 MINIMUM

**TOP FIXTURE**  
 100% (OPTIONAL) GALVANIZED  
 STEEL (1) RIVETED PER VERTICAL  
 5/16" X 1 3/4" LAG SCREW  
 BELT-FAPING SCREWS

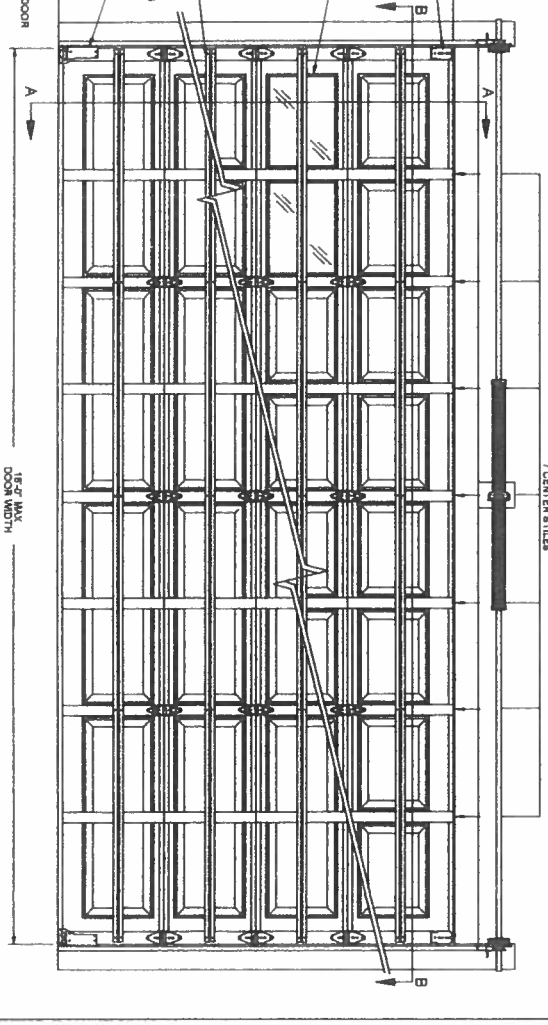
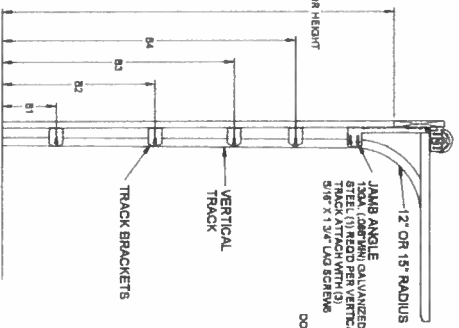
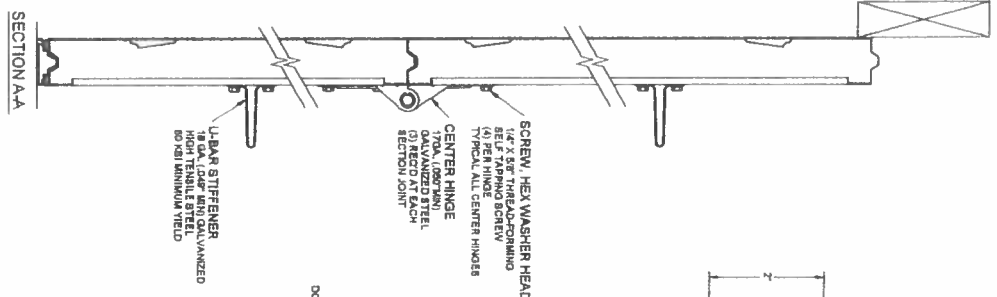
**GLAZING (OPTIONAL)**  
 NON-IMPACT RESISTANT  
 GLAZING NOT AVAILABLE IN  
 COLONIAL GLASS DESIGN  
 LOCK (OPTIONAL)  
 INTERIOR AND LOCK  
 ON EXTERIOR AUTO LOCK

**STEEL REINFORCEMENT**  
 FASTENED TO ALL CENTER AND  
 END STILES USING (2) 1/4" X 3/8"  
 THREADED RODS BELT-FAPING  
 SCREWS IN EACH LOCATION  
**CORNER BRACKET**  
 100% (OPTIONAL) GALVANIZED  
 STEEL FASTENED TO CORNER  
 1/4" X 3/8" THREADED-RODING  
 BELT-FAPING SCREWS

**VENTS (OPTIONAL)**  
 100% (OPTIONAL) GALVANIZED STEEL  
 AS REQUIRED BY CODE

**RETAINING NUT**  
 7/16" PUSH ON RETAINING NUT  
**SINGLE EDGE HINGE**  
 100% (OPTIONAL) GALVANIZED STEEL

**JAMB DETAIL**  
 2x6 STRUCTURAL GRADE LUMBER  
 2x6 TO BE TREATED IF MOUNTING TO MASONRY  
 SEE P-1308 FOR 2x6 ATTACHMENT TO STRUCTURE  
**TRACK BRACKET**  
 110% (1/8" MIN) GALVANIZED STEEL  
 ANGLE MOUNT, CONTINUOUS (OPTIONAL)  
 CONTINUOUS FROM FLOOR TO HEADER  
 HEX HEAD LAG SCREW  
 5/16" X 1 3/4" (2) PER BRACKET  
**WHIZ LOCK NUT**  
 5/16" X 1 3/4" (2) PER BRACKET  
**TRACK BOLT**  
 5/16" X 3/4" (1) PER BRACKET  
**TRACK ROLLER**  
 110% (1/8" MIN) GALVANIZED STEEL  
 HARDENED INNER AND OUTER RACES  
 ON 7/16" DIA. STEEL SHAFT  
**TRACK**  
 110% (1/8" MIN) GALVANIZED STEEL  
 TRACK, 3" (OPTIONAL)  
 100% (1/8" MIN) GALVANIZED STEEL



**DOORS TESTED PER ASTM E-330**

CHARLESTON CLASSIC DECADÉ		COLONIAL GLASS		RANCH GLASS	
QTY OF CENTER STILES	PSF RATING	TEST DESIGN +/-	TEST DESIGN +/-	PSF RATING	TEST DESIGN +/-
7	+18.3	+27.5	+18.3	+27.5	N/A
	-20.4	-30.6	-20.4	-30.6	N/A

RELEASED FOR PRODUCTION		ECO		DATE		ECO		DATE	
A		4719		07/13/04		4719		07/13/04	
REV.		ECO		DATE		ECO		DATE	
A		4719		07/13/04		4719		07/13/04	



**RAYNOR**  
 1151 EAST WATKINS  
 DOWEN, LA 70047  
 TITLE: SPEC. MINOR LOAD CHARLESTON CLASSIC/ DECADÉ 18\"/>

NO. P-2342  
 SHEET 1 OF 1  
 REV. A



**AAMA/NWWDA 101/I.S.2-97  
TEST REPORT SUMMARY**

**Rendered to:**

**MI HOME PRODUCTS, INC.**

**SERIES/MODEL: 650 Fin  
TYPE: Aluminum Single Hung Window**

Title of Test	Results
Rating	H-R40 52 x 72
Overall Design Pressure	+45.0 psf -47.2 psf
Operating Force	11 lb max.
Air Infiltration	0.13 cfm/ft <sup>2</sup>
Water Resistance	6.00 psf
Structural Test Pressure	+67.5 psf -70.8 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

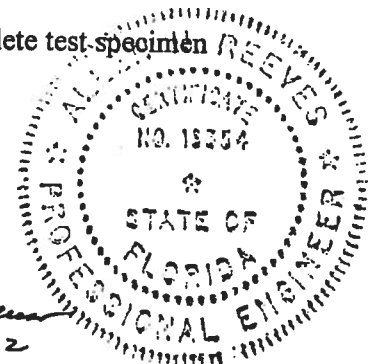
Reference should be made to Report No. 01-41134.01 dated 03/26/02 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.

Mark A. Hess, Technician

MAH:nlb

*Allen H. Reeves*  
1 APRIL 2002





Architectural Testing

**AAMA/NWWDA 101/I.S.2-97 TEST REPORT**

Rendered to

MI HOME PRODUCTS, INC.  
650 West Market Street  
P.O. Box 370  
Gratz, Pennsylvania 17030-0370

Report No: 01-41134.01  
Test Date: 03/07/02  
Report Date: 03/26/02  
Expiration Date: 03/07/06

**Project Summary:** Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to perform tests on Series/Model 650 Fin, aluminum single hung window at their facility located in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for a H-R40 52 x 72 rating.

**Test Specification:** The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

**Test Specimen Description:**

**Series/Model:** 650 Fin

**Type:** Aluminum Single Hung Window

**Overall Size:** 4' 4-1/4" wide by 6' 0-3/8" high

**Active Sash Size:** 4' 1-3/4" wide by 3' 0-5/8" high

**Daylight Opening Size:** 3' 11-3/8" wide by 2' 9-1/2" high

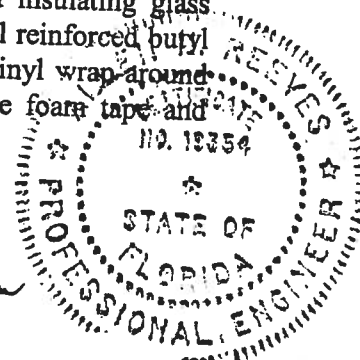
**Screen Size:** 4' 0-1/4" wide by 2' 11-1/8" high

**Finish:** All aluminum was white.

**Glazing Details:** The active and fixed lites utilized 5/8" thick, sealed insulating glass constructed from two sheets of 1/8" thick, clear annealed glass and a metal reinforced butyl spacer system. The active sash was channel glazed utilizing a flexible vinyl wrap-around gasket. The fixed lite was interior glazed against double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

130 Derry Court  
York, PA 17402-9405  
phone: 717.764.7700  
fax: 717.764.4129  
www.archtest.com

Allen M. Reeves  
1 APRIL 2002





**Test Specimen Description: (Continued)**

**Weatherstripping:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.230" high by 0.270" backed polypile with center fin	1 Row	Fixed meeting rail
0.250" high by 0.187" backed polypile with center fin	2 Rows	Active sash stiles
1/2" x 1/2" dust plug	4 Pieces	Active sash, top and bottom of stiles
1/4" foam-filled vinyl bulb seal	1 Row	Active sash, bottom rail

**Frame Construction:** The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss. End caps were utilized on the ends of the fixed meeting rail and secured with two 1-1/4" screws per cap. Meeting rail was secured to the frame utilizing two 1-1/4" screws.

**Sash Construction:** The sash was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1-1/2" screws through the rails into each jamb screw boss.

**Screen Construction:** The screen was constructed from roll-formed aluminum with keyed corners. The fiberglass mesh was secured with a flexible spline.

**Hardware:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Metal cam lock with keeper		Midspan, active meeting rail with keeper adjacent on fixed meeting rail
Plastic tilt latch	2	Active sash, meeting rail ends
Metal tilt pin	2	Active sash, bottom rail ends
Balance assembly	2	One in each jamb
Screen plunger	2	4" from rail ends on top rail

*Allen H. Reeves*  
1 APRIL 2002





**Test Specimen Description: (Continued)****Drainage:** Sloped sill**Reinforcement:** No reinforcement was utilized.**Installation:** The test specimen was installed into a 2 x 8 #2 Spruce-Pine-Fir wood test buck with #8 x 1-5/8" drywall screws every 8" on center around the nail fin. Polyurethane was used as a sealant under the nail fin and around the exterior perimeter.**Test Results:**

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.1	Operating Force	11 lbs	30 lbs max
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.13 cfm/ft <sup>2</sup>	0.3 cfm/ft <sup>2</sup> max

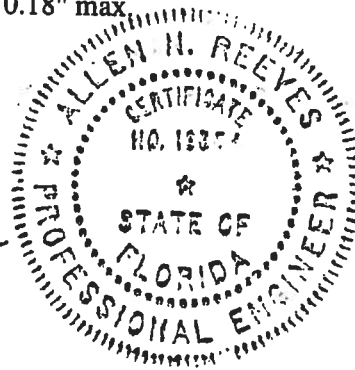
**Note #1:** The tested specimen meets the performance levels specified in AAMA/NWDA 101/I.S. 2-97 for air infiltration.

	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds) @ 25.9 psf (positive) @ 34.7 psf (negative)	0.42"* 0.43"*	0.26" max. 0.26" max.

*\*Exceeds L/175 for deflection, but passes all other test requirements.*

2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds) @ 38.9 psf (positive) @ 52.1 psf (negative)	0.02" 0.02"	0.18" max. 0.18" max.
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*Allen H. Reeves*  
1 APRIL 2002





**Test Specimen Description: (Continued)**

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.2	Deglazing Test (ASTM E 987) In operating direction at 70 lbs		
	Meeting rail	0.12"/25%	0.50"/100%
	Bottom rail	0.12"/25%	0.50"/100%
	In remaining direction at 50 lbs		
	Left stile	0.06"/12%	0.50"/100%
	Right stile	0.06"/12%	0.50"/100%
	Forced Entry Resistance (ASTM F 588-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Tests A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry

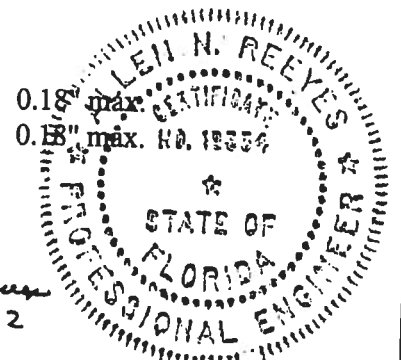
**Optional Performance**

4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 6.00 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	@ 45.0 psf (positive)	0.47"*	0.26" max.
	@ 47.2 psf (negative)	0.46"*	0.26" max.

*\*Exceeds L/175 for deflection, but passes all other test requirements.*

Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)	
@ 67.5 psf (positive)	0.05"
@ 70.8 psf (negative)	0.05"

*Allen N. Reeves*  
1 APRIL 2002





Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC:



Mark A. Hess  
Technician

MAH:nlb  
01-41134.01



Allen N. Reeves, P.E.  
Director - Engineering Services  
1 APRIL 2002





**AAMA/NWWDA 101/I.S.2-97  
TEST REPORT**

**Rendered to:**

**MI HOME PRODUCTS, INC.**

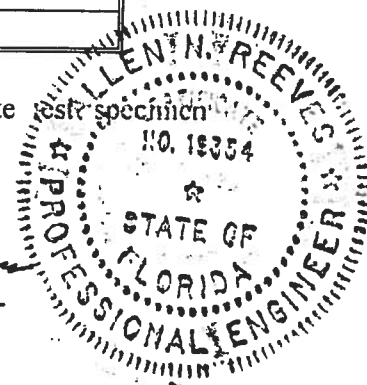
**SERIES/MODEL: 650**

**TYPE: Aluminum Triple Single Hung Window**

Title of Test	Summary of Results
AAMA Rating	H-R35 112 x 72
Uniform Load Deflection Test Pressure	+35.3 psf -47.2 psf
Operating Force	25 lb max.
Air Infiltration	0.16 cfm/ft <sup>2</sup>
Water Resistance Test Pressure	5.25 psf
Uniform Load Structural Test Pressure	+53.0 psf -52.5 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 01-41641.01 for complete test specimen description and data.

*Allen N. Reeves*  
7 JUNE 2002





Architectural Testing

**AAMA/NWWDA 101/I.S.2-97 TEST REPORT**

Rendered to

MI HOME PRODUCTS, INC.  
P.O. Box 370  
650 West Market Street  
Gratz, Pennsylvania 17030-0370

Report No: 01-41641.01  
Test Date: 05/13/02  
And: 05/16/02  
Report Date: 06/05/02  
Expiration Date: 05/16/06

**Project Summary:** Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to witness testing on a Series/Model 650, aluminum triple single hung window at their facility located in Elizabethville, Pennsylvania. The sample tested successfully met the performance requirements for a H-R35 112 x 72 rating.

**Test Specification:** The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

**Test Specimen Description:**

**Series/Model:** 650

**Type:** Aluminum Triple Single Hung Window

**Overall Size:** 9' 3-1/2" wide by 5' 11-11/16" high

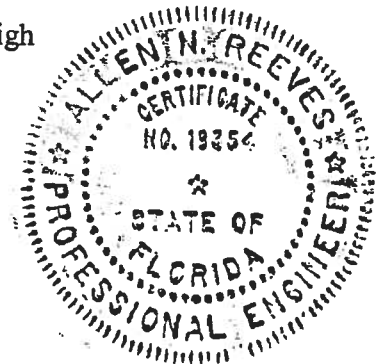
**Active Sash Size (3):** 3' 0-1/4" wide by 2' 10-3/4" high

**Fixed Daylight Opening Size (3):** 2' 8-1/4" wide by 2' 9-1/8" high

**Screen Size (3):** 2' 9-1/8" wide by 2' 11" high

**Finish:** All aluminum was painted white.

130 Derry Court  
York, PA 17402-9405  
phone: 717.764.7700  
fax: 717.764.4129  
www.archtest.com



*Allen N. Reeves*  
7 JUNE 2002



**Test Specimen Description: (Continued)**

**Glazing Details:** The active and fixed lites utilized 5/8" thick, sealed insulating glass constructed from two sheets of 1/8" thick, clear annealed glass and a metal reinforced butyl spacer system. The active sash was channel glazed utilizing a flexible vinyl wrap-around gasket. The fixed lite was interior glazed against double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

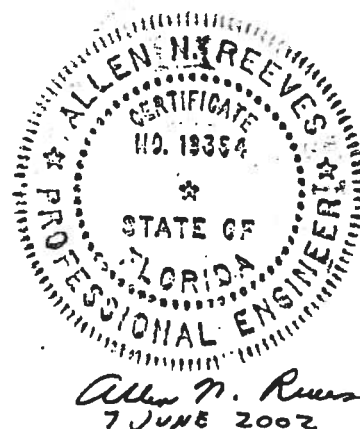
**Weatherstripping:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.230" high by 0.270" backed polypile with center fin	Row	Fixed meeting rail
0.250" high by 0.187" backed polypile with center fin	2 Rows	Active sash stiles
1/2" by 1/2" dust plug	4 Pieces	Active sash, top and bottom of stiles
1/4" foam filled vinyl bulb seal	1 Row	Active sash, bottom rail

**Frame Construction:** The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss. End caps were utilized on the ends of the fixed meeting rail and secured with two 1-1/4" screws per cap. The meeting rail was secured to the frame utilizing two 1-1/4" screws. The mullions were secured utilizing four #8 x 1-1/4" screws through the head and sill into the mullion screw boss.

**Sash Construction:** The sash was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1-1/2" screws through the rails into each stiles' screw boss.

**Screen Construction:** The screen was constructed from roll-formed aluminum with keyed corners. The fiberglass mesh was secured with a flexible spline.



**Test Specimen Description: (Continued)****Hardware:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Metal cam lock with keeper	1	Midspan of each active meeting rail with adjacent keepers
Plastic tilt latch	2	Each active sash meeting rail ends
Metal tilt pin	2	Each active sash bottom rail ends
Balance assembly	2	Each active sash contained one in each jamb
Screen plunger	2	Each screen contained two 4" from rail ends on top rail

**Drainage:** Sloped sill**Reinforcement:** No reinforcement was utilized.

**Installation:** The test specimen was installed into a 2 x 8 #2 Spruce-Pine-Fir wood buck with #8 x 1-5/8" drywall screws every 8" on center around the nail fin. Polyurethane was used as a sealant under the nail fin and around the exterior perimeter.

**Test Results:**

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.1	Operating Force	25 lbs	30 lbs max.
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.16 cfm/ft <sup>2</sup>	0.3 cfm/ft <sup>2</sup> max.

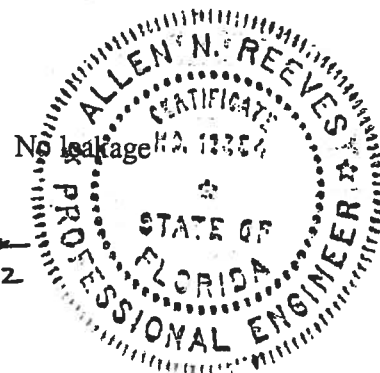
**Note #1:** The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration.

Water Resistance (ASTM E 547-00)  
(with and without screen)  
WTP = 2.86 psf

No leakage

No leakage

*Allen N. Reeves*  
7 JUNE 2002

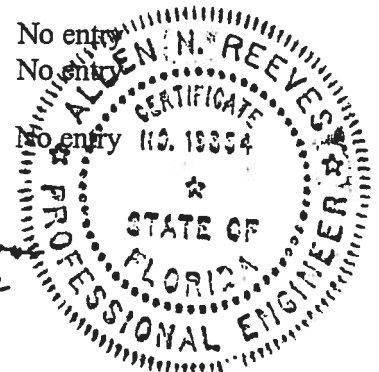




**Test Results: (Continued)**

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 52 seconds) @ 15.0 psf (positive) @ 15.0 psf (negative)	0.15" 0.29"	0.41" max. 0.41" max.
2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 10 seconds) @ 22.5 psf (positive) @ 22.5 psf (negative)	0.01" 0.01"	0.29" max. 0.29" max.
2.2. .6.2	Deglazing Test (ASTM E 987-88) In operating direction at 70 lbs  Right sash, meeting rail Right sash, bottom rail Middle sash, meeting rail Middle sash, bottom rail Left sash, meeting rail Left sash, bottom rail  In remaining direction at 50 lbs  Right sash, right stile Right sash, left stile Middle sash, right stile Middle sash, left stile Left sash, right stile Left sash, left stile	  0.12"/25% 0.12"/25% 0.12"/25% 0.12"/25% 0.12"/25% 0.12"/25%   0.06"/12% 0.06"/12% 0.06"/12% 0.06"/12% 0.06"/12% 0.06"/12%	  0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100%   0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100%
2 .8	Forced Entry Resistance (ASTM F 588-97)  Type: A Grade: 10  Lock Manipulation Test  Test A1 through A5 Test A7  Lock Manipulation Test	    No entry No entry No entry  No entry	    No entry No entry No entry  No entry

*Allen N. Reeves*  
7 JUNE 2002







**Test Results: (Continued)**

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
<u>Optional Performance</u>			
4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 5.25 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 52 seconds)		
	@ 35.3 psf (positive)	0.46"*	0.41" max
	@ 47.2 psf (negative)	0.67"*	0.41" max

*\*Exceeds L/175 for deflection, but meets all other test requirements.*

Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 10 seconds)		
@ 53.0 psf (positive)	0.03"	0.29" max
@ 52.5 psf (negative)	0.02"	0.29" max

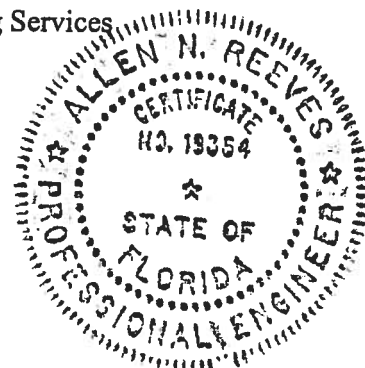
Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC

Mark A. Hess  
Technician

MAH:nlb  
01-41641.01

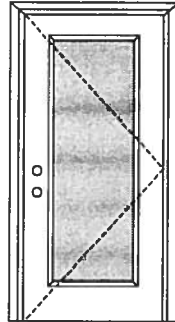
Allen N. Reeves, P.E.  
Director - Engineering Services  
7 JUNE 2002



**X**

Glazed Outswing Unit

COP-WL-JH4161-02

**WOOD-EDGE STEEL DOORS****APPROVED ARRANGEMENT:****Note:**

Units of other sizes are covered by this report as long as the panel used does not exceed 3'0" x 6'8".



Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website ([www.itssemko.com](http://www.itssemko.com)), the Masonite website ([www.masonite.com](http://www.masonite.com)) or the Masonite technical center.

**Single Door**

Maximum unit size = 3'0" x 6'8"

**Design Pressure**

**+40.5/-40.5**

Limited water unless special threshold design is used.

**Large Missile Impact Resistance**

**Hurricane protective system (shutters) is REQUIRED.**

Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7-national, state or local building codes specify the edition required.

**MINIMUM ASSEMBLY DETAIL:**

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0011-02 and MAD-WL-MA0041-02.

**MINIMUM INSTALLATION DETAIL:**

Compliance requires that minimum installation details have been followed – see MID-WL-MA0001-02.

**APPROVED DOOR STYLES:****1/4 GLASS:**

100 Series



133, 135 Series



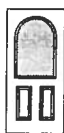
136 Series



680 Series



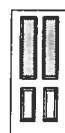
822 Series

**1/2 GLASS:**

105 Series\*



106, 160 Series\*



129 Series\*



200 Series\*



12 R/L, 23 R/L, 24 R/L Series\*



107 Series\*



108 Series



304 Series

\*This glass kit may also be used in the following door styles: 5-panel; 5-panel with scroll; Eyebrow 5-panel; Eyebrow 5-panel with scroll.

1

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**EntrySystems**

June 17, 2002  
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

**PREMDOR Collection**  
Premium Quality Doors



Exclusively from

**Masonite®**  
Masonite International Corporation

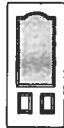
**X**

Glazed Outswing Unit

COP-WL-JH4161-02

**WOOD-EDGE STEEL DOORS****APPROVED DOOR STYLES:****3/4 GLASS:**

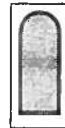
404 Series



410 Series



450 Series

**FULL GLASS:**

109 Series

114, 120, 122  
Series

152 Series



149 Series



300 Series

**CERTIFIED TEST REPORTS:**

NCTL 210-1897-7, 8, 9, 10, 11, 12; NCTL 210-1864-5, 6, 7, 8; NCTL 210-2178-1, 2, 3

Certifying Engineer and License Number: Barry D. Portney, P.E. / 16258.

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Evaluation report NCTL-210-2794-1

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top end rails constructed of 0.041" steel. Bottom end rails constructed of 0.021" steel. Interior cavity of slab filled with rigid polyurethane foam core. Slab glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum bumper threshold.

**PRODUCT COMPLIANCE LABELING:**

TESTED IN  
ACCORDANCE WITH  
MIAMI-DADE BCCO PA202

COMPANY NAME  
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections).

State of Florida, Professional Engineer  
Kurt Balthazor, P.E. – License Number 56533



Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website ([www.itswh.com](http://www.itswh.com)), the Masonite website ([www.masonite.com](http://www.masonite.com)) or the Masonite technical center.

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June 17, 2002  
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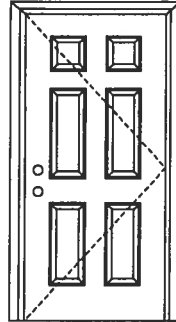


Exclusively from  
**Masonite®**  
Masonite International Corporation

**X**

Opaque Inswing Unit

COP-WL-JH4101-02

**WOOD-EDGE STEEL DOORS****APPROVED ARRANGEMENT:****Note:**

Units of other sizes are covered by this report as long as the panel used does not exceed 3'0" x 6'8".



Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website ([www.itsmko.com](http://www.itsmko.com)), the Masonite website ([www.masonite.com](http://www.masonite.com)) or the Masonite technical center.

**Single Door**

Maximum unit size = 3'0" x 6'8"

**Design Pressure**

**+66.0/-66.0**

limited water unless special threshold design is used.

**Large Missile Impact Resistance**

**Hurricane protective system (shutters) is NOT REQUIRED.**

Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7-national, state or local building codes specify the edition required.

**MINIMUM ASSEMBLY DETAIL:**

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0001-02.

**MINIMUM INSTALLATION DETAIL:**

Compliance requires that minimum installation details have been followed – see MID-WL-MA0001-02.

**APPROVED DOOR STYLES:**

Flush



Arch Top 3-panel



3-panel



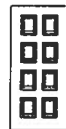
6-panel



New England 4-panel



Eyebrow 4-panel



8-panel



9-panel



15-panel



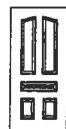
5-panel



5-panel with scroll



Eyebrow 5-panel



Eyebrow 5-panel with scroll

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June 17, 2002  
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.



Exclusively from

**Masonite®**  
Masonite International Corporation

**X**

Opaque Inswing Unit

COP-WL-JH4101-02

## WOOD-EDGE STEEL DOORS

### CERTIFIED TEST REPORTS:

NCTL 210-2185-1, 2, 3

Certifying Engineer and License Number: Barry D. Portney, P.E. / 16258.

Unit Tested in Accordance with Miami-Dade BCCO PA201, PA202 and PA203.

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top end rails constructed of 0.041" steel. Bottom end rails constructed of 0.021" steel. Interior cavity of slab filled with rigid polyurethane foam core.

Frame constructed of wood with an extruded aluminum threshold.

### PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH  
MIAMI-DADE BCCO  
PA201, PA202 & PA203

COMPANY NAME  
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections).



State of Florida, Professional Engineer  
Kurt Balthazor, P.E. – License Number 56533



Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website ([www.ettsemko.com](http://www.ettsemko.com)), the Masonite website ([www.masonite.com](http://www.masonite.com)) or the Masonite technical center.

2

**Johnson**  
**EntrySystems**

June 17, 2002  
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.



Exclusively from  
 **Masonite**  
Masonite International Corporation



# ELK

## ROOFING PRODUCTS SPECIFICATIONS - TUSCALOOSA, AL



**PRESTIQUE®  
HIGH DEFINITION®**



**RAISED PROFILE®**

### Prestique Plus High Definition and Prestique Gallery Collection

Product size	13 1/4" x 39 1/4"
Exposure	5"
Pieces/Bundle	16
Bundles/Square	4/98.5 sq. ft.
Squares/Pallet	11

50-year limited warranty period:  
5-7\*\*years non-prorated coverage for  
shingles and application labor with  
prorated coverage for remainder of  
limited warranty period, plus an  
option for transferability\*. 5-year  
limited wind warranty\*. Wind  
Coverage: standard 80 mph, extended  
110 mph\*\*\*

### Raised Profile

Product size	13 1/4" x 38 1/4"
Exposure	5"
Pieces/Bundle	22
Bundles/Square	3/100 sq. ft.
Squares/Pallet	16

30-year limited warranty period:  
5-7\*\*years non-prorated coverage for  
shingles and application labor with  
prorated coverage for remainder of  
limited warranty period, plus an  
option for transferability\*. 5-year  
limited wind warranty\*. Wind  
Coverage: standard 70 mph

### Prestique I High Definition

Product size	13 1/4" x 39 1/4"
Exposure	5"
Pieces/Bundle	16
Bundles/Square	4/98.5 sq. ft.
Squares/Pallet	14

40-year limited warranty period:  
5-7\*\*years non-prorated coverage for  
shingles and application labor with  
prorated coverage for remainder of  
limited warranty period, plus an  
option for transferability\*. 5-year  
limited wind warranty\*. Wind  
Coverage: standard 80 mph, extended  
90 mph\*\*\*

### HIP AND RIDGE SHINGLES

#### Seal-A-Ridge® w/FLX®

Size:	12" x 12"
Exposure:	6 1/2"
Pieces/Bundle:	45
Coverage:	4 Bundles = 100 linear feet

#### Vented RidgeCrest™ w/FLX

Size:	13" x 13 1/4"
Exposure:	9 1/2"
Pieces/Box:	26
Coverage:	5 boxes = 100 linear feet

### Prestique High Definition

Product size	13 1/4" x 38 1/4"
Exposure	5"
Pieces/Bundle	22
Bundles/Square	3/100 sq. ft.
Squares/Pallet	16

30-year limited warranty period:  
5-7\*\*years non-prorated coverage for  
shingles and application labor with  
prorated coverage for remainder of  
limited warranty period, plus an  
option for transferability\*. 5-year  
limited wind warranty\*. Wind  
Coverage: standard 80 mph.

### Elk Starter Strip

52 Bundles/Pallet
18 Pallets/Truck
936 Bundles/Truck
19 Pieces/Bundle
1 Bundle = 120.33 linear feet

Available Colors (Check Availability): Antique Slate, Weatheredwood, Shakeswood, Sablewood, Hickory, Barkwood, Forest Green, Wedgewood, Birchwood, Sandalwood.  
Gallery Collection: Balsam Forest®, Weathered Sage®, Sienna Sunset®.

All Prestique, Raised Profile and Seal-A-Ridge, and Prestique Starter Strip roofing products contain sealant which activates with the sun's heat, bonding shingles into a wind and weather resistant cover that resists blow-offs and leaks.

Check for availability with built-in StainGuard® treatment to inhibit the discoloration of roofing granules caused by the growth of certain types of algae.

All Prestique and Raised Profile shingles meet UL® Wind Resistant (UL 997) and Class "A" Fire Ratings (UL 790);  
and ASTM Specifications D 3018, Type-I; D 3161, Type-I; E 108 and the requirements of ASTM D 3462.

All Prestique and Raised Profile shingles have approval from the Florida Building Code Commission, Metro-Dade County, ICBO, and Texas Department of Insurance.

\*See actual limited warranty for conditions and limitations.

\*\* Effective January 1, 2004, the seven year non-prorated Umbrella Coverage Period applies only when a full Elk Roof System is installed with the original installation of the Elk shingles, all in accordance with Elk's application instructions for such products. A full Elk roof system includes Elk Hip and Ridge shingles on all hips and ridges, Elk Starter Strip along all eaves and edges, an Elk ventilation system, and Elk All-Climate Self-Adhering Underlayment in all valleys. Additionally, Elk All-Climate Self-Adhering Underlayment is required along the rake and eave edges of the roof in and north of the states of VA, KY, MD, DE, CO, UT, NV, & OR.  
\*\*\*For a limited Wind Warranty up to 110 mph for Prestique Gallery Collection, Prestique Plus, or 90 mph for Prestique I or Grand®, at least six (6) properly placed NAILS and Elk Starter Strip shingles are required. See application instructions printed on the shingle wrapper for additional requirements.

## SPECIFICATIONS

**Scope:** Work includes furnishing all labor, materials and equipment necessary to complete installation of (name) shingles specified herein. Color shall be (name of color). Hip and ridge type to be Elk Seal-A-Ridge with formula FLX.

All exposed metal surfaces (flashing, vents, etc.) to be painted with matching Elk roof accessory paint.

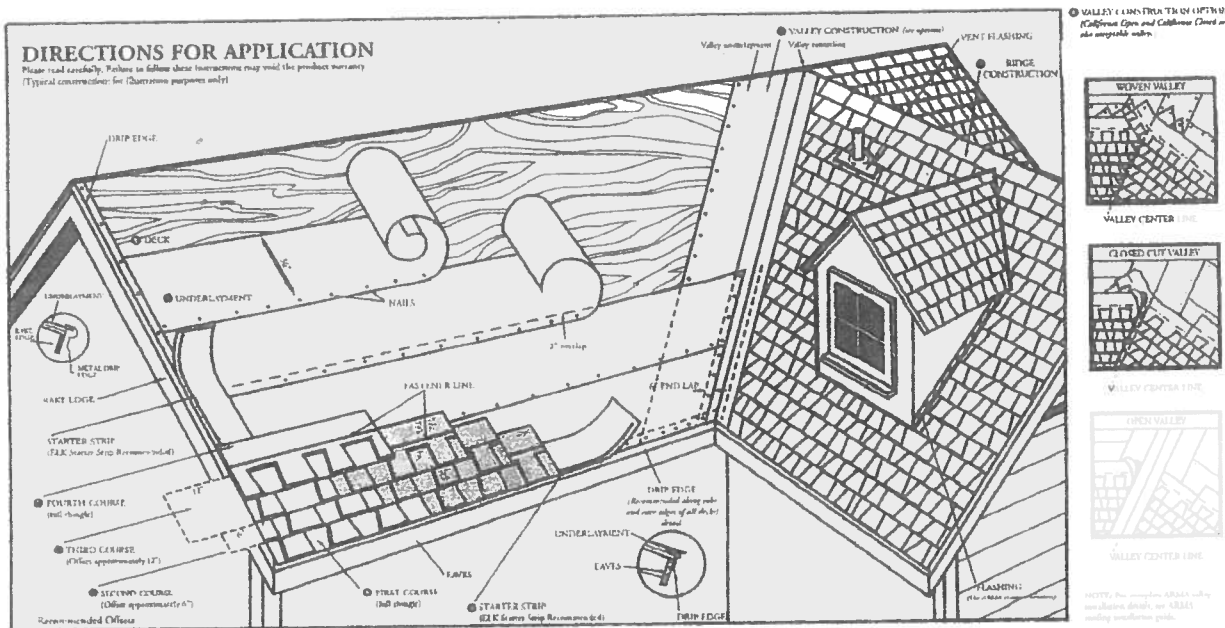
**PREPARATION OF ROOF DECK:** Roof deck to be dry, well-seasoned 1" x 6" (25.4mm x 152.4mm) boards; exterior-grade plywood (exposure 1 rated sheathing) at least 3/8" (9.525mm) thick conforming to the specifications of the American Plywood Association, 7/16" (11.074mm) oriented strandboard; or chipboard. Most fire retardant plywood decks are NOT approved substrates for Elk shingles. Consult Elk Field Service for application specifications over other decks and substrates.

**Materials:** Underlayment for standard roof slopes, 4" per foot (101.6/304.8mm) or greater: apply non-perforated No. 15 or 30 asphalt-saturated felt underlayment. For Low slopes[4" per foot (101.6/304.8mm) to a minimum of 2" per foot (50.8/304.8mm)], use two plies of underlayment overlapped a minimum of 19". Fasteners shall be of sufficient length and holding power for securing material as required by the application instructions printed on shingle wrapper.

For areas where algae is a problem, shingles shall be (name) with StainGuard treatment, as manufactured by the Elk Tuscaloosa plant. Hip and ridge type to be Seal-A-Ridge with formula FLX with StainGuard treatment.

Complete application instructions are published by Elk and printed on the back of every shingle bundle. All warranties are contingent upon the correct installation as shown on the instructions. These instructions are the minimum required to meet Elk application requirements. In some areas, building codes may require additional application techniques or methods beyond our instructions. In these cases, the local code must be followed. Under no circumstances will Elk accept application requirements less than those contained in its application instructions.

For specifications in CSI format, call 800.354.SPEC (7732) or e-mail specinfo@elkcorp.com.



## DIRECTIONS FOR APPLICATION

These application instructions are the minimum required to meet Elk's application requirements. Your failure to follow these instructions may void the product warranty. In some areas the building codes may require additional application technique or methods beyond our instructions. In these cases, the local code must be followed. Under no circumstances will Elk accept application requirements that are less than those printed here. Shingles should not be jammed tightly together. All attic should be properly ventilated. Note: It is not necessary to remove tape on back of shingle.

### 1. DECK PREPARATION

Roof decks should be dry, well-seasoned 1 x 6 boards or exterior grade plywood minimum 3/8" thick and conform to the specifications of the American Plywood Association or 7/16 oriented strandboard, or 7/16" chipboard.

### 2. UNDERLAYMENT

Apply underlayment (Non-Perforated No. 15 or 30 asphalt saturated felt, Elk Versashield® or self-adhering underlayment is also acceptable. Cover drip edge at eaves only.

For low slope (2/12 up to 4/12), completely cover the deck with two plies of underlayment overlapping a minimum of 15". Begin by fastening a 15" wide strip of underlayment placed along the eaves. Place a full 36" wide sheet over the starter, horizontally placed along the eaves and completely overlapping the starter strip.

**EAVE FLASHING FOR ICE DAMS (ASK A ROOFING CONTRACTOR. REFER TO ARMA MANUAL OR CHECK LOCAL CODES)**

For standard slope (4/12 to less than 21/12), use coated roll roofing of no less than 50 pounds over the felt underlayment extending from the eave edge to a point at least 24" beyond the inside wall of the living space below or one layer of a self-adhered eave and flashing membrane.

For low slope (2/12 up to 4/12), use a continuous layer of asphalt plastic cement between the two plies of underlayment from the eave edge up to a point at least 24" beyond the inside wall of the living space below or one layer of a self-adhered eave and flashing membrane.

Consult the Elk Technical Services Department for application specifications over other decks and other slopes.

### 3. STARTER SHINGLE COURSE

USE AN ELK STARTER STRIP OR THE HEADLAP OF A STRIP SHINGLE WITH THE ADHESIVE STRIP POSITIONED AT THE EAVE EDGE. With at least 3" trimmed from the end of the first shingle, start at the rake edge overhanging the eave and rake edges 1/2" to 3/4". Fasten 2" from the lower edge and 1" from each side.

### 4. FIRST COURSE

Start at rake and continue course with full shingles laid flush with the starter course. Shingles may be applied with a course alignment of 45° on the roof.

### 5. SECOND COURSE

Offset the second course of shingles with respect to the first by approximately 6". Other offsets are approved if greater than 4".

### 6. THIRD COURSE

Offset the next course by 6" with respect to the second course, or consistent with the original offset.

### 7. FOURTH COURSE

Start at the rake and continue with full shingles across roof.

### FIFTH AND SUGGESTING COURSES.

Repeat application as shown for second, third, and fourth courses. Do not rack shingles straight up the roof. Offsets may be adjusted around valleys and penetrations.

### 8. VALLEY CONSTRUCTION

Open woven and closed cu valley are acceptable when applied by Asphalt Roofing Manufacturing Association (ARMA) recommended procedures. For metal valleys use 36" wide vertical underlayment prior to applying metal flashing (secure edge with nails). No nails are to be will in 6" of valley center.

### 9. RIDGE CONSTRUCTION

For ridge construction Elk recommends Elk Seal-A-Ridge or Seal-A-Ridge® with formula FLX or RidgeCrest® with FLX (See ridge package for installation instructions). Vented RidgeCrest or 3-tab shingles are also approved.

### FASTENERS

While nailing is the preferred method for Elk shingles, Elk will accept fastening methods according to the following instructions.

Using the fastener line as a reference, nail or staple the shingle in the double thickness common bond area. For shingles without a fastener line, nails or staples must be placed between and/or in the sealant dots.

**NAILS:** Corrosive resistant, 3/8" head, minimum 12-gauge roofing nails. Elk recommends 1-1/4" for new roofs and 1-1/2" for roof-overs. In cases where you are applying shingles to a roof that has an exposed overhang, for new roofs only, 3/4" ring shank nails are allowed to be used from the eave's edge to a point up the roof that is past the outside wall line. 1" ring shank nails allowed for re-roof.

**STAPLES:** Corrosive resistant, 18-gauge minimum, crown width minimum of 15/16". Note: An improperly adjusted staple gun can result in raised staples that can cause a fish-mouthed appearance and can prevent sealing.

Fasteners should be long enough to obtain 3/4" deck penetration or penetration through deck, whichever is less. This product meets the requirements of the IRC 2003 code when fastened with 4 nails.

### MANSARD APPLICATIONS

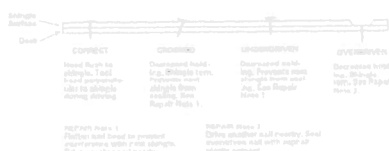
Correct fastening is critical to the performance of the roof. For slopes exceeding 60° (or 21/12) use six fasteners per shingle. Locate fasteners in the fastener area 1" from each side edge with the remaining four fasteners equally spaced along the length of the double thickness (laminated) area. Only fastening methods according to the above instructions are acceptable.

### LIMITED WIND WARRANTY

- For a Limited Wind Warranty, all Prestique and Raised Profile™ shingles must be applied with 4 properly placed fasteners, or in the case of mansard applications, 6 properly placed fasteners per shingle.
- For a Limited Wind Warranty up to 110 MPH for Prestique Gallery Collection or Prestique Plus or 90 MPH for Prestique I, shingles must be applied with 6 properly placed NAILS per shingle. SHINGLES APPLIED WITH STAPLES WILL NOT QUALIFY FOR THIS ENHANCED LIMITED WIND WARRANTY. Also, Elk Starter Strip shingles must be applied at the eaves and rake edges to qualify Prestique Plus, Prestique Gallery Collection and Prestique I shingles for this enhanced Limited Wind Warranty. Under no circumstances should the Elk Shingles or the Elk Starter Strip overhang the eaves or rake edge more than 3/4" of an inch.

### HELP STOP BLOW-OFFS AND CALL-BACKS

A minimum of four fasteners must be driven into the DOUBLE THICKNESS (laminated) area of the shingle. Nails or staples must be placed along – and through – the "fastener line" or on products without fastener lines, nail or staple between and in line with sealant dots. CAUTION: Do not use fastener line for shingle alignment.



Refer to local codes which in some areas may require specific application techniques beyond those Elk has specified. All Prestique and Raised Profile shingles have a UL® Wind Resistance Rating when applied in accordance with these instructions using nails or staples on re-roofs as well as new construction.

**CAUTION TO WHOLESALE:** Careless and improper storage or handling can harm shingles. Keep these shingles completely covered, dry, reasonably cool, and protected from the weather. Do not store near various sources of heat. Do not store in direct sunlight until applied. DO NOT DOUBLE STACK. Systematically rotate all stock so that the material that has been stored the longest will be the first to be moved out.

*K & H Framing 1415  
HVAC Load Calculations*

for

K & H Framing  
4062 South West Old Wire Road  
Fort White FL 32038



**RHVAC** RESIDENTIAL  
HVAC LOADS

Prepared By:  
Chuck Fischer  
North Central Florida Air Conditioning  
P.O. Box 700  
High Springs FL 32655-0700  
386-454-4767  
Wednesday, January 25, 2006





## Project Report

### General Project Information

Project Filename: C:\Documents and Settings\Heat\My Documents\Projects\AutoLoad MJ8.rhv  
Project Title: K & H Framing 1415  
Designed By: Chuck Fischer  
Project Date: January 14th 2006  
Client Name: K & H Framing  
Client Address: 4062 South West Old Wire Road  
Client City: Fort White FL 32038  
Client Phone: 386-867-0155  
Client Comment:  
Company Name: North Central Florida Air Conditioning  
Company Representative: Chuck Fischer  
Company Address: P.O Box 700  
Company City: High Springs FL 32655-0700  
Company Phone: 386-454-4767  
Company Fax: 386-454-4854  
Company Comment: Bedroom 2&3 R/A are 10x10x8 Master bedroom R/A is 12x12x9 Main R/A is 20x24x18

### Design Data

Reference City: Gainesville, Florida  
Daily Temperature Range: Medium  
Latitude: 29 Degrees  
Elevation: 152 ft.  
Altitude Factor: 0.995  
Elevation Sensible Adj. Factor: 1.000  
Elevation Total Adj. Factor: 1.000  
Elevation Heating Adj. Factor: 1.000  
Elevation Heating Adj. Factor: 1.000

	Outdoor Dry Bulb	Outdoor Wet Bulb	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	31	0	0	68	0
Summer:	93	77	50	75	50

### Check Figures

Total Building Supply CFM:	1,073	CFM Per Square ft.:	0.758
Square ft. of Room Area:	1,415	Square ft. Per Ton:	557
Volume (ft³) of Cond. Space:	13,735	Air Turnover Rate (per hour):	4.7

### Building Loads

Total Heating Required With Outside Air:	27,439 Btuh	27.439 MBH
Total Sensible Gain:	23,479 Btuh	83 %
Total Latent Gain:	4,711 Btuh	17 %
Total Cooling Required With Outside Air:	28,190 Btuh	2.35 Tons (Based On Sensible + Latent)
		2.54 Tons (Based On 77% Sensible Capacity)

### Notes

Calculations are based on 8th edition of ACCA Manual J.  
All computed results are estimates as building use and weather may vary.  
Be sure to select a unit that meets both sensible and latent loads.



## Miscellaneous Report

System 1 Main Floor Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	31	0	50	68	30.84
Summer:	93	77	50	75	50.06

### Duct Sizing Inputs

	Main Trunk	Runouts
Calculate:	Yes	Yes
Use Schedule:	No	No
Roughness Factor:	0.00300	0.01000
Pressure Drop:	0.1000 in.wg./100 ft.	0.1000 in.wg./100 ft.
Minimum Velocity:	650 ft./min	450 ft./min
Maximum Velocity:	900 ft./min	750 ft./min
Minimum Height:	0 in.	0 in.
Maximum Height:	0 in.	0 in.

### Outside Air Data

	Winter	Summer
Infiltration:	0.900 AC/hr	0.400 AC/hr
Volume of Conditioned Space:	X 13735 Cu.ft.	X 13735 Cu.ft.
	12,362 Cu.ft./hr	5,494 Cu.ft./hr
	X 0.0167	X 0.0167
Total Building Infiltration:	206 CFM	92 CFM
Total Building Ventilation:	0 CFM	0 CFM

### —System 1—

Infiltration & Ventilation Sensible Gain Multiplier:	19.69	= (1.10 X 0.995 X 18.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier:	33.85	= (0.68 X 0.995 X 50.06 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier:	40.48	= (1.10 X 0.995 X 37.00 Winter Temp. Difference)



## Load Preview Report

Scope	Area	Sens Gain	Lat Gain	Net Gain	Sens Loss	Win CFM	Sum CFM	Sys CFM	Duct Size
<b>Building: 2.35 Net Tons, 2.54 Recommended Tons, 557 ft<sup>2</sup>/Ton, 27.44 MBH Heating</b>									
Building	1,415	23,479	4,711	28,190	27,439	358	1,073	1,073	
<b>System 1: 2.35 Net Tons, 2.54 Recommended Tons, 557 ft<sup>2</sup>/Ton, 27.44 MBH Heating</b>									
System 1	1,415	23,479	4,711	28,190	27,439	358	1,073	1,073	14x14
Zone 1	1,415	23,479	4,711	28,190	27,439	358	1,073	1,073	
1-Bedroom 3	174	3,119	986	4,105	4,546	59	143	143	1-7
2-Bath 2	59	743	112	855	942	12	34	34	1-3
3-Bedroom 2	193	3,178	1,006	4,184	4,724	62	145	145	1-7
4-Hall	49	388	0	388	130	2	18	18	1-3
5-Family Room	251	4,079	505	4,584	4,318	56	186	186	2-6
6-Eating Area	108	2,200	362	2,562	2,948	38	101	101	1-6
7-Kitchen	123	2,986	230	3,216	235	3	136	136	1-7
8-Foyer	92	898	60	958	779	10	41	41	1-4
9-Laundry Room	35	875	237	1,112	1,831	24	40	40	1-4
10-Master Bedroom	219	3,242	727	3,969	3,060	40	148	148	1-7
11-W.i.c	31	666	223	889	1,702	22	30	30	1-3
12-Master Bath	81	1,102	263	1,365	2,224	29	50	50	1-4





## Total Building Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, light color blinds at 45° with 25% coverage, external shade screen coefficient of 0.45 and 50% coverage	86	2,069	0	2,020	2,020
10B-f: Glazing-French door, double pane clear glass, insulated fiberglass frame, ground reflectance = 0.23	40.8	725	0	1,713	1,713
11P: Door-Polyurethane Core	20.4	219	0	172	172
12C-4sw: Wall-Frame, R-13 insulation in 2 x 4 stud cavity, R-4 board insulation, siding finish, wood studs	1098	2,803	0	1,547	1,547
16C-30: Roof/Ceiling-Under attic or knee wall, Vented Attic, No Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel or Membrane, R-30 insulation	1415.6	1,676	0	1,949	1,949
22A-ph: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy moist soil	140	7,034	0	0	0
Subtotals for structure:		14,526	0	7,401	7,401
People:	7		1,610	2,100	3,710
Equipment:			0	1,200	1,200
Lighting:	2070			7,059	7,059
Ductwork:		4,574	0	3,915	3,915
Infiltration: Winter CFM: 206, Summer CFM: 92		8,339	3,101	1,804	4,905
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
Total Building Load Totals:		27,439	4,711	23,479	28,190

### Check Figures

Total Building Supply CFM:	1,073	CFM Per Square ft.:	0.758
Square ft. of Room Area:	1,415	Square ft. Per Ton:	557
Volume (ft³) of Cond. Space:	13,735	Air Turnover Rate (per hour):	4.7

### Building Loads

Total Heating Required With Outside Air:	27,439 Btuh	27.439 MBH
Total Sensible Gain:	23,479 Btuh	83 %
Total Latent Gain:	4,711 Btuh	17 %
Total Cooling Required With Outside Air:	28,190 Btuh	2.35 Tons (Based On Sensible + Latent)
		2.54 Tons (Based On 77% Sensible Capacity)

### Notes

Calculations are based on 8th edition of ACCA Manual J.  
 All computed results are estimates as building use and weather may vary.  
 Be sure to select a unit that meets both sensible and latent loads.



## System 1 Main Floor Summary Loads (Average Method)

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, light color blinds at 45° with 25% coverage, external shade screen coefficient of 0.45 and 50% coverage	86	2,069	0	2,020	2,020
10B-f: Glazing-French door, double pane clear glass, insulated fiberglass frame, ground reflectance = 0.23	40.8	725	0	1,713	1,713
11P: Door-Polyurethane Core	20.4	219	0	172	172
12C-4sw: Wall-Frame, R-13 insulation in 2 x 4 stud cavity, R-4 board insulation, siding finish, wood studs	1098	2,803	0	1,547	1,547
16C-30: Roof/Ceiling-Under attic or knee wall, Vented Attic, No Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel or Membrane, R-30 insulation	1415.6	1,676	0	1,949	1,949
22A-ph: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy moist soil	140	7,034	0	0	0
Subtotals for structure:		14,526	0	7,401	7,401
People:	7		1,610	2,100	3,710
Equipment:			0	1,200	1,200
Lighting:	2070			7,059	7,059
Ductwork:		4,574	0	3,915	3,915
Infiltration: Winter CFM: 206, Summer CFM: 92		8,339	3,101	1,804	4,905
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
System 1 Main Floor Load Totals:		27,439	4,711	23,479	28,190

### Check Figures

Supply CFM:	1,073	CFM Per Square ft.:	0.758
Square ft. of Room Area:	1,415	Square ft. Per Ton:	557
Volume (ft³) of Cond. Space:	13,735	Air Turnover Rate (per hour):	4.7

### System Loads

Total Heating Required With Outside Air:	27,439 Btuh	27.439 MBH
Total Sensible Gain:	23,479 Btuh	83 %
Total Latent Gain:	4,711 Btuh	17 %
Total Cooling Required With Outside Air:	28,190 Btuh	2.35 Tons (Based On Sensible + Latent)
		2.54 Tons (Based On 77% Sensible Capacity)

### Notes

Calculations are based on 8th edition of ACCA Manual J.  
 All computed results are estimates as building use and weather may vary.  
 Be sure to select a unit that meets both sensible and latent loads.





## System 1, Zone 1 Summary Loads (Average Method)

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, light color blinds at 45° with 25% coverage, external shade screen coefficient of 0.45 and 50% coverage	86	2,069	0	2,020	2,020
10B-f: Glazing-French door, double pane clear glass, insulated fiberglass frame, ground reflectance = 0.23	40.8	725	0	1,713	1,713
11P: Door-Polyurethane Core	20.4	219	0	172	172
12C-4sw: Wall-Frame, R-13 insulation in 2 x 4 stud cavity, R-4 board insulation, siding finish, wood studs	1098	2,803	0	1,547	1,547
16C-30: Roof/Ceiling-Under attic or knee wall, Vented Attic, No Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel or Membrane, R-30 insulation	1415.6	1,676	0	1,949	1,949
22A-ph: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy moist soil	140	7,034	0	0	0
Subtotals for structure:		14,526	0	7,401	7,401
People:	7		1,610	2,100	3,710
Equipment:			0	1,200	1,200
Lighting:	2070			7,059	7,059
Ductwork:		4,574	0	3,915	3,915
Infiltration: Winter CFM: 206, Summer CFM: 92		8,339	3,101	1,804	4,905
System 1, Zone 1 Load Totals:		27,439	4,711	23,479	28,190

### Check Figures

Supply CFM:	1,073	CFM Per Square ft.:	0.758
Square ft. of Room Area:	1,415	Square ft. Per Ton:	557
Volume (ft³) of Cond. Space:	13,735	Air Turnover Rate (per hour):	4.7

### Zone Loads

Total Heating Required:	27,439 Btuh	27.439 MBH
Total Sensible Gain:	23,479 Btuh	83 %
Total Latent Gain:	4,711 Btuh	17 %
Total Cooling Required:	28,190 Btuh	2.35 Tons (Based On Sensible + Latent)
		2.54 Tons (Based On 77% Sensible Capacity)

### Notes

Calculations are based on 8th edition of ACCA Manual J.  
All computed results are estimates as building use and weather may vary.  
Be sure to select a unit that meets both sensible and latent loads.



## System 1 Room Load Summary

Room No	Room Name	Area SF	Htg Sens Btuh	Htg Nom CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Clg Nom CFM	Air Sys CFM
—Zone 1—										
1	Bedroom 3	174	4,546	59	1-7	533	3,119	986	143	143
2	Bath 2	59	942	12	1-3	692	743	112	34	34
3	Bedroom 2	193	4,724	62	1-7	544	3,178	1,006	145	145
4	Hall	49	130	2	1-3	361	388	0	18	18
5	Family Room	251	4,318	56	2-6	475	4,079	505	186	186
6	Eating Area	108	2,948	38	1-6	512	2,200	362	101	101
7	Kitchen	123	235	3	1-7	511	2,986	230	136	136
8	Foyer	92	779	10	1-4	470	898	60	41	41
9	Laundry Room	35	1,831	24	1-4	458	875	237	40	40
10	Master Bedroom	219	3,060	40	1-7	555	3,242	727	148	148
11	W.i.c	31	1,702	22	1-3	620	666	223	30	30
12	Master Bath	81	2,224	29	1-4	577	1,102	263	50	50
System 1 total		1,415	27,439	358			23,479	4,711	1,073	1,073

System 1 Main Trunk Size: 14x14 in.  
Velocity: 874 ft./min  
Loss per 100 ft.: 0.101 in.wg

## Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	2.35	83% / 17%	23,479	4,711	28,190
Recommended:	2.54	77% / 23%	23,479	7,013	30,492
Actual:	3.04	69% / 31%	25,185	11,315	36,500

## Equipment Data

	Heating System	Cooling System
Type:	Air Source Heat Pump	Air Source Heat Pump
Model:	RHE36C2*/BBC36A2A+CHA36TCC	RHE36C2*/BBC36A2A+CHA36TCC
Brand:	AMANA	
Efficiency:	8.1 HSPF	13 SEER
Sound:		
Capacity:	36,500	36,500
Sensible Capacity:	n/a	25,185 Btuh
Latent Capacity:	n/a	11,315 Btuh

# Residential System Sizing Calculation

## Summary

Spec House

Project Title:  
512121K&H Framing

Class 3 Rating  
Registration No. 0  
Climate: North

Lake City, FL

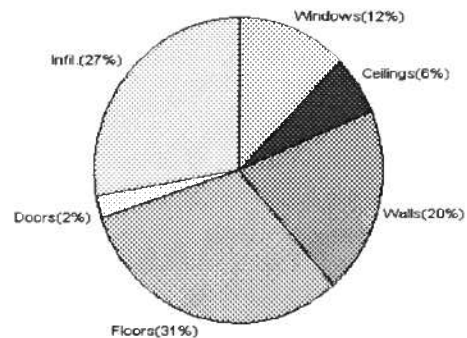
1/23/2006

Location for weather data: Gainesville - Defaults: Latitude(29) Altitude(152 ft.) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(54gr.)			
Winter design temperature	33 F	Summer design temperature	92 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	37 F	Summer temperature difference	17 F
<b>Total heating load calculation</b>	<b>26285 Btuh</b>	<b>Total cooling load calculation</b>	<b>18446 Btuh</b>
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	117.9 31000	Sensible (SHR = 0.75)	165.3 23250
Heat Pump + Auxiliary(0.0kW)	117.9 31000	Latent	177.0 7750
		Total (Electric Heat Pump)	168.1 31000

## WINTER CALCULATIONS

Winter Heating Load (for 1415 sqft)

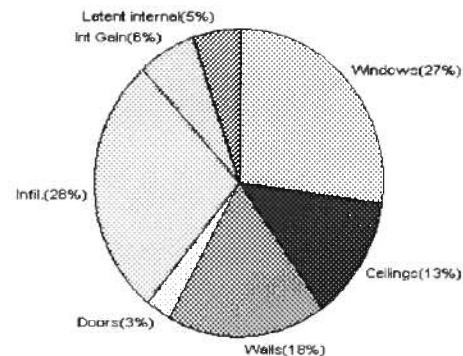
Load component			Load	
Window total	102 sqft		3283	Btuh
Wall total	1599 sqft		5251	Btuh
Door total	50 sqft		648	Btuh
Ceiling total	1415 sqft		1667	Btuh
Floor total	189 sqft		8252	Btuh
Infiltration	177 cfm		7184	Btuh
Duct loss			0	Btuh
<b>Subtotal</b>			<b>26285</b>	<b>Btuh</b>
Ventilation	0 cfm		0	Btuh
<b>TOTAL HEAT LOSS</b>			<b>26285</b>	<b>Btuh</b>



## SUMMER CALCULATIONS

Summer Cooling Load (for 1415 sqft)

Load component			Load	
Window total	102 sqft		5029	Btuh
Wall total	1599 sqft		3335	Btuh
Door total	50 sqft		490	Btuh
Ceiling total	1415 sqft		2343	Btuh
Floor total			0	Btuh
Infiltration	92 cfm		1721	Btuh
Internal gain			1150	Btuh
Duct gain			0	Btuh
Sens. Ventilation	0 cfm		0	Btuh
<b>Total sensible gain</b>			<b>14068</b>	<b>Btuh</b>
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			3378	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1000	Btuh
<b>Total latent gain</b>			<b>4378</b>	<b>Btuh</b>
<b>TOTAL HEAT GAIN</b>			<b>18446</b>	<b>Btuh</b>



For Florida residences only

EnergyGauge® System Sizing

PREPARED BY: *[Signature]*

DATE: 1-23-06



# System Sizing Calculations - Winter

## Residential Load - Whole House Component Details

Spec House

Project Title:  
512121K&H Framing

Class 3 Rating  
Registration No. 0  
Climate: North

Lake City, FL

Reference City: Gainesville (Defaults) Winter Temperature Difference: 37.0 F

1/23/2006

This calculation is for Worst Case. The house has been rotated 315 degrees.

### Component Loads for Whole House

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft)	X	HTM=	Load
1	2, Clear, Metal, 0.87	NW	45.0		32.2	1449 Btuh
2	2, Clear, Metal, 0.87	NW	10.0		32.2	322 Btuh
3	2, Clear, Metal, 0.87	SE	15.0		32.2	483 Btuh
4	2, Clear, Metal, 0.87	SE	20.0		32.2	644 Btuh
5	2, Clear, Metal, 0.87	SE	6.0		32.2	193 Btuh
6	2, Clear, Metal, 0.87	SW	6.0		32.2	193 Btuh
Window Total			102(sqft)			3283 Btuh
Walls	Type	R-Value	Area	X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1400		3.3	4598 Btuh
2	Frame - Wood - Ext(0.09)	13.0	199		3.3	654 Btuh
Wall Total			1599			5251 Btuh
Doors	Type		Area	X	HTM=	Load
1	Insulated - Adjacent		20		12.9	259 Btuh
2	Insulated - Exterior		20		12.9	259 Btuh
3	Insulated - Exterior		10		12.9	130 Btuh
Door Total			50			648 Btuh
Ceilings	Type/Color/Surface	R-Value	Area	X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	1415		1.2	1667 Btuh
Ceiling Total			1415			1667 Btuh
Floors	Type	R-Value	Size	X	HTM=	Load
1	Slab On Grade	0	189.0	ft(p)	43.7	8252 Btuh
Floor Total			189			8252 Btuh
Zone Envelope Subtotal:						19101 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=		Load
	Natural	0.94	11320	177.3		7184 Btuh
Ductload	Unsealed, R6.0, Supply(Attic), Return(Attic) (DLM of 0.00)					0 Btuh
Zone #1	Sensible Zone Subtotal					26285 Btuh

### WHOLE HOUSE TOTALS

	Subtotal Sensible	26285 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	26285 Btuh

# Manual J Winter Calculations

## Residential Load - Component Details (continued)

Spec House

Project Title:  
512121K&H Framing

Class 3 Rating  
Registration No. 0  
Climate: North

Lake City, FL

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear  
(Frame types - metal, wood or insulated metal)  
(U - Window U-Factor or 'DEF' for default)  
(HTM - ManualJ Heat Transfer Multiplier)

Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types )



For Florida residences only

# System Sizing Calculations - Winter

## Residential Load - Room by Room Component Details

Spec House

Project Title:  
512121K&H Framing

Class 3 Rating  
Registration No. 0  
Climate: North

Lake City, FL

Reference City: Gainesville (Defaults) Winter Temperature Difference: 37.0 F  
This calculation is for Worst Case. The house has been rotated 315 degrees.

1/23/2006

### Component Loads for Zone #1: Main

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft)	X	HTM=	Load
1	2, Clear, Metal, 0.87	NW	45.0		32.2	1449 Btuh
2	2, Clear, Metal, 0.87	NW	10.0		32.2	322 Btuh
3	2, Clear, Metal, 0.87	SE	15.0		32.2	483 Btuh
4	2, Clear, Metal, 0.87	SE	20.0		32.2	644 Btuh
5	2, Clear, Metal, 0.87	SE	6.0		32.2	193 Btuh
6	2, Clear, Metal, 0.87	SW	6.0		32.2	193 Btuh
Window Total			102(sqft)			3283 Btuh
Walls	Type	R-Value	Area	X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1400		3.3	4598 Btuh
2	Frame - Wood - Ext(0.09)	13.0	199		3.3	654 Btuh
Wall Total			1599			5251 Btuh
Doors	Type		Area	X	HTM=	Load
1	Insulated - Adjacent		20		12.9	259 Btuh
2	Insulated - Exterior		20		12.9	259 Btuh
3	Insulated - Exterior		10		12.9	130 Btuh
Door Total			50			648 Btuh
Ceilings	Type/Color/Surface	R-Value	Area	X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	1415		1.2	1667 Btuh
Ceiling Total			1415			1667 Btuh
Floors	Type	R-Value	Size	X	HTM=	Load
1	Slab On Grade	0	189.0	ft(p)	43.7	8252 Btuh
Floor Total			189			8252 Btuh
Zone Envelope Subtotal:						19101 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=		Load
	Natural	0.94	11320	177.3		7184 Btuh
Ductload	Unsealed, R6.0, Supply(Attic), Return(Attic) (DLM of 0.00)					0 Btuh
Zone #1	Sensible Zone Subtotal					26285 Btuh

### WHOLE HOUSE TOTALS

	Subtotal Sensible	26285 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	26285 Btuh

# Manual J Winter Calculations

## Residential Load - Component Details (continued)

Spec House

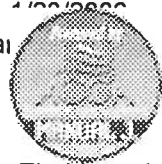
Project Title:  
512121K&H Framing

Class 3 Rating  
Registration No. 0  
Climate: North

Lake City, FL

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear  
(Frame types - metal, wood or insulated metal)  
(U - Window U-Factor or 'DEF' for default)  
(HTM - ManualJ Heat Transfer Multiplier)

Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types )



For Florida residences only

# System Sizing Calculations - Summer

## Residential Load - Whole House Component Details

Spec House

Project Title:  
512121K&H Framing

Class 3 Rating  
Registration No. 0  
Climate: North

Lake City, FL

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F

1/23/2006

This calculation is for Worst Case. The house has been rotated 315 degrees.

### Component Loads for Whole House

Window	Type*	Ornt	Overhang		Window Area(sqft)			HTM		Load		
	Pn/SHGC/U/InSh/ExSh/IS		Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded			
1	2, Clear, 0.87, None,N,N	NW	1.5ft.	5.5ft.	45.0	0.0	45.0	29	60	2702	Btuh	
2	2, Clear, 0.87, None,N,N	NW	1.5ft.	7ft.	10.0	0.0	10.0	29	60	600	Btuh	
3	2, Clear, 0.87, None,N,N	SE	1.5ft.	5.5ft.	15.0	6.1	8.9	29	63	734	Btuh	
4	2, Clear, 0.87, None,N,N	SE	1.5ft.	0ft.	20.0	20.0	0.0	29	63	579	Btuh	
5	2, Clear, 0.87, None,N,N	SE	1.5ft.	0ft.	6.0	6.0	0.0	29	63	174	Btuh	
6	2, Clear, 0.87, None,N,N	SW	1.5ft.	3.5ft.	6.0	4.0	2.0	29	63	239	Btuh	
Window Total						102 (sqft)					5029	Btuh
Walls	Type	R-Value/U-Value			Area(sqft)			HTM		Load		
1	Frame - Wood - Ext	13.0/0.09			1400.0			2.1		2920 Btuh		
2	Frame - Wood - Ext	13.0/0.09			199.0			2.1		415 Btuh		
Wall Total						1599 (sqft)					3335	Btuh
Doors	Type				Area (sqft)			HTM		Load		
1	Insulated - Adjacent				20.0			9.8		196 Btuh		
2	Insulated - Exterior				20.0			9.8		196 Btuh		
3	Insulated - Exterior				10.0			9.8		98 Btuh		
Door Total						50 (sqft)					490	Btuh
Ceilings	Type/Color/Surface	R-Value			Area(sqft)			HTM		Load		
1	Vented Attic/DarkShingle	30.0			1415.0			1.7		2343 Btuh		
Ceiling Total						1415 (sqft)					2343	Btuh
Floors	Type	R-Value			Size			HTM		Load		
1	Slab On Grade	0.0			189 (ft(p))			0.0		0 Btuh		
Floor Total						189.0 (sqft)					0	Btuh
	Zone Envelope Subtotal:										11197	Btuh
Infiltration	Type	ACH			Volume(cuft)			CFM=		Load		
	SensibleNatural	0.49			11320			92.4		1721 Btuh		
Internal gain	Occupants			Btuh/occupant			Appliance		Load			
	5			X 230 +			0		1150 Btuh			
Duct load	Unsealed, R6.0, Supply(Attic), Return(Attic)								DGM = 0.00		0.0 Btuh	
	Sensible Zone Load										14068	Btuh

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Spec House  
Lake City, FL

Project Title:  
512121K&H Framing

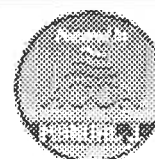
Class 3 Rating  
Registration No. 0  
Climate: North

1/23/2006

### WHOLE HOUSE TOTALS

<b>Whole House Totals for Cooling</b>	<b>Sensible Envelope Load All Zones</b>	<b>14068 Btuh</b>
	Sensible Duct Load	0 Btuh
	<b>Total Sensible Zone Loads</b>	<b>14068 Btuh</b>
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	<b>Total sensible gain</b>	<b>14068 Btuh</b>
	Latent infiltration gain (for 54 gr. humidity difference)	3378 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (5 people @ 200 Btuh per person)	1000 Btuh
	Latent other gain	0 Btuh
	<b>Latent total gain</b>	<b>4378 Btuh</b>
	<b>TOTAL GAIN</b>	<b>18446 Btuh</b>

\*Key: Window types (Pn - Number of panes of glass)  
 (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)  
 (U - Window U-Factor or 'DEF' for default)  
 (InSh - Interior shading device: none(N), Blinds(B), Draperies(D) or Roller Shades(R))  
 (ExSh - Exterior shading device: none(N) or numerical value)  
 (BS - Insect screen: none(N), Full(F) or Half(H))  
 (Ornt - compass orientation)



For Florida residences only

# System Sizing Calculations - Summer

## Residential Load - Room by Room Component Details

Spec House

Project Title:  
512121K&H Framing

Class 3 Rating  
Registration No. 0  
Climate: North

Lake City, FL

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F  
This calculation is for Worst Case. The house has been rotated 315 degrees.

1/23/2006

### Component Loads for Zone #1: Main

Window	Type*		Overhang		Window Area(sqft)			HTM		Load	
	Pn/SHGC/U/InSh/ExSh/IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	2, Clear, 0.87, None,N,N	NW	1.5ft.	5.5ft.	45.0	0.0	45.0	29	60	2702	Btuh
2	2, Clear, 0.87, None,N,N	NW	1.5ft.	7ft.	10.0	0.0	10.0	29	60	600	Btuh
3	2, Clear, 0.87, None,N,N	SE	1.5ft.	5.5ft.	15.0	6.1	8.9	29	63	734	Btuh
4	2, Clear, 0.87, None,N,N	SE	1.5ft.	0ft.	20.0	20.0	0.0	29	63	579	Btuh
5	2, Clear, 0.87, None,N,N	SE	1.5ft.	0ft.	6.0	6.0	0.0	29	63	174	Btuh
6	2, Clear, 0.87, None,N,N	SW	1.5ft.	3.5ft.	6.0	4.0	2.0	29	63	239	Btuh
Window Total						102 (sqft)			5029 Btuh		
Walls	Type	R-Value/U-Value			Area(sqft)			HTM		Load	
1	Frame - Wood - Ext	13.0/0.09			1400.0			2.1		2920 Btuh	
2	Frame - Wood - Ext	13.0/0.09			199.0			2.1		415 Btuh	
Wall Total						1599 (sqft)			3335 Btuh		
Doors	Type				Area (sqft)			HTM		Load	
1	Insulated - Adjacent				20.0			9.8		196 Btuh	
2	Insulated - Exterior				20.0			9.8		196 Btuh	
3	Insulated - Exterior				10.0			9.8		98 Btuh	
Door Total						50 (sqft)			490 Btuh		
Ceilings	Type/Color/Surface	R-Value			Area(sqft)			HTM		Load	
1	Vented Attic/DarkShingle	30.0			1415.0			1.7		2343 Btuh	
Ceiling Total						1415 (sqft)			2343 Btuh		
Floors	Type	R-Value			Size			HTM		Load	
1	Slab On Grade	0.0			189 (ft(p))			0.0		0 Btuh	
Floor Total						189.0 (sqft)			0 Btuh		
	Zone Envelope Subtotal:									11197 Btuh	
Infiltration	Type	ACH			Volume(cuft)			CFM=		Load	
	SensibleNatural	0.49			11320			92.4		1721 Btuh	
Internal gain	Occupants			Btuh/occupant			Appliance		Load		
	5			X 230 +			0		1150 Btuh		
Duct load	Unsealed, R6.0, Supply(Attic), Return(Attic)							DGM = 0.00		0.0 Btuh	
	Sensible Zone Load									14068 Btuh	

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Spec House

Project Title:  
512121K&H Framing

Class 3 Rating  
Registration No. 0  
Climate: North

Lake City, FL

1/23/2006

### WHOLE HOUSE TOTALS

<b>Whole House Totals for Cooling</b>	<b>Sensible Envelope Load All Zones</b>	<b>14068 Btuh</b>
	Sensible Duct Load	0 Btuh
	<b>Total Sensible Zone Loads</b>	<b>14068 Btuh</b>
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	<b>Total sensible gain</b>	<b>14068 Btuh</b>
	Latent infiltration gain (for 54 gr. humidity difference)	3378 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (5 people @ 200 Btuh per person)	1000 Btuh
	Latent other gain	0 Btuh
	<b>Latent total gain</b>	<b>4378 Btuh</b>
	<b>TOTAL GAIN</b>	<b>18446 Btuh</b>

\*Key: Window types (Pn - Number of panes of glass)

(SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)

(U - Window U-Factor or 'DEF' for default)

(InSh - Interior shading device: none(N), Blinds(B), Draperies(D) or Roller Shades(R))

(ExSh - Exterior shading device: none(N) or numerical value)

(BS - Insect screen: none(N), Full(F) or Half(H))

(Ornt - compass orientation)



For Florida residences only



# Residential Window Diversity

## MidSummer

Spec House

Project Title:  
512121K&H Framing

Class 3 Rating  
Registration No. 0  
Climate: North

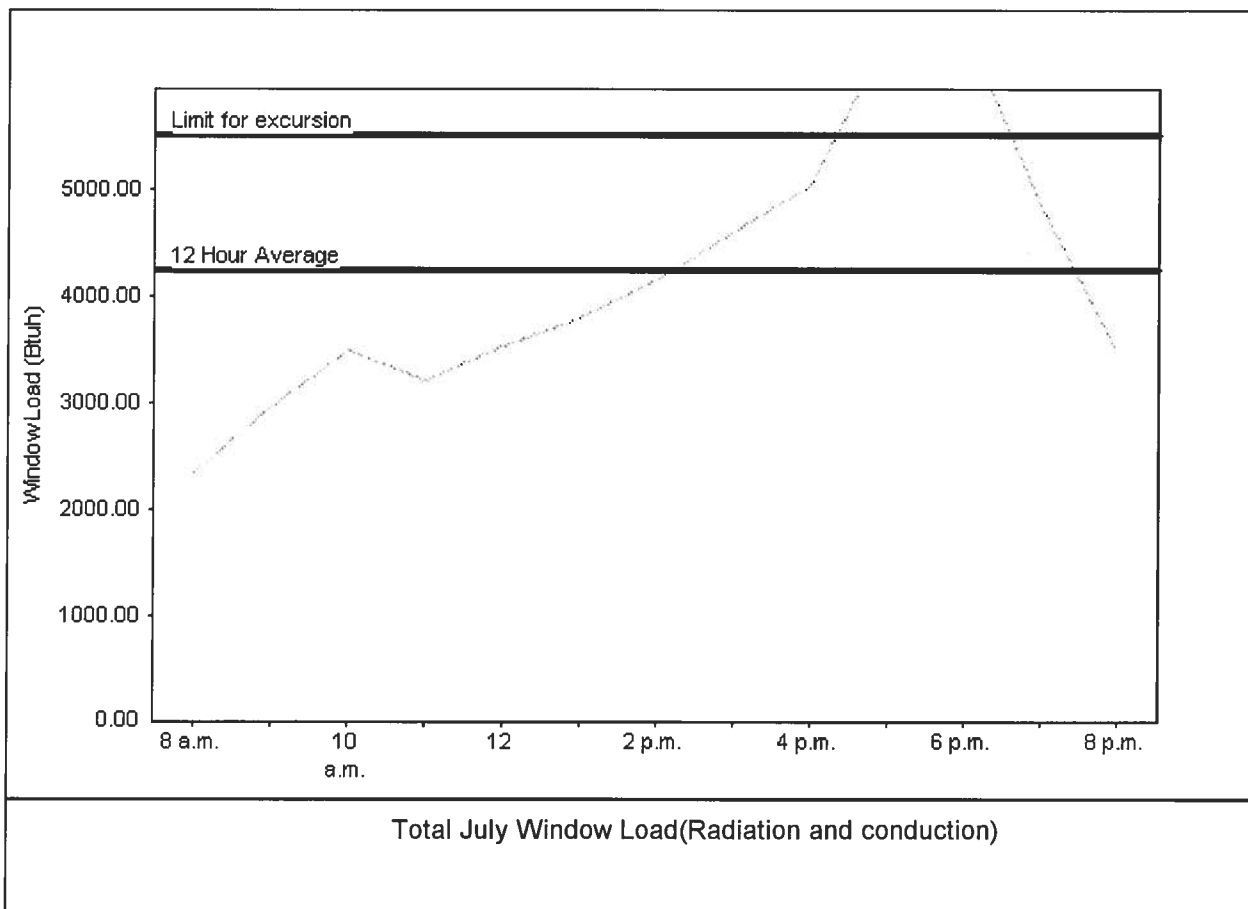
Lake City, FL

1/23/2006

Weather data for: Gainesville - Defaults

Summer design temperature	92 F	Average window load for July	4240 Btuh
Summer setpoint	75 F	Peak window load for July	6503 Btuh
Summer temperature difference	17 F	Excursion limit(130% of Ave.)	5512 Btuh
Latitude	29 North	Window excursion (July)	992 Btuh

## WINDOW Average and Peak Loads



This application has glass areas that produce large heat gains for part of the day. Variable air volume devices are required to overcome spikes in solar gain for one or more rooms. Install a zoned system or provide zone control for problem rooms. Single speed equipment may not be suitable for the application.

EnergyGauge® System Sizing for Florida residences only

PREPARED BY: *Ben Spence*

DATE: *1-23-06*



# RESIDENTIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR FLORIDA BUILDING CODE 2004 and FLORIDA RESIDENTIAL CODE 2004 WITH AMENDMENTS ONE (1) AND TWO (2) FAMILY DWELLINGS

ALL REQUIREMENTS ARE SUBJECT TO CHANGE  
EFFECTIVE OCTOBER 1, 2005

ALL BUILDING PLANS MUST INDICATE THE FOLLOWING ITEMS AND INDICATE COMPLIANCE WITH CHAPTER 16 OF THE FLORIDA BUILDING CODE 2004 BY PROVIDING 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. FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEED AS PER FIGURE 1609 SHALL BE USED.

WIND SPEED LINE SHALL BE DEFINED AS FOLLOWS: THE CENTERLINE OF INTERSTATE 75.

1. ALL BUILDINGS CONSTRUCTED EAST OF SAID LINE SHALL BE ----- 100 MPH
2. ALL BUILDINGS CONSTRUCTED WEST OF SAID LINE SHALL BE ----- 110 MPH
3. NO AREA IN COLUMBIA COUNTY IS IN A WIND BORNE DEBRIS REGION

**APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL**

## GENERAL REQUIREMENTS: Two (2) complete sets of plans containing the following:

Applicant	Plans Examiner	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	All drawings must be clear, concise and drawn to scale ("Optional" details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Designers name and signature on document (FBC 106.1). If licensed architect or engineer, official seal shall be affixed.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Site Plan including:</u>
		a) Dimensions of lot <i>See NOTE 1</i>
		b) Dimensions of building set backs
		c) Location of all other buildings on lot, well and septic tank if applicable, and all utility easements.
		d) Provide a full legal description of property.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Wind-load Engineering Summary, calculations and any details required</u>
		Plans or specifications must state compliance with FBC Section 1609.
		The following information must be shown as per section 1603.1.4 FBC
		a. Basic wind speed (3-second gust), miles per hour (km/hr).
		b. Wind importance factor, $I_w$ , and building classification from Table 1604.5 or Table 6-1, ASCE 7 and building classification in Table 1-1, ASCE 7.
		c. Wind exposure, if more than one wind exposure is utilized, the wind exposure and applicable wind direction shall be indicated.
		d. The applicable enclosure classifications and, if designed with ASCE 7, internal pressure coefficient.
		e. Components and Cladding. The design wind pressures in terms of psf ( $kN/m^2$ ) to be used for the design of exterior component and cladding materials not specifically designed by the registered design professional.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Elevations including:</u>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	a) All sides
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	b) Roof pitch
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	c) Overhang dimensions and detail with attic ventilation

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a. Attic space
- b. Exterior wall cavity
- c. Crawl space (if applicable)

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b) Wood frame wall

1. All materials making up wall
2. Size and species of studs
3. Sheathing size, type and nailing schedule
4. Headers sized
5. Gable end showing balloon framing detail or gable truss and wall hinge bracing detail
6. All required fasteners for continuous tie from roof to foundation (truss anchors, straps, anchor bolts and washers) shall be designed by a Windload engineer using the engineered roof truss plans.
7. Roof assembly shown here or on roof system detail (FBC 106.1.1.2) Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)
8. Fire resistant construction (if applicable)
9. Fireproofing requirements
10. Show type of termite treatment (termiticide or alternative method)
11. Slab on grade
  - a. Vapor retarder (6Mil. Polyethylene with joints lapped 6 inches and sealed
  - b. Must show control joints, synthetic fiber reinforcement or welded wire fabric reinforcement and supports
12. Indicate where pressure treated wood will be placed
13. Provide insulation R value for the following:
  - a. Attic space
  - b. Exterior wall cavity
  - c. Crawl space (if applicable)

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c) Metal frame wall and roof (designed, signed and sealed by Florida Prof. Engineer or Architect)

**Floor Framing System:**

- a) Floor truss package including layout and details, signed and sealed by Florida Registered Professional Engineer
- b) Floor joist size and spacing
- c) Girder size and spacing
- d) Attachment of joist to girder
- e) Wind load requirements where applicable

**Plumbing Fixture layout**

**Electrical layout including:**

- a) Switches, outlets/receptacles, lighting and all required GFCI outlets identified
- b) Ceiling fans
- c) Smoke detectors
- d) Service panel and sub-panel size and location(s)
- e) Meter location with type of service entrance (overhead or underground)
- f) Appliances and HVAC equipment
- g) Arc Fault Circuits (AFCI) in bedrooms
- h) Exhaust fans in bathroom

**HVAC information**

- a) Energy Calculations (dimensions shall match plans)
- b) Manual J sizing equipment or equivalent computation
- c) Gas System Type (LP or Natural) Location and BTU demand of equipment

**Disclosure Statement for Owner Builders**

**\*\*\*Notice Of Commencement Required Before Any Inspections Will Be Done Private Potable Water**

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- a) Size of pump motor
- b) Size of pressure tank
- c) Cycle stop valve if used

### **THE FOLLOWING ITEMS MUST BE SUBMITTED WITH BUILDING PLANS**

1. **Building Permit Application:** A current Building Permit Application form is to be completed and submitted for all residential projects.
2. **Parcel Number:** The parcel number (Tax ID number) from the Property Appraiser (386) 758-1084 is required. A copy of property deed is also requested.
3. **Environmental Health Permit or Sewer Tap Approval:** A copy of the Environmental Health permit, existing septic approval or sewer tap approval is required before a building permit can be issued. (386) 758-1058 (Toilet facilities shall be provided for construction workers)
4. **City Approval:** If the project is to be located within the city limits of the Town of Fort White, prior approval is required. The Town of Fort White approval letter is required to be submitted by the owner or contractor to this office when applying for a Building Permit. (386) 497-2321
5. **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 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 8.8 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 8.7 of the Columbia County Land Development Regulations. **CERTIFIED FINISHED FLOOR ELEVATIONS WILL BE REQUIRED ON ANY PROJECT WHERE THE BASE FLOOD ELEVATION (100 YEAR FLOOD) HAS BEEN ESTABLISHED.**  
A development permit will also be required. Development permit cost is \$50.00
6. **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. If the applicant feels that a culvert is not needed, they may apply for a culvert waiver (\$50.00). All culvert waivers are sent to the Columbia County Public Works Department for approval or denial. **If the project is to be located on a F.D.O.T. maintained road, than an F.D.O.T. access permit is required.**
7. **911 Address:** If the project is located in an area where the 911 address has been issued, then the proper paperwork from the 911 Addressing Department must be submitted. (386) 752-8787

**ALL REQUIRED INFORMATION IS TO BE SUBMITTED FOR REVIEW. YOU WILL BE NOTIFIED WHEN YOUR APPLICATION AND PLANS ARE APPROVED AND READY TO PERMIT. PLEASE DO NOT EXPECT OR REQUEST THAT PERMIT APPLICATIONS BE REVIEWED OR APPROVED WHILE YOU ARE HERE – TIME WILL NOT ALLOW THIS –PLEASE DO NOT ASK**

**Location:** \_\_\_\_\_

**Project Name:** \_\_\_\_\_

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and the product approval number(s) on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit on or after April 1, 2004. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. More information about statewide product approval can be obtained at [www.floridabuilding.org](http://www.floridabuilding.org)

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
<b>A. EXTERIOR DOORS</b>			
1. Swinging			
2. Sliding			
3. Sectional			
4. Roll up			
5. Automatic			
6. Other			
<b>B. WINDOWS</b>			
1. Single hung			
2. Horizontal Slider			
3. Casement			
4. Double Hung			
5. Fixed			
6. Awning			
7. Pass-through			
8. Projected			
9. Mullion			
10. Wind Breaker			
11. Dual Action			
12. Other			
<b>C. PANEL WALL</b>			
1. Siding			
2. Soffits			
3. EIFS			
4. Storefronts			
5. Curtain walls			
6. Wall louver			
7. Glass block			
8. Membrane			
9. Greenhouse			
10. Other			
<b>D. ROOFING PRODUCTS</b>			
1. Asphalt Shingles			
2. Underlayments			
3. Roofing Fasteners			
4. Non-structural Metal Rf			
5. Built-Up Roofing			
6. Modified Bitumen			
7. Single Ply Roofing Sys			
8. Roofing Tiles			
9. Roofing Insulation			
10. Waterproofing			
11. Wood shingles /shakes			
12. Roofing Slate			

Category	Description	Approval Number(s)
13. Liquid Applied Roof Sys		
14. Cements-Adhesives – Coatings		
15. Roof Tile Adhesive		
16. Spray Applied Polyurethane Roof		
17. Other		
<b>E. SHUTTERS</b>		
1. Accordion		
2. Bahama		
3. Storm Panels		
4. Colonial		
5. Roll-up		
6. Equipment		
7. Others		
<b>F. SKYLIGHTS</b>		
1. Skylight		
2. Other		
<b>G. STRUCTURAL COMPONENTS</b>		
1. Wood connector/anchor		
2. Truss plates		
3. Engineered lumber		
4. Railing		
5. Coolers-freezers		
6. Concrete Admixtures		
7. Material		
8. Insulation Forms		
9. Plastics		
10. Deck-Roof		
11. Wall		
12. Sheds		
13. Other		
<b>H. NEW EXTERIOR ENVELOPE PRODUCTS</b>		
1.		
2.		

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) the performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.

I understand these products may have to be removed if approval cannot be demonstrated during inspection

Glenn L. Kern K&H Framing  
Contractor or Contractor's Authorized Agent Signature

Glenn L. Kern 2/24/06  
Print Name Date

Location

Permit # (FOR STAFF USE ONLY)

# **NOTICE:**

## **ADDRESSES BY APPOINTMENT ONLY!**

**TO OBTAIN A 9-1-1 ADDRESS THE REQUESTER MUST CONTACT THE COLUMBIA COUNTY 9-1-1 ADDRESSING DEPARTMENT AT (386) 752-8787 FOR AN APPOINTMENT TIME AND DATE:**

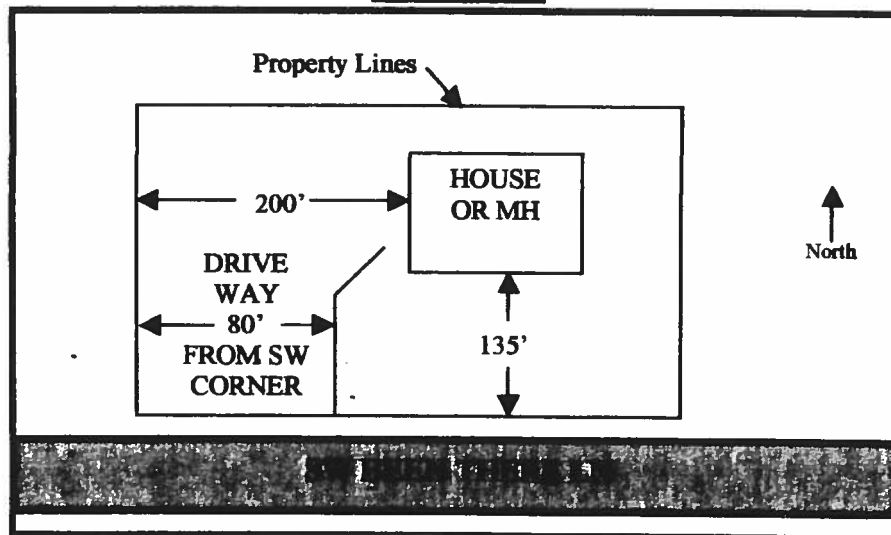
## **YOU CAN NOT OBTAIN A NEW ADDRESS OVER THE TELEPHONE. MUST MAKE AN APPOINTMENT!**

**THE ADDRESSING DEPARTMENT IS LOCATED AT 263 NW LAKE CITY AVENUE (OFF OF WEST U.S. HIGHWAY 90 WEST OF INTERSTATE 75 AT THE COLUMBIA COUNTY EMERGENCY OPERATIONS CENTER).**

### **THE REQUESTER WILL NEED THE FOLLOWING:**

1. THE PARCEL OR TAX ID NUMBER (SAMPLE: "25-4S-17-12345-123" OR "R12345-123") FOR THE PROPERTY.
2. A PLAT, PLAN, SITE PLAN, OR DRAWING SHOWING THE PROPERTY LINES OF THE PARCEL.
  - a. LOCATION OF PLANNED RESIDENT OR BUSINESS STRUCTURE ON THE PROPERTY WITH DISTANCES FROM TWO OF THE PROPERTY LINES TO THE STRUCTURE (SEE SAMPLE BELOW).
  - b. LOCATION OF THE ACCESS POINT (DRIVEWAY, ETC.) ON THE ROADWAY FROM WHICH LOCATION IS TO BE ADDRESSED WITH A DISTANCE FROM A PARALLEL PROPERTY LINE AND OR PROPERTY CORNER (SEE SAMPLE BELOW).
  - c. TRAVEL OF THE DRIVEWAY FROM THE ACCESS POINT TO THE STRUCTURE (SEE SAMPLE BELOW).

### **SAMPLE:**



**NOTE: 5 TO 7 WORKING DAYS MAY BE REQUIRED IF ADDRESSING DEPARTMENT NEEDS TO CONDUCT AN ON SITE SURVEY.**



Mayo Truss Co. Inc.

360 NE CLAYDE AVE.

MAYO, FL 32066

(386)294-3988

(877)-558-6262

K & H FRAMING

KEEN

110 MPH ASCE WIND LOAD

Roof Loading

TC Live: 20.00 psf

TC Dead: 10.00 psf

BC Live: 0.00 psf

BC Dead: 10.00 psf

TC Stress Inc: 25.00

BC Stress Inc: 25.00

Spacing: 2'-0" o.c.

Account: CONTRACTORS

Job: KH-KEEN

Designer: A. HIGSHSMITH

Checker: M MURRAY

Date: 01-12-06

40'-6"-0

19'-0"-0

4'-0"-0

11'-6"-0

14'-0"-0

48'-6"-0

ALL WALLS SHOWN ARE LOAD BEARING

A2(8)

A1

A4

C1

C2

B12

B11

B10

B9

B8

B7

B5(8)

B6

B1

B2

B3

B4

J1(5)

J1(11)

J1

J2

J3

J4

V1

V2

V3

V4

V5

V6

V7

V8

20'-6"-0

33'-8"-0

3'-2"-0

3'-8"-0

Permit Number: \_\_\_\_\_ Lot Number: \_\_\_\_\_  
Miscellaneous: \_\_\_\_\_ Address: \_\_\_\_\_

The information in this box is for administrative purposes only and is not part of the engineering review.

Index Page 1 of 1

Truss Fabricator: Mayo Truss Company, Inc

Job Reference: KH-KEEN - KEEN MODEL

**Standard Loading:**

T.C. Live 20 psf  
T.C. Dead 10 psf  
B.C. Live 0 psf  
B.C. Dead 10 psf  
Total 40 psf

**ROBBINS  
ENGINEERING, INC.**

P.O. Box 280055  
Tampa, FL 33682-0055  
Phone: (813) 972-1135

**Engineering Index Sheet**

Index Page 1 of 1

Job Number      Date      FBC - 2004 Chapter 16 and 23      Specification Quantity  
T06010966      01/11/2006           31

A Professional Engineer's seal affixed to this Index Sheet indicates the acceptance of Professional Engineering responsibilities for individual truss components fabricated in accordance with the listed and attached Truss Specification Sheets. Determination as to the suitability of these individual truss components for any structure is the responsibility of the Building Designer, as defined in ANSI/TPI 1-1995, Section 2.2. Permanent files of the original Truss Specification Sheet are maintained by Robbins Engineering, Inc. Questions regarding this Index Sheet and/or the attached Specification Sheets may be directed to the truss fabricator listed above or Robbins Engineering, Inc. (Software - Online Plus)

ANSI/ASCE 7-02  
Wind Speed - 110 mph  
Mean Roof Ht. - 15 ft.  
Exposure Category - B  
Occupancy Factor - 1.00  
MWFRS  
Enclosed

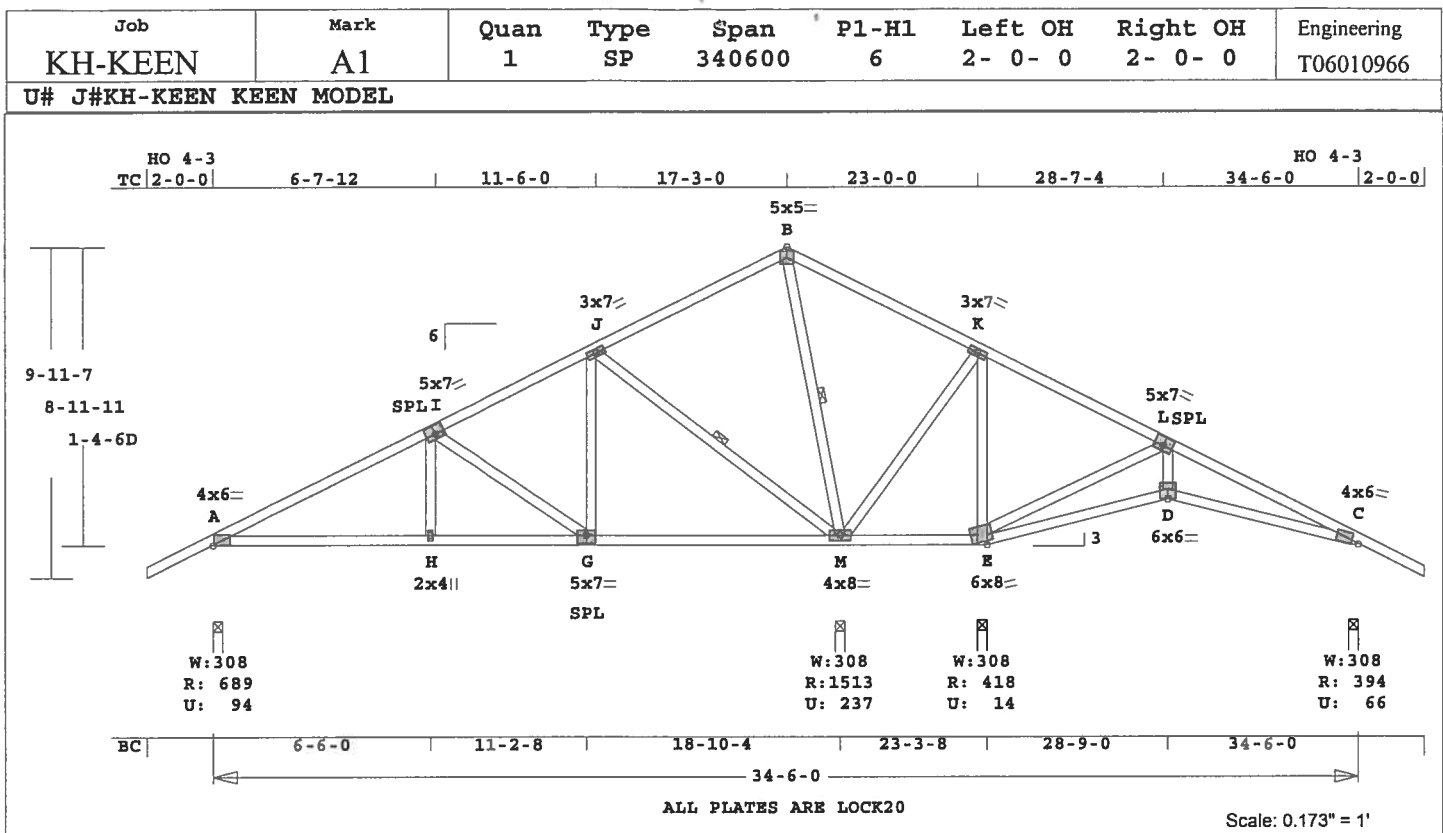
Notes: Refer to individual truss design drawings for special loading conditions.

Date Mark			Date Mark			Date Mark			Date Mark		
1	01/11/06	A1	2	01/11/06	A2	3	01/11/06	A3	4	01/11/06	A4
5	01/11/06	B1	6	01/11/06	B2	7	01/11/06	B3	8	01/11/06	B4
9	01/11/06	B5	10	01/11/06	B6	11	01/11/06	B7	12	01/11/06	B8
13	01/11/06	B9	14	01/11/06	B10	15	01/11/06	B11	16	01/11/06	B12
17	01/11/06	C1	18	01/11/06	C2	19	01/11/06	CJ1	20	01/11/06	J1
21	01/11/06	J2	22	01/11/06	J3	23	01/11/06	J4	24	01/11/06	V1
25	01/11/06	V2	26	01/11/06	V3	27	01/11/06	V4	28	01/11/06	V5
29	01/11/06	V6	30	01/11/06	V7	31	01/11/06	V8			

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682



Date Sealed: 1/11/2006



Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 244.5 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI -Size- ---Lumber---  
TC 0.40 2x 4 SP-#2  
BC 0.29 2x 4 SP-#2  
WB 0.31 2x 4 SP-#2

Brace truss as follows:

O.C. From To  
TC Cont. 0- 0- 0 34- 6- 0  
BC Cont. 0- 0- 0 34- 6- 0  
WB 1 rows CLB on J -M  
WB 1 rows CLB on B -M  
Attach CLB with (2)-10d nails  
at each web.

Loading Live Dead (psf)  
TC 20.0 10.0  
BC 0.0 10.0  
Total 20.0 20.0 40.0  
Spacing 24.0"  
Lumber Duration Factor 1.25  
Plate Duration Factor 1.25  
TC Fb=1.15 Fc=1.10 Ft=1.10  
BC Fb=1.10 Fc=1.10 Ft=1.10

Plus 6 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	690	95	3- 8	1- 0
			Hz =	-180
M	1513	237	3- 8	1-10
E	419	14	3- 8	1- 0
C	394	67	3- 8	1- 0
			Hz =	181

Membr	CSI	P	Lbs	Ax1	CSI-Bnd
-----Top Chords-----					
A -I	0.31		715 C	0.00	0.31
I -J	0.31		265 C	0.00	0.31
J -B	0.30		368 T	0.04	0.26
B -K	0.40		523 T	0.07	0.33
K -L	0.40		379 T	0.07	0.33
L -C	0.29		251 C	0.00	0.29
-----Bottom Chords-----					

A -H	0.28	646 T	0.10	0.18	
H -G	0.28	646 T	0.06	0.22	
G -M	0.29	235 T	0.02	0.27	
M -E	0.27	336 C	0.00	0.27	
E -D	0.17	242 T	0.03	0.14	
D -C	0.20	249 T	0.04	0.16	
-----Webs-----					
H -I	0.03	223 T			
I -G	0.20	496 C			
G -J	0.07	454 T			
J -M	0.20	712 C			1 Br
B -M	0.20	755 C			1 Br
M -K	0.14	233 C			
E -K	0.05	124 C			
E -L	0.31	646 C			
D -L	0.04	300 T			

LL Defl -0.06" in G -M L/999  
TL Defl -0.12" in G -M L/999  
Shear // Grain in A -I 0.23  
Hz Disp LL DL TL  
Jt C 0.01" 0.01" 0.03"

Plates for each ply each face.  
PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.

Plate	Type	Plt Size	X	Y	JSI
A	LOCK	4.0x	6.0	Ctr	0.1 0.68
I	LOCK	5.0x	7.0	0.2	0.5 0.72
J	LOCK	3.0x	7.0	Ctr	Ctr 0.41
B	LOCK	5.0x	5.0	Ctr	Ctr 0.66
K	LOCK	3.0x	7.0	Ctr	Ctr 0.46
L	LOCK	5.0x	7.0	0.2	0.5 0.72
C	LOCK	4.0x	6.0	Ctr	Ctr 0.85
H	LOCK	2.0x	4.0	Ctr	Ctr 0.44
G	LOCK	5.0x	7.0	Ctr	0.5 0.73
M	LOCK	4.0x	8.0	Ctr	Ctr 0.47
E	LOCK	6.0x	8.0	0.4	2.1 1.00
D	LOCK	6.0x	6.0	Ctr	0.6 0.63

REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

NOTES:

Trusses Manufactured by:

Mayo Truss Co. Inc.

Analysis Conforms To:

FBC2004

OH Loading

Soffit psf 2.0

Run vertical thru bottom chord  
Joint E

Design checked for 10 psf non-  
concurrent LL on BC.

Wind Loads - ANSI / ASCE 7-02

Truss is designed as a Main  
Wind-Force Resistance System.

Wind Speed: 110 mph

Mean Roof Height: 15-0

Exposure Category: B

Occupancy Factor : 1.00

Building Type: Enclosed

Zone location: Exterior

TC Dead Load : 5.0 psf

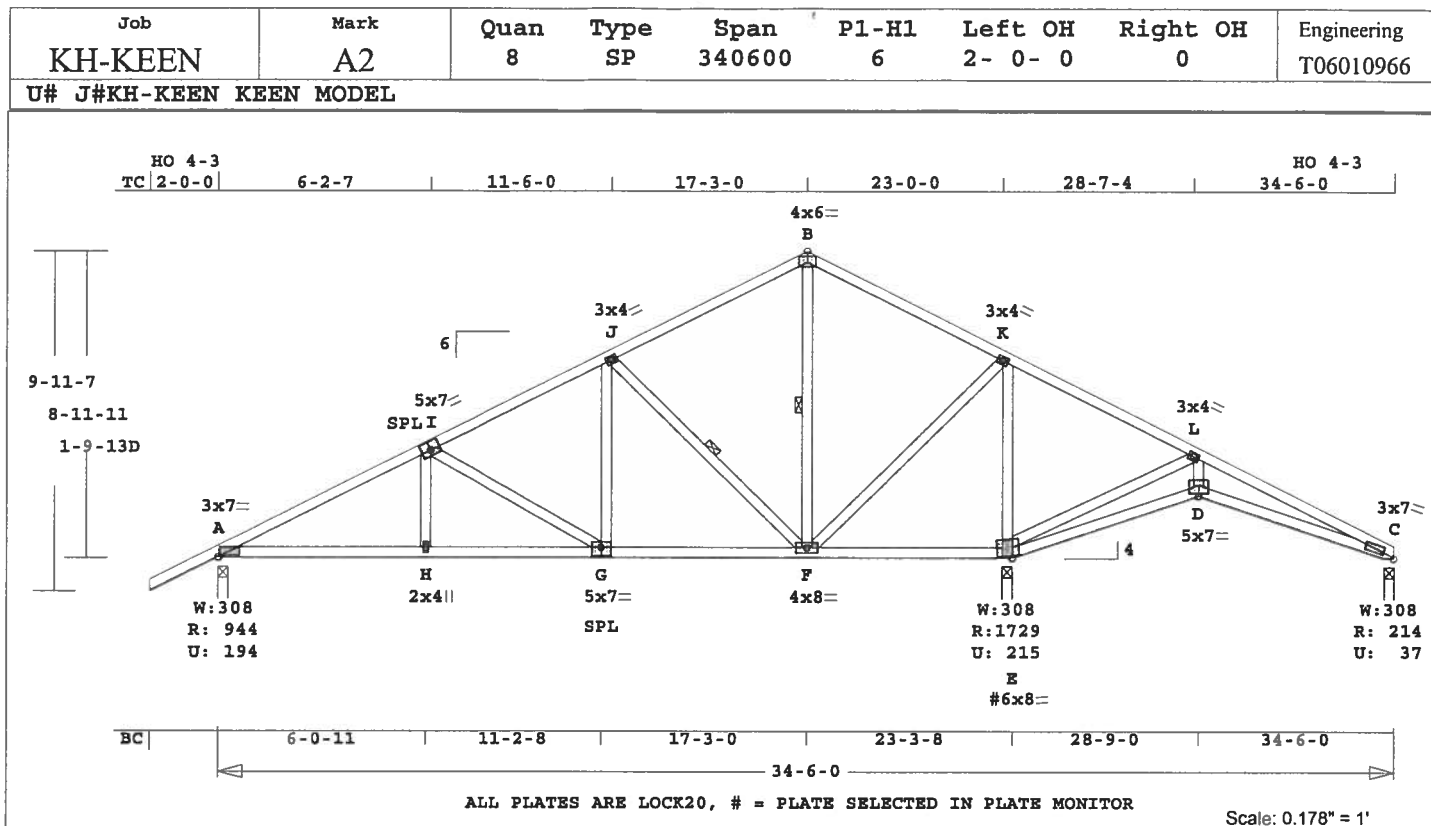
BC Dead Load : 5.0 psf

Max comp. force 755 lbs

Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682





Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 239.4 LBS

K-L 0.43 507 T 2152 -1965  
L-C 0.30 84 C 1965 396

ADDITIONAL SPECIFICATIONS.

Online Plus -- Version 18.0.020  
RUN DATE: 1-11-06

CSI SIZE LUMBER 1.15FB  
TOP 0.43 2X 4 SP-#2 1720  
BTM 0.33 2X 4 SP-#2 1720  
WBS 0.74 2X 4 SP-#2 1720  
REPETITIVE MEMBER INCREASES:  
FB 15.0% FT 0.0% FC 0.0%

LATERAL BRACING:  
TOP CHORD - CONTINUOUS  
BTM CHORD - CONTINUOUS  
ONE BRACE - J-F F-B  
TRUSS SPACING - 24.0 IN.

STANDARD LOADING  
LUMBER STRESS INCREASE: 25.0%  
PLATE STRESS INCREASE: 25.0%  
LOADING LIVE DEAD (PSF)  
TOP CHD 20.0 10.0  
BTM CHD 0.0 10.0  
TOTAL 20.0 20.0 40.0

SUPPORT CRITERIA  
JT REACT WIDTH JT REACT WIDTH  
LBS IN-SX LBS IN-SX  
A 944 3- 8 E 1729 3- 8  
C 214 3- 8

LOAD CASE #1 UBC LL CHECK  
LUMBER STRESS INCREASE: 50.0%  
PLATE STRESS INCREASE: 50.0%  
LOADING LIVE DEAD (PSF)  
TOP CHD 0.0 10.0  
BTM CHD 10.0 10.0  
TOTAL 10.0 20.0 30.0

SUPPORT CRITERIA  
JT REACT WIDTH JT REACT WIDTH  
LBS IN-SX LBS IN-SX  
A 660 3- 8 E 1298 3- 8  
C 159 3- 8

LEFT RIGHT  
HEEL 0IN - 4SX 0IN - 4SX

MEMBR CSI P(LBS) M@1ST M@2ND  
TOP CHORDS  
A-I 0.29 1294 C 1008 -1796  
I-J 0.30 821 C 1796 -1943  
J-B 0.30 295 C 1943 -1475  
B-K 0.33 296 C 1473 -2152

BOTTOM CHORDS  
A-H 0.33 1162 T -257 -665  
H-G 0.32 1162 T 665 -547  
G-F 0.27 736 T 547 -676  
F-E 0.19 453 C 676 -804  
E-D 0.13 99 T 282 -648  
D-C 0.19 107 T 630 1078  
WEBS  
H-I = 229 T I-G = 493 C  
G-J = 405 T J-F = 662 C  
F-B = 87 C F-K = 975 T  
E-K = 1377 C E-L = 608 C  
D-L = 269 T

DL+LL DEFL = 0.12" IN J-B  
LL DEFL = 0.03" < BRG-SPAN/240  
SPAN/DEFL (DL+LL) = 999

PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.  
PLATES - 20 GAUGE LOCK  
GRIPPING 632-312 PSI PER PAIR  
INCLUDES 25.0% INCREASE  
TENSION 1339- 465 PLI PER PAIR  
SHEAR 784- 506 PLI PER PAIR

JT	TYPE	PLATE	SIZE	X	Y
A	2001	3.00 X 7.00	6.2	2.9	
B	3001	4.00 X 6.00	3.0	2.2	
C	2101	3.00 X 7.00	11.0	2.6	
D	6001	5.00 X 7.00	3.5	3.0	
E	5093	6.00 X 8.00	5.9	2.9	
F	1070	4.00 X 8.00	CTR	CTR	
G	1131	5.00 X 7.00	CTR	CTR	
H	1001	2.00 X 4.00	CTR	CTR	
I	1151	5.00 X 7.00	CTR	CTR	
J	1050	3.00 X 4.00	CTR	CTR	
K	1050	3.00 X 4.00	CTR	CTR	
L	1050	3.00 X 4.00	CTR	CTR	

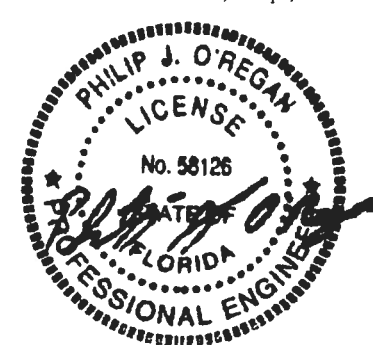
I SELECTED VIA PLATE MONITOR  
REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

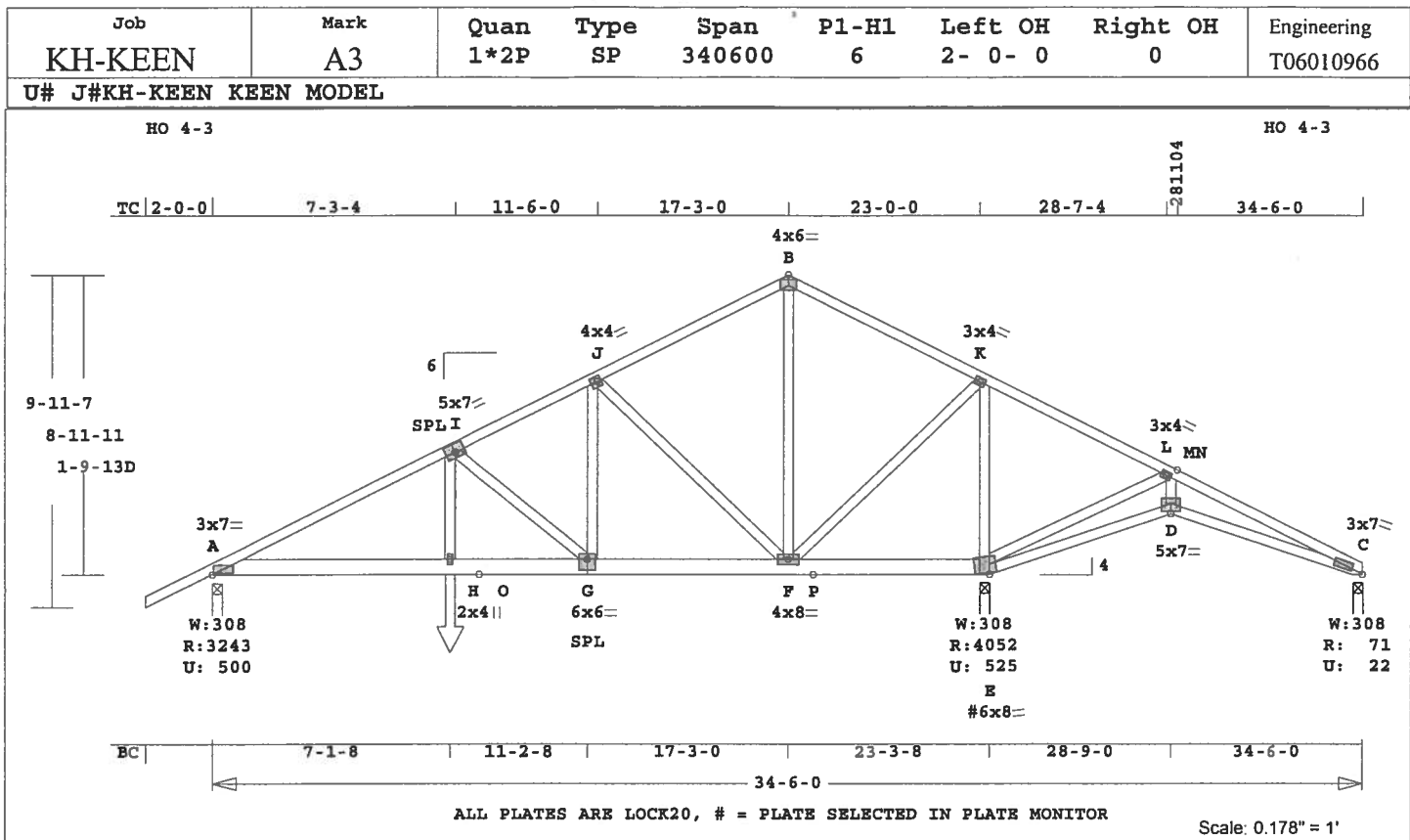
REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR

#### NOTES:

1. TRUSSES MANUFACTURED BY - Mayo Truss Co. Inc.
2. EMPIRICAL ANALOG IS USED.
3. DESIGN INCLUDES CHECK FOR 10 PSF NON-CONCURRENT LIVE LOAD ON BOTTOM CHORD.
4. WIND LOADS - ANSI/ASCE 7-02  
TRUSS IS DESIGNED AS A MAIN WIND-FORCE RES SYSTEM FOR EXTERIOR ZONE LOCATION  
WIND SPEED - 110 MPH  
MEAN ROOF HEIGHT - 15'  
EXPOSURE CATEGORY - B  
OCCUPANCY FACTOR - 1.00  
ENCLOSED BUILDING.  
TC DEAD LOAD = 5.0 PSF  
BC DEAD LOAD = 5.0 PSF
5. ANCHOR TRUSS FOR A TOTAL HORIZONTAL LOAD OF 191 LBS.
6. FASTEN TRUSS TO BRG A FOR 194 LBS OF UPLIFT, WHILE PERMITTING NO UPWARD MOVEMENT OF WALL OR BRG.
7. FASTEN TRUSS TO BRG E FOR 215 LBS OF UPLIFT, WHILE PERMITTING NO UPWARD MOVEMENT OF WALL OR BRG.

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682





Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 259.4 LBS  
HEEL 0IN - 4SX 0IN - 4SX

Online Plus -- Version 18.0.020  
RUN DATE: 1-11-06

\*\*\*\*\*  
\* 2-PLY TRUSS \*  
\*\*\*\*\*

CSI	SIZE	LUMBER	FB
TOP 0.51	2X 4	SP-#2	1500
BTM 0.80	2X 6	SP-#2	1250
WBS 0.98	2X 4	SP-#2	1500
EXCEPTIONS:			
E-D	2X 4	SP-#2	1500
D-C SAME AS E-D			

LATERAL BRACING:  
TOP CHORD - CONTINUOUS  
BTM CHORD - CONTINUOUS  
TRUSS SPACING - 24.0 IN.

STANDARD LOADING  
LUMBER STRESS INCREASE: 25.0%  
PLATE STRESS INCREASE: 25.0%  
LOADING LIVE DEAD (PSF)  
TOP CHD 20.0 10.0  
BTM CHD 0.0 10.0  
TOTAL 20.0 20.0 40.0  
EXCEPTIONS:

O-P 75.6 85.6  
CONCENTRATED LOADS (LBS)  
H 728 (LIVE)  
H 728 (DEAD)

SUPPORT CRITERIA  
JT REACT WIDTH JT REACT WIDTH  
LBS IN-SX LBS IN-SX  
A 3243 3-8 E 4052 3-8  
C 71 3-8

LOAD CASE #1 UBC LL CHECK  
LUMBER STRESS INCREASE: 50.0%  
PLATE STRESS INCREASE: 50.0%  
LOADING LIVE DEAD (PSF)  
TOP CHD 0.0 10.0  
BTM CHD 10.0 10.0  
TOTAL 10.0 20.0 30.0  
EXCEPTIONS:

O-P 85.6 85.6  
CONCENTRATED LOADS (LBS)  
H 728 (LIVE)  
H 728 (DEAD)

SUPPORT CRITERIA  
JT REACT WIDTH JT REACT WIDTH  
LBS IN-SX LBS IN-SX  
A 2957 3-8 E 3624 3-8  
C 16 3-8

LEFT RIGHT

MEMBER FORCES - EACH PLY  
MEMBR CSI P(LBS) M01ST M02ND  
TOP CHORDS  
A-I 0.51 3144 C 876 -655  
I-J 0.23 2269 C 655 -732  
J-B 0.16 938 C 732 -853  
B-K 0.18 939 C 855 -978  
K-L 0.29 404 T 978 -1274  
L-M 0.29 366 T 1274 -1053  
M-C 0.25 355 T 618 634  
BOTTOM CHORDS  
A-H 0.48 2811 T -933 262  
H-O 0.50 2811 T -262 1460  
O-G 0.80 2811 T -1460 -5003  
G-F 0.69 2030 T 5003 -3161  
F-P 0.27 364 C 3161 -2110  
P-E 0.18 364 C 2110 -216  
E-D 0.09 323 C 552 -611  
D-C 0.13 319 C 606 381

WEBS  
H-I = 930 T I-G = 1017 C  
G-J = 1594 T J-F = 1647 C  
F-B = 741 T F-K = 1634 T  
E-K = 1876 C E-L = 86 C  
D-L = 110 C

DL+LL DEFL = 0.18" IN G-F  
LL DEFL = 0.09" < BRG-SPAN/240  
SPAN/DEFL (DL+LL) = 999

PLATES ARE FOR EACH PLY

PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.  
PLATES - 20 GAUGE LOCK  
GRIPPING 632-312 PSI PER PAIR  
INCLUDES 25.0% INCREASE  
TENSION 1339- 465 PLI PER PAIR  
SHEAR 784- 506 PLI PER PAIR

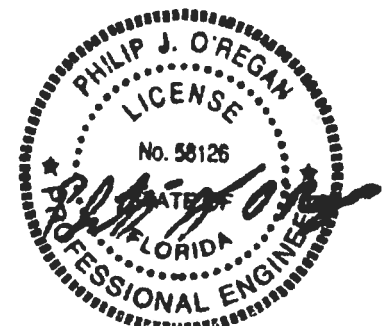
JT TYPE	PLATE SIZE	X	Y
A 2001	3.00 X 7.00	10.2	4.9
B 3001	4.00 X 6.00	3.0	2.2
C 2101	3.00 X 7.00	11.0	2.6
D 6001	5.00 X 7.00	3.5	3.0
IE 5093	6.00 X 8.00	2.4	3.2
F 1070	4.00 X 8.00	CTR	CTR
G 1131	6.00 X 6.00	CTR	4.0
H 1001	2.00 X 4.00	CTR	CTR
I 1151	5.00 X 7.00	CTR	3.0
J 1050	4.00 X 4.00	1.5	CTR
K 1050	3.00 X 4.00	CTR	CTR
L 1050	3.00 X 4.00	CTR	CTR
M			

O  
P  
I SELECTED VIA PLATE MONITOR  
REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

- NOTES:
1. TRUSSES MANUFACTURED BY - Mayo Truss Co. Inc.
  2. EMPIRICAL ANALOG IS USED.
  3. DESIGN INCLUDES CHECK FOR 10 PSF NON-CONCURRENT LIVE LOAD ON BOTTOM CHORD.
  4. WIND LOADS - ANSI/ASCE 7-02  
TRUSS IS DESIGNED AS A MAIN WIND-FORCE RES SYSTEM FOR EXTERIOR ZONE LOCATION  
WIND SPEED - 110 MPH  
MEAN ROOF HEIGHT - 15'  
EXPOSURE CATEGORY - B  
OCCUPANCY FACTOR - 1.00  
ENCLOSED BUILDING.  
TC DEAD LOAD = 5.0 PSF  
BC DEAD LOAD = 5.0 PSF
  5. TIE-IN LOADS SHOWN WITHOUT DAMAGE TO TRUSS.

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682

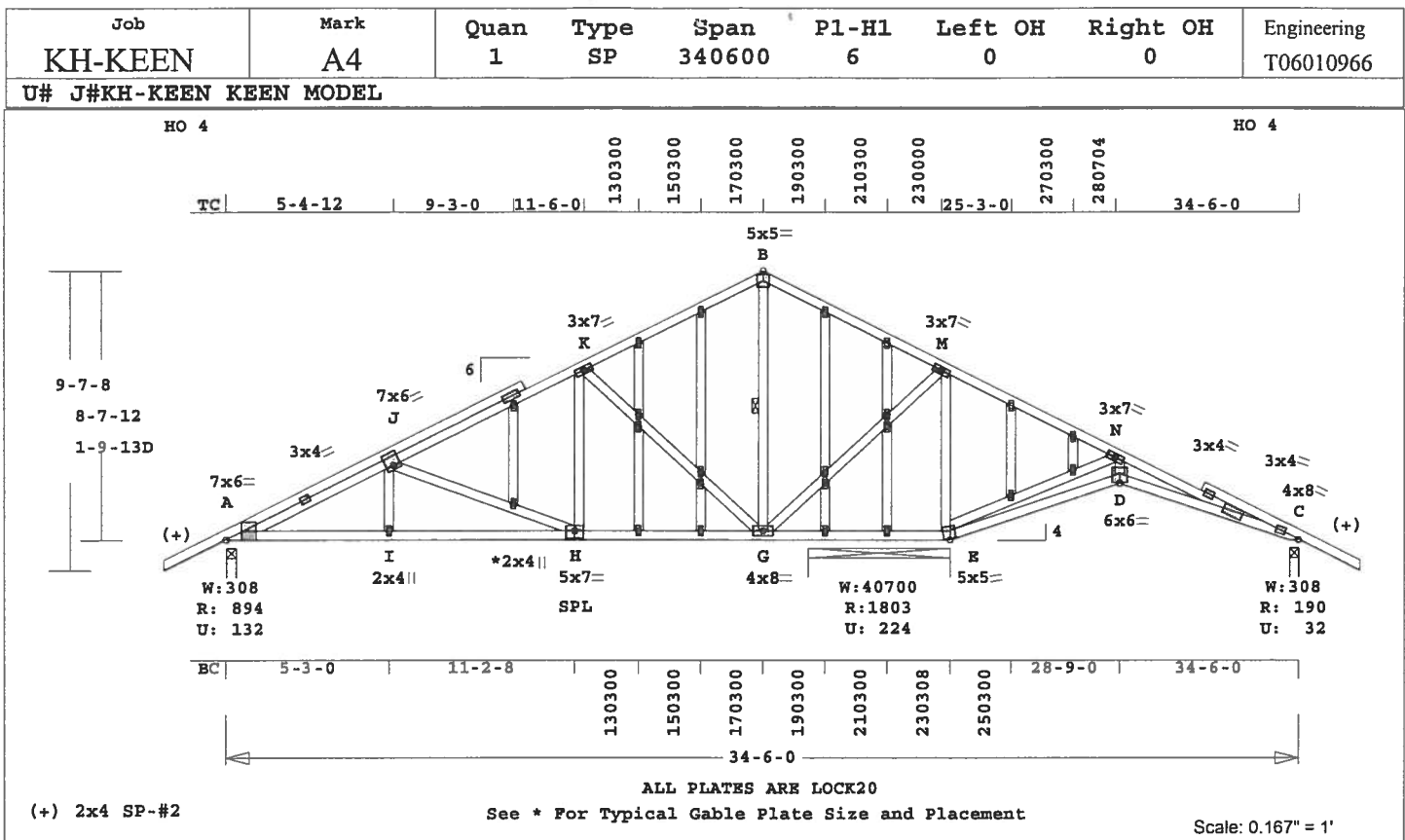


Job	Mark	Quan	Type	Span	P1-H1	Left OH	Right OH	Engineering
KH-KEEN	A3	1*2P	SP	340600	6	2- 0- 0	0	T06010966
U# J#KH-KEEN KEEN MODEL								

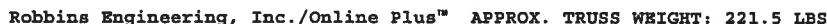
6. PREVENT TRUSS ROTATION AT ALL BEARING LOCATIONS.
7. ANCHOR TRUSS FOR A TOTAL HORIZONTAL LOAD OF 190 LBS.
8. FASTEN TRUSS TO BRG A FOR 500 LBS OF UPLIFT, WHILE PERMITTING NO UPWARD MOVEMENT OF WALL OR BRG.
9. FASTEN TRUSS TO BRG E FOR 525 LBS OF UPLIFT, WHILE PERMITTING NO UPWARD MOVEMENT OF WALL OR BRG.
10. 2 COMPLETE TRUSSES REQUIRED. FASTEN TRUSSES TOGETHER W/ 10d NAILS AS EACH LAYER IS APPLIED, STAGGERED AS FOLLOWS
 

MEMBER	ROWS	SPACING (IN)
TOP CHD	1	12.0
BTM CHD	2	12.0
WEBS	1	4.0

 PLUS CLUSTERS OF NAILS IF SHOWN.

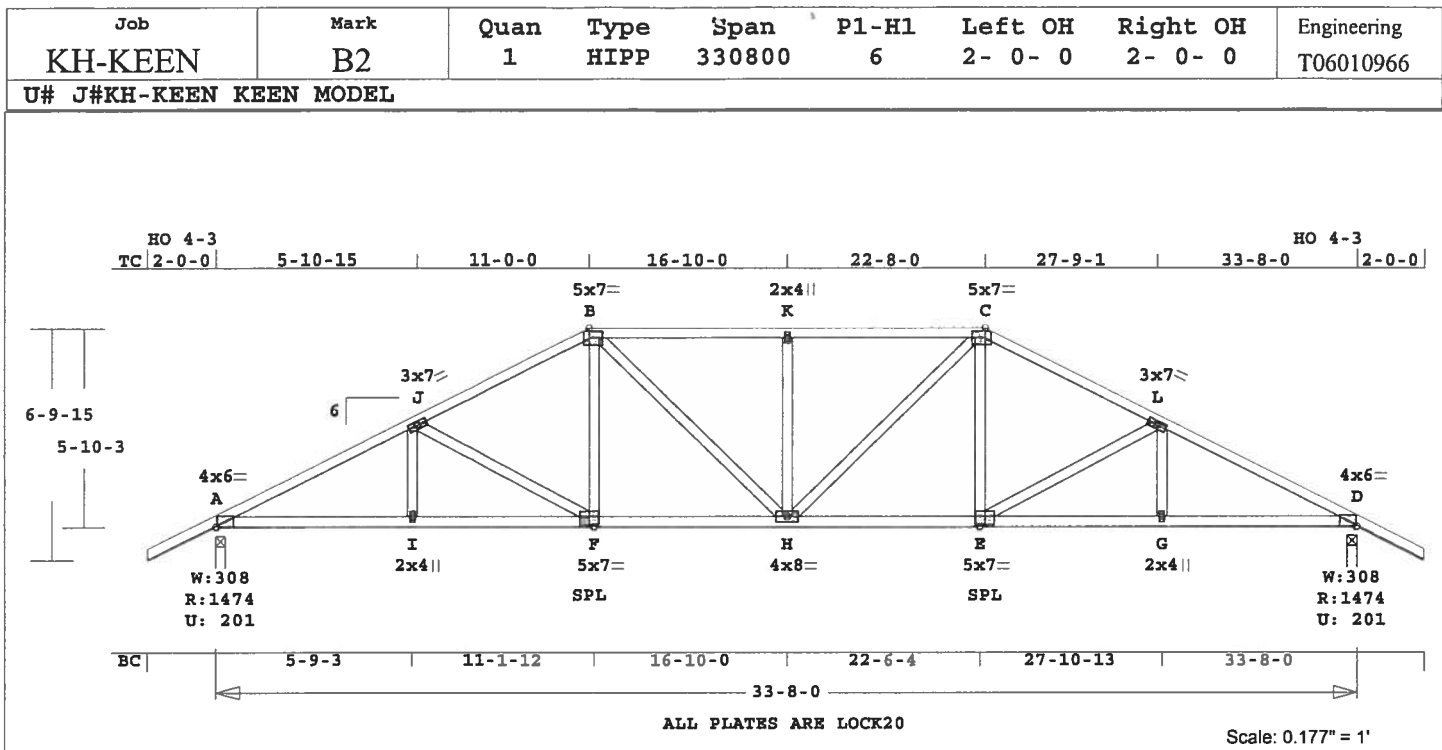


U# J#KH-KEEN KEEN MODEL



Date Sealed: 1/11/2006





Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 231.3 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI -Size- ---Lumber---  
TC 0.38 2x 4 SP-#2  
BC 0.45 2x 4 SP-#2  
WB 0.20 2x 4 SP-#2

Brace truss as follows:

O.C.	From	To
TC Cont.	0- 0- 0	33- 8- 0
BC Cont.	0- 0- 0	33- 8- 0

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0
Spacing			24.0"
Lumber Duration Factor			1.25
Plate Duration Factor			1.25
TC Fb=1.15	Fc=1.10	Ft=1.10	
BC Fb=1.10	Fc=1.10	Ft=1.10	

Plus 6 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	1475	202	3- 8	1-12
			Hz =	-113
D	1475	202	3- 8	1-12
			Hz =	114

Membr CSI P Lbs Axl-CSI-Bnd  
-----Top Chords-----

A	J	B	K	C	L	D
0.25	0.25	0.38	0.38	0.25	0.25	0.25
2436	2003	2048	2048	2003	2436	2436
C	C	C	C	C	C	C
0.06	0.02	0.02	0.02	0.02	0.06	0.19

-----Bottom Chords-----

A	I	F	H	E	G
0.43	0.45	0.39	0.39	0.45	
2178	2178	1787	1787	2178	
T	T	T	T	T	
0.36	0.36	0.30	0.30	0.36	

G -D 0.43 2178 T 0.36 0.07

-----Webs-----

I	J	F	B	H	K	C	E	L	G
0.03	0.20	0.06	0.06	0.15	0.06	0.06	0.06	0.20	0.03
207	437	377	362	390	362	377	437	207	
T	C	T	T	C	T	T	C	T	

LL Defl -0.12" in H -E L/999  
TL Defl -0.25" in H -E L/999  
Shear // Grain in B -K 0.25

Plates for each ply each face.  
PLATING CONFORMS TO TPI.

REPORT: NER 691

ROBBINS ENGINEERING, INC.

BASED ON SP LUMBER

USING GROSS AREA TEST.

Plate - LOCK 20 Ga, Gross Area

Plate - RHS 20 Ga, Gross Area

Jt	Type	Plt	Size	X	Y	JSI
A	LOCK	4.0x	6.0	Ctr	0.1	0.67
J	LOCK	3.0x	7.0	Ctr	Ctr	0.40
B	LOCK	5.0x	7.0	-0.5	-0.1	0.92
K	LOCK	2.0x	4.0	Ctr	Ctr	0.44
C	LOCK	5.0x	7.0	0.5	-0.1	0.92
L	LOCK	3.0x	7.0	Ctr	Ctr	0.40
D	LOCK	4.0x	6.0	Ctr	0.1	0.67
I	LOCK	2.0x	4.0	Ctr	Ctr	0.44
F	LOCK	5.0x	7.0	Ctr	-0.5	0.73
H	LOCK	4.0x	8.0	Ctr	Ctr	0.42
E	LOCK	5.0x	7.0	Ctr	-0.5	0.73
G	LOCK	2.0x	4.0	Ctr	Ctr	0.44

REVIEWED BY:

Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

NOTES:

Trusses Manufactured by:

Mayo Truss Co. Inc.

Analysis Conforms To:

FBC2004

OH Loading

Soffit psf 2.0

Design checked for 10 psf non-  
concurrent LL on BC.

Wind Loads - ANSI / ASCE 7-02

Truss is designed as a Main  
Wind-Force Resistance System.

Wind Speed: 110 mph

Mean Roof Height: 15-0

Exposure Category: B

Occupancy Factor : 1.00

Building Type: Enclosed

Zone location: Exterior

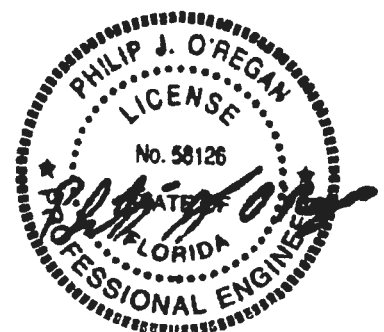
TC Dead Load : 5.0 psf

BC Dead Load : 5.0 psf

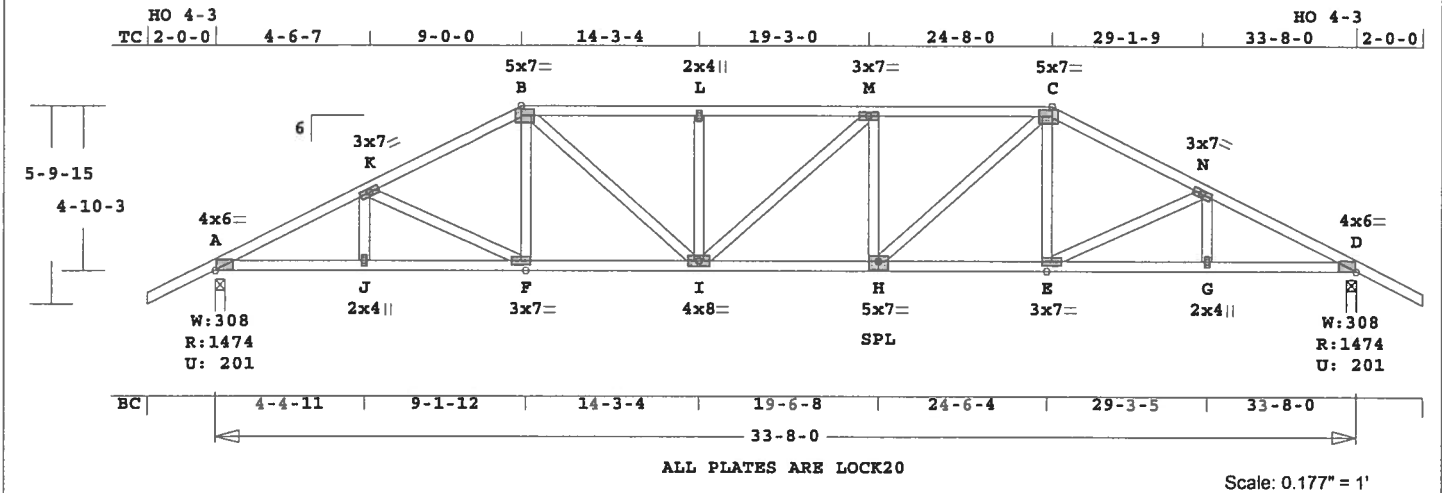
Max comp. force 2436 Lbs

Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682



Job <b>KH-KEEN</b>	Mark <b>B3</b>	Quan <b>1</b>	Type <b>HIPP</b>	Span <b>330800</b>	P1-H1 <b>6</b>	Left OH <b>2- 0- 0</b>	Right OH <b>2- 0- 0</b>	Engineering <b>T06010966</b>
<b>U# J#KH-KEEN KEEN MODEL</b>								



Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 235.0 LBS

#### ADDITIONAL SPECIFICATIONS.

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI -Size- ----Lumber----  
TC 0.28 2x 4 SP-#2  
BC 0.47 2x 4 SP-#2  
WB 0.11 2x 4 SP-#2

Brace truss as follows:

	O.C.	From	To
TC Cont.	0- 0- 0	33- 8- 0	0
BC Cont.	0- 0- 0	33- 8- 0	0

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0
Spacing			24.0"
Lumber Duration Factor			1.25
Plate Duration Factor			1.25
TC Fb=1.15 Fc=1.10 Ft=1.10			
BC Fb=1.10 Fc=1.10 Ft=1.10			

Plus 6 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	1475	202	3- 8	1-12
			Hz =	-92
D	1475	202	3- 8	1-12
			Hz =	93

Membr	CSI	P	Lbs	Axl	CSI-Bnd
-----Top Chords-----					
A -K	0.19	2491	C	0.04	0.15
K -B	0.22	2168	C	0.02	0.20
B -L	0.27	2422	C	0.04	0.23
L -M	0.28	2422	C	0.04	0.24
M -C	0.28	2422	C	0.04	0.24
C -N	0.22	2168	C	0.02	0.20
N -D	0.19	2491	C	0.04	0.15

-----Bottom Chords-----					
A -J	0.47	2221	T	0.37	0.10
J -F	0.46	2221	T	0.37	0.09
F -I	0.40	1940	T	0.32	0.08
I -H	0.46	2422	T	0.40	0.06
H -E	0.40	1940	T	0.32	0.08

	E -G	0.46	2221	T	0.37	0.09
G -D	0.47	2221	T	0.37	0.10	
-----Webs-----						
J -K	0.02	147	T			
K -F	0.10	303	C			
F -B	0.04	304	T			
B -I	0.11	639	T			
I -L	0.08	320	C			
L -M	0.02	46	C			
H -M	0.08	320	C			
H -C	0.11	640	T			
E -C	0.04	303	T			
E -N	0.10	304	C			
G -N	0.02	147	T			

LL Defl -0.14" in I -H L/999  
TL Defl -0.30" in I -H L/999  
Shear // Grain in B -L 0.21

Plates for each ply each face.  
PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.

Plate	LOCK	20	Ga,	Gross	Area
Plate	RHS	20	Ga,	Gross	Area
Jt Type	Plt Size	X	Y	JSI	
A	LOCK	4.0x	6.0	Ctr	0.1 0.67
K	LOCK	3.0x	7.0	Ctr	Ctr 0.40
B	LOCK	5.0x	7.0-0.5-0.1	0.92	
L	LOCK	2.0x	4.0	Ctr	Ctr 0.44
M	LOCK	3.0x	7.0	Ctr	Ctr 0.44
C	LOCK	5.0x	7.0	0.5-0.1	0.92
N	LOCK	3.0x	7.0	Ctr	Ctr 0.40
D	LOCK	4.0x	6.0	Ctr	0.1 0.67
J	LOCK	2.0x	4.0	Ctr	Ctr 0.44
F	LOCK	3.0x	7.0	Ctr	Ctr 0.45
I	LOCK	4.0x	8.0	Ctr	Ctr 0.42
H	LOCK	5.0x	7.0	Ctr-0.5	0.73
E	LOCK	3.0x	7.0	Ctr	Ctr 0.45
G	LOCK	2.0x	4.0	Ctr	Ctr 0.44

REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR

#### NOTES:

Trusses Manufactured by:

Mayo Truss Co. Inc.

Analysis Conforms To:

FBC2004

OH Loading

Soffit psf 2.0

Design checked for 10 psf non-concurrent LL on BC.

Wind Loads - ANSI / ASCE 7-02

Truss is designed as a Main

Wind-Force Resistance System.

Wind Speed: 110 mph

Mean Roof Height: 15-0

Exposure Category: B

Occupancy Factor : 1.00

Building Type: Enclosed

Zone location: Exterior

TC Dead Load : 5.0 psf

BC Dead Load : 5.0 psf

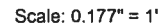
Max comp. force 2491 Lbs

Quality Control Factor 1.25

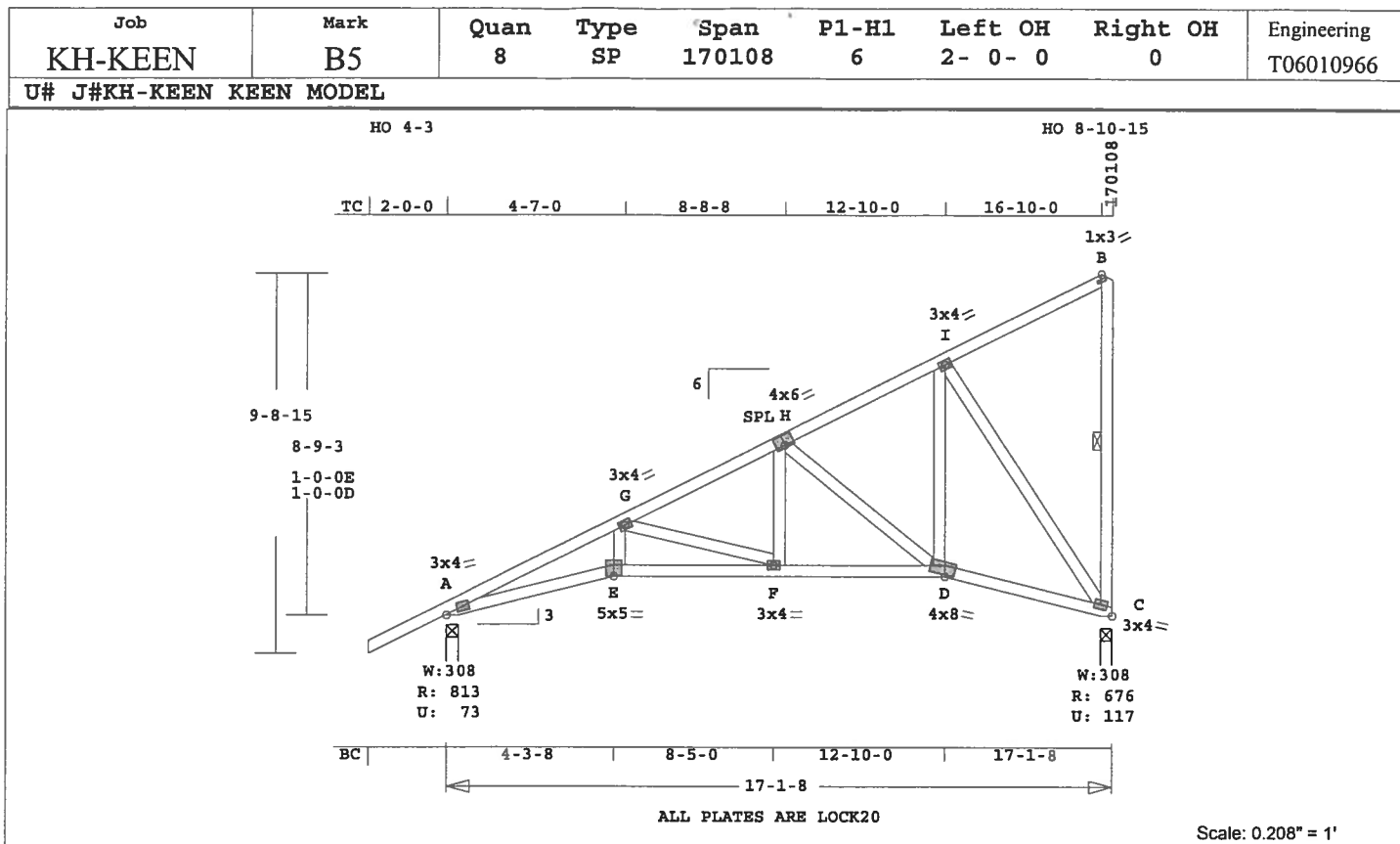
Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682



U# J#KH-KEEN KEEN MODEL



Date Sealed: 1/11/2006



Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 137.3 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI -Size- ---Lumber---  
TC 0.19 2x 4 SP-#2  
BC 0.39 2x 4 SP-#2  
WB 0.54 2x 4 SP-#2

Brace truss as follows:

O.C. From To  
TC Cont. 0- 0- 0 17- 1- 8  
BC Cont. 0- 0- 0 17- 1- 8  
WB 1 rows CLB on C -B  
Attach CLB with (2)-10d nails  
at each web.

Loading Live Dead (psf)  
TC 20.0 10.0  
BC 0.0 10.0  
Total 20.0 20.0 40.0  
Spacing 24.0"  
Lumber Duration Factor 1.25  
Plate Duration Factor 1.25  
TC Fb=1.15 Fc=1.10 Ft=1.10  
BC Fb=1.10 Fc=1.10 Ft=1.10

Plus 5 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	813	74	3- 8	1- 0
			Hz =	-218
C	676	118	3- 8	1- 0
			Hz =	392

Membr CSI P Lbs Axl-Csi-Bnd  
-----Top Chords-----  
A -G 0.14 1959 C 0.03 0.11  
G -H 0.15 976 C 0.00 0.15  
H -I 0.19 477 C 0.00 0.19  
I -B 0.19 136 C 0.00 0.19  
-----Bottom Chords-----

A -E	0.39	1793	T	0.30	0.09
E -F	0.34	1746	T	0.29	0.05
F -D	0.28	880	T	0.14	0.14
D -C	0.18	428	T	0.07	0.11

-----Webs-----					
E -G	0.09	494	T		
G -F	0.21	905	C		
F -H	0.05	345	T		
H -D	0.19	573	C		
D -I	0.10	556	T		
I -C	0.54	751	C		
C -B	0.25	103	C	WindLd	1 Br

LL Defl -0.06" in E -F L/999  
TL Defl -0.12" in E -F L/999  
Shear // Grain in I -B 0.17  
Hz Disp LL DL TL  
Jt C 0.04" 0.04" 0.08"

Plates for each ply each face.  
PLATING CONFORMS TO TPI.

REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.

Plate	-	LOCK	20 Ga,	Gross Area
Plate	-	RHS	20 Ga,	Gross Area
Jt Type	Plt Size	X	Y	JSI
A	LOCK	3.0x 4.0	Ctr Ctr	0.85
G	LOCK	3.0x 4.0	Ctr Ctr	0.54
H	LOCK	4.0x 6.0	0.5 0.9	0.53
I	LOCK	3.0x 4.0	Ctr Ctr	0.54
B	LOCK	1.0x 3.0	Ctr Ctr	0.75
E	LOCK	5.0x 5.0	Ctr-1.0	0.48
F	LOCK	3.0x 4.0	Ctr Ctr	0.66
D	LOCK	4.0x 8.0	0.7-0.7	0.55
C	LOCK	3.0x 4.0	Ctr Ctr	0.64

REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR

ADDITIONAL SPECIFICATIONS.

NOTES:

Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2004

OH Loading  
Soffit psf 2.0  
Provide connection to bearing  
for 391 Lbs Horiz Reaction  
Design checked for 10 psf non-  
concurrent LL on BC.  
Wind Loads - ANSI / ASCE 7-02  
Truss is designed as a Main  
Wind-Force Resistance System.  
Wind Speed: 110 mph  
Mean Roof Height: 15-0  
Exposure Category: B  
Occupancy Factor : 1.00  
Building Type: Enclosed  
Zone location: Exterior  
TC Dead Load : 5.0 psf  
BC Dead Load : 5.0 psf  
Max comp. force 1959 Lbs  
Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License # 58126  
Address: P.O. Box 280055, Tampa, FL 33682

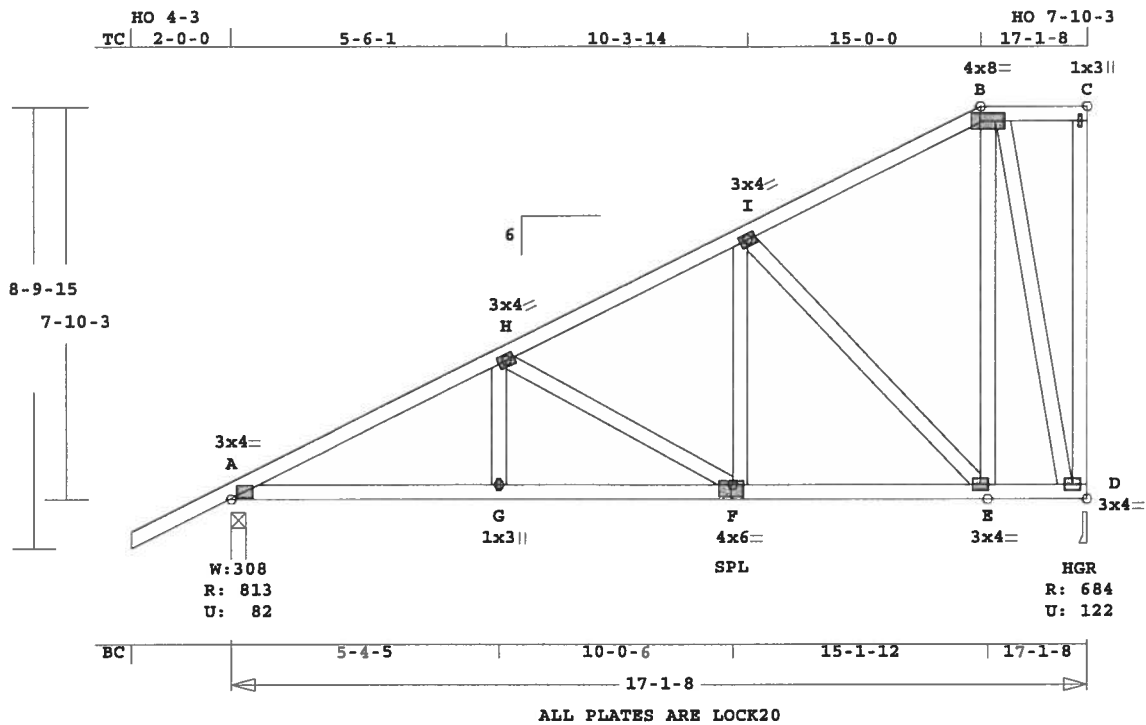


U# J#KH-KEEN KEEN MODEL





Job	Mark	Quan	Type	Span	P1-H1	Left OH	Right OH	Engineering
KH-KEEN	B8	1	HHIP	170108	6	2- 0- 0	0	T06010966
U# J#KH-KEEN KEEN MODEL								



Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 150.5 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI -Size- ----Lumber-----  
TC 0.23 2x 4 SP-#2  
BC 0.24 2x 4 SP-#2  
WB 0.48 2x 4 SP-#2

Brace truss as follows:

O.C.	From	To
TC Cont.	0- 0- 0	17- 1- 8
BC Cont.	0- 0- 0	17- 1- 8

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0
Spacing			24.0"
Lumber Duration Factor			1.25
Plate Duration Factor			1.25
TC Fb=1.15	Fc=1.10	Ft=1.10	
BC Fb=1.10	Fc=1.10	Ft=1.10	

Plus 6 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	813	82	3- 8	1- 0
			Hz =	-194
D	685	123	3- 8	1- 0
			Hz =	350

Membr	CSI	P	Lbs	Axl	CSI-Bnd
-----Top Chords-----					
A -H	0.21		1055 C	0.00	0.21
H -I	0.23		630 C	0.00	0.23
I -B	0.23		183 C	0.00	0.23
B -C	0.04		94 C	0.00	0.04
-----Bottom Chords-----					
A -G	0.24		948 T	0.15	0.09
G -F	0.22		948 T	0.15	0.07

F -E	0.18	565 T	0.05	0.13	
E -D	0.09	228 T	0.01	0.08	
-----Webs-----					
G -H	0.03	202 T			
H -F	0.16	439 C			
F -I	0.05	365 T			
I -E	0.36	590 C			
E -B	0.09	500 T			
B -D	0.48	650 C			
D -C	0.17	40 C	WindLd		

LL Defl -0.02" in A -G L/999  
TL Defl -0.05" in A -G L/999  
Shear // Grain in I -B 0.19

Plates for each ply each face.  
PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.  
Plate - LOCK 20 Ga, Gross Area  
Plate - RHS 20 Ga, Gross Area  
Jt Type Plt Size X Y JSI  
A LOCK 3.0x 4.0 Ctr Ctr 0.72  
H LOCK 3.0x 4.0 Ctr Ctr 0.54  
I LOCK 3.0x 4.0 Ctr Ctr 0.54  
B LOCK 4.0x 8.0 Ctr Ctr 0.80  
C LOCK 1.0x 3.0 Ctr Ctr 0.81  
G LOCK 1.0x 3.0 Ctr Ctr 0.81  
F LOCK 4.0x 6.0 Ctr-1.0 0.53  
E LOCK 3.0x 4.0 Ctr Ctr 0.48  
D LOCK 3.0x 4.0 Ctr Ctr 0.64

REVIEWED BY:

Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

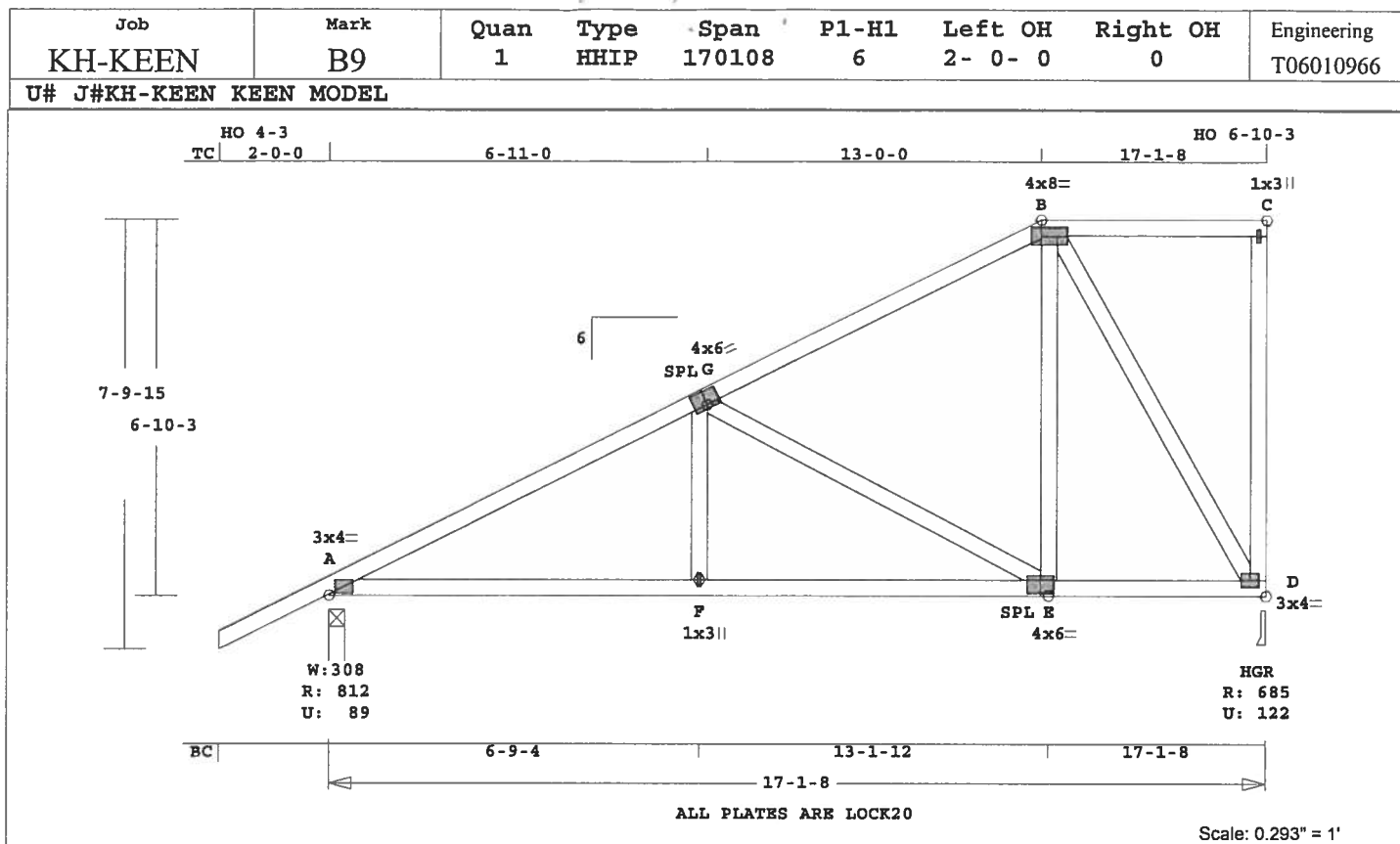
REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

NOTES:

Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2004  
OH Loading  
Soffit psf 2.0  
Provide connection to bearing  
for 349 Lbs Horiz Reaction  
Design checked for 10 psf non-  
concurrent LL on BC.  
Wind Loads - ANSI / ASCE 7-02  
Truss is designed as a Main  
Wind-Force Resistance System.  
Wind Speed: 110 mph  
Mean Roof Height: 15'-0  
Exposure Category: B  
Occupancy Factor : 1.00  
Building Type: Enclosed  
Zone location: Exterior  
TC Dead Load : 5.0 psf  
BC Dead Load : 5.0 psf  
Max comp. force 1055 Lbs  
Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682





Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 128.4 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI -Size- ----Lumber----

TC	0.43	2x 4	SP-#2
BC	0.34	2x 4	SP-#2
WB	0.44	2x 4	SP-#2

Brace truss as follows:

O.C.	From	To
TC Cont.	0- 0- 0	17- 1- 8
BC Cont.	0- 0- 0	17- 1- 8

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0

Spacing 24.0"

Lumber Duration Factor 1.25

Plate Duration Factor 1.25

TC Fb=1.15 Fc=1.10 Ft=1.10

BC Fb=1.10 Fc=1.10 Ft=1.10

Plus 6 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
A	813	90	3- 8	1- 0
			Hz =	-167
D	685	123	3- 8	1- 0
			Hz =	303

Membr	CSI	P	Lbs	Axl	CSI-Bnd
-----Top Chords-----					
A -G	0.43		980 C	0.00	0.43
G -B	0.43		377 C	0.00	0.43
B -C	0.14		81 C	0.00	0.14
-----Bottom Chords-----					
A -F	0.34		886 T	0.09	0.25
F -E	0.34		886 T	0.09	0.25
E -D	0.18		320 T	0.03	0.15

-----Webs-----

F	-G	0.04	282 T
G <td>-E</td> <td>0.40</td> <td>635 C</td>	-E	0.40	635 C
E <td>-B</td> <td>0.07</td> <td>442 T</td>	-B	0.07	442 T
B <td>-D</td> <td>0.44</td> <td>633 C</td>	-D	0.44	633 C
D <td>-C</td> <td>0.13</td> <td>108 C</td>	-C	0.13	108 C

WindLd

LL Defl -0.04" in A -F L/999

TL Defl -0.09" in A -F L/999

Shear // Grain in A -G 0.25

Plates for each ply each face.  
PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.  
Plate - LOCK 20 Ga, Gross Area  
Plate - RHS 20 Ga, Gross Area  
Jt Type Plt Size X Y JSI  
A LOCK 3.0x 4.0 Ctr Ctr 0.72  
G LOCK 4.0x 6.0-0.5 0.9 0.53  
B LOCK 4.0x 8.0 Ctr Ctr 0.80  
C LOCK 1.0x 3.0 Ctr Ctr 0.81  
F LOCK 1.0x 3.0 Ctr Ctr 0.81  
E LOCK 4.0x 6.0 Ctr-1.0 0.53  
D LOCK 3.0x 4.0 Ctr Ctr 0.64

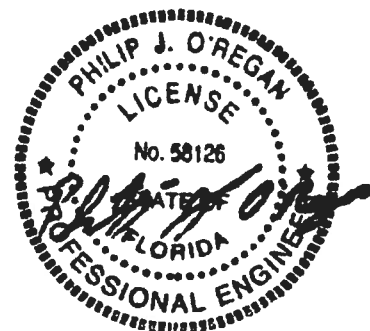
REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

NOTES:  
Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2004  
OH Loading  
Soffit psf 2.0

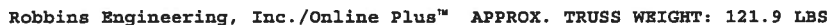
Provide connection to bearing  
for 303 Lbs Horiz Reaction  
Design checked for 10 psf non-  
concurrent LL on BC.  
Wind Loads - ANSI / ASCE 7-02  
Truss is designed as a Main  
Wind-Force Resistance System.  
Wind Speed: 110 mph  
Mean Roof Height: 15-0  
Exposure Category: B  
Occupancy Factor : 1.00  
Building Type: Enclosed  
Zone location: Exterior  
TC Dead Load : 5.0 psf  
BC Dead Load : 5.0 psf  
Max comp. force 980 Lbs  
Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682



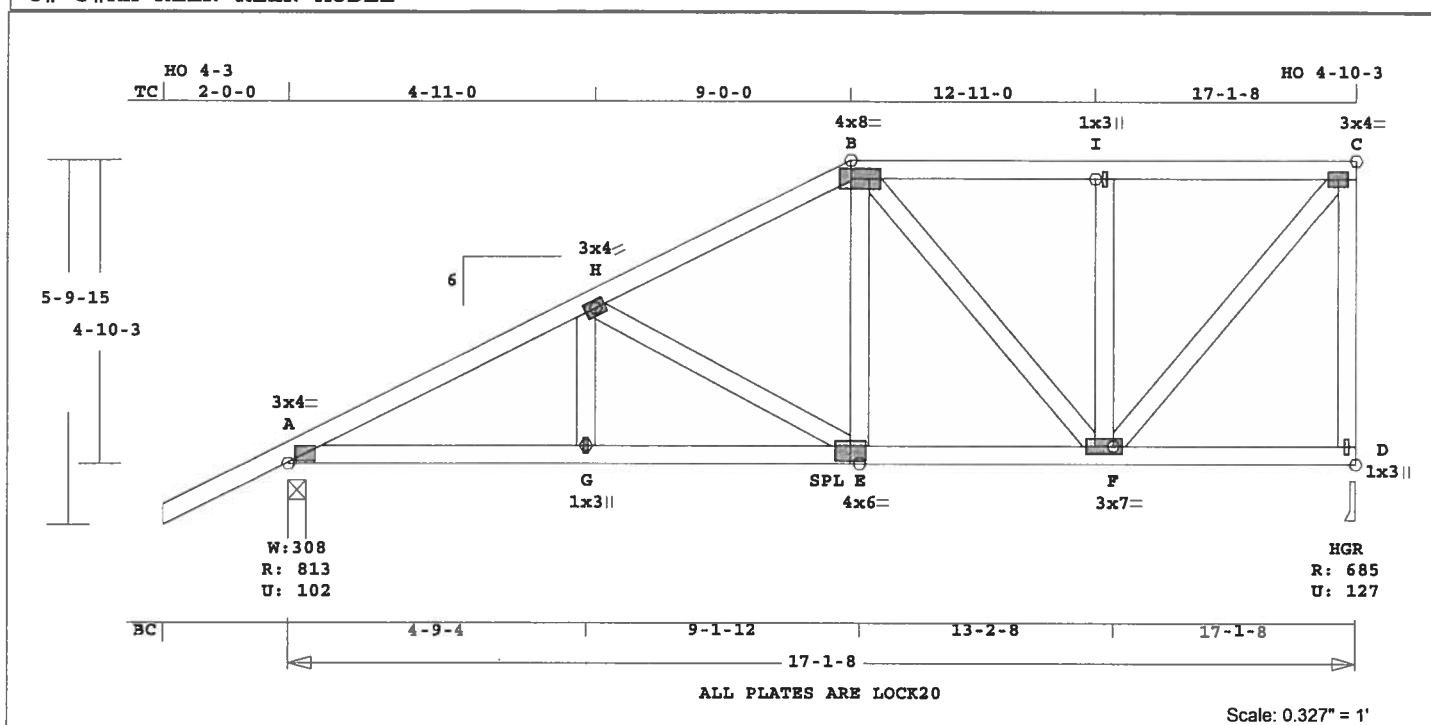


U# J#KH-KEEN KEEN MODEL



Date Sealed: 1/11/2006

Job <b>KH-KEEN</b>	Mark <b>B11</b>	Quan <b>1</b>	Type <b>HHIP</b>	Span <b>170108</b>	P1-H1 <b>6</b>	Left OH <b>2- 0- 0</b>	Right OH <b>0</b>	Engineering <b>T06010966</b>
U# <b>J#KH-KEEN KEEN MODEL</b>								



Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 129.4 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

TC	BC	WB	CSI	-Size-	----	Lumber----
0.18	0.22	0.17	2x 4	SP-#2		

Brace truss as follows:

O.C.	From	To
TC Cont.	0- 0- 0	17- 1- 8
BC Cont.	0- 0- 0	17- 1- 8

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0
Spacing			24.0"
Lumber Duration Factor			1.25
Plate Duration Factor			1.25
TC Fb=1.15	Fc=1.10	Ft=1.10	
BC Fb=1.10	Fc=1.10	Ft=1.10	

Plus 6 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	813	102	3- 8	1- 0
			Hz =	-115
D	685	128	3- 8	1- 0
			Hz =	208

Membr	CSI	P Lbs	Axl	CSI-Bnd
-----Top Chords-----				
A - H	0.15	1089 C	0.00	0.15
H - B	0.15	714 C	0.00	0.15
B - I	0.18	471 C	0.00	0.18
I - C	0.18	471 C	0.00	0.18
-----Bottom Chords-----				
A - G	0.22	977 T	0.16	0.06
G - E	0.20	977 T	0.16	0.04
E - F	0.15	630 T	0.10	0.05
F - D	0.09	149 T	0.00	0.09

-----Webs-----			
G - H	0.02	182 T	
H - E	0.11	389 C	
E - B	0.05	300 T	
B - F	0.10	241 C	
F - I	0.07	281 C	
F - C	0.13	723 T	
D - C	0.17	649 C	WindLd

LL Defl -0.02" in G - E L/999  
TL Defl -0.05" in G - E L/999  
Shear // Grain in B - I 0.18

Plates for each ply each face.  
PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.

Plate	LOCK	20 Ga,	Gross Area
Plate - LOCK	20 Ga,	Gross Area	
Jt Type	Plt Size	X	Y JSI
A LOCK	3.0x 4.0	Ctr	Ctr 0.72
H LOCK	3.0x 4.0	Ctr	Ctr 0.54
B LOCK	4.0x 8.0	Ctr	Ctr 0.80
I LOCK	1.0x 3.0	Ctr	Ctr 0.81
C LOCK	3.0x 4.0	Ctr	Ctr 0.64
G LOCK	1.0x 3.0	Ctr	Ctr 0.81
E LOCK	4.0x 6.0	Ctr	-1.0 0.53
F LOCK	3.0x 7.0	Ctr	Ctr 0.53
D LOCK	1.0x 3.0	Ctr	Ctr 0.81

REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

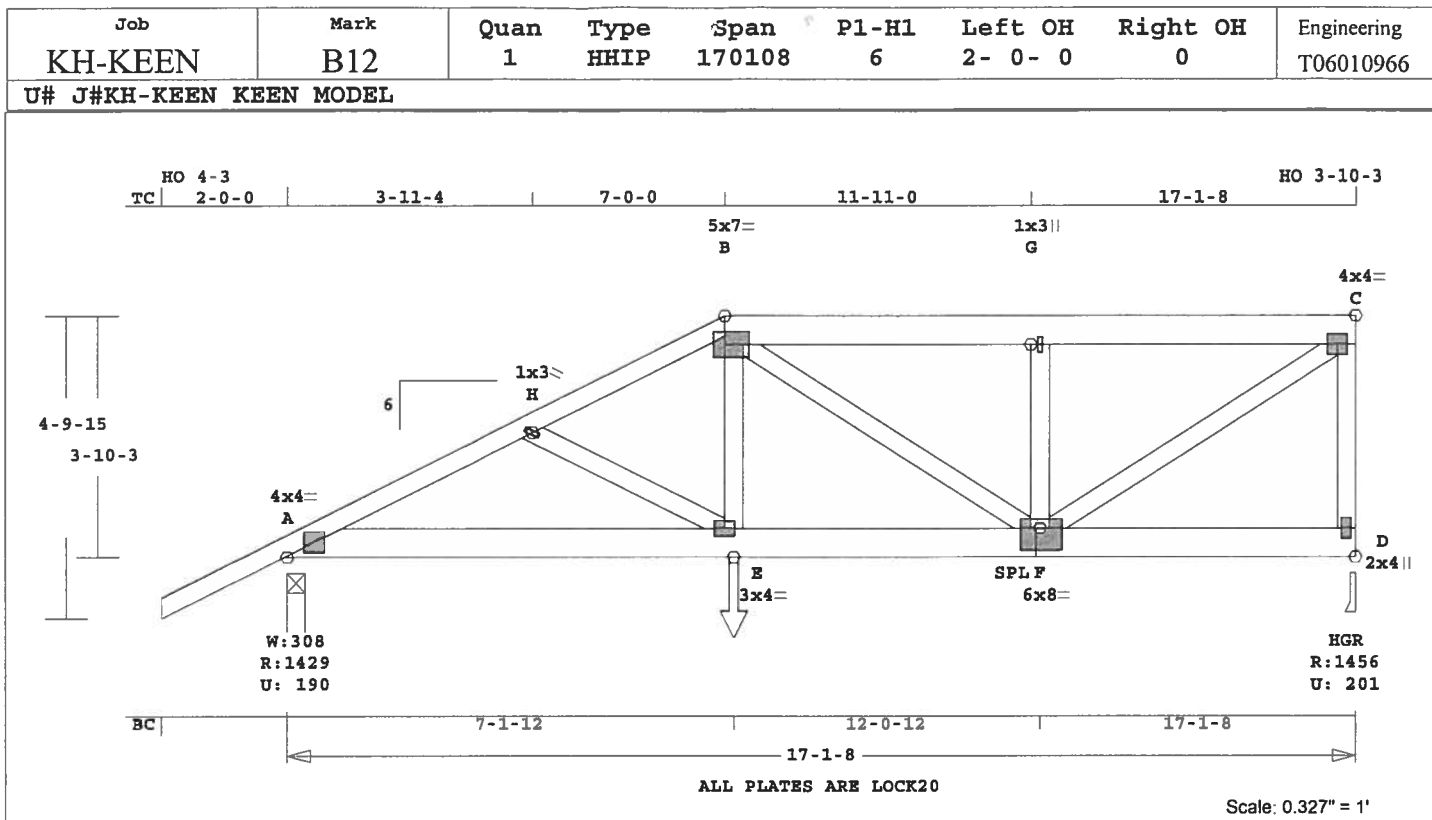
REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

NOTES:  
Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2004

OH Loading  
Soffit psf 2.0  
Design checked for 10 psf non-  
concurrent LL on BC.  
Wind Loads - ANSI / ASCE 7-02  
Truss is designed as a Main  
Wind-Force Resistance System.  
Wind Speed: 110 mph  
Mean Roof Height: 15-0  
Exposure Category: B  
Occupancy Factor : 1.00  
Building Type: Enclosed  
Zone location: Exterior  
TC Dead Load : 5.0 psf  
BC Dead Load : 5.0 psf  
Max comp. force 1089 lbs  
Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682





Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 140.5 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

	CSI	-Size-	----	Lumber----
TC	0.47	2x 4	SP-#2	
EX B -C		2x 6	SP-#2	
BC	0.42	2x 6	SP-#2	
WB	0.40	2x 4	SP-#2	

Brace truss as follows:

	O.C.	From	To
TC Cont.	0- 0- 0	17- 1- 8	
BC Cont.	0- 0- 0	17- 1- 8	

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0
Spacing			24.0"
Lumber Duration Factor			1.25
Plate Duration Factor			1.25
TC Fb=1.00 Fc=1.00 Ft=1.00			
BC Fb=1.00 Fc=1.00 Ft=1.00			

Load Case # 1 Girder Loading

	plf - Live	Dead	From	To
TC V	40	20	0.0'	17.1'
BC V	0	20	0.0'	17.1'
TC V	50	25	7.0'	16.1'
TC V	-40	-20	16.1'	17.1'
BC V	0	25	7.1'	16.1'
BC V	0	-20	16.1'	17.1'
BC V	280	280	7.1'	CL-LB

Plus 6 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	1430	190	3- 8	1-11
			Hz =	-83
D	1457	202	3- 8	1-12
			Hz =	152

Membr	CSI	P	Lbs	Ax1	CSI-Bnd
-----Top Chords-----					
A -H	0.22		2415 C	0.05	0.17
H -B	0.47		2278 C	0.04	0.43
B -G	0.40		1818 C	0.01	0.39
G -C	0.40		1818 C	0.01	0.39
-----Bottom Chords-----					
A -E	0.42		2155 T	0.28	0.14
E -F	0.37		2043 T	0.27	0.10
F -D	0.18		108 T	0.00	0.18
-----Webs-----					
H -E	0.01		97 C		
E -B	0.14		762 T		
B -F	0.11		268 C		
F -G	0.12		842 C		
F -C	0.40		2209 T		
D -C	0.20		1402 C		WindLd

LL Defl -0.05" in E -F L/999  
TL Defl -0.11" in E -F L/999  
Shear // Grain in B -G 0.36

Plates for each ply each face.  
PLATING CONFORMS TO TPI.

REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.

Plate	- LOCK	20 Ga,	Gross Area
Plate	- RHS	20 Ga,	Gross Area
Jt	Type	Plt	Size X Y JSI
A	LOCK	4.0x	4.0 Ctr Ctr 0.81
H	LOCK	1.0x	3.0 Ctr Ctr 0.75
B	LOCK	5.0x	7.0-0.5 Ctr 0.88
G	LOCK	1.0x	3.0 Ctr Ctr 0.81
C	LOCK	4.0x	4.0 Ctr Ctr 0.99
E	LOCK	3.0x	4.0 Ctr Ctr 0.60
F	LOCK	6.0x	8.0 1.0-1.2 0.90
D	LOCK	2.0x	4.0 Ctr Ctr 0.53

REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR

ADDITIONAL SPECIFICATIONS.

NOTES:

Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2004

Girder Half Hip  
Framing King Jacks  
Jack Open Faced  
Setback 7- 0- 0

OH Loading

Soffit psf 2.0

Design checked for 10 psf non-concurrent LL on BC.

Wind Loads - ANSI / ASCE 7-02

Truss is designed as a Main

Wind-Force Resistance System.

Wind Speed: 110 mph

Mean Roof Height: 15-0

Exposure Category: B

Occupancy Factor : 1.00

Building Type: Enclosed

Zone location: Exterior

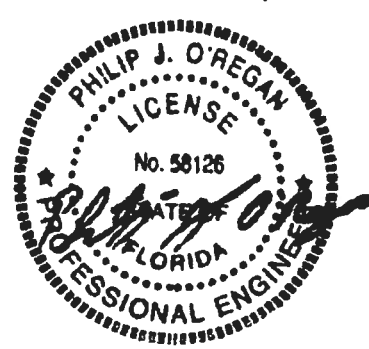
TC Dead Load : 5.0 psf

BC Dead Load : 5.0 psf

Max comp. force 2415 Lbs

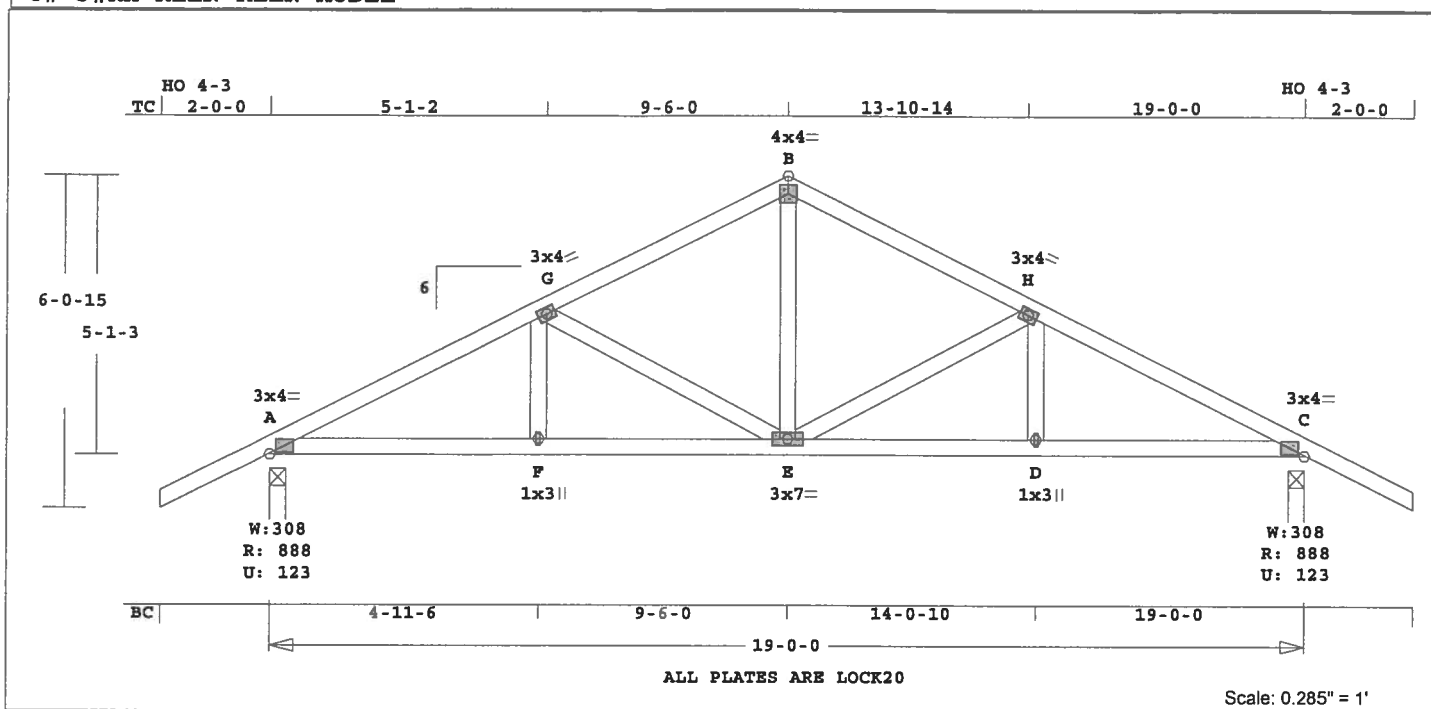
Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682



Job <b>KH-KEEN</b>	Mark <b>C1</b>	Quan <b>1</b>	Type <b>TR</b>	Span <b>190000</b>	Pl-H1 <b>6</b>	Left OH <b>2- 0- 0</b>	Right OH <b>2- 0- 0</b>	Engineering <b>T06010966</b>
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U# J#KH-KEEN KEEN MODEL



Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 120.3 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI -Size- ----Lumber-----  
TC 0.18 2x 4 SP-#2  
BC 0.24 2x 4 SP-#2  
WB 0.13 2x 4 SP-#2

Brace truss as follows:

O.C.	From	To
TC Cont.	0- 0- 0	19- 0- 0
BC Cont.	0- 0- 0	19- 0- 0

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0
Spacing			24.0"
Lumber Duration Factor			1.25
Plate Duration Factor			1.25
TC Fb=1.15	Fc=1.10	Ft=1.10	
BC Fb=1.10	Fc=1.10	Ft=1.10	

Plus 6 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	888	124	3- 8	1- 1
			Hz =	-85
C	888	124	3- 8	1- 1
			Hz =	86

Membr	CSI	P	Lbs	Ax1	CSI-Bnd
-----Top Chords-----					
A -G	0.18	1239	C	0.00	0.18
G -B	0.18	847	C	0.00	0.18
B -H	0.18	847	C	0.00	0.18
H -C	0.18	1239	C	0.00	0.18

-----Bottom Chords-----  
A -F 0.24 1112 T 0.18 0.06  
F -E 0.24 1112 T 0.18 0.06  
E -D 0.24 1112 T 0.18 0.06  
D -C 0.24 1112 T 0.18 0.06

-----Webs-----  
F -G 0.02 183 T  
G -E 0.13 409 C  
E -B 0.09 492 T  
E -H 0.13 409 C  
D -H 0.02 183 T

LL Defl -0.03" in F -E L/999  
TL Defl -0.07" in E -D L/999  
Shear // Grain in A -G 0.16

Plates for each ply each face.  
PLATING CONFORMS TO TPI.

REPORT: NER 691  
ROBBINS ENGINEERING, INC.

BASED ON SP LUMBER

USING GROSS AREA TEST.

Plate - LOCK 20 Ga, Gross Area  
Plate - RHS 20 Ga, Gross Area  
Jt Type Plt Size X Y JSI  
A LOCK 3.0x 4.0 Ctr Ctr 0.75  
G LOCK 3.0x 4.0 Ctr Ctr 0.56  
B LOCK 4.0x 4.0 Ctr Ctr 0.62  
H LOCK 3.0x 4.0 Ctr Ctr 0.56  
C LOCK 3.0x 4.0 Ctr Ctr 0.75  
F LOCK 1.0x 3.0 Ctr Ctr 0.81  
E LOCK 3.0x 7.0 Ctr Ctr 0.47  
D LOCK 1.0x 3.0 Ctr Ctr 0.81

REVIEWED BY:

Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR

ADDITIONAL SPECIFICATIONS.

NOTES:

Trusses Manufactured by:  
Mayo Truss Co. Inc.

Analysis Conforms To:

FBC2004

OH Loading

Soffit psf 2.0

Design checked for 10 psf non-  
concurrent LL on BC.

Wind Loads - ANSI / ASCE 7-02

Truss is designed as a Main  
Wind-Force Resistance System.

Wind Speed: 110 mph

Mean Roof Height: 15-0

Exposure Category: B

Occupancy Factor : 1.00

Building Type: Enclosed

Zone location: Exterior

TC Dead Load : 5.0 psf

BC Dead Load : 5.0 psf

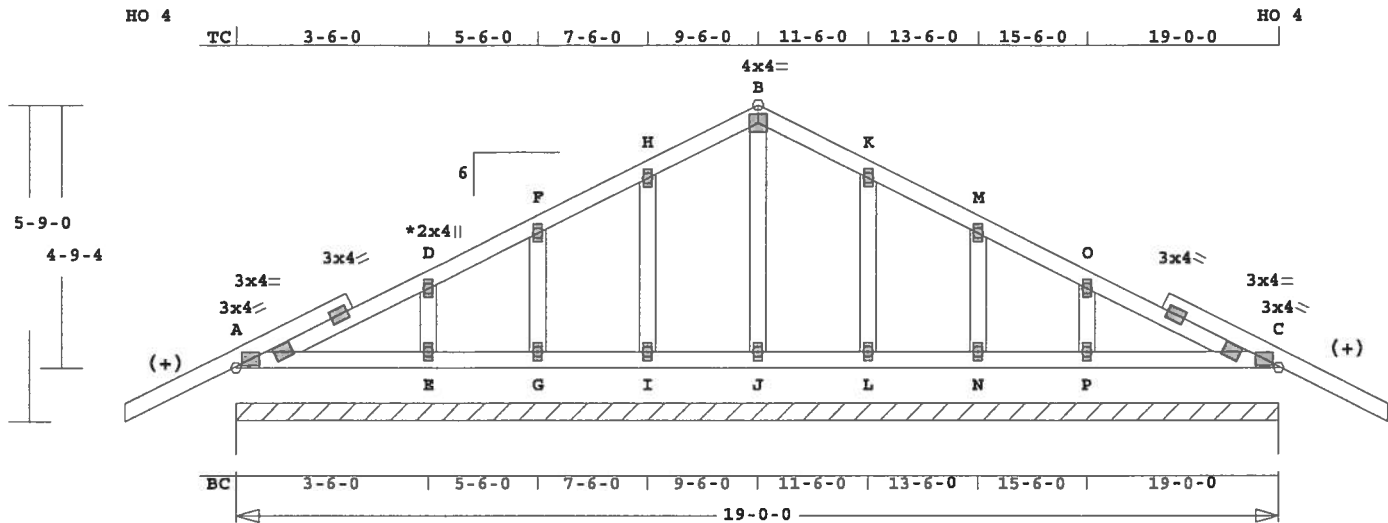
Max comp. force 1239 Lbs

Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682



Job <b>KH-KEEN</b>	Mark <b>C2</b>	Quan <b>1</b>	Type <b>SP</b>	Span <b>190000</b>	P1-H1 <b>6</b>	Left OH <b>0</b>	Right OH <b>0</b>	Engineering <b>T06010966</b>
<b>U# J#KH-KEEN KEEN MODEL</b>								



(+) 2x4 SP-#2

ALL PLATES ARE LOCK20  
See Joint D For Typical Gable Plate Size and Placement

Scale: 0.287" = 1'

Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 124.2 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI -Size- ----Lumber----  
TC 0.07 2x 4 SP-#2  
BC 0.05 2x 4 SP-#2  
GW 0.02 2x 4 SP-#2

Brace truss as follows:

	O.C.	From	To
TC Cont.	0- 0- 0	19- 0- 0	0
BC Cont.	0- 0- 0	19- 0- 0	0

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0
Spacing			24.0"
Lumber Duration Factor			1.25
Plate Duration Factor			1.25
TC Fb=1.15 Fc=1.10 Ft=1.10			
BC Fb=1.10 Fc=1.10 Ft=1.10			

Plus 6 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplift	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
Cont. Brg	0- 0- 0	0- 0- 0	19- 0- 0	0- 0- 0
	1520	202	Hz	= 80

Membr	CSI	P	Lbs	Axl	CSI-Bnd
-----Top Chords-----					
A -D	0.07		90 C	0.00	0.07
D -F	0.07		108 C	0.00	0.07
F -H	0.03		102 C	0.00	0.03
H -B	0.03		106 C	0.00	0.03
B -K	0.03		106 C	0.00	0.03
K -M	0.03		102 C	0.00	0.03
M -O	0.07		108 C	0.00	0.07
O -C	0.07		90 C	0.00	0.07
-----Bottom Chords-----					
A -E	0.05		5 T	0.00	0.05
E -G	0.04		0 T	0.00	0.04
G -I	0.02		0 T	0.00	0.02
I -J	0.02		0 T	0.00	0.02
J -L	0.02		0 T	0.00	0.02

	L	N	0.02	0 T	0.00	0.02
N -P	0.04	0 T	0.00	0.04		
P -C	0.05	5 T	0.00	0.05		
-----Gable Webs-----						
E -D	0.01	176 C				
G -F	0.01	107 C				
I -H	0.02	124 C				
J -B	0.00	32 C				
L -K	0.02	124 C				
N -M	0.01	107 C				
P -O	0.01	176 C				
LL Defl	0.00"	in P -C	L/999			
TL Defl	0.00"	in P -C	L/999			
Shear //	Grain in A -D	0.11				

Plates for each ply each face.  
PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.  
Plate - LOCK 20 Ga, Gross Area  
Plate - RHS 20 Ga, Gross Area  
Jt Type Plt Size X Y JSI  
A LOCK 3.0x 4.0 Ctr Ctr 0.75  
D LOCK 2.0x 4.0 Ctr Ctr 0.00  
F LOCK 2.0x 4.0 Ctr Ctr 0.00  
H LOCK 2.0x 4.0 Ctr Ctr 0.00  
B LOCK 4.0x 4.0 Ctr Ctr 0.62  
K LOCK 2.0x 4.0 Ctr Ctr 0.00  
M LOCK 2.0x 4.0 Ctr Ctr 0.00  
O LOCK 2.0x 4.0 Ctr Ctr 0.00  
C LOCK 3.0x 4.0 Ctr Ctr 0.75  
E LOCK 2.0x 4.0 Ctr Ctr 0.00  
G LOCK 2.0x 4.0 Ctr Ctr 0.00  
I LOCK 2.0x 4.0 Ctr Ctr 0.00  
J LOCK 2.0x 4.0 Ctr Ctr 0.00  
L LOCK 2.0x 4.0 Ctr Ctr 0.00  
N LOCK 2.0x 4.0 Ctr Ctr 0.00  
P LOCK 2.0x 4.0 Ctr Ctr 0.00

REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR

ADDITIONAL SPECIFICATIONS.

NOTES:

Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2004

WARNING Do Not Cut overframe  
member between outside of  
truss and first tie-plate  
to inside of heel plate.  
Design checked for 10 psf non-  
concurrent LL on BC.  
Refer to Gen Det 3 series for  
web bracing and plating.  
Wind Loads - ANSI / ASCE 7-02  
Truss is designed as a Main  
Wind-Force Resistance System.  
Wind Speed: 110 mph  
Mean Roof Height: 15-0  
Exposure Category: B  
Occupancy Factor : 1.00  
Building Type: Enclosed  
Zone location: Exterior  
TC Dead Load : 5.0 psf  
BC Dead Load : 5.0 psf  
Max comp. force 176 Lbs  
Quality Control Factor 1.25

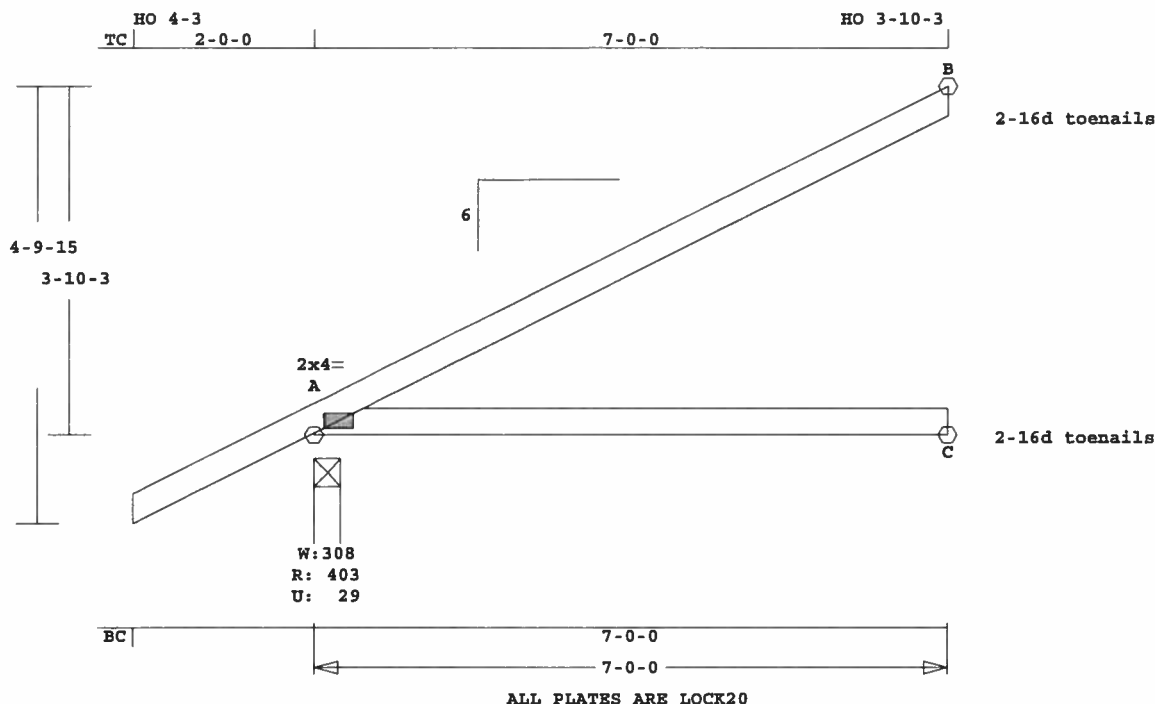
Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682



Scale: 0.421" = 1'

Job	Mark	Quan	Type	Span	Pl-H1	Left OH	Right OH	Engineering
KH-KEEN	J1	16	JCA2	70000	6	2- 0- 0	0	T06010966

U# J#KH-KEEN KEEN MODEL



Scale: 0.473" = 1'

Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 32.5 LBS

A -C 0.34 72 T 0.00 0.34

concurrent LL on BC.

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

LL Defl -0.07" in A -C L/999  
TL Defl -0.18" in A -C L/427  
Shear // Grain in A -B 0.22

Wind Loads - ANSI / ASCE 7-02  
Truss is designed as a Main  
Wind-Force Resistance System.

CSI -Size- ----Lumber----  
TC 0.47 2x 4 SP-#2  
BC 0.34 2x 4 SP-#2

Plates for each ply each face.  
PLATING CONFORMS TO TPI.  
REPORT: NER 691

Wind Speed: 110 mph

Brace truss as follows:

ROBBINS ENGINEERING, INC.

Mean Roof Height: 15-0

O.C.	From	To
TC Cont.	0- 0- 0	7- 0- 0
BC Cont.	0- 0- 0	7- 0- 0

BASED ON SP LUMBER

Exposure Category: B

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0

USING GROSS AREA TEST.

Occupancy Factor : 1.00

Spacing 24.0"  
Lumber Duration Factor 1.25  
Plate Duration Factor 1.25  
TC Fb=1.15 Fc=1.10 Ft=1.10  
BC Fb=1.10 Fc=1.10 Ft=1.10

Plate - LOCK 20 Ga, Gross Area  
Plate - RHS 20 Ga, Gross Area  
Jt Type Plt Size X Y JSI  
A LOCK 2.0x 4.0 Ctr Ctr 0.69

Building Type: Enclosed

Zone location: Exterior

TC Dead Load : 5.0 psf

BC Dead Load : 5.0 psf

Max comp. force 53 Lbs

Quality Control Factor 1.25

REVIEWED BY:

Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

Plus 5 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	404	29	3- 8	1- 0
			Hz =	106
B	196	85	3- 8	1- 0
C	132	0	3- 8	1- 0
			Hz =	72

For proper installation of  
toe-nails, refer to the 2001  
National Design Specification  
(NDS) for Wood Construction

NOTES:

Trusses Manufactured by:

Mayo Truss Co. Inc.

Analysis Conforms To:

FBC2004

OH Loading

Soffit psf 2.0

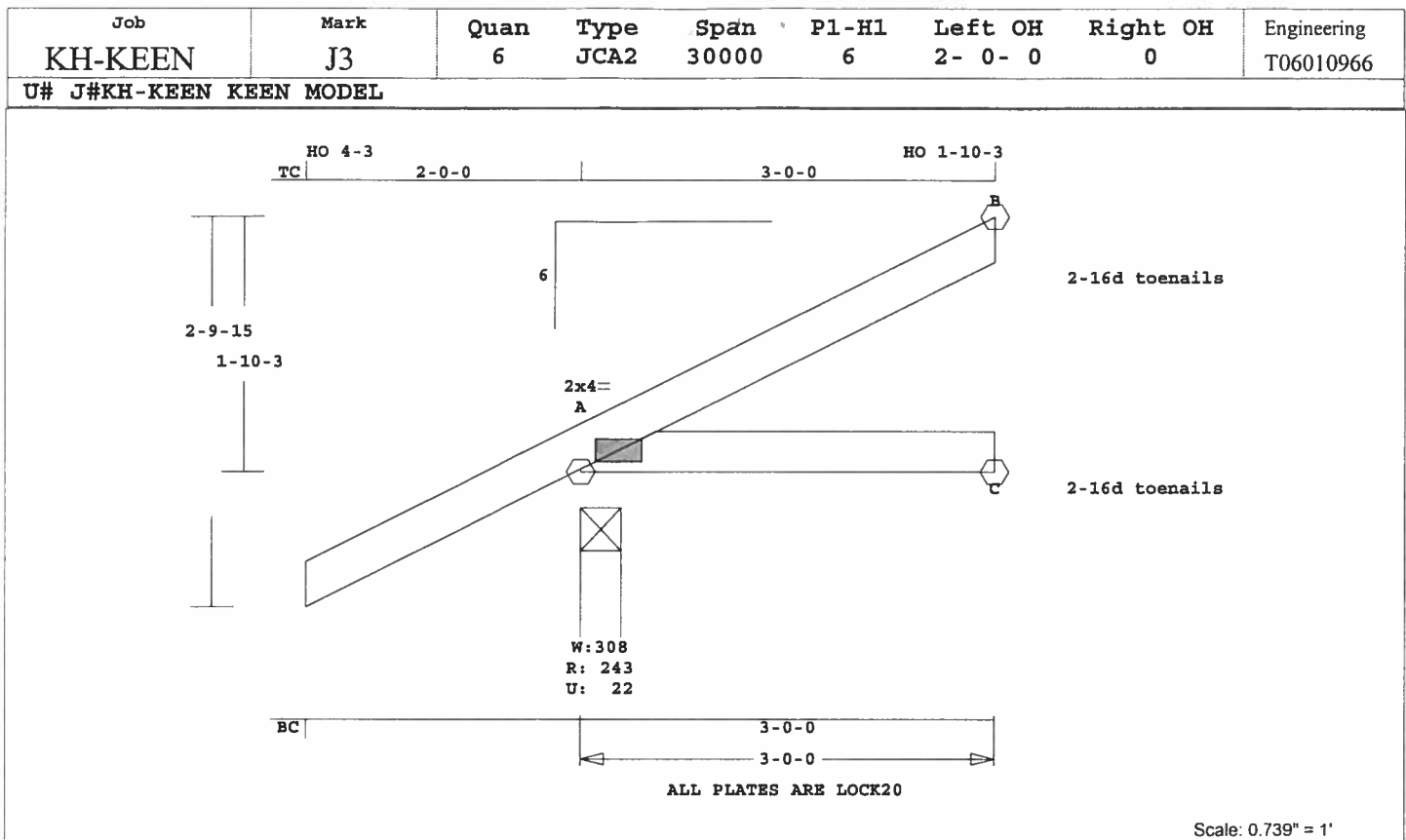
Design checked for 10 psf non-

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682









Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 16.5 LBS  
A -C 0.05 30 T 0.00 0.05

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI -Size- ----Lumber----  
TC 0.06 2x 4 SP-#2  
BC 0.05 2x 4 SP-#2

Brace truss as follows:

	O.C.	From	To
TC Cont.	0- 0- 0	3- 0- 0	
BC Cont.	0- 0- 0	3- 0- 0	

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0

Spacing 24.0"  
Lumber Duration Factor 1.25  
Plate Duration Factor 1.25  
TC Fb=1.15 Fc=1.10 Ft=1.10  
BC Fb=1.10 Fc=1.10 Ft=1.10

Plus 5 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	243	23	3- 8	1- 0
			Hz =	45
B	88	39	3- 8	1- 0
C	56	0	3- 8	1- 0
			Hz =	30

Membr CSI P Lbs Axl-Csi-Bnd  
-----Top Chords-----  
A -B 0.06 23 C 0.00 0.06  
-----Bottom Chords-----

Plates for each ply each face.  
PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.  
Plate - LOCK 20 Ga, Gross Area  
Plate - RHS 20 Ga, Gross Area  
Jt Type Plt Size X Y JSI  
A LOCK 2.0x 4.0 Ctr Ctr 0.65

REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

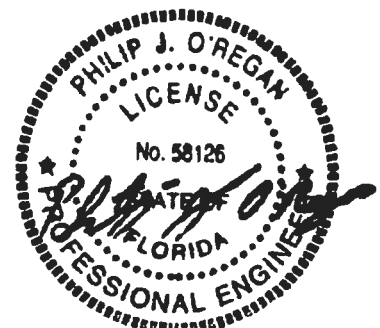
REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

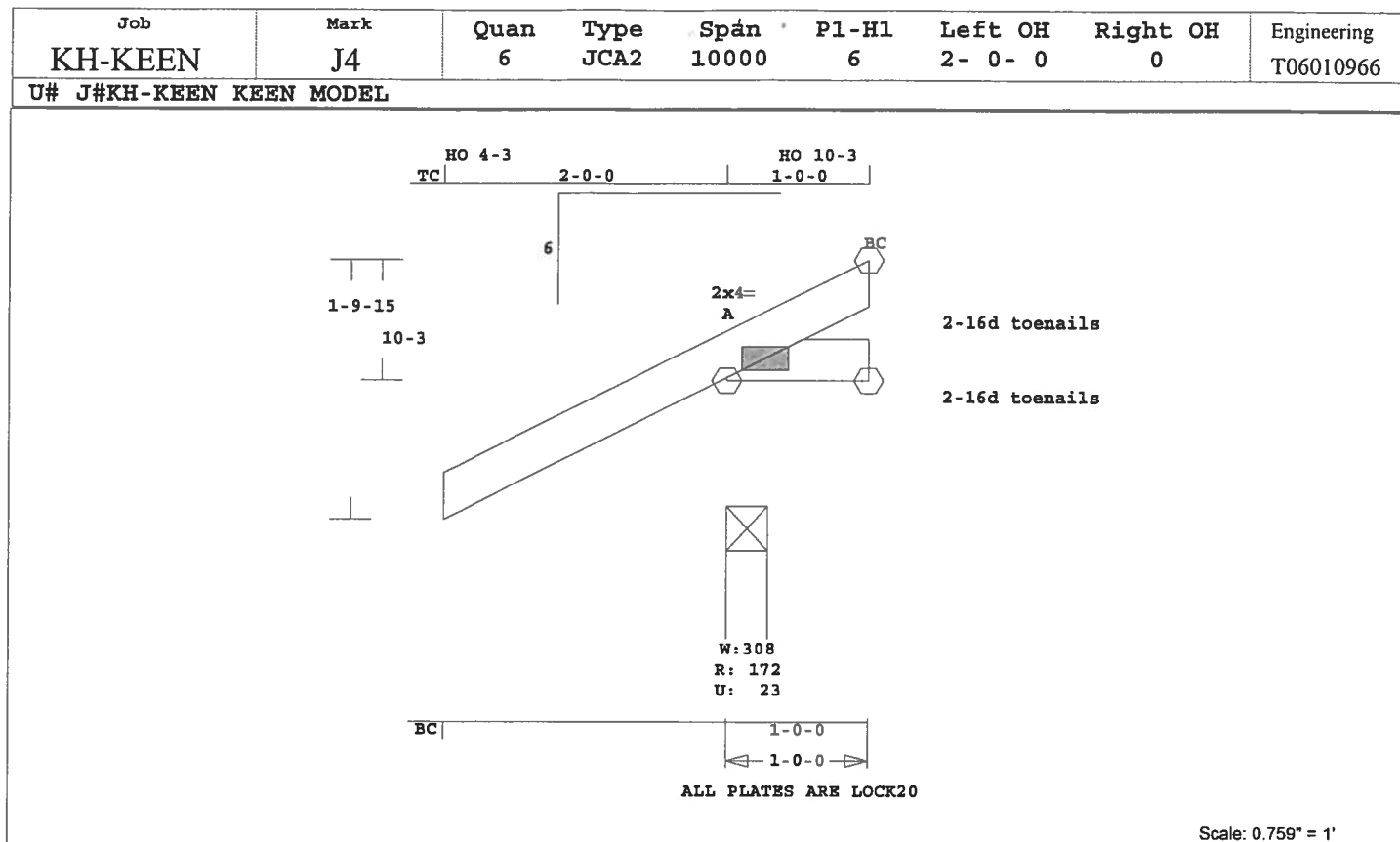
For proper installation of  
toe-nails, refer to the 2001  
National Design Specification  
(NDS) for Wood Construction

NOTES:  
Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2004  
OH Loading  
Soffit psf 2.0  
Design checked for 10 psf non-

concurrent LL on BC.  
Wind Loads - ANSI / ASCE 7-02  
Truss is designed as a Main  
Wind-Force Resistance System.  
Wind Speed: 110 mph  
Mean Roof Height: 15-0  
Exposure Category: B  
Occupancy Factor : 1.00  
Building Type: Enclosed  
Zone location: Exterior  
TC Dead Load : 5.0 psf  
BC Dead Load : 5.0 psf  
Max comp. force 23 Lbs  
Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682





Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 8.5 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI -Size- ----Lumber----  
TC 0.00 2x 4 SP-#2  
BC 0.00 2x 4 SP-#2

Brace truss as follows:

O.C.	From	To
TC Cont.	0- 0- 0	1- 0- 0
BC Cont.	0- 0- 0	1- 0- 0

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0

Spacing 24.0"  
Lumber Duration Factor 1.25  
Plate Duration Factor 1.25  
TC Fb=1.15 Fc=1.10 Ft=1.10  
BC Fb=1.10 Fc=1.10 Ft=1.10

Plus 5 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
A	172	23	3- 8	1- 0
			Hz =	13
B	20	9	1- 8	1- 0
C	14	0	1- 8	1- 0

Membr	CSI	P	Lbs	Axl	CSI-Bnd
-----Top Chords-----					
A -B	0.00		4 C		
-----Bottom Chords-----					
A -C	0.00		8 T		

LL Defl 0.00" in A -C L/999  
TL Defl 0.00" in A -C L/999  
Shear // Grain in A -B 0.02

Plates for each ply each face.  
PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.  
Plate - LOCK 20 Ga, Gross Area  
Plate - RHS 20 Ga, Gross Area  
Jt Type Plt Size X Y JSI  
A LOCK 2.0x 4.0 Ctr Ctr 0.65

REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

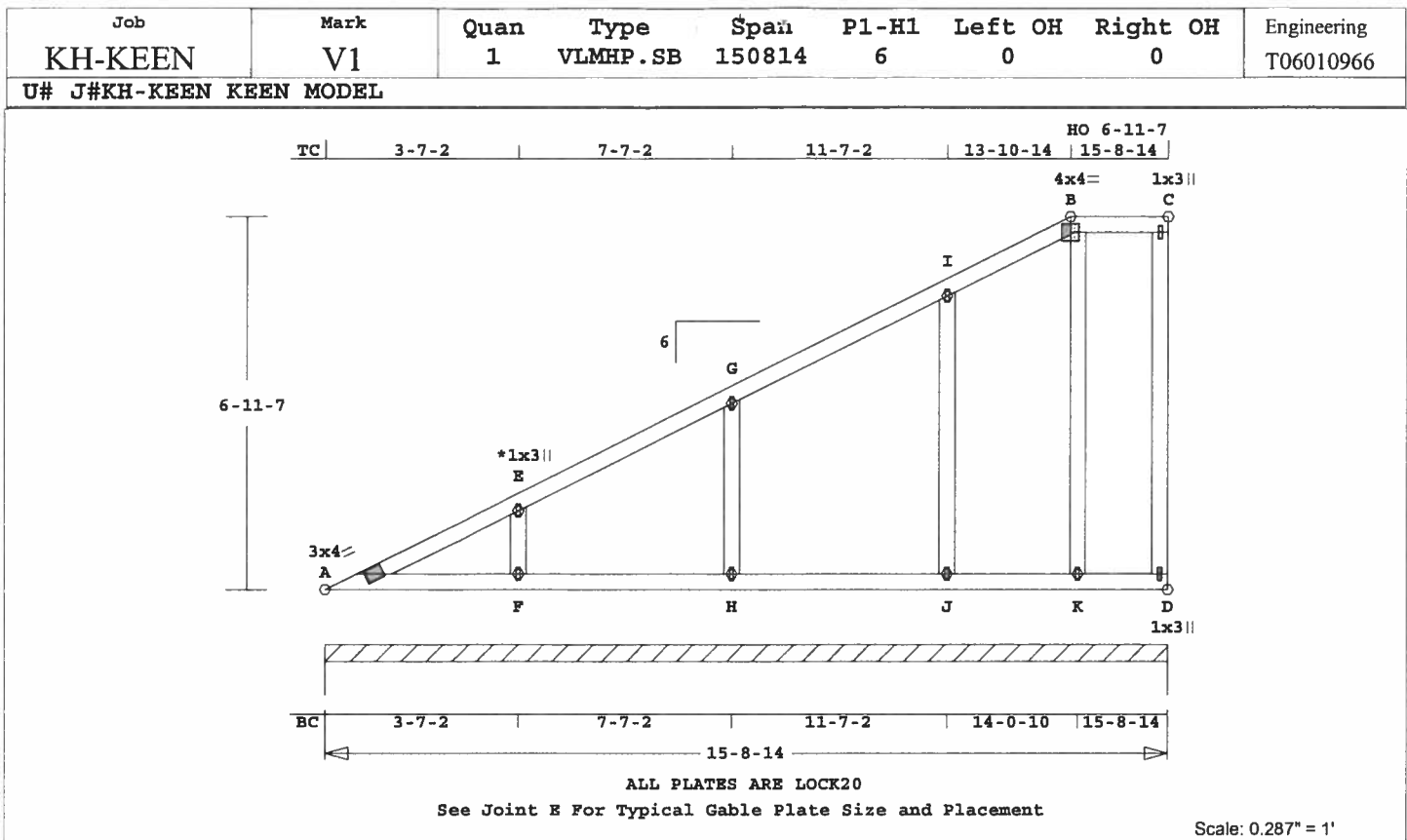
For proper installation of  
toe-nails, refer to the 2001  
National Design Specification  
(NDS) for Wood Construction

NOTES:  
Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2004  
OH Loading  
Soffit psf 2.0  
Design checked for 10 psf non-  
concurrent LL on BC.  
Wind Loads - ANSI / ASCE 7-02

Truss is designed as a Main  
Wind-Force Resistance System.  
Wind Speed: 110 mph  
Mean Roof Height: 15-0  
Exposure Category: B  
Occupancy Factor : 1.00  
Building Type: Enclosed  
Zone location: Exterior  
TC Dead Load : 5.0 psf  
BC Dead Load : 5.0 psf  
Max comp. force 4 Lbs  
Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682





Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 103.8 LBS

Online Plus -- Version 18.0.020  
RUN DATE: 11-JAN-06

CSI	-Size-	----	Lumber----
TC	0.16	2x 4	SP-#2
BC	0.09	2x 4	SP-#2
GW	0.07	2x 4	SP-#2

Brace truss as follows:

O.C.	From	To
TC Cont.	0- 0- 0	15- 8-14
BC Cont.	0- 0- 0	15- 8-14

Loading	Live	Dead	(psf)
TC	20.0	10.0	
BC	0.0	10.0	
Total	20.0	20.0	40.0
Spacing			24.0"
Lumber Duration Factor			1.25
Plate Duration Factor			1.25
TC Fb=1.15	Fc=1.10	Ft=1.10	
BC Fb=1.10	Fc=1.10	Ft=1.10	

Plus 6 Wind Load Case(s)  
Plus 1 UBC LL Load Case(s)

Jt	React	Uplft	Size	Req'd
	Lbs	Lbs	In-Sx	In-Sx
Cont. Brg	0- 0- 0	to 15- 8-14		
	1210	161	Hz =	204

Membr	CSI	P	Lbs	Axl	CSI-Bnd
-----Top Chords-----					
A -E	0.11		202 C	0.00	0.11
E -G	0.16		144 C	0.00	0.16
G -I	0.16		72 C	0.00	0.16
I -B	0.10		15 C	0.00	0.10
B -C	0.02		0 T	0.00	0.02
-----Bottom Chords-----					
A -F	0.06		0 T	0.00	0.06
F -H	0.09		0 T	0.00	0.09
H -J	0.09		0 T	0.00	0.09

J	-K	0.06	0 T	0.00	0.06
K	-D	0.01	0 T	0.00	0.01

-----Gable Webs-----

F	-E	0.02	207 C
H <th>-G</th> <th>0.04</th> <th>253 C</th>	-G	0.04	253 C
J <th>-I</th> <th>0.07</th> <th>205 C</th>	-I	0.07	205 C
K <th>-B</th> <th>0.05</th> <th>105 C</th>	-B	0.05	105 C
D <th>-C</th> <th>0.02</th> <th>50 C</th>	-C	0.02	50 C

WindLd

LL Defl 0.00" in H -J L/999  
TL Defl -0.01" in H -J L/999  
Shear // Grain in E -G 0.14

Plates for each ply each face.  
PLATING CONFORMS TO TPI.  
REPORT: NER 691  
ROBBINS ENGINEERING, INC.  
BASED ON SP LUMBER  
USING GROSS AREA TEST.

Plate	- LOCK	20 Ga,	Gross Area
Plate	- RHS	20 Ga,	Gross Area
Jt Type	Plt Size	X	Y JSI
A	LOCK	3.0x 4.0	Ctr Ctr 0.70
E	LOCK	1.0x 3.0	Ctr Ctr 0.75
G	LOCK	1.0x 3.0	Ctr Ctr 0.75
I	LOCK	1.0x 3.0	Ctr Ctr 0.75
B	LOCK	4.0x 4.0	Ctr Ctr 0.78
C	LOCK	1.0x 3.0	Ctr Ctr 0.75
F	LOCK	1.0x 3.0	Ctr Ctr 0.75
H	LOCK	1.0x 3.0	Ctr Ctr 0.75
J	LOCK	1.0x 3.0	Ctr Ctr 0.75
K	LOCK	1.0x 3.0	Ctr Ctr 0.75
D	LOCK	1.0x 3.0	Ctr Ctr 0.75

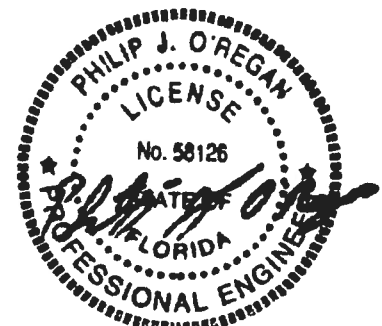
REVIEWED BY:  
Robbins Engineering, Inc.  
PO Box 280055  
Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
NOTES AND SYMBOLS SHEET FOR  
ADDITIONAL SPECIFICATIONS.

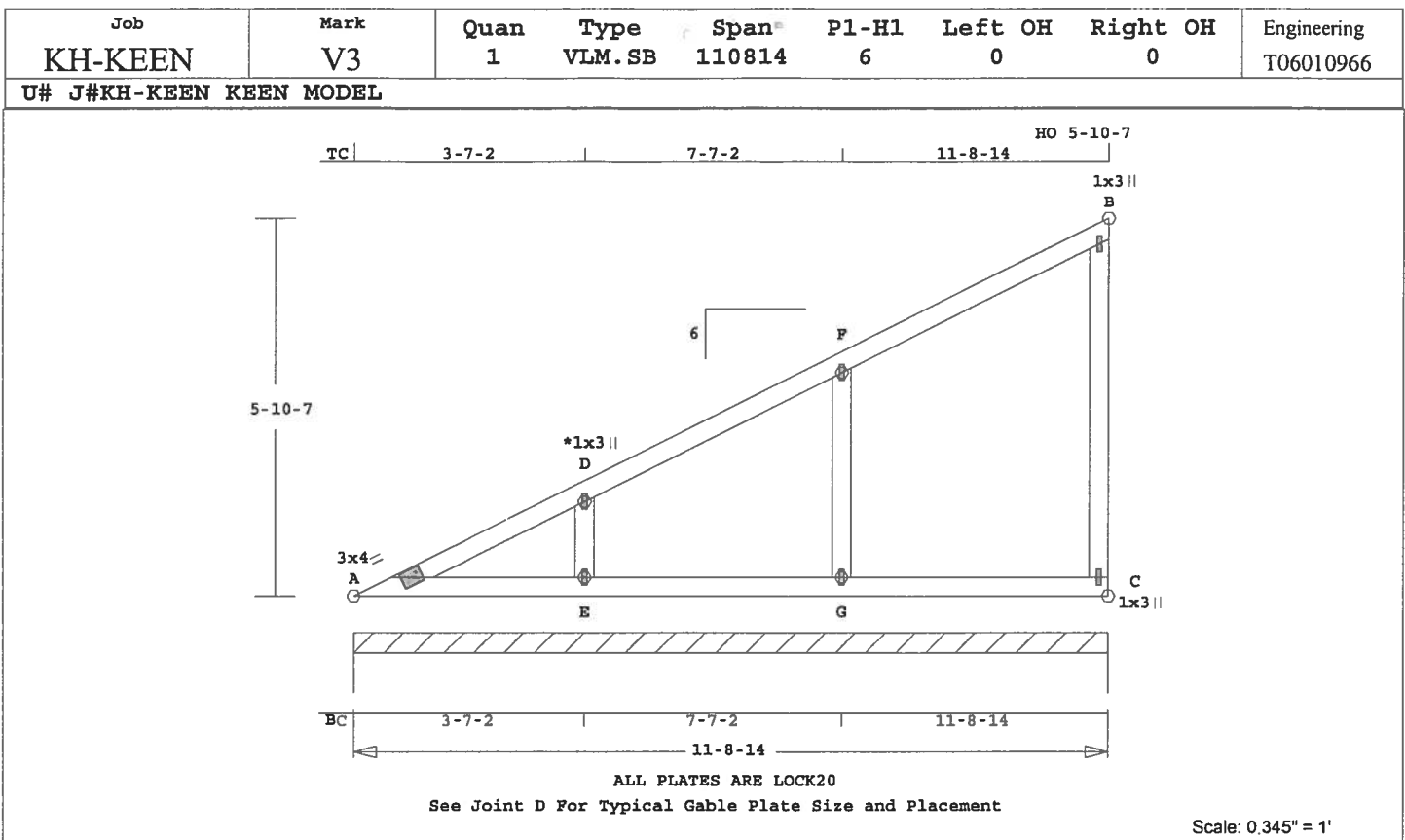
NOTES:

Trusses Manufactured by:  
Mayo Truss Co. Inc.  
Analysis Conforms To:  
FBC2004  
Design checked for 10 psf non-  
concurrent LL on BC.  
Wind Loads - ANSI / ASCE 7-02  
Truss is designed as a Main  
Wind-Force Resistance System.  
Wind Speed: 110 mph  
Mean Roof Height: 15-0  
Exposure Category: B  
Occupancy Factor : 1.00  
Building Type: Enclosed  
Zone location: Exterior  
TC Dead Load : 5.0 psf  
BC Dead Load : 5.0 psf  
Max comp. force 253 Lbs  
Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
License #: 58126  
Address: P.O. Box 280055, Tampa, FL 33682







Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 64.2 LBS

Online Plus -- Version 18.0.020  
 RUN DATE: 11-JAN-06

CSI -Size- ----Lumber-----  
 TC 0.18 2x 4 SP-#2  
 BC 0.10 2x 4 SP-#2  
 WB 0.09 2x 4 SP-#2  
 GW 0.04 2x 4 SP-#2

Brace truss as follows:  
 O.C. From To  
 TC Cont. 0- 0- 0 11- 8-14  
 BC Cont. 0- 0- 0 11- 8-14

Loading Live Dead (psf)  
 TC 20.0 10.0  
 BC 0.0 10.0  
 Total 20.0 20.0 40.0  
 Spacing 24.0"  
 Lumber Duration Factor 1.25  
 Plate Duration Factor 1.25  
 TC Fb=1.15 Fc=1.10 Ft=1.10  
 BC Fb=1.10 Fc=1.10 Ft=1.10

Plus 5 Wind Load Case(s)  
 Plus 1 UBC LL Load Case(s)

Jt React Uplft Size Req'd  
 Lbs Lbs In-Sx In-Sx  
 Cont. Brg 0- 0- 0 to 11- 8-14  
 890 119 Hz = 255

Membr CSI P Lbs Axl-CSI-Bnd  
 -----Top Chords-----  
 A -D 0.10 186 C 0.00 0.10  
 D -F 0.18 148 C 0.00 0.18  
 F -B 0.18 97 C 0.00 0.18

-----Bottom Chords-----  
 A -E 0.06 0 T 0.00 0.06  
 E -G 0.10 0 T 0.00 0.10  
 G -C 0.10 0 T 0.00 0.10

-----Webs-----  
 C -B 0.09 103 C WindLd  
 -----Gable Webs-----  
 E -D 0.01 200 C  
 G -F 0.04 277 C

LL Defl -0.01" in G -C L/999  
 TL Defl -0.01" in G -C L/999  
 Shear // Grain in F -B 0.17

Plates for each ply each face.  
 PLATING CONFORMS TO TPI.

REPORT: NER 691  
 ROBBINS ENGINEERING, INC.  
 BASED ON SP LUMBER  
 USING GROSS AREA TEST.

Plate - LOCK 20 Ga, Gross Area  
 Plate - RHS 20 Ga, Gross Area  
 Jt Type Plt Size X Y JSI  
 A LOCK 3.0x 4.0 Ctr Ctr 0.63  
 D LOCK 1.0x 3.0 Ctr Ctr 0.75  
 F LOCK 1.0x 3.0 Ctr Ctr 0.75  
 B LOCK 1.0x 3.0 Ctr Ctr 0.75  
 E LOCK 1.0x 3.0 Ctr Ctr 0.75  
 G LOCK 1.0x 3.0 Ctr Ctr 0.75  
 C LOCK 1.0x 3.0 Ctr Ctr 0.75

REVIEWED BY:  
 Robbins Engineering, Inc.  
 PO Box 280055  
 Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL  
 NOTES AND SYMBOLS SHEET FOR  
 ADDITIONAL SPECIFICATIONS.

NOTES:  
 Trusses Manufactured by:  
 Mayo Truss Co. Inc.  
 Analysis Conforms To:  
 FBC2004  
 Design checked for 10 psf non-  
 concurrent LL on BC.  
 Wind Loads - ANSI / ASCE 7-02  
 Truss is designed as a Main  
 Wind-Force Resistance System.  
 Wind Speed: 110 mph  
 Mean Roof Height: 15-0  
 Exposure Category: B  
 Occupancy Factor : 1.00  
 Building Type: Enclosed  
 Zone location: Exterior  
 TC Dead Load : 5.0 psf  
 BC Dead Load : 5.0 psf  
 Max comp. force 277 Lbs  
 Quality Control Factor 1.25

Truss Design Engineer: Philip J. O'Regan  
 License #: 58126  
 Address: P.O. Box 280055, Tampa, FL 33682

