

## Columbia County Building Permit Application

Revised 9-23-04

For Office Use Only Application # 0609-69 Date Received 9/26 By JW Permit # 25078/1228  
Application Approved by - Zoning Official BLK Date 03.10.06 Plans Examiner OK JTH Date 9-30-06  
Flood Zone Xpjet Development Permit N/A Zoning RSF-2 Land Use Plan Map Category RES. Low Den  
Comments Floor Height Letter Est. 1st Floor to be 128.5' Elevation Letter Required

Applicants Name SUSAN FAIR Fax: 487-0396  
Address 180 NW AMENITY CT. LAKE CITY FL 32055 Phone 752-1711  
Owners Name CORNERSTONE DEVELOPERS Phone 752-1711  
911 Address 101 NW ETHELIND CT. LAKE CITY, FL. 32055  
Contractors Name BRYAN ZECHER Phone 752-8653  
Address PO BOX 815 LAKE CITY FL. 32056  
Fee Simple Owner Name & Address NA  
Bonding Co. Name & Address NA  
Architect/Engineer Name & Address MARIL DISOSWAY PO BOX 868 LAKE CITY, FL 32056  
Mortgage Lenders Name & Address NA  
Circle the correct power company FL Power & Light Clay Elec. Suwannee Valley Elec. Progressive Energy  
Property ID Number 28-35-16-02377-110 Estimated Cost of Construction 100,000  
Subdivision Name MAGNOLIA HILLS Lot 10 Block      Unit      Phase       
Driving Directions GO DOWN BROWN RD TO NW ETHAN PLACE, TURN RIGHT, GO TO NW KATELYN WAY, TURN RIGHT + THEN LEFT ONTO NW BILLYE, GO TO NW ETHELIND COURT, TURN RIGHT. HOUSE AT END OF CULDESAC  
Type of Construction FRAME + HARDI SID Number of Existing Dwellings on Property 0  
Total Acreage 1.25 Lot Size 1.25 Do you need a Culvert Permit or Culvert Waiver or Have an Existing Drive  
Actual Distance of Structure from Property Lines - Front 35' L Side 38' R Side 38' Rear 300'  
Total Building Height 19'9 1/2" Number of Stories 1 Heated Floor Area 1799 sq ft Roof Pitch 6/12  
TOTAL 2431

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.

Owner Builder or Agent (Including Contractor)

STATE OF FLORIDA  
COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me  
this 26<sup>TH</sup> day of SEPTEMBER 20 06  
Personally known L or Produced Identification     



Chris W. Cox  
Commission #DD308891  
Expires: Apr 17, 2008  
Bonded thru  
Atlantic Bonding Co., Inc.

Contractor Signature  
Contractors License Number CBC054575  
Competency Card Number       
NOTARY STAMP/SEAL

Notary Signature

# Columbia County Building Department Culvert Permit

Culvert Permit No.  
**000001228**

DATE 10/04/2006 PARCEL ID # 28-3S-16-02377-110  
APPLICANT SUSAN FAIR PHONE 386.752.1711  
ADDRESS 180 NW AMENITY COURT LAKE CITY FL 32055  
OWNER CORNERSTONE DEVELOPERS PHONE 386.752.1711  
ADDRESS 101 NW ETHELIND COURT LAKE CITY FL 32055  
CONTRACTOR BRYAN ZECHER PHONE 386.752.8653  
LOCATION OF PROPERTY 90-W TO BROWN RD, TR TO ETHAN PL, TR TO KATELYN WAY, TR TO BILLYE, TL  
TO ETHELIND, TR AND THE LOT IS @ THE VERY END OF THE CUL-DE-SAC.

SUBDIVISION/LOT/BLOCK/PHASE/UNIT MAGNOLIA HILLS 10

SIGNATURE

*Susan Fair*

## INSTALLATION REQUIREMENTS

☐

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 WAIVER REQUEST APPROVED FOR 18"X24' MITERED CULVERTS IN MAGNOLIA  
HILLS S.D.

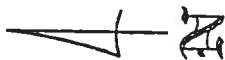
ALL PROPER SAFETY REQUIREMENTS SHOULD BE FOLLOWED  
DURING THE INSTALLATION OF THE CULVERT.

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

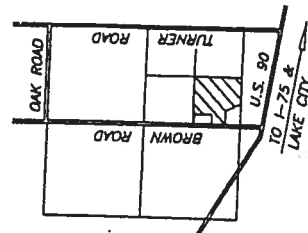
Amount Paid 25.00



**MAGNOLIA HILLS**<sup>00</sup>  
IN THE SW 1/4 OF THE SE 1/4 OF  
SECTION 28, TOWNSHIP 3 SOUTH,  
RANGE 16 EAST,  
COLUMBIA COUNTY, FLORIDA.



SCALE 1" = 100'

[illegible]

LOCATION SKETCH.  
NOT TO SCALE  
SECTION 28,  
T 3 S, R 16 E.

MARK D. DUREN, P.S.M.  
LS 4708

RT. 18 BOX 555  
SISTERS WELCOME ROAD  
LAKE CITY, FLA. 32025  
(904) 758-9831 OFFICE

NOTE: FOR WATER UTILITIES SET BY  
THE WATER & POWER CO.  
OF NEW YORK

INFLATED LANDS  
APR 1 1967

I HEREBY CERTIFY THAT ANY PROVIDED DEMAND SYSTEM SHALL BE DESIGNED ACCORDING TO THE REQUIREMENTS OF THE COLUMBIA COUNTY SUBDIVISION DEMAND ACT.

UNPUBLISHED LAMOS  
MAY 2 1968

WILLIAM DOUGLAS  
MAY 1968

177 08 35

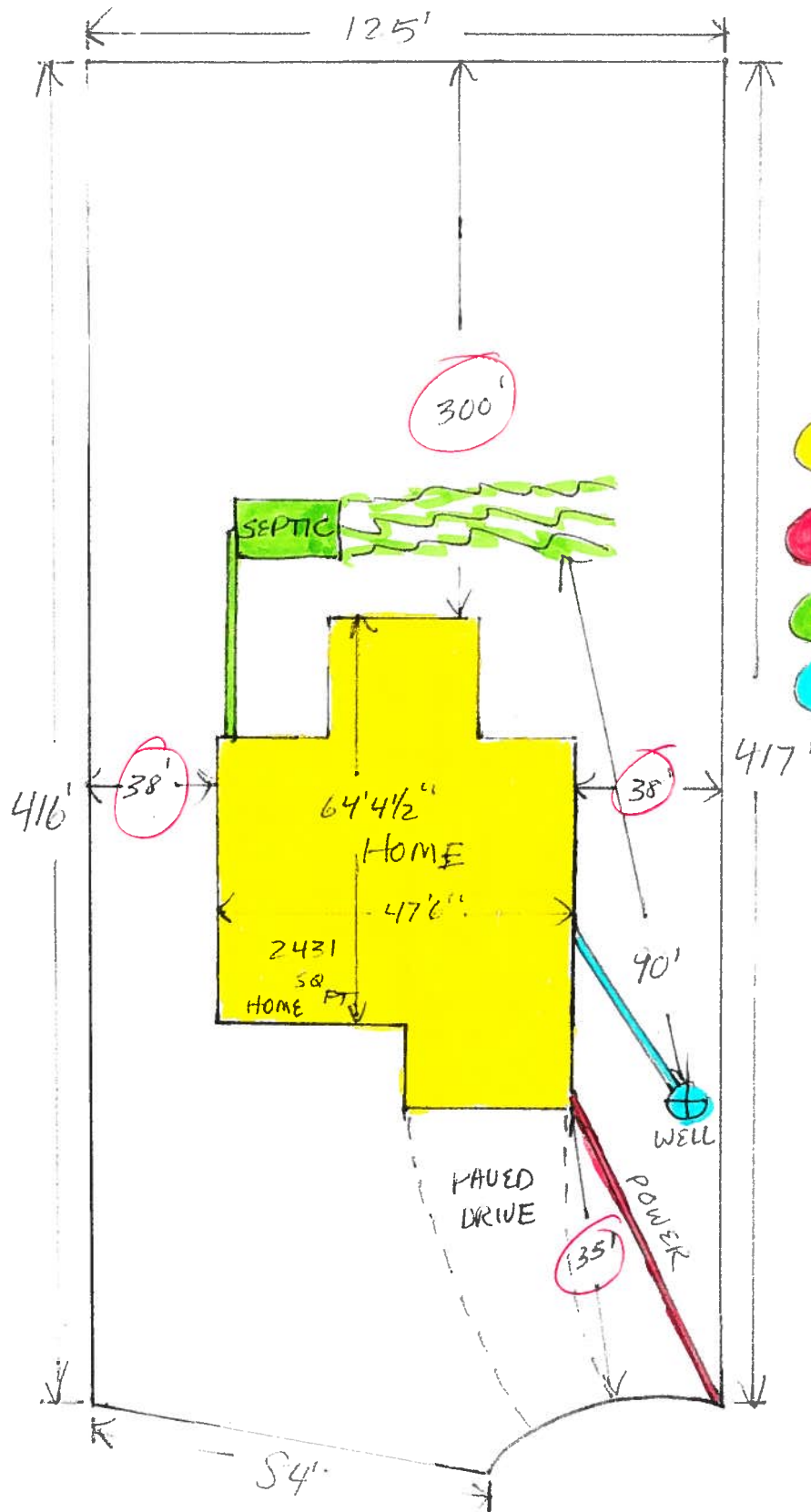
DATA AND LOWER  
PERFORMANCE AND C

WESTVALENTS LUN  
WORTHY SUBSISTEN

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# MAGNOLIA HILLS COLUMBIA COUNTY LOT 10 SITE PLAN



CODE

- = HOME
- = POWER
- = SEPTIC
- = WELL



## Cal-Tech Testing, Inc.

- Engineering
- Geotechnical
- Environmental

LABORATORIES

P.O. Box 1625 • Lake City, FL 32056-1625  
6919 Distribution Avenue S., Unit #5 • Jacksonville, FL 32257

Tel. (386) 755-3633 • Fax (386) 752-5456  
Tel. (904) 262-4046 • Fax (904) 262-4047

July 24, 2006

Cornerstone Developers, LLC  
180 NW Amenity Court  
Lake City, Florida 32055

Attention: Chris Cox

Reference: Proposed Residence  
Lot 10, Magnolia Hills  
Columbia County, Florida  
Cal-Tech Project No. 06-451

Dear Mr. Cox,

Cal-Tech Testing, Inc. has completed an investigation and evaluation of lot 10 of Magnolia Hills in Columbia County, Florida. The purposes of our work were to evaluate the potential for flooding of a home to be constructed on the lot and to provide recommendations for selecting a finished floor elevation.

Based upon the U. S. Coast and Geodetic Survey marker "BP19" located near the intersection of U. S. 90 and Brown Road, the elevation of the center of the cul-de-sac adjacent the proposed building site is approximately 130.9 feet. The ground surface elevation at the center of the building site is approximately 125.7 feet, and the proposed finished floor elevation is approximately 128.5 feet. This places the finished floor elevation about 2.4 feet below the elevation of the center of the cul-de-sac.

Columbia County regulations require the finished floor of a new residence to be at least 12 inches above the elevation of the adjacent roadway unless it can be shown such an elevation is not required to substantially reduce the likelihood of flooding.

Based upon the USGS topographic quadrangle map, the proposed home site is positioned within an isolated basin of approximately 100 acres for which the basin rim is estimated to be near elevation 153 feet. The FEMA flood map of Columbia County indicates there are no flood zones within this basin. Additionally, only one flood zone located within about one mile of the site has a flood elevation estimated to exceed 153 feet. This zone "A" flood area is located approximately 1/4 mile west of the site, and the flood elevation for this area is estimated to be about 155 feet; however, this flood area is topographically isolated such that flooding within this flood zone would not affect the proposed home site.

Since no flood areas are delineated within the basin by the FEMA flood map, we believe flooding within the basin sufficient to flood the home is highly unlikely. Such flooding would require maximum flood depths on the order of 15 feet within the basin and an average flood depth of about 6 feet over an area of about 20 acres.

Based upon our evaluation, it is our opinion elevating the finished floor to 1 foot above the adjacent roadway will not be required. However, we recommend the finished floor elevation be selected and/or the site be graded such that the finished floor is a minimum of 12 inches above the finished surface grade at the perimeter of the residence. With suitable site grading to provide separation between the finished floor and the surrounding surface grade, the proposed finished floor elevation of approximately 128.5 feet should be sufficient to substantially reduce the likelihood of flooding at the site.

We appreciate the opportunity to be of service on this project and look forward to a continued association. Please do not hesitate to contact us should you have questions concerning this report or if we may be of further assistance.

Respectfully submitted,  
Cal-Tech Testing, Inc.



Linda Creamer  
President / CEO

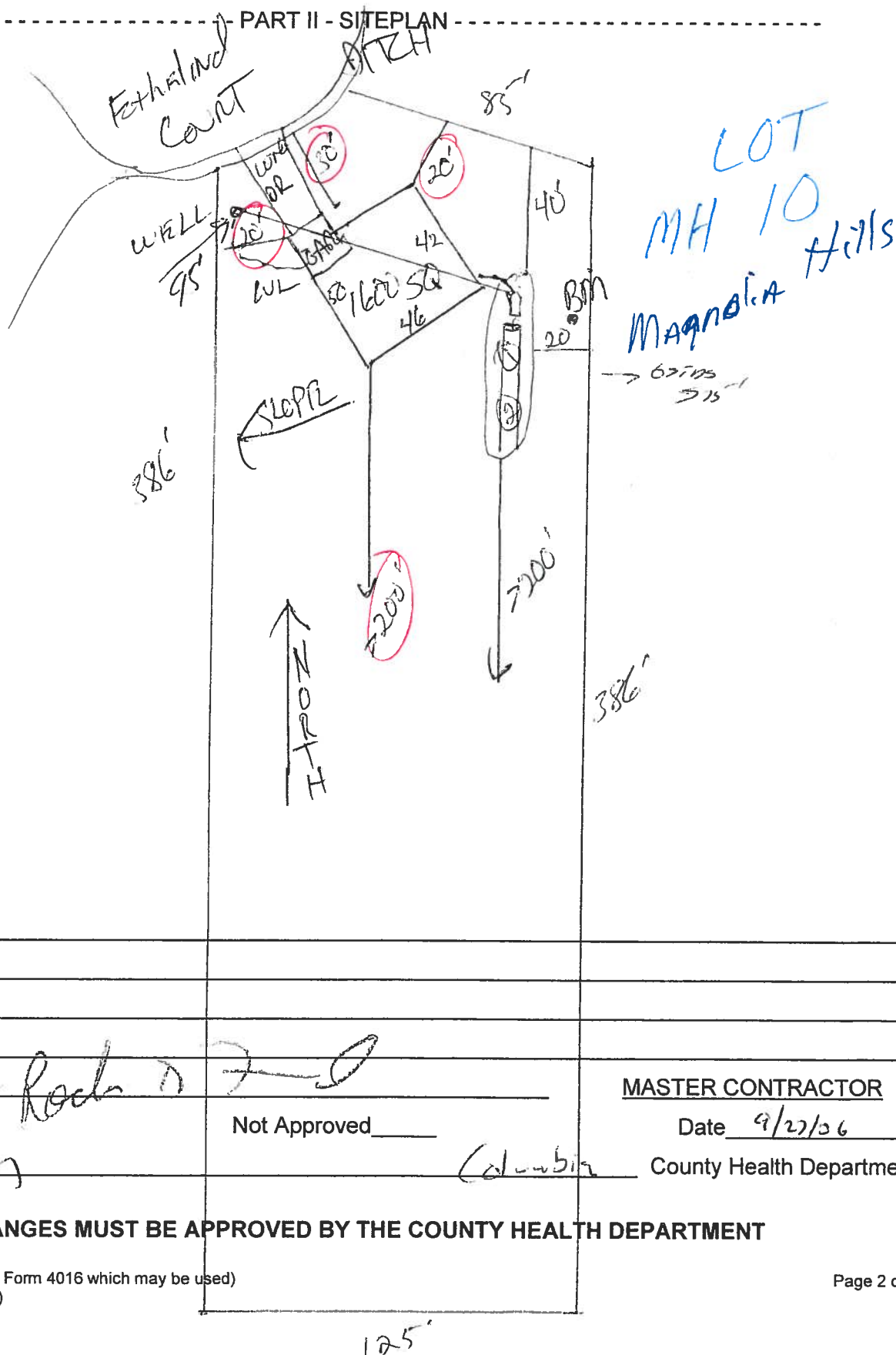


John C. Dorman, Jr., Ph.D., P.E.  
Geotechnical Engineer

7/24/06  
52612

Permit Application Number 06-0856N

-----1- PART II - SITEPLAN -----



Notes:		
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Site Plan submitted by:

## Plan Approved

By \_\_\_\_\_

Not Approved

MASTER CONTRACTOR

Date 4/27/06

County Health Department

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

NOTICE OF COMMENCEMENT FORM  
COLUMBIA COUNTY, FLORIDA

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.

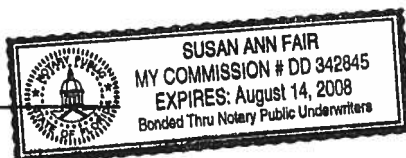
Tax Parcel ID Number 28-35-16-02377-110

1. Description of property: (legal description of the property and street address or 911 address)  
Lot 10, Magnolia Hills  
101 NW Behrend Ct.  
Lake City, FL 32055
2. General description of improvement: New Home
3. Owner Name & Address Cornerstone Developers, LLC, 180 N.W.  
Amenity Ct, Lake City, FL 32055 Interest in Property Fee Simple
4. Name & Address of Fee Simple Owner (if other than owner): \_\_\_\_\_
5. Contractor Name Bryan Zecher Construction Phone Number 386-752-8653  
Address P.O. Box 815, Lake City, FL 32056
6. Surety Holders Name N/A Phone Number \_\_\_\_\_  
Address \_\_\_\_\_  
Amount of Bond N/A nst:2006014779 Date:06/20/2006 Time:13:04
7. Lender Name N/A J. P. DC, P. DeWitt Cason, Columbia County B:1087 P:716  
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 N/A Phone Number \_\_\_\_\_  
Address \_\_\_\_\_
9. In addition to himself/herself the owner designates N/A of \_\_\_\_\_  
to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) -  
(a) 7. Phone Number of the designee N/A
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) N/A

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.

Signature of Owner



Sworn to (or affirmed) and subscribed before day of June 19, 2006

NOTARY STAMP/SEAL

Susan Ann Fair  
Signature of Notary



Prepared by and return to:

Home Town Title of North Florida  
2744 US Highway 90 West  
Lake City, FL 32055  
386-754-7175  
File Number: 2005-2188

Inst:2006003506 Date:02/13/2006 Time:16:16

Doc Stamp-Deed : 3276.00

1.7 - DC, P. DeWitt Cason, Columbia County B:1073 P:2551

[Space Above This Line for Recording Data]

## Warranty Deed

This Warranty Deed made this 9th day of February, 2006 between James Lambert Hair, II, a married person not residing on subject property whose post office address is 314 North Marion Avenue, Lake City, FL 32055, grantor, and Cornerstone Developers, LLC, a Florida Limited Liability Company whose post office address is 180 NW Amenity Court, Lake City, FL 32055, grantee:

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

**Witnesseth**, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in Columbia County, Florida to-wit:

Lots 1, 2, 6, 9, 10, 20, 22, 23, 24, 25, 26, 28, 29, 33, 35, 36, 37 and 38 of MAGNOLIA HILLS, according to the plat thereof as recorded in Plat Book 6, Page 189, public records of Columbia County, Florida.

Parcel Identification Number: R023777-101,102,106,109,120,110,122

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

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

**And** the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2005.

**In Witness Whereof**, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Barbara A. Eraddosio  
Witness Name: **BARBARA A. ERADDOSIO**

Dawna W. Lang  
Witness Name: **DAWNA W. LANG**

James Lambert Hair, II (Seal)  
James Lambert Hair, II

State of Florida  
County of Columbia

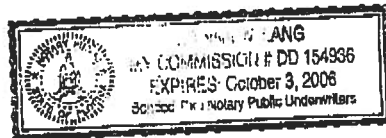
The foregoing instrument was acknowledged before me this 9th day of February, 2006 by James Lambert Hair, II, who ☐ is personally known or ☒ has produced a driver's license as identification.

[Notary Seal]

Dawna W. Lang  
Notary Public

Printed Name: **DAWNA W. LANG**

My Commission Expires: \_\_\_\_\_



Inst:2006003506 Date:02/13/2006 Time:16:16  
Doc Stamp-Deed : 3276.00  
DC,P.DeWitt Cason,Columbia County B:1073 P:2552

# HALL'S PUMP & WELL SERVICE, INC.

SPECIALIZING IN 4"-6" WELLS



DONALD AND MARY HALL  
OWNERS

PHONE (904) 752-1854  
FAX (904) 755-7022  
XXXXXXXXXXXXXXXXXXXX  
LAKE CITY, FLORIDA 32055  
904 NW Main Blvd.

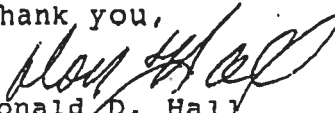
June 12, 2002

## NOTICE TO ALL CONTRACTORS

Please be advised that due to the new building codes we will use a large capacity diaphragm tank on all new wells. This will insure a minimum of one (1) minute draw down or one (1) minute refill. If a smaller diaphragm tank is used then we will install a cycle stop valve which will produce the same results.

If you have any questions please feel free to call our office anytime.

Thank you,

  
Donald D. Hall  
DDH/jk

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs  
Residential Whole Building Performance Method A

Project Name:	<b>608232CornerStoneTheGriffin</b>	Builder:	
Address:	<b>Lot: 10, Sub: Magnolia Hills, Plat:</b>	Permitting Office:	<b>COLUMBIA</b>
City, State:	<b>Lake City, FL</b>	Permit Number:	
Owner:		Jurisdiction Number:	<b>22100C</b>
Climate Zone:	<b>North</b>		

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 32.0 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 (ft²)	1799 ft²		
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: 32.0 kBtu/hr
(or Single or Double DEFAULT) 7a. (Dble Default) 156.0 ft²			HSPF: 7.00
b. SHGC:		b. N/A	
(or Clear or Tint DEFAULT) 7b. (Clear) 156.0 ft²		c. N/A	
8. Floor types		14. Hot water systems	
a. Slab-On-Grade Edge Insulation	R=0.0, 184.0(p) ft	a. Electric Resistance	Cap: 40.0 gallons
b. N/A			EF: 0.93
c. N/A		b. N/A	
9. Wall types		c. Conservation credits	
a. Frame, Wood, Exterior	R=13.0, 1002.0 ft²	(HR-Heat recovery, Solar	
b. Frame, Wood, Exterior	R=13.0, 233.0 ft²	DHP-Dedicated heat pump)	
c. N/A		15. HVAC credits	
d. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
e. N/A		HF-Whole house fan,	
10. Ceiling types		PT-Programmable Thermostat,	
a. Under Attic	R=30.0, 1859.0 ft²	MZ-C-Multizone cooling,	
b. N/A		MZ-H-Multizone heating)	
c. N/A			
11. Ducts			
a. Sup: Unc. Ret: Unc. All: Garage	Sup. R=6.0, 170.0 ft		
b. N/A			

Glass/Floor Area: 0.09

Total as-built points: 25543

Total base points: 26353

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: 9-7-06

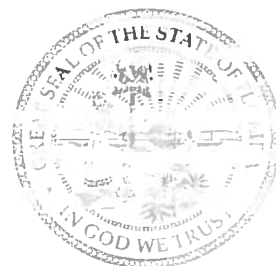
I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: Chris W. OrDATE: 9-26-06

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 553.906 Florida Statutes.

BUILDING OFFICIAL: \_\_\_\_\_

DATE: \_\_\_\_\_



<sup>1</sup> Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 28&4.

# Residential Whole Building Performance Method A - Details

PERMIT #:

EnergyGauge®/ResFREE'2004 FLR2PB v4.1



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

ADDRESS: Lot: 10, Sub: Magnolia Hills, Plat: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT									
Summer Base Points: 23456.9				Summer As-Built Points: 21207.0									
Total Summer Points	X	System Multiplier	= Cooling Points	Total Component (System - Points)	X	Cap Ratio (DM x DSM x AHU)	X	Duct Multiplier	X	System Multiplier	X	Credit Multiplier	= Cooling Points
23456.9		0.4266	10006.7	(sys 1: Central Unit 32000 btuh ,SEER/EFF(10.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0(INS) 21207 1.00 (1.09 x 1.147 x 1.00) 0.341 1.000 9049.1 21207.0 1.00 1.250 0.341 1.000 9049.1									

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 10, Sub: Magnolia Hills, Plat: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT							
<b>GLASS TYPES</b>											
.18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt		Area X WPM X WOF = Points				
.18	1799.0	12.74	4125.5	Double, Clear	E	1.5	5.5	45.0	18.79	1.04	880.6
				Double, Clear	E	1.5	6.5	20.0	18.79	1.03	387.4
				Double, Clear	N	1.5	5.5	15.0	24.58	1.00	369.8
				Double, Clear	W	1.5	5.5	60.0	20.73	1.03	1278.6
				Double, Clear	W	6.0	7.2	13.3	20.73	1.15	316.7
				Double, Clear	S	1.5	1.2	2.7	13.30	3.11	111.8
				<b>As-Built Total:</b>		<b>156.0</b>			<b>3344.9</b>		
<b>WALL TYPES</b> Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Adjacent	0.0	0.00	0.0	Frame, Wood, Exterior	13.0		1002.0	3.40		3406.8	
Exterior	1235.0	3.70	4569.5	Frame, Wood, Exterior	13.0		233.0	3.40		792.2	
<b>Base Total:</b>				<b>As-Built Total:</b>		<b>1235.0</b>			<b>41</b>		
<b>DOOR TYPES</b> Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Adjacent	20.0	8.00	160.0	Exterior Insulated			20.0	8.40		160.0	
Exterior	40.0	8.40	336.0	Exterior Insulated			20.0	8.40		168.0	
				Adjacent Insulated			20.0	8.00		160.0	
<b>Base Total:</b>				<b>As-Built Total:</b>		<b>60.0</b>			<b>496.0</b>		
<b>CEILING TYPES</b> Area X BWPM = Points				Type	R-Value		Area X WPM X WCM = Points				
Under Attic	1799.0	2.05	3687.9	Under Attic	30.0		1859.0	2.05 X 1.00		3810.9	
<b>Base Total:</b>				<b>As-Built Total:</b>		<b>1859.0</b>			<b>3810.9</b>		
<b>FLOOR TYPES</b> Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Slab	184.0(p)	8.9	1637.6	Slab-On-Grade Edge Insulation	0.0		184.0(p)	16.80		3459.2	
Raised	0.0	0.00	0.0								
<b>Base Total:</b>				<b>As-Built Total:</b>		<b>184.0</b>			<b>3459.2</b>		
<b>INFILTRATION</b> Area X BWPM = Points											
	1799.0	0.59	-1061.4								

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

ADDRESS: Lot: 10, Sub: Magnolia Hills, Plat: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT									
Winter Base Points: 13455.1				Winter As-Built Points: 14248.7									
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
13455.1		0.6274	8441.7	(sys 1: Electric Heat Pump 32000 btuh ,EFF(7.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0 14248.7 1.000 (1.069 x 1.169 x 1.00) 0.487 1.000 8674.1 14248.7 1.00 1.250 0.487 1.000 8674.1									

**WATER HEATING & CODE COMPLIANCE STATUS**

## Residential Whole Building Performance Method A - Details

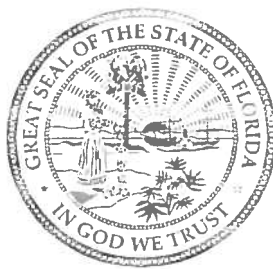
ADDRESS: Lot: 10, Sub: Magnolia Hills, Plat: , Lake City, FL,

PERMIT #:

BASE					AS-BUILT					
WATER HEATING										
Number of Bedrooms	X	Multiplier	=	Total	Tank Volume	EF	Number of Bedrooms	X	Tank X Ratio	Multiplier X Credit = Total Multiplier
3		2635.00		7905.0	40.0	0.93	3		1.00	2606.67
					As-Built Total:					7820.0

CODE COMPLIANCE STATUS									
BASE					AS-BUILT				
Cooling Points	+	Heating Points	+	Hot Water Points	=	Total Points	Cooling Points	+	Heating Points
10007		8442		7905		26353	9049		8674
							7820		25543

PASS



# Code Compliance Checklist

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 10, Sub: Magnolia Hills, 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 have combustion air.	

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

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.A. 3.3.2. Switch or clearly marked 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 pool 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\* = 83.3**

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

, Lot: 10, Sub: Magnolia Hills, 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: 32.0 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> )	1799 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: 32.0 kBtu/hr
(or Single or Double DEFAULT)	7a. (Dble Default) 156.0 ft <sup>2</sup>		HSPF: 7.00
b. SHGC:		b. N/A	
(or Clear or Tint DEFAULT)	7b. (Clear) 156.0 ft <sup>2</sup>	c. N/A	
8. Floor types		14. Hot water systems	
a. Slab-On-Grade Edge Insulation	R=0.0, 184.0(p) ft	a. Electric Resistance	Cap: 40.0 gallons
b. N/A			FF: 0.93
c. N/A		b. N/A	
9. Wall types		c. Conservation credits	
a. Frame, Wood, Exterior	R=13.0, 1002.0 ft <sup>2</sup>	(HR-Heat recovery, Solar	
b. Frame, Wood, Exterior	R=13.0, 233.0 ft <sup>2</sup>	DHP-Dedicated heat pump)	
c. N/A		15. HVAC credits	
d. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
e. N/A		HT-Whole house fan,	
10. Ceiling types		PT-Programmable Thermostat,	
a. Under Attic	R=30.0, 1859.0 ft <sup>2</sup>	MT-C Multi-zone cooling,	
b. N/A		M/H-Multi-zone heating)	
c. N/A			
11. Doors			
a. Supr. Unic. Ret. Unic. All: Garage	Supr. R=6.0, 170.0 ft <sup>2</sup>		
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: Chris A. G.

Date: 9-26-06

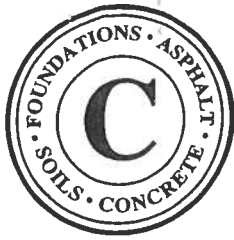
Address of New Home: 101 NW ETHELIND CT.

City/FL Zip: LAKE CITY, FL 32055



\*NOTE: The home's estimated energy performance score is only available through the FLR2PB output. This is not a Building Energy Rating. If your score is 80 or greater for a US EPA Energy Star home, 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.flr2pb.com](http://www.flr2pb.com) 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.

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



## Cal-Tech Testing, Inc.

- Engineering
- Geotechnical
- Environmental

LABORATORIES

P.O. Box 1625 • Lake City, FL 32056-1625  
6919 Distribution Avenue S., Unit #5 • Jacksonville, FL 32257

Tel. (386) 755-3633 • Fax (386) 752-5456  
Tel. (904) 262-4046 • Fax (904) 262-4047

25078

July 24, 2006

Cornerstone Developers, LLC  
180 NW Amenity Court  
Lake City, Florida 32055

Attention: Chris Cox

Reference: Proposed Residence  
Lot 10, Magnolia Hills  
Columbia County, Florida  
Cal-Tech Project No. 06-451

NOTE!  
THE SLAB ELEVATION  
IS 11" BELOW CUL-DE-SAC  
Chris W. Cox

Dear Mr. Cox,

Cal-Tech Testing, Inc. has completed an investigation and evaluation of lot 10 of Magnolia Hills in Columbia County, Florida. The purposes of our work were to evaluate the potential for flooding of a home to be constructed on the lot and to provide recommendations for selecting a finished floor elevation.

Based upon the U. S. Coast and Geodetic Survey marker "BP19" located near the intersection of U. S. 90 and Brown Road, the elevation of the center of the cul-de-sac adjacent the proposed building site is approximately 130.9 feet. The ground surface elevation at the center of the building site is approximately 125.7 feet, and the proposed finished floor elevation is approximately 128.5 feet. This places the finished floor elevation about 2.4 feet below the elevation of the center of the cul-de-sac.

Columbia County regulations require the finished floor of a new residence to be at least 12 inches above the elevation of the adjacent roadway unless it can be shown such an elevation is not required to substantially reduce the likelihood of flooding.

Based upon the USGS topographic quadrangle map, the proposed home site is positioned within an isolated basin of approximately 100 acres for which the basin rim is estimated to be near elevation 153 feet. The FEMA flood map of Columbia County indicates there are no flood zones within this basin. Additionally, only one flood zone located within about one mile of the site has a flood elevation estimated to exceed 153 feet. This zone "A" flood area is located approximately 1/4 mile west of the site, and the flood elevation for this area is estimated to be about 155 feet; however, this flood area is topographically isolated such that flooding within this flood zone would not affect the proposed home site.

Since no flood areas are delineated within the basin by the FEMA flood map, we believe flooding within the basin sufficient to flood the home is highly unlikely. Such flooding would require maximum flood depths on the order of 15 feet within the basin and an average flood depth of about 6 feet over an area of about 20 acres.

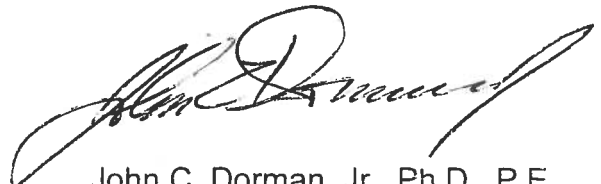
Based upon our evaluation, it is our opinion elevating the finished floor to 1 foot above the adjacent roadway will not be required. However, we recommend the finished floor elevation be selected and/or the site be graded such that the finished floor is a minimum of 12 inches above the finished surface grade at the perimeter of the residence. With suitable site grading to provide separation between the finished floor and the surrounding surface grade, the proposed finished floor elevation of approximately 128.5 feet should be sufficient to substantially reduce the likelihood of flooding at the site.

We appreciate the opportunity to be of service on this project and look forward to a continued association. Please do not hesitate to contact us should you have questions concerning this report or if we may be of further assistance.

Respectfully submitted,  
Cal-Tech Testing, Inc.



Linda Creamer  
President / CEO



John C. Dorman, Jr., Ph.D., P.E.  
Geotechnical Engineer

7/24/06  
52612



# UNIVERSAL

## ENGINEERING SCIENCES

Consultant In: Geotechnical Engineering,  
Environmental Sciences, Construction Materials Testing  
4475 SW 35th Terrace, Gainesville, Florida 32608 (352) 372-3392

Project No.: 27915-008-01  
Report No.: 7719  
Date: October 31, 2006

### REPORT ON IN-PLACE DENSITY TESTS

Permit 25078

**Client:** Cornerstone Development  
P.O. Box 1867  
Lake City, FL 32056

**Project:** Magnolia Hills, Lot No. 10, 180 NW Amenity Court, Permit No. 000025078, Lake City, Columbia County, FL

**Area Tested:** Fill Beneath Proposed Building Pad

**Course:** Final Grade

**Depth of Test:** 0-1'

**Type of Test:** ASTM D-2922

**Date Tested:** 10-27-06

**Remarks:** The tests below meet the minimum 95 percent relative soil compaction requirement of Laboratory Modified Proctor maximum dry density. (ASTM D-1557)  
\*\*RETEST\*\*

TEST LOCATION		LABORATORY RESULTS		FIELD TEST RESULTS		
Description of Test Location		Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
1.	Approximately 10' Northwest of Southeast Corner of Pad	115.5	10.0	110.9	5.1	96.0
2.	Approximately 10' Northeast of Southwest Corner Pad	115.5	10.0	110.6	4.7	95.8
3.	Approximately 15' Southwest of Northeast Corner of Pad	115.5	10.0	111.2	5.4	96.3

Technician: TG/ts

Keith L. Butts, P.E.

FL Professional Engineer No. 53986



# UNIVERSAL

## ENGINEERING SCIENCES

Consultant In: Geotechnical Engineering,  
Environmental Sciences, Construction Materials Testing  
4475 SW 35th Terrace, Gainesville, Florida 32608 (352) 372-3392

Project No.: 27915-008-01  
Report No.: 7330  
Date: October 25, 2006

### REPORT ON IN-PLACE DENSITY TESTS

**Client:** Cornerstone Development  
P.O. Box 1867  
Lake City, FL 32056

**Project:** Magnolia Hills, Lot No. 10, Lake City, Columbia County, FL

**Area Tested:** Fill Beneath Proposed Building Pad

**Course:** Final Grade

**Depth of Test:** 0-1'


**Type of Test:** ASTM D-2922

**Date Tested:** 10-11-06

**Remarks:** The tests below meet the minimum 95 percent relative soil compaction requirement of Laboratory Modified Proctor maximum dry density (ASTM D-1557).

TEST LOCATION		LABORATORY RESULTS		FIELD TEST RESULTS		
Description of Test Location		Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
1.	Approximately 10' Southeast of Northwest Corner of Pad	115.5	10.0	114.0	6.0	98.7
2.	Approximate Center of Pad	115.5	10.0	111.0	4.8	96.1
3.	Approximately 10' Northwest of Southeast Corner of Pad	115.5	10.0	111.3	6.1	96.4

Technician: CS/Im

  
Keith L. Butts, P.E.  
FL Professional Engineer No. 53986





# UNIVERSAL

## ENGINEERING SCIENCES

Consultant In: Geotechnical Engineering,  
Environmental Sciences, Construction Materials Testing  
4475 SW 35th Terrace, Gainesville, Florida 32608 (352) 372-3392

Project No.: 27915-008-01  
Report No.: 7331  
Date: October 25, 2006

### REPORT ON IN-PLACE DENSITY TESTS

PERMIT #  
25078

**Client:** Cornerstone Development  
P.O. Box 1867  
Lake City, FL 32056

**Project:** Magnolia Hills, Lot No. 10, Permit No. 025078, Lake City, Columbia County, FL

**Area Tested:** Fill Beneath Proposed Building Foundation

**Course:** Final Grade

**Depth of Test:** 0-1'

**Type of Test:** ASTM D-2922

**Date Tested:** 10-17-06

**Remarks:** The tests below meet the minimum 95 percent relative soil compaction requirement of Laboratory Modified Proctor maximum dry density (ASTM D-1557).

TEST LOCATION		LABORATORY RESULTS		FIELD TEST RESULTS		
Description of Test Location		Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
1.	Approximately 5' South of Northeast Corner of Foundation	115.5	10.0	113.1	6.0	97.9
2.	Approximate Center of West Side Foundation	115.5	10.0	111.6	5.2	96.6
3.	Approximate Center of Center Interior Foundation	115.5	10.0	110.5	5.4	95.7

Technician: DH/lm

  
Keith L. Butts, P.E.  
FL Professional Engineer No. 53986

25078

**Notice of Treatment****Applicator:** Florida Pest Control & Chemical Co. (www.flapest.com)Address: Baya AveCity Laurel City Phone 752-1703**Site Location:** Subdivision Magnolia HillsLot # 10 Block#        Permit # 25078Address 101 NW ETHELIND COURT

<u>Product used</u>	<u>Active Ingredient</u>	<u>% Concentration</u>
<input type="checkbox"/> Premise	Imidacloprid	0.1%
<input type="checkbox"/> Termidor	Fipronil	0.12%
<input checked="" type="checkbox"/> Bora-Care	Disodium Octaborate Tetrahydrate	23.0%

**Type treatment:**☐ Soil☒ Wood

<u>Area Treated</u>	<u>Square feet</u>	<u>Linear feet</u>	<u>Gallons Applied</u>
<u>Dwelling</u>	<u>2431</u>	<u>622</u>	<u>4.5</u>
<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>

As per Florida Building Code 104.2.6 – If soil chemical barrier method for termite prevention is used, final exterior treatment shall be completed prior to final building approval.

If this notice is for the final exterior treatment, initial this line \_\_\_\_\_.

11/30/06  
Date0915  
TimeF254 / F299  
Print Technician's Name

Remarks: \_\_\_\_\_

Applicator - White

Permit File - Canary

Permit Holder - Pink

10/05

©



# UNIVERSAL

## ENGINEERING SCIENCES

Consultants In: Geotechnical Engineering •  
Environmental Sciences • Construction Materials Testing

4475 S.W. 35th Terrace • Gainesville, Florida 32608 • (352) 372-3392

## REPORT ON IN-PLACE DENSITY TESTS

Permit # 00025078

CLIENT: Corner Stone

PROJECT: Magnolia H.H.s  
180 N.W. Poinsett Court Lake city, FL Columbia County

AREA TESTED: Fill & prop. bldg. pad.

COURSE: F/G DEPTH OF TEST: 0-1'

TYPE OF TEST: ASTMD-2922 DATE TESTED: 10-27-06

NOTE: The below tests DO/DO NOT meet the minimum 95 % compaction requirements of maximum density.

REMARKS: \* Retest

LOCATION OF TESTS	DRY DEN.	MAX. DEN.	% MAX. DEN.	% MOIST.	OPT. MOIST.
		115.5			10.0
App. 10' N.W. of S.E. corner of pad.	110.9		96.0	5.1	
App. 10' N.E. of S.W. corner of pad.	110.6		95.8	4.7	
App. 15' S.W. of N.E. corner of pad.	111.2		96.3	5.4	

TECH. T.G.

**GERMANIC COMPANY**  
**OF**

**OCCUPANCY**

**COLUMBIA COUNTY, FLORIDA**

## Department of Building and Zoning Inspection

*This Certificate of Occupancy is issued to the below named permit holder for the building and premises at the below named location, and certifies that the work has been completed in accordance with the Columbia County Building Code.*

Parcel Number 28-3S-16-02377-110

Building permit No. 000025078

Use Classification SFD/UTILITY

Fire: 50.22

Permit Holder BRYAN ZECHER

Waste: 150.75

Owner of Building CORNERSTONE DEVELOPERS

Total: 200.97

Location: 101 NW ETHELIND CT(MAGNOLIA HILLS, LOT 10)

Date: 01/24/2007

*Harry Dieke*

Building Inspector



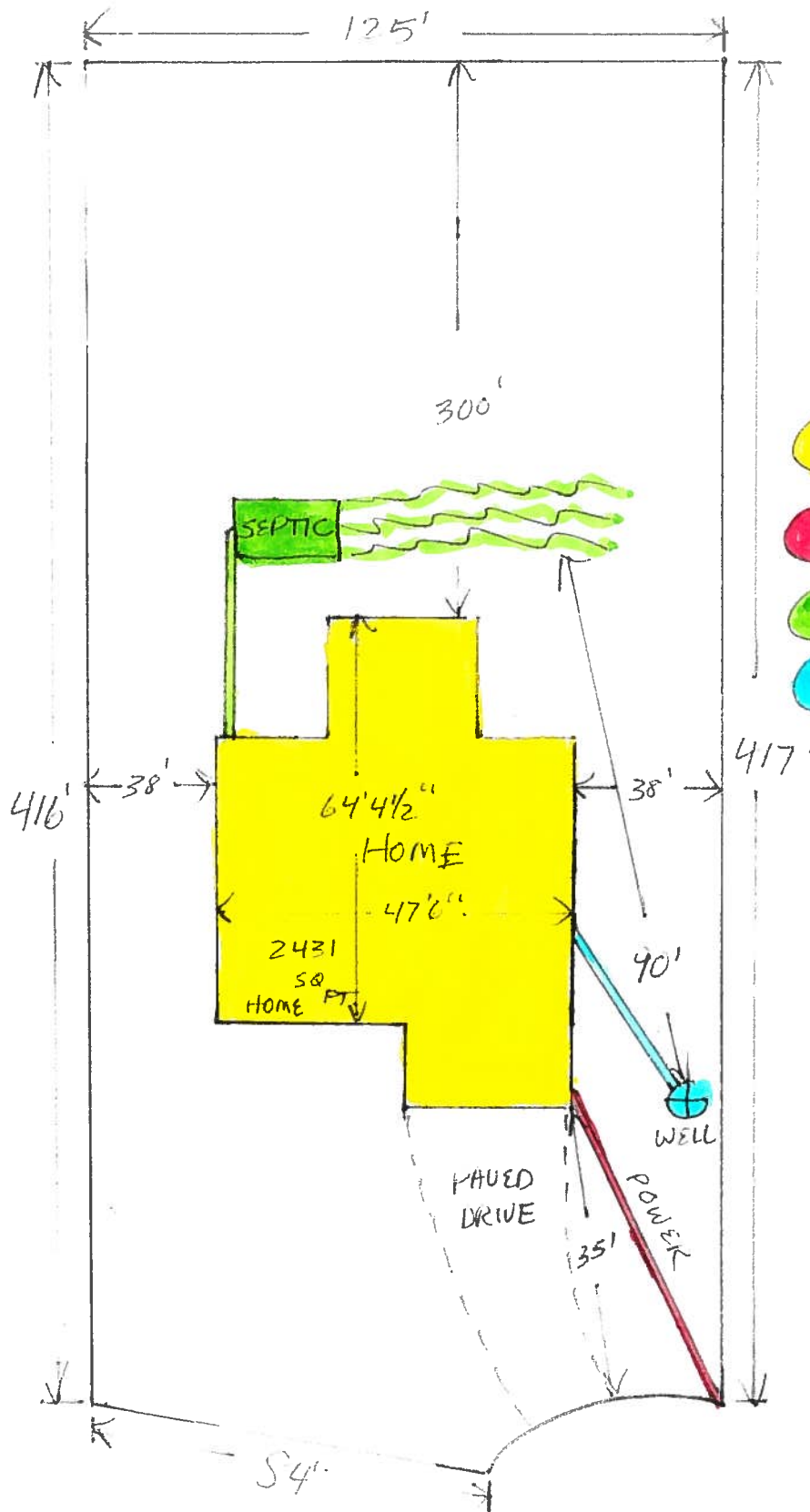
**POST IN A CONSPICUOUS PLACE**  
*(Business Places Only)*



# MAGNOLIA HILLS COLUMBIA COUNTY LCT 10 SITE PLAN

S

E



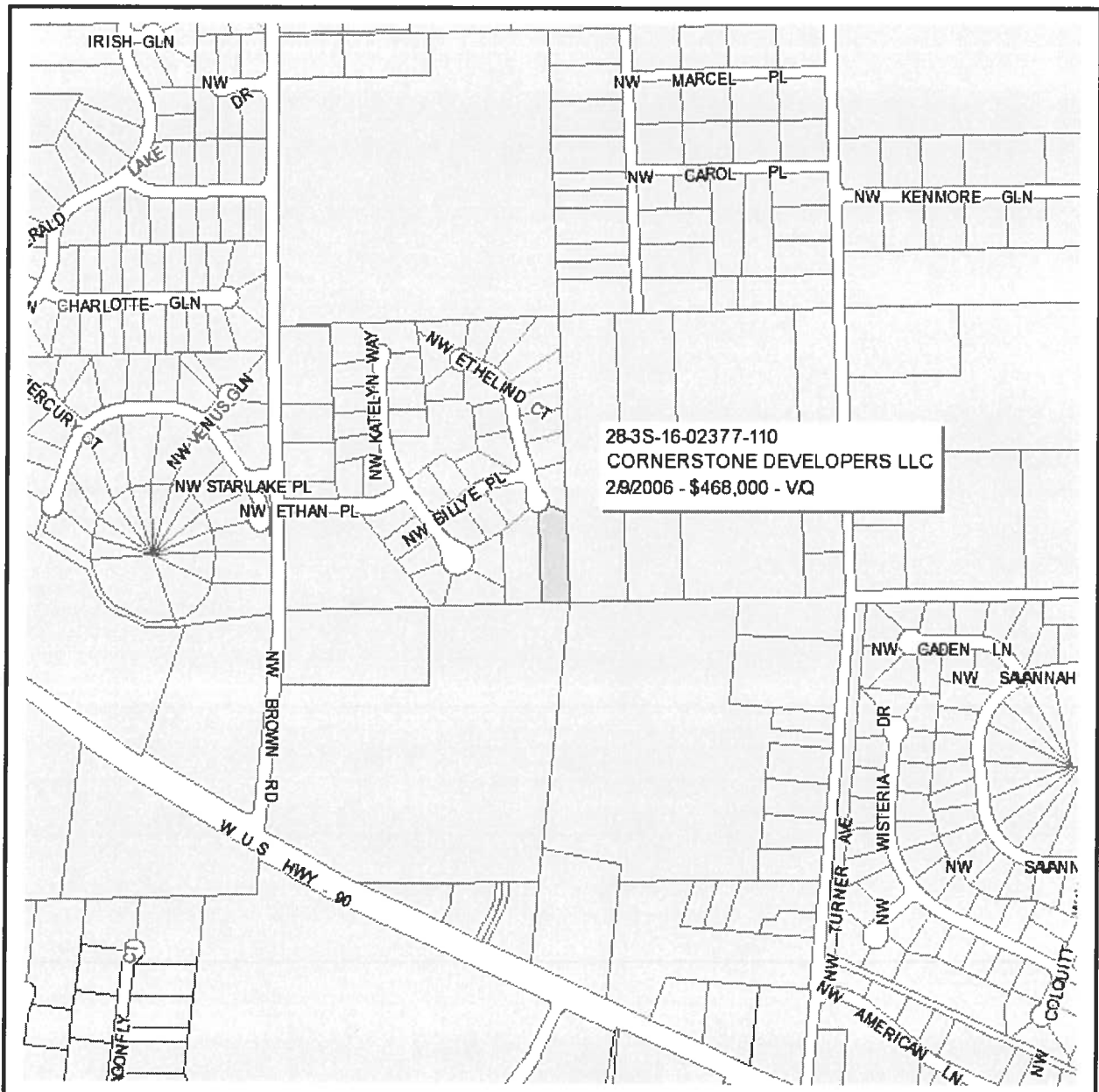
CODE

- = HOME
- = POWER
- = SEPTIC
- = WELL

W

N





### Columbia County Property Appraiser

J. Doyle Crews, CFA - Lake City, Florida - 386-758-1083

#### PARCEL: 28-3S-16-02377-110 - VACANT (000000)

Name:	CORNERSTONE DEVELOPERS LLC	LandVal	\$16,000.00
Site:	MAGNOLIA HILLS S/D	BldgVal	\$0.00
Mail:	180 NW AMENITY COURT	ApprVal	\$16,000.00
	LAKE CITY, FL 32055	JustVal	\$16,000.00
Sales	2/9/2006 \$468,000.00V / Q	Assd	\$16,000.00
Info	2/8/2006 \$468,000.00V / U	Exmpt	\$0.00
	8/11/2005 \$420,000.00V / Q	Taxable	\$16,000.00

0 0.05 0.1 0.15 mi



This information, GIS Map Updated: 9/1/2006, was derived from data which was compiled by the Columbia County Property Appraiser Office solely for the governmental purpose of property assessment. This information should not be relied upon by anyone as a determination of the ownership of property or market value. No warranties, expressed or implied, are provided for the accuracy of the data herein, its use, or its interpretation. Although it is periodically updated, this information may not reflect the data currently on file in the Property Appraiser's office. The assessed values are NOT certified values and therefore are subject to change before being finalized for ad valorem assessment purposes.





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10:00:13 AM

### Licensee Details

Name: **ZECHER, BRYAN CHRISTIAN (Primary Name)**  
**BRYAN ZECHER CONSTRUCTION INC (DBA**

Main Address: **P O BOX 815**  
**LAKE CITY, Florida 32056**

Lic. Location: **465 NW ORANGE ST**  
**LAKE CITY, FL 32055 United States**  
**Columbia**

## License Information

License Type:	<b>Certified Building Contractor</b>
Rank:	<b>Cert Building</b>
License Number:	<b>CBC054575</b>
Status:	<b>Current, Active</b>
Licensure Date:	<b>12/05/1991</b>
Expires:	<b>08/31/2006</b>

Special Qualifications	Effective Date
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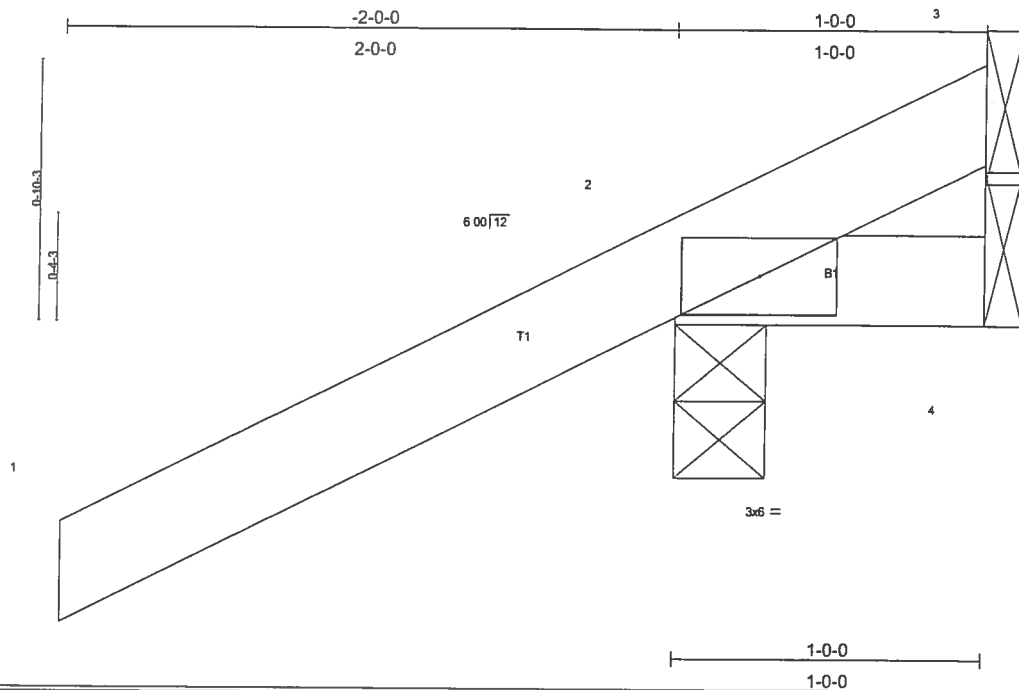
[illegible]

Qualified Business License Required	04/13/2004
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Job L209566	Truss CJ1	Truss Type JACK	Qty 18	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:27 2006 Page 1



Scale = 1/2"

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.28	Vert(LL)	-0.00	2	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.01	Vert(TL)	-0.00	2	>999	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.00	Horz(TL)	0.00	3	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 7 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2

**BRACING**

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

**REACTIONS**

(lb/size) 2=266/0-3-8, 4=14/Mechanical, 3=90/Mechanical  
Max Horz 2=87(load case 5)  
Max Uplift 2=286(load case 5), 4=9(load case 3), 3=90(load case 1)  
Max Grav 2=266(load case 1), 4=14(load case 1), 3=127(load case 5)

**FORCES (lb) - Maximum Compression/Maximum Tension**

TOP CHORD 1-2=0/47, 2-3=-69/75  
BOT CHORD 2-4=0/0

**JOINT STRESS INDEX**

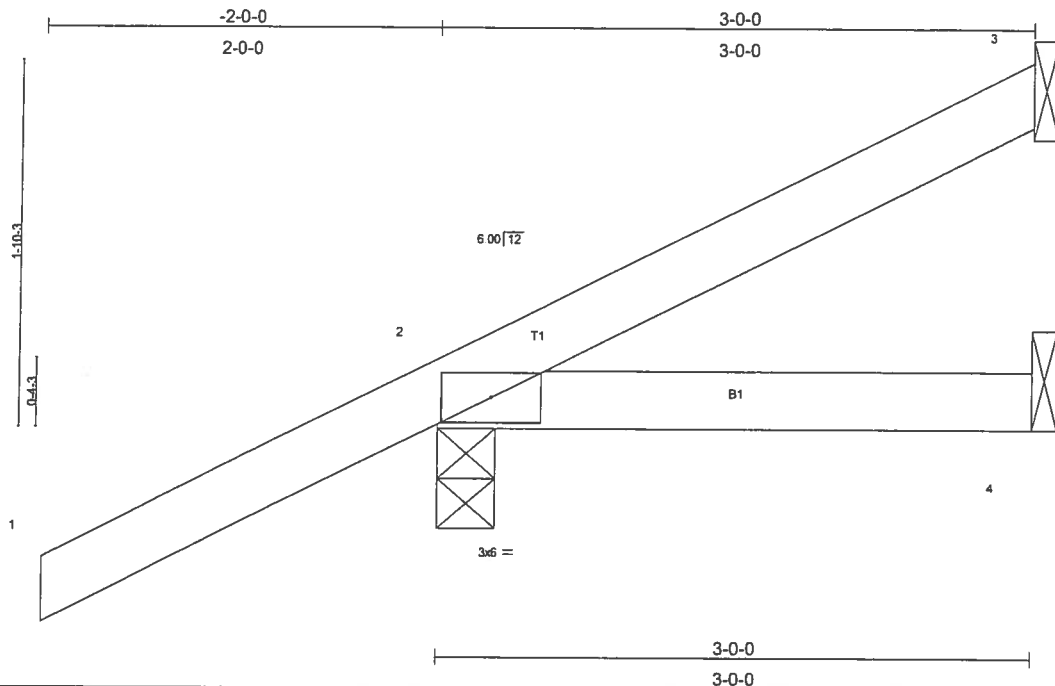
2 = 0.14

**NOTES**

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCCL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 286 lb uplift at joint 2, 9 lb uplift at joint 4 and 90 lb uplift at joint 3.

LOAD CASE(S) Standard

Job L209566	Truss CJ3	Truss Type JACK	Qty 12	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:27 2006 Page 1



LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	Vert(LL)	-0.00	2-4	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.06	Vert(TL)	-0.01	2-4	>999	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 13 lb	

**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2

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

**REACTIONS** (lb/size) 3=31/Mechanical, 2=278/0-3-8, 4=42/Mechanical  
Max Horz 2=132(load case 5)  
Max Uplift 3=28(load case 6), 2=203(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/47, 2-3=57/7  
BOT CHORD 2-4=0/0

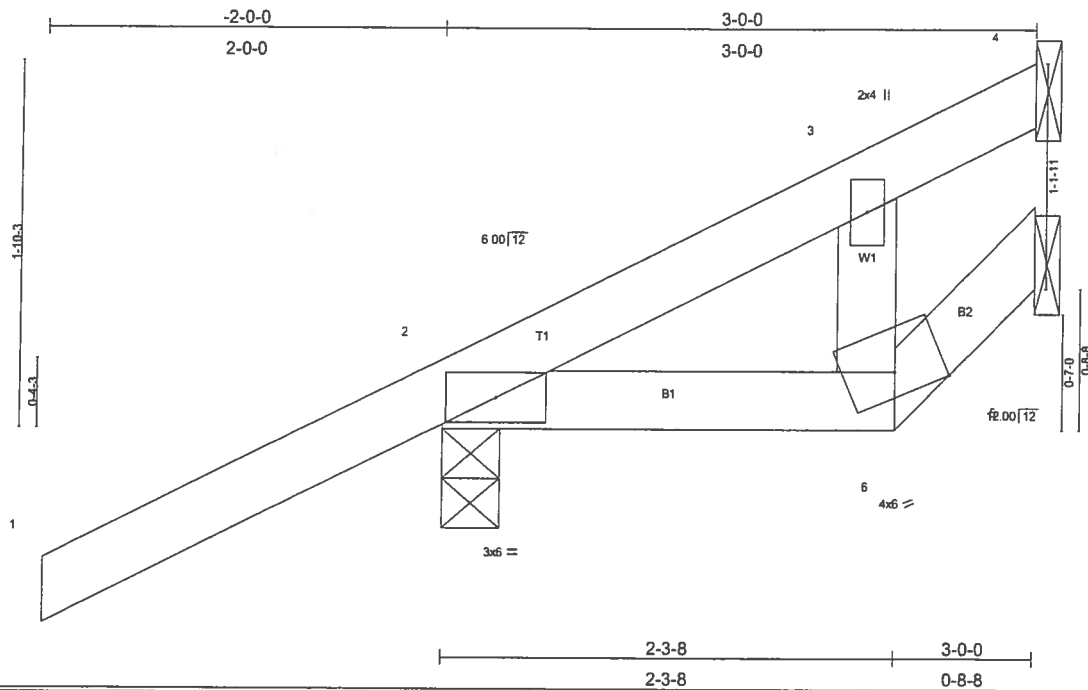
**JOINT STRESS INDEX**  
2 = 0.13

#### NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 3 and 203 lb uplift at joint 2.

**LOAD CASE(S)** Standard

Job L209566	Truss CJ3T	Truss Type SPECIAL	Qty 2	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, Fl 32055					Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:28 2006 Page 1



<b>LOADING</b> (psf)	<b>SPACING</b> 2-0-0	<b>CSI</b>	<b>DEFL</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plates Increase 1.25	TC 0.29	Vert(LL) -0.01 6 >999 240	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.03	Vert(TL) -0.01 6 >999 180		
BCLL 10.0	Rep Stress Incr YES	WB 0.01	Horz(TL) -0.01 5 n/a n/a		
BCDL 5.0	Code FBC2004/TPI2002	(Matrix)			
				Weight: 15 lb	

**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2  
WEBS 2 X 4 SYP No.3

<b>BRACING</b>	
<b>TOP CHORD</b>	Structural wood sheathing directly applied or 3-0-0 oc purlins.
<b>BOT CHORD</b>	Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 4=63/Mechanical, 2=278/0-3-8, 5=10/Mechanical  
Max Horz 2=132(load case 5)  
Max Uplift 4=-21(load case 6), 2=-203(load case 5)

**FORCES (lb) - Maximum Compression/Maximum Tension**  
**TOP CHORD** 1-2=0/47, 2-3=-58/2, 3-4=-18/26  
**BOT CHORD** 2-6=-6/0, 5-6=-6/6  
**WEBS** 3-6=0/42

**JOINT STRESS INDEX**  
2 = 0.13, 3 = 0.03 and 6 = 0.02

## NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCFL=4.2psf; BCLD=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 4 and 203 lb uplift at joint 2.

LOAD CASE(S) Standard

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549**

Job L209566	Truss CJ5	Truss Type JACK	Qty 8	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 Mittek Industries, Inc. Tue Sep 05 11:22:29 2006 Page 1		

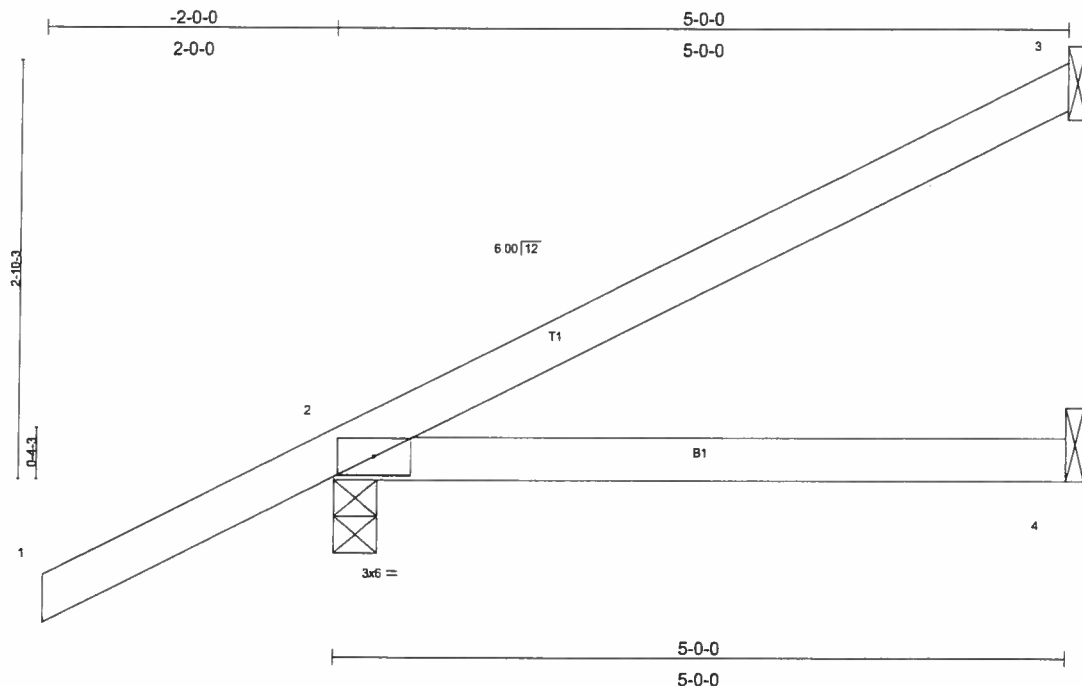


Plate Offsets (X,Y): [2-0-0-0-0-0-0]

LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.16	Vert(LL) -0.03 2-4 >999 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.00	Vert(TL) -0.05 2-4 >999 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) -0.00 3 n/a n/a		
	Code FBC2004/TPI2002			Weight: 19 lb	

**LUMBER**  
 TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2

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

**REACTIONS** (lb/size) 3=103/Mechanical, 2=343/0-3-8, 4=72/Mechanical  
 Max Horz 2=178(load case 5)  
 Max Uplift 3=87(load case 5), 2=199(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/47, 2-3=88/36  
 BOT CHORD 2-4=0/0

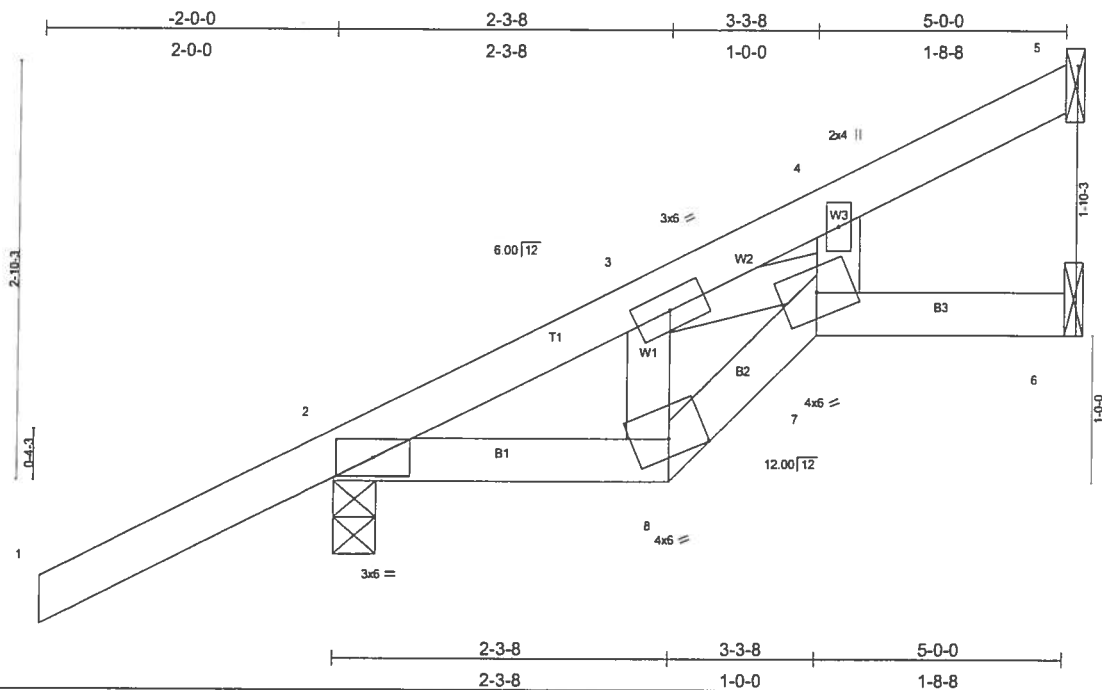
**JOINT STRESS INDEX**  
 2 = 0.15

**NOTES**

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 3 and 199 lb uplift at joint 2.

**LOAD CASE(S)** Standard

Job L209566	Truss CJ5T	Truss Type SPECIAL	Qty 2	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, Fl 32055			Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:29 2006 Page 1		



<b>LOADING (psf)</b>	<b>SPACING</b> 2-0-0	<b>CSI</b>	<b>DEFL</b> in (loc)	<b>l/defl</b> L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plates Increase 1.25	TC 0.31	Vert(LL) 0.04 7	>999 240	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.06	Vert(TL) -0.04 7	>999 180		
BCLL 10.0	Rep Stress Incr YES	WB 0.06	Horz(TL) 0.02 6	n/a n/a		
BCDL 5.0	Code FBC2004/TPI2002	(Matrix)			Weight: 24 lb	

**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2  
WEBS 2 X 4 SYP No.3

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

**REACTIONS** (lb/size) 5=151/Mechanical, 2=343/0-3-8, 6=25/Mechanical  
Max Horz 2=178(load case 5)  
Max Uplift 5=78(load case 5), 2=199(load case 5)

**FORCES (lb) - Maximum Compression/Maximum Tension**  
**TOP CHORD** 1-2=0/47, 2-3=-229/0, 3-4=-114/0, 4-5=-68/64  
**BOT CHORD** 2-8=78/152, 7-8=-97/206, 6-7=-0/0  
**WEBS** 3-8=-91/76, 3-7=-103/55, 4-7=-64/190

**JOINT STRESS INDEX**  
2 = 0.16, 3 = 0.04, 4 = 0.13, 7 = 0.07 and 8 = 0.06

## NOTES

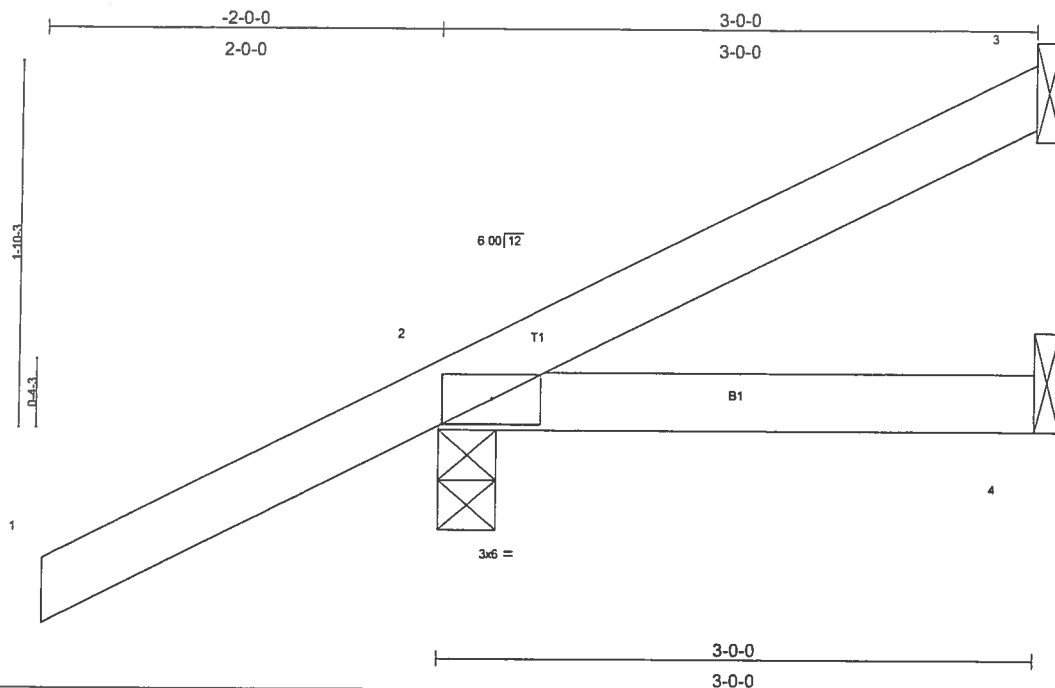
- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDF=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 5 and 199 lb uplift at joint 2.

LOAD CASE(S) Standard

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549**



Job L209566	Truss EJ3	Truss Type JACK	Qty 3	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:30 2006 Page 1		



LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.29	Vert(LL)	0.01	2-4	>999	240	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.08	Vert(TL)	0.01	2-4	>999	180		
BCLL 10.0	Rep Stress Incr YES	WB 0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002	(Matrix)							
									Weight: 13 lb

**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2

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

**REACTIONS** (lb/size) 3=31/Mechanical, 2=278/0-3-8, 4=42/Mechanical  
Max Horz 2=132(load case 5)  
Max Uplift 3=28(load case 6), 2=-238(load case 5), 4=-27(load case 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/47, 2-3=57/7  
BOT CHORD 2-4=0/0

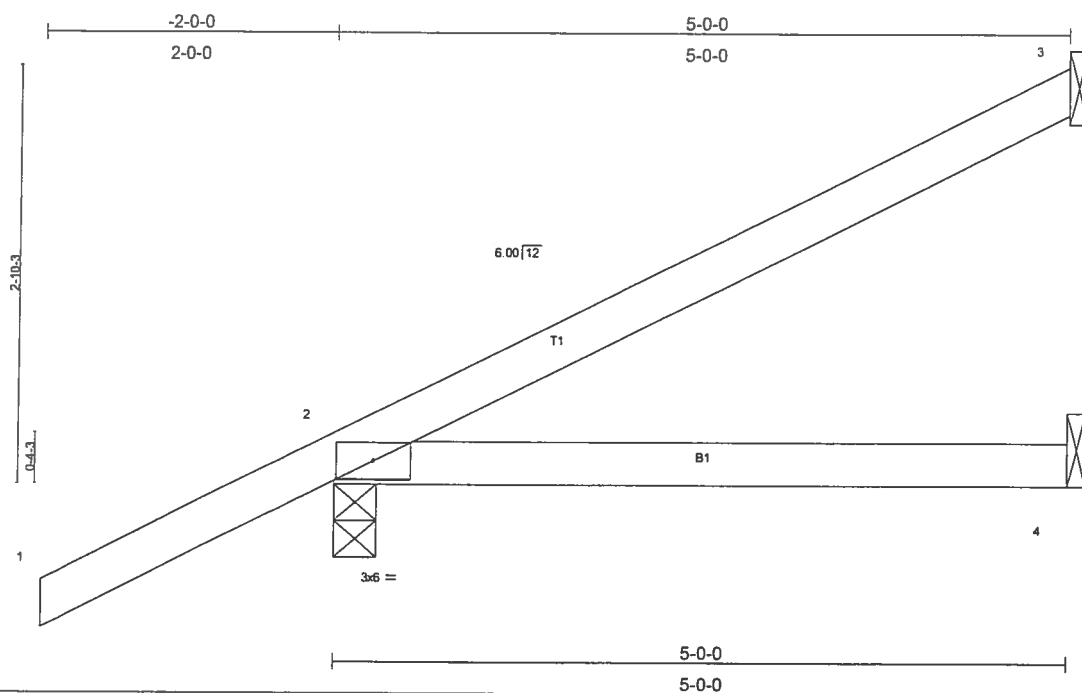
**JOINT STRESS INDEX**  
2 = 0.13

#### NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 3, 238 lb uplift at joint 2 and 27 lb uplift at joint 4.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	CORNERSTONE LOT 10 MAGNOLIA HILLS
L209566	EJ5	JACK	2	1	Job Reference (optional)
Builders FirstSource, Lake City, Fl 32055			6.200 s Jul 13 2005 Miltek Industries, Inc. Tue Sep 05 11:22:31 2006 Page 1		



LOADING (psf)	SPACING 2-0-0	CSI	DEFL in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.29	Vert(LL) 0.09	2-4	>663	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.24	Vert(TL) 0.07	2-4	>774		
BCLL 10.0	Rep Stress Incr YES	WB 0.00	Horz(TL) -0.00	3	n/a		
BCDL 5.0	Code FBC2004/TP12002	(Matrix)					
						Weight: 19 lb	

**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2

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

**REACTIONS** (lb/size) 3=103/Mechanical, 2=343/0-3-8, 4=72/Mechanical  
Max Horz 2=178(load case 5)  
Max Uplift 3=-87(load case 5), 2=-260(load case 5), 4=-46(load case 3)

**FORCES (lb) - Maximum Compression/Maximum Tension**  
**TOP CHORD** 1-2=0/47, 2-3=-88/36  
**BOT CHORD** 2-4=0/0

**JOINT STRESS INDEX**  
2 = 0.15

## NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDD=4.2psf; BCDD=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 3, 260 lb uplift at joint 2 and 46 lb uplift at joint 4.

LOAD CASE(S) Standard

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549**

Job L209566	Truss EJ7	Truss Type MONO TRUSS	Qty 30	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:31 2006 Page 1		

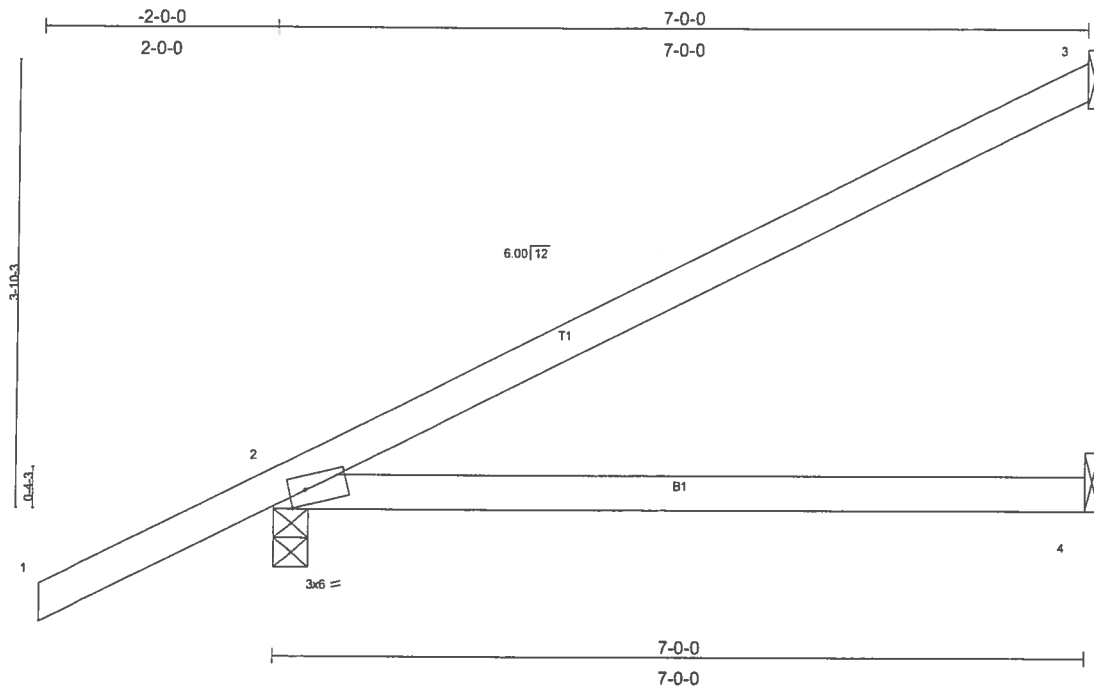


Plate Offsets (X,Y): [2.0-1-12.Edge]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.48	Vert(LL)	-0.12	2-4	>664	240	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.35	Vert(TL)	-0.21	2-4	>397	180		
BCLL 10.0	Rep Stress Incr YES	WB 0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002	(Matrix)							
									Weight: 26 lb

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2

**BRACING**

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

**REACTIONS** (lb/size) 3=162/Mechanical, 2=419/0-3-8, 4=104/Mechanical  
Max Horz 2=224(load case 5)  
Max Uplift 3=134(load case 5), 2=210(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/47, 2-3=-119/58  
BOT CHORD 2-4=0/0

**JOINT STRESS INDEX**  
2 = 0.82

**NOTES**

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 3 and 210 lb uplift at joint 2.

**LOAD CASE(S)** Standard

Job L209566	Truss EJ7T	Truss Type SPECIAL	Qty 3	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:32 2006 Page 1		

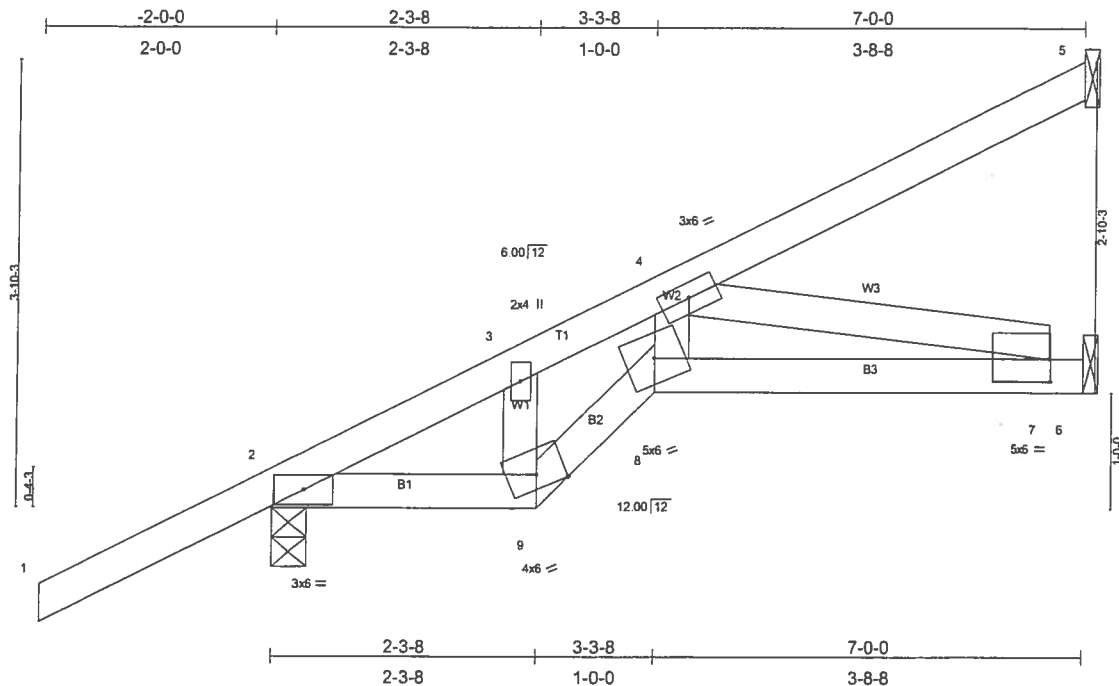


Plate Offsets (X,Y): [7-0-0-3,0-2-5]

LOADING (psf)	SPACING	CS/	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	Vert(LL)	0.06	7-8	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.29	Vert(TL)	-0.08	7-8	>994	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.09	Horz(TL)	0.04	6	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 33 lb	

**LUMBER**  
 TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2  
 WEBS 2 X 4 SYP No.3

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

**REACTIONS** (lb/size) 5=109/Mechanical, 2=419/0-3-8, 6=158/Mechanical  
 Max Horz 2=224(load case 5)  
 Max Uplift 5=85(load case 5), 2=210(load case 5), 6=41(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/47, 2-3=509/116, 3-4=497/149, 4-5=-69/40  
 BOT CHORD 2-9=-270/417, 8-9=-238/432, 7-8=-251/351, 6-7=0/0  
 WEBS 3-9=-123/88, 4-8=-36/249, 4-7=-360/257

**JOINT STRESS INDEX**  
 2 = 0.47, 3 = 0.05, 4 = 0.18, 7 = 0.14, 8 = 0.65 and 9 = 0.66

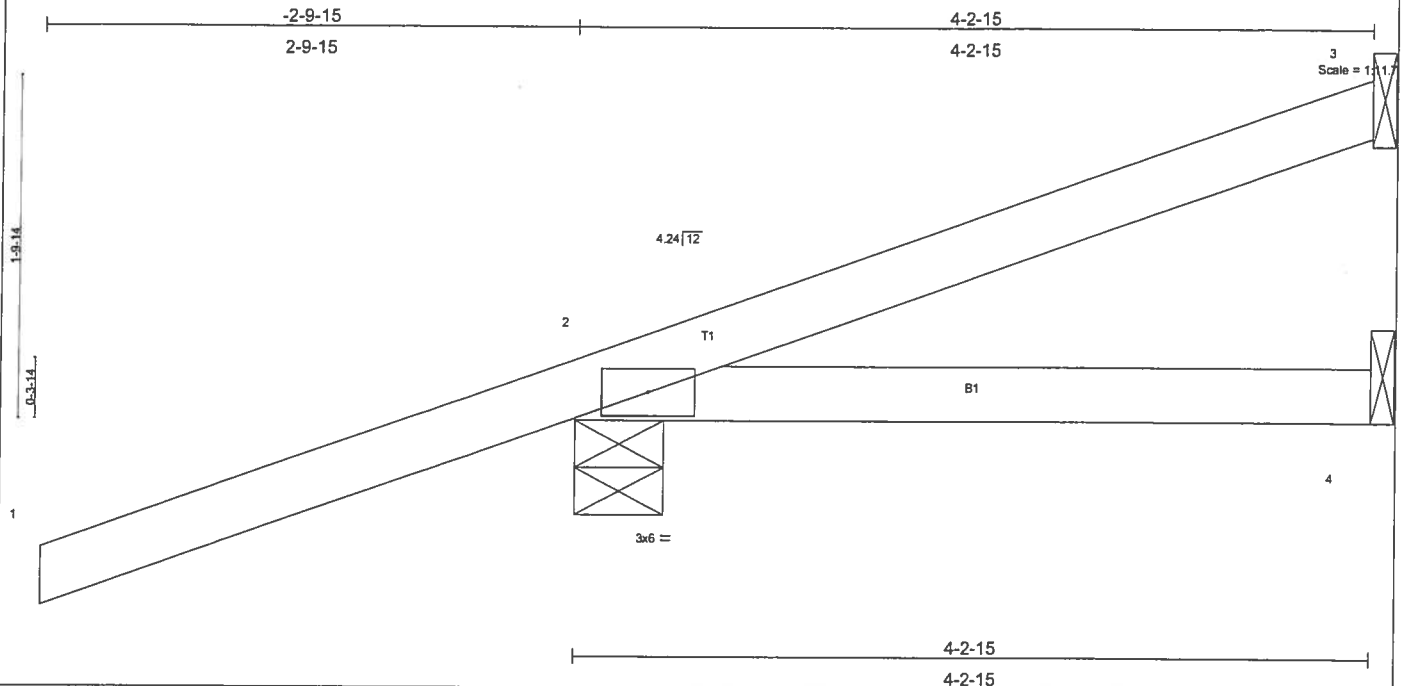
**NOTES**

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 5, 210 lb uplift at joint 2 and 41 lb uplift at joint 6.

**LOAD CASE(S)** Standard

SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
 THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
 STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
 16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549

Job L209566	Truss HJ4	Truss Type JACK	Qty 2	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:33 2006 Page 1		



<b>LOADING (psf)</b>	<b>SPACING</b>	<b>CSI</b>	<b>DEFL</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2'-0"	TC 0.54	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.07	Vert(LL) 0.02 2-4 >999 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.00	Vert(TL) 0.01 2-4 >999 180		
BCDL 5.0	Rep Stress Incr NO	(Matrix)	Horz(TL) -0.00 3 n/a n/a		
	Code FBC2004/TPI2002			Weight: 18 lb	

**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-2-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 3=13/Mechanical, 2=293/0-5-11, 4=42/Mechanical  
Max Horz 2=98(load case 2)  
Max Uplift 3=5(load case 4), 2=305(load case 2), 4=41(load case 2)  
Max Grav 3=33(load case 5), 2=293(load case 1), 4=42(load case 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/50, 2-3=38/11  
BOT CHORD 2-4=0/0

**JOINT STRESS INDEX**  
2 = 0.12

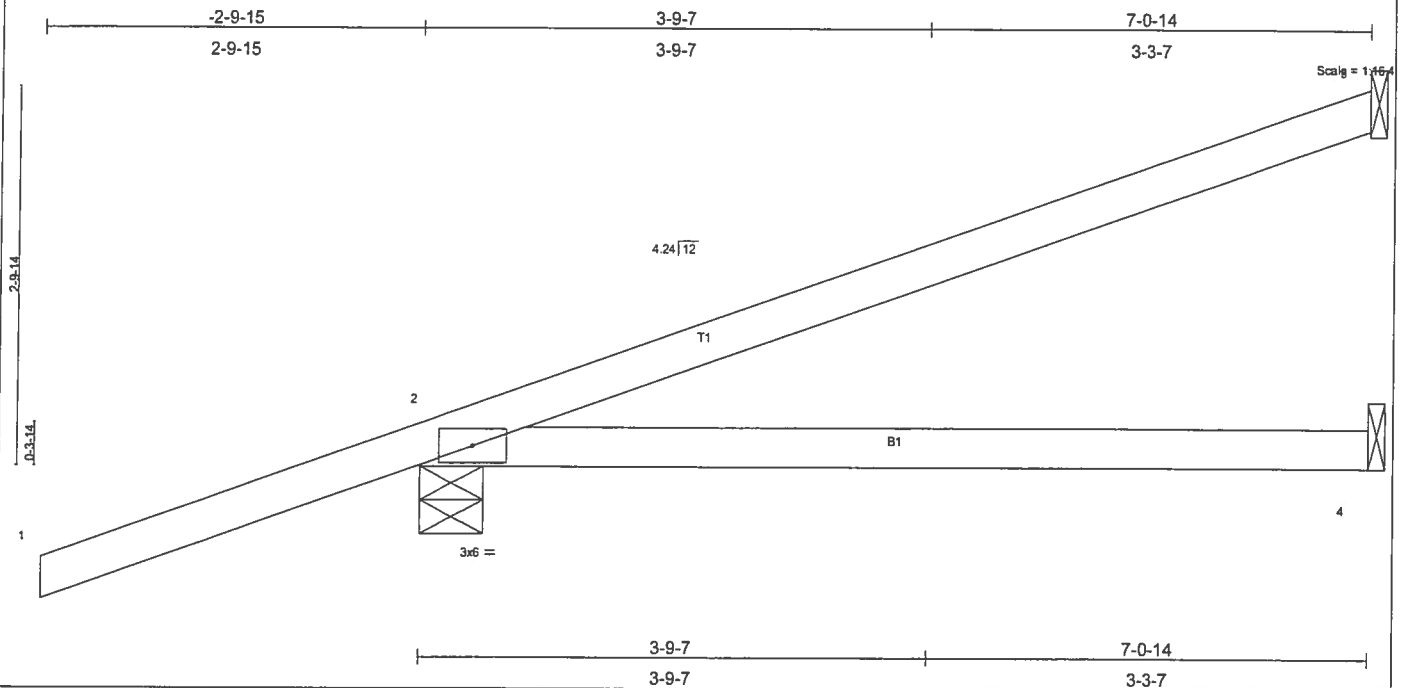
#### NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 3, 305 lb uplift at joint 2 and 41 lb uplift at joint 4.
- 5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Regular: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=54  
Trapezoidal Loads (plf)  
Vert: 2=3(F=25, B=25)-to-3=57(F=2, B=2), 2=-0(F=15, B=15)-to-4=32(F=1, B=-1)

Job L209566	Truss HJ7	Truss Type MONO TRUSS	Qty 2	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:34 2006 Page 1		



LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/def	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.54	Vert(LL)	-0.07	2-4	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.27	Vert(TL)	-0.13	2-4	>626	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL 5.0	Rep Stress Incr NO	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 26 lb	

**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 7-0-14 oc purtins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 3=191/Mechanical, 2=378/0-5-11, 4=110/Mechanical  
Max Horz 2=167(load case 2)  
Max Uplift 3=144(load case 2), 2=251(load case 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/50, 2-3=68/45  
BOT CHORD 2-4=0/0

**JOINT STRESS INDEX**  
2 = 0.44

#### NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 3 and 251 lb uplift at joint 2.
- 5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Regular: Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-2=54

Trapezoidal Loads (plf)

Vert: 2-3(F=25, B=25)-to-3=-95(F=-21, B=-21), 2=-0(F=15, B=15)-to-4=-53(F=-12, B=-12)

Job	Truss	Truss Type	Qty	Ply	CORNERSTONE LOT 10 MAGNOLIA HILLS
L209566	HJ9	MONO TRUSS	4	1	
Builders FirstSource, Lake City, Fl 32055					Job Reference (optional)
					6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:34 2006 Page 1

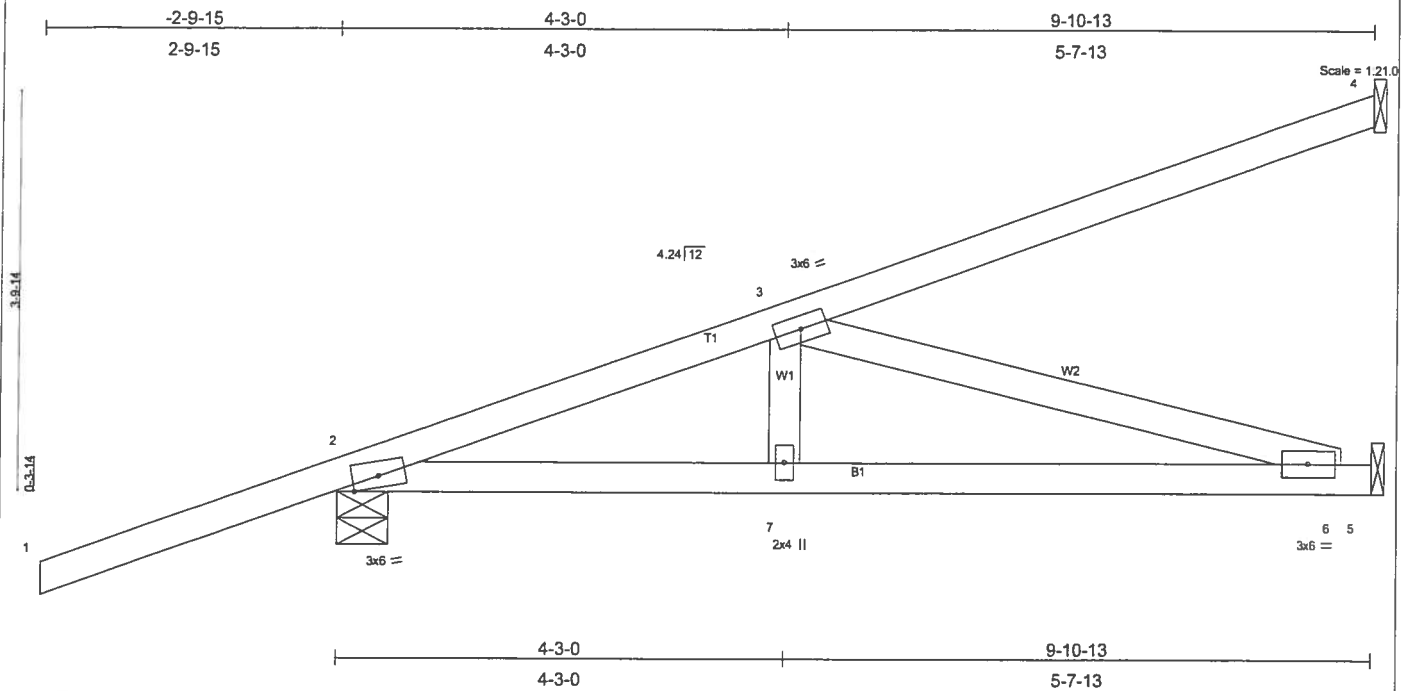


Plate Offsets (X,Y): [3:0-0-0,0-0-0], [6:0-0-0,0-0-0]											
LOADING (psf)		SPACING 2-0-0		CSI		DEFL				PLATES GRIP	
TCLL	20.0	Plates Increase	1.25	TC	0.61	Vert(LL)	-0.10	6-7	>999	240	MT20 244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.57	Vert(TL)	-0.17	6-7	>685	180	
BCLL	10.0	Rep Stress Incr	NO	WB	0.49	Horz(TL)	0.01	5	n/a	n/a	
BCDL	5.0	Code FBC2004/TP12002		(Matrix)							Weight: 45 lb

**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2  
WEBS 2 X 4 SYP No.3

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

**REACTIONS** (lb/size) 4=269/Mechanical, 2=535/0-5-11, 5=375/Mechanical  
Max Horiz 2=269(load case 2)  
Max Uplift 4=-231(load case 2), 2=-281(load case 2), 5=-62(load case 2)

**FORCES (lb) - Maximum Compression/Maximum Tension**  
**TOP CHORD** 1-2=0/50, 2-3=882/118, 3-4=105/66  
**BOT CHORD** 2-7=-306/817, 6-7=-306/817, 5-6=0/0  
**WEBS** 3-7=0/178, 3-6=-849/318

**JOINT STRESS INDEX**  
2 = 0.78, 3 = 0.23, 6 = 0.24 and 7 = 0.13

## NOTES

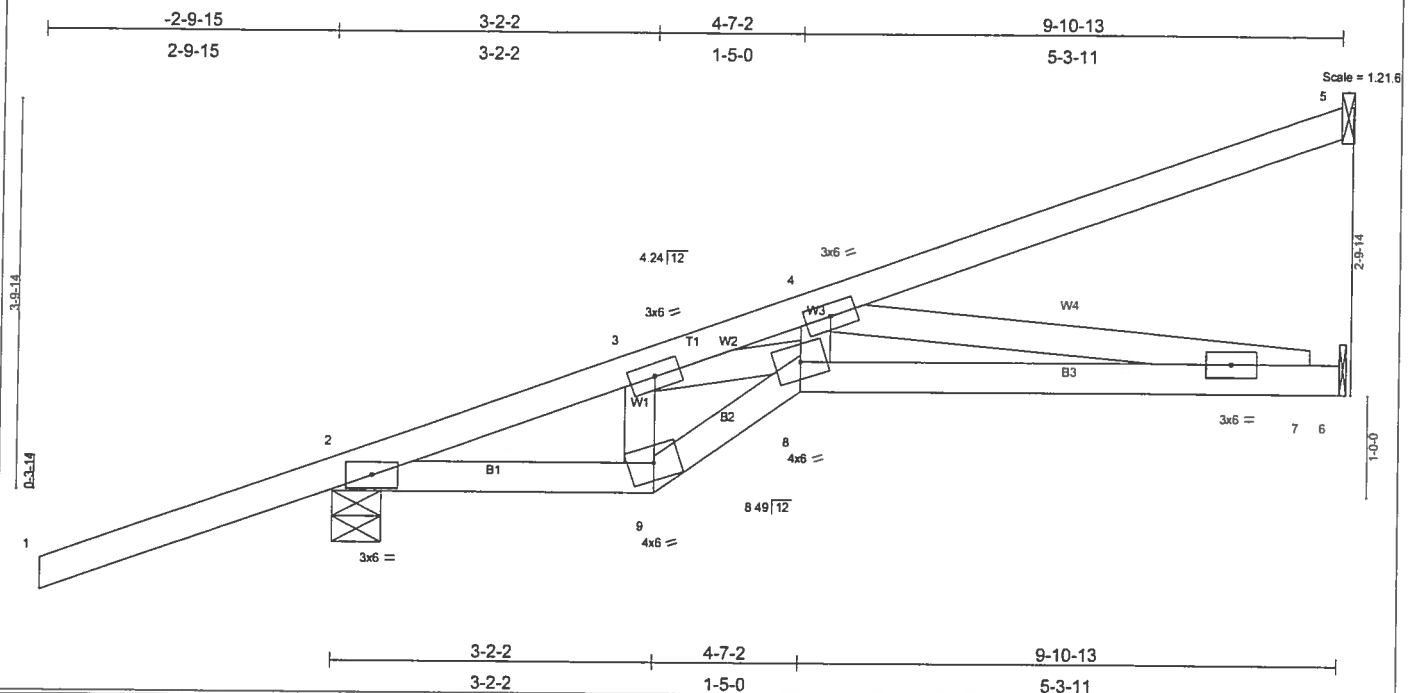
- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDF=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 4, 281 lb uplift at joint 2 and 62 lb uplift at joint 5.
- 5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

- 1) Regular: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=54  
Trapezoidal Loads (plf)  
Vert: 2=3(F=25, B=25)-to-4=134(F=40, B=40), 2=0(F=15, B=15)-to-5=74(F=22, B=22)

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B. LUTZ, FL 33549**

Job	Truss	Truss Type	Qty	Ply	CORNERSTONE LOT 10 MAGNOLIA HILLS
L209566	HJ9T	SPECIAL	1	1	Job Reference (optional)
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:35 2006 Page 1		

[illegible]

**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2  
WEBS 2 X 4 SYP No.3

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 4-3-0 oc purtins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-11-8 oc bracing: 7-8.

**REACTIONS** (lb/size) 5=256/Mechanical, 2=536/0-5-11, 6=388/Mechanical  
Max Horz 2=273(load case 2)  
Max Uplift 5=-226(load case 2), 2=-275(load case 2), 6=-87(load case 2)

**FORCES (lb) - Maximum Compression/Maximum Tension**  
**TOP CHORD** 1-2=0/50, 2-3=621/0, 3-4=1971/606, 4-5=102/63  
**BOT CHORD** 2-9=148/546, 8-9=147/647, 7-8=805/1774, 6-7=0/0  
**WEBS** 3-9=420/108, 3-8=700/1393, 4-8=0/518, 4-7=1791/813

**JOINT STRESS INDEX**  
2 = 0.77, 3 = 0.69, 4 = 0.54, 7 = 0.52, 8 = 0.86 and 9 = 0.30

## NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDF=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
- 2) Refer to girder(s) for truss to truss connections.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 226 lb uplift at joint 5, 275 lb uplift at joint 2 and 87 lb uplift at joint 6.
- 5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

- 1) Regular: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=54  
Trapezoidal Loads (plf)  
Vert: 2=3(F=25, B=25)-to-5=134(F=40, B=40), 2=-0(F=15, B=15)-to-9=23(F=4, B=4), 9=-23(F=4, B=4)-to-8=-34(F=2, B=2), 8=-34(F=2, B=2)-to-6=-74(F=22, B=22)

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549**



Job L209566	Truss T01	Truss Type HIP	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6/20/2005 Jul 13 2005 Mirtek Industries, Inc. Tue Sep 05 11:22:36 2006 Page 1

Builders FirstSource, Lake City, FL 32055

6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:36 2006 Page 1

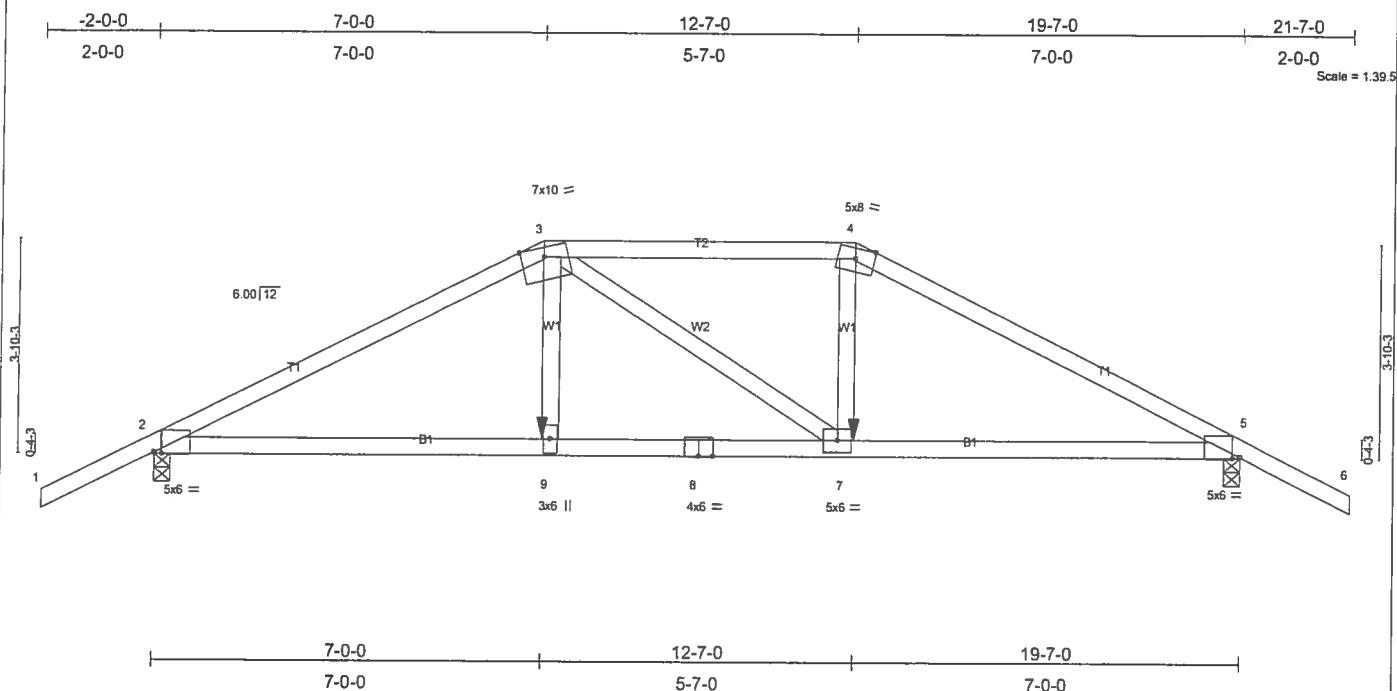


Plate Offsets (X,Y): [2.0-1-11,Edge], [5.0-1-11,Edge]											
<b>LOADING</b> (psf)		<b>SPACING</b> 2-0-0		<b>CSI</b>		<b>DEFL</b>				<b>PLATES</b>	
TCLL	20.0	Plates Increase	1.25	TC	0.50	in	(loc)	l/defl	L/d	GRIP	
TCDL	7.0	Lumber Increase	1.25	BC	0.70	Vert(LL)	-0.15	7-9	>999	244/190	
BCLL	10.0	Rep Stress Incr	NO	WB	0.29	Vert(TL)	-0.24	7-9	>979		
BCDL	5.0	Code FBC2004/TP12002		(Matrix)		Horz(TL)	0.08	5	n/a		
Weight: 86 lb											

**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2  
WEBS 2 X 4 SYP No.3

<b>BRACING</b>	
<b>TOP CHORD</b>	Structural wood sheathing directly applied or 3-3-6 oc purtins.
<b>BOT CHORD</b>	Rigid ceiling directly applied or 6-1-14 oc bracing.

**REACTIONS** (lb/size) 2=1736/0-3-8, 5=1736/0-3-8  
Max Horz 2=-87(load case 5)  
Max Uplift2=-792(load case 4), 5=-792(load case 5)

**FORCES (lb)** - Maximum Compression/Maximum Tension  
**TOP CHORD** 1-2=0/47, 2-3=3055/1240, 3-4=2684/1181, 4-5=3057/1240, 5-6=0/47  
**BOT CHORD** 2-9=1035/2648, 8-9=1044/2682, 7-8=1044/2682, 5-7=999/2650  
**WEBS** 3-9=224/835, 3-7=123/126, 4-7=246/889

**JOINT STRESS INDEX**  
2 = 0.77, 3 = 0.90, 4 = 0.76, 5 = 0.77, 7 = 0.31, 8 = 0.92 and 9 = 0.27

## NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDF=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 792 lb uplift at joint 2 and 792 lb uplift at joint 5.
- 6) Girder carries hip end with 7-0-0 end setback.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 539 lb down and 277 lb up at 12-7-0, and 539 lb down and 277 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

- 1) Regular: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-54, 3-4=118(F=64), 4-6=-54, 2-9=-30, 7-9=-65(F=35), 5-7=-30  
Concentrated Loads (lb)  
Vert: 9=-539(F) 7=-539(F)

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549**

Job L209566	Truss T02	Truss Type HIP	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:36 2006 Page 1

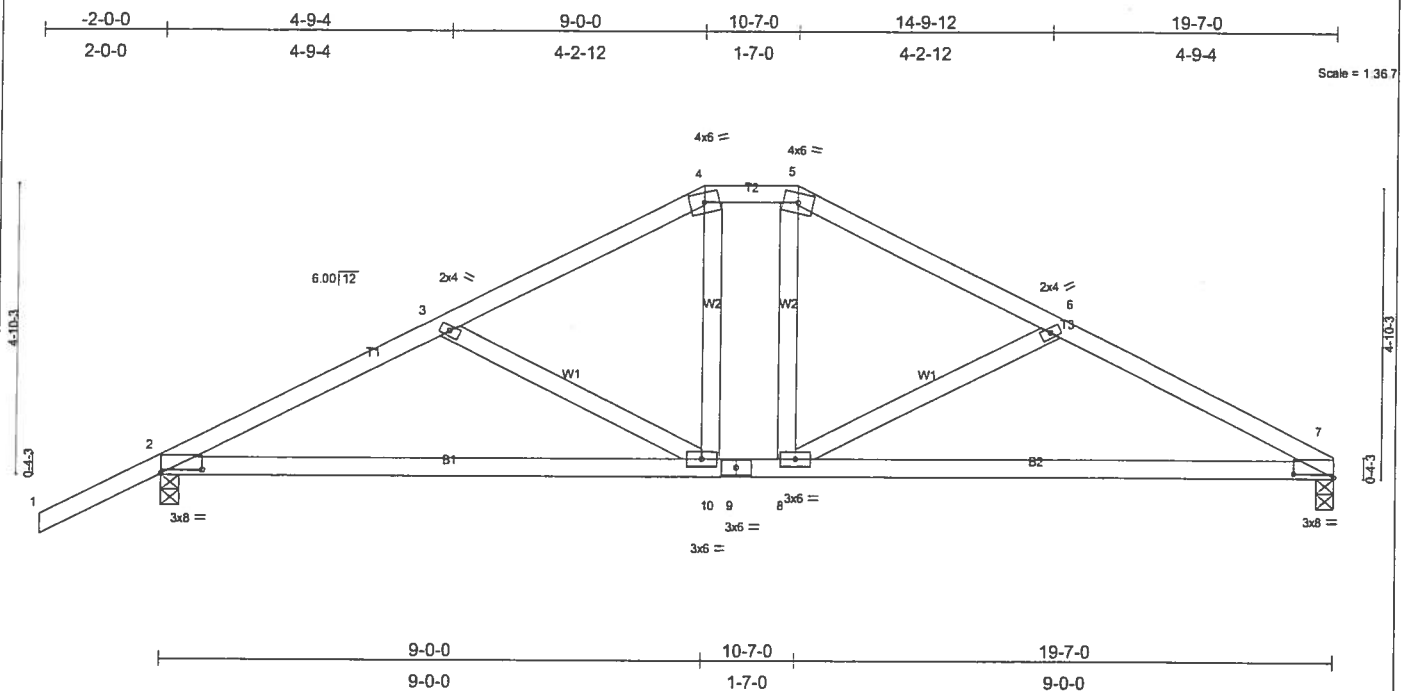


Plate Offsets (X,Y): [2:0-8-0,0-0-10], [7:0-8-0,0-0-10]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	V/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.30	Vert(LL)	-0.19	7-8	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.55	Vert(TL)	-0.31	7-8	>753	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.16	Horz(TL)	0.04	7	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 92 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2  
WEBS 2 X 4 SYP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 9-0-4 oc bracing.

**REACTIONS**

(lb/size) 7=804/0-3-8, 2=933/0-3-8  
Max Horz 2=126(load case 5)  
Max Uplift 7=256(load case 6), 2=388(load case 5)

**FORCES (lb) - Maximum Compression/Maximum Tension**

TOP CHORD 1-2=0/47, 2-3=-1309/571, 3-4=-1047/459, 4-5=-894/463, 5-6=-1051/465, 6-7=-1334/612  
BOT CHORD 2-10=-425/1131, 9-10=-232/894, 8-9=-232/894, 7-8=-478/1163  
WEBS 3-10=-305/220, 4-10=-50/278, 5-8=-115/317, 6-8=-339/282

**JOINT STRESS INDEX**

2 = 0.78, 3 = 0.34, 4 = 0.44, 5 = 0.44, 6 = 0.34, 7 = 0.75, 8 = 0.35, 9 = 0.73 and 10 = 0.35

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCCL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Provide adequate drainage to prevent water ponding.
- All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 256 lb uplift at joint 7 and 388 lb uplift at joint 2.

LOAD CASE(S) Standard

Job L209566	Truss T03	Truss Type COMMON	Qty 6	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					Job Reference (optional)

6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:37 2006 Page 1

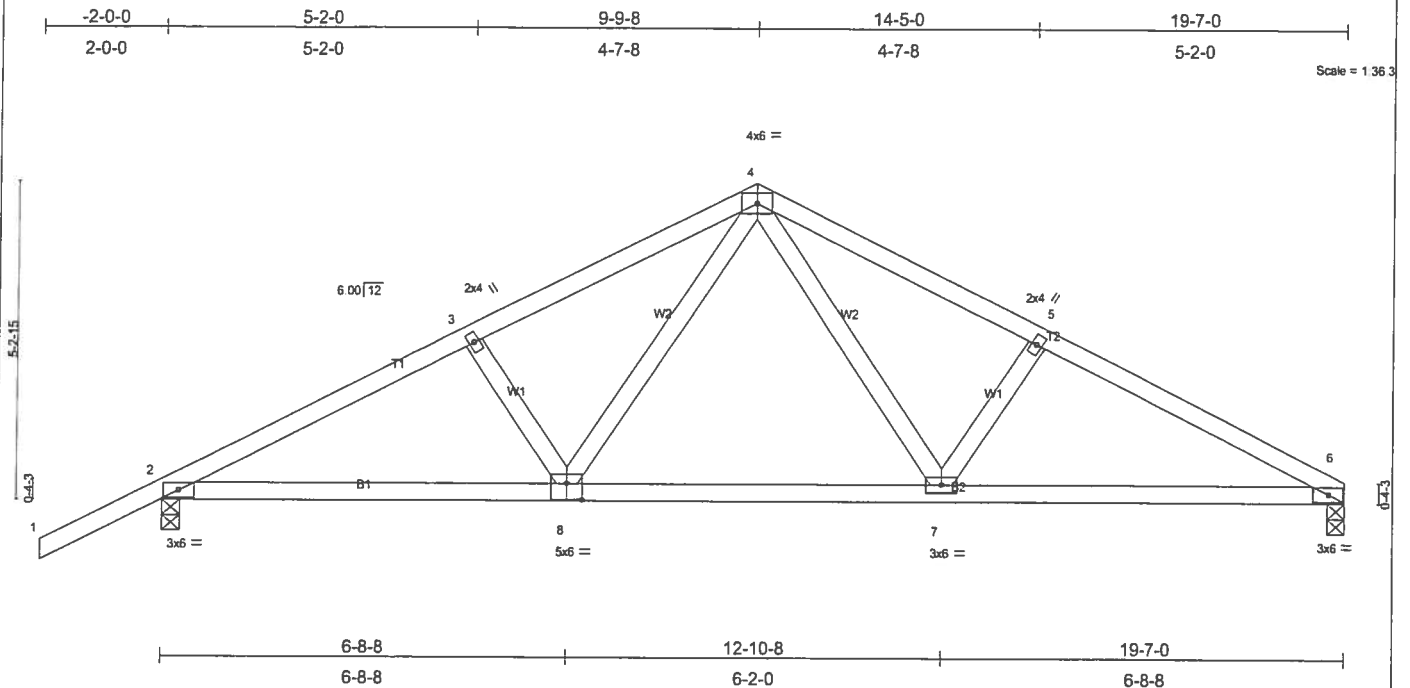


Plate Offsets (X,Y): [8-0-3-0,0-3-4]

<b>LOADING (psf)</b>	<b>SPACING</b>	<b>CSI</b>	<b>DEFL</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.34	in (loc) V/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.71	Vert(LL) -0.15 7-8 >999 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.22	Vert(TL) -0.23 7-8 >992 180		
BCDL 5.0	Rep Stress Incr NO	(Matrix)	Horz(TL) 0.04 6 n/a n/a		
	Code FBC2004/TP12002			Weight: 90 lb	

**LUMBER**  
 TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2  
 WEBS 2 X 4 SYP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 4-7-10 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 8-0-2 oc bracing.

**REACTIONS** (lb/size) 6=958/0-3-8, 2=1087/0-3-8  
 Max Horz 2=131(load case 5)  
 Max Uplift 6=319(load case 6), 2=450(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/47, 2-3=1709/711, 3-4=1567/710, 4-5=1592/751, 5-6=1722/754  
 BOT CHORD 2-8=546/1460, 7-8=318/1017, 6-7=596/1489  
 WEBS 3-8=217/202, 4-8=227/649, 4-7=291/685, 5-7=235/231

**JOINT STRESS INDEX**  
 2 = 0.76, 3 = 0.34, 4 = 0.55, 5 = 0.34, 6 = 0.76, 7 = 0.52 and 8 = 0.76

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 319 lb uplift at joint 6 and 450 lb uplift at joint 2.
- 5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Regular: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-4=54, 4-6=54, 2-8=30, 7-8=80(F=50), 6-7=30

Job L209566	Truss T04	Truss Type SPECIAL	Qty 1	Ply 2	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:38 2006 Page 1

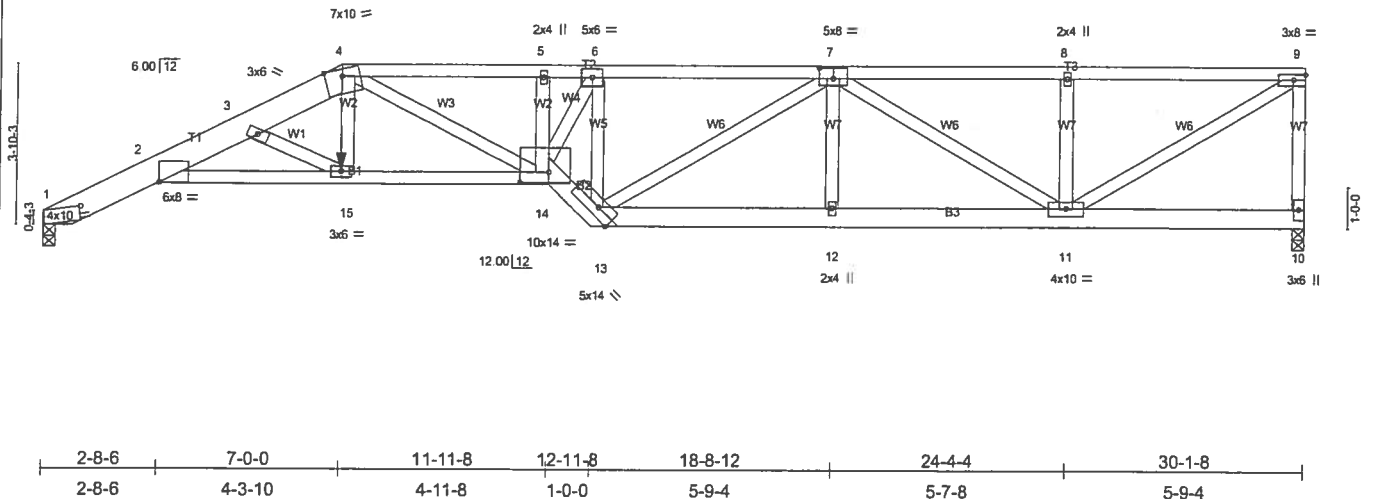
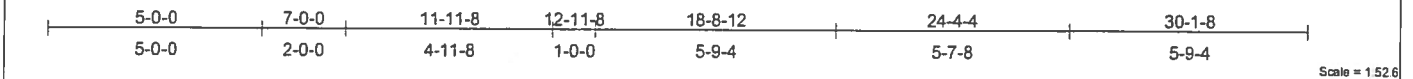


Plate Offsets (X,Y): [2:Edge 0-0-2], [7:0-4-0-0-3-0], [13:0-5-4,Edge], [14:0-7-15,0-2-14], [14:11-1-5,0-6-2]

LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.92	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.91	Vert(LL) -0.39 14-15 >910 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.68	Vert(TL) -0.63 14-15 >567 180		
BCDL 5.0	Rep Stress Incr NO	(Matrix)	Horz(TL) 0.27 10 n/a n/a		
	Code FBC2004/TPI2002			Weight: 369 lb	

#### LUMBER

TOP CHORD 2 X 4 SYP No.2 \*Except\*  
T1 2 X 8 SYP 2400F 2.0E  
BOT CHORD 2 X 6 SYP No.1D \*Except\*  
B1 2 X 4 SYP No.1D  
WEBS 2 X 4 SYP No.3

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-10 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 8-6-6 oc bracing.

**REACTIONS** (lb/size) 1=2458/0-3-8, 10=2759/0-3-8  
Max Horz 1=129(load case 4)  
Max Uplift 1=830(load case 3), 10=-1034(load case 3)

#### FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-939/286, 2-3=-803/2842, 3-4=-7009/2525, 4-5=-7749/2859, 5-6=-7742/2861, 6-7=-5792/2152, 7-8=-3733/1395, 8-9=-3733/1395, 9-10=-2547/993  
BOT CHORD 2-15=-2828/7953, 14-15=-2302/6405, 13-14=-2693/326, 12-13=-2131/5708, 11-12=-2130/5703, 10-11=-57/132  
WEBS 4-15=-623/1881, 4-14=-625/1501, 5-14=-41/176, 6-14=-1463/4039, 6-13=-4185/1593, 7-13=-111/106, 7-12=-83/476, 7-11=-2314/863, 8-11=-663/353, 9-11=-1573/4232, 3-15=-1851/708

#### JOINT STRESS INDEX

2 = 0.77, 3 = 0.35, 4 = 0.69, 5 = 0.34, 6 = 0.86, 7 = 0.45, 8 = 0.34, 9 = 0.75, 10 = 0.35, 11 = 0.99, 12 = 0.34, 13 = 0.77, 14 = 0.89, 14 = 0.00 and 15 = 0.66

#### NOTES

- 2-ply truss to be connected together with 0.131"x3" Nails as follows:  
Top chords connected as follows: 2 X 8 - 2 rows at 0-9-0 oc, 2 X 4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc, 2 X 6 - 2 rows at 0-9-0 oc.  
Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
- Provide adequate drainage to prevent water ponding.
- All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 830 lb uplift at joint 1 and 1034 lb uplift at joint 10.
- Girder carries tie-in span(s); 3-7-3 from 7-0-0 to 12-11-8; 5-4-1 from 7-0-0 to 12-11-8
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 539 lb down and 204 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert 1-2=-65, 2-4=-54, 4-6=-81(F=-27), 6-9=-118(F=-64), 2-15=-30, 14-15=-94(F=-64), 13-14=-94(F=-64), 10-13=-65(F=-35)

Concentrated Loads (lb)

Vert: 15=-539(F)

SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549

Job L209566	Truss T05	Truss Type SPECIAL	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			Job Reference (optional)		

6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:39 2006 Page 1

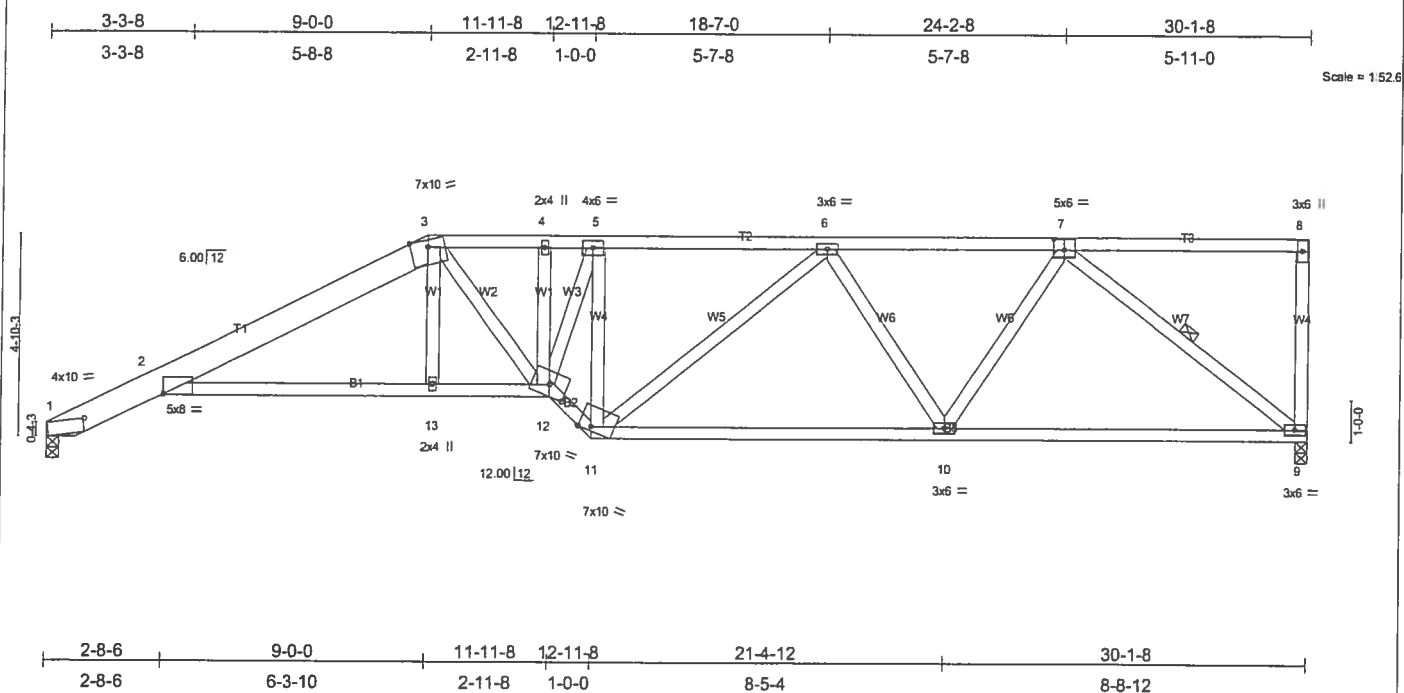


Plate Offsets (X,Y): [2:1-10-10-0-4-5], [2:0-0-0-0-0-2], [7:0-3-0-0-3-0], [11:0-3-11-Edge], [12:0-5-0-0-3-4]

<b>LOADING (psf)</b>	<b>SPACING</b>	<b>CSI</b>	<b>DEFL</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.76	in (loc) l/def L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.85	Vert(LL) -0.44 2-13 >817 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.54	Vert(TL) -0.71 2-13 >504 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.33 9 n/a n/a		
	Code FBC2004/TP12002				
					Weight: 174 lb

**LUMBER**

TOP CHORD 2 X 4 SYP No.2 \*Except\*  
T1 2 X 8 SYP 2400F 2.0E  
BOT CHORD 2 X 4 SYP No.2  
WEBS 2 X 4 SYP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-2-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 5-7-9 oc bracing.  
WEBS 1 Row at midpt 7-9

**REACTIONS**

(lb/size) 1=1206/0-3-8, 9=1251/0-3-8  
Max Horz 1=212(load case 5)  
Max Uplift 1=352(load case 5), 9=460(load case 4)

**FORCES (lb) - Maximum Compression/Maximum Tension**

TOP CHORD 1-2=-458/39, 2-3=-2580/1043, 3-4=-2427/1065, 4-5=-2417/1063, 5-6=-2083/895, 6-7=-1702/678, 7-8=-57/11, 8-9=-152/102  
BOT CHORD 2-13=-1089/2390, 12-13=-1091/2404, 11-12=-1119/2500, 10-11=-839/1954, 9-10=-557/1293  
WEBS 3-13=-44/330, 3-12=-136/88, 4-12=-160/311, 5-12=-563/1112, 5-11=-1400/768, 6-11=-72/166, 6-10=-479/307, 7-10=-231/778, 7-9=-1574/695

**JOINT STRESS INDEX**

2 = 0.60, 2 = 0.00, 3 = 0.40, 4 = 0.34, 5 = 0.74, 6 = 0.43, 7 = 0.49, 8 = 0.35, 9 = 0.69, 10 = 0.60, 11 = 0.72, 12 = 0.50 and 13 = 0.34

**NOTES**

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Provide adequate drainage to prevent water ponding.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TP1 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 352 lb uplift at joint 1 and 460 lb uplift at joint 9.

**LOAD CASE(S)** Standard

Job L209566	Truss T06	Truss Type SPECIAL	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					
6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:40 2006 Page 1					

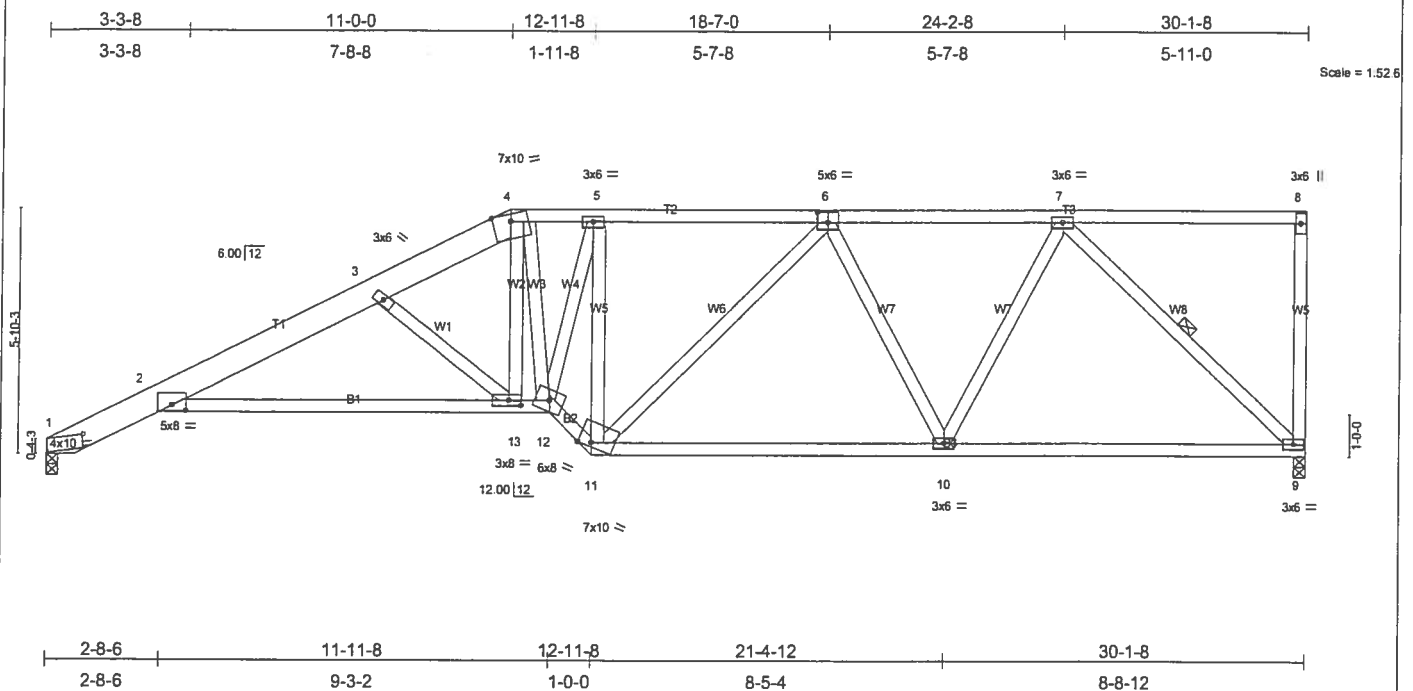


Plate Offsets (X,Y): [2:0-4-0,0-1-10], [6:0-3-0,0-3-0], [11:0-3-11,Edge], [13:0-3-8,0-1-8], [13:10-1-13,0-4-12]

LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.76	In (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.87	Vert(LL) -0.45 2-13 >802 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.63	Vert(TL) -0.73 2-13 >490 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.30 9 n/a n/a		
	Code FBC2004/TP12002				Weight: 190 lb

#### LUMBER

TOP CHORD 2 X 4 SYP No.2 \*Except\*  
T1 2 X 8 SYP 2400F 2.0E  
BOT CHORD 2 X 4 SYP No.2  
WEBS 2 X 4 SYP No.3

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 5-1-9 oc bracing.  
WEBS 1 Row at midpt 7-9

#### REACTIONS

(lb/size) 1=1206/0-3-8, 9=1251/0-3-8  
Max Horz 1=259(load case 5)  
Max Uplift 1=363(load case 5), 9=462(load case 6)

#### FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-458/12, 2-3=-2869/1240, 3-4=-2318/1000, 4-5=-1918/889, 5-6=-1704/767, 6-7=-1397/574, 7-8=-44/8, 8-9=-149/100  
BOT CHORD 2-13=-1378/2754, 12-13=-880/1940, 11-12=-971/2056, 10-11=-712/1603, 9-10=-469/1061  
WEBS 5-11=-1143/691, 6-11=-86/143, 6-10=-454/305, 7-10=-232/743, 7-9=-1413/639, 4-12=-172/0, 5-12=-519/900, 4-13=-458/1324, 3-13=-1097/658

#### JOINT STRESS INDEX

2 = 0.67, 3 = 0.27, 4 = 0.55, 5 = 0.89, 6 = 0.37, 7 = 0.61, 8 = 0.32, 9 = 0.65, 10 = 0.61, 11 = 0.63, 12 = 0.54, 13 = 0.86 and 13 = 0.00

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Provide adequate drainage to prevent water ponding.
- All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TP1 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 363 lb uplift at joint 1 and 462 lb uplift at joint 9.

LOAD CASE(S) Standard

Job L209566	Truss T07	Truss Type SPECIAL	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:40 2006 Page 1		

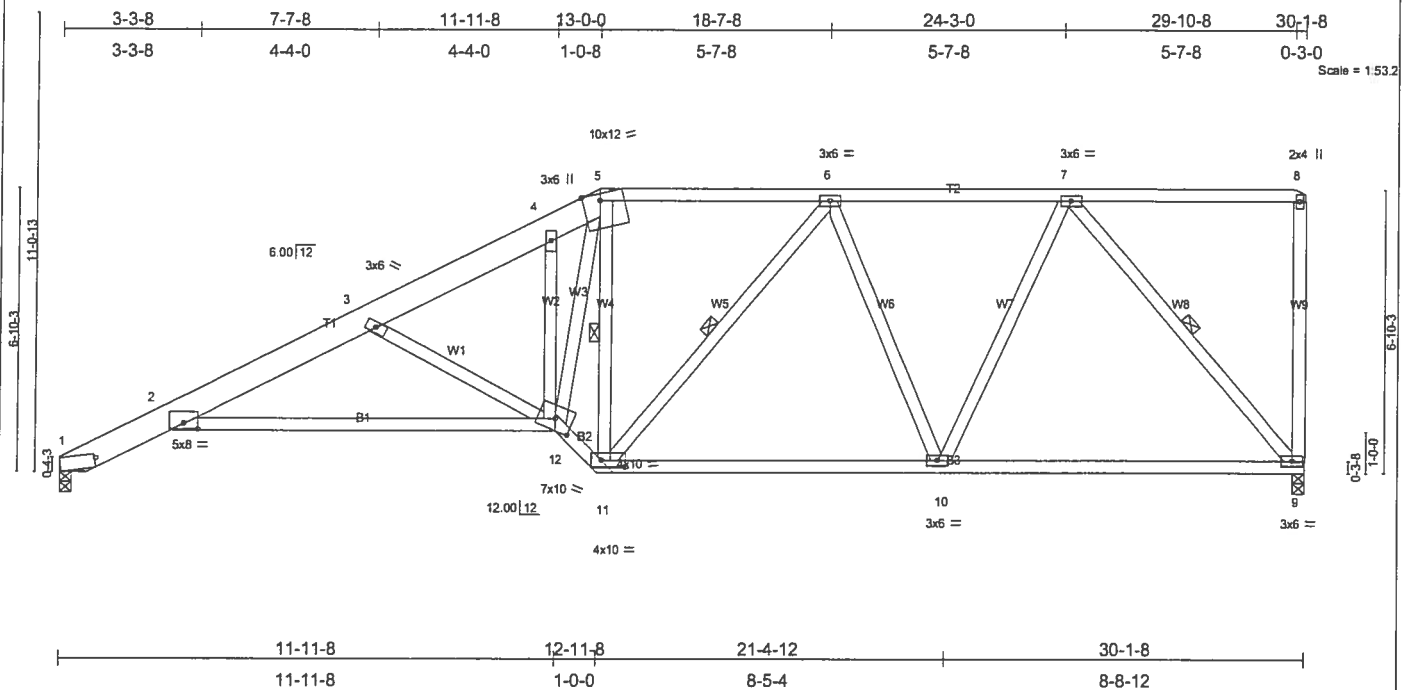


Plate Offsets (X,Y): [2:0-4-0,0-1-10], [5:0-5-3,Edge], [11:12-1-5,1-6-3], [11:0-7-1,0-2-0], [12:0-5-0,0-3-4]

LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.79	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.75	Vert(LL) -0.50 2-12 >715 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.59	Vert(TL) -0.82 2-12 >435 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.31 9 n/a n/a		
	Code FBC2004/TPI2002			Weight: 197 lb	

**LUMBER**  
 TOP CHORD 2 X 8 SYP 2400F 2.0E \*Except\*  
 T2 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2  
 WEBS 2 X 4 SYP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 3-11-11 oc purtins.  
 BOT CHORD Rigid ceiling directly applied or 4-11-6 oc bracing.  
 WEBS 1 Row at midpt 6-11, 7-9, 5-11

**REACTIONS** (lb/size) 1=1206/0-3-8, 9=1251/0-3-8  
 Max Horz 1=305(load case 5)  
 Max Uplift 1=370(load case 5), 9=458(load case 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-458/0, 2-3=-2943/1290, 3-4=-2144/901, 4-5=-1853/854, 5-6=-1416/674, 6-7=-1196/506, 7-8=0/0  
 BOT CHORD 2-12=-1494/2855, 11-12=-930/2019, 10-11=-620/1351, 9-10=-406/887  
 WEBS 3-12=-1237/737, 4-12=-87/347, 6-11=-104/105, 6-10=-402/298, 7-10=-242/746, 7-9=-1356/621, 5-11=-1365/719, 5-12=-885/1842, 8-9=-121/87

**JOINT STRESS INDEX**  
 2 = 0.70, 3 = 0.41, 4 = 0.18, 5 = 0.45, 6 = 0.48, 7 = 0.55, 8 = 0.34, 9 = 0.46, 10 = 0.55, 11 = 0.54, 12 = 0.00 and 12 = 0.59

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Provide adequate drainage to prevent water ponding.
- All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 370 lb uplift at joint 1 and 458 lb uplift at joint 9.

**LOAD CASE(S)** Standard

Job L209566	Truss T08	Truss Type SPECIAL	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:41 2006 Page 1		

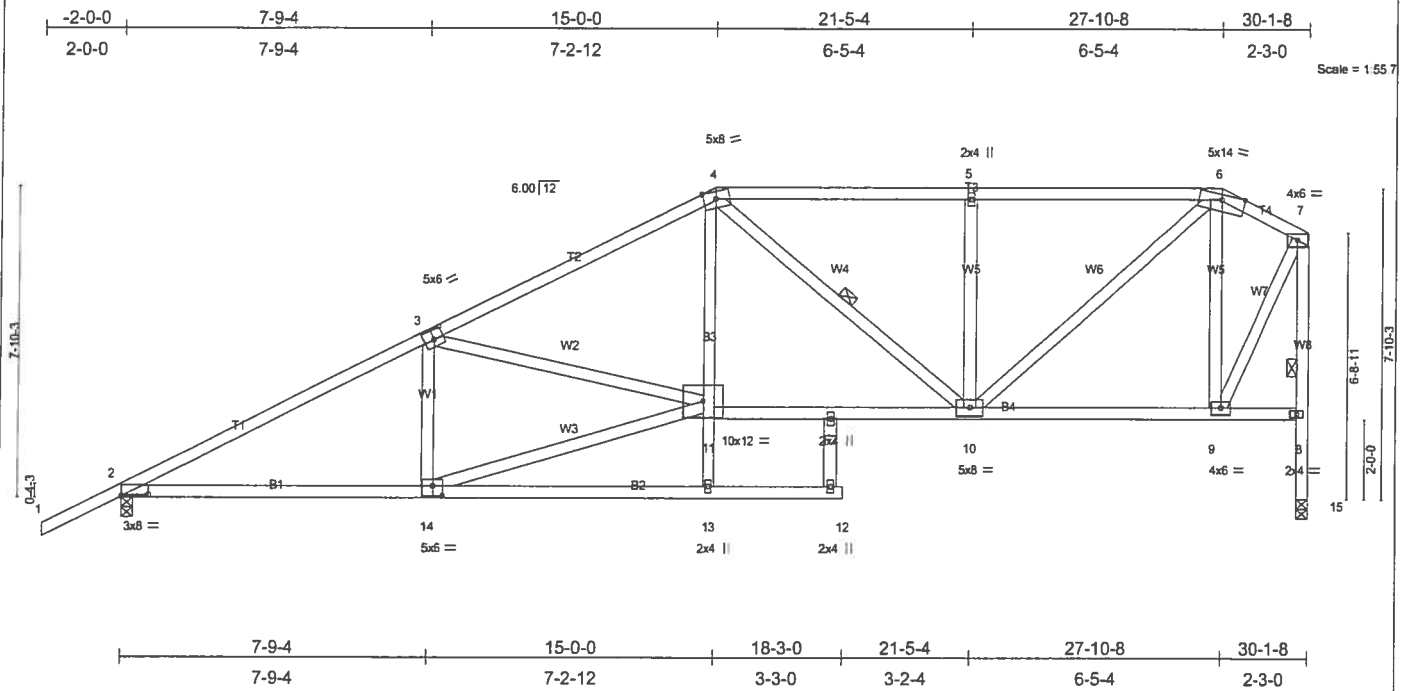


Plate Offsets (X,Y): [2:0-8-0,0-0-6], [3:0-3-0,0-3-0], [14:0-3-0,0-3-0]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.46	Vert(LL)	-0.27	12	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.82	Vert(TL)	-0.44	12	>817	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.91	Horz(TL)	0.13	15	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 197 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2 "Except"  
 B3 2 X 4 SYP No.3  
 WEBS 2 X 4 SYP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-7-2 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 4-10, 7-15  
 JOINTS 1 Brace at Jt(s): 11

**REACTIONS**

(lb/size) 2=1419/0-3-8, 15=1305/0-3-8  
 Max Horz 2=376(load case 5)  
 Max Uplift 2=501(load case 5), 15=352(load case 4)

**FORCES (lb) - Maximum Compression/Maximum Tension**

TOP CHORD 1-2=0/47, 2-3=-2316/791, 3-4=-2271/874, 4-5=-1510/655, 5-6=-1510/655, 6-7=-580/245, 8-15=-1305/529, 7-8=-1292/523  
 BOT CHORD 2-14=-920/1983, 13-14=-24/0, 12-13=0/0, 11-13=0/208, 4-11=-272/982, 10-11=-789/1934, 9-10=-196/500, 8-9=-3/6  
 WEBS 3-14=-378/323, 11-14=-945/2098, 3-11=-83/152, 4-10=-559/247, 5-10=-365/257, 6-10=-535/1339, 6-9=-892/446, 7-9=-456/1154

**JOINT STRESS INDEX**

2 = 0.74, 3 = 0.84, 4 = 0.50, 5 = 0.34, 6 = 0.66, 7 = 0.59, 8 = 0.34, 9 = 0.69, 10 = 0.63, 11 = 0.62, 13 = 0.43, 14 = 0.81, 16 = 0.34 and 17 = 0.34

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Provide adequate drainage to prevent water ponding.
- All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 501 lb uplift at joint 2 and 352 lb uplift at joint 15.

LOAD CASE(S) Standard



Job L209566	Truss T09	Truss Type SPECIAL	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:42 2006 Page 1		

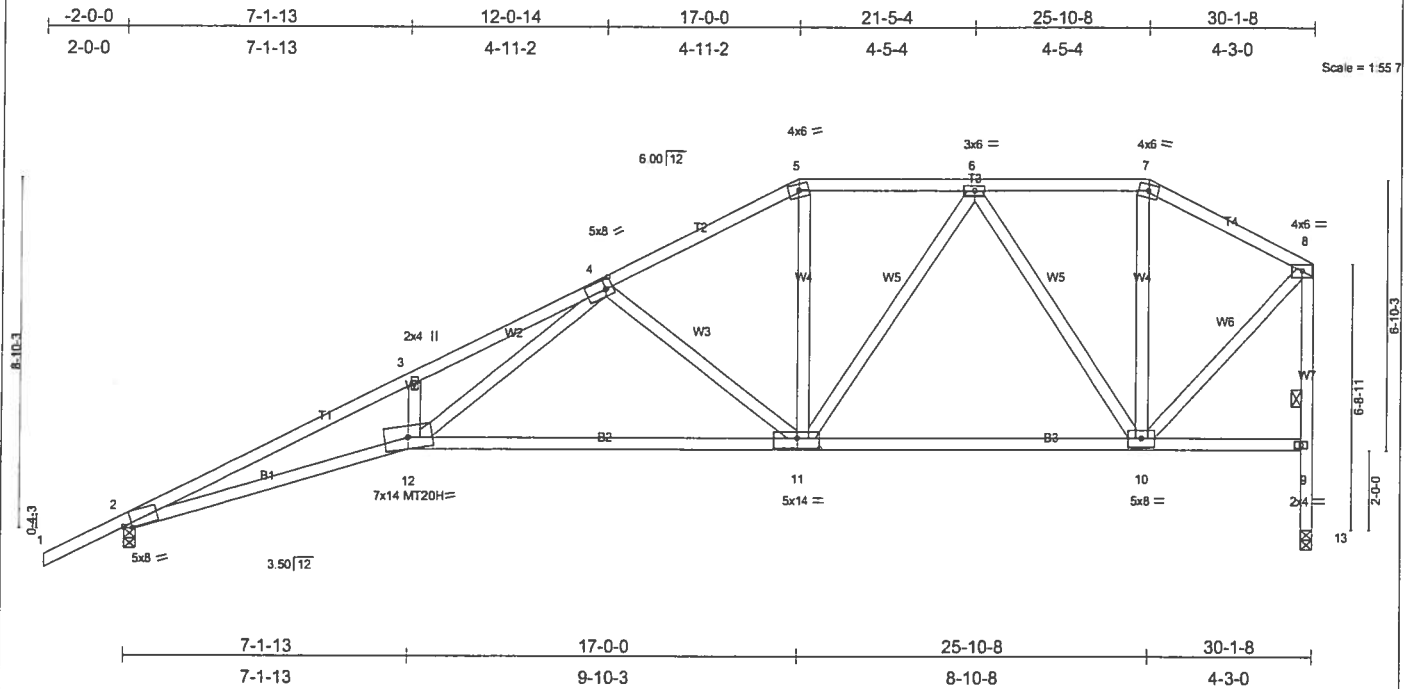


Plate Offsets (X,Y): [2:0-2-8,Edge], [4:0-2-0,0-3-0], [11:0-7-0,0-3-0], [12:0-0-0,0-1-1]

LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.87	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.77	Vert(LL) -0.57 11-12 >628 240	MT20H	187/143
BCLL 10.0	Lumber Increase 1.25	WB 0.90	Vert(TL) -0.93 11-12 >384 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.38 13 n/a n/a		
	Code FBC2004/TPI2002			Weight: 177 lb	

#### LUMBER

TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2 \*Except\*  
 B1 2 X 4 SYP No.1D  
 WEBS 2 X 4 SYP No.3

#### BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 4-6-0 oc bracing.  
 WEBS 1 Row at midpt 8-13

#### REACTIONS

(lb/size) 2=1373/0-3-8, 13=1249/0-3-8  
 Max Horz 2=389(load case 5)  
 Max Uplift 2=519(load case 5), 13=366(load case 5)

#### FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/46, 2-3=-4854/2088, 3-4=-4793/2260, 4-5=-1685/769, 5-6=-1451/742, 6-7=-724/401, 7-8=-852/393, 9-13=-1249/551, 8-9=-1207/551  
 BOT CHORD 2-12=-2159/4432, 11-12=-1095/2183, 10-11=-514/1157, 9-10=-13/15  
 WEBS 3-12=-222/290, 4-12=-1300/2674, 4-11=-942/589, 5-11=-138/468, 6-11=-220/535, 6-10=-815/398, 7-10=-4/181, 8-10=-412/1028

#### JOINT STRESS INDEX

2 = 0.96, 3 = 0.34, 4 = 0.71, 5 = 0.54, 6 = 0.43, 7 = 0.44, 8 = 0.86, 9 = 0.34, 10 = 0.49, 11 = 0.57 and 12 = 0.72

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- Bearing at joint(s) 2, 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 519 lb uplift at joint 2 and 366 lb uplift at joint 13.

LOAD CASE(S) Standard

Job L209566	Truss T10	Truss Type SPECIAL	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:43 2006 Page 1

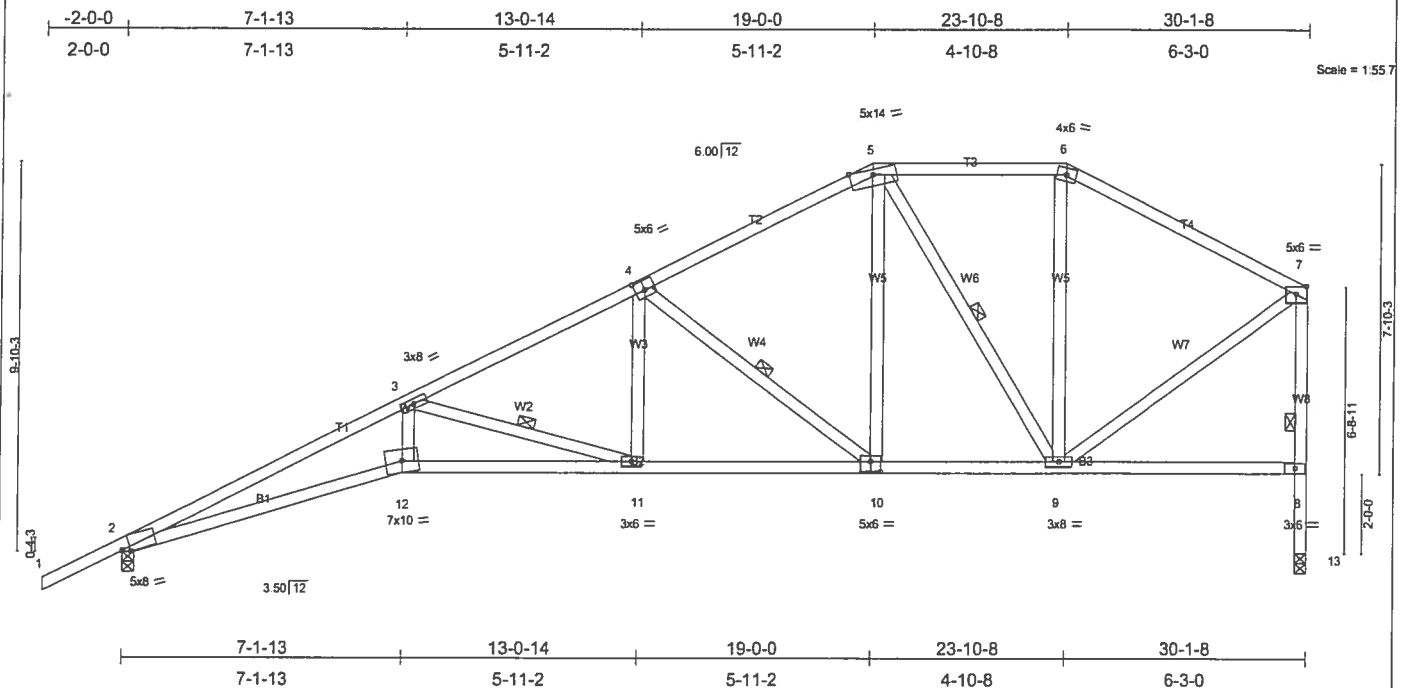


Plate Offsets (X,Y): [2:0-2-8,Edge], [4:0-3-0-0-3-0], [10:0-3-0-0-3-0], [12:0-0-0-0-0-1]

<b>LOADING</b> (psf)	<b>SPACING</b>	<b>CSI</b>	<b>DEFL</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.83	Vert(LL) -0.42 11-12 >843 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.47	Vert(TL) -0.68 11-12 >526 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.41 13 n/a n/a		
	Code FBC2004/TPI2002			Weight: 180 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2 "Except"  
B1 2 X 4 SYP No.1D  
WEBS 2 X 4 SYP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 4-3-13 oc bracing.  
WEBS 1 Row at midpt 3-11, 4-10, 5-9, 7-13

**REACTIONS**

(lb/size) 2=1373/0-3-8, 13=1249/0-3-8  
Max Horz 2=403(load case 5)  
Max Uplift 2=526(load case 5), 13=387(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/46, 2-3=4814/2134, 3-4=2355/1050, 4-5=1366/670, 5-6=845/508, 6-7=1014/491, 8-13=1249/561, 7-8=1152/573  
BOT CHORD 2-12=2204/4389, 11-12=2064/4069, 10-11=993/2032, 9-10=511/1171, 8-9=29/48  
WEBS 3-12=563/1409, 3-11=2108/1111, 4-11=287/791, 4-10=1107/618, 5-10=346/824, 5-9=668/298, 6-9=26/214, 7-9=398/977

**JOINT STRESS INDEX**

2 = 0.96, 3 = 0.83, 4 = 0.58, 5 = 0.68, 6 = 0.72, 7 = 0.71, 8 = 0.35, 9 = 0.94, 10 = 0.50, 11 = 0.59 and 12 = 0.94

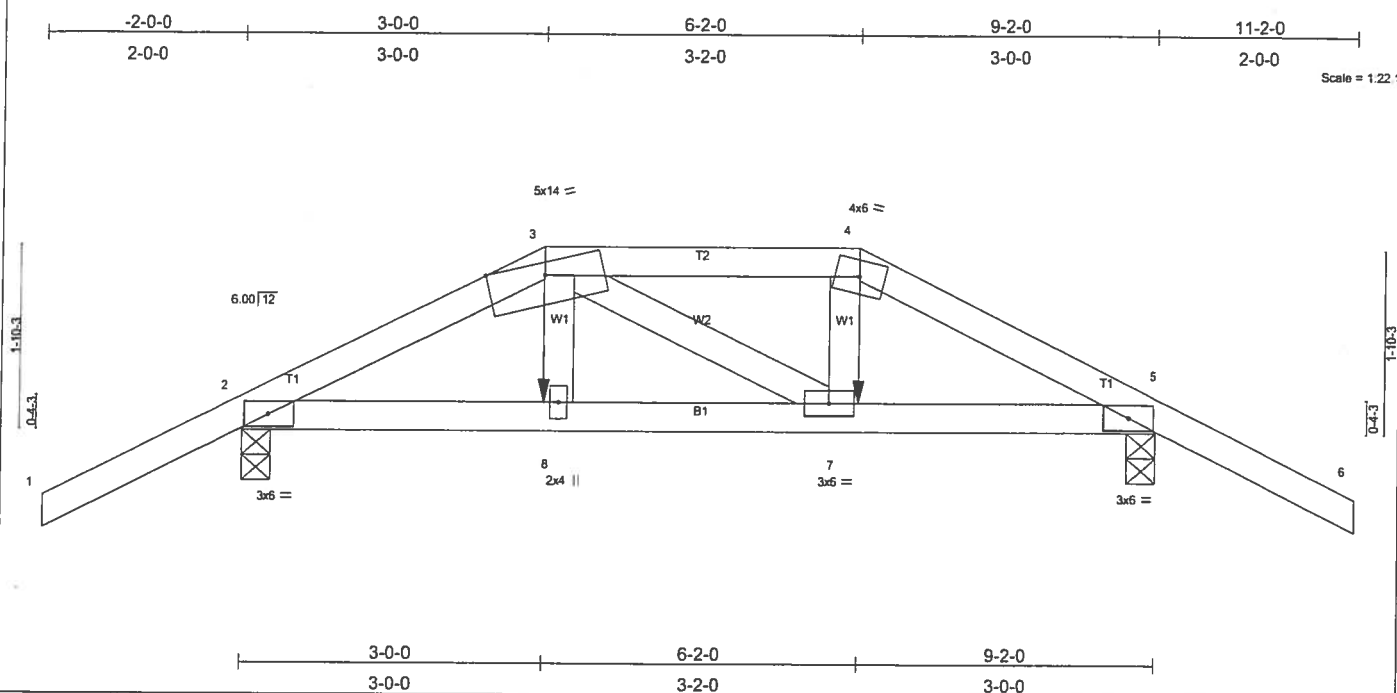
**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Provide adequate drainage to prevent water ponding.
- All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- Bearing at joint(s) 2, 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 526 lb uplift at joint 2 and 387 lb uplift at joint 13.

**LOAD CASE(S)** Standard

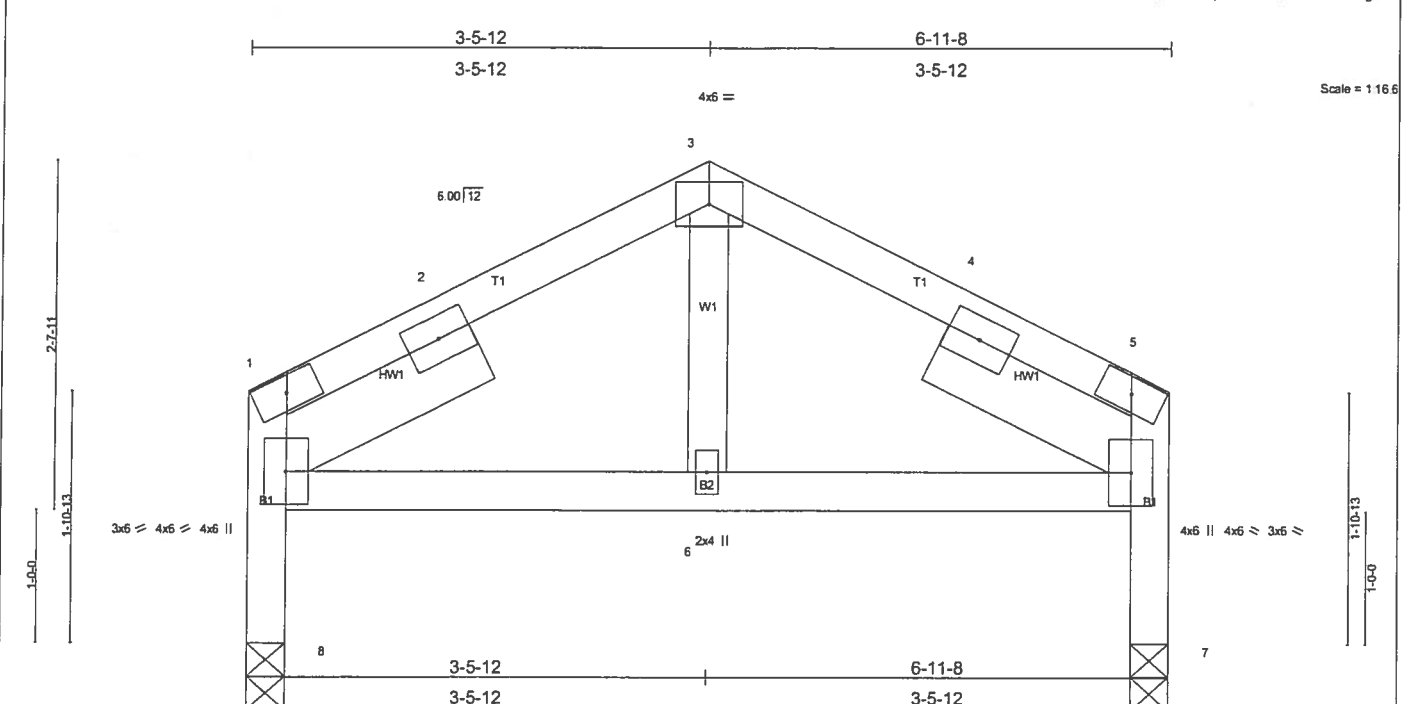
Job	Truss	Truss Type	Qty	Ply	CORNERSTONE LOT 10 MAGNOLIA HILLS
L209566	T11	HIP	1	1	Job Reference (optional)

6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:44 2006 Page 1

[illegible]

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B. LUTZ, FL 33549**

Job L209566	Truss T12	Truss Type SPECIAL	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:44 2006 Page 1		



<b>LOADING (psf)</b> TCLL 20.0 TCDL 7.0 BCLL 10.0 BCDL 5.0	<b>SPACING</b> 2-0-0 Plates Increase 1.25 Lumber Increase 1.25 Rep Stress Incr YES Code FBC2004/TPI2002	<b>CSI</b> TC 0.10 BC 0.08 WB 0.02 (Matrix)	<b>DEFL</b> In (loc) I/defl L/d Vert(LL) -0.00 1-6 >999 240 Vert(TL) -0.01 1-6 >999 180 Horz(TL) -0.02 7 n/a n/a	<b>PLATES</b> MT20 <b>GRIP</b> 244/190  Weight: 38 lb
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**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2  
WEBS 2 X 4 SYP No.3  
SLIDER Left 2 X 6 SYP No.1D 1-8-12, Right 2 X 6 SYP No.1D 1-8-12

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

**REACTIONS** (lb/size) 7=280/0-3-8, 8=280/0-3-8  
Max Horz 8=28(lb/size 4)  
Max Uplift 7=84(lb/size 6), 8=84(lb/size 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=301/189, 2-3=261/198, 3-4=261/198, 4-5=301/189  
BOT CHORD 1-6=100/240, 5-6=100/240, 1-8=280/170, 5-7=280/170  
WEBS 3-6=0/66

**JOINT STRESS INDEX**  
1 = 0.24, 1 = 0.11, 1 = 0.13, 2 = 0.00, 3 = 0.29, 4 = 0.00, 5 = 0.24, 5 = 0.11, 5 = 0.13 and 6 = 0.08

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Bearing at joint(s) 7, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 7 and 84 lb uplift at joint 8.

**LOAD CASE(S)** Standard

Job L209566	Truss T13	Truss Type HIP	Qty 1	Ply 2	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:45 2006 Page 1

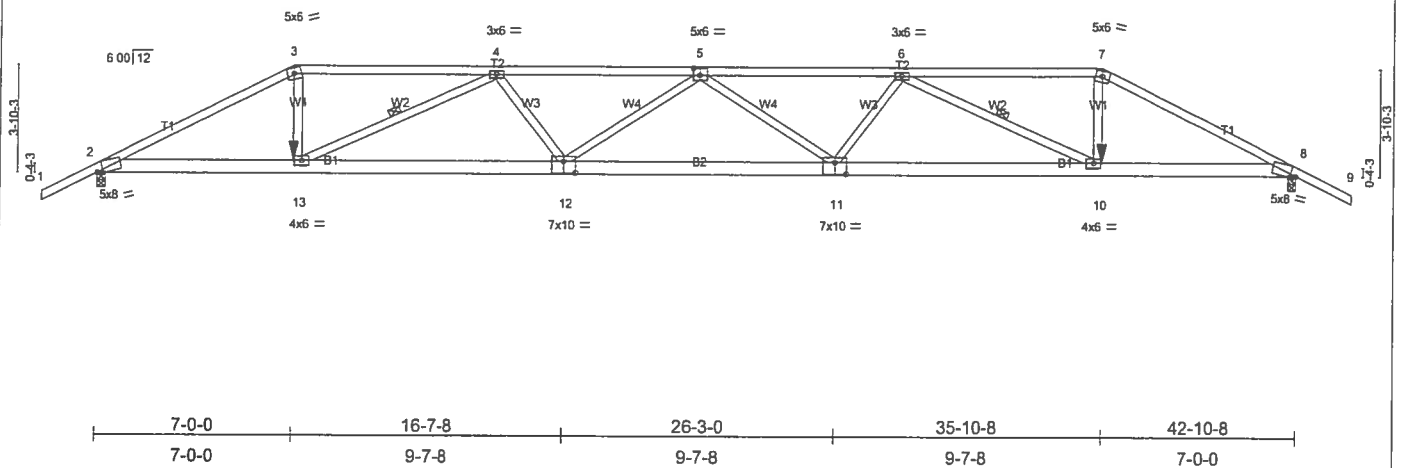


Plate Offsets (X,Y): [2:0-2-7,Edge], [5:0-3-0-0-3-0], [8:0-2-7,Edge], [11:0-5-0-0-4-12], [12:0-5-0-0-4-12]					
<b>LOADING (psf)</b>	<b>SPACING</b>	<b>CSI</b>	<b>DEFL</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plates Increase 1.25	TC 0.76	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.74	Vert(LL) -0.64 11-12 >803 240		
BCLL 10.0	Rep Stress Incr NO	WB 0.57	Vert(TL) -1.02 11-12 >500 180		
BCDL 5.0	Code FBC2004/TP12002	(Matrix)	Horz(TL) 0.20 8 n/a n/a		
Weight: 468 lb					

<b>LUMBER</b>	<b>BRACING</b>
TOP CHORD 2 X 4 SYP No.2 "Except"	TOP CHORD Structural wood sheathing directly applied or 3-7-0 oc purlins.
T2 2 X 4 SYP No.1D, T2 2 X 4 SYP No.1D	BOT CHORD Rigid ceiling directly applied or 7-9-10 oc bracing.
BOT CHORD 2 X 6 SYP No.1D	WEBS 1 Row at midpt 4-13, 6-10
WEBS 2 X 4 SYP No.3	

**REACTIONS** (lb/size) 2=3866/0-3-8, 8=3866/0-3-8  
 Max Horz 2=-89(load case 5)  
 Max Uplift 2=-1600(load case 4), 8=-1600(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/51, 2-3=-7874/3368, 3-4=-7089/3103, 4-5=-11743/5107, 5-6=-11743/5107, 6-7=-7089/3103, 7-8=-7874/3368, 8-9=0/51  
 BOT CHORD 2-13=-2975/6967, 12-13=-4889/11009, 11-12=-5478/12324, 10-11=-4850/11009, 8-10=-2936/6967  
 WEBS 3-13=-1108/2914, 4-13=-4450/2152, 4-12=-266/1309, 5-12=-743/591, 5-11=-743/591, 6-11=-266/1309, 6-10=-4450/2152, 7-10=-1108/2914

**JOINT STRESS INDEX**  
 2 = 0.75, 3 = 0.75, 4 = 0.69, 5 = 0.81, 6 = 0.69, 7 = 0.75, 8 = 0.75, 10 = 0.67, 11 = 0.97, 12 = 0.97 and 13 = 0.67

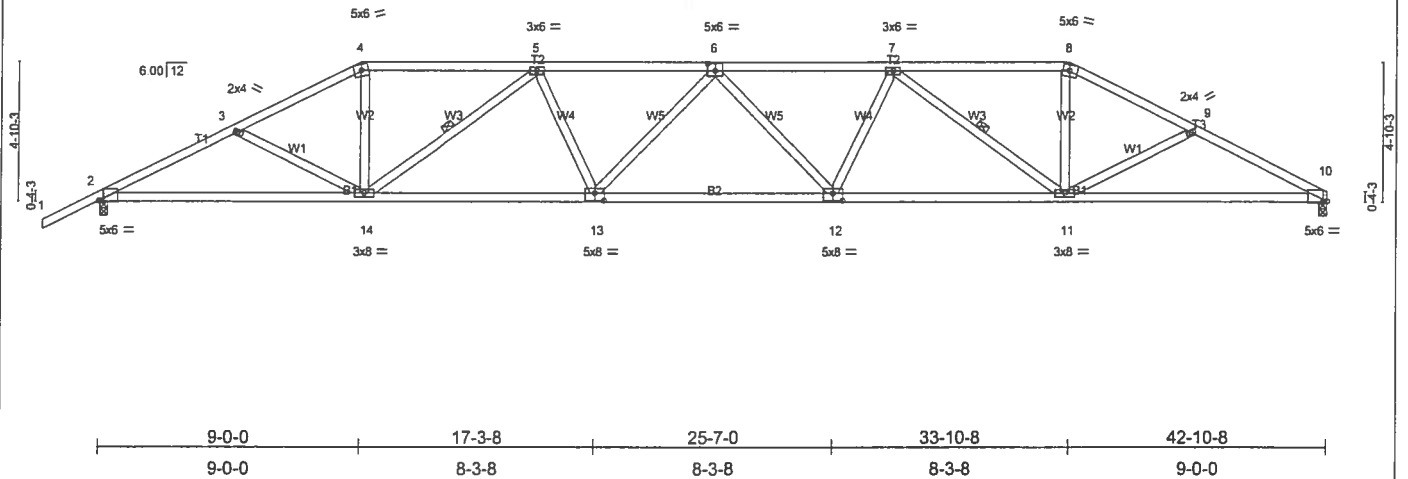
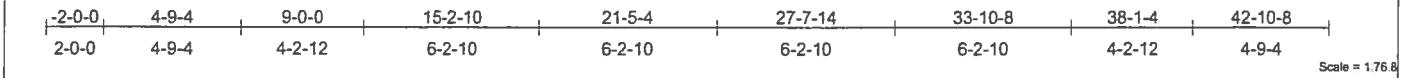
#### NOTES

- 2-ply truss to be connected together with 0.131"x3" Nails as follows:  
 Top chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2 X 6 - 2 rows at 0-9-0 oc.  
 Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
- Provide adequate drainage to prevent water ponding.
- All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1600 lb uplift at joint 2 and 1600 lb uplift at joint 8.
- Girder carries hip end with 7-0-0 end setback.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 539 lb down and 277 lb up at 35-10-8, and 539 lb down and 277 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- Regular: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-3=-54, 3-7=-118(F=-64), 7-9=-54, 2-13=-30, 10-13=-65(F=-35), 8-10=-30  
 Concentrated Loads (lb)  
 Vert: 13=-539(F) 10=-539(F)

Job L209566	Truss T14	Truss Type HIP	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:46 2006 Page 1		



<b>LOADING</b> (psf)	<b>SPACING</b>	<b>CSI</b>	<b>DEFL</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.42	In (loc) l/def L/d	MT20	244/190
TCCL 7.0	Plates Increase 1.25	BC 0.92	Vert(LL) -0.53 12-13 >956 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.40	Vert(TL) -0.86 12-13 >591 180		
BCCL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.25 10 n/a n/a		
	Code FBC2004/TP12002			Weight: 215 lb	

<b>LUMBER</b>	<b>BRACING</b>
TOP CHORD 2 X 4 SYP No.2	TOP CHORD Structural wood sheathing directly applied or 2-11-0 oc purlins.
BOT CHORD 2 X 4 SYP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2 X 4 SYP No.3	WEBS 1 Row at midpt 5-14, 7-11

**REACTIONS** (lb/size) 10=1786/0-3-8, 2=1907/0-3-8  
 Max Horz 2=126(load case 5)  
 Max Uplift 10=498(load case 3), 2=609(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/47, 2-3=3385/1371, 3-4=3180/1282, 4-5=2838/1213, 5-6=4022/1674, 6-7=4027/1681, 7-8=2856/1242, 8-9=3202/1318, 9-10=3424/1435  
 BOT CHORD 2-14=1132/2963, 13-14=1406/3835, 12-13=1556/4176, 11-12=1420/3843, 10-11=1204/3007  
 WEBS 3-14=183/185, 4-14=341/1099, 5-14=1314/547, 5-13=94/488, 6-13=274/180, 6-12=270/177, 7-12=90/483, 7-11=1307/542, 8-11=366/1115, 9-11=213/230

**JOINT STRESS INDEX**  
 2 = 0.85, 3 = 0.34, 4 = 0.61, 5 = 0.47, 6 = 0.56, 7 = 0.47, 8 = 0.61, 9 = 0.34, 10 = 0.85, 11 = 0.63, 12 = 0.91, 13 = 0.91 and 14 = 0.63

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCCL=4.2psf; BCCL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 498 lb uplift at joint 10 and 609 lb uplift at joint 2.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	CORNERSTONE LOT 10 MAGNOLIA HILLS
L209566	T15	HIP	1	1	
Builders FirstSource, Lake City, Fl 32055					Job Reference (optional)
					6,200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:47 2006 Page 1

Builders FirstSource, Lake City, FL 32055

6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:47 2006 Page 1

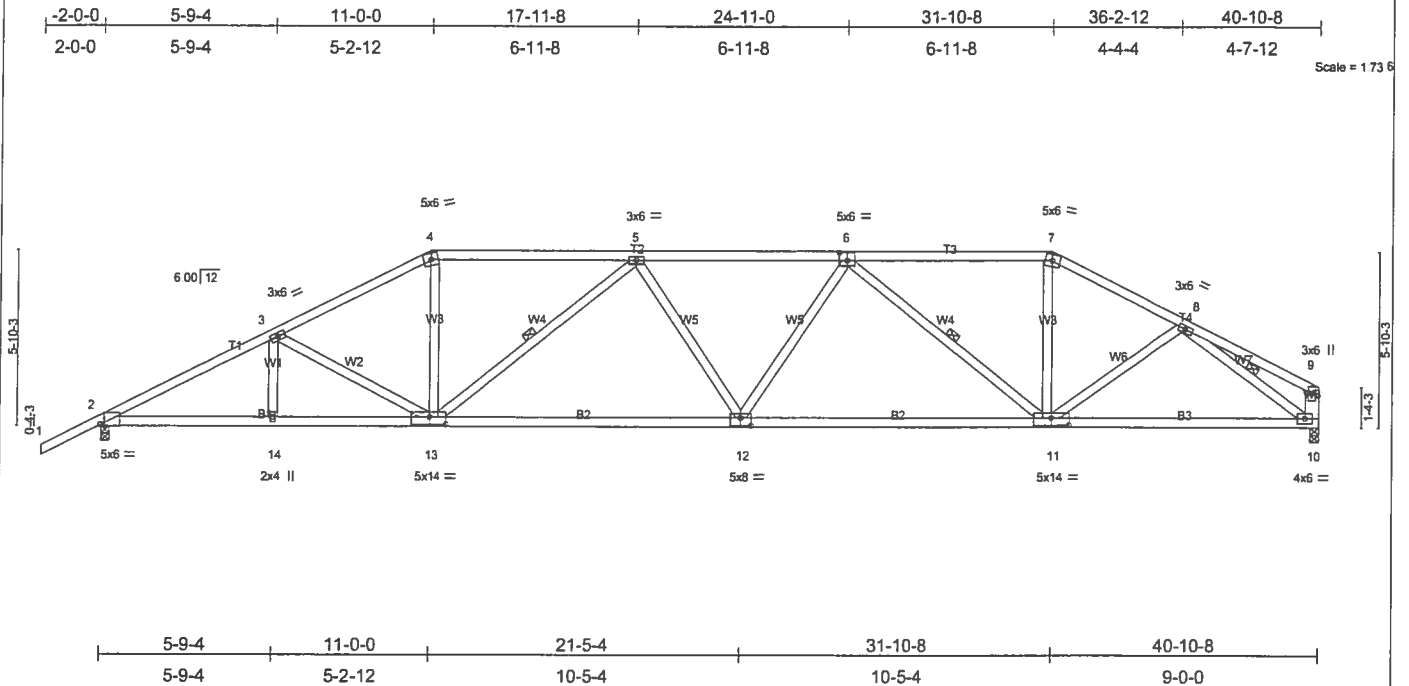


Plate Offsets (X,Y): [2:0-1-11,Edge], [6:0-3-0-0-3-0], [11:0-7-0-0-3-0], [12:0-4-0-0-3-4], [13:0-7-0-0-3-0]									
<b>LOADING</b> (psf)	<b>SPACING</b> 2-0-0		<b>CSI</b>	<b>DEFL</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plates Increase 1.25		TC 0.38	Vert(LL) -0.44	12-13	>999	240	MT20	244/190
TCDL 7.0	Lumber Increase 1.25		BC 0.91	Vert(TL) -0.73	12-13	>663	180		
BCLL 10.0	Rep Stress Incr YES		WB 0.42	Horz(TL) 0.18	10	n/a	n/a		
BCDL 5.0	Code FBC2004/TP12002		(Matrix)						Weight: 219 lb

**LUMBER**  
**TOP CHORD** 2 X 4 SYP No.2  
**BOT CHORD** 2 X 4 SYP No.2  
**WEBS** 2 X 4 SYP No.3 \*Except\*  
 W8 2 X 6 SYP No.1D

<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 3-3-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 5-10-10 oc bracing.
WEBS	1 Row at midpt                      5-13, 6-11, 8-10

**REACTIONS** (lb/size) 2=1820/0-3-8, 10=1698/0-3-8  
Max Horz 2=177(load case 5)  
Max Uplift2=-609(load case 5), 10=-462(load case 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
**TOP CHORD** 1-2=0/47, 2-3=3249/1278, 3-4=2840/1184, 4-5=2488/1120, 5-6=3113/1335, 6-7=2175/996, 7-8=2471/1050, 8-9=414/163, 9-10=304/170  
**BOT CHORD** 2-14=1103/2821, 13-14=1103/2821, 12-13=1151/3062, 11-12=1111/2958, 10-11=790/1954  
**WEBS** 3-14=0/127, 3-13=383/237, 4-13=274/905, 5-13=837/386, 5-12=0/159, 6-12=11/335, 6-11=1072/449, 7-11=225/749, 8-11=126/390, 8-10=2074/897

**JOINT STRESS INDEX**  
2 = 0.81, 3 = 0.41, 4 = 0.67, 5 = 0.43, 6 = 0.60, 7 = 0.64, 8 = 0.63, 9 = 0.54, 10 = 0.69, 11 = 0.64, 12 = 0.85, 13 = 0.67 and 14 = 0.34

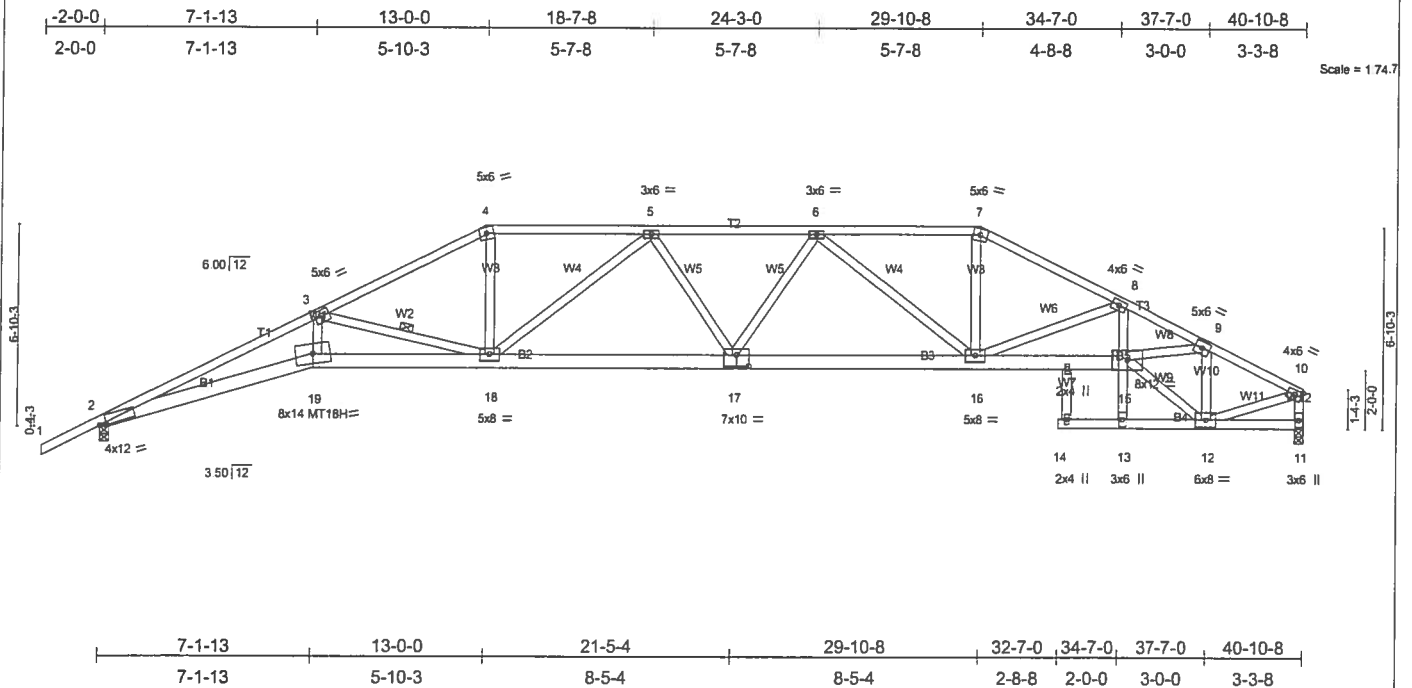
## NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 110mph (3-second gust);  $h=20ft$ ;  $TCDF=4.2psf$ ;  $BCDF=3.0psf$ ; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber  $DOL=1.60$  plate grip  $DOL=1.60$ . This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 609 lb uplift at joint 2 and 462 lb uplift at joint 10.

LOAD CASE(S) Standard

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B. LUTZ, FL 33549**

Job	Truss	Truss Type	Qty	Qty	CORNERSTONE LOT 10 MAGNOLIA HILLS
L209566	T16	SPECIAL	1	1	
Builders FirstSource, Lake City, Fl 32055					Job Reference (optional)
6.200 s Jul 13 2005 Mitek Industries, Inc.					Tue Sep 05 11:22:48 2006 Page 1



LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plates Increase	1.25	TC 0.81	Vert(LL)	-0.65	18-19	>751	240	MT20	244/190
TCDL 7.0	Lumber Increase	1.25	BC 0.95	Vert(TL)	-1.04	18-19	>469	180	MT18H	244/190
BCLL 10.0	Rep Stress Incr	YES	WB 0.96	Horz(TL)	0.66	11	n/a	n/a		
BCDL 5.0	Code FBC2004/TFP12002		(Matrix)							Weight: 254 lb

<b>LUMBER</b>	<b>BRACING</b>
TOP CHORD 2 X 4 SYP No.2 *Except* T1 2 X 4 SYP No.1D	TOP CHORD Structural wood sheathing directly applied or 2-0-5 oc purlins, except end verticals.
BOT CHORD 2 X 6 SYP No.1D *Except* B5 2 X 4 SYP No.3, B4 2 X 4 SYP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2 X 4 SYP No.3	WEBS 1 Row at midpt 3-18

**REACTIONS** (lb/size) 2=1835/0-3-8, 11=1755/0-3-8  
Max Horiz 2=190(load case 5)  
Max Uplift 2=-625(load case 5), 11=-472(load case 6)

**FORCES (lb) - Maximum Compression/Maximum Tension**  
**TOP CHORD** 1-2=0/49, 2-3=-7056/2739, 3-4=-3895/1574, 4-5=-3472/1484, 5-6=-3898/1613, 6-7=-3197/1353, 7-8=-3564/1433, 8-9=-5468/2097, 9-10=-2161/860, 10-11=-1666/685  
**BOT CHORD** 2-19=-2480/6471, 18-19=-2332/6037, 17-18=-1379/3874, 16-17=-1336/3783, 15-16=-1779/4878, 13-15=0/170, 8-15=-430/1375, 13-14=0/0, 12-13=-65/135, 11-12=-73/161  
**WEBS** 3-19=-584/1845, 3-18=-2707/1182, 4-18=-464/1383, 5-18=-670/318, 5-17=-19/140, 6-17=-24/283, 6-16=-867/377, 7-16=-412/1262, 8-16=-1854/772, 12-15=-842/2249, 9-15=-1045/3002, 9-12=-2033/812, 10-12=-686/1831

2 = 0.98, 3 = 0.87, 4 = 0.72, 5 = 0.42, 6 = 0.42, 7 = 0.66, 8 = 0.75, 9 = 0.98, 10 = 0.67, 11 = 0.35, 12 = 0.84, 13 = 0.28, 15 = 0.95, 16 = 0.42, 17 = 0.70, 18 = 0.67, 19 = 0.92, 20 = 0.34 and 21 = 0.34

**NOTES**

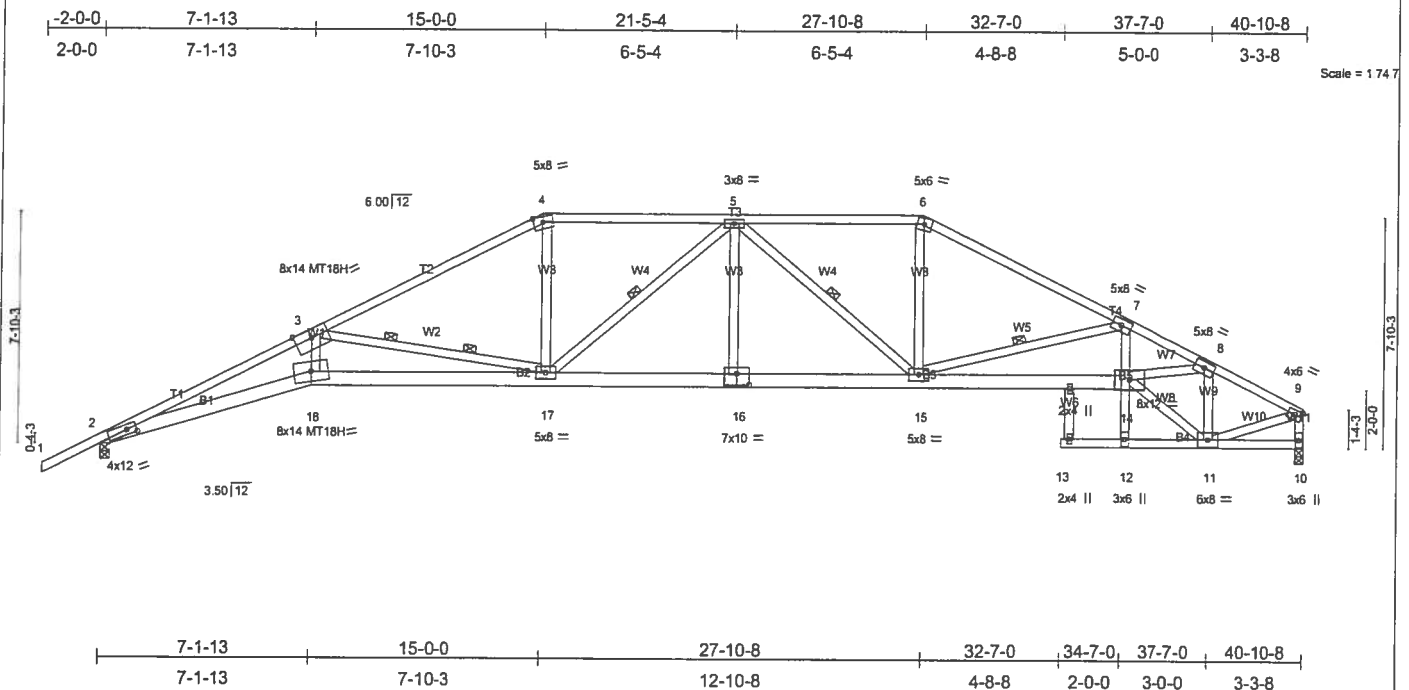
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDF=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Bearing mechanical connection (by others) of truss to bearing plate capable of withstanding 625 lb uplift at joint 2 and 472 lb uplift at joint 11.

LOAD CASE(S) Standard

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B. LUTZ, FL 33549**



Job L209566	Truss T17	Truss Type SPECIAL	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:49 2006 Page 1



<b>LOADING</b> (psf)	<b>SPACING</b> 2-0-0	<b>CSI</b>	<b>DEFL</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plates Increase 1.25	TC 1.00	Vert(LL) -0.75 17-18 >652 240	MT20	244/190
TCOL 7.0	Lumber Increase 1.25	BC 0.94	Vert(TL) -1.20 17-18 >406 180	MT18H	244/190
BCLL 10.0	Rep Stress Incr YES	WB 0.97	Horz(TL) 0.72 10 n/a n/a		
BCOL 5.0	Code FBC2004/TP12002	(Matrix)			Weight: 260 lb

**LUMBER**  
**TOP CHORD** 2 X 4 SYP No.2  
**BOT CHORD** 2 X 6 SYP No.1D \*Except\*  
                   B5 2 X 4 SYP No.3, B4 2 X 4 SYP No.2  
**WEBS** 2 X 4 SYP No.3

<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 5-15, 7-15, 5-17
	2 Rows at 1/3 pts 3-17

**REACTIONS** (lb/size) 2=1835/0-3-8, 10=1755/0-3-8  
Max Horz 2=204(load case 5)  
Max Uplift2=-641(load case 5), 10=-490(load case 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
**TOP CHORD** 1-2=0/49, 2-3=7090/2803, 3-4=3492/1433, 4-5=3074/1379, 5-6=2880/1284, 6-7=3266/1341, 7-8=5487/2132, 8-9=2159/868,  
 9-10=1668/692  
**BOT CHORD** 2-18=2547/6507, 17-18=2478/6325, 16-17=1085/3205, 15-16=1084/3207, 14-15=1859/4964, 12-14=1/169, 7-14=400/1372, 12-13=0/0,  
 11-12=75/132, 10-11=18/8  
**WEBS** 3-18=581/1881, 3-17=3337/1460, 4-17=311/1090, 5-15=592/252, 6-15=301/1033, 7-15=2195/947, 11-14=833/2250, 8-14=1079/3030,  
 8-11=2031/810, 9-11=686/1825, 5-16=0/114, 5-17=394/206

**JOINT STRESS INDEX**  
2 = 0.98, 3 = 0.88, 4 = 0.77, 5 = 0.57, 6 = 0.84, 7 = 0.68, 8 = 0.74, 9 = 0.68, 10 = 0.35, 11 = 0.84, 12 = 0.28, 14 = 0.93, 15 = 0.62, 16 = 0.59, 17 = 0.84, 18 = 0.95, 19 = 0.34 and 20 = 0.34

## NOTES

- Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02: 110mph (3-second gust);  $w=20\text{ft}$ ;  $TCDFL=4.2\text{psf}$ ;  $BCDFL=3.0\text{psf}$ ; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 641 lb uplift at joint 2 and 490 lb uplift at joint 10.

LOAD CASE(S) Standard

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B. LUTZ, FL 33549**

Job L209566	Truss T18	Truss Type SPECIAL	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, Fl 32055					Job Reference (optional) 6,200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:50 2006 Page 1

6,200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:50 2006 Page 1

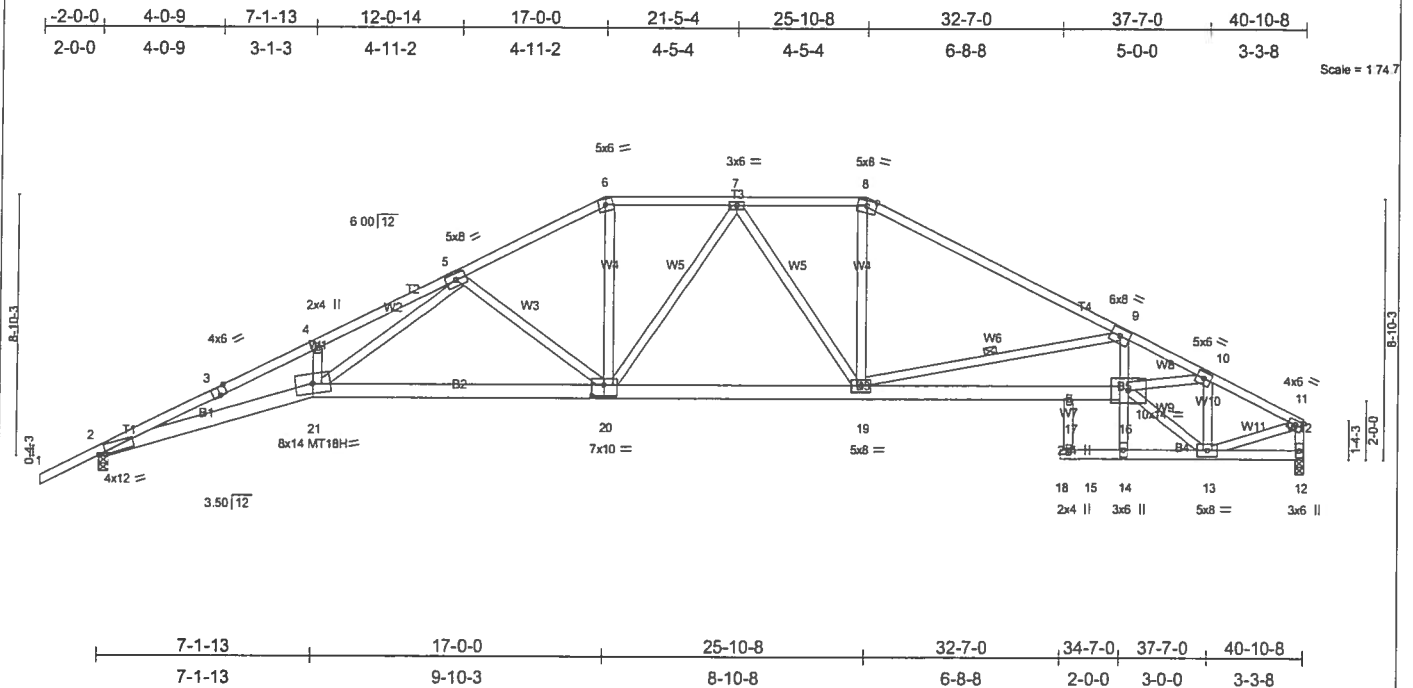


Plate Offsets (X,Y): [2:0-2-12.0-0-10], [3:0-3-0,Edge], [20:0-4-12.0-4-8]									
<b>LOADING</b> (psf)	<b>SPACING</b>	2-0-0	<b>CSI</b>	<b>DEFL</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plates Increase	1.25	TC 0.85	Vert(LL)	-0.73 20-21	>664	240	MT20	244/190
TCDL 7.0	Lumber Increase	1.25	BC 0.89	Vert(TL)	-1.18 20-21	>413	180	MT18H	244/190
BCLL 10.0	Rep Stress Incr	YES	WB 0.86	Horz(TL)	0.65 12	n/a	n/a		
BCDL 5.0	Code FBC2004/TP12002		(Matrix)						Weight: 264 lb

LOAD CASE(S) Standard

**SEPTEMBER 05, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B. LUTZ, FL 33549**

Job L209566	Truss T19	Truss Type SPECIAL	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:51 2006 Page 1		

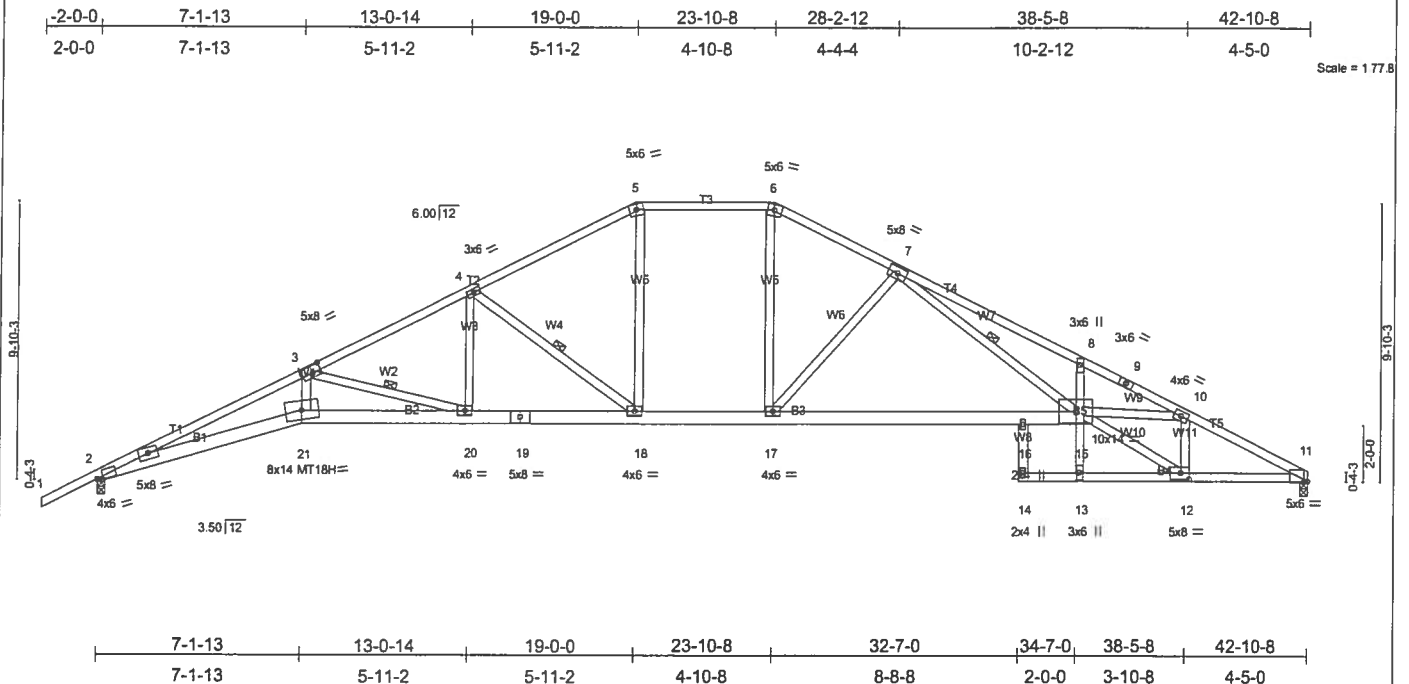


Plate Offsets (X,Y): [2:0-2-8,Edge], [3:0-3-12,0-3-0], [11:0-1-11,Edge], [12:0-3-8,0-2-8]

<b>LOADING</b> (psf)	<b>SPACING</b>	<b>CSI</b>	<b>DEFL</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.96	in (loc) I/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.96	Vert(LL) -0.81 16-17 >631 240	MT18H	244/190
BCLL 10.0	Lumber Increase 1.25	WB 0.87	Vert(TL) -1.31 16-17 >391 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.72 11 n/a n/a		
	Code FBC2004/TP12002			Weight 263 lb	

**LUMBER**  
**TOP CHORD** 2 X 4 SYP No.2 \*Except\*  
 T4 2 X 4 SYP No.1D, T1 2 X 4 SYP No.1D  
**BOT CHORD** 2 X 6 SYP No.1D \*Except\*  
 B5 2 X 4 SYP No.3, B4 2 X 4 SYP No.2  
**WEBS** 2 X 4 SYP No.3 \*Except\*  
 W7 2 X 4 SYP No.2, W10 2 X 4 SYP No.2

**BRACING**  
**TOP CHORD** Structural wood sheathing directly applied.  
**BOT CHORD** Rigid ceiling directly applied or 2-2-0 oc bracing.  
**WEBS** 1 Row at midpt 3-20, 4-18, 7-15  
**JOINTS** 1 Brace at Jt(s): 15

**REACTIONS** (lb/size) 2=1907/0-3-8, 11=1786/0-3-8  
 Max Horz 2=197(load case 5)  
 Max Uplift 2=692(load case 5), 11=567(load case 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
**TOP CHORD** 1-2=0/49, 2-3=7424/2948, 3-4=4123/1749, 4-5=2903/1312, 5-6=2552/1244, 6-7=2903/1341, 7-8=6398/2742, 8-9=6202/2549,  
 9-10=6258/2542, 10-11=3527/1506  
**BOT CHORD** 2-21=2615/6813, 20-21=2458/6357, 19-20=1295/3631, 18-19=1295/3631, 17-18=758/2552, 16-17=1142/3207, 15-16=1142/3207,  
 13-15=0/81, 8-15=289/293, 13-14=0/0, 12-13=134/178, 11-12=1270/3088  
**WEBS** 3-21=618/1950, 3-20=2829/1208, 4-20=340/1043, 4-18=1394/676, 5-18=349/940, 6-17=453/1098, 7-17=1042/605, 7-15=1302/3163,  
 12-15=1301/3334, 10-15=842/2461, 10-12=1510/650, 14-16=58/86

**JOINT STRESS INDEX**  
 2 = 1.00, 2 = 0.80, 3 = 0.93, 4 = 0.77, 5 = 0.68, 6 = 0.54, 7 = 0.91, 8 = 0.27, 9 = 0.89, 10 = 0.87, 11 = 0.86, 12 = 0.77, 13 = 0.62, 14 = 0.34, 15 = 0.86, 16 = 0.34, 17 = 0.50, 18 = 0.43, 19 = 0.73, 20 = 0.79 and 21 = 0.96

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TP1 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 692 lb uplift at joint 2 and 567 lb uplift at joint 11.

**LOAD CASE(S)** Standard

Job L209566	Truss T20	Truss Type SPECIAL	Qty 2	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:51 2006 Page 1		

-2-0-0	7-1-13	14-0-14	21-0-0	21-10-8	28-2-12	34-7-0	38-5-8	42-10-8	44-10-8
2-0-0	7-1-13	6-11-2	6-11-2	0-10-8	6-4-4	6-4-4	3-10-8	4-5-0	2-0-0
Scale = 1/79.6									

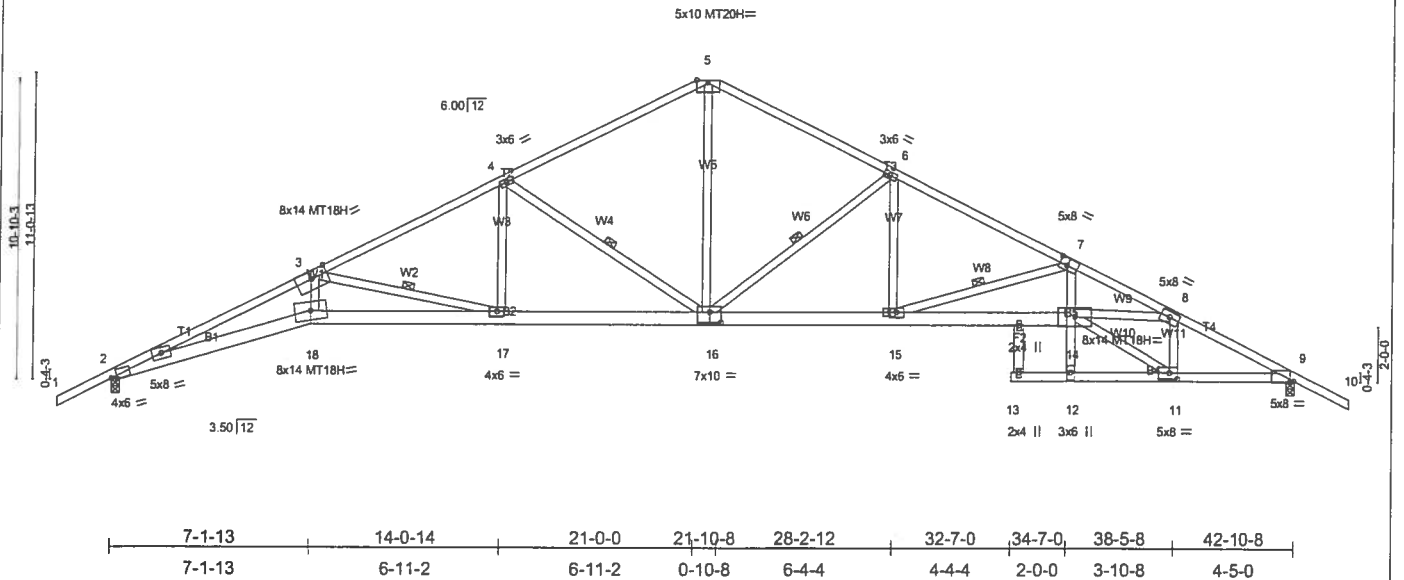


Plate Offsets (X,Y): [2:0-2-8,Edge], [7:0-3-8,0-3-0], [9:0-1-11,Edge], [11:0-3-8,0-2-8], [16:0-4-12,0-4-8]												
LOADING (psf)		SPACING 2-0-0		CSI		DEFL in (loc) l/defl L/d			PLATES GRIP			
TCLL	20.0	Plates Increase 1.25		TC	0.81	Vert(LL)	-0.82	13	>624	240	MT20	244/190
TCDL	7.0	Lumber Increase 1.25		BC	0.98	Vert(TL)	-1.32	13	>388	180	MT20H	187/143
BCLL	10.0	Rep Stress Incr YES		WB	0.96	Horz(TL)	0.81	9	n/a	n/a	MT18H	244/190
BCDL	5.0	Code FBC2004/TP12002		(Matrix)		Weight: 270 lb						

**LUMBER**  
 TOP CHORD 2 X 4 SYP No.2 \*Except\*  
 T1 2 X 4 SYP No.1D  
 BOT CHORD 2 X 6 SYP No.1D \*Except\*  
 B5 2 X 4 SYP No.2, B4 2 X 4 SYP No.2  
 WEBS 2 X 4 SYP No.3 \*Except\*  
 W10 2 X 4 SYP No.2, W9 2 X 4 SYP No.2

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 1-11-12 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 3-17, 4-16, 6-16, 7-15

**REACTIONS** (lb/size) 2=1918/0-3-8, 9=1955/0-3-8  
 Max Horz 2=189(load case 5)  
 Max Uplift 2=702(load case 5), 9=695(load case 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/49, 2-3=-7480/2868, 3-4=-3953/1626, 4-5=-2589/1172, 5-6=-2614/1190, 6-7=-3826/1565, 7-8=-7277/2704, 8-9=-3565/1392, 9-10=0/47  
 BOT CHORD 2-18=-2463/6866, 17-18=-2387/6645, 16-17=-1098/3470, 15-16=-1022/3362, 14-15=-2192/6435, 12-14=-2/174, 7-14=-673/2298, 12-13=0/0, 11-12=-95/203, 9-11=-1079/3105  
 WEBS 3-18=-571/1961, 3-17=-3248/1319, 4-17=-284/1025, 4-16=-1483/714, 6-16=-1399/647, 6-15=-285/1043, 7-15=-3225/1227, 11-14=-1159/3418, 8-14=-1095/3358, 8-11=-1759/689, 5-16=-741/1868

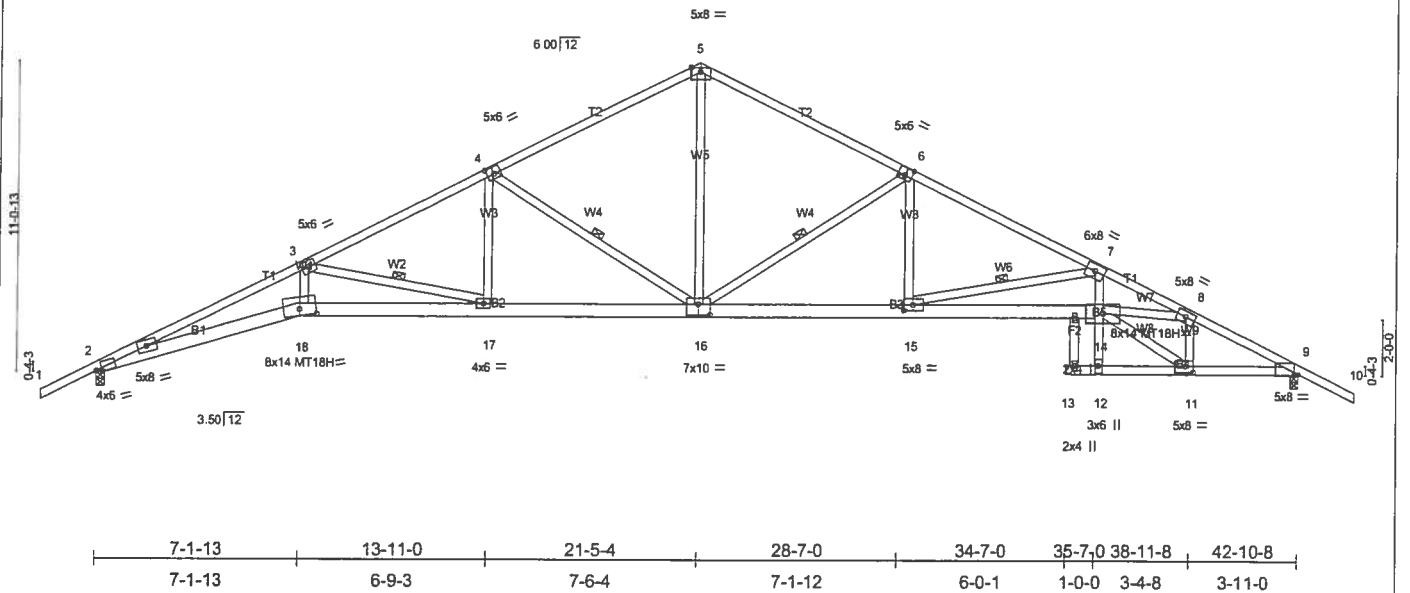
**JOINT STRESS INDEX**  
 2 = 1.00, 2 = 0.81, 3 = 0.90, 4 = 0.76, 5 = 0.81, 6 = 0.77, 7 = 0.95, 8 = 0.83, 9 = 0.81, 11 = 0.79, 12 = 0.40, 14 = 0.79, 15 = 0.89, 16 = 0.59, 17 = 0.92, 18 = 0.99, 19 = 0.34 and 20 = 0.34

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.  
 3) All plates are MT20 plates unless otherwise indicated.  
 4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi  
 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.  
 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 702 lb uplift at joint 2 and 695 lb uplift at joint 9.

**LOAD CASE(S)** Standard

Job L209566	Truss T21	Truss Type SPECIAL	Qty 2	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:52 2006 Page 1

-2-0-0	7-1-13	13-11-0	21-5-4	28-11-8	35-7-0	38-11-8	42-10-8	44-10-8
2-0-0	7-1-13	6-9-4	7-6-4	7-6-4	6-7-8	3-4-8	3-11-0	2-0-0
Scale = 1/8" = 1'-0"								



<b>LOADING (psf)</b>	<b>SPACING</b>	<b>CSI</b>	<b>DEFL</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.87	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.97	Vert(LL) -0.77 17-18 >666 240	MT18H	244/190
BCLL 10.0	Lumber Increase 1.25	WB 0.95	Vert(TL) -1.23 17-18 >416 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.84 9 n/a n/a		
	Code FBC2004/TPI2002			Weight: 267 lb	

<b>LUMBER</b>	<b>BRACING</b>
TOP CHORD 2 X 4 SYP No.2 "Except"	TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.
T1 2 X 4 SYP No.1D, T1 2 X 4 SYP No.1D	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
BOT CHORD 2 X 6 SYP No.1D "Except"	WEBS 1 Row at midpt 3-17, 4-16, 6-16, 7-15
B5 2 X 4 SYP No.1D, B4 2 X 4 SYP No.2	
WEBS 2 X 4 SYP No.3 "Except"	
W8 2 X 4 SYP No.2, W7 2 X 4 SYP No.2	

<b>REACTIONS</b> (lb/size) 2=1910/0-3-8, 9=1933/0-3-8
Max Horz 2=189(load case 5)
Max Uplift 2=704(load case 5), 9=699(load case 6)

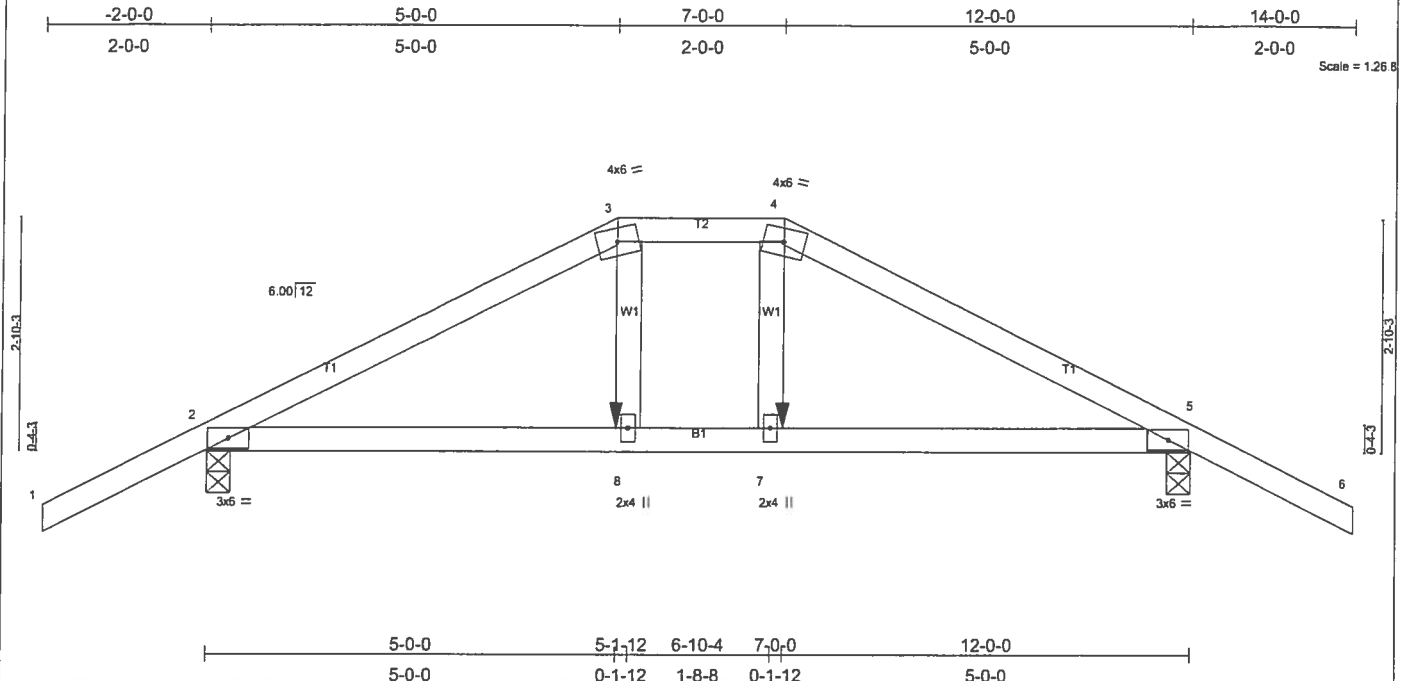
<b>FORCES</b> (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/49, 2-3=-7445/2862, 3-4=-3956/1645, 4-5=-2590/1182, 5-6=-2591/1183, 6-7=-3966/1637, 7-8=-7844/2991, 8-9=-3513/1388, 9-10=0/47
BOT CHORD 2-18=-2455/6832, 17-18=-2308/6371, 16-17=-1114/3476, 15-16=-1112/3502, 14-15=-2515/7061, 12-14=-20/151, 7-14=-723/2331, 12-13=0/0, 11-12=-126/299, 9-11=-1078/3058
WEBS 3-18=-578/1968, 3-17=-2978/1228, 4-17=-293/1028, 4-16=-1481/714, 5-16=-719/1827, 6-16=-1512/712, 6-15=-277/1041, 7-15=-3648/1438, 11-14=-1149/3329, 8-14=-1375/3917, 8-11=-1854/732

<b>JOINT STRESS INDEX</b>
2 = 1.00, 2 = 0.80, 3 = 0.96, 4 = 0.83, 5 = 0.76, 6 = 0.75, 7 = 0.82, 8 = 0.96, 9 = 0.79, 11 = 0.79, 12 = 0.60, 14 = 0.97, 15 = 0.88, 16 = 0.57, 17 = 0.84, 18 = 0.78, 19 = 0.34 and 20 = 0.34

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
  - All plates are MT20 plates unless otherwise indicated.
  - All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
  - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 704 lb uplift at joint 2 and 699 lb uplift at joint 9.

**LOAD CASE(S)** Standard

Job L209566	Truss T22	Truss Type HIP	Qty 1	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue Sep 05 11:22:53 2006 Page 1		



LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.27	in (loc) l/def L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.34	Vert(LL) -0.05 2-8 >999 240		
BCCL 10.0	Lumber Increase 1.25	WB 0.13	Vert(TL) -0.07 2-8 >999 180		
BCDL 5.0	Rep Stress Incr NO	(Matrix)	Horz(TL) 0.02 5 n/a n/a		
	Code FBC2004/TPI2002			Weight: 51 lb	

**LUMBER**  
 TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2  
 WEBS 2 X 4 SYP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 5-4-9 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=907/0-3-8, 5=907/0-3-8  
 Max Horz 2=73(load case 4)  
 Max Uplift 2=439(load case 4), 5=439(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/47, 2-3=-1314/491, 3-4=-1129/472, 4-5=-1314/491, 5-6=0/47  
 BOT CHORD 2-8=-361/1108, 7-8=-365/1129, 5-7=-358/1108  
 WEBS 3-8=-121/409, 4-7=-121/409

**JOINT STRESS INDEX**  
 2 = 0.60, 3 = 0.36, 4 = 0.36, 5 = 0.60, 7 = 0.30 and 8 = 0.30

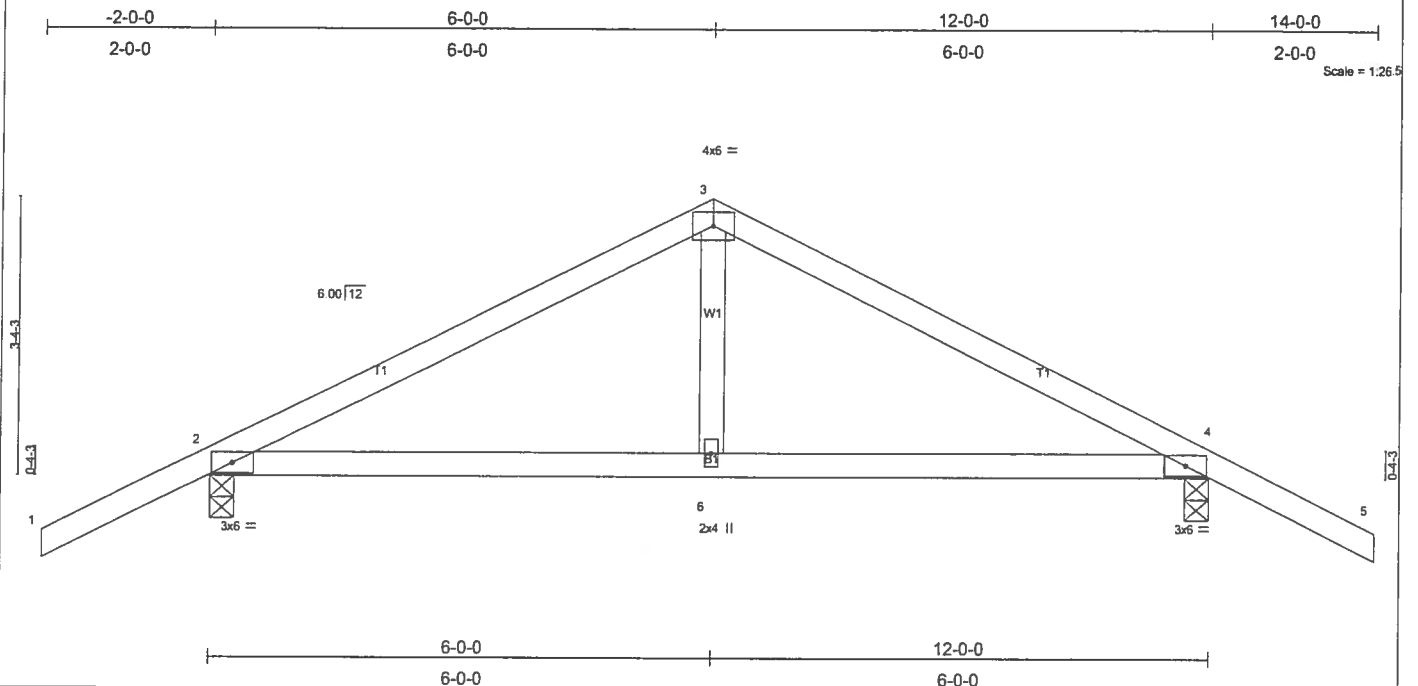
#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
- Provide adequate drainage to prevent water ponding.
- All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 439 lb uplift at joint 2 and 439 lb uplift at joint 5.
- Girder carries hip end with 5-0-0 end setback.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 245 lb down and 126 lb up at 7-0-0, and 245 lb down and 126 lb up at 5-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Regular: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-3=-54, 3-4=-91(F=-37), 4-6=-54, 2-8=-30, 7-8=-50(F=-20), 5-7=-30  
 Concentrated Loads (lb)  
 Vert: 8=245(F) 7=-245(F)

Job L209566	Truss T23	Truss Type KINGPOST	Qty 3	Ply 1	CORNERSTONE LOT 10 MAGNOLIA HILLS
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 Mitek Industries, Inc. Tue Sep 05 11:22:54 2006 Page 1		



LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	Vert(LL)	-0.04	4-6	>999	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.23	Vert(TL)	-0.06	2-6	>999		
BCLL 10.0	Lumber Increase 1.25	WB 0.07	Horz(TL)	0.01	4	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)						
	Code FBC2004/TP12002							
							Weight: 49 lb	

**LUMBER**  
 TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2  
 WEBS 2 X 4 SYP No.3

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

**REACTIONS** (lb/size) 2=608/0-3-8, 4=608/0-3-8  
 Max Horz 2=80(load case 5)  
 Max Uplift 2=289(load case 5), 4=289(load case 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/47, 2-3=659/259, 3-4=659/259, 4-5=0/47  
 BOT CHORD 2-6=-73/526, 4-6=-73/526  
 WEBS 3-6=0/203

**JOINT STRESS INDEX**  
 2 = 0.42, 3 = 0.68, 4 = 0.42 and 6 = 0.15

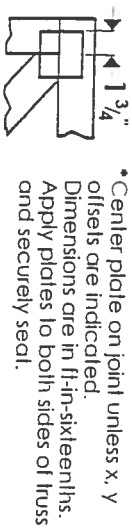
#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 289 lb uplift at joint 2 and 289 lb uplift at joint 4.

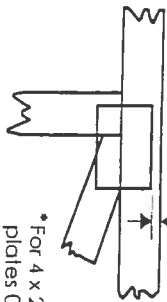
**LOAD CASE(S)** Standard

# Symbols

## PLATE LOCATION AND ORIENTATION



0-1/16"



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

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

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

## PLATE SIZE

4 X 4

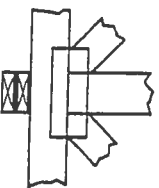
The first dimension is the width perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING



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

## BEARING

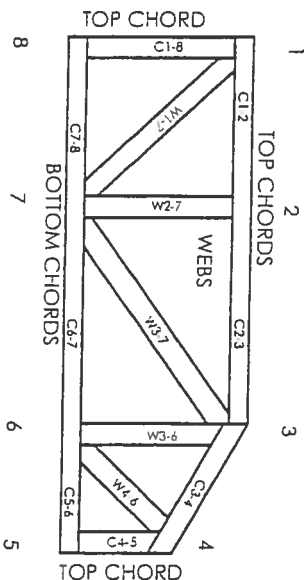
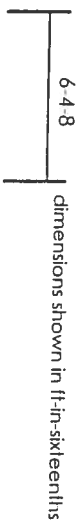


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

## Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB 89: Design Standard for Bracing.  
BCS11: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

## CONNECTOR PLATE CODE APPROVALS

BOCA	96-31, 95-43, 96-20-1, 96-67, 84-32
ICBO	4922, 5243, 5363, 3907
SBCCI	9667, 9730, 9604B, 9511, 9432A

# General Safety Notes

## Failure to Follow Could Cause Properly Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCS11.
2. Never exceed the design loading shown and never stock materials on inadequately braced trusses.
3. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
4. Cut members to bear tightly against each other.
5. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI1.
6. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI1.
7. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
8. Unless expressly noted, this design is not applicable for use with fire retardant or preservative treated lumber.
9. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
10. Plate type, size, orientation and location dimensions shown indicate minimum plating requirements.
11. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
12. Top chords must be sheathed or purlins provided at spacing shown on design.
13. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
14. Connections not shown are the responsibility of others.
15. Do not cut or alter truss member or plate without prior approval of a professional engineer.
16. Install and load vertically unless indicated otherwise.



Mitek Engineering Reference Sheet: MII-7473

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# Residential System Sizing Calculation

## Summary

Lake City, FL

Project Title:  
608232CornerStoneTheGriffin

Class 3 Rating  
Registration No. 0  
Climate: North

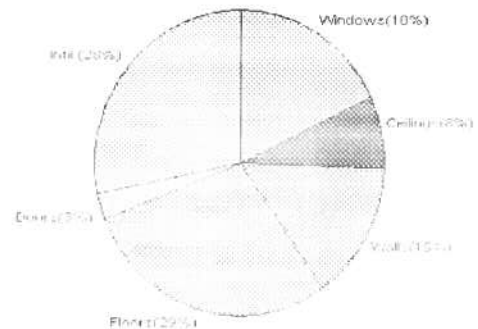
9/7/2006

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>27851</b>	<b>Btuh</b>	<b>Total cooling load calculation</b>	<b>22500</b>	<b>Btuh</b>
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	114.9	32000	Sensible (SHR = 0.50)	90.8	16000
Heat Pump + Auxiliary(0.0kW)	114.9	32000	Latent	327.8	16000
			Total (Electric Heat Pump)	142.2	32000

## WINTER CALCULATIONS

Winter Heating Load (for 1799 sqft)

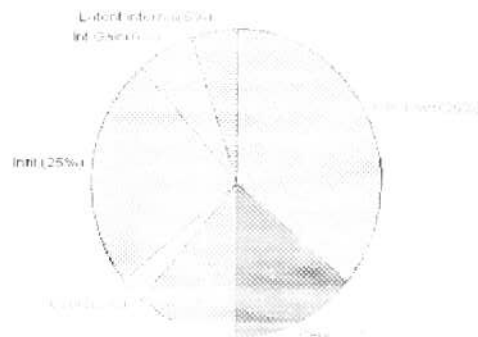
Load component			Load	
Window total	156	sqft	5022	Btuh
Wall total	1235	sqft	4056	Btuh
Door total	60	sqft	777	Btuh
Ceiling total	1859	sqft	2191	Btuh
Floor total	184	sqft	8033	Btuh
Infiltration	192	cfm	7773	Btuh
Duct loss			0	Btuh
Subtotal			27851	Btuh
Ventilation	0	cfm	0	Btuh
<b>TOTAL HEAT LOSS</b>			<b>27851</b>	<b>Btuh</b>



## SUMMER CALCULATIONS

Summer Cooling Load (for 1799 sqft)

Load component			Load	
Window total	156	sqft	8121	Btuh
Wall total	1235	sqft	2576	Btuh
Door total	60	sqft	588	Btuh
Ceiling total	1859	sqft	3079	Btuh
Floor total			0	Btuh
Infiltration	101	cfm	1875	Btuh
Internal gain			1380	Btuh
Duct gain			0	Btuh
Sens. Ventilation	0	cfm	0	Btuh
<b>Total sensible gain</b>			<b>17618</b>	<b>Btuh</b>
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			1002	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/etc.)			1268	Btuh
<b>Total latent gain</b>			<b>4882</b>	<b>Btuh</b>
<b>TOTAL HEAT GAIN</b>			<b>22500</b>	<b>Btuh</b>



For Florida residences only

EnergyGauge® System Sizing

PREPARED BY

DATE:

9-8-06

# System Sizing Calculations - Winter

## Residential Load - Whole House Component Details

Lake City, FL

Project Title:  
608232CornerStoneTheGriffin

Class 3 Rating  
Registration No. 0  
Climate: North

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

9/7/2006

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	20.0		32.2	644 Btuh
3	2, Clear, Metal, 0.87	SW	15.0		32.2	483 Btuh
4	2, Clear, Metal, 0.87	SE	60.0		32.2	1931 Btuh
5	2, Clear, Metal, 0.87	SE	13.3		32.2	428 Btuh
6	2, Clear, Metal, 0.87	NE	2.7		32.2	87 Btuh
Window Total			156(sqft)			5022 Btuh
Walls	Type	R-Value	Area	X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1002		3.3	3291 Btuh
2	Frame - Wood - Ext(0.09)	13.0	233		3.3	765 Btuh
Wall Total			1235			4056 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		20		12.9	259 Btuh
Door Total			60			777Btuh
Ceilings	Type/Color/Surface	R-Value	Area	X	HTM=	Load
1	Vented Attic(D/Shin)	30.0	1859		1.2	2191 Btuh
Ceiling Total			1859			2191Btuh
Floors	Type	R-Value	Size	X	HTM=	Load
1	Slab On Grade	0	184.0	ft(p)	43.7	8033 Btuh
Floor Total			184			8033 Btuh
Zone Envelope Subtotal:						17851 Btuh
Infiltration	Type	ACH X	Zone Volume		CFM=	
	Natural	0.30	14392		191.9	7773 Btuh
Ductload	Average sealed, R6.0, Supply(Attic), Return(Attic)				(Duct Loss of 0.00)	0 Btuh
Zone #1	Sensible Zone Subtotal					27851 Btuh

### WHOLE HOUSE TOTALS

Subtotal Sensible	27851 Btuh
Ventilation Sensible	0 Btuh
Total Btuh Loss	27851 Btuh

# Manual J Winter Calculations

## Residential Load - Component Details (continued)

Lake City, FL

Project Title:  
608232CornerStoneTheGriffin

Class 3 Rating  
Registration No. 0  
Climate: North

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

Lake City, FL

Project Title:  
608232CornerStoneTheGriffin

Class 3 Rating  
Registration No. 0  
Climate: North

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

9/7/2006

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

### 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	20.0		32.2	644 Btuh
3	2, Clear, Metal, 0.87	SW	15.0		32.2	483 Btuh
4	2, Clear, Metal, 0.87	SE	60.0		32.2	1931 Btuh
5	2, Clear, Metal, 0.87	SE	13.3		32.2	428 Btuh
6	2, Clear, Metal, 0.87	NE	2.7		32.2	87 Btuh
Window Total			156(sqft)			5022 Btuh
Walls	Type	R-Value	Area	X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1002		3.3	3291 Btuh
2	Frame - Wood - Ext(0.09)	13.0	233		3.3	765 Btuh
Wall Total			1235			4056 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		20		12.9	259 Btuh
Door Total			60			777 Btuh
Ceilings	Type/Color/Surface	R-Value	Area	X	HTM=	Load
1	Vented Attic(D/Shin)	30.0	1859		1.2	2191 Btuh
Ceiling Total			1859			2191 Btuh
Floors	Type	R-Value	Size	X	HTM=	Load
1	Slab On Grade	0	184.0 ft(p)		43.7	8033 Btuh
Floor Total			184			8033 Btuh
Zone Envelope Subtotal:						20078 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=		
	Natural	0.30	14392	191.9		7773 Btuh
Ductload	Average sealed, R5.0, Supply(Attic), Return(Attic) (DLM of 0.30)					0 Btuh
Zone #1	Sensible Zone Subtotal					27851 Btuh

### WHOLE HOUSE TOTALS

Subtotal Sensible	27851 Btuh
Ventilation Sensible	0 Btuh
Total Btuh Loss	27851 Btuh

# Manual J Winter Calculations

## Residential Load - Component Details (continued)

Project Title:  
608232CornerStoneTheGriffin

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

Lake City, FL

Project Title:  
608232CornerStoneTheGriffin

Class 3 Rating  
Registration No. 0  
Climate: North

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

9/7/2006

### 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.	6.5ft.	20.0	0.0	20.0	29	60	1201	Btuh
3	2, Clear, 0.87, None,N,N	SW	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.	5.5ft.	60.0	24.3	35.7	29	63	2937	Btuh
5	2, Clear, 0.87, None,N,N	SE	6ft.	7.16	13.3	13.3	0.0	29	63	385	Btuh
6	2, Clear, 0.87, None,N,N	NE	1.5ft.	1.16	2.7	0.0	2.7	29	60	162	Btuh
Window Total					156 (sqft)					8121 Btuh	
Walls	Type	R-Value/U-Value		Area(sqft)			HTM		Load		
1	Frame - Wood - Ext	13.0/0.09		1002.0			2.1		2090 Btuh		
2	Frame - Wood - Ext	13.0/0.09		233.0			2.1		486 Btuh		
Wall Total					1235 (sqft)					2576 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			20.0			9.8		196 Btuh		
Door Total					60 (sqft)					588 Btuh	
Ceilings	Type/Color/Surface	R-Value		Area(sqft)			HTM		Load		
1	Vented Attic/DarkShingle	30.0		1859.0			1.7		307 Btuh		
Ceiling Total					1859 (sqft)					279 Btuh	
Floors	Type	R-Value		Size			HTM		Load		
1	Slab On Grade	0.0		184 (ft(p))			0.0		0 Btuh		
Floor Total					184.0 (sqft)					0 Btuh	
Zone Envelope Subtotal:										14363 Btuh	
Infiltration	Type	ACH		Volume(cuft)			CFM=		Load		
	SensibleNatural	0.42		14392			100.7		1875 Btuh		
Internal gain	Occupants		Btuh/occupant			Appliance		Load			
	6		X 230 +			0		1380 Btuh			
Duct load	Average sealed, R6.0, Supply(Attic), Return(Attic)							DGM = 0.00		0.0 Btuh	
Sensible Zone Load										17618 Btuh	

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Lake City, FL

Project Title:  
608232CornerStoneTheGriffin

Class 3 Rating  
Registration No. 0  
Climate: North

9/7/2006

### WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	17618 Btuh
	Sensible Duct Load	0 Btuh
	<b>Total Sensible Zone Loads</b>	<b>17618 Btuh</b>
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	<b>Total sensible gain</b>	<b>17618 Btuh</b>
	Latent infiltration gain (for 54 gr. humidity difference)	3682 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (6 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	<b>Latent total gain</b>	<b>4882 Btuh</b>
	<b>TOTAL GAIN</b>	<b>22500 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

Lake City, FL

Project Title:  
608232CornerStoneTheGriffin

Class 3 Rating  
Registration No. 0  
Climate: North

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

9/7/2006

### Component Loads for Zone #1: Main

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.	6.5ft.	20.0	0.0	20.0	29	60	1201	Btuh
3	2, Clear, 0.87, None,N,N	SW	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.	5.5ft.	60.0	24.3	35.7	29	63	2937	Btuh
5	2, Clear, 0.87, None,N,N	SE	6ft.	7.16	13.3	13.3	0.0	29	63	385	Btuh
6	2, Clear, 0.87, None,N,N	NE	1.5ft.	1.16	2.7	0.0	2.7	29	60	162	Btuh
Window Total					156 (sqft)					8121 Btuh	
Walls	Type	R-Value/U-Value			Area(sqft)			HTM		Load	
1	Frame - Wood - Ext	13.0/0.09			1002.0			2.1		2090 Btuh	
2	Frame - Wood - Ext	13.0/0.09			233.0			2.1		486 Btuh	
Wall Total					1235 (sqft)					2576 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				20.0			9.8		196 Btuh	
Door Total					60 (sqft)					588 Btuh	
Ceili	Type/Color/Surfac	R-Value			Area(sqft)			HTM		Load	
1	Vented Attic/DarkShingle	30.0			1859.0			1.7		3079 Btuh	
Ceiling Total					1859 (sqft)					3079 Btuh	
Floor	Type	R-Value			Area (sqft)			HTM		Load	
1	Slab On Grade	0.0			184 (ft(p))			0.0		0 Btuh	
Floor Total					184.0 (sqft)					0 Btuh	
Zone Envelope Subtotal:										14363	
Infiltration	Type	ACH			Volume(cuft)			CFM		Load	
	SensibleNatural	0.42			14392			100.7		1275 Btuh	
Internal gain	Occupants			Btuh/occupant			Appliance		Load		
	6			X 230 +			0		1380 Btuh		
Duct load	Average sealed, R6.0, Supply(Attic), Return(Attic)							DCM = 0.00		0.0 Btuh	
Sensible Zone Load										17618 Btuh	



# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Lake City, FL

Project Title:  
608232CornerStoneTheGriffin

Class 3 Rating  
Registration No. 0  
Climate: North

9/7/2006

### WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	17618 Btuh
	Sensible Duct Load	0 Btuh
	<b>Total Sensible Zone Loads</b>	<b>17618 Btuh</b>
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	<b>Total sensible gain</b>	<b>17618 Btuh</b>
	Latent infiltration gain (for 54 gr. humidity difference)	3682 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (6 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	<b>Latent total gain</b>	<b>4882 Btuh</b>
	<b>TOTAL GAIN</b>	<b>22500 Btuh</b>

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



# Residential Window Diversity

## MidSummer

Project Title:  
608232CornerStoneTheGriffin

Lake City, FL

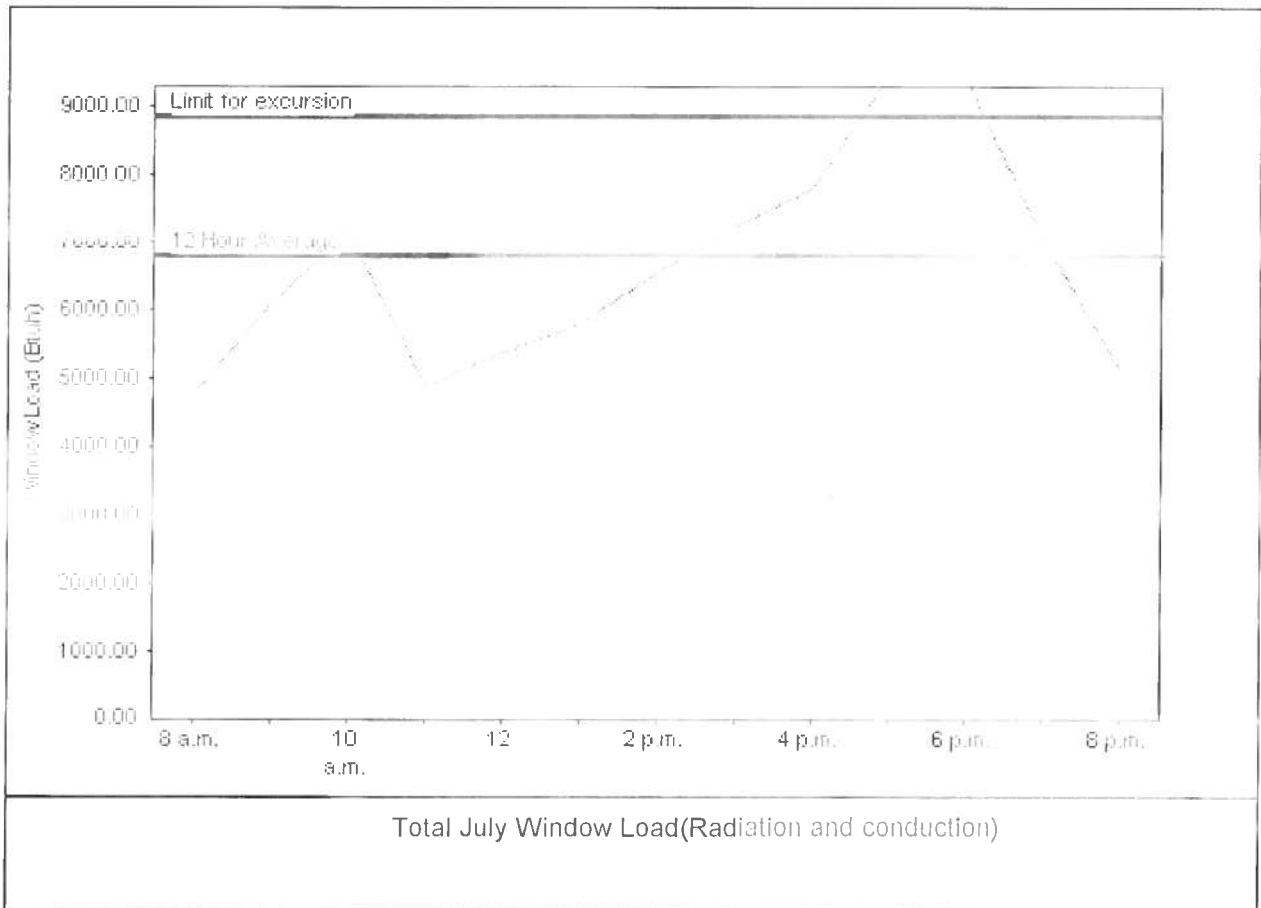
Class 3 Rating  
Registration No. 0  
Climate: North

9/7/2006

### Weather data for: Gainesville - Defaults

Summer design temperature	92 F	Average window load for July	6803 Btuh
Summer setpoint	75 F	Peak window load for July	9489 Btuh
Summer temperature difference	17 F	Excursion limit(130% of Ave.)	8844 Btuh
Latitude	29 North	Window excursion (July)	645 Btuh

### WINDOW Average and Peak Loads



Warning: This application has glass areas that produce relatively large heat gains for part of the day. Variable air volume devices may be required to overcome spikes in solar gain for one or more rooms. A single fan may be required or some rooms may require zone control.

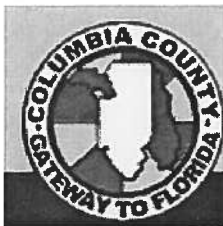
EnergyGauge® System Sizing for Florida residences only

PREPARED BY: *Ben Gaud*

DATE: *9-7-06*

EnergyGauge® FLR2PB v4.1





From: The Columbia County Building & Zoning Department  
Plan Review  
135 NE Hernando Av.  
P.O. Box 1529  
Lake City Florida 32056-1529

Reference to a building permit application Number: **0609-69**

Bryan Zecher Construction Owner Cornerstone Development Property ID# 28-3s-16-02377-110

On the date of September 26, 2006 application 0609-69 and plans for construction of a single family dwelling were reviewed and the following information or alteration to the plans will be required to continue processing this application. If you should have any question please contact the above address, or contact phone number (386) 758-1163 or fax any information to (386) 754-7088.

**Please include application number 0609-69 and when making reference to this application.**

***This is a plan review for compliance with the Florida Residential Code 2004 only and doesn't make any consideration toward the land use and zoning requirements.***

1. Please provide a copy of a signed released site plan from the Columbia County Environmental Health Department which confirms approval of the waste water disposal system.

✓ 2. Please verify compliance with the FRC-2004 section R308.4 Hazardous locations :( Master Bathroom) Glazing in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers. Glazing in any part of a building wall enclosing these compartments where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface. Each pane of glazing installed in hazardous locations as defined in Section R308.4 shall be provided with a manufacturer's or installer's label, designating the type and thickness of glass and the safety glazing standard with which it complies, which is visible in the final installation. The label shall be acid etched, sandblasted, ceramic-fired, embossed mark, or shall be of a type which once applied cannot be removed without being destroyed.

Window  
7'4" TO  
Bottom

3. Within the garage area is a room which two appliances are located, one of these appliances being a HVAC unit to which the FRC-2004 sections R309.1.1 requires any duct penetration: Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall have no openings into the garage.

STEEL DOOR  
TO BE  
USED ✓

Please indicate the method to be used to comply with the FRC-2004 sections R309.1.1section

✓ 4. The attic access opening (pull down ladder type attic egress door) in the garage ceiling shall have the same protection requirements of FRC-2004 C: R309.2 Separation required. The garage shall be separated from the residence and its

FIRE  
RATED

attic area by not less than ½-inch (12.7 mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch (15.9 mm) Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½-inch (12.7 mm) gypsum board or equivalent. Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors.

Thank You:



Joe Haltiwanger  
Plan Examiner  
Columbia County Building  
Department

**WILLIAM N. KITCHEN**

PROFESSIONAL SURVEYOR AND MAPPER  
152 N. MARION AVENUE  
LAKE CITY, FLORIDA 32055  
PHONE (386) 755-7786 FAX (386) 755-5506  
E-MAIL BSSK@BELLSOUTH.NET

DATE : JAN. 24, 2007

CORNERSTONE DEVELOPERS, LLC  
180 NW AMENITY COURT  
LAKE CITY, FLORIDA. 32055

To Whom It May Concern:

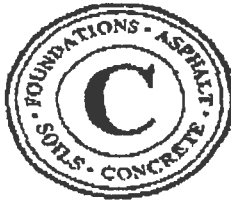
RE: FINISH FLOOR ELEVATION

SUBJECT PARCEL # 28-3S-16-02377-110 , LOT 10 MAGNOLIA HILLS, 101 NW  
ETHELIND COURT, LAKE CITY, FL. THE AS-BUILT OF THE FINISH FLOOR IS  
AT ELEVATION 130.2 FEET. WHICH IS 1.7 FEET HIGHER THAN THE  
PROPOSED FINISH FLOOR ELEVATION OF 128.5 FEET. SEE ATTACH LETTER  
FROM CAL TEC TESTING.

Thank you,

WILLIAM N. KITCHEN PSM # 5490

*William N. Kitchen*  
1-24-2007



## Cal-Tech Testing, Inc.

- Engineering
- Geotechnical
- Environmental

LABORATORIES

P.O. Box 1625 • Lake City, FL 32056-1625  
6919 Distribution Avenue S., Unit #5 • Jacksonville, FL 32257

Tel. (386) 755-8633 • Fax (386) 752-8456  
Tel. (904) 282-4048 • Fax (904) 262-4047

July 24, 2006

Cornerstone Developers, LLC  
180 NW Amenity Court  
Lake City, Florida 32055

Attention: Chris Cox

Reference: Proposed Residence  
Lot 10, Magnolia Hills  
Columbia County, Florida  
Cal-Tech Project No. 06-451

Dear Mr. Cox,

Cal-Tech Testing, Inc. has completed an investigation and evaluation of lot 10 of Magnolia Hills in Columbia County, Florida. The purposes of our work were to evaluate the potential for flooding of a home to be constructed on the lot and to provide recommendations for selecting a finished floor elevation.

Based upon the U. S. Coast and Geodetic Survey marker "BP19" located near the intersection of U. S. 90 and Brown Road, the elevation of the center of the cul-de-sac adjacent the proposed building site is approximately 130.9 feet. The ground surface elevation at the center of the building site is approximately 125.7 feet, and the proposed finished floor elevation is approximately 128.5 feet. This places the finished floor elevation about 2.4 feet below the elevation of the center of the cul-de-sac.

Columbia County regulations require the finished floor of a new residence to be at least 12 inches above the elevation of the adjacent roadway unless it can be shown such an elevation is not required to substantially reduce the likelihood of flooding.

Based upon the USGS topographic quadrangle map, the proposed home site is positioned within an isolated basin of approximately 100 acres for which the basin rim is estimated to be near elevation 153 feet. The FEMA flood map of Columbia County indicates there are no flood zones within this basin. Additionally, only one flood zone located within about one mile of the site has a flood elevation estimated to exceed 153 feet. This zone "A" flood area is located approximately 1/4 mile west of the site, and the flood elevation for this area is estimated to be about 155 feet; however, this flood area is topographically isolated such that flooding within this flood zone would not affect the proposed home site.

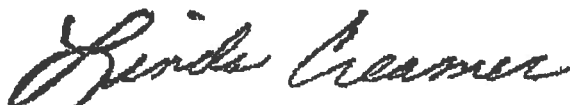
*"Excellence in Engineering & Geoscience"*

Since no flood areas are delineated within the basin by the FEMA flood map, we believe flooding within the basin sufficient to flood the home is highly unlikely. Such flooding would require maximum flood depths on the order of 15 feet within the basin and an average flood depth of about 6 feet over an area of about 20 acres.


Based upon our evaluation, it is our opinion elevating the finished floor to 1 foot above the adjacent roadway will not be required. However, we recommend the finished floor elevation be selected and/or the site be graded such that the finished floor is a minimum of 12 inches above the finished surface grade at the perimeter of the residence. With suitable site grading to provide separation between the finished floor and the surrounding surface grade, the proposed finished floor elevation of approximately 128.5 feet should be sufficient to substantially reduce the likelihood of flooding at the site.

We appreciate the opportunity to be of service on this project and look forward to a continued association. Please do not hesitate to contact us should you have questions concerning this report or if we may be of further assistance.

Respectfully submitted,  
Cal-Tech Testing, Inc.



Linda Creamer  
President / CEO



John C. Dorman, Jr., Ph.D., P.E.  
Geotechnical Engineer

7/24/07  
52612