

DATE 06/26/2006

Columbia County Building Permit

PERMIT
000024673

This Permit Expires One Year From the Date of Issue

APPLICANT LINDA RODER PHONE 752-2281
ADDRESS 387 SW KEMP COURT LAKE CITY FL 32024
OWNER TROY & HEATHER MARKHAM PHONE 623-2383
ADDRESS 9836 NW LAKE JEFFERY ROAD LAKE CITY FL 32055
CONTRACTOR ADAM PAPKA PHONE 623-2383
LOCATION OF PROPERTY 90W, TL ON LAKE JEFFREY, 1 1/4 MILES PAST I-75 OVERPASS
JUST PAST INDIAN SPRINGS DRIVE

TYPE DEVELOPMENT SFD,UTILITY ESTIMATED COST OF CONSTRUCTION 103500.00
HEATED FLOOR AREA 2070.00 TOTAL AREA 2864.00 HEIGHT 1 STORIES 1
FOUNDATION CONC WALLS FRAMED ROOF PITCH 6/12 FLOOR SLAB
LAND USE & ZONING A-3 MAX. HEIGHT 20
Minimum Set Back Requirments: STREET-FRONT 30.00 REAR 25.00 SIDE 25.00
NO. EX.D.U. 0 FLOOD ZONE X DEVELOPMENT PERMIT NO.

PARCEL ID 12-3S-15-00167-005 SUBDIVISION OAK HAVEN
LOT 4 BLOCK A PHASE UNIT TOTAL ACRES

000001133
Culvert Permit No. Culvert Waiver Contractor's License Number Applicant/Owner/Contractor
CULVERT 06-0564-N BK JH
Driveway Connection Septic Tank Number LU & Zoning checked by Approved for Issuance New Resident
COMMENTS: ONE FOOT ABOVE THE ROAD

Check # or Cash 3178

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power date/app. by Foundation date/app. by Monolithic date/app. by
Under slab rough-in plumbing date/app. by Slab date/app. by Sheathing/Nailing date/app. by
Framing date/app. by Rough-in plumbing above slab and below wood floor date/app. by
Electrical rough-in date/app. by Heat & Air Duct date/app. by Peri. beam (Lintel) date/app. by
Permanent power date/app. by C.O. Final date/app. by Culvert date/app. by
M/H tie downs, blocking, electricity and plumbing date/app. by Pool date/app. by
Reconnection date/app. by Pump pole date/app. by Utility Pole date/app. by
M/H Pole date/app. by Travel Trailer date/app. by Re-roof date/app. by

BUILDING PERMIT FEE \$ 520.00 CERTIFICATION FEE \$ 14.32 SURCHARGE FEE \$ 14.32
MISC. FEES \$ 0.00 ZONING CERT. FEE \$ 50.00 FIRE FEE \$ 0.00 WASTE FEE \$
FLOOD DEVELOPMENT FEE \$ FLOOD ZONE FEE \$ 25.00 CULVERT FEE \$ TOTAL FEE 623.64
INSPECTORS OFFICE CLERKS OFFICE

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

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

This Permit Must Be Prominently Posted on Premises During Construction

PLEASE NOTIFY THE COLUMBIA COUNTY BUILDING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF EACH INSPECTION, IN ORDER THAT IT MAY BE MADE WITHOUT DELAY OR INCONVIENCE, PHONE 758-1008. THIS PERMIT IS NOT VALID UNLESS THE WORK AUTHORIZED BY IT IS COMMENCED WITHIN 6 MONTHS AFTER ISSUANCE.

The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.

Markham

623.64 50.00

Columbia County Building Permit Application

Revised 9-23-04

For Office Use Only Application # 6606-44 Date Received 6/14/06 By GP Permit # 1133/24673
Application Approved by - Zoning Official BLK Date 22.06.06 Plans Examiner OKJTH Date 6-26-07
Flood Zone X Development Permit N/A Zoning A-3 Land Use Plan Map Category A3
Comments _____

Applicants Name Linda Roder Phone 752-2281
Address 387 S.W. Kemp Ct Lake City FL 32024
Owners Name Troy & Heather Markham Phone 623-2383
911 Address 9836 NW Lake Jeffery Rd Lake City FL 32055
Contractors Name Adam Papka Phone 623-2383
Address POB 1921 Lake City FL 32056
Fee Simple Owner Name & Address NA
Bonding Co. Name & Address NA
Architect/Engineer Name & Address Will Meyers / Mark Disosway
Mortgage Lenders Name & Address CCB
Circle the correct power company FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progressive Energy
Property ID Number 12-35-15-00167-005 Estimated Cost of Construction 150 K
Subdivision Name Dak Haven Subdivision Lot 4 Block A Unit _____ Phase _____
Driving Directions 90 W, Lon Lake Jeffery, about 1 1/4 mi past I-75 overpass

Type of Construction SPD Number of Existing Dwellings on Property 0
Total Acreage 2.070 Lot Size _____ Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive
Actual Distance of Structure from Property Lines - Front 75' Side 40' Side 40' Rear 300'
Total Building Height 20' Number of Stories 1 Heated Floor Area 2070 Roof Pitch 6-12
Porch 303 GARAGE 491 TOTAL 2864

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) Linda R. Roder
Commission #DD303275
Expires: Mar 24, 2008
Bonded Thru
Atlantic Bonding Co., Inc.

STATE OF FLORIDA
COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me

this _____ day of _____ 20____.

Personally known _____ or Produced Identification _____

Contractor Signature
Contractors License Number CBC 1253409
Competency Card Number _____
NOTARY STAMP/SEAL

Notary Signature

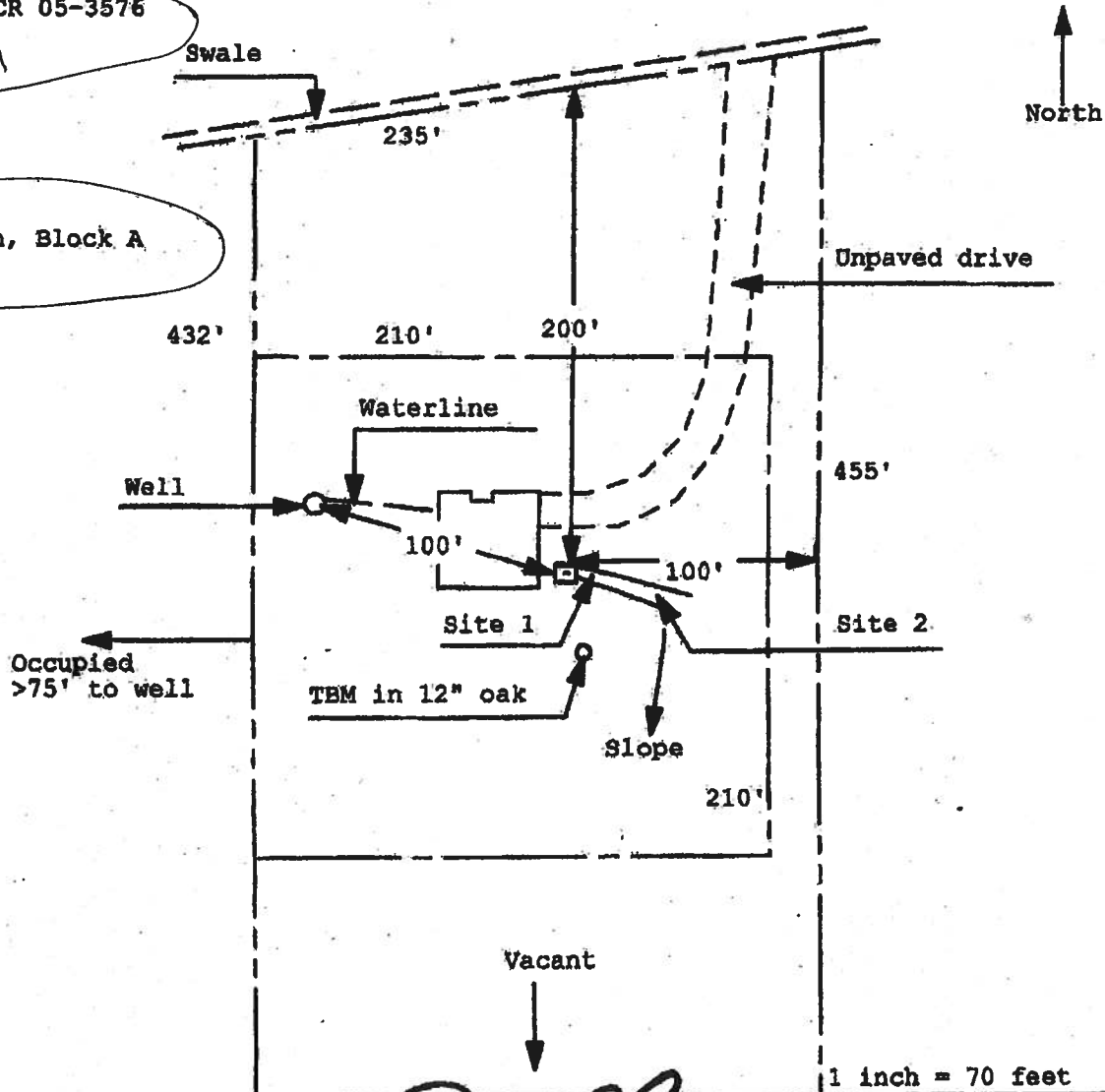
**Application for Onsite Sewage Disposal System
Construction Permit. Part II Site Plan**
Permit Application Number: 06-0564N

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT

MARKHAM/CR 05-3576

Papka

Oakhaven, Block A
Lot 4



Site Plan Submitted By *Paul L. Papka* Date 6/14/06
 Plan Approved X Not Approved Date

By *Salbi Gaddy* ESII 6.20.06 CPU

Notes: Columbia CHD

ATS# 14713

Prepared by:
Michael H. Harrell
Abstract & Title Services, Inc.
382 SW Baya Drive
Lake City, Florida 32025

Warranty Deed

Individual to Individual

THIS WARRANTY DEED made the 31st day of January, 2005 by

Douglas B. Granato, and his wife, and Johnnie F. Granato

hereinafter called the grantor, to

Heather B. Markham, and her husband, Troy A. Markham

whose post office address is: 3130 198th Street, Wellborn, Florida 32094
hereinafter called the grantee:

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

Witnesseth: That the grantor, for and in consideration of the sum of \$10.00 and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys, and confirms unto the grantee, all that certain land situate in COLUMBIA County, FLORIDA, viz: Parcel ID# R00167-005

Lot 4, Block A, Oakhaven Subdivision, according to the map or plat thereof as recorded in Plat Book 5, Page 54-54A, of the Public Records of Columbia County, Florida.

TOGETHER with all 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, 2004.

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

Signed, sealed and delivered in our presence:

Rhonda B. Green
Witness Rhonda B. Green

Douglas B. Granato
Douglas B. Granato
Johnnie F. Granato
Johnnie F. Granato

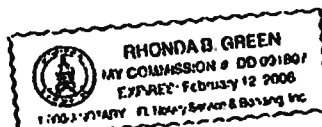
LYNDY BANNER
Witness LYNDY BANNER

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me this 31st day of January, 2005 by Douglas B. Granato, and his wife, and Johnnie F. Granato personally known to me or, if not personally known to me, who produced Driver's License No. _____ for identification and who did not take an oath.

(SEAL)

Rhonda B. Green
Notary Public

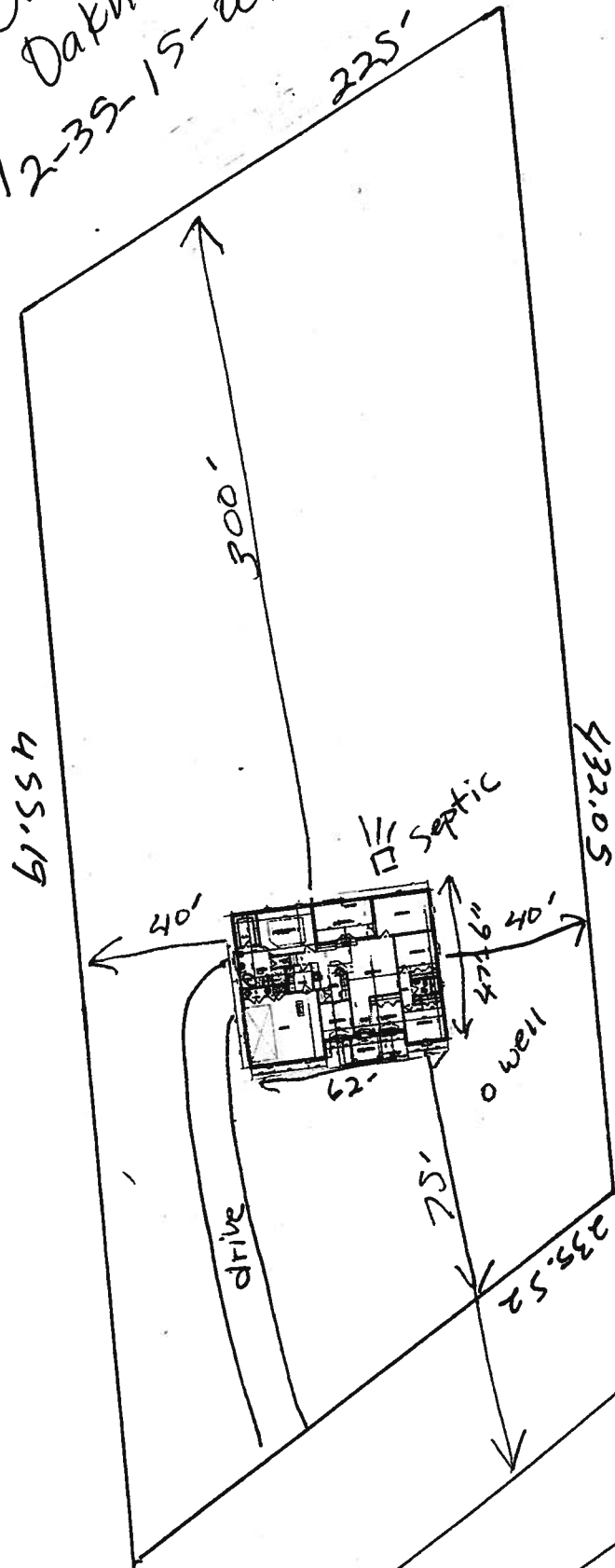


Inst: 2005002448 Date: 02/02/2005 Time: 14:54
Doc Stamp: 182.00

Doc Stamp, P. DeWitt Cason, Columbia County B: 1037 P: 80

Lot 4
Block A
Dakhaven
12-39-15-00167-005

Troy & Heather
Markham



2.07 ac

State Road 250

FROM :

FAX NO. : 386-755-7022

Sep. 17 2002 01:52PM P1

HALL'S PUMP & WELL SERVICE, INC.

SPECIALIZING IN 4"-8" WELLS



DONALD AND MARY HALL
OWNERS

PHONE (904) 752-1854
FAX (904) 755-7022
X72X0001N X72X0001N X72X0001N X
LAKE CITY, FLORIDA 32055
904 NW Main Blvd.

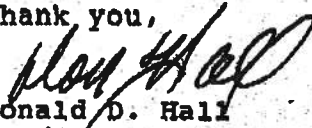
June 12, 2002

NOTICE TO ALL CONTRACTORS

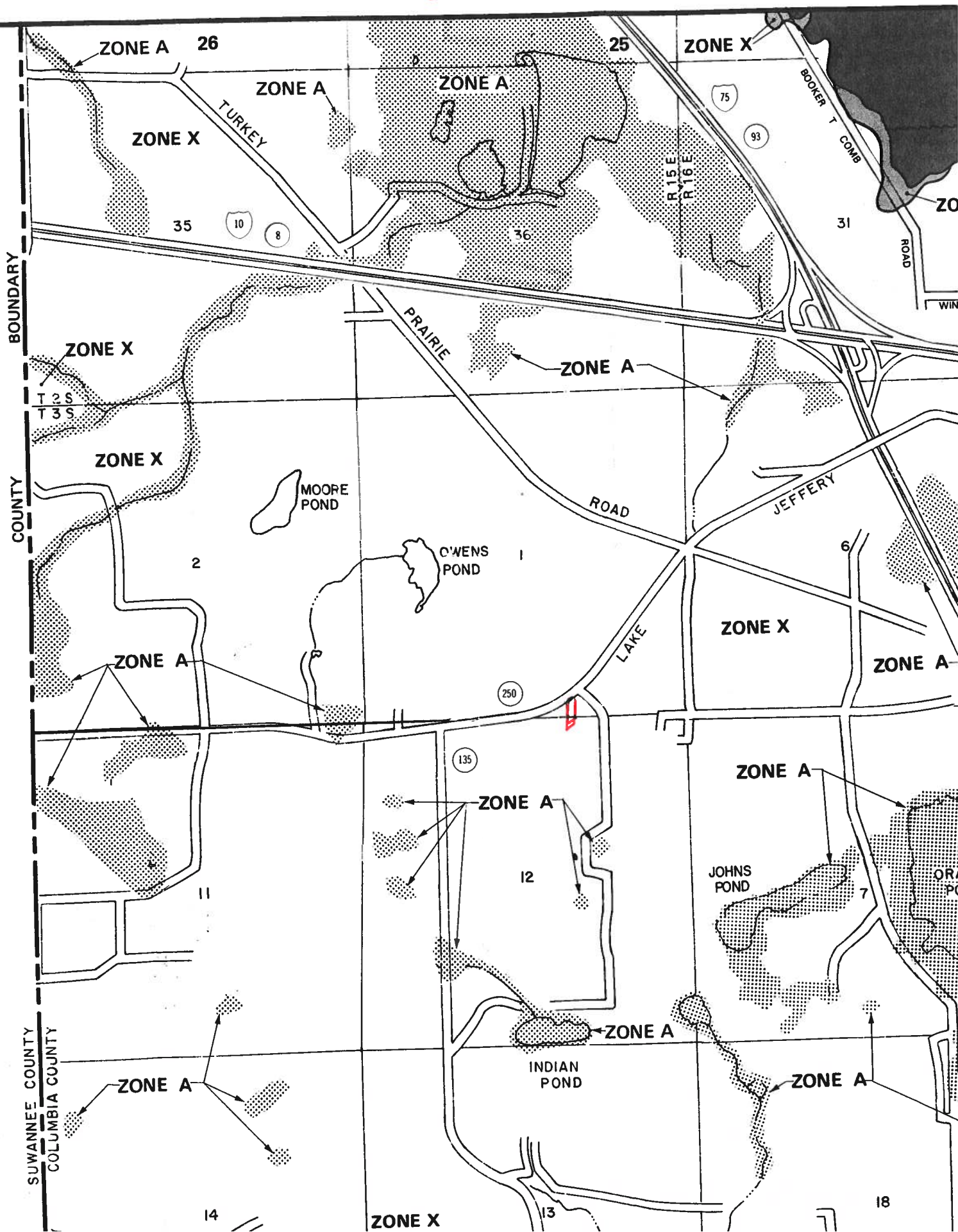
Please be advised that due to the new building codes we will use a large capacity diaphragm tank on all new wells. This will insure a minimum of one (1) minute draw down or one (1) minute refill. If a smaller diaphragm tank is used then we will install a cycle stop valve which will produce the same results.

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

Thank you,


Donald D. Hall
DDH/jk

0606-44



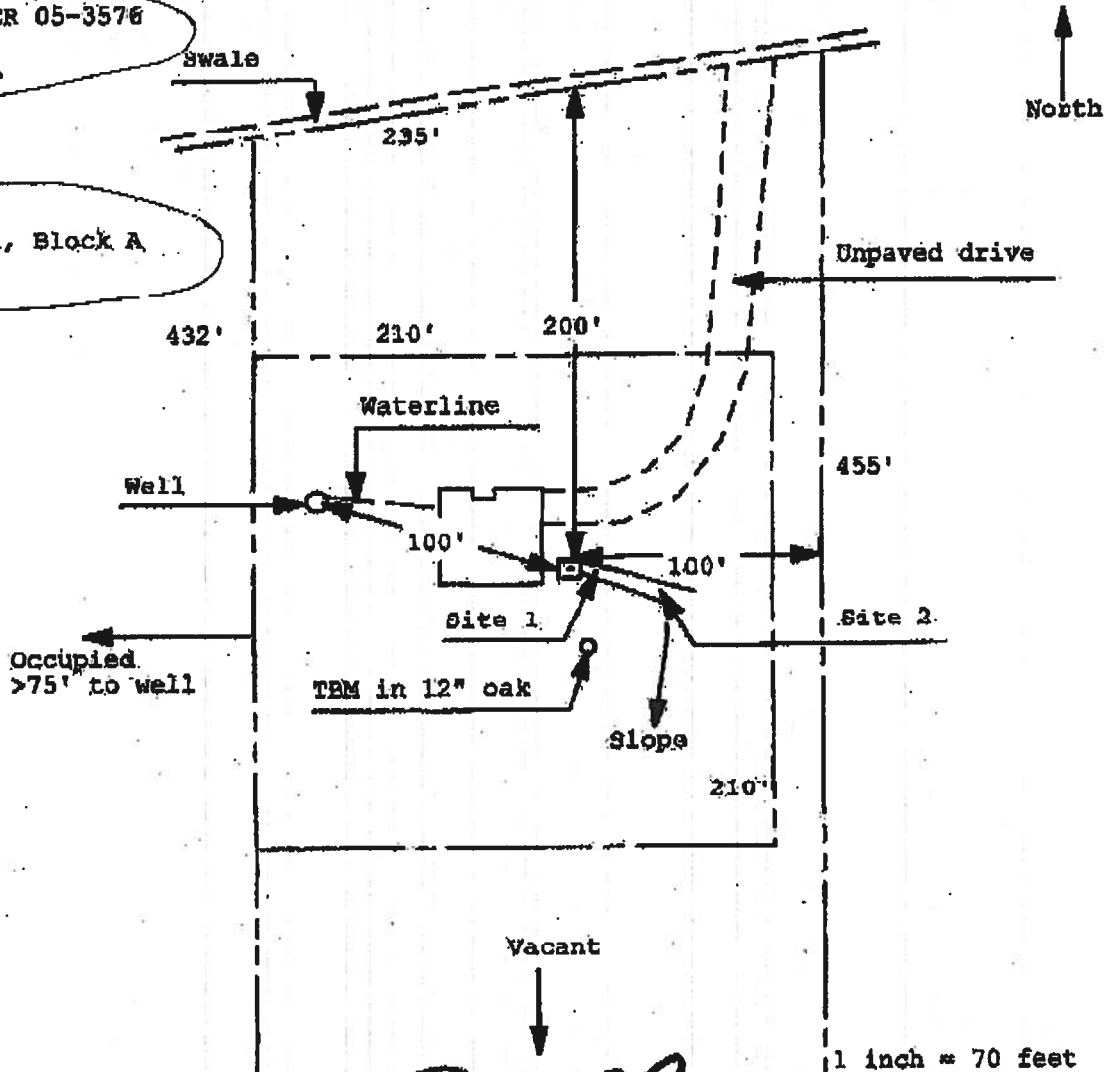
**Application for Onsite Sewage Disposal System
Construction Permit. Part II Site Plan**
Permit Application Number: 06-0564N

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT

MARKHAM/CR 05-3576

Parker

Oakhaven, Block A
Lot 4



Site Plan Submitted By *P. L. L.* Date 6/14/06
 Plan Approved ☒ Not Approved ☐ Date 6.20.06
 By *Salbi Gaddy* ESI Date 6.20.06 CPHU
 Notes: Columbia CHD

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs
Residential Whole Building Performance Method A

Project Name: **Adam's Framing & Const. - Markham**
Address: **Lot: 4, Sub: Oak Meadow, Plat:**
City, State: **Lake City, FL 32025-**
Owner: **Troy & Heather Markham**
Climate Zone: **North**

Builder: **Adam's Framing & Const.**
Permitting Office: **Columbia Co.**
Permit Number: **24673**
Jurisdiction Number: **221000**

1. New construction or existing New ☐
2. Single family or multi-family Single family ☐
3. Number of units, if multi-family 1 ☐
4. Number of Bedrooms 4 ☐
5. Is this a worst case? No ☐
6. Conditioned floor area (ft²) 2070 ft² ☐
7. Glass type¹ and area: (Label reqd. by 13-104.4.5 if not default)
 - a. U-factor: Description Area
(or Single or Double DEFAULT) 7a(Sngle Default) 260.4 ft² ☐
 - b. SHGC:
(or Clear or Tint DEFAULT) 7b. (Clear) 260.4 ft² ☐
8. Floor types
 - a. Slab-On-Grade Edge Insulation R=0.0, 242.0(p) ft ☐
 - b. N/A ☐
 - c. N/A ☐
9. Wall types
 - a. Frame, Wood, Exterior R=13.0, 1424.6 ft² ☐
 - b. Frame, Wood, Adjacent R=13.0, 302.2 ft² ☐
 - c. N/A ☐
 - d. N/A ☐
 - e. N/A ☐
10. Ceiling types
 - a. Under Attic R=30.0, 2200.0 ft² ☐
 - b. N/A ☐
 - c. N/A ☐
11. Ducts(Leak Free)
 - a. Sup: Unc. Ret: Unc. AH: Garage Sup. R=6.0, 50.0 ft ☐
 - b. N/A ☐

12. Cooling systems
 - a. Central Unit Cap: 48.0 kBtu/hr
SEER: 11.00 ☐
 - b. N/A ☐
 - c. N/A ☐
13. Heating systems
 - a. Electric Heat Pump Cap: 48.0 kBtu/hr
HSPF: 6.80 ☐
 - b. N/A ☐
 - c. N/A ☐
14. Hot water systems
 - a. Electric Resistance Cap: 50.0 gallons
EF: 0.90 ☐
 - b. N/A ☐
 - c. Conservation credits
(HR-Heat recovery, Solar
DHP-Dedicated heat pump) ☐
15. HVAC credits
(CF-Ceiling fan, CV-Cross ventilation,
HF-Whole house fan,
PT-Programmable Thermostat,
MZ-C-Multizone cooling,
MZ-H-Multizone heating) ☐

Glass/Floor Area: 0.13

Total as-built points: 31722

Total base points: 32030

PASS

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

PREPARED BY: Ton Morris

DATE: 6-7-06

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

OWNER/AGENT: [Signature]

DATE: 6-10-06

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 553.908 Florida Statutes.

BUILDING OFFICIAL: _____

DATE: _____



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

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

ADDRESS: Lot: 4, Sub: Oak Meadow, Plat: , Lake City, FL, 32025-

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned X BSPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt		Area X SPM X SOF = Points				
.18	2070.0	20.04	7466.9	Single, Clear	W	1.5	8.0	45.0	43.84	0.96	1890.1
				Single, Clear	W	13.8	8.0	40.0	43.84	0.42	740.0
				Single, Clear	S	11.8	8.0	20.0	40.81	0.47	387.3
				Single, Clear	N	1.5	8.0	30.0	21.73	0.97	630.5
				Single, Clear	N	1.5	8.0	2.7	21.73	0.97	56.7
				Single, Clear	E	1.5	8.0	20.0	47.92	0.96	917.7
				Single, Clear	E	1.5	8.0	60.0	47.92	0.96	2753.1
				Single, Clear	E	1.5	8.0	24.0	47.92	0.96	1101.2
				Single, Clear	S	1.5	8.0	16.0	40.81	0.92	602.9
				Single, Clear	S	1.5	8.0	2.7	40.81	0.92	101.7
				As-Built Total:				260.4		9181.3	
WALL TYPES		Area X BSPM = Points		Type	R-Value		Area X SPM		= Points		
Adjacent	302.2	0.70	211.5	Frame, Wood, Exterior	13.0		1424.6	1.50	2136.9		
Exterior	1424.6	1.70	2421.8	Frame, Wood, Adjacent	13.0		302.2	0.60	181.3		
Base Total:		1726.8	2633.4	As-Built Total:		1726.8		2318.2			
DOOR TYPES		Area X BSPM = Points		Type	R-Value		Area X SPM		= Points		
Adjacent	17.8	1.60	28.4	Exterior Insulated			20.0	4.10	82.0		
Exterior	20.0	4.10	82.0	Adjacent Insulated			17.8	1.60	28.4		
Base Total:		37.8	110.4	As-Built Total:		37.8		110.4			
CEILING TYPES		Area X BSPM = Points		Type	R-Value		Area X SPM X SCM		= Points		
Under Attic	2070.0	1.73	3581.1	Under Attic	30.0		2200.0	1.73 X 1.00	3806.0		
Base Total:		2070.0	3581.1	As-Built Total:		2200.0		3806.0			
FLOOR TYPES		Area X BSPM = Points		Type	R-Value		Area X SPM		= Points		
Slab	242.0(p)	-37.0	-8954.0	Slab-On-Grade Edge Insulation	0.0		242.0(p)	-41.20	-9970.4		
Raised	0.0	0.00	0.0								
Base Total:			-8954.0	As-Built Total:		242.0		-9970.4			
INFILTRATION		Area X BSPM = Points				Area X SPM		= Points			
	2070.0	10.21	21134.7			2070.0		10.21	21134.7		

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

ADDRESS: Lot: 4, Sub: Oak Meadow, Plat: , Lake City, FL, 32025-

PERMIT #:

BASE				AS-BUILT						
Summer Base Points: 25972.5				Summer As-Built Points: 26580.2						
Total Summer Points	X System Multiplier	=	Cooling Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	=	Cooling Points
25972.5	0.4266		11079.9	(sys 1: Central Unit 48000 btuh , SEER/EFF(11.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0(INS) 26580 1.00 (1.09 x 1.000 x 1.00) 0.310 1.000 8989.4 26580.2 1.00 1.090 0.310 1.000 8989.4						

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

ADDRESS: Lot: 4, Sub: Oak Meadow, Plat: , Lake City, FL, 32025-

PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt		Area X WPM X WOF = Points					
.18	2070.0	12.74	4746.9	Single, Clear	W	1.5	8.0	45.0	28.84	1.01	1312.2	
				Single, Clear	W	13.8	8.0	40.0	28.84	1.22	1403.5	
				Single, Clear	S	11.8	8.0	20.0	20.24	3.26	1319.5	
				Single, Clear	N	1.5	8.0	30.0	33.22	1.00	997.5	
				Single, Clear	N	1.5	8.0	2.7	33.22	1.00	89.8	
				Single, Clear	E	1.5	8.0	20.0	26.41	1.02	538.7	
				Single, Clear	E	1.5	8.0	60.0	26.41	1.02	1616.0	
				Single, Clear	E	1.5	8.0	24.0	26.41	1.02	646.4	
				Single, Clear	S	1.5	8.0	16.0	20.24	1.04	337.1	
				Single, Clear	S	1.5	8.0	2.7	20.24	1.04	56.9	
				As-Built Total:				260.4		8317.5		
WALL TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points					
Adjacent	302.2	3.60	1087.9	Frame, Wood, Exterior	13.0		1424.6	3.40		4843.6		
Exterior	1424.6	3.70	5271.0	Frame, Wood, Adjacent	13.0		302.2	3.30		997.3		
Base Total:		1726.8	6358.9	As-Built Total:				1726.8		5840.9		
DOOR TYPES Area X BWPM = Points				Type			Area X WPM = Points					
Adjacent	17.8	8.00	142.2	Exterior Insulated			20.0	8.40		168.0		
Exterior	20.0	8.40	168.0	Adjacent Insulated			17.8	8.00		142.2		
Base Total:		37.8	310.2	As-Built Total:				37.8		310.2		
CEILING TYPES Area X BWPM = Points				Type	R-Value		Area X WPM X WCM = Points					
Under Attic	2070.0	2.05	4243.5	Under Attic	30.0		2200.0	2.05 X 1.00		4510.0		
Base Total:		2070.0	4243.5	As-Built Total:				2200.0		4510.0		
FLOOR TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points					
Slab	242.0(p)	8.9	2153.8	Slab-On-Grade Edge Insulation	0.0		242.0(p)	18.80		4549.6		
Raised	0.0	0.00	0.0									
Base Total:			2153.8	As-Built Total:				242.0		4549.6		
INFILTRATION Area X BWPM = Points				Area X WPM = Points								
		2070.0	-0.59					2070.0		-0.59		-1221.3

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

ADDRESS: Lot: 4, Sub: Oak Meadow, Plat: , Lake City, FL, 32025-

PERMIT #:

BASE				AS-BUILT						
Winter Base Points: 16592.1				Winter As-Built Points: 22306.9						
Total Winter Points	X	System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points	
16592.1		0.6274	10409.9	(sys 1: Electric Heat Pump 48000 btuh ,EFF(6.8) Ducts:Unc(S),Unc(R),Gar(AH),R6.0 22306.9 1.000 (1.069 x 1.000 x 1.00) 0.501 1.000 11958.1 22306.9 1.00 1.069 0.501 1.000 11958.1						

WATER HEATING & CODE COMPLIANCE STATUS**Residential Whole Building Performance Method A - Details**

ADDRESS: Lot: 4, Sub: Oak Meadow, Plat: , Lake City, FL, 32025-

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 Multiplier	= Total
4		2635.00	10540.0	50.0	0.90	4	1.00	2693.56	10774.2
				As-Built Total:					10774.2

CODE COMPLIANCE STATUS									
BASE					AS-BUILT				
Cooling Points	+	Heating Points	+	Hot Water Points	= Total Points	Cooling Points	+	Heating Points	+ Hot Water Points = Total Points
11080		10410		10540	32030	8989		11958	10774 31722

PASS

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 4, Sub: Oak Meadow, Plat: , Lake City, FL, 32025-

PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

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

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

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

Tested sealed ducts must be certified in this house.

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 83.3

The higher the score, the more efficient the home.

Troy & Heather Markham, Lot: 4, Sub: Oak Meadow, Plat: , Lake City, FL, 32025-

1. New construction or existing	New	___	12. Cooling systems	
2. Single family or multi-family	Single family	___	a. Central Unit	Cap: 48.0 kBtu/hr
3. Number of units, if multi-family	1	___		SEER: 11.00
4. Number of Bedrooms	4	___	b. N/A	___
5. Is this a worst case?	No	___	c. N/A	___
6. Conditioned floor area (ft ²)	2070 ft ²	___		___
7. Glass type ¹ 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: 48.0 kBtu/hr
(or Single or Double DEFAULT)	7a(Sngle Default) 260.4 ft ²	___		HSPF: 6.80
b. SHGC:		___	b. N/A	___
(or Clear or Tint DEFAULT)	7b. (Clear) 260.4 ft ²	___	c. N/A	___
8. Floor types		___	14. Hot water systems	
a. Slab-On-Grade Edge Insulation	R=0.0, 242.0(p) ft	___	a. Electric Resistance	Cap: 50.0 gallons
b. N/A	___	___		EF: 0.90
c. N/A	___	___	b. N/A	___
9. Wall types		___	c. Conservation credits	___
a. Frame, Wood, Exterior	R=13.0, 1424.6 ft ²	___	(HR-Heat recovery, Solar	___
b. Frame, Wood, Adjacent	R=13.0, 302.2 ft ²	___	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, 2200.0 ft ²	___	MZ-C-Multizone cooling,	___
b. N/A	___	___	MZ-H-Multizone heating)	___
c. N/A	___	___		___
11. Ducts(Leak Free)		___		___
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 50.0 ft	___		___
b. N/A	___	___		___

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

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: _____



**NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStarTM designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu 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.*

Energy Code Compliance

Duct System Performance Report

Project Name: Adam's Framing & Const. - Markham Address: City, State: Lake City, FL 32025- Owner: Troy & Heather Markham Climate Zone: North	Builder: Adam's Framing & Const. Permitting Office: Permit Number: Jurisdiction Number:
---	--

Total Duct System Leakage Test Results

CFM25 Total Duct Leakage Test Values			
Line	System	Duct Leakage Total	Duct Leakage to Outdoors
1	System1	_____ cfm25(tot)	_____ cfm25(out)
2	System2	_____ cfm25(tot)	_____ cfm25(out)
3	System3	_____ cfm25(tot)	_____ cfm25(out)
4	System4	_____ cfm25(tot)	_____ cfm25(out)
5	Total House Duct System Leakage	Sum lines 1-4 _____ Divide by _____ (Total Conditioned Floor Area) = _____ (Q _{n,tot}) ☐ Receive credit if Q _{n,tot} ≤ 0.03	Sum lines 1-4 _____ Divide by _____ (Total Conditioned Floor Area) = _____ (Q _{n,out}) ☐ Receive credit if Q _{n,out} ≤ 0.03 AND Q _{n,tot} ≤ 0.09

I hereby certify that the above duct testing performance results demonstrate compliance with the Florida Energy Code requirements in accordance with Section 610.1.A.1, Florida Building Code, Building Volume, Chapter 13 for leak free duct system credit.

Signature: _____
Printed Name: _____
Florida Rater Certification #: _____
DATE: _____

Florida Building Code requires that testing to confirm leak free duct systems be performed by a Class 1 Florida Energy Gauge Certified Energy Rater. Certified Florida Class 1 raters can be found at: <http://energygauge.com/search.htm>



BUILDING OFFICIAL: _____
DATE: _____

COLUMBIA COUNTY OFFICIAL CITY OF ALEXANDRIA

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 12-3S-15-00167-005

Building permit No. 000024673

Use Classification SFD, UTILITY

Fire: 55.80

Permit Holder ADAM PAPKA

Waste: 167.50

Owner of Building TROY & HEATHER MARKHAM

Total: 223.30

Location: 9836 NW LAKE JEFFERY RD

Date: 12/14/2006



[Signature]

Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)

Attention: Wuzie

**Columbia County Building Department
Culvert Waiver**

**Culvert Waiver No.
000001133**

DATE: 06/26/2006

BUILDING PERMIT NO. 24673

APPLICANT LINDA RODER

PHONE 752-2281

ADDRESS 387 SW KEMP COURT

LAKE CITY

FL 32024

OWNER TROY & HEATHER MARKHAM

PHONE 623-2383

ADDRESS 9836 NW LAKE JEFFERY ROAD

LAKE CITY

FL 32055

CONTRACTOR ADAM PAPKA

PHONE 623-2383

LOCATION OF PROPERTY 90W, TL ON LAKE JEFFREY, 1 1/4 MILES PAST I-75 OVERPASS

SUBDIVISION/LOT/BLOCK/PHASE/UNIT OAK HAVEN

4

A

PARCEL ID # 12-3S-15-00167-005

I HEREBY CERTIFY THAT I UNDERSTAND AND WILL FULLY COMPLY WITH THE DECISION OF THE COLUMBIA COUNTY PUBLIC WORKS DEPARTMENT IN CONNECTION WITH THE HEREIN PROPOSED APPLICATION.

SIGNATURE: 

A SEPARATE CHECK IS REQUIRED

MAKE CHECKS PAYABLE TO BCC

Amount Paid 50.00

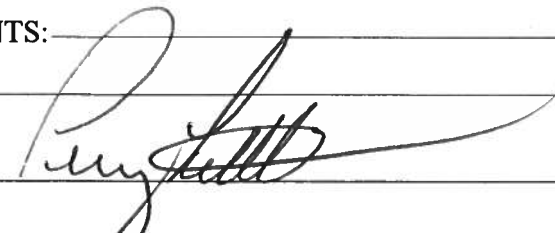
PUBLIC WORKS DEPARTMENT USE ONLY

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS APPLICATION AND DETERMINED THAT THE CULVERT WAIVER IS:

☒ APPROVED

☐ NOT APPROVED - NEEDS A CULVERT PERMIT

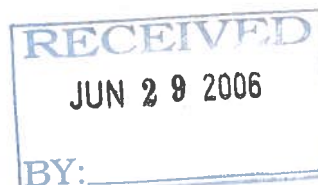
COMMENTS: _____

SIGNED: 

DATE: 7/5/06

ANY QUESTIONS PLEASE CONTACT THE PUBLIC WORKS DEPARTMENT AT 386-752-5955.

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



Permit Number: _____

Tax Folio Number: _____

State of: Florida

County of: Columbia

File Number: 06-0185

24673

NOTICE OF COMMENCEMENT

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.

1. Description of Property:
Lot 4, Block A, OAKHAVEN SUBDIVISION, according to the plat thereof, recorded in Map Book 5, Page(s) 54 and 54A of the Public Records of Columbia County, Florida.
2. General Description of Improvements: Construction of Dwelling
3. Owner Information:
 - a. Name and Address: Heather B. Markham and Troy A. Markham
NW Lake Jeffery Rd, Lake City, FL 32055
 - b. Interest in property: Fee Simple
 - c. Names and address of fee simple title holder (if other than owner): None
4. Contractor: Adam's Framing and Construction, LLC
P.O. Box 1921
Lake City, FL 32056
5. Surety: n/a
6. Lender: First Federal Savings Bank of Florida, 4705 West U.S. Highway 90, Lake City, Florida 32056
7. Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1) (a)7., Florida Statutes.
8. In addition to himself, Owner designates the following persons to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes Paula Hacker of First Federal Savings Bank of Florida, 4705 West U.S. Highway 90/ P. O. Box 2029, Lake City, Florida 32056.
9. Expiration date of Notice of Commencement (the expiration date is 1 year from date of recording unless a different date is specified): [User Input as to the date of expiration of the Notice of Commencement].

Heather B. Markham

Heather B. Markham

Troy A. Markham

Troy A. Markham

Sworn to and subscribed before me June 14, 2006 by Heather B. Markham and Troy A. Markham who is personally known to me or who did provide DL as identification.

Notary Public

My Commission Expires: 9/17/06



Matthew Rocco

My Commission ID: 00160700

Expires September 17, 2006

Inst: 2006014840 Date: 06/20/2006 Time: 16:14

A-2 DC, P. Dewitt Cason, Columbia County B: 1087 P: 816

New Construction Subterranean Termite Soil Treatment Record

OMB Approval No. 2502-0525

This form is completed by the licensed Pest Control Company.

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This information is mandatory and is required to obtain benefits. HUD may not collect this information, and you are not required to complete this form, unless it displays a currently valid OMB control number.

Section 24 CFR 200.926d(b)(3) requires that the sites for HUD insured structures must be free of termite hazards. This information collection requires the builder to certify that an authorized Pest Control company performed all required treatment for termites, and that the builder guarantees the treated area against infestation for one year. Builders, pest control companies, mortgage lenders, homebuyers, and HUD as a record of treatment for specific homes will use the information collected. The information is not considered confidential.

This report is submitted for informational purposes to the builder on proposed (new) construction cases when soil treatment for prevention of subterranean termite infestation is specified by the builder, architect, or required by the lender, architect, FHA, or VA.

All contracts for services are between the Pest Control Operator and builder, unless stated otherwise.

24673

Section 1: General Information (Treating Company Information)

Company Name: Aspen Pest Control, Inc.
Company Address: 301 NW Cole Terrace City: Lake City State: FL Zip: 32055
Company Business License No.: JB108478 Company Phone No.: 386-731-3611
FHA/VA Case No. (if any): _____

Section 2: Builder Information

Company Name: Adams Framing & Construction Company Phone No.: _____

Section 3: Property Information

Location of Structure(s) Treated (Street Address or Legal Description, City, State and Zip): LOT 4 Block A
Oak Haven SP Columbia County FL 32055
Type of Construction (More than one box may be checked) ☒ Slab ☐ Basement ☐ Crawl ☐ Other _____
Approximate Depth of Footing: Outside _____ Inside _____ Type of Fill: Dirt

Section 4: Treatment Information

Date(s) of Treatment(s): 7-20-2006
Brand Name of Product(s) Used: Terminator SL
EPA Registration No.: 432-TX-1
Approximate Final Mix Solution %: 10%
Approximate Size of Treatment Area: Sq. ft. 2869 Linear ft. 241 Linear ft. of Masonry Voids: _____
Approximate Total Gallons of Solution Applied: 431
Was treatment completed on exterior? ☐ Yes ☒ No
Service Agreement Available? ☒ Yes ☐ No

Note: Some state laws require service agreements to be issued. This form does not preempt state law.

Attachments (List) _____

Comments _____

Name of Applicator(s): T. Dryden Certification No. (if required by State law): JB104378

The applicator has used a product in accordance with the product label and state requirements. All treatment materials and methods used comply with state and federal regulations.

Authorized Signature: [Signature] Date: 7-20-2006

Warning: HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. (18 U.S.C. 1001, 1010, 1012; 31 U.S.C. 3729, 3802)

Form NPCA-99-B may still be used

form HUD-NPCA-99-B (04/2003)



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: **0606-44**

Contractor: Adam Papka Owner Troy & Heather Markham Lot 4 Block "A" Oak Haven Subdivision

On the date of June 20, 2006 application 0606-44 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 0606-44 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.

To help ensure compliance with the Florida Residential Code 2004 the comments below need to be addressed on the plans.

- 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 submit a recorded (with the Columbia County Clerk Office) notice of commencement before any inspections can be preformed by the Columbia County Building Department.
- 3.** In the garage area the plans show an attic access opening (pull down ladder type attic egress door) this attic access opening shall provide the same protection as required of FRC-2004 sections R309.2 Separation required. The garage shall be separated from the residence and its attic area by not less than ½-inch (12.7 mm) gypsum board applied to the garage side. 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 (pull down ladder type attic egress door) 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.

Joe Haltiwanger



Plan Examiner
Columbia County Building Department



426 SW Commerce Dr. Ste 135 Lake City, FL 32025 386.758.8406 phone 386.752.7158 fax

Facsimile Transmittal Cover Sheet

To: Plans review

Attention: Joe Haltiwanger

Fax: (386) 758-2160

Phone: (386) 758-1008

From: Will Myers

Number of pages: 1 (including cover sheet) **Date:** 06/23/2006

Project information:

Permit application #0606-44

Joe,

Please attach this page to the permitted plans with notation regarding fire rated attic access doors:

When installing an attic access and/or pull-down stair unit in the garage, devise shall have a minimum 20 min. fire rating.

Best Regards,

WILL MYERS

Project Information for:		L166296	
Builder:	TROY MARKHAM (O/B)	Date:	5/25/2006
Lot:	N/A	Start Number:	1061
Subdivision:	17250 NW 212TH TERR.		
County or City:	ALACHUA COUNTY		
Truss Page Count:	37		

Truss Design Load Information (UNO)		Design Program: MiTek 5.2 / 6.2	
Gravity	Wind	Building Code: FBC2004	
Roof (psf): 42	Wind Standard: ASCE 7-02		
Floor (psf): 55	Wind Speed (mph): 110		

Note: See individual truss drawings for special loading conditions

Building Designer, responsible for Structural Engineering: (See attached)	
Owner Builder	
Address: N/A	
N/A	Designer: 108

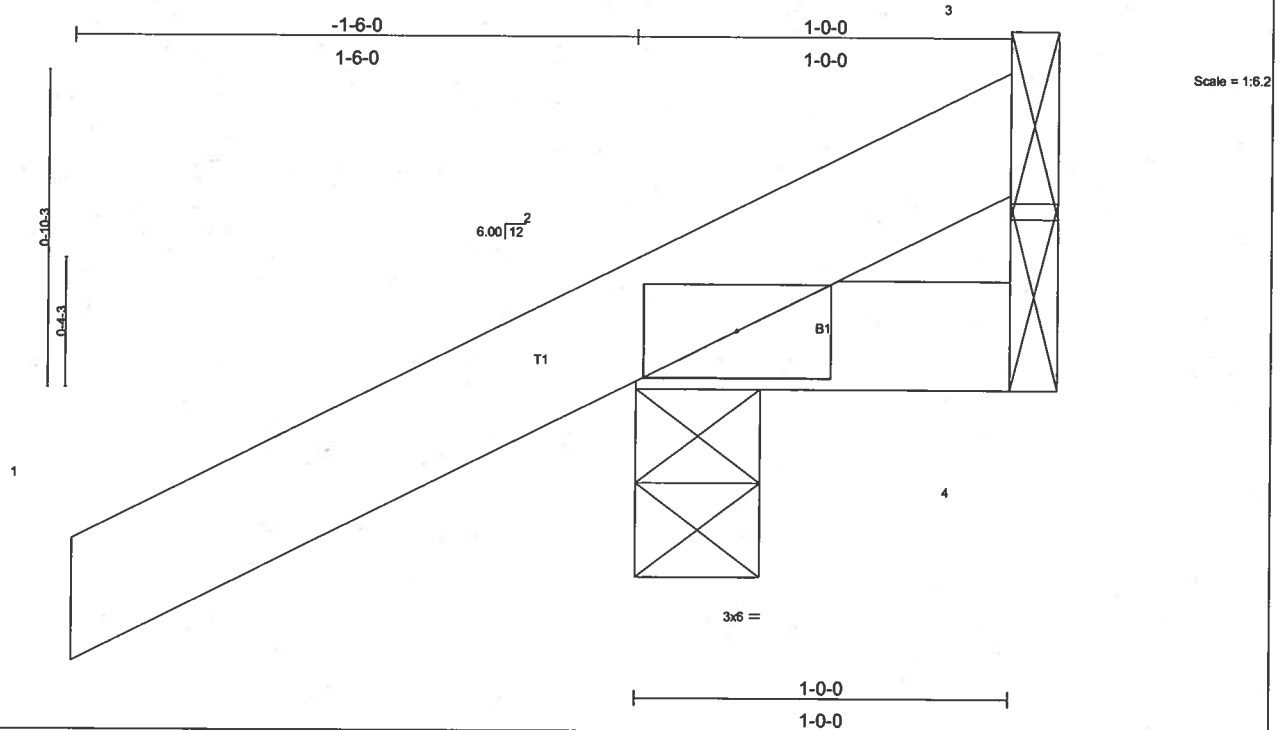
Truss Design Engineer:	Thomas, E. Miller, P.E., 56877 - Byron K. Anderson, PE FL 60987
Company:	Structural Engineering and Inspections, Inc. EB 9196
Address	16105 N. Florida Ave, Ste B, Lutz, FL 33549

Notes:

1. Truss Design Engineer is responsible for the individual trusses as components only.
2. Determination as to the suitability and use of these truss components for the structure is the responsibility of the Building Designer of Record, as defined in ANSI/TPI
3. The seal date shown on the individual truss component drawings must match the seal date on this index sheet.
4. Trusses designed for vertical loads only, unless noted otherwise.

#	Truss ID	Dwg. #	Seal Date	#	Truss ID	Dwg. #	Seal Date
1	CJ1	0525061061	5/25/2006				
2	CJ3	0525061062	5/25/2006				
3	CJ4	0525061063	5/25/2006				
4	CJ5	0525061064	5/25/2006				
5	EJ7	0525061065	5/25/2006				
6	EJ7B	0525061066	5/25/2006				
7	HJ4	0525061067	5/25/2006				
8	HJ5	0525061068	5/25/2006				
9	HJ9	0525061069	5/25/2006				
10	PB06	0525061070	5/25/2006				
11	PB07	0525061071	5/25/2006				
12	T01	0525061072	5/25/2006				
13	T02	0525061073	5/25/2006				
14	T03	0525061074	5/25/2006				
15	T04	0525061075	5/25/2006				
16	T08A	0525061076	5/25/2006				
17	T09	0525061077	5/25/2006				
18	T10	0525061078	5/25/2006				
19	T11	0525061079	5/25/2006				
20	T12	0525061080	5/25/2006				
21	T13	0525061081	5/25/2006				
22	T14	0525061082	5/25/2006				
23	T15	0525061083	5/25/2006				
24	T16	0525061084	5/25/2006				
25	T17	0525061085	5/25/2006				
26	T18	0525061086	5/25/2006				
27	T19	0525061087	5/25/2006				
28	T20	0525061088	5/25/2006				
29	T21	0525061089	5/25/2006				
30	T22	0525061090	5/25/2006				
31	T23	0525061091	5/25/2006				
32	T24	0525061092	5/25/2006				
33	T25	0525061093	5/25/2006				
34	T26	0525061094	5/25/2006				
35	T27	0525061095	5/25/2006				
36	T28	0525061096	5/25/2006				
37	T29	0525061097	5/25/2006				

MAY 25 2006



LOADING (psf)	SPACING 2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.15	Vert(LL) -0.00	2	>999	240		MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.01	Vert(TL) -0.00	2	>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: 6 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=189/0-4.0, 4=14/Mechanical, 3=-41/Mechanical
 Max Horz 2=70(load case 5)
 Max Uplift 2=-181(load case 5), 3=-41(load case 1)
 Max Grav 2=189(load case 1), 4=14(load case 1), 3=61(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-45/35
BOT CHORD 2-4=0/0

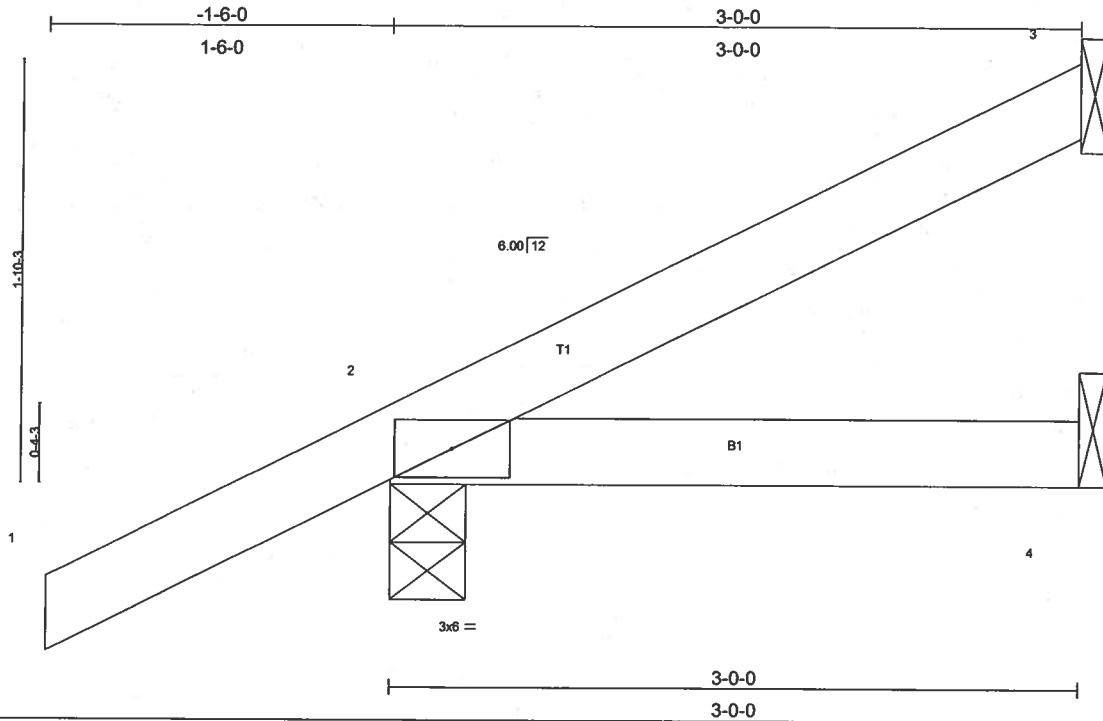
JOINT STRESS INDEX
2 = 0.10

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 181 lb uplift at joint 2 and 41 lb uplift at joint 3.

LOAD CASE(S) Standard

Job L166296	Truss CJ3	Truss Type JACK	Qty 15	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:26:44 2006 Page 1		



LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.17	Vert(LL)	-0.00	2-4	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.05	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: 12 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=48/Mechanical, 2=233/0-4-0, 4=42/Mechanical
Max Horz 2=115(load case 5)
Max Uplift 3=-37(load case 5), 2=-153(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-49/16
BOT CHORD 2-4=0/0

JOINT STRESS INDEX
2 = 0.11

NOTES

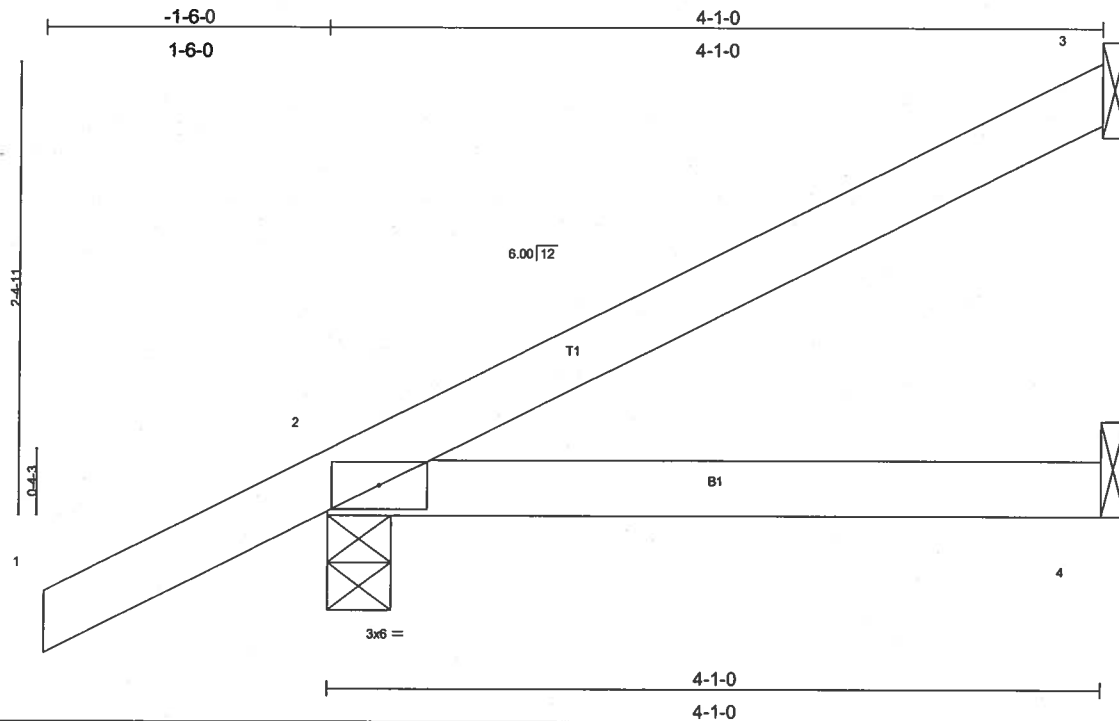
- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to 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 37 lb uplift at joint 3 and 153 lb uplift at joint 2.

LOAD CASE(S) Standard

DWG:R0522001005

Job	Truss	Truss Type	Qty	Ply	MARKHAM RESIDENCE
L166296	CJ4	JACK	3	1	
Builders FirstSource, Lake City, FL 32055			Job Reference (optional)		

6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:26:46 2006 Page 1



LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.17	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.16	Vert(LL) 0.04 2-4 >999 240		
BCCL 10.0	Lumber Increase 1.25	WB 0.00	Vert(TL) 0.03 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: 16 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 4-1-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=85/Mechanical, 2=271/0-4-0, 4=58/Mechanical
Max Horz 2=140(load case 5)
Max Uplift 3=-73(load case 5), 2=-202(load case 5), 4=-37(load case 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-73/30
BOT CHORD 2-4=0/0

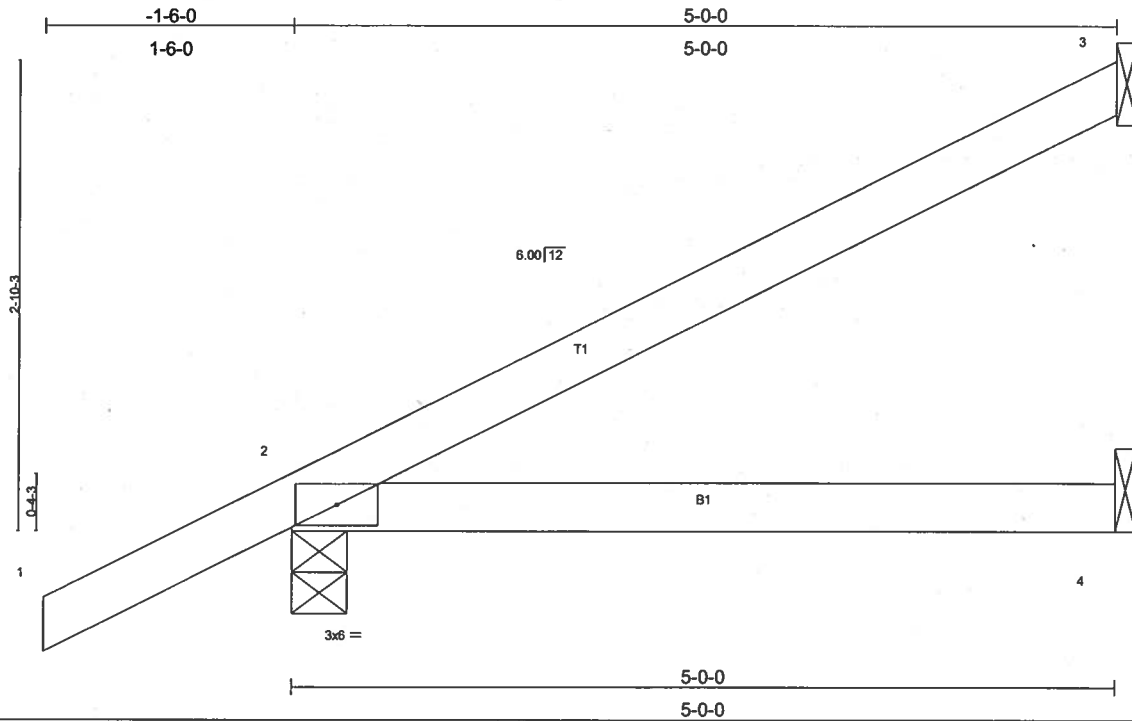
JOINT STRESS INDEX
2 = 0.12

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 and C-C Exterior(2) zone; porch left 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 73 lb uplift at joint 3, 202 lb uplift at joint 2 and 37 lb uplift at joint 4.

LOAD CASE(S) Standard

Job L166296	Truss CJ5	Truss Type JACK	Qty 8	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:26:49 2006 Page 1		



LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	Vert(LL)	-0.03	2-4	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.16	Vert(TL)	-0.05	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: 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 5-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=113/Mechanical, 2=306/0-4-0, 4=72/Mechanical
Max Horz 2=162(load case 5)
Max Uplift 3=-101(load case 5), 2=-159(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-96/41
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 101 lb uplift at joint 3 and 159 lb uplift at joint 2.

LOAD CASE(S) Standard

Job L166296	Truss EJ7	Truss Type MONO TRUSS	Qty 32	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:26:52 2006 Page 1

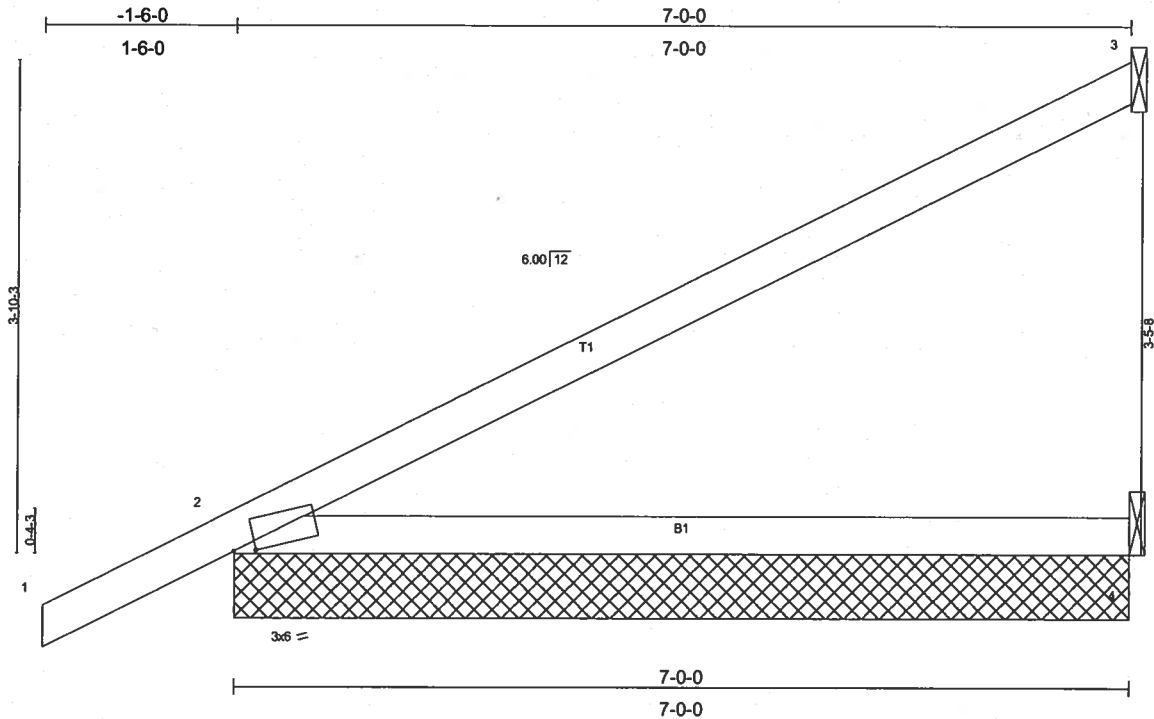


Plate Offsets (X,Y): [2:0-2-1,0-0-7]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.50	Vert(LL)	-0.16	2-4	>540	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.40	Vert(TL)	-0.26	2-4	>326	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: 25 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=172/7-0-0, 3=172/7-0-0, 2=384/7-0-0, 4=113/7-0-0, 4=113/7-0-0

Max Horz 2=209(load case 5)

Max Uplift 3=-143(load case 5), 2=-165(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-123/61

BOT CHORD 2-4=0/0

JOINT STRESS INDEX

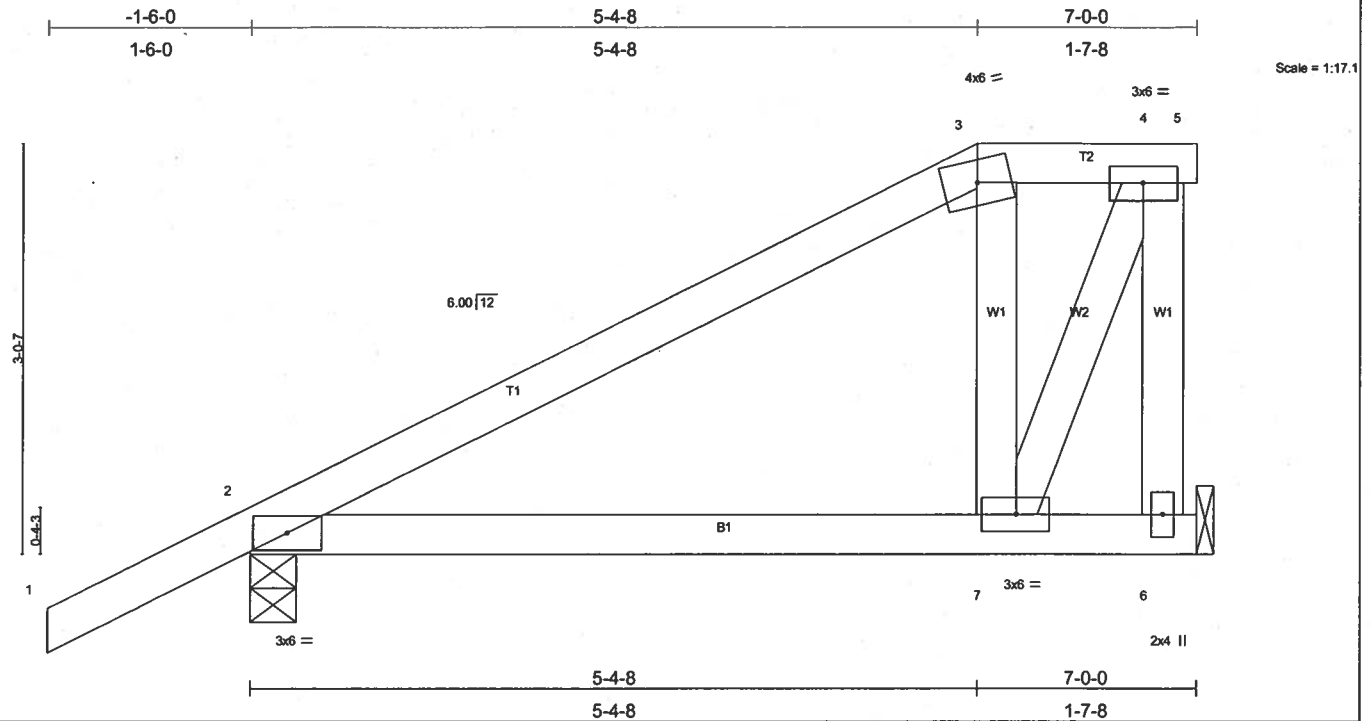
2 = 0.94

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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 143 lb uplift at joint 3 and 165 lb uplift at joint 2.

LOAD CASE(S) Standard

Job L166296	Truss EJ7B	Truss Type MONO HIP	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 Mitek Industries, Inc. Tue May 23 14:26:55 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 0.21	Vert(LL)	-0.03	2-7	>999	240	MT20	244/190
TCDL 7.0	Lumber Increase	1.25	BC 0.15	Vert(TL)	-0.04	2-7	>999	180		
BCLL 10.0	Rep Stress Incr	YES	WB 0.13	Horz(TL)	0.00	6	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002		(Matrix)							
									Weight: 36 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, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 6=269/Mechanical, 2=378/0-4-0
 Max Horz 2=172(load case 5)
 Max Uplift 6=-103(load case 5), 2=-184(load case 5)

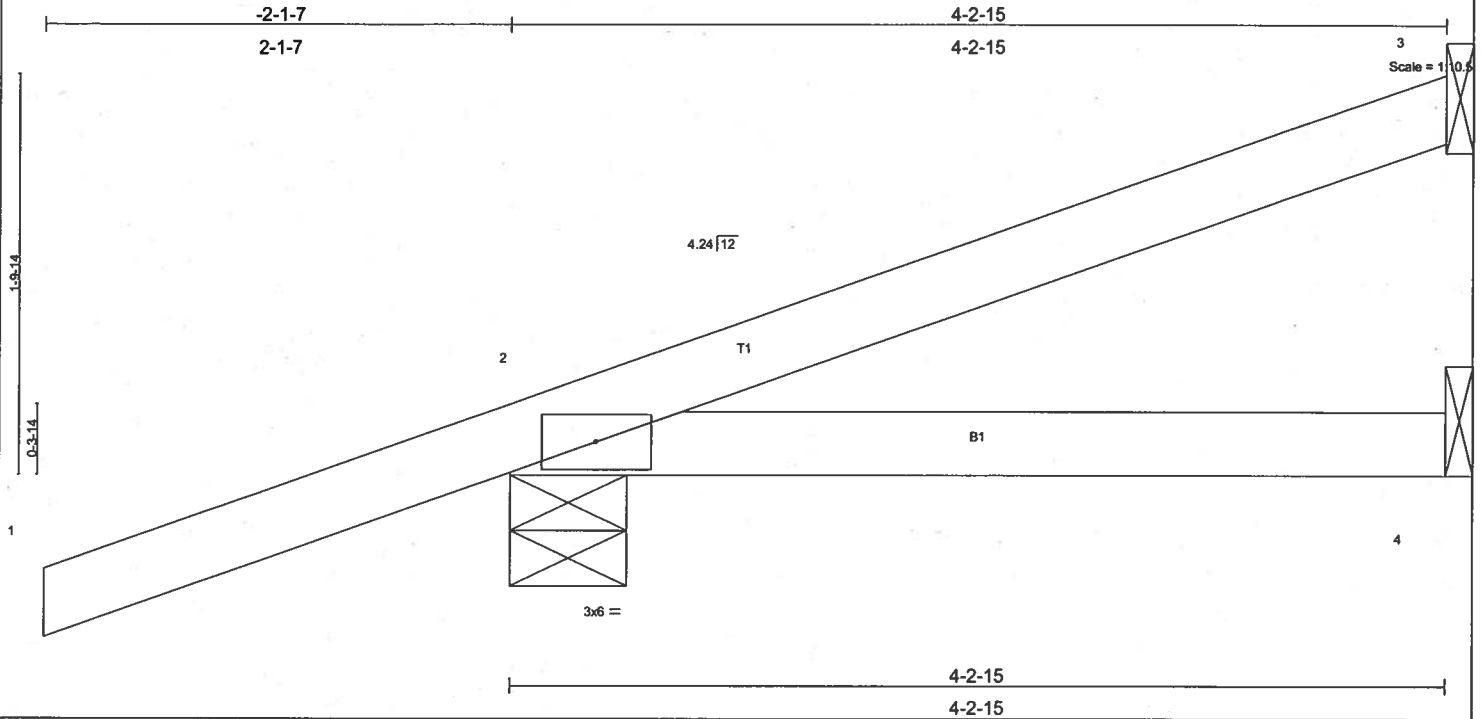
FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-254/53, 3-4=-162/112, 4-5=0/0, 4-6=-314/184
 BOT CHORD 2-7=-126/171, 6-7=-4/2
 WEBS 3-7=-189/273, 4-7=-277/400

JOINT STRESS INDEX
 2 = 0.30, 3 = 0.67, 4 = 0.36, 6 = 0.11 and 7 = 0.36

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) Refer to girder(s) for truss to truss connections.
 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 103 lb uplift at joint 6 and 184 lb uplift at joint 2.

LOAD CASE(S) Standard

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LOADING (psf)	SPACING 2-0-0	CSI	DEFL in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.33	Vert(LL) 0.02 2-4 >999 240	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.07	Vert(TL) 0.01 2-4 >999 180		
BCLL 10.0	Rep Stress Incr NO	WB 0.00	Horz(TL) -0.00 3 n/a n/a		
BCDL 5.0	Code FBC2004/TPI2002	(Matrix)		Weight: 16 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=38/Mechanical, 2=231/0-6-7, 4=42/Mechanical
Max Horz 2=82(load case 2)
Max Uplift 3=-15(load case 2), 2=-238(load case 2), 4=-41(load case 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-29/6
BOT CHORD 2-4=0/0

JOINT STRESS INDEX
2 = 0.09

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 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 15 lb uplift at joint 3, 238 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

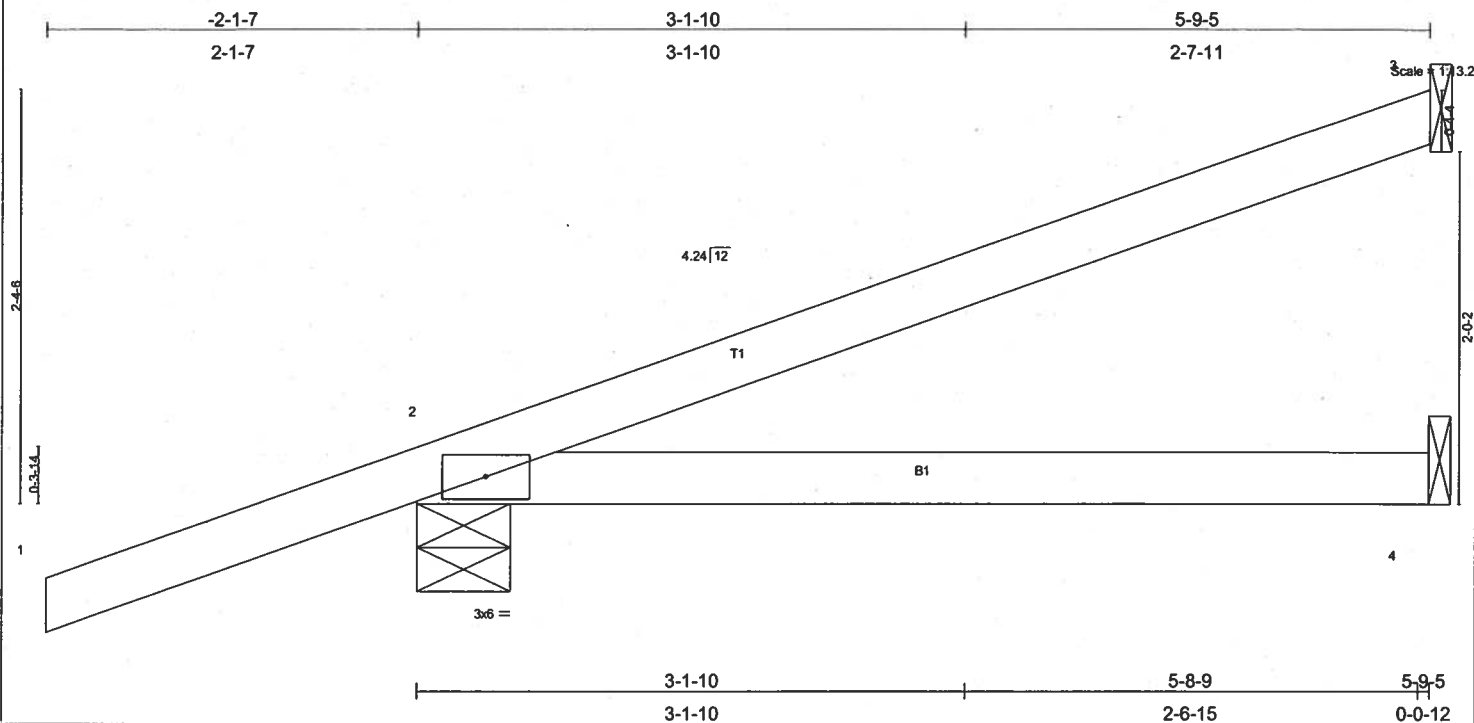
- 1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-.54
Trapezoidal Loads (plf)
Vert: 2-4(F=25, B=25)-to-3=-57(F=-2, B=-2), 2-0(F=15, B=15)-to-4=-32(F=-1, B=-1)

MAY 25, 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 L166296	Truss HJ5	Truss Type JACK	Qty 2	Ply 1	MARKHAM RESIDENCE
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

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LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.33	Vert(LL)	-0.03	2-4	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.17	Vert(TL)	-0.06	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 NO	(Matrix)							
	Code FBC2004/TPI2002							Weight: 21 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 5-9-5 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=117/Mechanical, 2=274/0-6-7, 4=79/Mechanical
 Max Horz 2=141(load case 4)
 Max Uplift 3=-88(load case 4), 2=-235(load case 4)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/38, 2-3=-47/27
 BOT CHORD 2-4=0/0

JOINT STRESS INDEX
 2 = 0.10

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 88 lb uplift at joint 3 and 235 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)

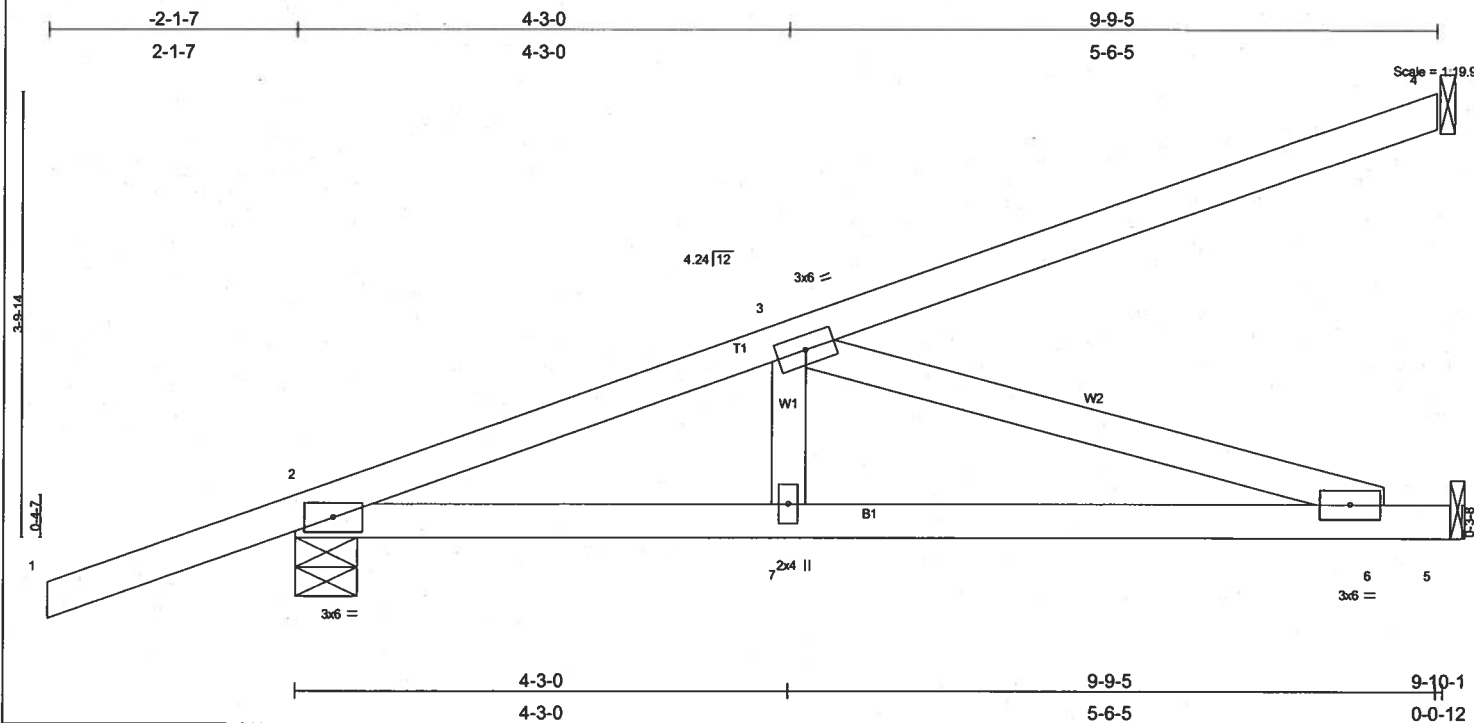
Vert: 2=-4(F=25, B=25)-to-3=-78(F=-12, B=-12), 2=0(F=15, B=15)-to-4=-43(F=-7, B=-7)

Job L166296	Truss HJ9	Truss Type MONO TRUSS	Qty 4	Ply 1	MARKHAM RESIDENCE
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Job Reference (optional)

Builders FirstSource, Lake City, FL 32055

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LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.59	Vert(LL) -0.12	6-7	>977	240	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.65	Vert(TL) -0.20	6-7	>583	180		
BCLL 10.0	Rep Stress Incr NO	WB 0.46	Horz(TL) 0.01	5	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002	(Matrix)						
							Weight: 43 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 9-11-12 oc bracing.

REACTIONS (lb/size) 4=264/Mechanical, 2=488/0-6-7, 5=381/Mechanical
 Max Horz 2=249(load case 2)
 Max Uplift 4=-225(load case 2), 2=-231(load case 2), 5=-75(load case 2)

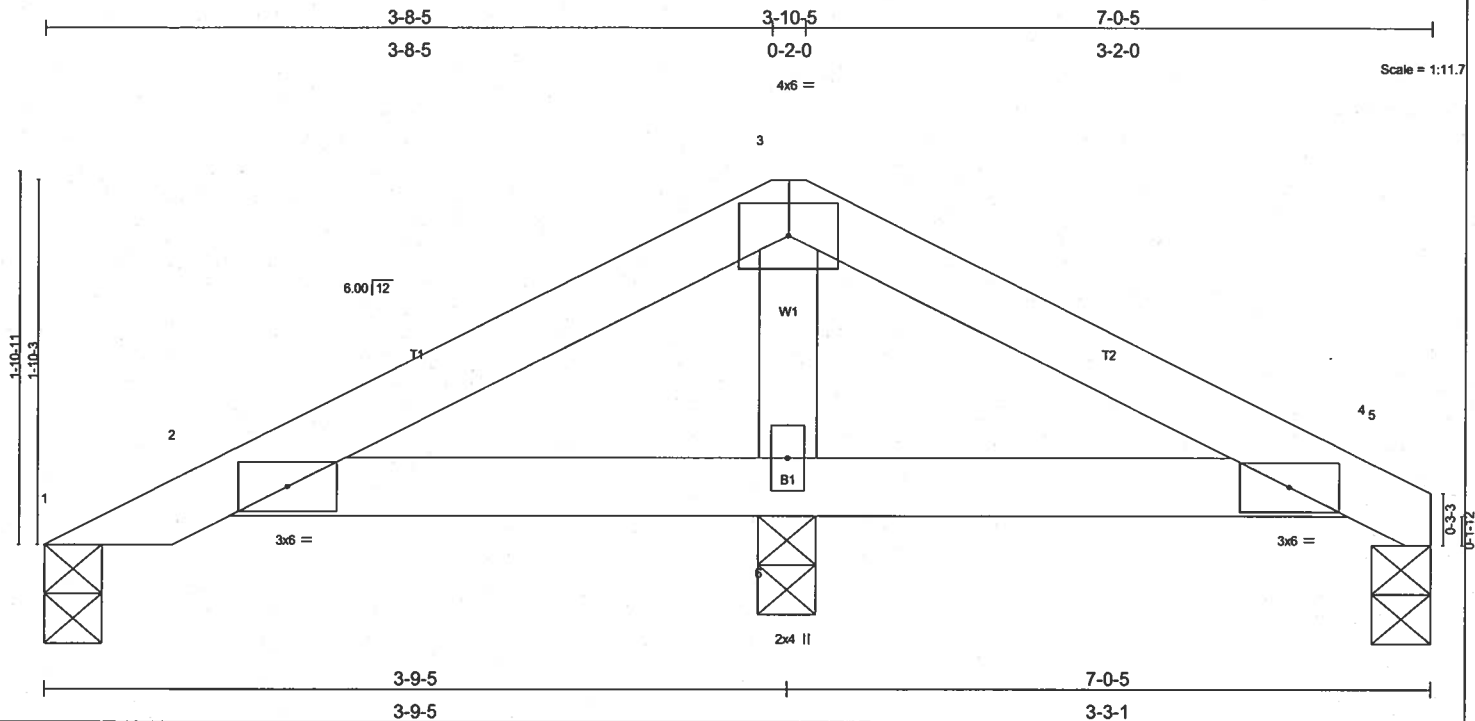
FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-899/169, 3-4=-102/64
 BOT CHORD 2-7=-356/831, 6-7=-356/831, 5-6=0/0
 WEBS 3-7=0/217, 3-6=-870/373

JOINT STRESS INDEX
 2 = 0.61, 3 = 0.23, 6 = 0.24 and 7 = 0.16

- 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 225 lb uplift at joint 4, 231 lb uplift at joint 2 and 75 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=-4(F=25, B=25)-to-4=-134(F=-40, B=-40), 2=0(F=15, B=15)-to-5=-74(F=-22, B=-22)

Job L166296	Truss PB06	Truss Type VALLEY	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					
Job Reference (optional)					
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LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.13	Vert(LL)	0.01	2-6	>999	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.10	Vert(TL)	-0.01	2-6	>999		
BCCL 10.0	Lumber Increase 1.25	WB 0.07	Horz(TL)	0.00	6	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)						
	Code FBC2004/TPI2002							
							Weight: 22 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) 1=63/0-3-8, 5=36/0-3-8, 6=447/0-3-8
 Max Horz 1=34(load case 5)
 Max Uplift 1=-21(load case 6), 5=-29(load case 6), 6=-158(load case 5)
 Max Grav 1=67(load case 9), 5=74(load case 10), 6=447(load case 1)

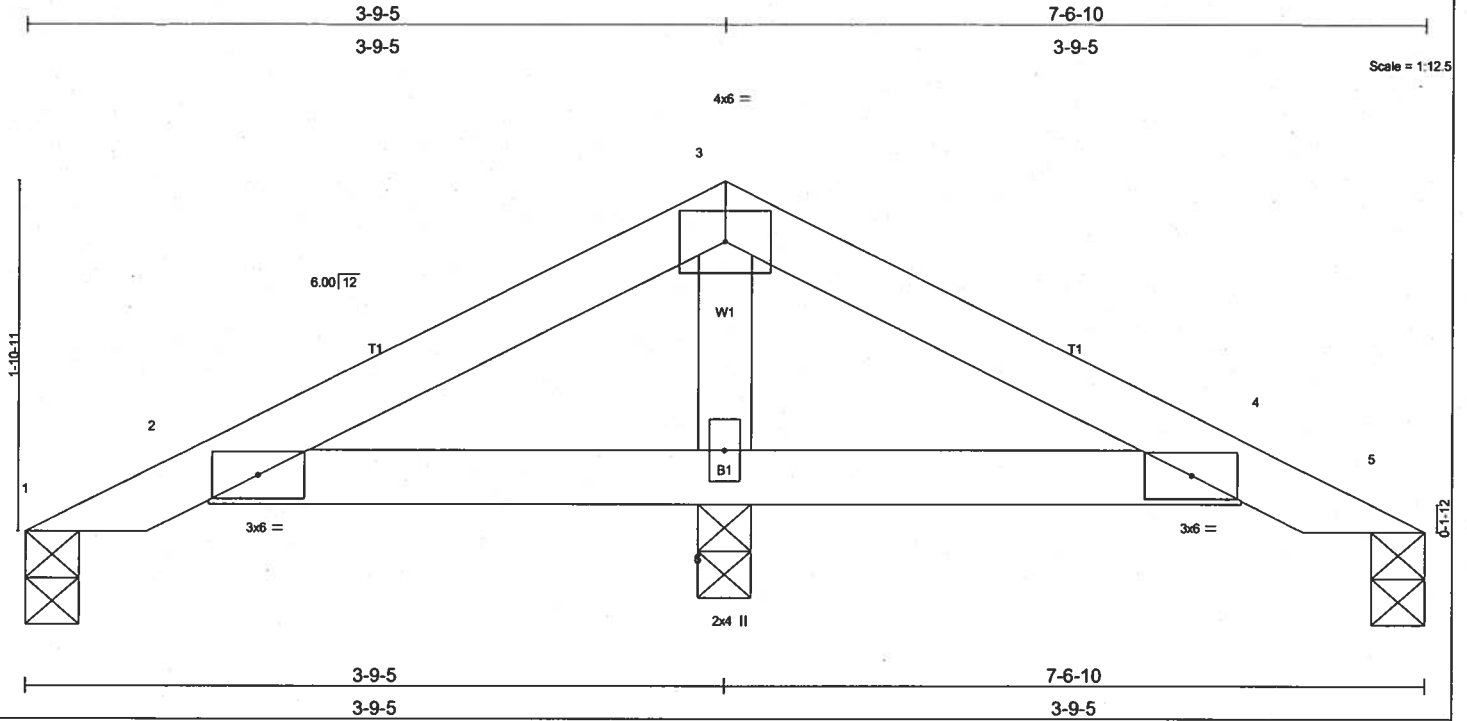
FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-27/26, 2-3=-93/184, 3-4=-92/179, 4-5=-29/13
 BOT CHORD 2-6=-128/128, 4-6=-128/128
 WEBS 3-6=-314/273

JOINT STRESS INDEX
 2 = 0.23, 3 = 0.28, 4 = 0.23 and 6 = 0.16

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) 1, 5 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 21 lb uplift at joint 1, 29 lb uplift at joint 5 and 158 lb uplift at joint 6.

LOAD CASE(S) Standard

Job L166296	Truss PB07	Truss Type PIGGYBACK	Qty 9	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:27:09 2006 Page 1



LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.09	Vert(LL) -0.01 2-6 >999 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.07	Vert(TL) -0.01 2-6 >999 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.00 6 n/a n/a		
	Code FBC2004/TPI2002			Weight: 23 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 6-0-0 oc bracing.

REACTIONS (lb/size) 1=46/0-3-8, 5=46/0-3-8, 6=486/0-3-8
 Max Horz 1=26(load case 4)
 Max Uplift 1=-23(load case 5), 5=-32(load case 6), 6=-152(load case 5)
 Max Grav 1=69(load case 9), 5=69(load case 10), 6=486(load case 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-26/34, 2-3=-117/226, 3-4=-117/226, 4-5=-26/21
 BOT CHORD 2-6=-163/168, 4-6=-163/168
 WEBS 3-6=-355/292

JOINT STRESS INDEX
 2 = 0.22, 3 = 0.27, 4 = 0.22 and 6 = 0.17

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 bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- Bearing at joint(s) 1, 5 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 23 lb uplift at joint 1, 32 lb uplift at joint 5 and 152 lb uplift at joint 6.

LOAD CASE(S) Standard

Job L166296	Truss T01	Truss Type HIP	Qty 1	Ply 1	MARKHAM RESIDENCE
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Job Reference (optional)

Builders FirstSource, Lake City, FL 32055

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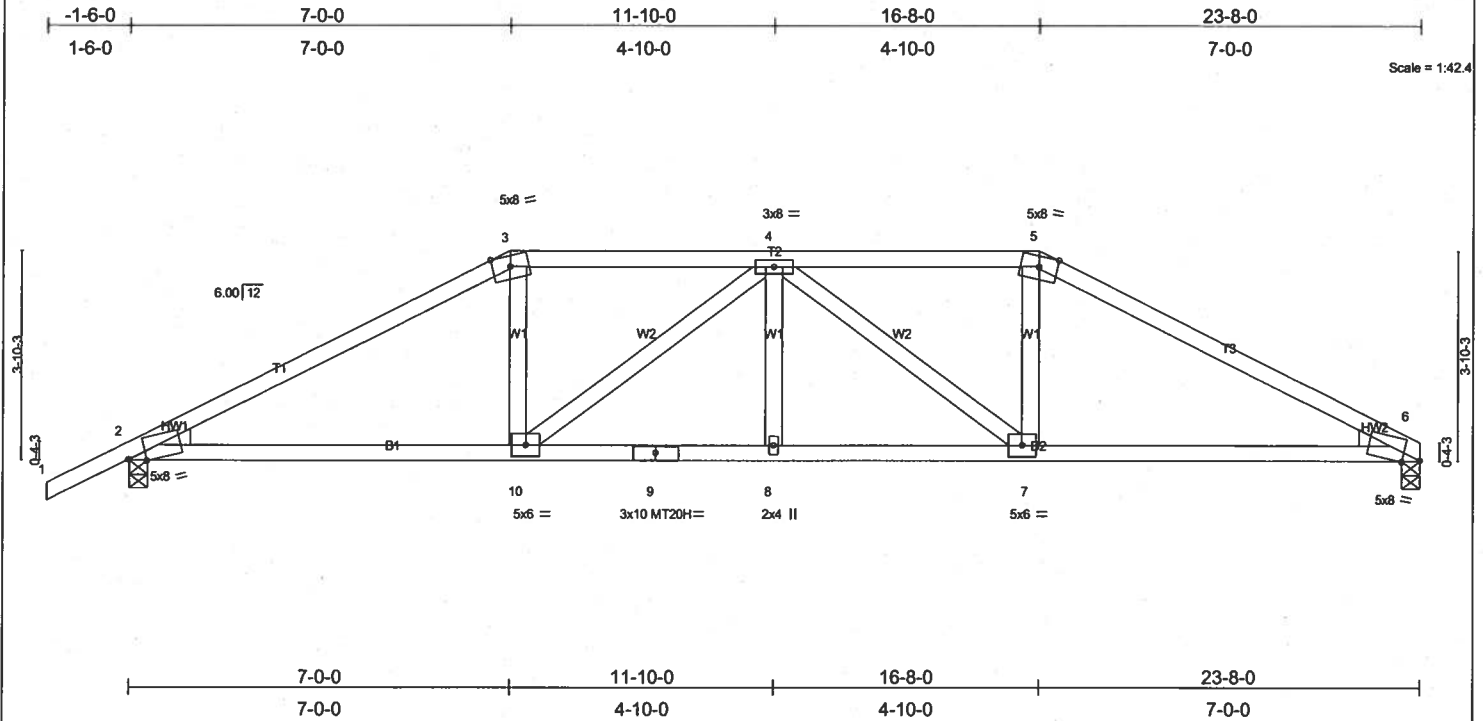


Plate Offsets (X,Y): [2:0-3-13,Edge], [6:0-3-13,Edge]

LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.66	in (loc) l/def L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.94	Vert(LL) -0.22 8-10 >999	MT20H	187/143
BCLL 10.0	Lumber Increase 1.25	WB 0.47	Vert(TL) -0.36 8-10 >781		
BCDL 5.0	Rep Stress Incr NO	(Matrix)	Horz(TL) 0.14 6 n/a n/a		
	Code FBC2004/TPI2002			Weight: 108 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
 WEDGE
 Left: 2 X 4 SYP No.3, Right: 2 X 4 SYP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 4-11-0 oc bracing.

REACTIONS (lb/size) 6=1984/0-4-0, 2=2081/0-4-0
 Max Horz 2=96(load case 4)
 Max Uplift 6=-806(load case 5), 2=-904(load case 4)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-3861/1566, 3-4=-3412/1470, 4-5=-3427/1494, 5-6=-3858/1581
 BOT CHORD 2-10=-1384/3361, 9-10=-1658/3952, 8-9=-1658/3952, 7-8=-1658/3952, 6-7=-1335/3376
 WEBS 3-10=-463/1291, 4-10=-796/409, 4-8=0/288, 4-7=-789/400, 5-7=-462/1289

JOINT STRESS INDEX

2 = 0.84, 3 = 0.72, 4 = 0.57, 5 = 0.72, 6 = 0.84, 7 = 0.45, 8 = 0.34, 9 = 0.93 and 10 = 0.45

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 plates are MT20 plates unless otherwise indicated.
- 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 806 lb uplift at joint 6 and 904 lb uplift at joint 2.
- 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 16-8-0, 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.
- 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, 3-5=-117(F=-63), 5-6=-54, 2-10=-30, 7-10=-65(F=-35), 6-7=-30
 Concentrated Loads (lb)
 Vert: 10=-539(F) 7=-539(F)

Job L166296	Truss T02	Truss Type HIP	Qty 1	Ply 1	MARKHAM RESIDENCE
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

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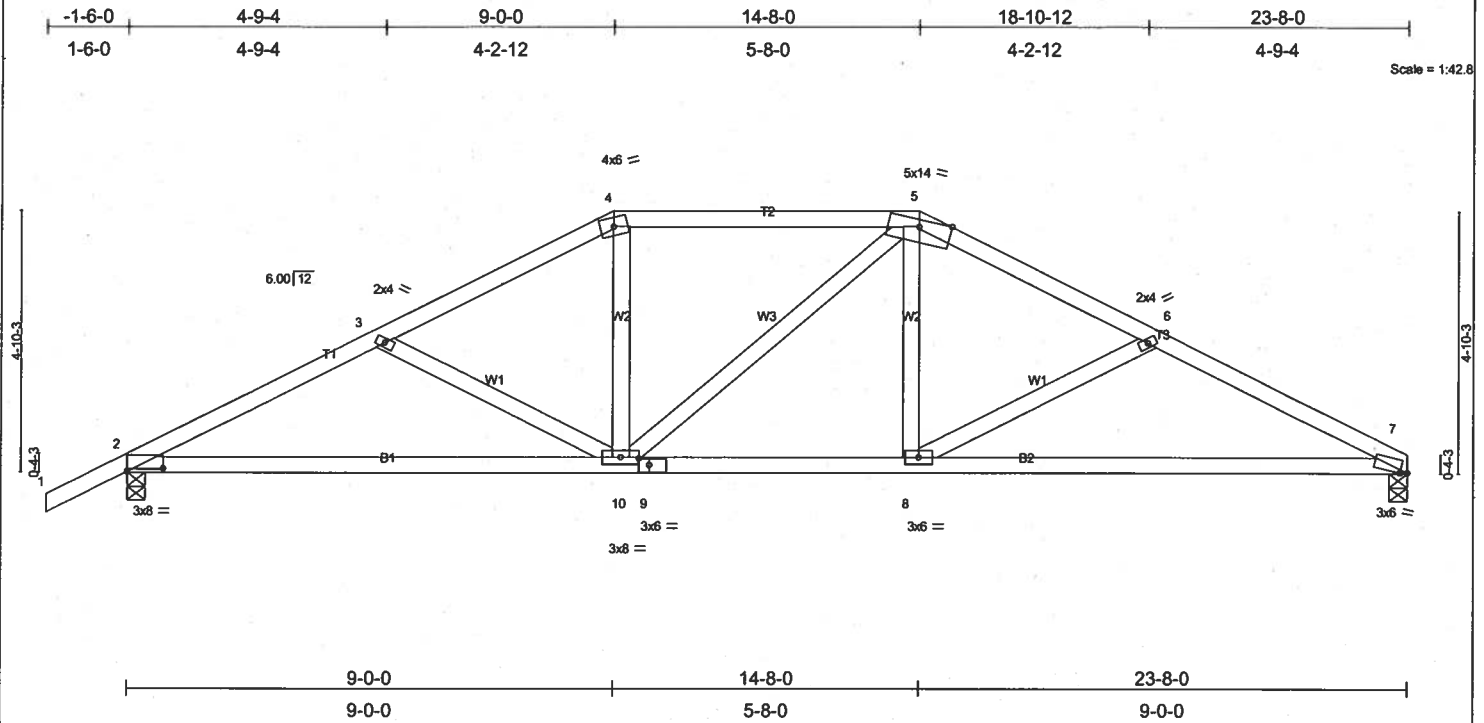


Plate Offsets (X,Y): [2:0-8-0,0-0-10], [7:0-1-9,0-0-7], [9:0-2-4,0-1-8]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.33	Vert(LL)	-0.20	7-8	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.50	Vert(TL)	-0.34	7-8	>817	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.13	Horz(TL)	0.05	7	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 113 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 4-4-12 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 8-0-1 oc bracing.

REACTIONS (lb/size) 7=977/0-4-0, 2=1073/0-4-0
 Max Horz 2=110(load case 5)
 Max Uplift 7=-299(load case 6), 2=-398(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-1668/732, 3-4=-1420/618, 4-5=-1234/607, 5-6=-1427/630, 6-7=-1686/761
 BOT CHORD 2-10=-572/1451, 9-10=-384/1239, 8-9=-384/1239, 7-8=-607/1472
 WEBS 3-10=-257/224, 4-10=-62/336, 5-10=-118/111, 5-8=-82/349, 6-8=-276/254

JOINT STRESS INDEX
 2 = 0.75, 3 = 0.34, 4 = 0.55, 5 = 0.59, 6 = 0.34, 7 = 0.87, 8 = 0.35, 9 = 0.83 and 10 = 0.57

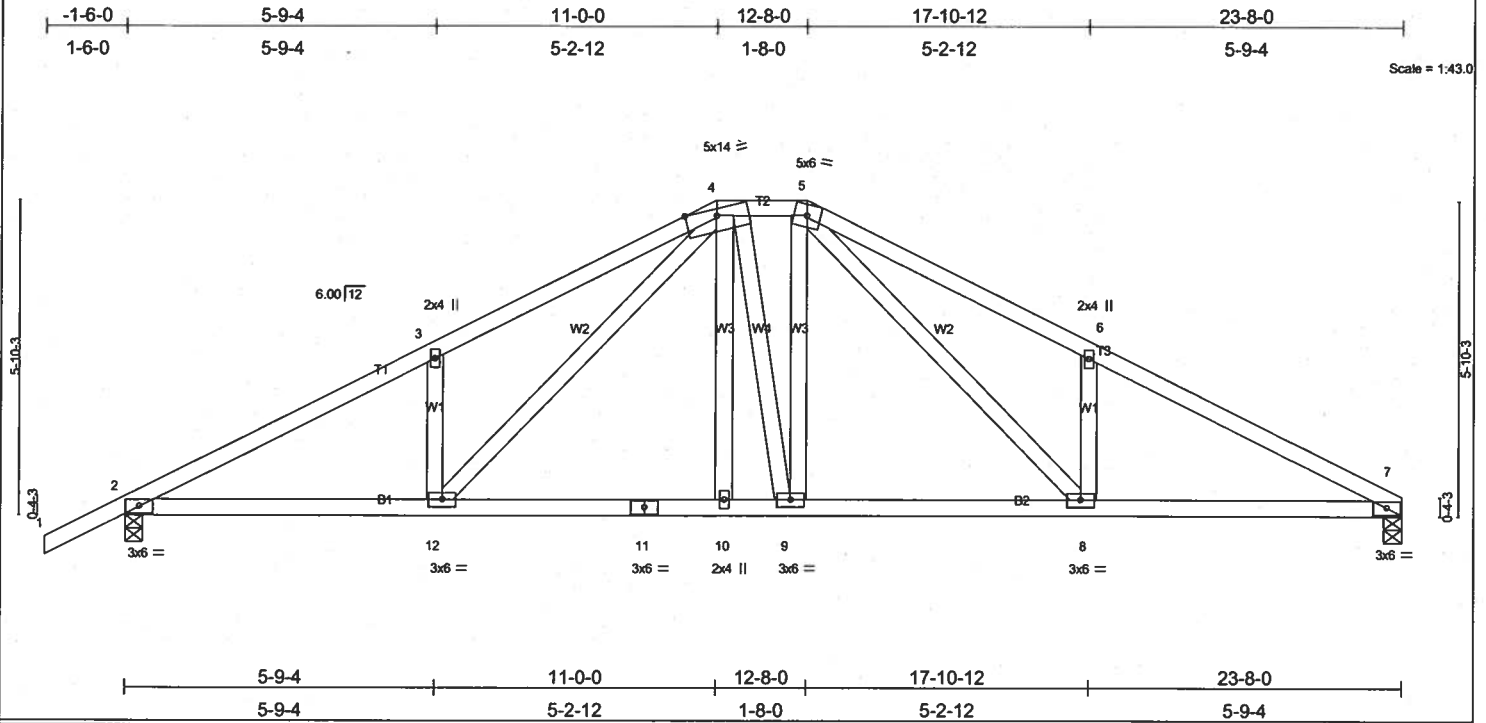
NOTES

- 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 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 299 lb uplift at joint 7 and 398 lb uplift at joint 2.

LOAD CASE(S) Standard

Job L166296	Truss T03	Truss Type HIP	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional)

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LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.27	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.45	Vert(LL) -0.09 10-12 >999 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.41	Vert(TL) -0.14 10-12 >999 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.05 7 n/a n/a		
	Code FBC2004/TPI2002			Weight: 130 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 4-6-6 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 8-1-1 oc bracing.

REACTIONS (lb/size) 7=977/0-4-0, 2=1073/0-4-0
 Max Horz 2=124(load case 5)
 Max Uplift 7=324(load case 6), 2=411(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-1733/710, 3-4=-1724/865, 4-5=-1046/583, 5-6=-1746/903, 6-7=-1753/741
 BOT CHORD 2-12=-545/1479, 11-12=-302/1040, 10-11=-302/1040, 9-10=-302/1042, 8-9=-302/1041, 7-8=-578/1500
 WEBS 3-12=-291/297, 4-12=-355/652, 4-10=0/95, 4-9=-129/154, 5-9=-54/231, 5-8=-402/676, 6-8=-296/313

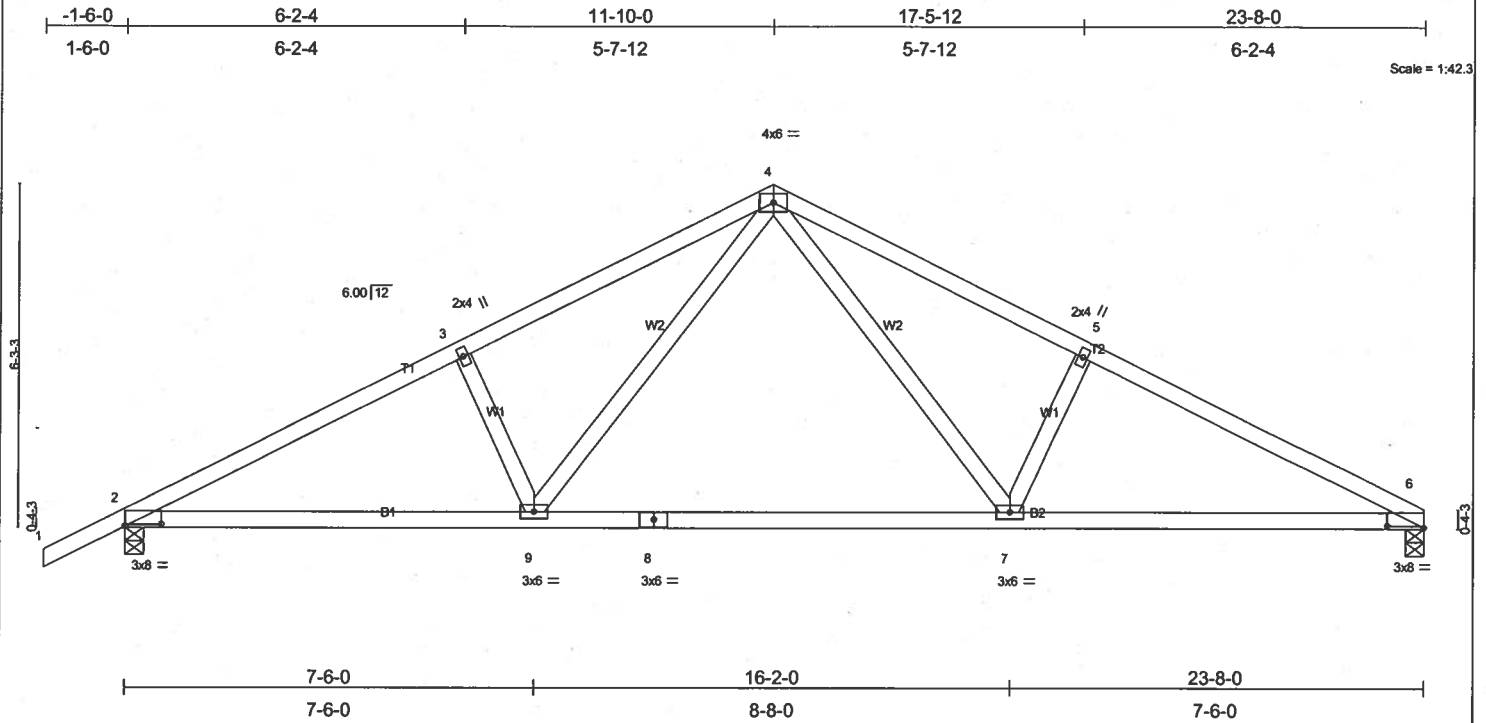
JOINT STRESS INDEX
 2 = 0.76, 3 = 0.34, 4 = 0.35, 5 = 0.33, 6 = 0.34, 7 = 0.73, 8 = 0.44, 9 = 0.37, 10 = 0.34, 11 = 0.40 and 12 = 0.42

- 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 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 324 lb uplift at joint 7 and 411 lb uplift at joint 2.

LOAD CASE(S) Standard

Job L166296	Truss T04	Truss Type COMMON	Qty 5	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional)

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LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.34	Vert(LL)	-0.38	7-9	>736	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.88	Vert(TL)	-0.62	7-9	>452	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.40	Horz(TL)	0.06	6	n/a	n/a		
BCDL 5.0	Rep Stress Incr NO	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 108 lb	

LUMBER
 TOP CHORD 2 X 4 SYP No.2
 BOT CHORD 2 X 4 SYP No.1D
 WEBS 2 X 4 SYP No.3

BRACING
 TOP CHORD Structural wood sheathing directly applied or 3-11-13 oc purtins.
 BOT CHORD Rigid ceiling directly applied or 7-5-2 oc bracing.

REACTIONS (lb/size) 6=1193/0-4-0, 2=1290/0-4-0
 Max Horz 2=129(load case 5)
 Max Uplift 6=399(load case 6), 2=498(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-2218/944, 3-4=-2083/980, 4-5=-2098/1004, 5-6=-2232/967
 BOT CHORD 2-9=-746/1903, 8-9=-416/1264, 7-8=-416/1264, 6-7=-771/1919
 WEBS 3-9=-265/268, 4-9=-376/937, 4-7=-409/957, 5-7=-274/281

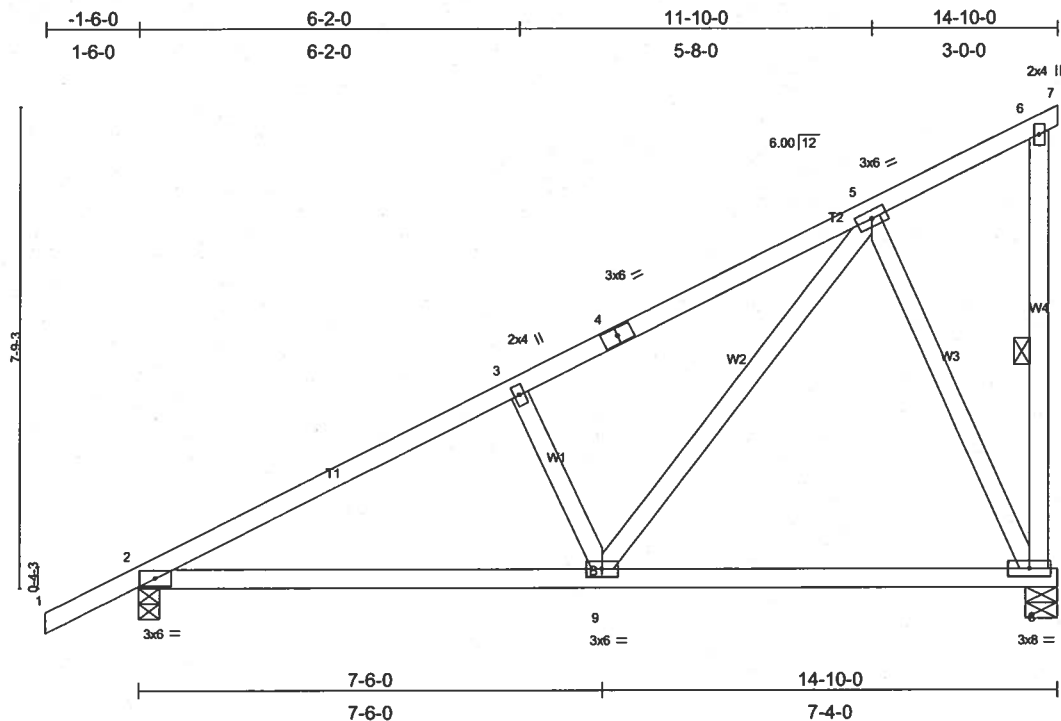
JOINT STRESS INDEX
 2 = 0.70, 3 = 0.34, 4 = 0.76, 5 = 0.34, 6 = 0.69, 7 = 0.69, 8 = 0.78 and 9 = 0.69

- 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 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 399 lb uplift at joint 6 and 498 lb uplift at joint 2.
 - 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, 2-9=-30, 7-9=-80(F=-50), 6-7=-30

Job L166296	Truss T08A	Truss Type MONO TRUSS	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional)

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Scale = 1:37.4

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.68	Vert(LL)	-0.17	8-9	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.78	Vert(TL)	-0.28	8-9	>614	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.46	Horz(TL)	0.01	8	n/a	n/a		
BCDL 5.0	Rep Stress Incr NO	(Matrix)							
	Code FBC2004/TPI2002							Weight: 84 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 5-9-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 8-4-12 oc bracing.
 WEBS 1 Row at midpt 6-8

REACTIONS (lb/size) 8=869/0-6-0, 2=785/0-4-0
 Max Horz 2=389(load case 5)
 Max Uplift 8=-420(load case 5), 2=-272(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-1108/290, 3-4=-973/307, 4-5=-898/326, 5-6=-75/0, 6-7=-2/0, 6-8=-50/44
 BOT CHORD 2-9=-554/923, 8-9=-188/285
 WEBS 3-9=-290/309, 5-9=-406/881, 5-8=-606/432

JOINT STRESS INDEX
 2 = 0.51, 3 = 0.18, 4 = 0.18, 5 = 0.59, 6 = 0.71, 8 = 0.77 and 9 = 0.63

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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 420 lb uplift at joint 8 and 272 lb uplift at joint 2.
- 4) 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: 1-6=-54, 6-7=-14, 2-9=-30, 8-9=-80(F=-50)

Job L166296	Truss T09	Truss Type MONO HIP	Qty 1	Ply 1	MARKHAM RESIDENCE
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

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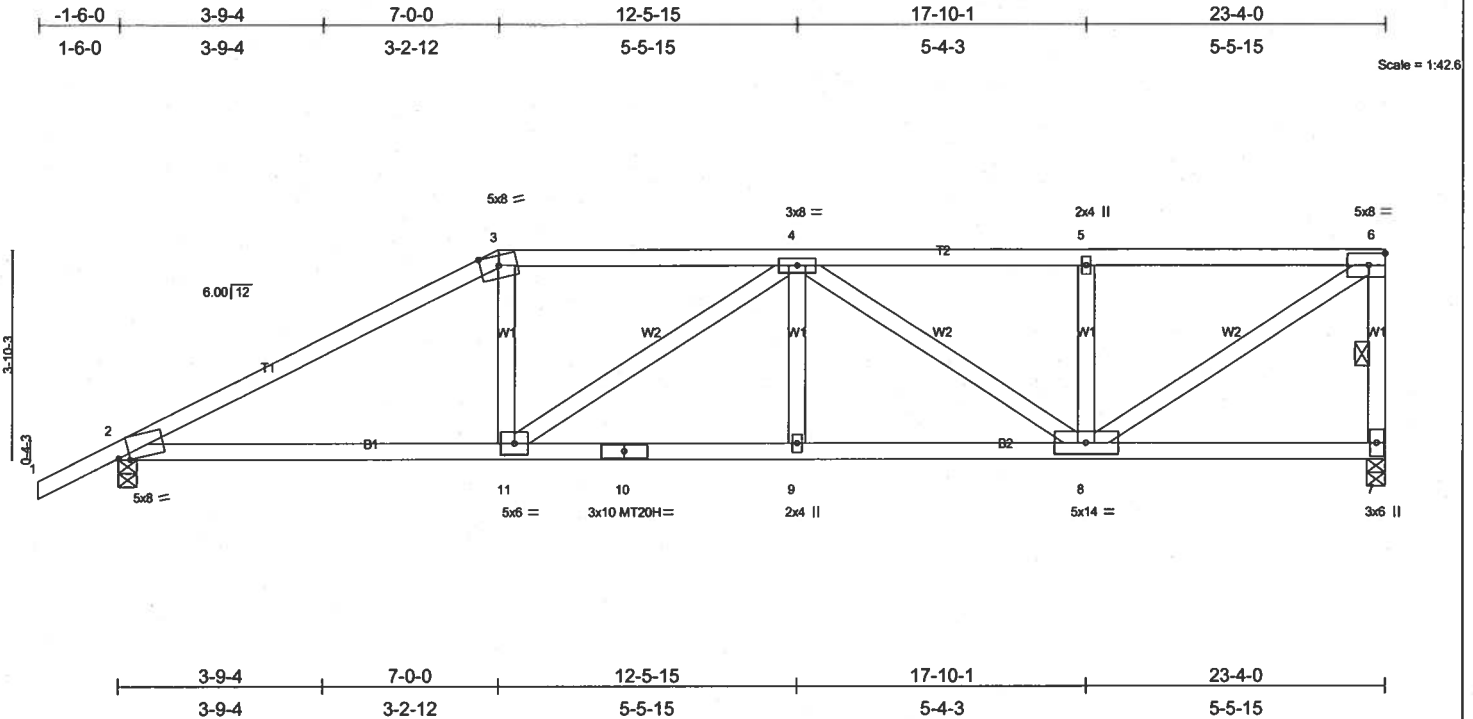


Plate Offsets (X,Y): [2:0-2:7,Edge]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.88	Vert(LL)	-0.21	9-11	>999	240	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.89	Vert(TL)	-0.34	9-11	>813	180	MT20H	187/143
BCLL 10.0	Rep Stress Incr NO	WB 0.97	Horz(TL)	0.10	7	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002	(Matrix)							
								Weight: 120 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 2-10-10 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 4-10-14 oc bracing.
 WEBS 1 Row at midpt 6-7

REACTIONS (lb/size) 7=2154/0-4-0, 2=1990/0-4-0
 Max Horz 2=210(load case 4)
 Max Uplift 7=968(load case 3), 2=851(load case 4)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-3673/1534, 3-4=-3243/1422, 4-5=-2622/1175, 5-6=-2622/1175, 6-7=-1975/986
 BOT CHORD 2-11=-1407/3196, 10-11=-1646/3664, 9-10=-1646/3664, 8-9=-1646/3664, 7-8=-48/105
 WEBS 3-11=-392/1121, 4-11=-506/333, 4-9=0/345, 4-8=-1251/566, 5-8=-638/525, 6-8=-1353/3023

JOINT STRESS INDEX
 2 = 0.83, 3 = 0.71, 4 = 0.60, 5 = 0.34, 6 = 0.64, 7 = 0.55, 8 = 0.82, 9 = 0.34, 10 = 0.89 and 11 = 0.39

NOTES

- 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 plates are MT20 plates unless otherwise indicated.
- 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 968 lb uplift at joint 7 and 851 lb uplift at joint 2.
- Girder carries hip end with 0-0-0 right side setback, 7-0-0 left side setback, and 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 7-0-0 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, 3-6=-117(F=-63), 2-11=-30, 7-11=-65(F=-35)
 Concentrated Loads (lb)
 Vert: 11=-539(F)

Job L166296	Truss T10	Truss Type MONO HIP	Qty 1	Ply 1	MARKHAM RESIDENCE
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

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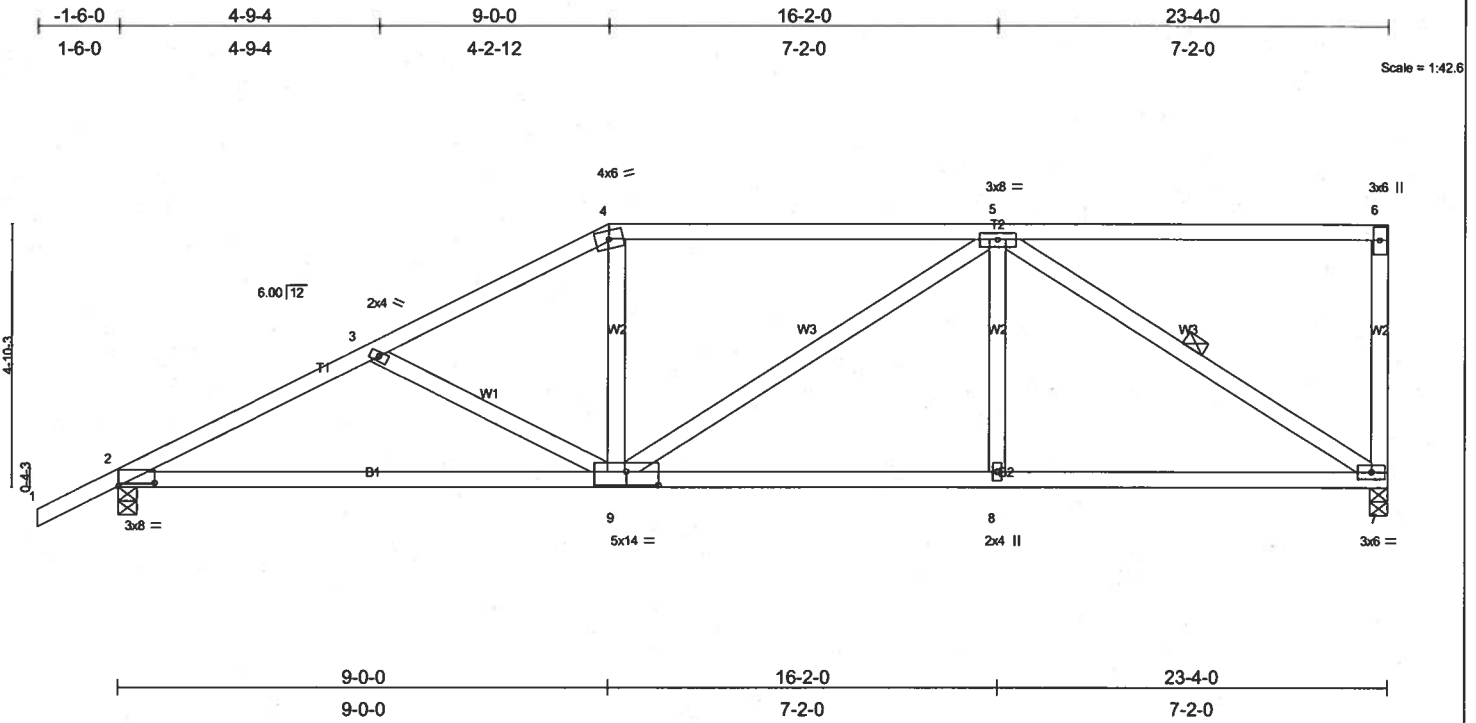


Plate Offsets (X,Y): [2:0-8-0,0-0-10], [9:0-7-0,0-3-0]

LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase	1.25	TC 0.56	Vert(LL)	-0.17	2-9	>999	240	MT20	244/190
TCDL 7.0	Lumber Increase	1.25	BC 0.53	Vert(TL)	-0.29	2-9	>961	180		
BCLL 10.0	Rep Stress Incr	YES	WB 0.43	Horz(TL)	0.05	7	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002		(Matrix)							
Weight: 124 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 4-6-15 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 7-4-8 oc bracing.
 WEBS 1 Row at midpt 5-7

REACTIONS (lb/size) 7=964/0-4-0, 2=1060/0-4-0
 Max Horz 2=256(load case 5)
 Max Uplift 7=-346(load case 4), 2=-381(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-1642/654, 3-4=-1405/547, 4-5=-1225/545, 5-6=-58/21, 6-7=-175/123
 BOT CHORD 2-8=-735/1425, 8-9=-475/1108, 7-8=-475/1108
 WEBS 3-9=-236/214, 4-9=-1/291, 5-9=-96/139, 5-8=0/197, 5-7=-1252/541

JOINT STRESS INDEX
 2 = 0.71, 3 = 0.34, 4 = 0.69, 5 = 0.60, 6 = 0.43, 7 = 0.57, 8 = 0.34 and 9 = 0.35

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 346 lb uplift at joint 7 and 381 lb uplift at joint 2.

LOAD CASE(S) Standard

Job L166296	Truss T11	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055			6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:27:33 2006 Page 1		

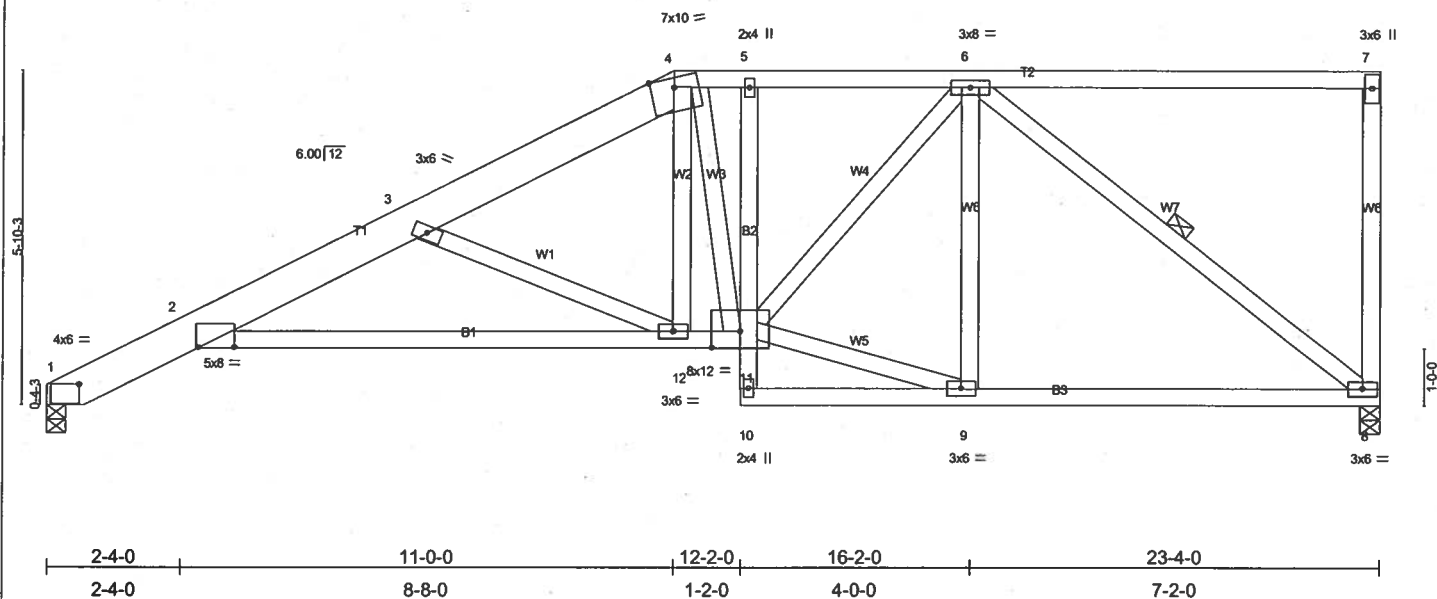
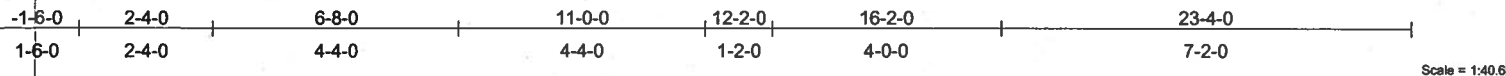


Plate Offsets (X,Y): [2:0-7-8,Edge], [2:2-1-1,0-7-12]

LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase	1.25	TC 0.58	Vert(LL)	-0.29	2-12	>955	240	MT20	244/190
TCDL 7.0	Lumber Increase	1.25	BC 0.68	Vert(TL)	-0.48	2-12	>578	180		
BCLL 10.0	Rep Stress Incr	YES	WB 0.45	Horz(TL)	0.18	8	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002		(Matrix)							
Weight: 157 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 *Except*
 B2 2 X 4 SYP No.3
 WEBS 2 X 4 SYP No.3

BRACING
 TOP CHORD Structural wood sheathing directly applied or 5-3-13 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 8-2-5 oc bracing. Except:
 1 Row at midpt 2-12
 WEBS 1 Row at midpt 6-8

REACTIONS (lb/size) 1=922/0-4-0, 8=964/0-4-0
 Max Horz 1=259(load case 5)
 Max Uplift 1=287(load case 5), 8=351(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-353/0, 2-3=-2205/988, 3-4=-1491/620, 4-5=-1199/577, 5-6=-1194/574, 6-7=-48/19, 7-8=-184/128
 BOT CHORD 2-12=-1167/2160, 11-12=-599/1264, 10-11=-2/43, 5-11=-83/40, 9-10=-38/104, 8-9=-408/897
 WEBS 3-12=-1000/626, 4-12=-228/767, 4-11=-236/85, 9-11=-382/820, 6-11=-257/459, 6-9=-31/149, 6-8=-1083/496

JOINT STRESS INDEX
 2 = 0.49, 2 = 0.00, 3 = 0.38, 4 = 0.27, 5 = 0.34, 6 = 0.57, 7 = 0.45, 8 = 0.57, 9 = 0.46, 10 = 0.41, 11 = 0.25 and 12 = 0.50

- 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 bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
 - 5) 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.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 287 lb uplift at joint 1 and 351 lb uplift at joint 8.

LOAD CASE(S) Standard

Job L166296	Truss T12	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:27:36 2006 Page 1		

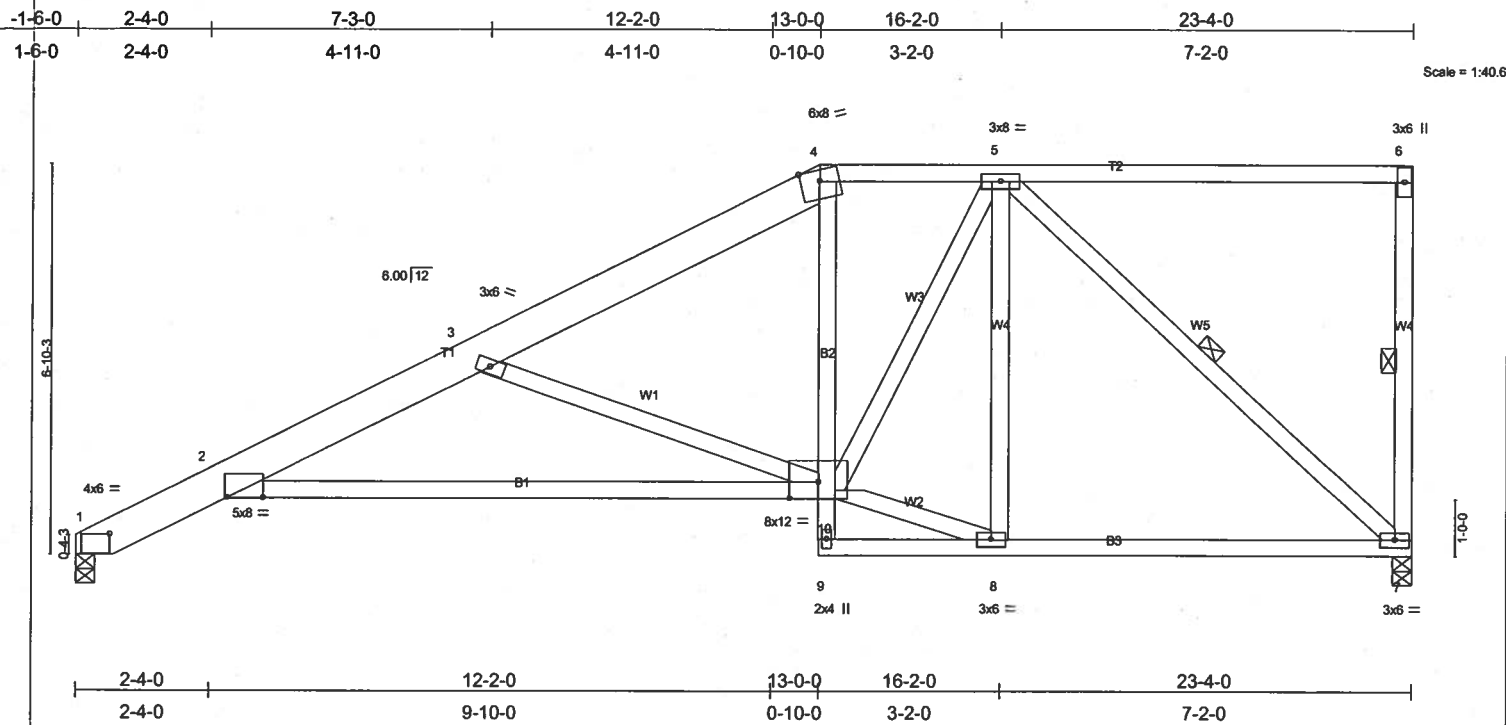


Plate Offsets (X,Y): [2:0-7-8,0-0-0], [2:2-0-12,0-7-12]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.60	Vert(LL) -0.39	2-10	>705	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.80	Vert(TL) -0.65	2-10	>422	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.77	Horz(TL) 0.20	7	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)						
	Code FBC2004/TP12002							
							Weight: 155 lb	

LUMBER	BRACING
TOP CHORD 2 X 8 SYP 2400F 2.0E *Except*	TOP CHORD Structural wood sheathing directly applied or 5-8-2 oc purlins, except end verticals.
T2 2 X 4 SYP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
BOT CHORD 2 X 4 SYP No.2 *Except*	1 Row at midpt 2-10
B2 2 X 4 SYP No.3	WEBS 1 Row at midpt 6-7, 5-7
WEBS 2 X 4 SYP No.3	

REACTIONS (lb/size) 1=922/0-4-0, 7=964/0-4-0
 Max Horz 1=303(load case 5)
 Max Uplift 1=-289(load case 5), 7=-328(load case 4)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-353/0, 2-3=-2083/937, 3-4=-1275/493, 4-5=-1030/493, 5-6=-38/15, 6-7=-182/127
 BOT CHORD 2-10=-1159/2037, 9-10=-10/7, 4-10=-92/381, 8-9=-217/0, 7-8=-364/763
 WEBS 3-10=-1061/705, 5-10=-276/558, 5-8=-135/156, 5-7=-992/477, 8-10=-318/1032

JOINT STRESS INDEX
 2 = 0.71, 2 = 0.00, 3 = 0.41, 4 = 0.20, 5 = 0.63, 6 = 0.42, 7 = 0.53, 8 = 0.58, 9 = 0.34 and 10 = 0.51

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 289 lb uplift at joint 1 and 328 lb uplift at joint 7.

LOAD CASE(S) Standard

Job L166296	Truss T13	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:27:39 2006 Page 1		

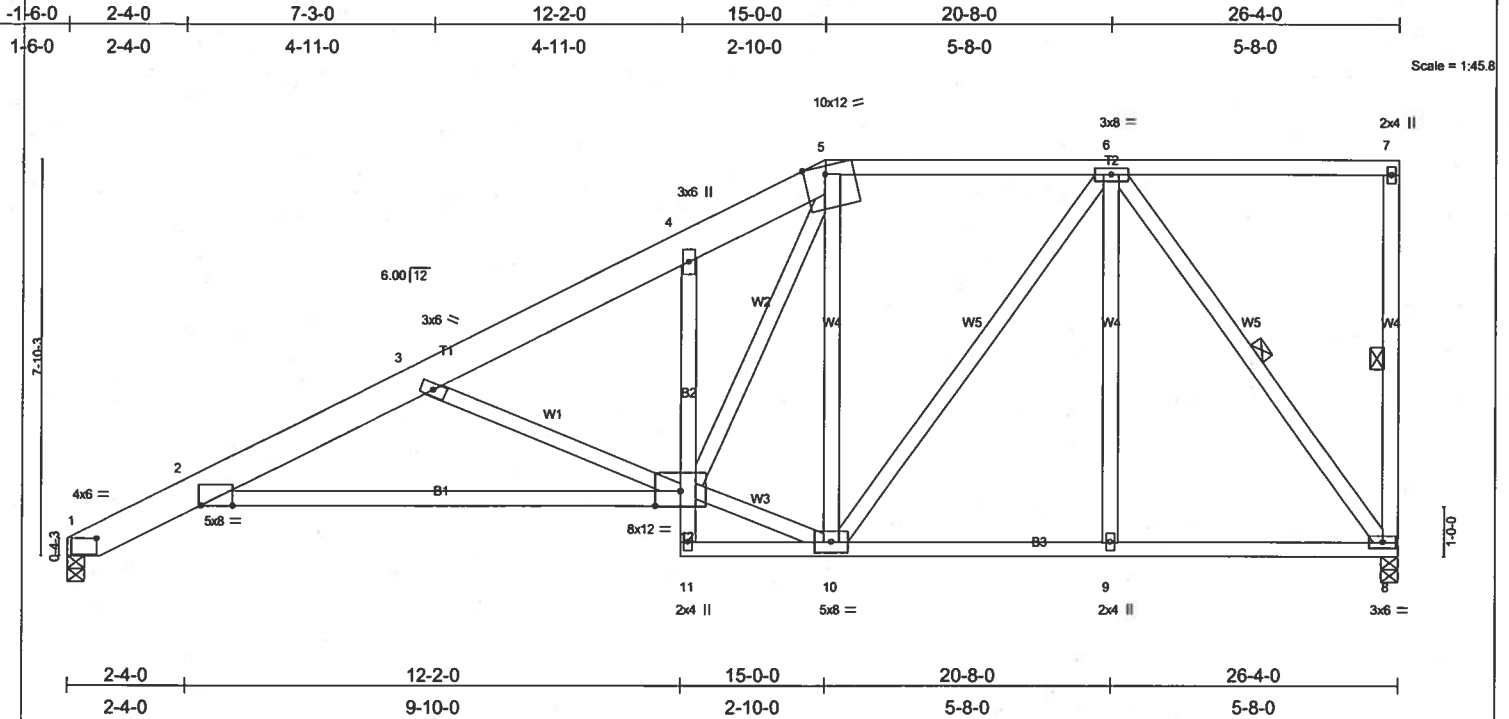


Plate Offsets (X,Y): [2:2-0-15,0-7-13], [2:0-7-8,0-0-0], [5:0-5-3,Edge]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.67	Vert(LL)	-0.40	2-12	>782	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.74	Vert(TL)	-0.66	2-12	>473		
BCLL 10.0	Lumber Increase 1.25	WB 0.66	Horz(TL)	0.23	8	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)						
	Code FBC2004/TPI2002							
							Weight: 193 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 *Except*
 B2 2 X 4 SYP No.3
 WEBS 2 X 4 SYP No.3

BRACING
 TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 5-2-5 oc bracing.
 WEBS 1 Row at midpt 7-8, 6-8

REACTIONS (lb/size) 1=1047/0-4-0, 8=1091/0-4-0
 Max Horz 1=350(load case 5)
 Max Uplift 1=327(load case 5), 8=369(load case 4)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-402/0, 2-3=-2495/1096, 3-4=-1708/681, 4-5=-1564/754, 5-6=-955/478, 6-7=-1777, 7-8=-133/93
 BOT CHORD 2-12=-1367/2429, 11-12=0/20, 4-12=-35/150, 10-11=-138/0, 9-10=-311/659, 8-9=-311/659
 WEBS 3-12=-1090/695, 10-12=-455/1169, 5-12=-605/1125, 5-10=-645/413, 6-10=-287/497, 6-9=0/172, 6-8=-1088/516

JOINT STRESS INDEX
 2 = 0.58, 2 = 0.00, 3 = 0.42, 4 = 0.20, 5 = 0.27, 6 = 0.58, 7 = 0.71, 8 = 0.42, 9 = 0.34, 10 = 0.53, 11 = 0.34 and 12 = 0.51

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/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 327 lb uplift at joint 1 and 369 lb uplift at joint 8.

LOAD CASE(S) Standard

Job L166296	Truss T14	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					
Job Reference (optional)					
6.200 s Jul 13 2005 Mitek Industries, Inc. Tue May 23 14:27:42 2006 Page 1					

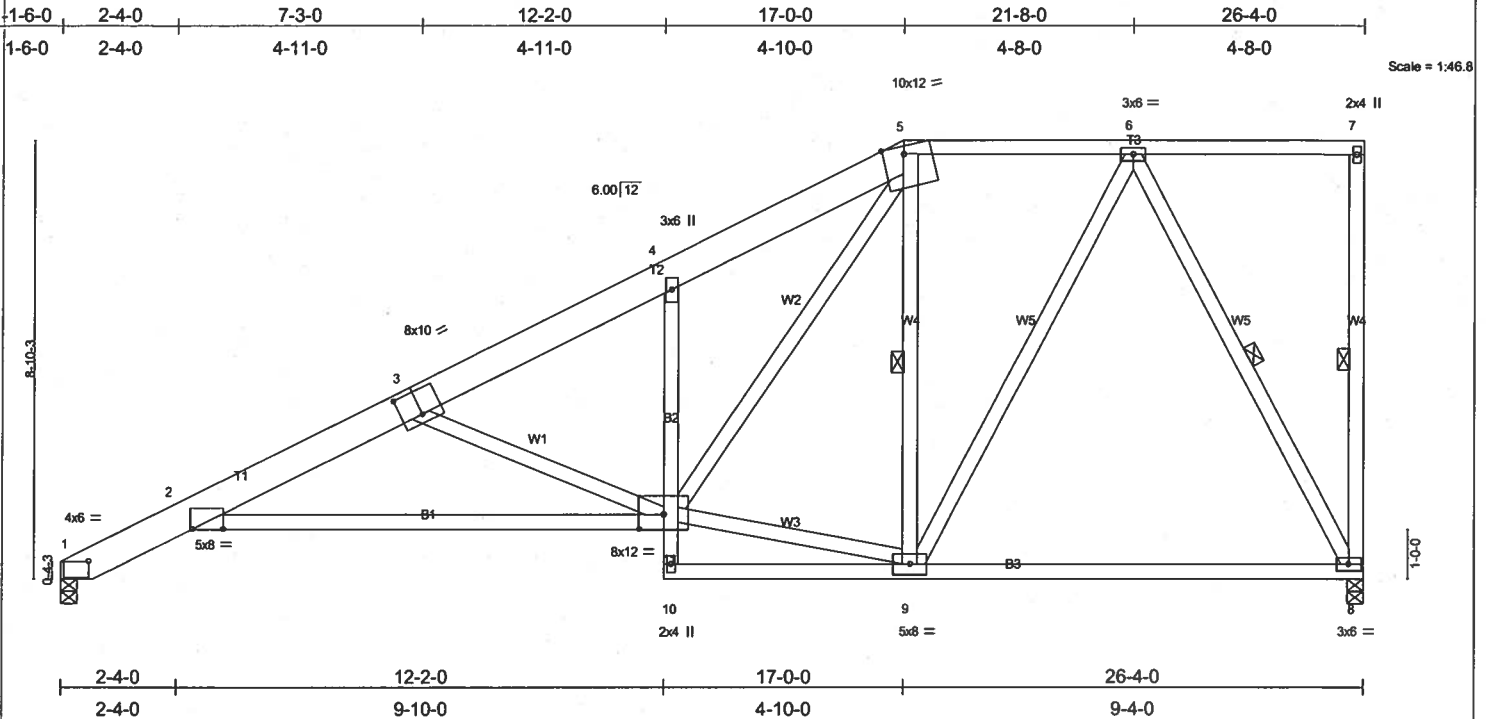


Plate Offsets (X,Y): [2:0-7-8,0-0-0], [2:2-1-2,0-7-13], [3:0-5-0,0-6-0], [5:0-5-3,Edge]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.67	Vert(LL) -0.40	2-11	>771	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.73	Vert(TL) -0.67	2-11	>466	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.84	Horz(TL) 0.22	8	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)						
	Code FBC2004/TPI2002							
							Weight: 196 lb	

LUMBER	BRACING
TOP CHORD 2 X 8 SYP 2400F 2.0E *Except*	TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins, except end verticals.
T3 2 X 4 SYP No.2	BOT CHORD Rigid ceiling directly applied or 5-2-1 oc bracing.
BOT CHORD 2 X 4 SYP No.2 *Except*	WEBS 1 Row at midpt 7-8, 5-9, 6-8
B2 2 X 4 SYP No.3	
WEBS 2 X 4 SYP No.3	

REACTIONS (lb/size) 8=1091/0-4-0, 1=1047/0-4-0
 Max Horz 1=396(load case 5)
 Max Uplift 8=372(load case 5), 1=323(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-402/0, 2-3=-2453/1052, 3-4=-1718/671, 4-5=-1617/786, 5-6=-795/396, 6-7=-23/0, 7-8=-117/73
 BOT CHORD 2-11=-1374/2381, 10-11=0/34, 4-11=-138/228, 9-10=-139/0, 8-9=-249/470
 WEBS 3-11=-1038/670, 9-11=-356/960, 5-11=-668/1146, 5-9=-550/412, 6-9=-320/689, 6-8=-957/531

JOINT STRESS INDEX
 2 = 0.56, 2 = 0.00, 3 = 0.21, 4 = 0.18, 5 = 0.27, 6 = 0.57, 7 = 0.75, 8 = 0.60, 9 = 0.47, 10 = 0.34 and 11 = 0.45

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/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 372 lb uplift at joint 8 and 323 lb uplift at joint 1.

LOAD CASE(S) Standard

Job L166296	Truss T15	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:27:45 2006 Page 1		

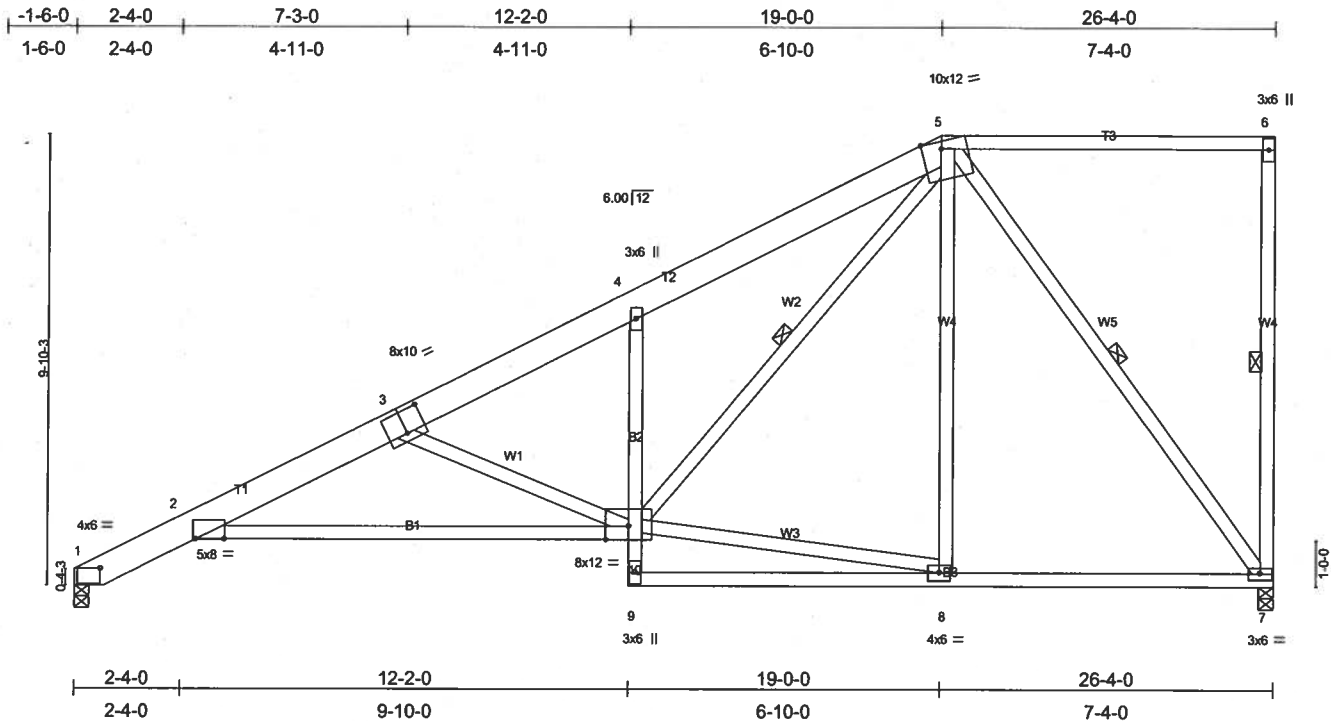


Plate Offsets (X,Y): [2:0-7-8,0-0-0], [2:2-1-0,0-7-12], [3:0-5-0,0-6-0], [5:0-5-3,Edge]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.67	Vert(LL)	-0.41	2-10	>766	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.72	Vert(TL)	-0.67	2-10	>463	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.67	Horz(TL)	0.22	7	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 198 lb	

LUMBER
 TOP CHORD 2 X 8 SYP 2400F 2.0E *Except*
 T3 2 X 4 SYP No.2
 BOT CHORD 2 X 4 SYP No.2 *Except*
 B2 2 X 4 SYP No.3
 WEBS 2 X 4 SYP No.3

BRACING
 TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 5-1-7 oc bracing.
 WEBS 1 Row at midpt 6-7, 5-10, 5-7

REACTIONS (lb/size) 7=1091/0-4-0, 1=1047/0-4-0
 Max Horz 1=442(load case 5)
 Max Uplift 7=-407(load case 5), 1=-316(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-402/0, 2-3=-2449/1022, 3-4=-1723/647, 4-5=-1638/795, 5-6=-23/6, 6-7=-167/116
 BOT CHORD 2-10=-1398/2376, 9-10=0/97, 4-10=-186/281, 8-9=-36/0, 7-8=-342/647
 WEBS 3-10=-1023/659, 8-10=-312/688, 5-10=-731/1249, 5-8=0/121, 5-7=-1036/553

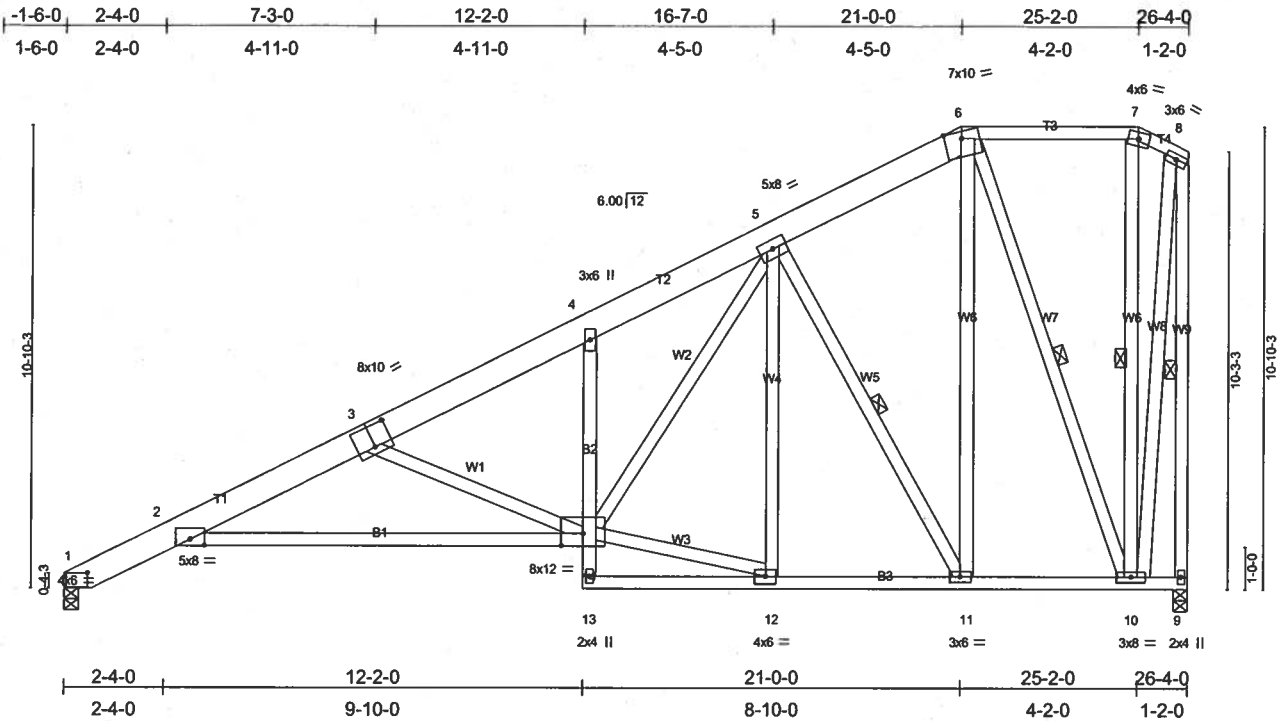
JOINT STRESS INDEX
 2 = 0.57, 2 = 0.00, 3 = 0.21, 4 = 0.18, 5 = 0.26, 6 = 0.31, 7 = 0.46, 8 = 0.30, 9 = 0.36 and 10 = 0.47

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/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 407 lb uplift at joint 7 and 316 lb uplift at joint 1.

LOAD CASE(S) Standard

Job L166296	Truss T16	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional)

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Scale = 1:54.3

Plate Offsets (X,Y): [3:0-5-0,0-6-0], [5:16-0-6,7-7-5]

LOADING (psf)	SPACING 2-0-0	CSI	DEFL in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.67	Vert(LL) -0.41 2-14 >759 240	MT20	244/190
TCDL 7.0	Lumber Increase 1.25	BC 0.73	Vert(TL) -0.68 2-14 >459 180		
BCLL 10.0	Rep Stress Incr YES	WB 0.83	Horz(TL) 0.22 9 n/a n/a		
BCDL 5.0	Code FBC2004/TPI2002	(Matrix)			
Weight: 251 lb					

LUMBER
TOP CHORD 2 X 8 SYP 2400F 2.0E *Except*
T3 2 X 4 SYP No.2, T4 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2 *Except*
B2 2 X 4 SYP No.3
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-1-0 oc bracing.
WEBS 1 Row at midpt 6-10, 7-10, 8-9, 5-11

REACTIONS (lb/size) 9=1091/0-4-0, 1=1047/0-4-0
Max Horz 1=471(load case 5)
Max Uplift 9=-440(load case 5), 1=-312(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-402/0, 2-3=-2454/1014, 3-4=-1718/623, 4-5=-1600/720, 5-6=-544/233, 6-7=-115/82, 7-8=-150/82, 8-9=-1000/510
BOT CHORD 2-14=-1417/2381, 13-14=0/61, 4-14=-99/190, 12-13=-120/0, 11-12=-464/824, 10-11=-240/449, 9-10=-5/9
WEBS 3-14=-1040/682, 12-14=-429/956, 5-14=-644/1145, 5-12=-82/130, 6-11=-392/838, 6-10=-937/512, 7-10=-80/86, 8-10=-454/898, 5-11=-791/470

JOINT STRESS INDEX
2 = 0.65, 3 = 0.21, 4 = 0.17, 5 = 0.80, 6 = 0.00, 7 = 0.28, 8 = 0.58, 9 = 0.61, 10 = 0.99, 11 = 0.55, 12 = 0.46, 13 = 0.53 and 14 = 0.46

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 440 lb uplift at joint 9 and 312 lb uplift at joint 1.

LOAD CASE(S) Standard

Job L166296	Truss T17	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:27:52 2006 Page 1

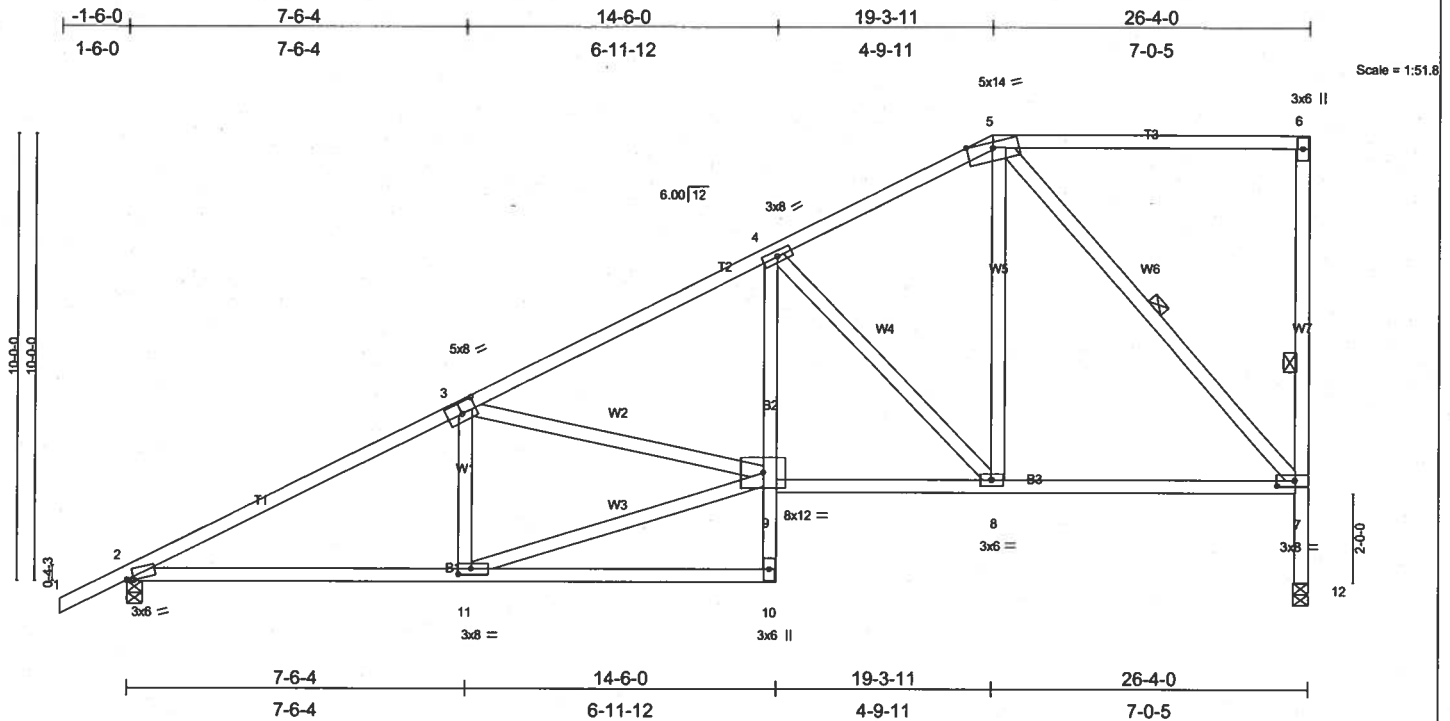


Plate Offsets (X,Y): [2:0-1-12,0-0-7], [3:0-4-0,0-3-0], [7:0-4-8,0-1-8], [11:0-3-8,0-1-8]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.54	Vert(LL)	-0.14	2-11	>999	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.57	Vert(TL)	-0.23	2-11	>999		
BCLL 10.0	Lumber Increase 1.25	WB 0.89	Horz(TL)	0.13	12	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)						
	Code FBC2004/TPI2002							
							Weight: 170 lb	

LUMBER	BRACING
TOP CHORD 2 X 4 SYP No.2	TOP CHORD Structural wood sheathing directly applied or 4-1-10 oc purlins, except end verticals
BOT CHORD 2 X 4 SYP No.2 *Except*	, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
B2 2 X 4 SYP No.3	Rigid ceiling directly applied or 6-5-15 oc bracing.
WEBS 2 X 4 SYP No.3	1 Row at midpt 6-12, 5-7
	JOINTS 1 Brace at Jt(s): 6

REACTIONS (lb/size) 12=1090/0-4-0, 2=1186/0-4-0
 Max Horz 2=493(load case 5)
 Max Uplift 12=409(load case 5), 2=414(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-1902/592, 3-4=-1678/679, 4-5=-881/374, 5-6=-28/12, 7-12=-1090/541, 6-7=-176/124
 BOT CHORD 2-11=-916/1620, 10-11=-4/57, 9-10=0/93, 4-9=-306/736, 8-9=-795/1415, 7-8=-398/757
 WEBS 3-11=-253/327, 9-11=-945/1631, 3-9=-196/98, 4-8=-961/576, 5-8=-341/841, 5-7=-1094/580

JOINT STRESS INDEX
 2 = 0.81, 3 = 0.54, 4 = 0.69, 5 = 0.92, 6 = 0.37, 7 = 0.49, 8 = 0.55, 9 = 0.74, 10 = 0.33 and 11 = 0.64

- 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) 12 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 409 lb uplift at joint 12 and 414 lb uplift at joint 2.
 - 6) Design assumes 4x2 (flat orientation) purlins at oc spacing indicated, fastened to truss TC w/ 2-10d nails.

LOAD CASE(S) Standard

Job L166296	Truss T18	Truss Type SPECIAL	Qty 8	Ply 1	MARKHAM RESIDENCE
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Job Reference (optional)

Builders FirstSource, Lake City, FL 32055

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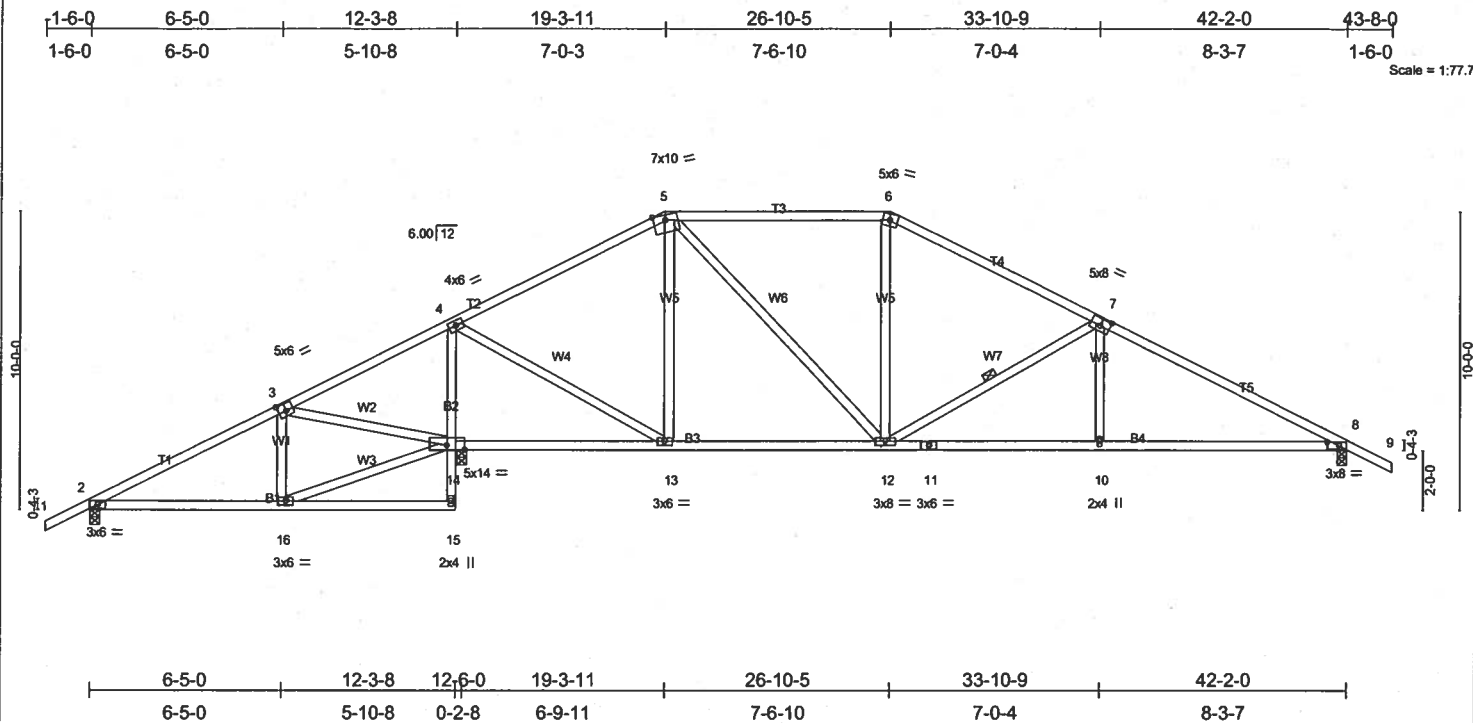


Plate Offsets (X,Y): [3:0-3:0,0-3:0], [7:0-4:0,0-3:0], [8:0-4:12,0-1:8]

LOADING (psf)

TCLL 20.0
TCDL 7.0
BCLL 10.0
BCDL 5.0

SPACING

2-0-0
Plates Increase 1.25
Lumber Increase 1.25
Rep Stress Incr YES
Code FBC2004/TPI2002

CSI

TC 0.40
BC 0.86
WB 0.59
(Matrix)

DEFL

in (loc) l/defl L/d
Vert(LL) -0.20 8-10 >999 240
Vert(TL) -0.33 8-10 >999 180
Horz(TL) 0.04 8 n/a n/a

PLATES

MT20 244/190

Weight: 234 lb

LUMBER

TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2 *Except*
B2 2 X 4 SYP No.3
WEBS 2 X 4 SYP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-10-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 7-12

REACTIONS (lb/size) 2=421/0-4-0, 14=1998/0-4-0, 8=1275/0-4-0

Max Horz 2=281(load case 5)
Max Uplift 2=333(load case 5), 14=-812(load case 5), 8=-489(load case 6)
Max Grav 2=458(load case 9), 14=1998(load case 1), 8=1275(load case 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-376/340, 3-4=-253/604, 4-5=-905/446, 5-6=-1107/638, 6-7=-1325/633, 7-8=-2046/828, 8-9=0/35
BOT CHORD 2-16=-396/270, 15-16=-111/0, 14-15=-89/72, 4-14=-1610/814, 13-14=-452/397, 12-13=-97/725, 11-12=-561/1744, 10-11=-561/1744, 8-10=-562/1739
WEBS 3-16=-133/197, 14-16=-300/297, 3-14=-692/679, 4-13=-487/1358, 5-13=-436/280, 5-12=-239/599, 6-12=-3/172, 7-12=-737/430, 7-10=0/269

JOINT STRESS INDEX

2 = 0.24, 3 = 0.68, 4 = 0.57, 5 = 0.86, 6 = 0.70, 7 = 0.61, 8 = 0.77, 10 = 0.34, 11 = 0.57, 12 = 0.60, 13 = 0.79, 14 = 0.76, 15 = 0.55 and 16 = 0.35

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; porch left 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.
- 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 333 lb uplift at joint 2, 812 lb uplift at joint 14 and 489 lb uplift at joint 8.

LOAD CASE(S) Standard

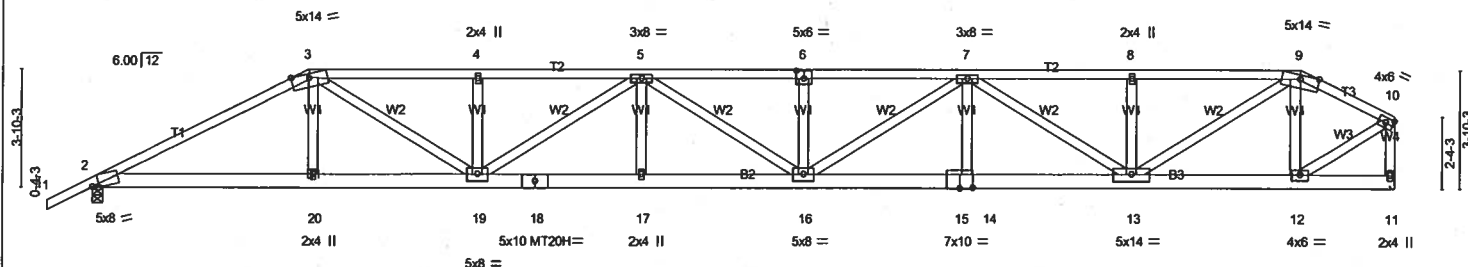
Job L166296	Truss T19	Truss Type HIP	Qty 1	Ply 2	MARKHAM RESIDENCE
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Builders FirstSource, Lake City, FL 32055

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1-6-0	3-9-4	7-0-0	12-5-8	17-9-4	23-1-0	28-4-12	33-8-8	39-2-0	42-2-0
1-6-0	3-9-4	3-2-12	5-5-8	5-3-12	5-3-12	5-3-12	5-3-12	5-5-8	3-0-0

Scale = 1:75.1



3-9-4	7-0-0	12-5-8	17-9-4	23-1-0	28-4-12	33-8-8	39-2-0	42-2-0
3-9-4	3-2-12	5-5-8	5-3-12	5-3-12	5-3-12	5-3-12	5-5-8	3-0-0

Plate Offsets (X,Y): [2:0-2-6,Edge], [6:0-3-0,0-3-0], [15:0-5-0,0-0-4]

LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase	1.25	TC 0.59	Vert(LL)	-0.60 16-17	>840	240	MT20	244/190
TCDL 7.0	Lumber Increase	1.25	BC 0.69	Vert(TL)	-0.96 16-17	>525	180	MT20H	187/143
BCLL 10.0	Rep Stress Incr	NO	WB 0.82	Horz(TL)	0.15 11	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002		(Matrix)						
								Weight: 516 lb	

LUMBER	BRACING
TOP CHORD 2 X 4 SYP No.1D *Except	TOP CHORD Structural wood sheathing directly applied or 3-6-4 oc purlins, except end verticals.
T2 2 X 4 SYP No.2, T2 2 X 4 SYP No.2	BOT CHORD Rigid ceiling directly applied or 8-0-10 oc bracing.
BOT CHORD 2 X 6 SYP No.1D	
WEBS 2 X 4 SYP No.3	

REACTIONS (lb/size) 2=3731/0-4-0, 11=3863/Mechanical
 Max Horz 2=165(load case 4)
 Max Uplift 2=-1539(load case 3), 11=-1642(load case 2)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/39, 2-3=-7570/3281, 3-4=-9835/4408, 4-5=-9835/4409, 5-6=-11569/5187, 6-7=-11569/5187, 7-8=-7435/3323, 8-9=-7436/3322,
 9-10=-3555/1545, 10-11=-3704/1593
 BOT CHORD 2-20=-2950/6684, 19-20=-2960/6721, 18-19=-5142/11510, 17-18=-5142/11510, 16-17=-5142/11510, 15-16=-4601/10311,
 14-15=-4601/10311, 13-14=-4601/10311, 12-13=-1343/3103, 11-12=-2670
 WEBS 3-20=-240/872, 3-19=-1744/3777, 4-19=-630/528, 5-19=-2027/917, 5-17=0/420, 5-16=-55/113, 6-16=-604/499, 7-16=-676/1511, 7-14=0/425,
 7-13=-3442/1553, 8-13=-625/520, 9-13=-2321/5143, 9-12=-1626/873, 10-12=-1650/3744

JOINT STRESS INDEX
 2 = 0.72, 3 = 0.90, 4 = 0.34, 5 = 0.57, 6 = 0.70, 7 = 0.82, 8 = 0.34, 9 = 0.81, 10 = 0.81, 11 = 0.79, 12 = 0.77, 13 = 0.72, 14 = 0.00, 15 = 0.97, 16 = 0.35, 17 = 0.34, 18 = 0.78, 19 = 0.87 and 20 = 0.34

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; TCCL=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 plates are MT20 plates unless otherwise indicated.
- Refer to girder(s) for truss to truss connections.
- 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 1539 lb uplift at joint 2 and 1642 lb uplift at joint 11.
- Girder carries tie-in span(s): 7-0-0 from 39-2-0 to 42-2-0
- Girder carries hip end with 3-0-0 right side setback, 7-0-0 left side setback, and 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 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, 3-9=-117(F=-63), 9-10=-54, 2-20=-30, 12-20=-65(F=-35), 11-12=-132(F=-102)
 Concentrated Loads (lb)
 Vert: 20=-539(F)

MAY 25, 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 L166296	Truss T20	Truss Type HIP	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional)

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1-6-0	4-9-4	9-0-0	16-0-8	23-1-0	30-1-8	37-2-0	42-2-0
1-6-0	4-9-4	4-2-12	7-0-8	7-0-8	7-0-8	7-0-8	5-0-0

Scale = 1:75.1

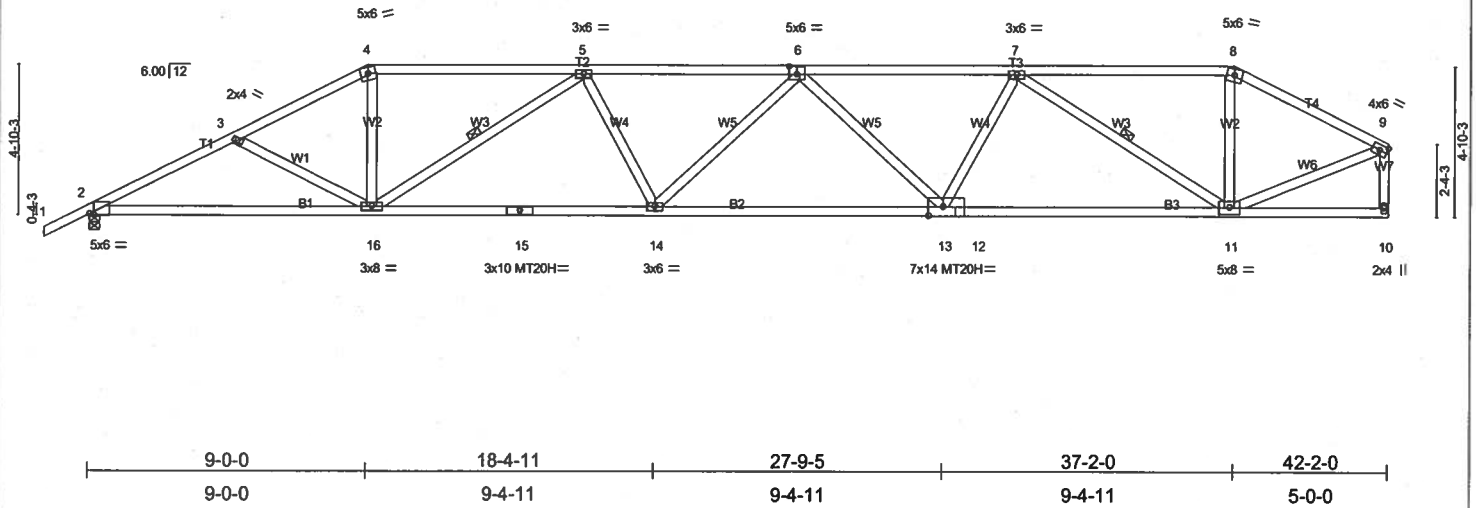


Plate Offsets (X,Y): [2:0-1-11,Edge], [6:0-3-0,0-3-0], [12:0-5-12,Edge]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.49	Vert(LL)	-0.50	13-14	>999	240	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.97	Vert(TL)	-0.82	13-14	>615	180	187/143
BCLL 10.0	Lumber Increase 1.25	WB 0.65	Horz(TL)	0.21	10	n/a	n/a	
BCDL 5.0	Rep Stress Incr YES	(Matrix)						
	Code FBC2004/TPI2002							Weight: 218 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 2-10-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
 WEBS 1 Row at midpt 5-16, 7-11

REACTIONS (lb/size) 2=1850/0-4-0, 10=1756/Mechanical
 Max Horz 2=177(load case 5)
 Max Uplift 2=572(load case 5), 10=549(load case 3)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-3328/1357, 3-4=-3129/1264, 4-5=-2794/1197, 5-6=-3985/1640, 6-7=-3650/1500, 7-8=-1768/787, 8-9=-2006/810, 9-10=-1703/711
 BOT CHORD 2-16=-1231/2912, 15-16=-1509/3831, 14-15=-1509/3831, 13-14=-1586/4012, 12-13=-1300/3320, 11-12=-1300/3320, 10-11=-42/51
 WEBS 3-16=-171/194, 4-16=-318/1052, 5-16=-1317/572, 5-14=-45/376, 6-14=-86/136, 6-13=-518/293, 7-13=-165/730, 7-11=-1893/764, 8-11=-126/584, 9-11=-671/1844

JOINT STRESS INDEX
 2 = 0.83, 3 = 0.34, 4 = 0.68, 5 = 0.45, 6 = 0.64, 7 = 0.60, 8 = 0.60, 9 = 0.70, 10 = 0.66, 11 = 0.84, 12 = 0.82, 13 = 0.00, 14 = 0.45, 15 = 0.98 and 16 = 0.63

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.
- Refer to girder(s) for truss to truss connections.
- 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 572 lb uplift at joint 2 and 549 lb uplift at joint 10.

LOAD CASE(S) Standard

Job L166296	Truss T21	Truss Type HIP	Qty 1	Ply 1	MARKHAM RESIDENCE
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Job Reference (optional)

Builders FirstSource, Lake City, FL 32055

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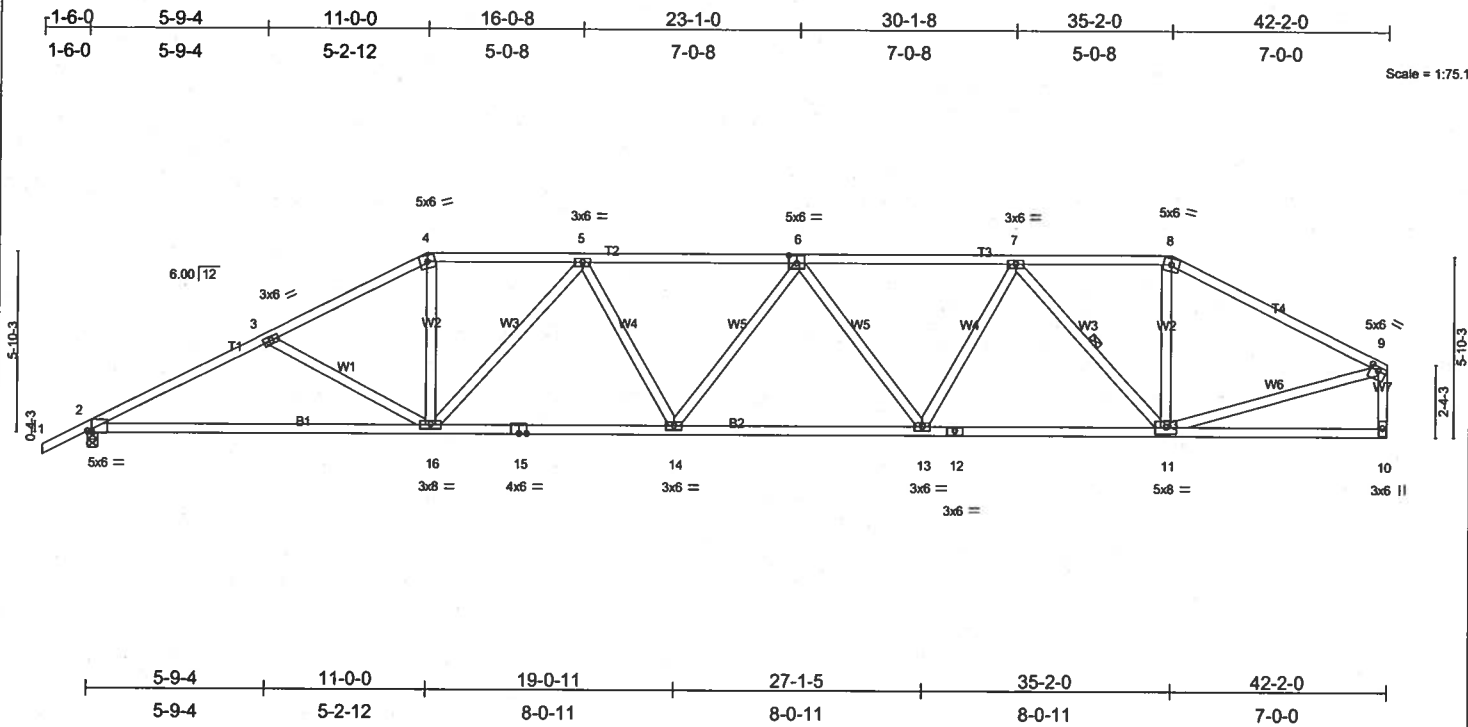


Plate Offsets (X,Y): [2:0-1-11,Edge], [6:0-3-0,0-3-0], [9:0-3-0,0-1-8]

LOADING (psf)

TCLL 20.0

TCDL 7.0

BCLL 10.0

BCDL 5.0

SPACING

Plates Increase 2-0-0

Lumber Increase 1.25

Rep Stress Incr YES

Code FBC2004/TPI2002

CSI

TC 0.84

BC 0.78

WB 0.84

(Matrix)

DEFL

in (loc) l/defl L/d

Vert(LL) -0.42 2-16 >999 240

Vert(TL) -0.71 2-16 >705 180

Horz(TL) 0.16 10 n/a n/a

PLATES

MT20

GRIP

244/190

Weight: 228 lb

LUMBER

TOP CHORD 2 X 4 SYP No.2

BOT CHORD 2 X 4 SYP No.1D *Except*

B2 2 X 4 SYP No.2

WEBS 2 X 4 SYP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-10-4 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 5-7-4 oc bracing.

WEBS 1 Row at midpt 7-11

REACTIONS

(lb/size) 2=1850/0-4-0, 10=1756/Mechanical

Max Horz 2=191(load case 5)

Max Uplift 2=-592(load case 5), 10=-501(load case 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-3275/1372, 3-4=-2970/1225, 4-5=-2620/1161, 5-6=-3269/1408, 6-7=-3037/1307, 7-8=-1893/881, 8-9=-2185/898,

9-10=-1649/727

BOT CHORD 2-16=-1236/2873, 15-16=-1214/3130, 14-15=-1214/3130, 13-14=-1289/3300, 12-13=-1039/2704, 11-12=-1039/2704, 10-11=-101/162

WEBS 3-16=-320/294, 4-16=-339/1044, 5-16=-861/410, 5-14=-83/353, 6-14=-117/143, 6-13=-472/268, 7-13=-193/717, 7-11=-1288/518,

8-11=-180/697, 9-11=-629/1791

JOINT STRESS INDEX

2 = 0.82, 3 = 0.23, 4 = 0.53, 5 = 0.45, 6 = 0.66, 7 = 0.58, 8 = 0.59, 9 = 0.78, 10 = 0.48, 11 = 0.84, 12 = 0.99, 13 = 0.58, 14 = 0.45, 15 = 0.87 and 16 = 0.57

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) Refer to girder(s) for truss to truss connections.

5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 592 lb uplift at joint 2 and 501 lb uplift at joint 10.

LOAD CASE(S) Standard

Job L166296	Truss T22	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional)

6.200 s Jul 13 2005 Mitek Industries, Inc. Tue May 23 14:28:08 2006 Page 1

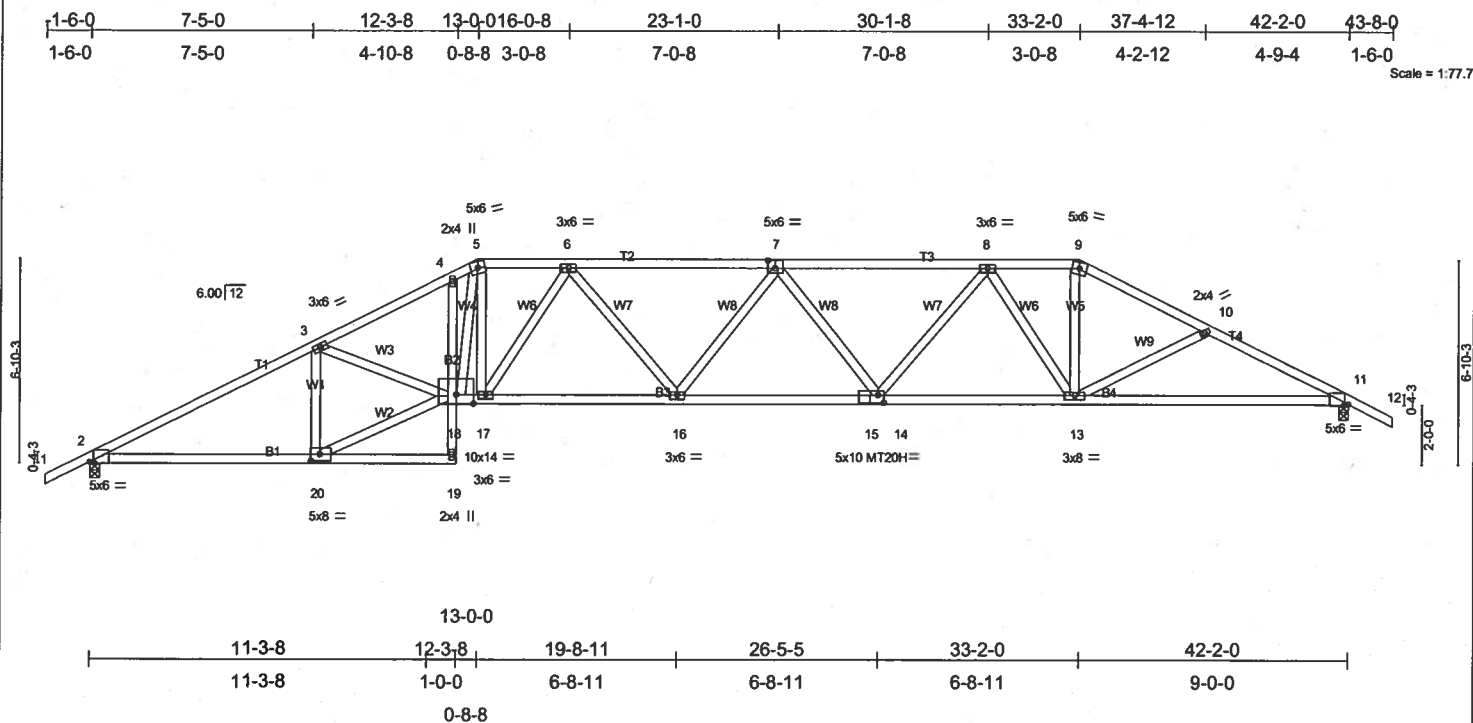


Plate Offsets (X,Y): [2:0-1-11,Edge], [7:0-3-0,0-3-0], [11:0-1-11,Edge], [15:0-2-4,0-3-0], [20:0-3-8,0-2-8]

LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.87	Vert(LL) -0.48 14-16 >999 240	MT20H	187/143
BCLL 10.0	Lumber Increase 1.25	WB 0.56	Vert(TL) -0.78 14-16 >647 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.30 11 n/a n/a		
	Code FBC2004/TPI2002			Weight: 237 lb	

LUMBER

TOP CHORD 2 X 4 SYP No.2
 BOT CHORD 2 X 4 SYP No.2 *Except*
 B2 2 X 4 SYP No.3
 WEBS 2 X 4 SYP No.3 *Except*
 W2 2 X 4 SYP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-7-14 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 5-3-4 oc bracing.

REACTIONS

(lb/size) 2=1847/0-4-0, 11=1847/0-4-0
 Max Horz 2=184(load case 5)
 Max Uplift 2=610(load case 5), 11=569(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-3318/1334, 3-4=-4099/1697, 4-5=-4000/1739, 5-6=-3465/1493, 6-7=-3992/1679, 7-8=-3739/1579, 8-9=-2756/1195,
 9-10=-3098/1267, 10-11=-3327/1378, 11-12=0/35
 BOT CHORD 2-20=-1119/2874, 19-20=-33/102, 18-19=0/57, 4-18=-46/97, 17-18=-1194/3437, 16-17=-1361/3799, 15-16=-1449/4017, 14-15=-1449/4017,
 13-14=-1143/3287, 11-13=-1087/2915
 WEBS 5-18=-455/812, 5-17=-283/913, 6-17=-723/363, 6-16=-118/407, 7-16=-137/167, 7-14=-512/268, 8-14=-233/763, 8-13=-1051/451,
 9-13=-423/1189, 10-13=-228/220, 3-20=-994/505, 3-18=-255/814, 18-20=-1185/3024

JOINT STRESS INDEX

2 = 0.83, 3 = 0.46, 4 = 0.49, 5 = 0.75, 6 = 0.43, 7 = 0.71, 8 = 0.52, 9 = 0.56, 10 = 0.34, 11 = 0.83, 13 = 0.60, 14 = 0.00, 15 = 0.91, 16 = 0.40, 17 = 0.60, 18 = 0.78, 19 = 0.74 and 20 = 0.68

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
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 610 lb uplift at joint 2 and 569 lb uplift at joint 11.

LOAD CASE(S) Standard

Job L166296	Truss T23	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional)

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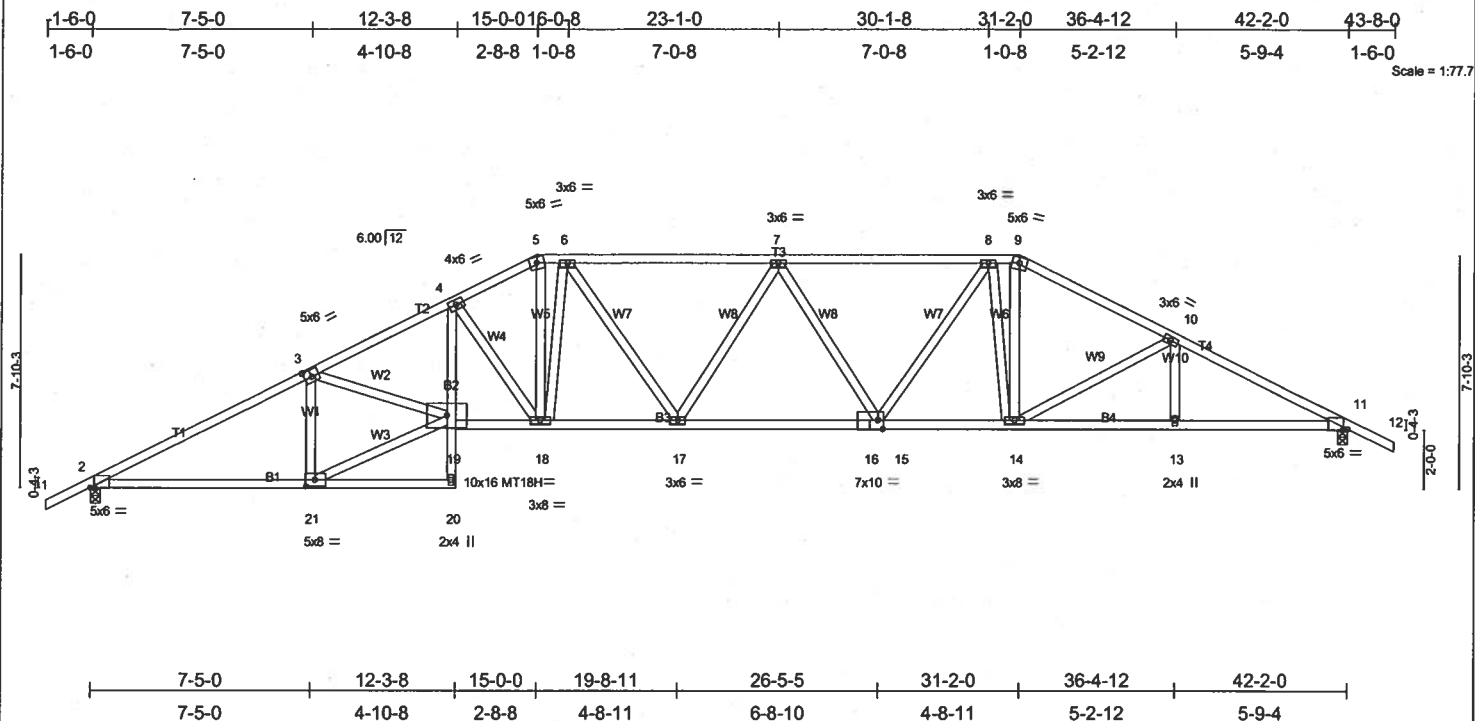


Plate Offsets (X,Y): [2:0-1-11,Edge], [3:0-3-0,0-3-0], [11:0-1-11,Edge], [16:0-2-0,Edge], [21:0-3-8,0-2-8]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.58	Vert(LL)	-0.43 15-17	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.84	Vert(TL)	-0.70 15-17	>721	180	MT18H	244/190
BCLL 10.0	Lumber Increase 1.25	WB 0.99	Horz(TL)	0.29 11	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)						
	Code FBC2004/TPI2002							
							Weight: 252 lb	

LUMBER
 TOP CHORD 2 X 4 SYP No.2
 BOT CHORD 2 X 4 SYP No.2 *Except*
 B2 2 X 4 SYP No.3
 WEBS 2 X 4 SYP No.3

BRACING
 TOP CHORD Structural wood sheathing directly applied or 2-7-5 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 5-4-3 oc bracing.

REACTIONS (lb/size) 2=1847/0-4-0, 11=1847/0-4-0
 Max Horz 2=198(load case 5)
 Max Uplift 2=-626(load case 5), 11=-588(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-3325/1351, 3-4=-4325/1800, 4-5=-3394/1486, 5-6=-3063/1381, 6-7=-3270/1440, 7-8=-3067/1357, 8-9=-2585/1188,
 9-10=-2920/1252, 10-11=-3394/1361, 11-12=0/35
 BOT CHORD 2-21=-1137/2881, 20-21=-30/88, 19-20=0/61, 4-19=-497/1323, 18-19=-1381/3807, 17-18=-1075/3125, 16-17=-1147/3294,
 15-16=-1147/3294, 14-15=-895/2696, 13-14=-1064/2949, 11-13=-1064/2949
 WEBS 3-21=-1091/548, 19-21=-1216/3071, 3-19=-264/975, 4-18=-1309/600, 5-18=-616/1367, 6-18=-564/345, 6-17=-132/385, 7-17=-167/174,
 7-15=-502/253, 8-15=-217/730, 8-14=-878/408, 9-14=-418/1110, 10-14=-456/259, 10-13=0/178

JOINT STRESS INDEX
 2 = 0.83, 3 = 0.74, 4 = 0.72, 5 = 0.63, 6 = 0.42, 7 = 0.43, 8 = 0.55, 9 = 0.57, 10 = 0.41, 11 = 0.84, 13 = 0.34, 14 = 0.59, 15 = 0.00, 16 = 1.00, 17 = 0.43, 18 = 0.69, 19 = 0.76, 20 = 0.81 and 21 = 0.69

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 626 lb uplift at joint 2 and 588 lb uplift at joint 11.

LOAD CASE(S) Standard

Job L166296	Truss T24	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:28:15 2006 Page 1

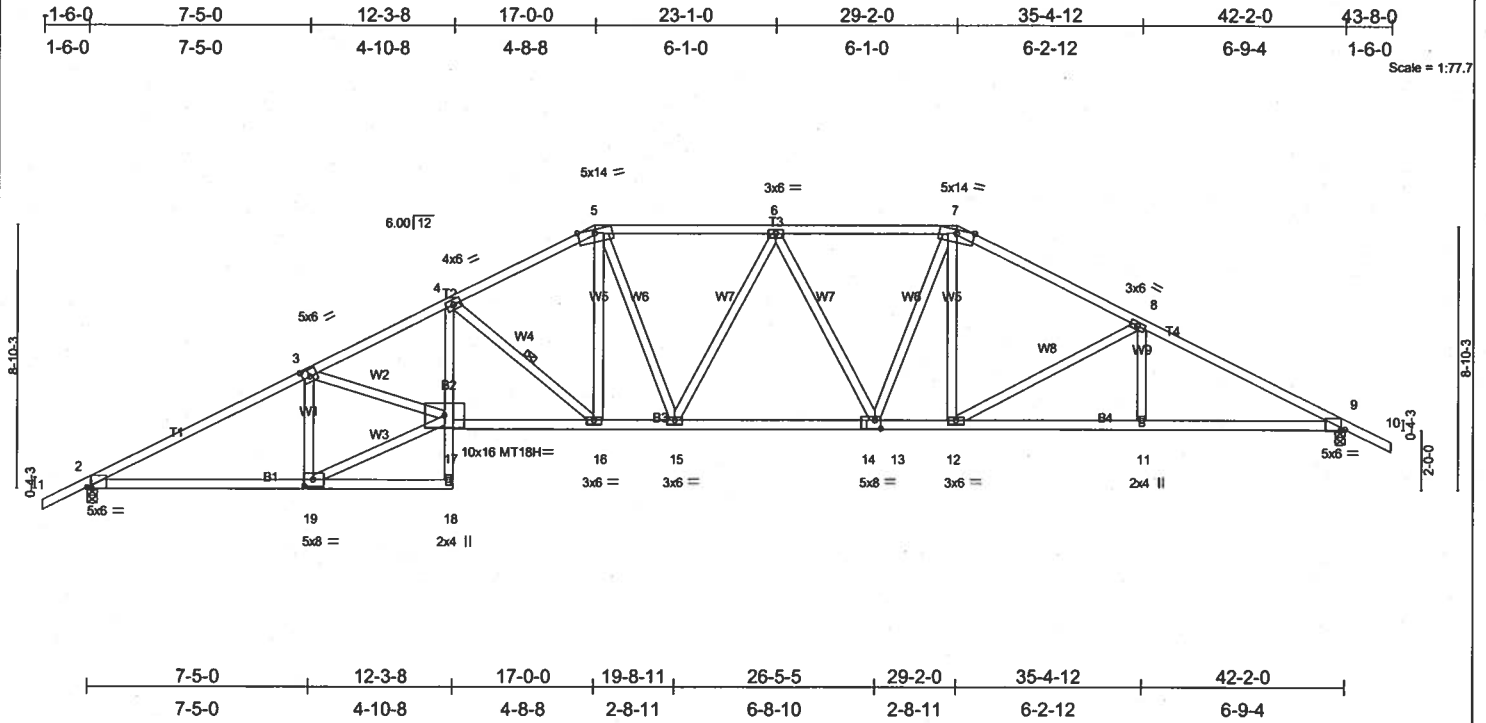


Plate Offsets (X,Y): [2:0-1-11,Edge], [3:0-3-0,0-3-0], [9:0-1-11,Edge], [14:0-2-8,0-3-4], [19:0-3-8,0-2-8]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.58	Vert(LL)	-0.39 16-17	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.80	Vert(TL)	-0.63 16-17	>797	180	MT18H	244/190
BCLL 10.0	Lumber Increase 1.25	WB 0.99	Horz(TL)	0.28 9	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)						
	Code FBC2004/TPI2002							
							Weight: 248 lb	

LUMBER

TOP CHORD 2 X 4 SYP No.2
 BOT CHORD 2 X 4 SYP No.2 *Except*
 B2 2 X 4 SYP No.3
 WEBS 2 X 4 SYP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-7-5 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 5-3-10 oc bracing.
 WEBS 1 Row at midpt 4-16

REACTIONS (lb/size) 2=1847/0-4-0, 9=1847/0-4-0

Max Horz 2=212(load case 5)
 Max Uplift 2=641(load case 5), 9=605(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-3324/1365, 3-4=-4340/1826, 4-5=-3071/1366, 5-6=-2781/1290, 6-7=-2609/1220, 7-8=-2764/1218, 8-9=-3364/1369, 9-10=0/35
 BOT CHORD 2-19=-1148/2880, 18-19=-33/68, 17-18=0/58, 4-17=-464/1289, 16-17=-1417/3843, 15-16=-896/2721, 14-15=-921/2777, 13-14=-921/2777, 12-13=-767/2411, 11-12=-1061/2919, 9-11=-1061/2919
 WEBS 3-19=-1097/552, 17-19=-1225/3092, 3-17=-278/992, 4-16=-1472/683, 5-16=-367/890, 5-15=-122/313, 6-15=-153/166, 6-13=-472/229, 7-13=-185/612, 7-12=-138/396, 8-12=-595/337, 8-11=0/224

JOINT STRESS INDEX

2 = 0.83, 3 = 0.73, 4 = 0.70, 5 = 0.74, 6 = 0.45, 7 = 0.81, 8 = 0.41, 9 = 0.84, 11 = 0.34, 12 = 0.35, 13 = 0.00, 14 = 0.96, 15 = 0.49, 16 = 0.58, 17 = 0.76, 18 = 0.72 and 19 = 0.69

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 641 lb uplift at joint 2 and 605 lb uplift at joint 9.

LOAD CASE(S) Standard

Job L166296	Truss T25	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
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Job Reference (optional)

Builders FirstSource, Lake City, FL 32055

6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:28:18 2006 Page 1

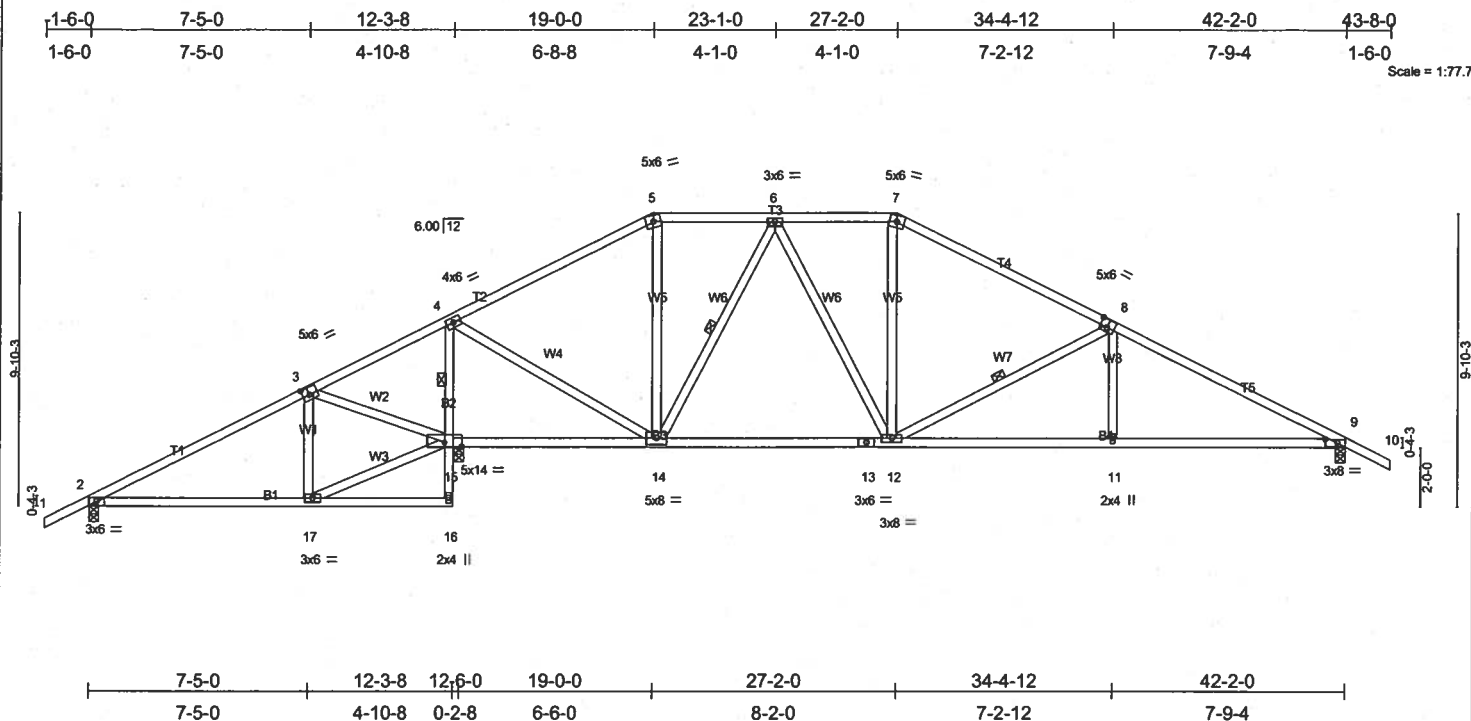


Plate Offsets (X,Y): [3:0-2-12,0-3-0], [8:0-3-0,0-3-4], [9:0-4-12,0-1-8]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.49	Vert(LL) 0.17	2-17	>823	240		MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.60	Vert(TL) -0.27	9-11	>999	180			
BCLL 10.0	Lumber Increase 1.25	WB 0.58	Horz(TL) 0.05	9	n/a	n/a			
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 240 lb	

LUMBER
 TOP CHORD 2 X 4 SYP No.2
 BOT CHORD 2 X 4 SYP No.2 *Except*
 B2 2 X 4 SYP No.3
 WEBS 2 X 4 SYP No.3

BRACING
 TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
 1 Row at midpt 4-15
 WEBS 1 Row at midpt 6-14, 8-12

REACTIONS (lb/size) 2=399/0-4-0, 15=2028/0-4-0, 9=1266/0-4-0
 Max Horz 2=278(load case 5)
 Max Uplift 2=328(load case 5), 15=-816(load case 5), 9=-483(load case 6)
 Max Grav 2=441(load case 9), 15=2028(load case 1), 9=1266(load case 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-276/251, 3-4=-282/669, 4-5=-849/415, 5-6=-684/444, 6-7=-1115/633, 7-8=-1336/624, 8-9=-2059/828, 9-10=0/35
 BOT CHORD 2-17=-305/172, 16-17=-86/0, 15-16=-52/41, 4-15=-1619/792, 14-15=-517/435, 13-14=-133/936, 12-13=-133/936, 11-12=-568/1756,
 9-11=-568/1756
 WEBS 3-17=-163/237, 15-17=-241/219, 3-15=-689/663, 4-14=-508/1391, 5-14=-20/140, 6-14=-604/242, 6-12=-167/397, 7-12=-7/257,
 8-12=-734/428, 8-11=0/253

JOINT STRESS INDEX
 2 = 0.33, 3 = 0.76, 4 = 0.73, 5 = 0.58, 6 = 0.46, 7 = 0.59, 8 = 0.76, 9 = 0.77, 11 = 0.34, 12 = 0.61, 13 = 0.41, 14 = 0.64, 15 = 0.75, 16 = 0.34 and 17 = 0.35

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; porch left 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.
 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 328 lb uplift at joint 2, 816 lb uplift at joint 15 and 483 lb uplift at joint 9.

LOAD CASE(S) Standard

Job L166296	Truss T26	Truss Type SPECIAL	Qty 1	Ply 1	MARKHAM RESIDENCE
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.200 s Jul 13 2005 Mitek Industries, Inc. Tue May 23 14:28:21 2006 Page 1

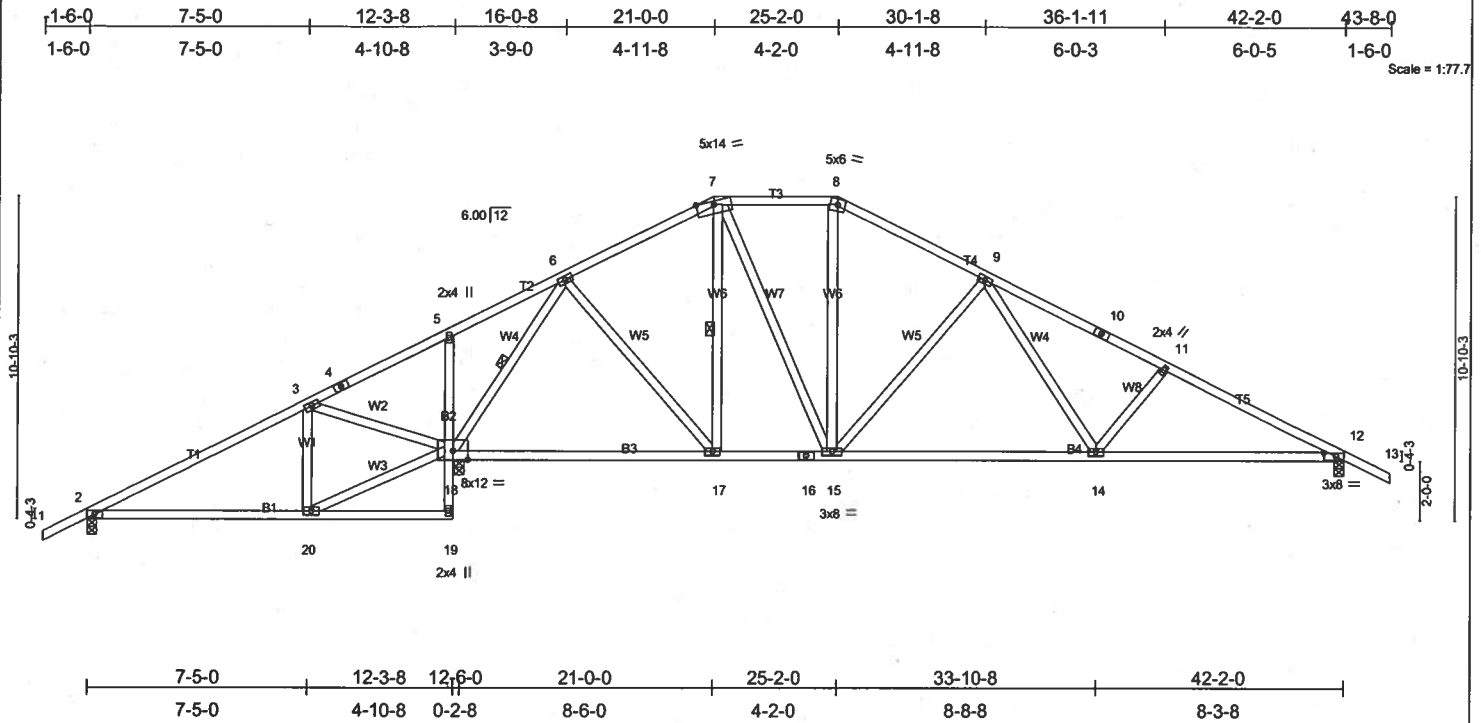


Plate Offsets (X,Y): [12.0-4-12.0-1-8]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.52	Vert(LL)	-0.19 14-15	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.59	Vert(TL)	-0.32 14-15	>999	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.67	Horz(TL)	0.05 12	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)						
	Code FBC2004/TPI2002						Weight: 252 lb	

LUMBER
 TOP CHORD 2 X 4 SYP No.2
 BOT CHORD 2 X 4 SYP No.2 *Except*
 B2 2 X 4 SYP No.3
 WEBS 2 X 4 SYP No.3

BRACING
 TOP CHORD Structural wood sheathing directly applied or 4-2-2 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 6-18, 7-17

REACTIONS (lb/size) 2=375/0-4-0, 18=2062/0-4-0, 12=1257/0-4-0
 Max Horz 2=240(load case 5)
 Max Uplift 2=-183(load case 5), 18=-675(load case 5), 12=-495(load case 6)
 Max Grav 2=425(load case 9), 18=2062(load case 1), 12=1257(load case 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-244/137, 3-4=-237/615, 4-5=-233/718, 5-6=-136/692, 6-7=-868/519, 7-8=-914/597, 8-9=-1084/612, 9-10=-1808/859,
 10-11=-1884/845, 11-12=-2069/892, 12-13=0/35
 BOT CHORD 2-20=-95/144, 19-20=-80/0, 18-19=0/38, 5-18=-209/194, 17-18=-49/309, 16-17=-54/719, 15-16=-54/719, 14-15=-364/1301,
 12-14=-647/1794
 WEBS 3-20=-19/234, 18-20=-82/240, 3-18=-699/429, 6-18=-1639/689, 6-17=-124/644, 7-17=-306/134, 7-15=-192/514, 8-15=-102/226,
 9-15=-606/406, 9-14=-201/602, 11-14=-289/288

JOINT STRESS INDEX
 2 = 0.57, 3 = 0.41, 4 = 0.38, 5 = 0.45, 6 = 0.55, 7 = 0.52, 8 = 0.30, 9 = 0.42, 10 = 0.43, 11 = 0.34, 12 = 0.77, 14 = 0.46, 15 = 0.64, 16 = 0.42, 17 = 0.44, 18 = 0.40, 19 = 0.34 and 20 = 0.35

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 3x6 MT20 unless otherwise indicated.
- 5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 183 lb uplift at joint 2, 675 lb uplift at joint 18 and 495 lb uplift at joint 12.

LOAD CASE(S) Standard

Job L166296	Truss T27	Truss Type HIP	Qty 1	Ply 2	MARKHAM RESIDENCE
Builders FirstSource, Lake City, FL 32055					Job Reference (optional) 6.200 s Jul 13 2005 MiTek Industries, Inc. Tue May 23 14:28:24 2006 Page 1

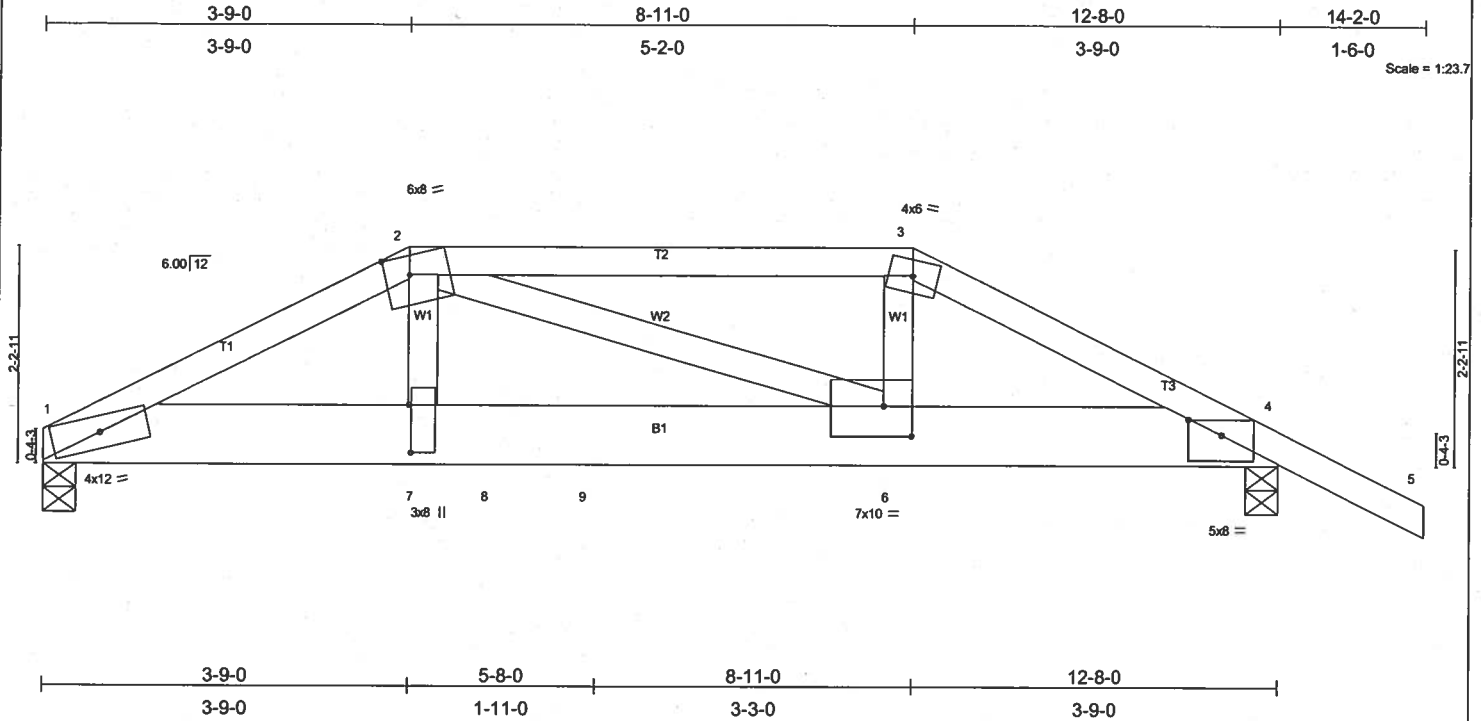


Plate Offsets (X,Y): [2:0-3-1,0-2-6], [4:0-4-0,0-1-15], [6:0-3-7,0-3-12], [7:0-5-14,0-0-5]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCCL 20.0	2-0-0	TC 0.37	Vert(LL)	-0.13	6-7	>999	240	MT20	244/190
TCCL 7.0	Plates Increase 1.25	BC 0.66	Vert(TL)	-0.21	6-7	>720	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.84	Horz(TL)	0.03	4	n/a	n/a		
BCDL 5.0	Rep Stress Incr NO	(Matrix)							
	Code FBC2004/TPI2002								
								Weight: 146 lb	

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=5958/0-4-0, 4=3252/0-4-0
Max Horz 1=-81(load case 5)
Max Uplift 1=-2237(load case 4), 4=-1281(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-10274/3852, 2-3=-6748/2554, 3-4=-7295/2725, 4-5=0/42
BOT CHORD 1-7=-3433/9195, 7-8=-3588/9627, 8-9=-3588/9627, 6-9=-3588/9627, 4-6=-2404/6510
WEBS 2-7=-1906/5250, 2-6=-3097/1190, 3-6=-1023/2925

JOINT STRESS INDEX
1 = 0.75, 2 = 1.00, 3 = 0.82, 4 = 0.81, 6 = 0.39 and 7 = 0.97

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 8 - 3 rows at 0-4-0 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; TCCL=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 2237 lb uplift at joint 1 and 1281 lb uplift at joint 4.
- Girder carries tie-in span(s): 42-2-0 from 0-0-0 to 12-8-0; 42-2-0 from 0-0-0 to 4-8-0
- Girder carries hip end with 3-9-0 right side setback, 3-9-0 left side setback, and 4-1-0 end setback.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 136 lb down and 70 lb up at 8-11-0, and 136 lb down and 70 lb up at 3-9-0, and 3863 lb down and 1459 lb up at 5-8-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

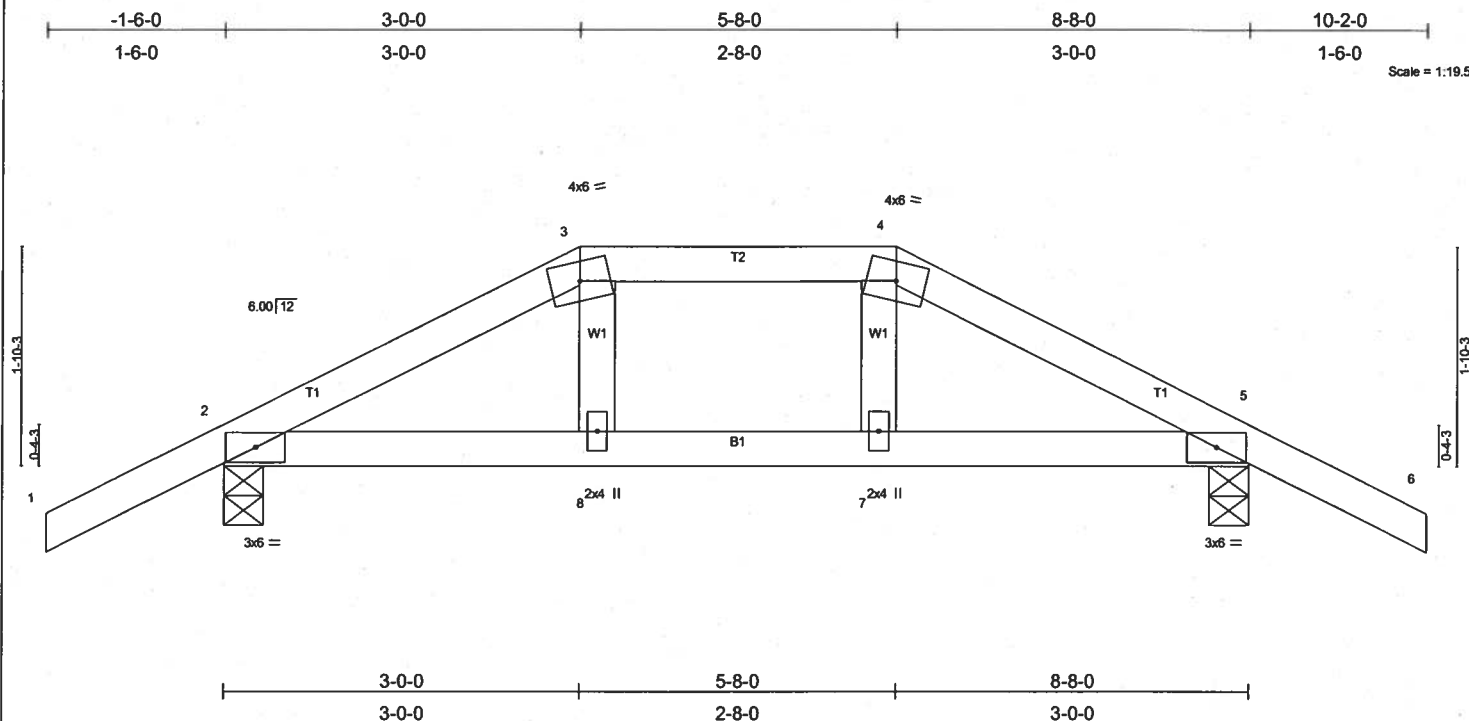
LOAD CASE(S) Standard

- Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-78(F=-24), 3-5=-54, 1-7=-866(B=-837), 7-8=-880(F=-13, B=-837), 6-8=-43(F=-13), 4-6=-30
Concentrated Loads (lb)
Vert: 7=-136(F) 6=-136(F) 9=-3863(F)

Job L166296	Truss T28	Truss Type HIP	Qty 1	Ply 1	MARKHAM RESIDENCE
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

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LOADING (psf)	SPACING	CSI	DEFL	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	Vert(LL) 0.01	8	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.14	Vert(TL) -0.02	7-8	>999	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.05	Horz(TL) 0.01	5	n/a	n/a		
BCDL 5.0	Rep Stress Incr NO	(Matrix)						
	Code FBC2004/TPI2002						Weight: 36 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=521/0-4-0, 5=521/0-4-0
 Max Horz 2=-50(load case 5)
 Max Uplift 2=-248(load case 4), 5=-248(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-655/190, 3-4=-554/181, 4-5=-655/189, 5-6=0/35
 BOT CHORD 2-8=-129/541, 7-8=-129/554, 5-7=-127/541
 WEBS 3-8=-17/161, 4-7=-17/161

JOINT STRESS INDEX
 2 = 0.37, 3 = 0.14, 4 = 0.14, 5 = 0.37, 7 = 0.12 and 8 = 0.12

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 248 lb uplift at joint 2 and 248 lb uplift at joint 5.
- Girder carries hip end with 3-0-0 end setback.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 63 lb down and 32 lb up at 5-8-0, and 63 lb down and 32 lb up at 3-0-0 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).

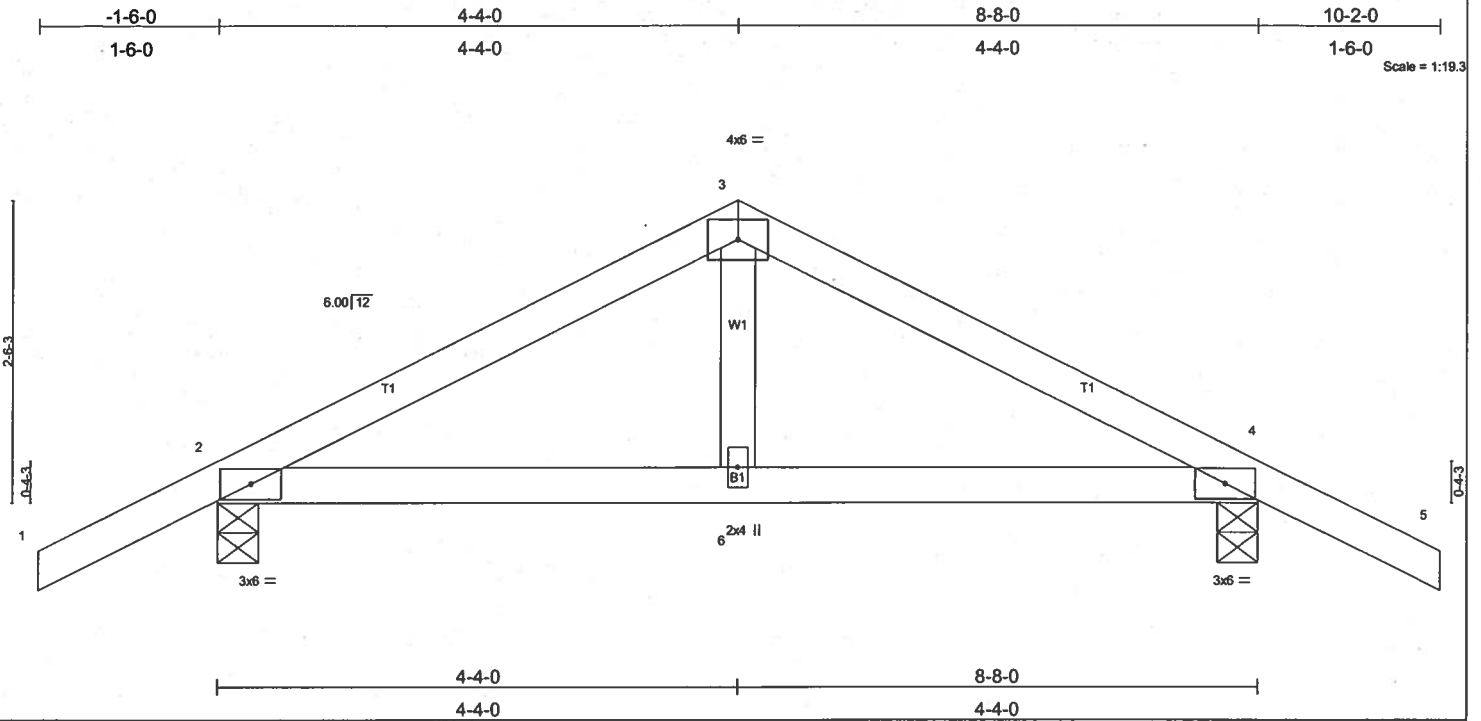
LOAD CASE(S) Standard

- Regular: Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (plf)
 Vert: 1-3=-54, 3-4=-63(F=-9), 4-6=-54, 2-8=-30, 7-8=-35(F=-5), 5-7=-30
 Concentrated Loads (lb)
 Vert: 8=-63(F) 7=-63(F)

Job L166296	Truss T29	Truss Type COMMON	Qty 2	Ply 1	MARKHAM RESIDENCE
					Job Reference (optional)

Builders FirstSource, Lake City, FL 32055

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LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase	1.25	TC 0.17	Vert(LL)	-0.01	4-6	>999	240	MT20	244/190
TCDL 7.0	Lumber Increase	1.25	BC 0.12	Vert(TL)	-0.02	4-6	>999	180		
BCLL 10.0	Rep Stress Incr	YES	WB 0.04	Horz(TL)	0.00	4	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 36 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=440/0-4-0, 4=440/0-4-0
 Max Horz 2=59(load case 5)
 Max Uplift 2=-215(load case 5), 4=-215(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-452/199, 3-4=-452/199, 4-5=0/35
 BOT CHORD 2-6=43/355, 4-6=43/355
 WEBS 3-6=0/138

JOINT STRESS INDEX
 2 = 0.25, 3 = 0.38, 4 = 0.25 and 6 = 0.10

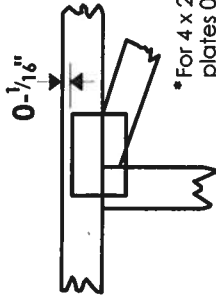
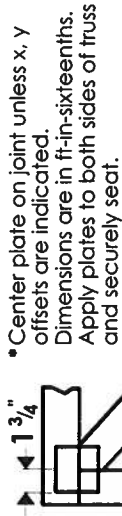
NOTES

- 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 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 215 lb uplift at joint 2 and 215 lb uplift at joint 4.

LOAD CASE(S) Standard

Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

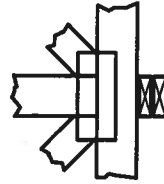
4 X 4

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

LATERAL BRACING



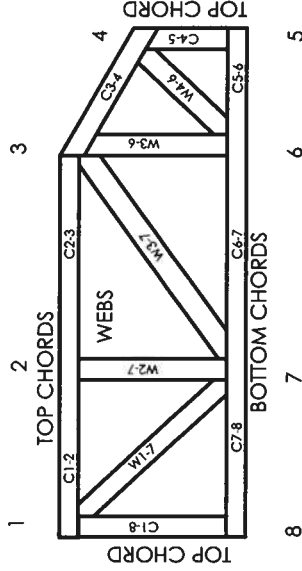
BEARING



Industry Standards:

- ANSI/TP11: 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



Mitek Engineering Reference Sheet: MII-7473

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCS11.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.
- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP11.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP11.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant or preservative treated lumber.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions shown indicate minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing shown on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of a professional engineer.
- Install and load vertically unless indicated otherwise.

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FLORIDA BUILDING CODE

- Overview
- User Registration
- Organization Registration
- User Authentication
- Organization Search
- Organization Accreditation

Select the organization type, status, or name to find an organization

Organization Type: Product Manufacturer

Approval Status: (ALL)

Organization Name: General American Door - Product Manufacturer

Cancel

Search

Result List for Organizations

Displaying 1-1 of 1

Name	City	Contact	Phone	Type	Expire	Status
General American Door	Montgomery	James Campbell	606593000	Product Manufacturer	01/01/2009	Approved
Org Code: PDM		System ID: 3585	Site Link: www.gadco.com			

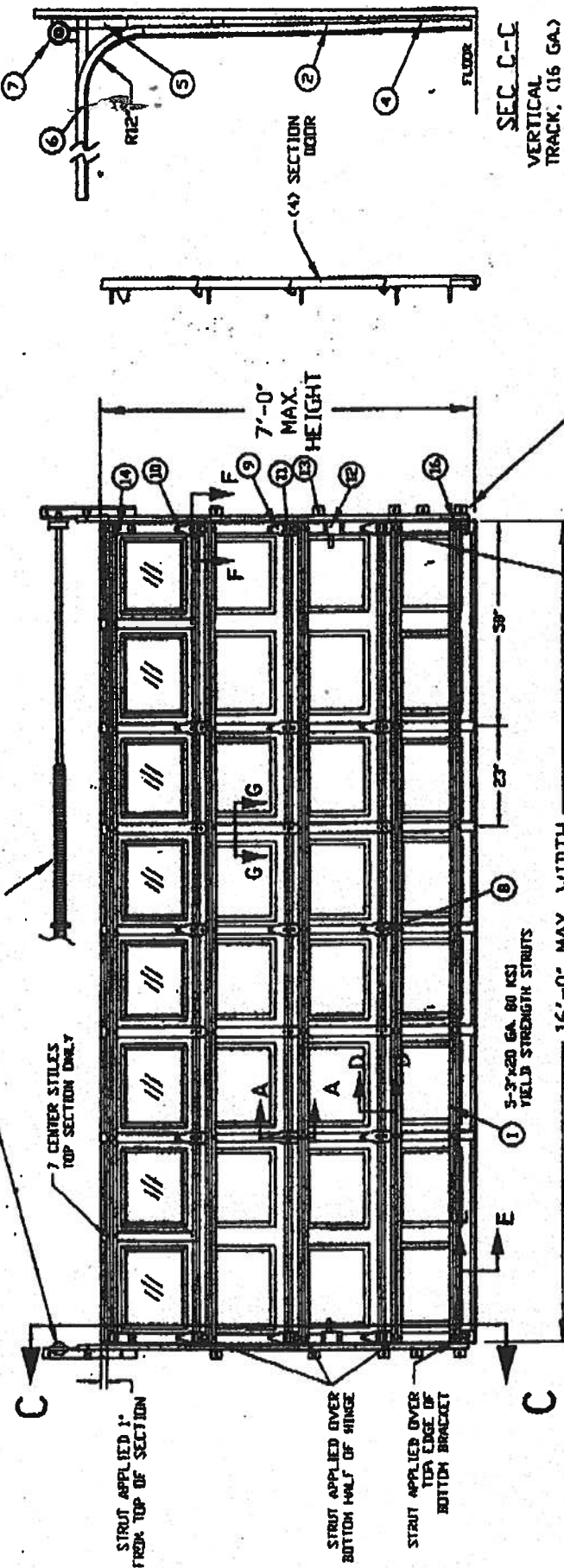
Displaying 1-1 of 1

Organization Name: General American Door - Product Manufacturer

NOTES:

1. TESTED TO POSITIVE AND NEGATIVE 20 PSF DESIGN AND POSITIVE AND NEGATIVE 30 PSF TEST PRESSURES PER ASTM E-330
2. MAXIMUM SECTION HEIGHT: 21'
3. SECTION HEIGHTS OF 21'0" AND 19'0" ARE AVAILABLE AND MAY BE USED IN ANY COMBINATION TO ACHIEVE VARIOUS RISE HEIGHTS.
4. VARIOUS MAY BE INSTALLED IN THE TOP SECTION (AS TESTED WITH 1/4" RIB GLASS OR EQUIVALENT) OR IN THE SECTION IMMEDIATELY BELOW THE TOP SECTION.
5. MAXIMUM LENGTH OF ROLLER STICK IS 3/4" AS TESTED
6. THE STRUT PLACEMENT ON DOOR MUST BE CONSISTENT WITH THE DOOR DESIGN
7. STRUTS SECURED AT ALL LOCATIONS WITH TIE SCREWS
8. QUANTITY OF SIDE LOCKS CAN BE Q1 OR Q2 AS TESTED.
9. DROP IN TYPE OF INSULATION IS OPTIONAL

NOT PART OF VIBRO LOAD SYSTEM
EXTENSION SPRING COUNTERBALANCE
TORSION SPRING COUNTERBALANCE



INSIDE ELEVATION



The seal on this drawing only certifies that the product(s) illustrated and described herein represent the configuration(s), dimensions and installation(s) of the door as tested.

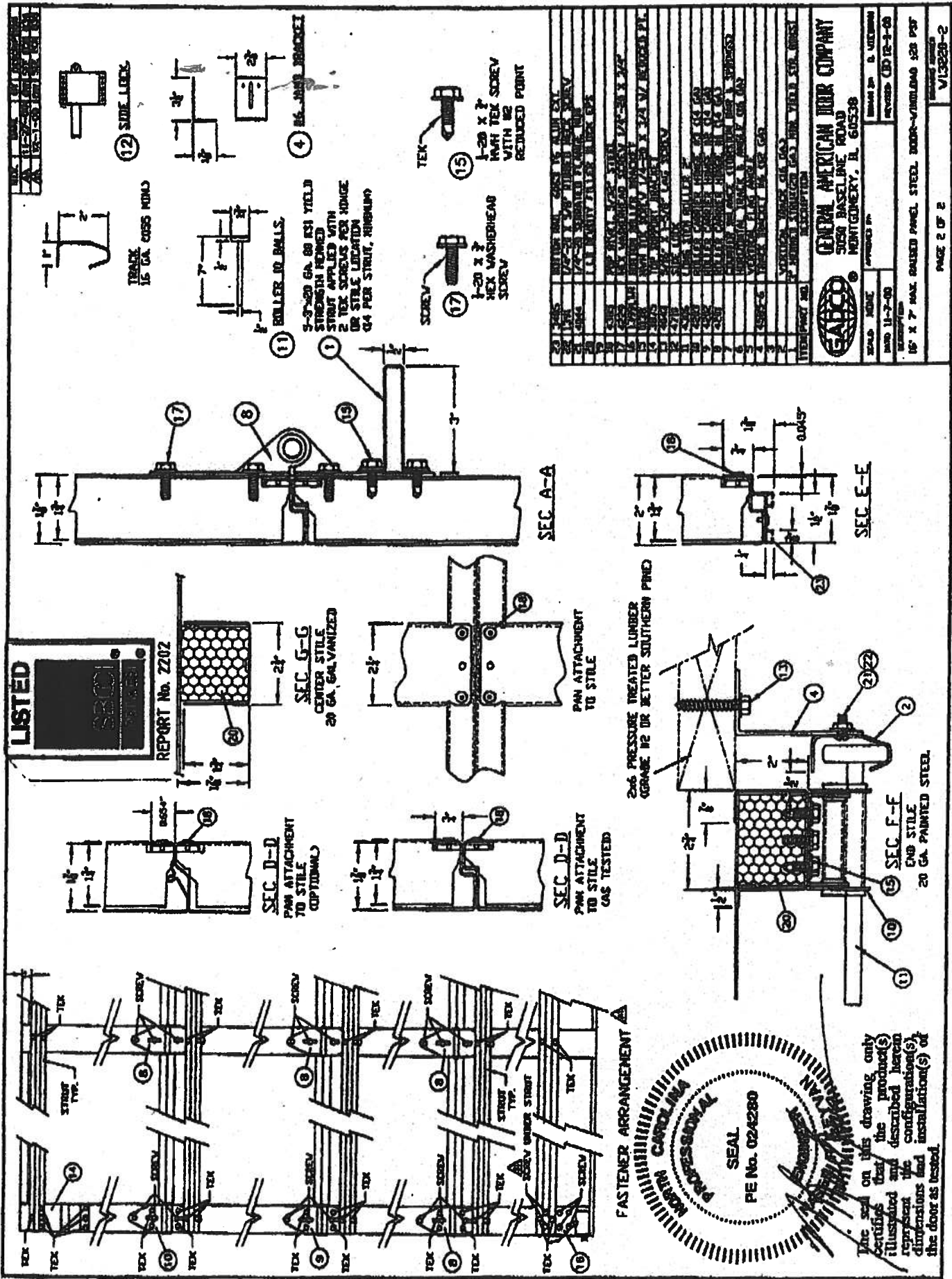
TEST REPORTS ON FILE [VIDEO 10/19/00 0002930]

DESIGN LOAD +200 PSF & -200 PSF
TEST LOAD +300 PSF & -300 PSF



GENERAL AMERICAN DOOR COMPANY
5050 BASELINE ROAD
MONTGOMERY, IL 60538

SCALE: 1/8" = 1'-0"	DATE: 10-20-00	REVISED: (A) 11-10-00
REVISIONS	DESCRIPTION	15' X 7' MAX. RAISED PANEL STEEL DOOR - WINDLOAD ±20 PSF
PROJECT NUMBER	PAGE 1 OF 2	PROJECT NAME: V13220-1

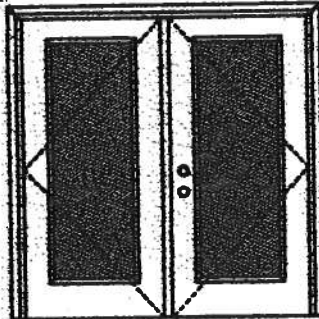


I, the undersigned, being a duly licensed Professional Engineer in the State of North Carolina, do hereby certify that the product(s) illustrated and described herein represent the configuration(s), dimensions and installation(s) of the door as tested.

XX

Glazed Outswing Unit

COP-WL-JHA162-02

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

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

Double Door

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

Design Pressure**+40.5/-40.5**

Limited water unless special threshold design is used.

Large Missile Impact Resistance**Hurricane protective system (shutters) is REQUIRED.**

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

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0012-02 and MAD-WL-MA0041-02.

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0002-02.

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

103 Series



133, 135 Series



136 Series



680 Series



822 Series

1/2 GLASS:

105 Series*



106, 160 Series*



120 Series*



200 Series*



12 RA, 23 RA, 24 RA Series*



107 Series*



108 Series



304 Series

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

Johnson
EntrySystems

March 29, 2002
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

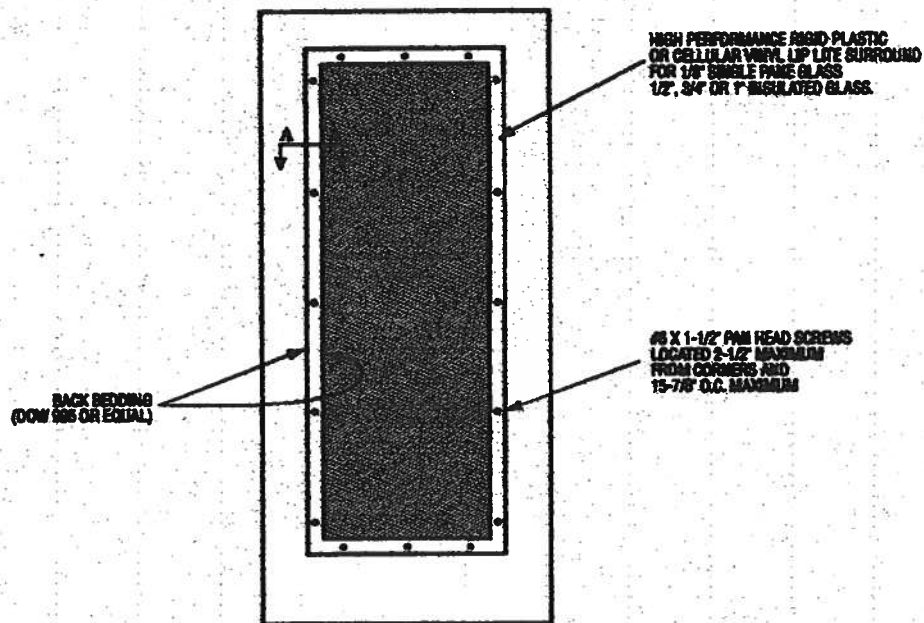
PREMDORE
Premium Quality Doors



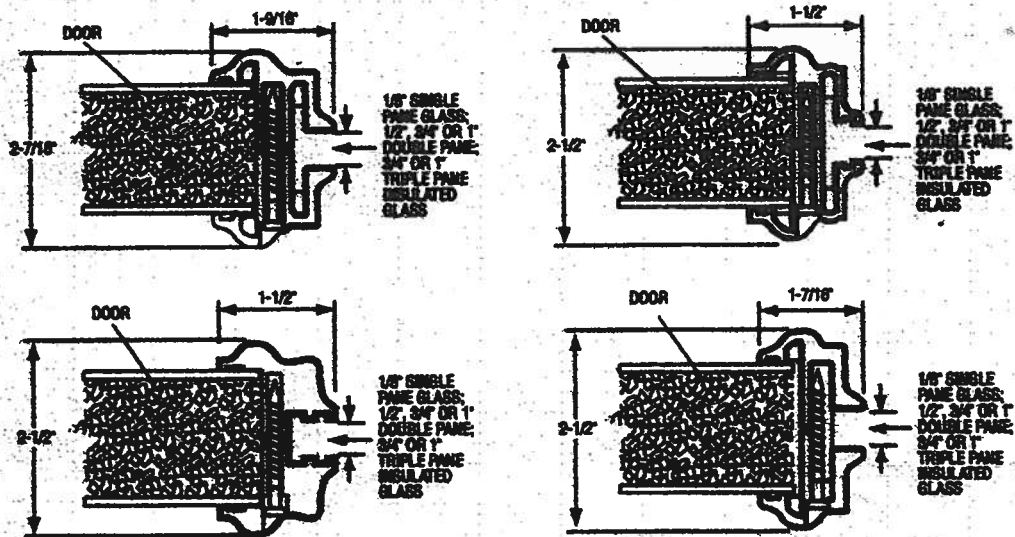
Exclusively from

Masonite
Masonite International Corporation

GLASS INSERT IN DOOR OR SIDELITE PANEL



SECTION A-A TYPICAL RIGID PLASTIC LIP LITE SURROUND



XX**Glazed Outswing Unit**

COP WL JH4162 02

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

404 Series



418 Series



460 Series

FULL GLASS:

100 Series



114, 120, 122 Series



182 Series



140 Series



300 Series

CERTIFIED TEST REPORTS:

NCTL 210-1887-7, 8, 9, 10, 11, 12; NCTL 210-1884-5, 6, 7, 8; NCTL 210-2178-1, 2, 3

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

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Evaluation report NCTL-210-2794-1

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

Frame constructed of wood with an extruded aluminum bumper threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN
ACCORDANCE WITH
MIAMI-DADE BCCO PA202

COMPANY NAME
CITY, STATE

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

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

Johnson
EntrySystems

March 25, 2002

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PREMIER Collection
Premium Quality Doors



Exclusively from

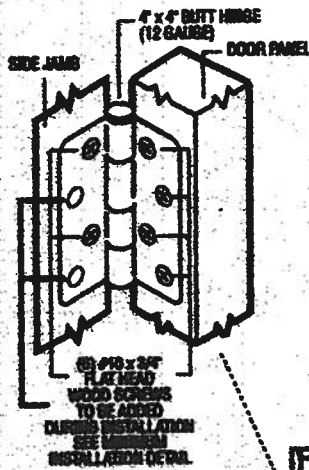
Masonite
Masonite International Corporation

XX
Unit

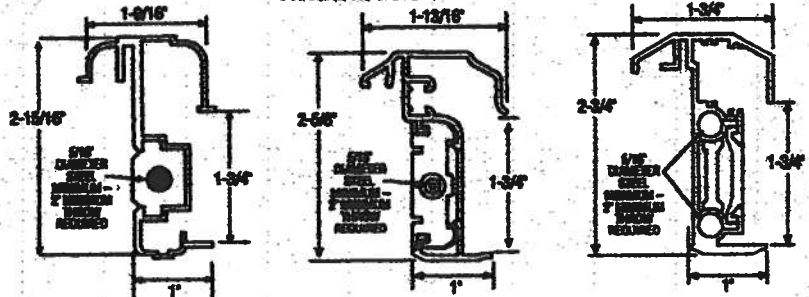
MAD-WL-WA0012-02

OUTSWING UNITS WITH DOUBLE DOOR

TYPICAL HINGE ATTACHMENT



TYPICAL ASTRAL PROFILES



ALUMINUM EXTRUDED ASTRAL (0.05\"/>

TYPICAL HEADER & SIDE JAMB ATTACHMENT

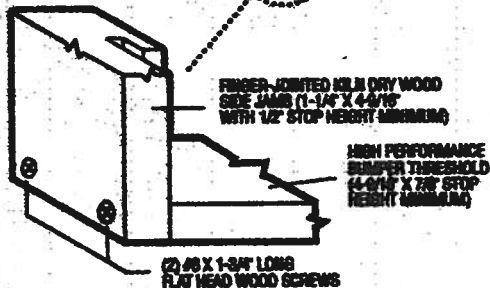
FINGER-JOINTED KILN DRY WOOD
FRAME HEADER (1-1/4\"/>

(2) 2\"/>

FINGER-JOINTED
KILN DRY WOOD
SIDE JAMB
(1-1/4\"/>

(3) FOR 7'0\"/>

TYPICAL THRESHOLD & SIDE JAMB ATTACHMENT



March 29, 2002
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design and product detail subject to change without notice.

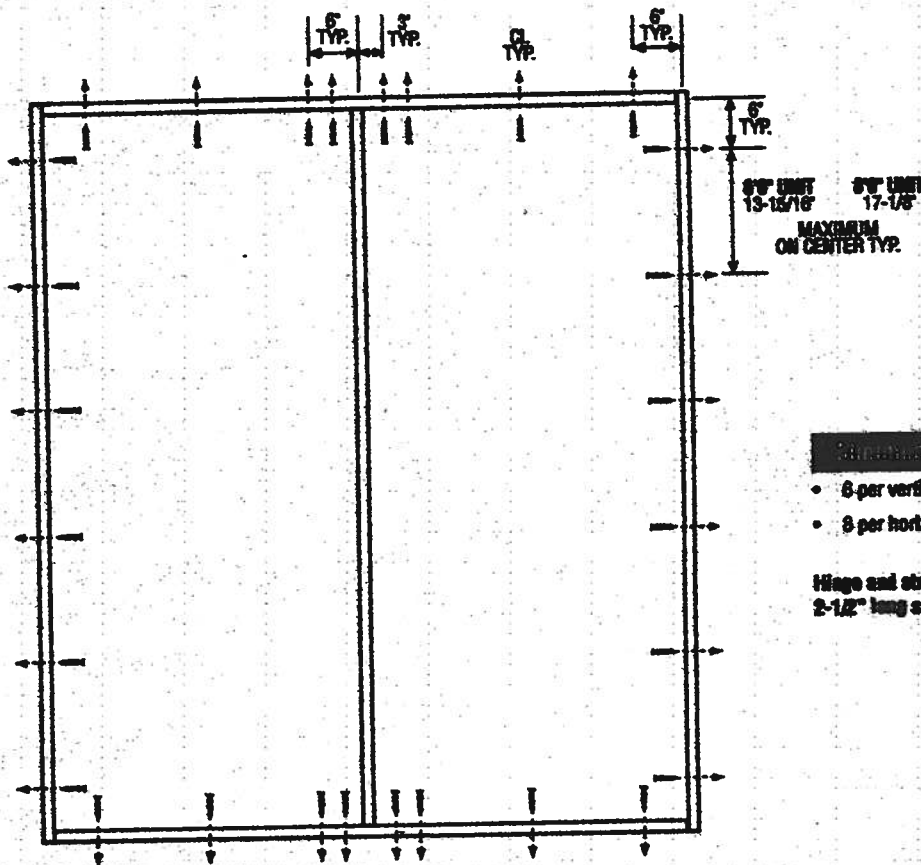
PREMIER
Premium Quality Doors

Exclusively from
Masonite
Masonite International Corporation

XX
Unit

IMD-VL-MA0002-02

DOUBLE DOOR



Minimum Fastener Count

- 6 per vertical framing member
- 8 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Latching Hardware:

- Compliance requires that GRADE 2 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.

Notes:

1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons.
2. The wood screw single shear design values come from Table 11.3A of ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment. The 3/16" Tapcon single shear design values come from the ITW and ELCO Dade County approvals respectively, each with minimum 1-1/4" embedment.
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

March 29, 2002
Our continuing program of product improvement makes specifications,
design and product detail subject to change without notice.





FEB - 4 REC'D

January 31, 2002

TO: OUR FLORIDA CUSTOMERS:

Effective February 1, 2002, the following TAMKO shingles, as manufactured at TAMKO's Tuscaloosa, Alabama, facility, comply with ASTM D-3161, Type I modified to 110 mph. Testing was conducted using four nails per shingle. These shingles also comply with Florida Building Code TAS 100 for wind driven rain.

- Glass-Seal AR
- Elite Glass-Seal AR
- ASTM Heritage 30 AR (formerly ASTM Heritage 25 AR)
- Heritage 40 AR (formerly Heritage 30 AR)
- Heritage 50 AR (formerly Heritage 40 AR)

All testing was performed by Florida State certified independent labs.

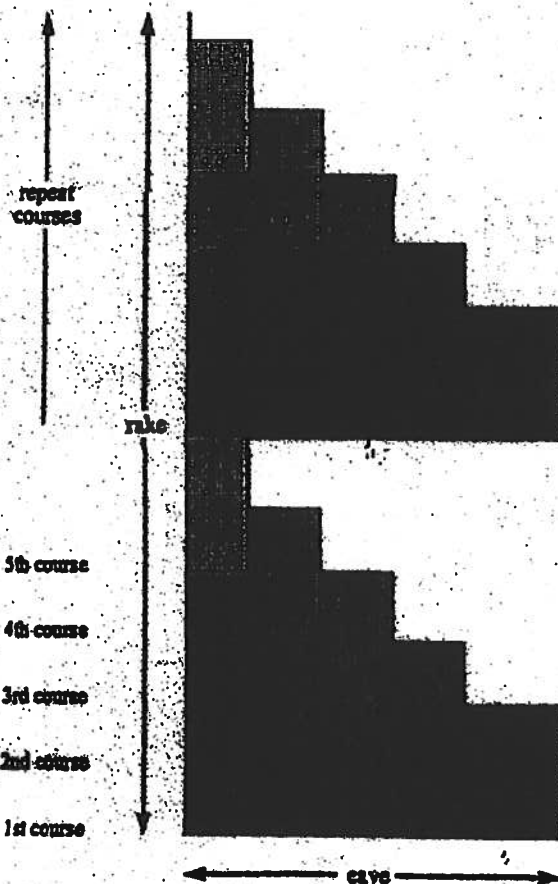
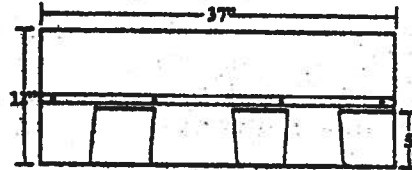
Please direct all questions to TAMKO's Technical Services Department at 1-800-641-4691.

TAMKO Roofing Products, Inc.



Application Instructions For Heritage® 25 Series Shingles

SPECIFICATIONS (APPROX.)	
Length	37"
Width	12"
Bundles per Sq.	3
Shingles per Sq.	78
Shingles per Bundle	26
Coverage per Sq. (Sq. Ft.)	100
Exposure	5"



The 4 cuts in the first 10 courses:



In the first 10 courses, there are 4 cuts and no waste.

When you reach the other side of the roof, whatever has to be trimmed off can be used in the field of roofing.

For additional application information consult the application instructions printed on the product package.

NOTE: These application instructions apply only to Heritage 25 and Heritage 25 AR shingles.



Application Instructions for

- Glass-Seal
 - Elite Glass-Seal®
 - Glass-Seal AR
 - Elite Glass-Seal® AR
- ### THREE-TAB ASPHALT SHINGLES

THESE ARE THE MANUFACTURER'S APPLICATION INSTRUCTIONS FOR THE ROOFING CONDITIONS DESCRIBED. TAMKO ROOFING PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR LEAKS OR OTHER ROOFING DEFECTS RESULTING FROM FAILURE TO FOLLOW THE MANUFACTURER'S INSTRUCTIONS.

THIS PRODUCT IS COVERED BY A LIMITED WARRANTY, THE TERMS OF WHICH ARE PRINTED ON THE WRAPPER. IN COLD WEATHER (BELOW 40°F), CARE MUST BE TAKEN TO AVOID DAMAGE TO THE EDGES AND CORNERS OF THE SHINGLES.

IMPORTANT: It is not necessary to remove the plastic strip from the back of the shingles.

1. ROOF DECK

These shingles are for application to roof decks capable of receiving and retaining fasteners, and to inclines of not less than 2 in. per foot. For roofs having pitches 2 in. per foot to less than 4 in. per foot, refer to special instructions titled "Low Slope Application". Shingles must be applied properly. TAMKO assumes no responsibility for leaks or defects resulting from improper application, or failure to properly prepare the surface to be roofed over.

NEW ROOF DECK CONSTRUCTION: Roof deck must be smooth, dry and free from warped surfaces. It is recommended that metal drip edges be installed at eaves and ridges.

PLYWOOD: All plywood shall be exterior grade as defined by the American Plywood Association. Plywood shall be a minimum of 3/8 in. thick and applied in accordance with the recommendations of the American Plywood Association.

SHEATHING BOARDS: Boards shall be well-seasoned tongue-and-groove boards not over 6 in. nominal width. Boards shall be a 1 in. nominal minimum thickness. Boards shall be properly spaced and nailed.

2. VENTILATION

Inadequate ventilation of attic spaces can cause accumulation of moisture in winter months and a build up of heat in the summer. These conditions can lead to:

1. Vapor Condensation
2. Buckling of shingles due to deck movement.
3. Rotting of wood members.
4. Premature failure of roof.

To insure adequate ventilation and circulation of air, place louvers of sufficient size high in the gable ends and/or install continuous ridge and soffit vents.

FHA minimum property standards require one square foot of net free ventilation area to each 150 square feet of space to be vented, or one square foot per 300 square feet if a vapor barrier is installed on the warm side of the ceiling or if at least one half of the ventilation is provided near the ridge. If the ventilation openings are screened, the total area should be doubled.

IT IS PARTICULARLY IMPORTANT TO PROVIDE ADEQUATE VENTILATION.

3. FASTENING

NAILS: TAMKO recommends the use of nails as the preferred method of application.

WIND CAUTION: Extreme wind velocities can damage these shingles after application when proper sealing of the shingles does not occur. This can especially be a problem if the shingles are applied in cooler months or in areas on the roof that do not receive direct sunlight. These

conditions may impede the sealing of the adhesive strips on the shingles. The inability to seal down may be compounded by prolonged cold weather conditions and/or blowing dust. In these situations, hand sealing of the shingles is recommended. Shingles must also be fastened according to the fastening instructions described below.

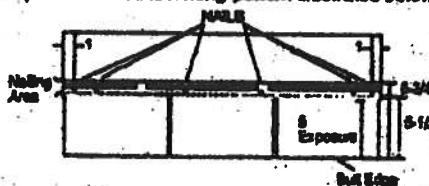
Correct placement of the fasteners is critical to the performance of the shingle. If the fasteners are not placed as shown in the diagrams and described below, TAMKO will not be responsible for any shingles blown off or displaced. TAMKO will not be responsible for damage to shingles caused by winds or gusts exceeding gale force. Gale force shall be the standard as defined by the U.S. Weather Bureau.

FASTENING PATTERNS: Fasteners must be placed above or below the factory applied sealant in an area between 6-1/2" and 6-3/4" from the butt edge of the shingle. Fasteners should be located horizontally according to the diagram below. Do not nail into the sealant. TAMKO recommends nailing below the sealant whenever possible for greater wind resistance.

- 1) Standard Fastening Pattern. (For use on decks with slopes 2 in. per foot to 21 in. per foot.) One fastener 1 in. back from each end and one 12 in. back from each end of the shingle for a total of 4 fasteners. (See standard fastening pattern illustrated below).



- 2) Mansard or High Wind Fastening Pattern. (For use on decks with slopes greater than 21 in. per foot.) One fastener 1 in. back from each end and one fastener 10-1/2 in. back from each end and one fastener 13-1/2 in. back from each end for a total of 6 fasteners per shingle. (See Mansard fastening pattern illustrated below.)



NAILS: TAMKO recommends the use of nails as the preferred method of application. Standard type roofing nails should be used. Nail shanks should be made of minimum 12-gauge wire, and a minimum head diameter of 3/8 in. Nails should be long enough to penetrate 3/4 in.

(Continued)

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Northeast District	4800 Tamko Dr., Frederick, MD 21701	800-368-2066
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07/01

TAMKO

ROOFING PRODUCTS

(CONTINUED FROM Pg. 2)

• Glass-Seal
• Glass-Seal AR

• Elite Glass-Seal®
• Elite Glass-Seal® AR

THREE-TAB ASPHALT SHINGLES

with quick setting asphalt adhesive cement immediately upon installation. Spots of cement must be equivalent in size to a 3.25 piece and applied to shingles with a 5 in. exposure, use 6 fasteners per shingle. See Section 3 for the Mansard Fastening Pattern.

5. RE-ROOFING

Before re-roofing, be certain to inspect the roof decks. All plywood shall meet the requirements listed in Section 1.

Nail down or remove curled or broken shingles from the existing roof. Replace all missing shingles with new ones to provide a smooth base. Shingles that are buckled usually indicate warped decking or protruding nails. Hammer down all protruding nails or remove them and re-set in a new location. Remove all drip edge metal and replace with new.

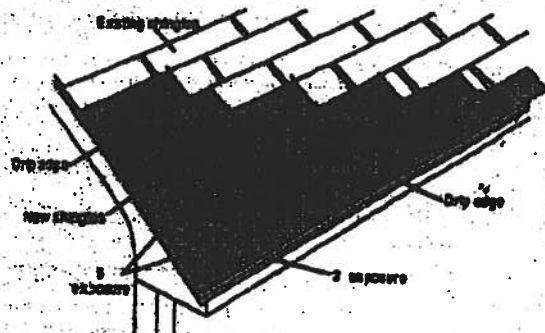
If re-roofing over an existing roof where new flashing is required to protect against ice dams (freeze/thaw cycle of water and/or the backup of water in frozen or clogged gutters), remove the old roofing to a point at least 24 in. beyond the interior wall line and apply TAMKO's Moisture Guard Plus® waterproofing underlayment. Contact TAMKO's Technical Services Department for more information.

The nailing method described below is the preferred method for re-roofing over square tab strip shingles with a 5 in. exposure.

Starter Course: Begin by using TAMKO Shingle Starter or by cutting shingles into 5 x 36 inch strips. This is done by removing the 5 in. tabs from the bottom and approximately 2 in. from the top of the shingles so that the remaining portion is the same width as the exposure of the old shingles. Apply the starter piece so that the self-sealing adhesive lies along the eaves and is even with the existing roof. The starter strip should be wide enough to overhang the eaves and carry water into the gutter. Remove 3 in. from the length of the first starter-shingle to ensure that the joints from the old roof do not align with the new.

First Course: Cut off approximately 2 in. from the bottom edge of the shingles so that the shingles fit beneath the existing third course and align with the edge of the starter strip. Start the first course with a full 36 in. long shingle and fasten according to the instructions printed in Section 3.

Second and Succession Courses: According to the off-set application method you choose to use, remove the appropriate length from the



rake end of the first shingle in each succeeding course. Place the top edge of the new shingle against the butt edge of the old shingles in the courses above. The full width shingles used on the second course will reduce the exposure of the first course to 3 in. The remaining courses will automatically have a 5 in. exposure.

6. VALLEY APPLICATION

Over the shingle underlayment, center a 36 in. wide sheet of TAMKO Nab-Past® or a minimum 60 in. re-roofing in the valley. Nail the felt only where necessary to hold it in place and then only nail the outside edges.

IMPORTANT: PRIOR TO INSTALLATION WARM SHINGLES TO PREVENT DAMAGE WHICH CAN OCCUR WHILE BENDING SHINGLES TO FORM VALLEY.

• Apply the first course of shingles along the eaves of one of the intersecting roof planes and across the valley.

Note: For proper flow of water over the trimmed shingle, always start applying the shingles on the roof plane that has the lower slope or less height.

• Extend the end shingle at least 12 in. onto the adjoining roof. Apply succeeding courses in the same manner, extending them across the valley and onto the adjoining roof.
• Do not trim if the shingle length exceeds 12 in. Lengths should vary.
• Press the shingles tightly into the valley.
• Use normal shingle fastening methods.

Note: No fastener should be within 6 in. of the valley centerline, and two fasteners should be placed at the end of each shingle crossing the valley.

• To the adjoining roof plane, apply one row of shingles extending it over previously applied shingles and trim a minimum of 2 in. back from the centerline of the valley.

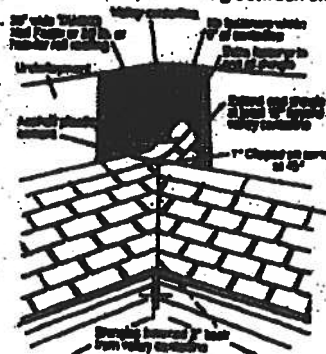
Note: For a master installation, snap a chalkline over the shingles for guidance.

• Clip the upper corner of each shingle at a 45-degree angle and embed the end of the shingle in a 3 in. wide strip of asphalt plastic cement. This will prevent water from penetrating between the courses by directing it into the valley.

• **CAUTION:** Adhesive must be applied in smooth, thin, even layers.

Excessive use of adhesive will cause blistering to this product.

TAMKO assumes no responsibility for blistering.



(Continued)

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800-530-8858

0701



(CONTINUED from Pg. 3)

• Glass-Seal
• Glass-Seal AR

• Elite Glass-Seal®
• Elite Glass-Seal® AR

THREE-TAB ASPHALT SHINGLES

FOR ALTERNATE VALLEY APPLICATION METHODS, PLEASE CONTACT TAMKO'S TECHNICAL SERVICES DEPARTMENT.

18. HIP AND RIDGE FASTENING DETAIL

Apply the shingles with a 5 in. exposure beginning at the bottom of the hip or from the end of the ridge opposite the direction of the prevailing winds. Secure each shingle with one fastener 5-1/2 in. back from the exposed end and 1 in. up from the edge. Do not nail directly into the sealant.

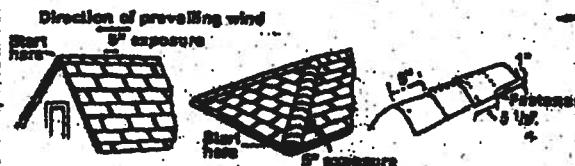
TAMKO recommends the use of TAMKO Hip & Ridge shingle products. Where matching colors are available, it is acceptable to use TAMKO's Glass-Seal or Elite Glass-Seal shingles cut down to 12 in. pieces.

NOTE: AR type shingle products should be used as Hip & Ridge on Glass-Seal AR and Elite Glass-Seal AR shingles.

Fasteners should be 1/4 in. longer than the one used for shingles.

IMPORTANT: PRIOR TO INSTALLATION, CARE NEEDS TO BE TAKEN TO PREVENT DAMAGE WHICH CAN OCCUR WHEN SEND-ING SHINGLES IN COOL WEATHER.

THESE ARE THE MANUFACTURER'S APPLICATION INSTRUCTIONS FOR THE ROOFING CONDITIONS DESCRIBED. TAMKO ROOFING PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR LEAKS OR OTHER ROOFING DEFECTS RESULTING FROM FAILURE TO FOLLOW THE MANUFACTURER'S INSTRUCTIONS.



THIS PRODUCT IS COVERED BY A LIMITED WARRANTY. THE TERMS OF WHICH ARE PRINTED ON THE WRAPPER.

IMPORTANT - READ CAREFULLY BEFORE OPENING BUNDLE

In this paragraph "You" and "Your" refer to the installer of the shingles and the owner of the building on which these shingles will be installed. This is a legally binding agreement between You and TAMKO Roofing Products, Inc. ("TAMKO"). By opening this bundle You agree: (a) to install the shingles strictly in accordance with the instructions printed on this wrapper; or (b) that shingles which are not installed strictly in accordance with the instructions printed on this wrapper are sold "AS IS" and are not covered by the limited warranty that is also printed on this wrapper, or any other warranty, including, but not limited to (except where prohibited by law) implied warranties of MERCHANTABILITY and FITNESS FOR USE.

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Southwest District	7910 S. Central Exp., Dallas, TX 75216	800-443-1834
Western District	5300 East 43rd Ave., Denver, CO 80218	800-530-8868

07/01

I

**AAMA/NWDA 101/1.9.2-97
TEST REPORT SUMMARY**

Rendered to:

MI HOME PRODUCTS, INC.

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

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

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

For ARCHITECTURAL TESTING, INC.


Mark A. Hesa, Technician

MAH:alb


1 APRIL 2002



II

Architectural Testing

AAMA/NWDA 101/LS-2-97 TEST REPORT

Rendered to

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

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

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

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

Test Specimen Description:

Series/Model: 650 Fin

Type: Aluminum Single Hung Window

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

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

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

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

Finish: All aluminum was white.

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

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

Allen P. Reeves
1 APRIL 2002



III

Test Specimen Description: (Continued)

Weatherstripping:

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

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

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

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

Hardware:

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

Allen H. Reeves
1 APRIL 2002



IV

Test Specimen Description: (Continued)

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized.

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

Test Results:

The results are tabulated as follows:

Paragraph	Title of Test - Test Method	Results	Allowed
2.2.1.6.1	Operating Force	11 lbs	30 lbs max
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.13 cfm/ft ²	0.3 cfm/ft ² max
<i>Note #1: The tested specimen meets the performance levels specified in AAMA/NWDA 101/LS-2-97 for air infiltration.</i>			
	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds) @ 25.9 psf (positive) @ 34.7 psf (negative)	0.42" 0.43"	0.26" max. 0.26" max.
<i>*Exceeds L/175 for deflection, but passes all other test requirements.</i>			
2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds) @ 38.9 psf (positive) @ 52.1 psf (negative)	0.02" 0.02"	0.18" max. 0.18" max.

Allen H. Reeves
1 APRIL 2002



Test Specimen Description: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
2.2.1.6.2	Deglazing Test (ASTM E 987) In operating direction at 70 lbs		
	Meeting rail	0.12"/25%	0.50"/100%
	Bottom rail	0.12"/25%	0.50"/100%
	In remaining direction at 50 lbs		
	Left stile	0.06"/12%	0.50"/100%
	Right stile	0.06"/12%	0.50"/100%
	Forced Entry Resistance (ASTM F 585-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Tests A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry

Optional Performance

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

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

Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)	
@ 67.5 psf (positive)	0.03"
@ 70.8 psf (negative)	0.05"

Allen H. Reeves
1 APRIL 2002



VI

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

For ARCHITECTURAL TESTING, INC:



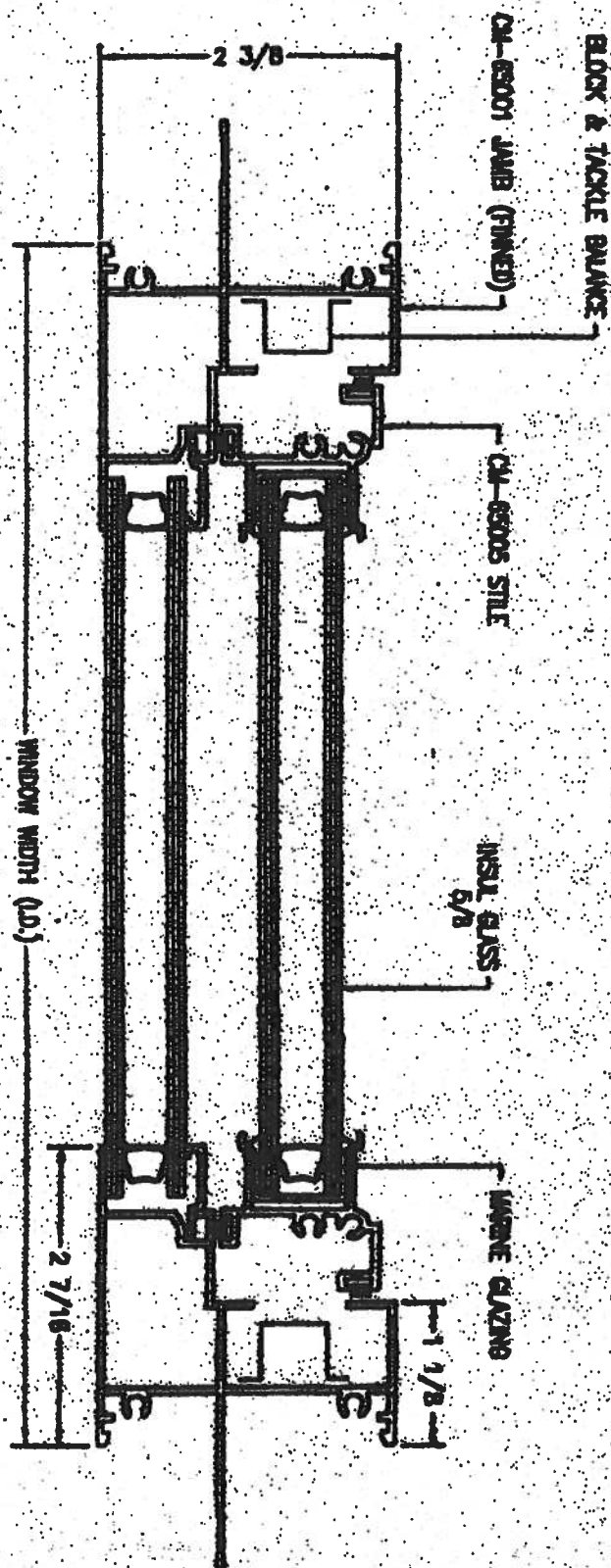
Mark A. Hoss
Technician

MAH:nlb
01-41134.01

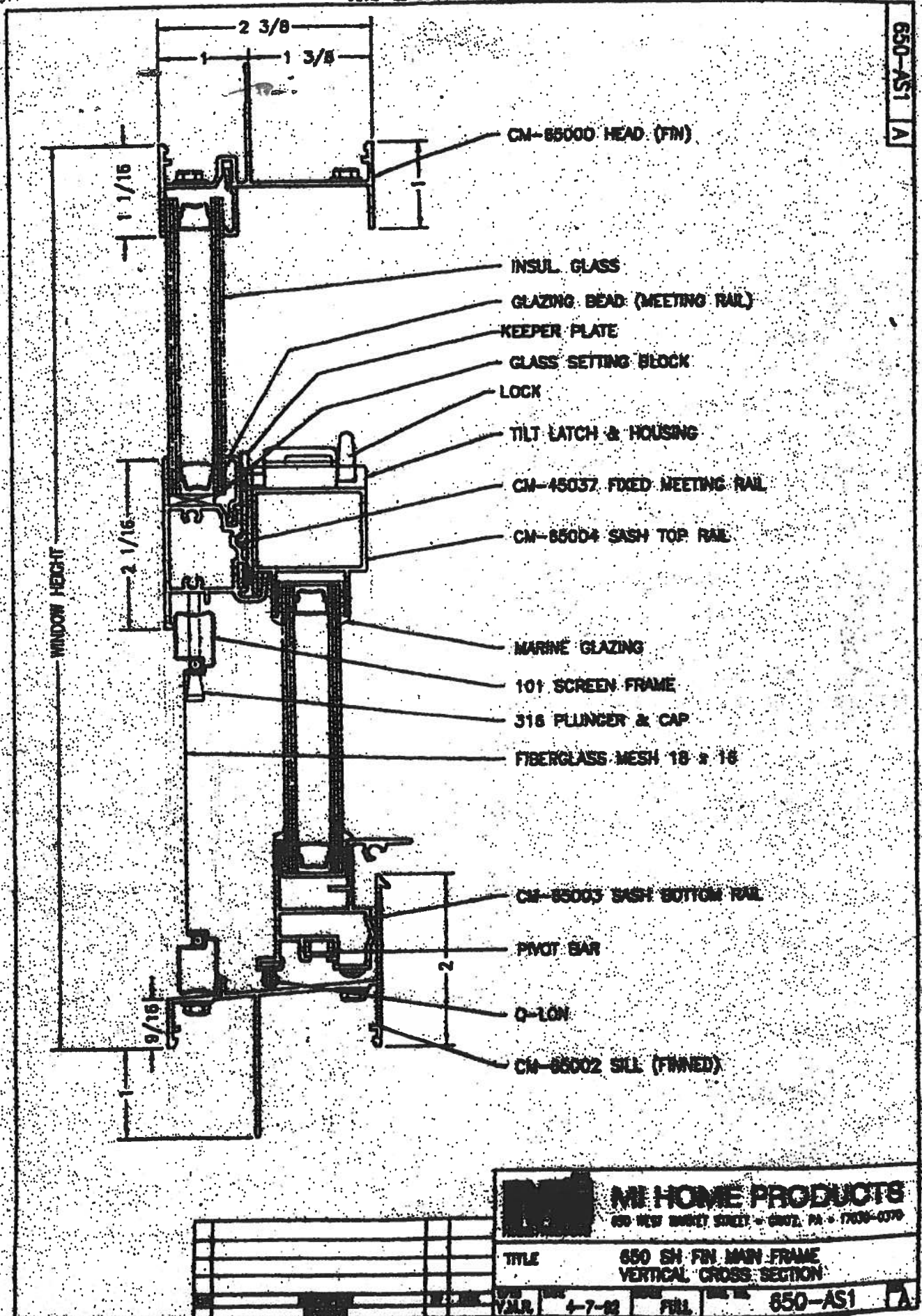


Allen N. Reeves, P.E.
Director - Engineering Services
1 APRIL 2002





MI HOME PRODUCTS
 800 WEST WASHINGTON ST. • GAITHERSBURG, MD • 20878-0000



Residential System Sizing Calculation

Summary

Troy & Heather Markham

Project Title:
Adam's Framing & Const. - Markham

Code Only
Professional Version
Climate: North

Lake City, FL 32025-

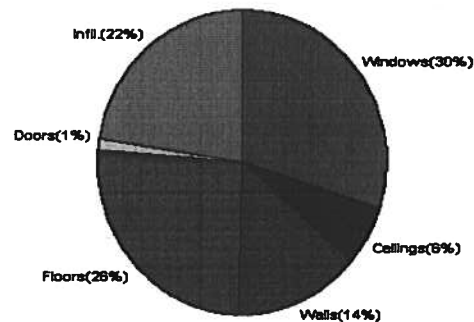
6/7/2006

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
Total heating load calculation	40498 Btuh	Total cooling load calculation	41262 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	118.5 48000	Sensible (SHR = 0.75)	109.1 36000
Heat Pump + Auxiliary(0.0kW)	118.5 48000	Latent	145.3 12000
		Total (Electric Heat Pump)	116.3 48000

WINTER CALCULATIONS

Winter Heating Load (for 2070 sqft)

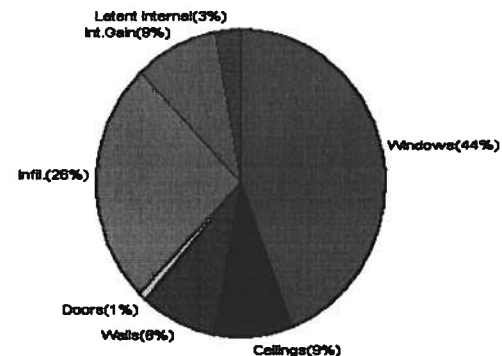
Load component	Load
Window total 260 sqft	12236 Btuh
Wall total 1727 sqft	5671 Btuh
Door total 38 sqft	489 Btuh
Ceiling total 2200 sqft	2592 Btuh
Floor total 242 sqft	10566 Btuh
Infiltration 221 cfm	8944 Btuh
Duct loss	0 Btuh
Subtotal	40498 Btuh
Ventilation 0 cfm	0 Btuh
TOTAL HEAT LOSS	40498 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 2070 sqft)

Load component	Load
Window total 260 sqft	18185 Btuh
Wall total 1727 sqft	3427 Btuh
Door total 38 sqft	370 Btuh
Ceiling total 2200 sqft	3643 Btuh
Floor total	0 Btuh
Infiltration 193 cfm	3596 Btuh
Internal gain	3780 Btuh
Duct gain	0 Btuh
Sens. Ventilation 0 cfm	0 Btuh
Total sensible gain	33002 Btuh
Latent gain(ducts)	0 Btuh
Latent gain(infiltration)	7061 Btuh
Latent gain(ventilation)	0 Btuh
Latent gain(internal/occupants/other)	1200 Btuh
Total latent gain	8261 Btuh
TOTAL HEAT GAIN	41262 Btuh



For Florida residences only

EnergyGauge® System Sizing

PREPARED BY: Jon Morris

DATE: 6-7-06

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Troy & Heather Markham

Project Title:

Adam's Framing & Const. - Markham

Code Only

Professional Version

Climate: North

Lake City, FL 32025-

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

6/7/2006

Component Loads for Whole House

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft)	X	HTM=	Load
1	1, Clear, Metal, 1.27	W	45.0		47.0	2115 Btuh
2	1, Clear, Metal, 1.27	W	40.0		47.0	1880 Btuh
3	1, Clear, Metal, 1.27	S	20.0		47.0	940 Btuh
4	1, Clear, Metal, 1.27	N	30.0		47.0	1410 Btuh
5	1, Clear, Metal, 1.27	N	2.7		47.0	127 Btuh
6	1, Clear, Metal, 1.27	E	20.0		47.0	940 Btuh
7	1, Clear, Metal, 1.27	E	60.0		47.0	2819 Btuh
8	1, Clear, Metal, 1.27	E	24.0		47.0	1128 Btuh
9	1, Clear, Metal, 1.27	S	16.0		47.0	752 Btuh
10	1, Clear, Metal, 1.27	S	2.7		47.0	127 Btuh
Window Total			260(sqft)			12236 Btuh
Walls	Type	R-Value	Area	X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1425		3.3	4678 Btuh
2	Frame - Wood - Adj(0.09)	13.0	302		3.3	992 Btuh
Wall Total			1727			5671 Btuh
Doors	Type		Area	X	HTM=	Load
1	Insulated - Adjacent		18		12.9	230 Btuh
2	Insulated - Exterior		20		12.9	259 Btuh
Door Total			38			489Btuh
Ceilings	Type/Color/Surface	R-Value	Area	X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	2200		1.2	2592 Btuh
Ceiling Total			2200			2592Btuh
Floors	Type	R-Value	Size	X	HTM=	Load
1	Slab On Grade	0	242.0 ft(p)		43.7	10566 Btuh
Floor Total			242			10566 Btuh
Zone Envelope Subtotal:						31554 Btuh
Infiltration	Type	ACH	Zone Volume	CFM=		
	Natural	0.80	16560	220.8		8944 Btuh
Ductload	Proposed leak free, R6.0, Supply(Attic), Return(Attic) (DLM of 0.00)					0 Btuh
Zone #1	Sensible Zone Subtotal					40498 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Troy & Heather Markham

Project Title:

Code Only

Adam's Framing & Const. - Markham

Professional Version

Lake City, FL 32025-

Climate: North

6/7/2006

WHOLE HOUSE TOTALS

	Subtotal Sensible	40498 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	40498 Btuh

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)

(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

Troy & Heather Markham

Project Title:

Adam's Framing & Const. - Markham

Code Only

Professional Version

Climate: North

Lake City, FL 32025-

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

6/7/2006

Component Loads for Zone #1: Main

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	1, Clear, Metal, 1.27	W	45.0	47.0	2115 Btuh
2	1, Clear, Metal, 1.27	W	40.0	47.0	1880 Btuh
3	1, Clear, Metal, 1.27	S	20.0	47.0	940 Btuh
4	1, Clear, Metal, 1.27	N	30.0	47.0	1410 Btuh
5	1, Clear, Metal, 1.27	N	2.7	47.0	127 Btuh
6	1, Clear, Metal, 1.27	E	20.0	47.0	940 Btuh
7	1, Clear, Metal, 1.27	E	60.0	47.0	2819 Btuh
8	1, Clear, Metal, 1.27	E	24.0	47.0	1128 Btuh
9	1, Clear, Metal, 1.27	S	16.0	47.0	752 Btuh
10	1, Clear, Metal, 1.27	S	2.7	47.0	127 Btuh
Window Total			260(sqft)		12236 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1425	3.3	4678 Btuh
2	Frame - Wood - Adj(0.09)	13.0	302	3.3	992 Btuh
Wall Total			1727		5671 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Adjacent		18	12.9	230 Btuh
2	Insulated - Exterior		20	12.9	259 Btuh
Door Total			38		489 Btuh
Cellings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	2200	1.2	2592 Btuh
Ceiling Total			2200		2592 Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab On Grade	0	242.0 ft(p)	43.7	10566 Btuh
Floor Total			242		10566 Btuh
Zone Envelope Subtotal:					31554 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=	Load
	Natural	0.80	16560	220.8	8944 Btuh
Ductload	Proposed leak free, R6.0, Supply(Attic), Return(Attic) (DLM of 0.00)				0 Btuh
Zone #1	Sensible Zone Subtotal				40498 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Troy & Heather Markham

Project Title:

Code Only

Adam's Framing & Const. - Markham

Professional Version

Lake City, FL 32025-

Climate: North

6/7/2006

WHOLE HOUSE TOTALS

	Subtotal Sensible	40498 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	40498 Btuh

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)

(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

Troy & Heather Markham

Project Title:

Code Only

Adam's Framing & Const. - Markham

Professional Version

Lake City, FL 32025-

Climate: North

Reference City: Gainesville (Defaults)

Summer Temperature Difference: 17.0 F

6/7/2006

Component Loads for Whole House

Window	Type*	Omt	Overhang		Window Area(sqft)			HTM		Load	
	Pn/SHGC/U/InSh/ExSh/IS		Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	1, Clear, 1.27, None,N,N	W	1.5ft	8ft.	45.0	0.0	45.0	37	94	4232	Btuh
2	1, Clear, 1.27, None,N,N	W	13.8	8ft.	40.0	40.0	0.0	37	94	1498	Btuh
3	1, Clear, 1.27, None,N,N	S	11.8	8ft.	20.0	20.0	0.0	37	43	749	Btuh
4	1, Clear, 1.27, None,N,N	N	1.5ft	8ft.	30.0	0.0	30.0	37	37	1124	Btuh
5	1, Clear, 1.27, None,N,N	N	1.5ft	8ft.	2.7	0.0	2.7	37	37	101	Btuh
6	1, Clear, 1.27, None,N,N	E	1.5ft	8ft.	20.0	0.0	20.0	37	94	1881	Btuh
7	1, Clear, 1.27, None,N,N	E	1.5ft	8ft.	60.0	0.0	60.0	37	94	5643	Btuh
8	1, Clear, 1.27, None,N,N	E	1.5ft	8ft.	24.0	0.0	24.0	37	94	2257	Btuh
9	1, Clear, 1.27, None,N,N	S	1.5ft	8ft.	16.0	16.0	0.0	37	43	599	Btuh
10	1, Clear, 1.27, None,N,N	S	1.5ft	8ft.	2.7	2.7	0.0	37	43	101	Btuh
Window Total					260 (sqft)					18185 Btuh	
Walls	Type	R-Value/U-Value			Area(sqft)		HTM		Load		
1	Frame - Wood - Ext	13.0/0.09			1424.6		2.1		2971 Btuh		
2	Frame - Wood - Adj	13.0/0.09			302.2		1.5		456 Btuh		
Wall Total					1727 (sqft)				3427 Btuh		
Doors	Type				Area (sqft)		HTM		Load		
1	Insulated - Adjacent				17.8		9.8		174 Btuh		
2	Insulated - Exterior				20.0		9.8		196 Btuh		
Door Total					38 (sqft)				370 Btuh		
Ceilings	Type/Color/Surface	R-Value			Area(sqft)		HTM		Load		
1	Vented Attic/DarkShingle	30.0			2200.0		1.7		3643 Btuh		
Ceiling Total					2200 (sqft)				3643 Btuh		
Floors	Type	R-Value			Size		HTM		Load		
1	Slab On Grade	0.0			242 (ft(p))		0.0		0 Btuh		
Floor Total					242.0 (sqft)				0 Btuh		
Zone Envelope Subtotal:									25626 Btuh		
Infiltration	Type	ACH			Volume(cuft)		CFM=		Load		
	SensibleNatural	0.70			16560		193.2		3596 Btuh		
Internal gain	Occupants			Btuh/occupant		Appliance		Load			
	6			X 230 +		2400		3780 Btuh			
Duct load	Proposed leak free, R6.0, Supply(Attic), Return(Attic)							DGM = 0.00		0.0 Btuh	
Sensible Zone Load									33002 Btuh		

Manual J Summer Calculations

Residential Load - Component Details (continued)

Troy & Heather Markham

Project Title:

Code Only

Adam's Framing & Const. - Markham

Professional Version

Lake City, FL 32025-

Climate: North

6/7/2006

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	33002 Btuh
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	33002 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	33002 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	7061 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
	Latent total gain	8261 Btuh
	TOTAL GAIN	41262 Btuh

*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))

(Omt - compass orientation)



For Florida residences only

System Sizing Calculations - Summer

Residential Load - Room by Room Component Details

Troy & Heather Markham

Project Title:

Adam's Framing & Const. - Markham

Code Only

Professional Version

Climate: North

Lake City, FL 32025-

Reference City: Gainesville (Defaults)

Summer Temperature Difference: 17.0 F

6/7/2006

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	1, Clear, 1.27, None,N,N	W	1.5ft	8ft.	45.0	0.0	45.0	37	94	4232	Btuh
2	1, Clear, 1.27, None,N,N	W	13.8	8ft.	40.0	40.0	0.0	37	94	1498	Btuh
3	1, Clear, 1.27, None,N,N	S	11.8	8ft.	20.0	20.0	0.0	37	43	749	Btuh
4	1, Clear, 1.27, None,N,N	N	1.5ft	8ft.	30.0	0.0	30.0	37	37	1124	Btuh
5	1, Clear, 1.27, None,N,N	N	1.5ft	8ft.	2.7	0.0	2.7	37	37	101	Btuh
6	1, Clear, 1.27, None,N,N	E	1.5ft	8ft.	20.0	0.0	20.0	37	94	1881	Btuh
7	1, Clear, 1.27, None,N,N	E	1.5ft	8ft.	60.0	0.0	60.0	37	94	5643	Btuh
8	1, Clear, 1.27, None,N,N	E	1.5ft	8ft.	24.0	0.0	24.0	37	94	2257	Btuh
9	1, Clear, 1.27, None,N,N	S	1.5ft	8ft.	16.0	16.0	0.0	37	43	599	Btuh
10	1, Clear, 1.27, None,N,N	S	1.5ft	8ft.	2.7	2.7	0.0	37	43	101	Btuh
Window Total					260 (sqft)					18185 Btuh	
Walls	Type	R-Value/U-Value		Area(sqft)		HTM		Load			
1	Frame - Wood - Ext	13.0/0.09		1424.6		2.1		2971 Btuh			
2	Frame - Wood - Adj	13.0/0.09		302.2		1.5		456 Btuh			
Wall Total					1727 (sqft)			3427 Btuh			
Doors	Type			Area (sqft)		HTM		Load			
1	Insulated - Adjacent			17.8		9.8		174 Btuh			
2	Insulated - Exterior			20.0		9.8		196 Btuh			
Door Total					38 (sqft)			370 Btuh			
Ceilings	Type/Color/Surface	R-Value		Area(sqft)		HTM		Load			
1	Vented Attic/DarkShingle	30.0		2200.0		1.7		3643 Btuh			
Ceiling Total					2200 (sqft)			3643 Btuh			
Floors	Type	R-Value		Size		HTM		Load			
1	Slab On Grade	0.0		242 (ft(p))		0.0		0 Btuh			
Floor Total					242.0 (sqft)			0 Btuh			
Zone Envelope Subtotal:										25626 Btuh	
Infiltration	Type	ACH		Volume(cuft)		CFM=		Load			
	SensibleNatural	0.70		16560		193.2		3596 Btuh			
Internal gain		Occupants		Btuh/occupant		Appliance		Load			
		6		X 230 +		2400		3780 Btuh			
Duct load	Proposed leak free, R6.0, Supply(Attic), Return(Attic)							DGM = 0.00		0.0 Btuh	
Sensible Zone Load										33002 Btuh	

Manual J Summer Calculations

Residential Load - Component Details (continued)

Troy & Heather Markham

Project Title:

Code Only

Adam's Framing & Const. - Markham

Professional Version

Lake City, FL 32025-

Climate: North

6/7/2006

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	33002 Btuh
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	33002 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	33002 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	7061 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
	Latent total gain	8261 Btuh
	TOTAL GAIN	41262 Btuh

*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))

(Omt - compass orientation)



For Florida residences only

Residential Window Diversity

MidSummer

Troy & Heather Markham

Project Title:
Adam's Framing & Const. - Markham

Lake City, FL 32025-

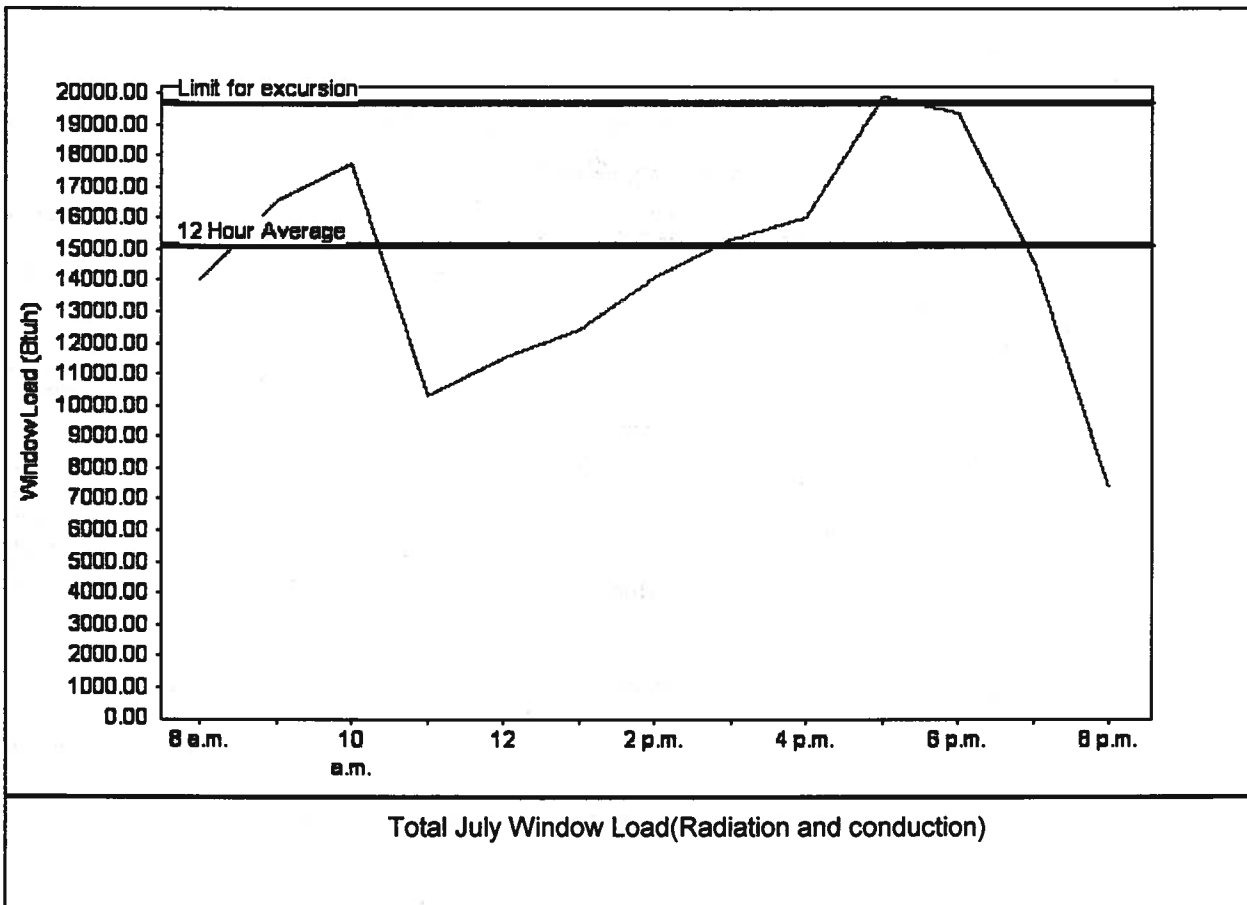
Code Only
Professional Version
Climate: North

6/7/2006

Weather data for: Gainesville - Defaults

Summer design temperature	92 F	Average window load for July	15150 Btu
Summer setpoint	75 F	Peak window load for July	19850 Btu
Summer temperature difference	17 F	Excursion limit(130% of Ave.)	19695 Btu
Latitude	29 North	Window excursion (July)	155 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 zoned system may be required or some rooms may require zone control.

EnergyGauge® System Sizing for Florida residences only

PREPARED BY: _____

DATE: _____

EnergyGauge® FLRCPB v4.1



20+
Markham

COLUMBIA COUNTY BUILDING DEPARTMENT

RESIDENTIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR FLORIDA BUILDING CODE 2001

ONE (1) AND TWO (2) FAMILY DWELLINGS

ALL REQUIREMENTS ARE SUBJECT TO CHANGE

EFFECTIVE MARCH 1, 2002

ALL BUILDING PLANS MUST INDICATE THE FOLLOWING ITEMS AND INDICATE COMPLIANCE WITH CHAPTER 1606 OF THE FLORIDA BUILDING CODE 2001 BY PROVIDING CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY DWELLINGS. FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEED AS PER FIGURE 1606 SHALL BE USED.

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

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

APPLICANT - PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL

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

Applicant	Plans Examiner	
☒	☐	All drawings must be clear, concise and drawn to scale ("Optional " details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.
☒	☐	Designers name and signature on document (FBC 104.2.1). If licensed architect or engineer, official seal shall be affixed.
☒	☐	<u>Site Plan including:</u> a) Dimensions of lot b) Dimensions of building set backs c) Location of all other buildings on lot, well and septic tank if applicable, and all utility easements. d) Provide a full legal description of property.
☒	☐	<u>Wind-load Engineering Summary, calculations and any details required</u> a) Plans or specifications must state compliance with FBC Section 1606 b) The following information must be shown as per section 1606.1.7 FBC a. Basic wind speed (MPH) b. Wind importance factor (I) and building category c. Wind exposure - if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated d. The applicable internal pressure coefficient e. Components and Cladding. The design wind pressure in terms of psf (kN/m ²), to be used for the design of exterior component and cladding materials not specifically designed by the registered design professional
☒	☐	<u>Elevations including:</u> a) All sides b) Roof pitch c) Overhang dimensions and detail with attic ventilation d) Location, size and height above roof of chimneys e) Location and size of skylights f) Building height g) Number of stories

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Floor Plan including:

- a) Rooms labeled and dimensioned
- b) Shear walls
- c) Windows and doors (including garage doors) showing size, mfg., approval listing and attachment specs. (FBC 1707) and safety glazing where needed (egress windows in bedrooms to be shown)
- d) Fireplaces (gas appliance) (vented or non-vented) or wood burning with hearth
- e) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails
- f) Must show and identify accessibility requirements (accessible bathroom)

Foundation Plan including:

- a) Location of all load-bearing wall with required footings indicated as standard Or monolithic and dimensions and reinforcing
- b) All posts and/or column footing including size and reinforcing
- c) Any special support required by soil analysis such as piling
- d) Location of any vertical steel

Roof System:

- a) Truss package including:
 - 1. Truss layout and truss details signed and sealed by Fl. Pro. Eng.
 - 2. Roof assembly (FBC 104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)
- b) Conventional Framing Layout including:
 - 1. Rafter size, species and spacing
 - 2. Attachment to wall and uplift
 - 3. Ridge beam sized and valley framing and support details
 - 4. Roof assembly (FBC 104.2.1 Roofing systems, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

Wall Sections including:

- a) Masonry wall
 - 1. All materials making up wall
 - 2. Block size and mortar type with size and spacing of reinforcement
 - 3. Lintel, tie-beam sizes and reinforcement
 - 4. Gable ends with rake beams showing reinforcement or gable truss and wall bracing details
 - 5. All required connectors with uplift rating and required number and size of fasteners for continuous tie from roof to foundation
 - 6. Roof assembly shown here or on roof system detail (FBC 104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with resistance rating)
 - 7. Fire resistant construction (if required)
 - 8. Fireproofing requirements
 - 9. Shoe type of termite treatment (termicide or alternative method)
 - 10. Slab on grade
 - a. Vapor retarder (6mil. Polyethylene with joints lapped 6 inches and sealed)
 - b. Must show control joints, synthetic fiber reinforcement or Welded fire fabric reinforcement and supports
 - 11. Indicate where pressure treated wood will be placed
 - 12. Provide insulation R value for the following:
 - a. Attic space
 - b. Exterior wall cavity
 - c. Crawl space (if applicable)

b) Wood frame wall

1. All materials making up wall
2. Size and species of studs
3. Sheathing size, type and nailing schedule
4. Headers sized
5. Gable end showing balloon framing detail or gable truss and wall hinge bracing detail
6. All required fasteners for continuous tie from roof to foundation (truss anchors, straps, anchor bolts and washers)
7. Roof assembly shown here or on roof system detail (FBC104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)
8. Fire resistant construction (if applicable)
9. Fireproofing requirements
10. Show type of termite treatment (termicide or alternative method)
11. Slab on grade
 - a. Vapor retarder (6Mil. Polyethylene with joints lapped 6 inches and sealed
 - b. Must show control joints, synthetic fiber reinforcement or welded wire fabric reinforcement and supports
12. Indicate where pressure treated wood will be placed
13. Provide insulation R value for the following:
 - a. Attic space
 - b. Exterior wall cavity
 - c. Crawl space (if applicable)

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

Floor Framing System:

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

Plumbing Fixture layout

Electrical layout including:

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

HVAC information

- a) Manual J sizing equipment or equivalent computation
- b) Exhaust fans in bathroom

Energy Calculations (dimensions shall match plans)

Gas System Type (LP or Natural) Location and BTU demand of equipment

Disclosure Statement for Owner Builders

Notice Of Commencement

Private Potable Water

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

#24673

**Cal-Tech Testing, Inc.**

- Engineering
- Geotechnical
- Environmental

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) 282-4046 • Fax (904) 282-4047

July 21, 2006

Adam's Construction
P. O. Box 1921
Lake City, Florida 32056

Attention: ~~Adam Papka~~ RANDY

Reference: Markham Residence
Lot 4, Block A, Oak Haven Subdivision
Columbia County, Florida
Cal-Tech Project No. 06-205

Dear Mr. Papka,

At your request Cal-Tech Testing, Inc. has performed an investigation to determine the finished floor elevation of the Markham residence currently under construction at the referenced location in Columbia County, Florida.

Based upon a Florida Department of Transportation benchmark located approximately 3/4 mile west of the site, the top of the stem wall and thus the finished floor elevation was determined to be approximately 141.0 feet. This is the floor elevation previously proposed and additionally the elevation determined to be approximately 4.0 feet above the maximum possible flood elevation.

It is our opinion the floor elevation of 141.0 feet is sufficient to significantly 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

7/21/06
52512

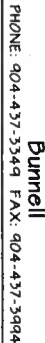
	$8'0''$
	$10'0''$

1) REFER TO BID #1 (RECOMMENDATIONS FOR HANDLING INSTALLATION AND TEMPORARY BRACING, REFER TO ENGINEER DRAWINGS FOR PERMANENT BRACING REQUIRED.

- THIS LAYOUT IS THE SOLE SOURCE FOR MODIFICATION OF TD555S AND VODS ALL PREVIOUS ARCHITECTURAL OR OTHER TD555 LAYOUTS, REVIEW AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TD555S WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.

Requested Delivery Date : _____

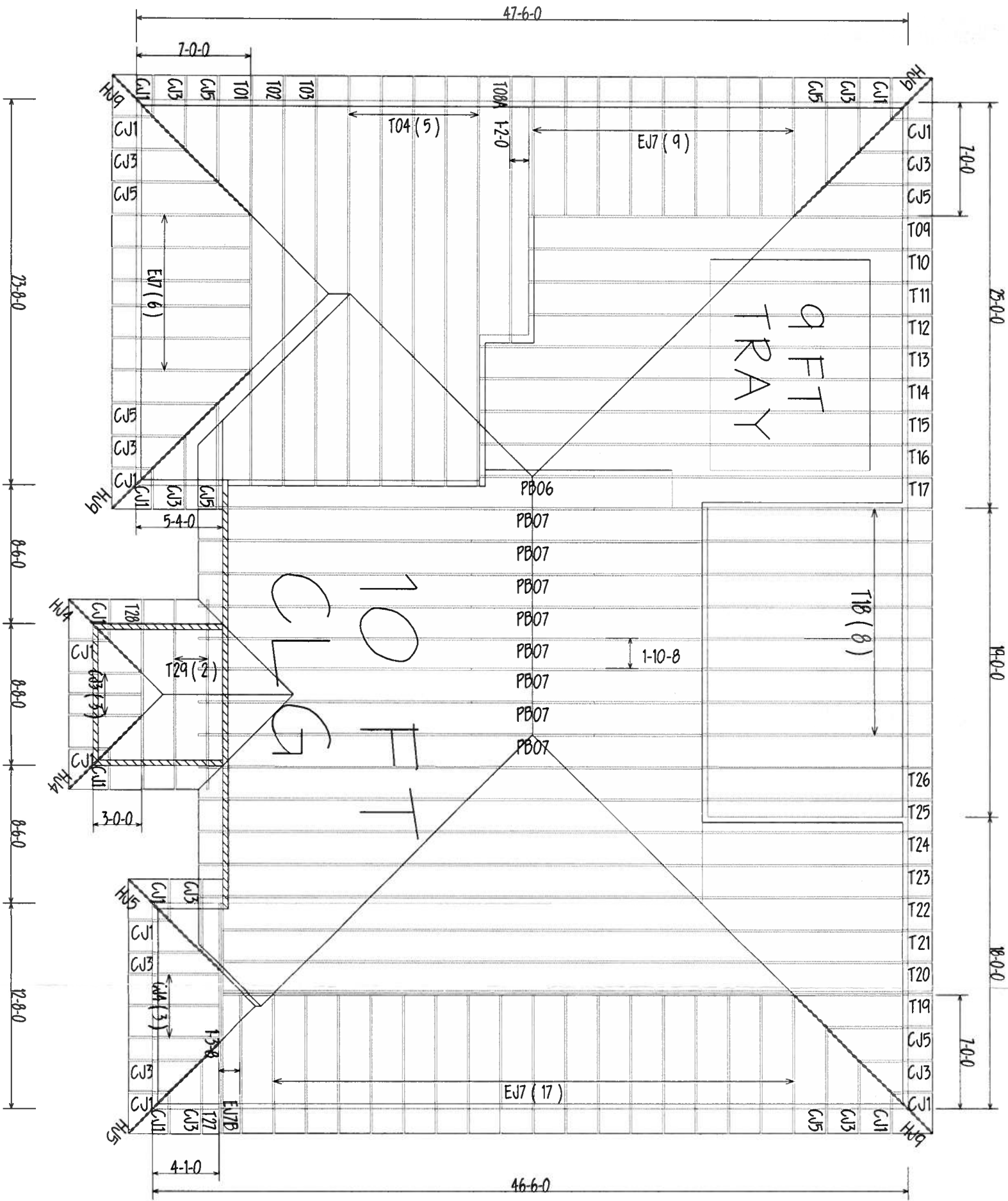
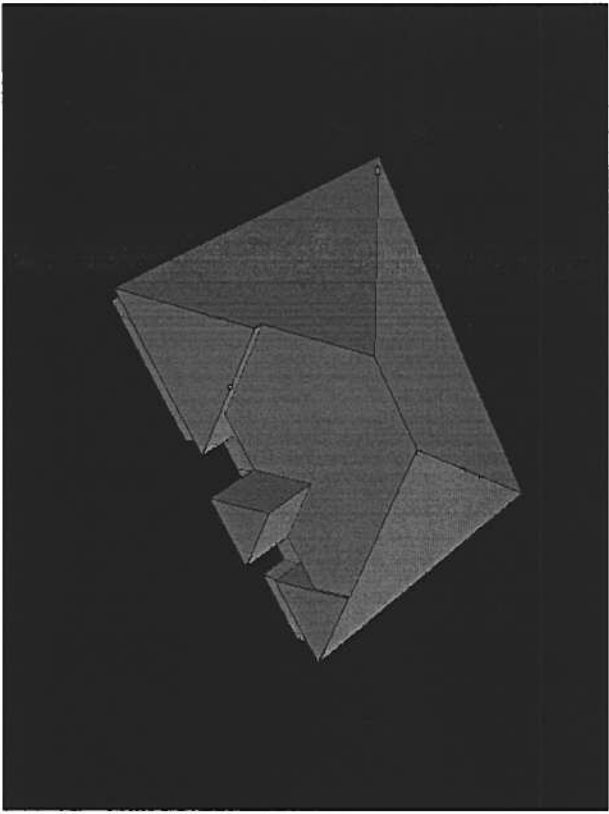
Approved by: _____ Date: _____



Sanford
PHONE: 407 322 0059 FAX: 407 322-5553

MARKHAM RESIDENCE

CUSTOM	DATE:	5/23/06	SCALE:	NIS
	DRIVER BY:	JOE	JOB #:	L166296



6/12
PITCH

Handwriting practice lines featuring various shapes and symbols. The first row contains a large oval, a horizontal line with an arrow pointing right, and two overlapping ovals. The second row contains a horizontal line with a vertical line intersecting it, and two horizontal lines.