

Columbia County Building Permit Application

Revised 9-23-04

For Office Use Only Application # 0607-30 Date Received 7-14-06 By GF Permit # 1168/24815
 Application Approved by - Zoning Official BLK Date 7-17-06 Plans Examiner DKJTH Date 8-1-06
 Flood Zone X Development Permit N/A Zoning A-3 Land Use Plan Map Category A-3
 Comments _____

Applicants Name LISA RIGGS Katie Reed Phone 386-752-4072
 Address 2230 SE BAY DRIVE SUITE 101 LAKE CITY, FL 32025
 Owners Name LISA RIGGS Phone _____
 911 Address 456 SW Explorer Glen, Ft. White, FL 32038
 Contractors Name DON REED CONSTRUCTION, INC Phone 386-752-4072
 Address 2230 SE BAY DRIVE SUITE 101 LAKE CITY, FL 32025
 Fee Simple Owner Name & Address _____
 Bonding Co. Name & Address N/A
 Architect/Engineer Name & Address MARK DISOSWAY P.O. Box 868 LAKE CITY, FL 32056
 Mortgage Lenders Name & Address N/A
 Circle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progressive Energy
 Property ID Number 12-65-038110-117 Estimated Cost of Construction \$148,000.00
 Subdivision Name CROSS ROADS UNREC Lot 17 Block _____ Unit _____ Phase _____
 Driving Directions 47 SOUTH, TL ON HERLONG ROAD, TR ON OLD WIRE ROAD, TL ON EXPLORER GLEN, LOT ON RIGHT. (7th)
 Type of Construction SINGLE FAMILY DWELING Number of Existing Dwellings on Property 0
 Total Acreage 10.01 Lot Size _____ Do you need a Culvert Permit or Culvert Waiver or Have an Existing Drive
 Actual Distance of Structure from Property Lines - Front 250' Side 120' Side 120' Rear 120'
 Total Building Height 19'10" Number of Stories 1 Heated Floor Area 1450 Roof Pitch 4/12
 TOTAL 2122

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

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

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

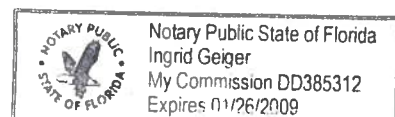
Owner Builder or Agent (Including Contractor) _____

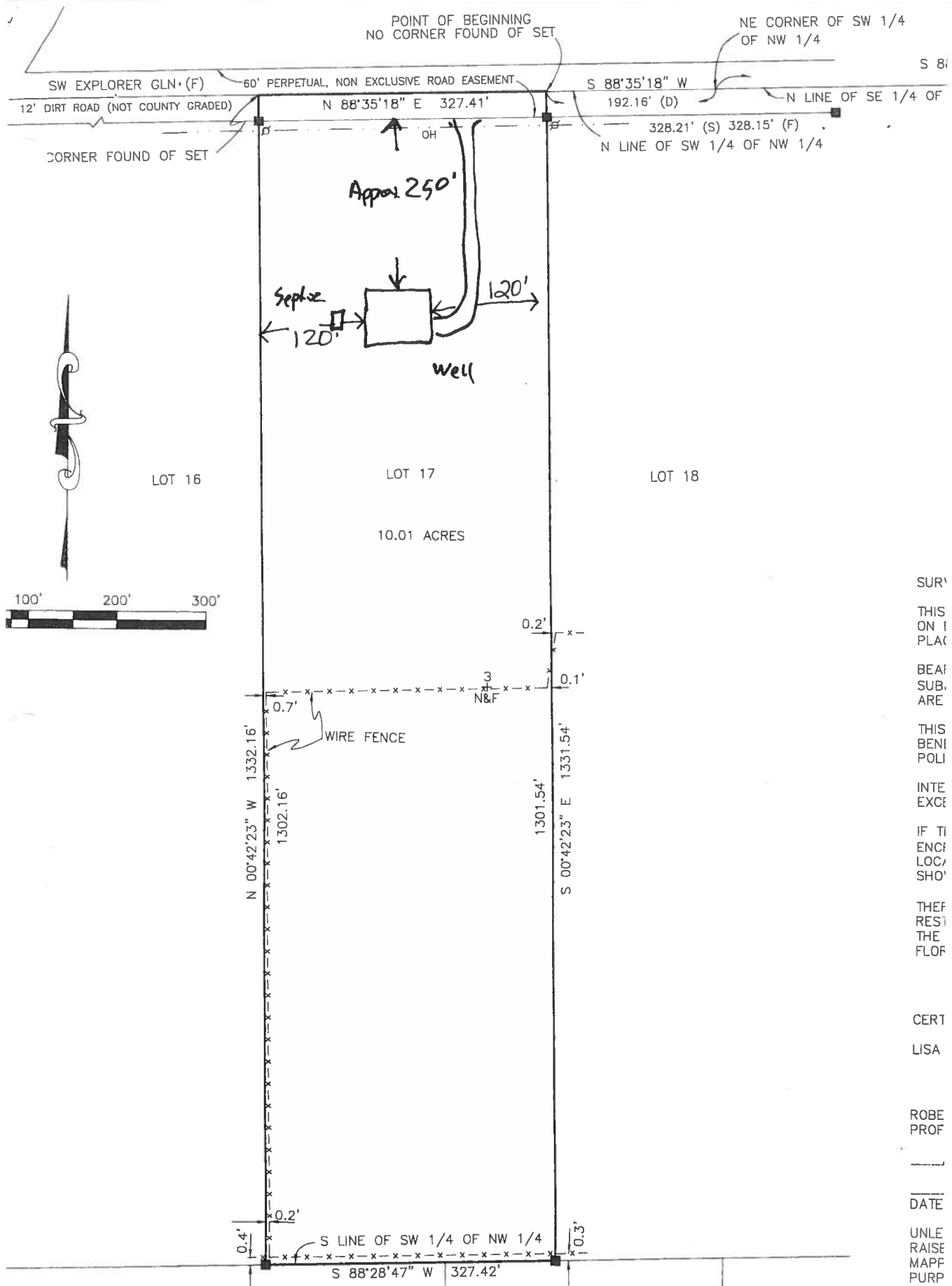
STATE OF FLORIDA
COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me
this 12th day of July 2006
Personally known ✓ or Produced Identification _____

Contractor Signature _____
Contractors License Number CGC036224
Competency Card Number _____
NOTARY STAMP/SEAL

Ingrid Geiger
Notary Signature





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LEGEND

These standard symbols will
be found in the drawing.

- 4"x4" CONCRETE MONUMENT FOUND
- ALL LEE & ASSOCIATES
- POWER POLE

VAUGHAN S
2812 SW COUNTY
FORT WHITE, FLC

DATE OF FIELD

Recording Fees: \$ _____
Documentary Stamps: + _____
Total: \$ _____

nst: 2003012760 Date: 06/18/2003 Time: 15:31
oc Stamp-Deed : 0.79
DC, P. DeWitt Cason, Columbia County B: 996 P: 816

Prepared By And Return To:

TITLE OFFICES, LLC
1089 SW MAIN BLVD.,
LAKE CITY, FL. 32025

nst: 2003011774 Date: 06/04/2003 Time: 15:47
oc Stamp-Deed : 192.50
DC, P. DeWitt Cason, Columbia County B: 985 P: 383

File #03Y-05058BS/Administrator

Property Appraisers Parcel I.D. Number(s):

03816-118

Grantee(s) S.S.#(s):

WARRANTY DEED

THIS WARRANTY DEED made and executed the 2nd day of June, 2003 by CECIL C. FRITH and MARION E. FRITH, HIS WIFE, hereinafter called the Grantor, to GENE T. RIGGS and DOLORES RIGGS, HIS WIFE and LISA A. RIGGS, SINGLE. ALL AS JOINT TENANTS WITH RIGHTS OF SURVIVORSHIP whose post office address is: 16243 E. EDINBURGH DRIVE, LAXAHATCHEE, FL. 33470, hereinafter called the Grantee:

(Wherever used herein the terms "Grantor" and "Grantee" shall include singular and plural, heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, wherever the context so admits or requires.)

WITNESSETH: That the Grantor, for and in consideration of the sum of TEN DOLLARS (\$10.00) and other valuable considerations, receipt whereof is hereby acknowledged, by these presents does grant, bargain, sell, alien, remise, release, convey and confirm unto the Grantee all that certain land situate, lying and being in COLUMBIA County, State of Florida, viz:

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

If this box is checked, the Grantor warrants that the above described property is not his/her constitutional homestead as defined by the laws of the State of Florida. He/she resides at
BEING Re-RECORDED TO CORRECT LEGAL.

TOGETHER with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining, TO HAVE AND TO HOLD the same in fee simple forever.

AND the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land, and hereby warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except easements, restrictions and reservations of record, if any, and taxes accruing subsequent to December 31, .

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

Signed, sealed and delivered
in the presence of:

Witness:

Witness:

Witness:

Witness:

CECIL C. FRITH

Address: RT. 3, BPX 7350

FORT WHITE, FLORIDA 32038

MARION E. FRITH

Address: RT. 3, BPX 7350

FORT WHITE, FLORIDA 32038

STATE OF FLORIDA
COUNTY OF Columbia

I hereby certify that on this day, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared CECIL C. FRITH and MARION E. FRITH, HIS WIFE, who produced the identification described below, and who acknowledged before me that they executed the foregoing instrument. Witness my hand and official seal in the county and state aforesaid this 2 day of June, 2003.

Notary Public:

Identification Examined: DRIVER'S LICENSE



Monica Bryan
MY COMMISSION # CC856813 EXPIRES
AUGUST 10, 2003
DONATED TO THE STATE OF FLORIDA

Correct Legal!

03Y-05058

nst:2003012760 Date:06/18/2003 Time:15:30

oc Stamp-Deed : 0.70

WCK DC, P. DeWitt Cason, Columbia County B: 66 P: 817

EXHIBIT "A"

TRACT 17,

Commence at the Northeast corner of the W 1/2 of Section 12, Township 6 South, Range 16 East and run thence S 00°35'40" E along the East boundary of said W 1/2 of Section 12 a distance of 1328.72 feet to the Northeast corner of the SE 1/4 of NW 1/4 of said Section 12; thence run S 88°35'18" W along the North line of SE 1/4 of NW 1/4 1322.25 feet to the Northeast corner of SW 1/4 of NW 1/4; thence continue S 88°35'18" W along the North line of SW 1/4 of NW 1/4 a distance of 192.16 feet to the POINT OF BEGINNING; thence. S 00°42'23" E 1331.54 feet to the South line of SW 1/4 of NW 1/4; thence run S 88°28'47" W a distance of 327.42 feet to a Concrete Monument; thence run N 00°42'23" W 1332.16 feet to the center line of a 60 foot wide Ingress-Egress Easement, Also the North line of SW 1/4 of NW 1/4; thence run N 88°35'18" E along said North and along center line of said Easement 327.41 feet to the POINT OF BEGINNING.

Subject to reservation of a perpetual non-exclusive ingress-egress easement over and across the foregoing described property.

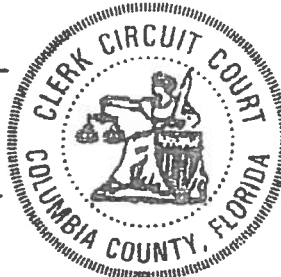
Together with a 60 foot wide perpetual non-exclusive ingress-egress easement over and across the following described lands:

The South 30 feet of the NE 1/4 of NE 1/4 of Section 11, Township 6 South, Range 16 East as lies East of Old Wire Road, and the North 30 feet of the SE 1/4 of NE 1/4 of said Section 11 as lies East of Old Wire Road; and over and across the South 30 feet of the N 1/2 of NW 1/4 of Section 12, Township 6 South, Range 16 East, LESS AND EXCEPT the East 1186.20 feet thereof; and over and across the North 30 feet of S 1/2 of NW 1/4, LESS AND EXCEPT the East 1186.20 feet thereof.

STATE OF FLORIDA, COUNTY OF COLUMBIA
I HEREBY CERTIFY, that the above and foregoing
is a true copy of the original filed in this office.
P. DeWITT CASON, CLERK OF COURTS

By Rose Ann Aiello
Deputy Clerk

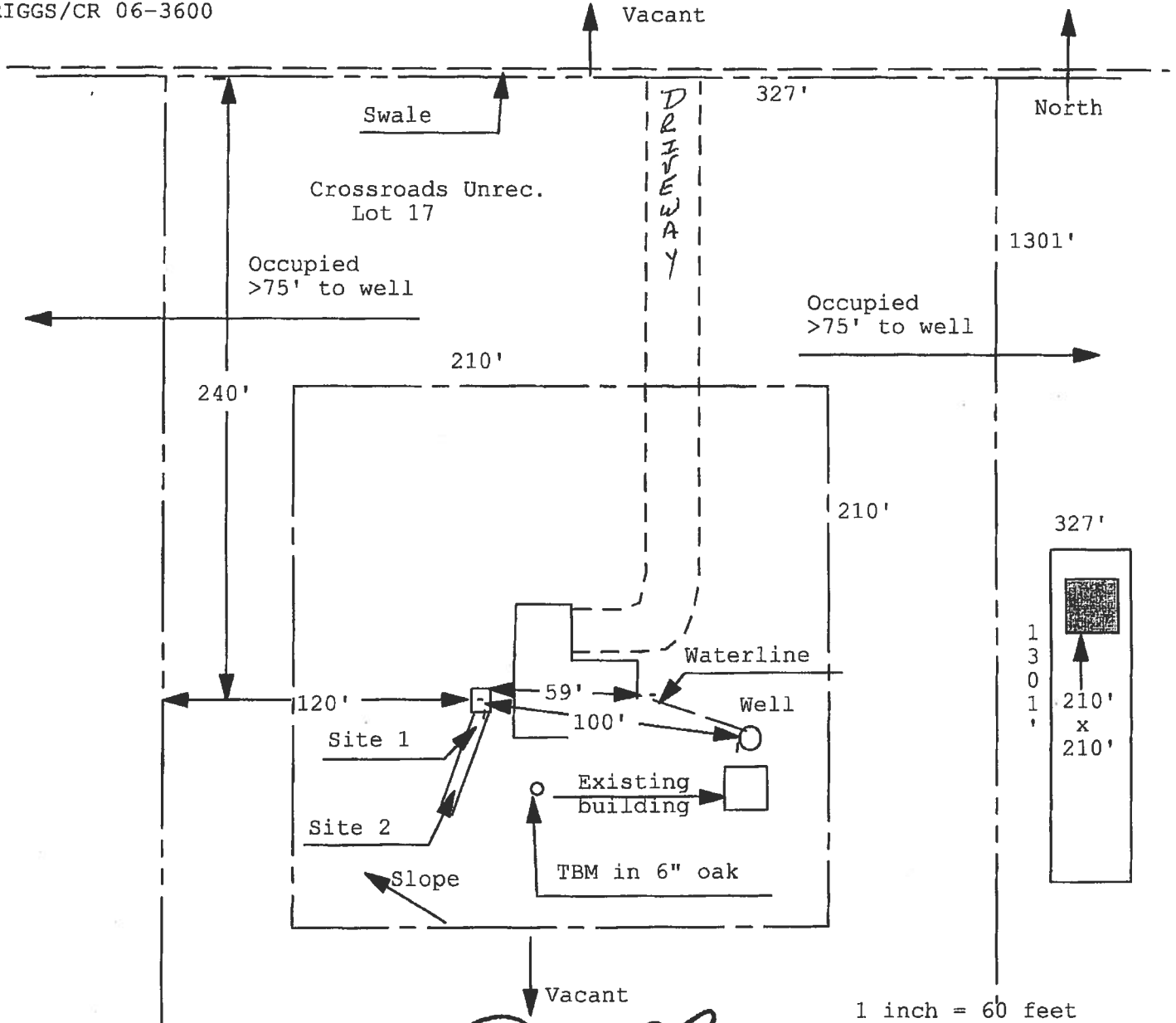
Date July 5, 2006



**Application for Onsite Sewage Disposal System
Construction Permit. Part II Site Plan**
Permit Application Number: 06-0615A

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT

RIGGS/CR 06-3600



Site Plan Submitted By Paul Lloyd Date 7/5/06
Plan Approved ☒ Not Approved ☐ Date 7-6-06
By Moh Columbia CPHU

Notes: _____

COLUMBIA COUNTY 9-1-1 ADDRESSING

P. O. Box 1787, Lake City, FL 32056-1787

PHONE: (386) 758-1125 * FAX: (386) 758-1365 * Email: ron_croft@columbiacountyfla.com**Addressing Maintenance**

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

DATE REQUESTED: 7/11/2006 DATE ISSUED: 7/14/2006

ENHANCED 9-1-1 ADDRESS:

456 SW EXPLORER GLN

FORT WHITE FL 32038

PROPERTY APPRAISER PARCEL NUMBER:

12-6S-16-03816-117

Remarks:

LOT 17 CROSS ROADS UNREC S/D

Address Issued By: 

Columbia County 9-1-1 Addressing / GIS Department

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

COLUMBIA COUNTY
9-1-1 ADDRESSING
APPROVED

FROM :

FFX NO. : 386-755-7022

Jun. 12 2002 01:32PM P1

HALL'S PUMP & WELL SERVICE, INC.

SPECIALIZING IN 4"-6" WELLS



DONALD AND MARY HALL
OWNERS

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

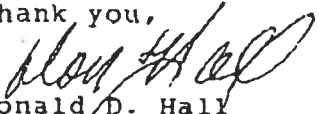
June 12, 2002

NOTICE TO ALL CONTRACTORS

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

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

Thank you,


Donald D. Hall
DDH/jk



Columbia County Building Department Culvert Permit

Culvert Permit No.
000001168

DATE 08/02/2006 PARCEL ID # 12-6S-16-03816-117
APPLICANT KATIE REED PHONE 752-4072
ADDRESS 2230 SE BAYA DRIVE LAKE CITY FL 3202
OWNER LISA RIGGS PHONE _____
ADDRESS 456 SW EXPLORER GLEN FT. WHITE FL 32038
CONTRACTOR DON REED PHONE 752-4072
LOCATION OF PROPERTY 47S, TL ON HERLONG RD, TR ON OLD WIRE RD, TL ON EXPLORER GLEN,
7TH LOT ON RIGHT

SUBDIVISION/LOT/BLOCK/PHASE/UNIT CROSS ROADS UNREC. 17

SIGNATURE

Katie Reed

INSTALLATION REQUIREMENTS



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

INSTALLATION NOTE: Turnouts will be required as follows:

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

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



Culvert installation shall conform to the approved site plan standards.



Department of Transportation Permit installation approved standards.



Other _____

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

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

Amount Paid 25.00



FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs Residential Whole Building Performance Method A

Project Name: **Riggs Residence**
Address:
City, State: **Lake City, FL**
Owner: **Lisa Riggs**
Climate Zone: **North**

Builder: **Don Reed**
Permitting Office: **Columbia**
Permit Number: **24815**
Jurisdiction Number: **221000**

- | | |
|---|---|
| <p>1. New construction or existing New <input type="checkbox"/></p> <p>2. Single family or multi-family Single family <input type="checkbox"/></p> <p>3. Number of units, if multi-family 1 <input type="checkbox"/></p> <p>4. Number of Bedrooms 2 <input type="checkbox"/></p> <p>5. Is this a worst case? Yes <input type="checkbox"/></p> <p>6. Conditioned floor area (ft²) 1450 ft² <input type="checkbox"/></p> <p>7. Glass type¹ and area: (Label reqd. by 13-104.4.5 if not default)</p> <p style="margin-left: 20px;">a. U-factor: Description Area</p> <p style="margin-left: 40px;">(or Single or Double DEFAULT) 7a. (Dble Default) 95.0 ft² <input type="checkbox"/></p> <p style="margin-left: 20px;">b. SHGC:</p> <p style="margin-left: 40px;">(or Clear or Tint DEFAULT) 7b. (Clear) 95.0 ft² <input type="checkbox"/></p> <p>8. Floor types</p> <p style="margin-left: 20px;">a. Slab-On-Grade Edge Insulation R=0.0, 162.0(p) ft <input type="checkbox"/></p> <p style="margin-left: 20px;">b. N/A <input type="checkbox"/></p> <p style="margin-left: 20px;">c. N/A <input type="checkbox"/></p> <p>9. Wall types</p> <p style="margin-left: 20px;">a. Frame, Wood, Exterior R=13.0, 1080.0 ft² <input type="checkbox"/></p> <p style="margin-left: 20px;">b. Frame, Wood, Adjacent R=13.0, 216.0 ft² <input type="checkbox"/></p> <p style="margin-left: 20px;">c. N/A <input type="checkbox"/></p> <p style="margin-left: 20px;">d. N/A <input type="checkbox"/></p> <p style="margin-left: 20px;">e. N/A <input type="checkbox"/></p> <p>10. Ceiling types</p> <p style="margin-left: 20px;">a. Under Attic R=30.0, 1450.0 ft² <input type="checkbox"/></p> <p style="margin-left: 20px;">b. N/A <input type="checkbox"/></p> <p style="margin-left: 20px;">c. N/A <input type="checkbox"/></p> <p>11. Ducts</p> <p style="margin-left: 20px;">a. Sup: Unc. Ret: Unc. AH: Garage Sup. R=6.0, 80.0 ft <input type="checkbox"/></p> <p style="margin-left: 20px;">b. N/A <input type="checkbox"/></p> | <p>12. Cooling systems</p> <p style="margin-left: 20px;">a. Central Unit Cap: 24.0 kBtu/hr <input type="checkbox"/></p> <p style="margin-left: 40px;">SEER: 13.00 <input type="checkbox"/></p> <p style="margin-left: 20px;">b. N/A <input type="checkbox"/></p> <p style="margin-left: 20px;">c. N/A <input type="checkbox"/></p> <p>13. Heating systems</p> <p style="margin-left: 20px;">a. Electric Heat Pump Cap: 24.0 kBtu/hr <input type="checkbox"/></p> <p style="margin-left: 40px;">HSPF: 8.70 <input type="checkbox"/></p> <p style="margin-left: 20px;">b. N/A <input type="checkbox"/></p> <p style="margin-left: 20px;">c. N/A <input type="checkbox"/></p> <p>14. Hot water systems</p> <p style="margin-left: 20px;">a. Electric Resistance Cap: 40.0 gallons <input type="checkbox"/></p> <p style="margin-left: 40px;">EF: 0.92 <input type="checkbox"/></p> <p style="margin-left: 20px;">b. N/A <input type="checkbox"/></p> <p style="margin-left: 20px;">c. Conservation credits <input type="checkbox"/></p> <p style="margin-left: 40px;">(HR-Heat recovery, Solar</p> <p style="margin-left: 40px;">DHP-Dedicated heat pump)</p> <p>15. HVAC credits <input type="checkbox"/></p> <p style="margin-left: 20px;">(CF-Ceiling fan, CV-Cross ventilation,</p> <p style="margin-left: 20px;">HF-Whole house fan,</p> <p style="margin-left: 20px;">PT-Programmable Thermostat,</p> <p style="margin-left: 20px;">MZ-C-Multizone cooling,</p> <p style="margin-left: 20px;">MZ-H-Multizone heating)</p> |
|---|---|

Glass/Floor Area: 0.13

Total as-built points: 18573

Total base points: 21259

PASS

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

PREPARED BY: 

DATE: 4-28-06

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

OWNER/AGENT: _____

DATE: _____

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

BUILDING OFFICIAL: _____

DATE: _____



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

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: , Lake City, FL,

PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

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

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

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

Residential Whole Building Performance Method A - Details

ADDRESS: , Lake City, FL,	PERMIT #:
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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
2		2635.00	5270.0	40.0	0.92	2		1.00	2635.00	1.00	5270.0
				As-Built Total:							
				5270.0							

BASE						AS-BUILT					
Cooling Points	+	Heating Points	+	Hot Water Points	= Total Points	Cooling Points	+	Heating Points	+	Hot Water Points	= Total Points
8082		7907		5270	21259	5609		7694		5270	18573

PASS



WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT						
Winter Base Points:		12602.5		Winter As-Built Points:			15708.3			
Total Winter Points	X System Multiplier	=	Heating Points	Total Component (System - Points)	X Cap Ratio (DM x DSM x AHU)	X Duct Multiplier (1.069 x 1.169 x 1.00)	X System Multiplier	X Credit Multiplier	=	Heating Points
12602.5	0.6274		7906.8	(sys 1: Electric Heat Pump 24000 btuh ,EFF(8.7) Ducts:Unc(S),Unc(R),Gar(AH),R6.0 15708.3	1.000		0.392	1.000		7694.1
12602.5				15708.3	1.00	1.250	0.392	1.000		7694.1

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES											
.18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt		Area X WPM X WOF = Points				
.18	1450.0	12.74	3325.1	Double, Clear	S	6.0	7.0	108.0	13.30	2.50	3588.4
				Double, Clear	E	1.5	7.0	15.0	18.79	1.03	289.4
				Double, Clear	E	1.5	12.0	10.0	18.79	1.01	189.5
				Double, Clear	N	1.5	7.0	30.0	24.58	1.00	738.5
				Double, Clear	W	1.5	2.0	4.0	20.73	1.13	94.1
				Double, Clear	W	1.5	7.0	15.0	20.73	1.02	316.0
				As-Built Total:				182.0	5215.9		
WALL TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Adjacent	216.0	3.60	777.6	Frame, Wood, Exterior	13.0		1080.0	3.40		3672.0	
Exterior	1080.0	3.70	3996.0	Frame, Wood, Adjacent	13.0		216.0	3.30		712.8	
Base Total:				1296.0		4773.6					
				As-Built Total:		1296.0		4384.8			
DOOR TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Adjacent	18.0	11.50	207.0	Exterior Wood			60.0	12.30		738.0	
Exterior	60.0	12.30	738.0	Adjacent Wood			18.0	11.50		207.0	
Base Total:				78.0		945.0					
				As-Built Total:		78.0		945.0			
CEILING TYPES Area X BWPM = Points				Type	R-Value		Area X WPM X WCM = Points				
Under Attic	1450.0	2.05	2972.5	Under Attic	30.0		1450.0	2.05 X 1.00		2972.5	
Base Total:				1450.0		2972.5					
				As-Built Total:		1450.0		2972.5			
FLOOR TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Slab	162.0(p)	8.9	1441.8	Slab-On-Grade Edge Insulation	0.0		162.0(p)	18.80		3045.6	
Raised	0.0	0.00	0.0								
Base Total:				1441.8		162.0		3045.6			
				As-Built Total:		162.0		3045.6			
INFILTRATION Area X BWPM = Points								Area X WPM = Points			
1450.0 -0.59 -855.5								1450.0 -0.59 -855.5			

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

ADDRESS: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT									
Summer Base Points: 18945.8				Summer As-Built Points: 17087.4									
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
18945.8		0.4266	8082.3	(sys 1: Central Unit 24000 btuh ,SEER/EFF(13.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0(INS) 17087 1.00 (1.09 x 1.147 x 1.00) 0.263 1.000 5608.7 17087.4 1.00 1.250 0.263 1.000 5608.7									

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned X BSPM = Points Floor Area				Type/SC Overhang Omt Len Hgt Area X SPM X SOF = Points							
.18	1450.0	20.04	5230.4	Double, Clear	S	6.0	7.0	108.0	35.87	0.54	2095.6
				Double, Clear	E	1.5	7.0	15.0	42.06	0.94	592.0
				Double, Clear	E	1.5	12.0	10.0	42.06	0.99	416.9
				Double, Clear	N	1.5	7.0	30.0	19.20	0.96	550.1
				Double, Clear	W	1.5	2.0	4.0	38.52	0.60	92.8
				Double, Clear	W	1.5	7.0	15.0	38.52	0.94	542.6
				As-Built Total:				182.0			
WALL TYPES Area X BSPM = Points				Type R-Value Area X SPM = Points							
Adjacent	216.0	0.70	151.2	Frame, Wood, Exterior			13.0	1080.0	1.50		1620.0
Exterior	1080.0	1.70	1836.0	Frame, Wood, Adjacent			13.0	216.0	0.60		129.6
Base Total:		1296.0	1987.2	As-Built Total:				1296.0	1749.6		
DOOR TYPES Area X BSPM = Points				Type Area X SPM = Points							
Adjacent	18.0	2.40	43.2	Exterior Wood				60.0	6.10		366.0
Exterior	60.0	6.10	366.0	Adjacent Wood				18.0	2.40		43.2
Base Total:		78.0	409.2	As-Built Total:				78.0	409.2		
CEILING TYPES Area X BSPM = Points				Type R-Value Area X SPM X SCM = Points							
Under Attic	1450.0	1.73	2508.5	Under Attic			30.0	1450.0	1.73 X 1.00		2508.5
Base Total:		1450.0	2508.5	As-Built Total:				1450.0	2508.5		
FLOOR TYPES Area X BSPM = Points				Type R-Value Area X SPM = Points							
Slab	162.0(p)	-37.0	-5994.0	Slab-On-Grade Edge Insulation			0.0	162.0(p)	-41.20		-6674.4
Raised	0.0	0.00	0.0								
Base Total:			-5994.0	As-Built Total:				162.0	-6674.4		
INFILTRATION Area X BSPM = Points				Area X SPM = Points							
		1450.0	10.21	14804.5				1450.0	10.21		14804.5

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 85.2

The higher the score, the more efficient the home.

Lisa Riggs, , Lake City, FL,

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 24.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 13.00
4. Number of Bedrooms	2	b. N/A	
5. Is this a worst case?	Yes	c. N/A	
6. Conditioned floor area (ft ²)	1450 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: 24.0 kBtu/hr
(or Single or Double DEFAULT)	7a. (Dble Default) 95.0 ft ²		HSPF: 8.70
b. SHGC:		b. N/A	
(or Clear or Tint DEFAULT)	7b. (Clear) 95.0 ft ²	c. N/A	
8. Floor types			
a. Slab-On-Grade Edge Insulation	R=0.0, 162.0(p) ft	14. Hot water systems	
b. N/A		a. Electric Resistance	Cap: 40.0 gallons
c. N/A			EF: 0.92
9. Wall types		b. N/A	
a. Frame, Wood, Exterior	R=13.0, 1080.0 ft ²	c. Conservation credits	
b. Frame, Wood, Adjacent	R=13.0, 216.0 ft ²	(HR-Heat recovery, Solar	
c. N/A		DHP-Dedicated heat pump)	
d. N/A		15. HVAC credits	
e. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
10. Ceiling types		HF-Whole house fan,	
a. Under Attic	R=30.0, 1450.0 ft ²	PT-Programmable Thermostat,	
b. N/A		MZ-C-Multizone cooling,	
c. N/A		MZ-H-Multizone heating)	
11. Ducts			
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 80.0 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: _____

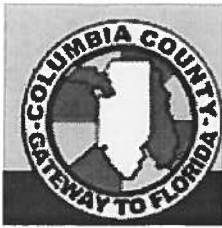
Address of New Home: _____

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.*

¹ Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.
EnergyGauge® (Version: FLRCSB v4.0)



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: **0607-30**
Contractor: Don Reed Construction Owner Lisa Riggs 12-6s-16-038116-117

On the date of July 17, 2006 application 0607-30 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 0607-30 and when making reference to this application.

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

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

1. In the garage area the entry door into the dwelling from the garage

shall comply with the FRC-2004 section sections R309 R309.1

Opening protection: Openings from a private garage directly into a

room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors.

- 2.** The wall and ceiling covering in the garage area shall comply with section 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. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch (15.9 mm) Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½-inch (12.7 mm) gypsum board or equivalent.
- 3.** The attic access opening (pull down ladder type attic egress door) in the garage ceiling shall have the same protection requirements of FRC-2004 C: R309.2 Separation required. The garage shall be separated from the residence and its attic area by not less than ½-inch (12.7 mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch (15.9 mm) Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½-inch (12.7 mm) gypsum board or equivalent. Other openings

between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors.

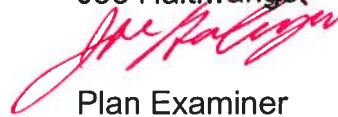
- 4.** In the garage area show compliance with the FRC-2004 sections R309.1.1

Duct penetration: Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall have no openings into the garage.
- 5.** The current location of the appliances as shown on the garage floor plan may require that these appliances be protected for mechanical damage as required by the Florida Mechanical Code, Sections: 303.4 Protection from damage: Appliances shall not be installed in a location where subject to mechanical damage unless protected by approved barriers.
- 6.** On the elevation drawing show the location of the wood burning fireplace in relation to the code requirements of the FRC-2004 section R1001.6

Termination: chimneys shall extend at least 2 feet (610 mm) higher than any portion of a building within 10 feet (1048 mm), but shall not be less than 3 feet (914 mm) above the highest point where the chimney passes through the roof. Also show on the foundation plan any additional foundation support which may be required for to support the fireplace and chimney
- 7.** On the electrical plan show the location of the electrical panel and include the total amperage rating of the electrical service panel also show the overcurrent protection device which shall be installed on the

exterior of structures to serve as a disconnecting means. Conductors used from the exterior disconnecting means to a panel or sub panel shall have four-wire conductors, of which one conductor shall be used as an equipment ground.

Joe Haltiwanger

A red ink signature, likely of Joe Haltiwanger, written in a cursive style. The signature is positioned over the printed name and title.

Plan Examiner
Columbia County

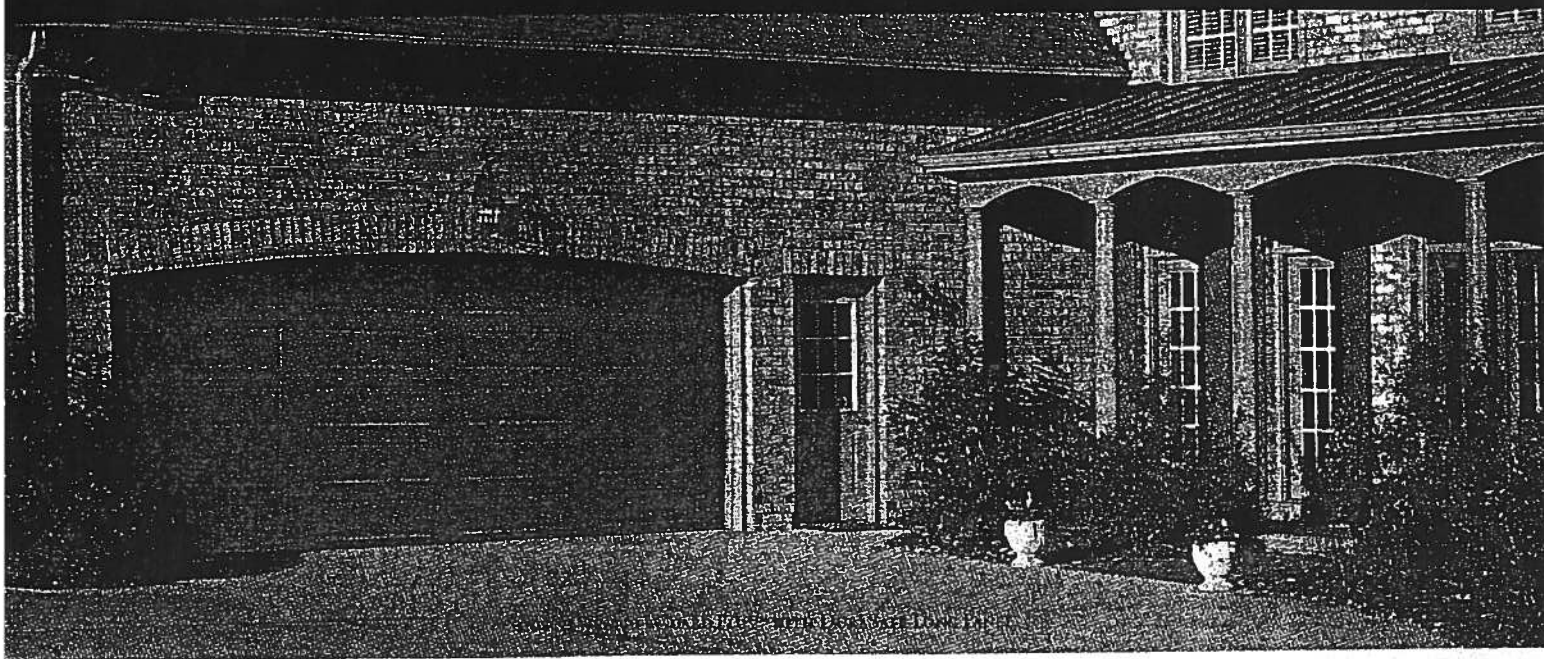
Amarr

GARAGE DOORS

BEST

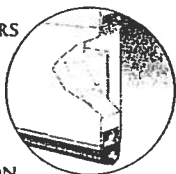
WEATHERGUARD™ SERIES

FEATURING OUR **DuraSafe System**



WEATHERGUARD PLUS™ WITH **DuraSafe**

THE WEATHERGUARD PLUS OFFERS DISCERNING HOMEOWNERS A MASTERFUL COMBINATION OF PREMIUM FEATURES. SUPERIOR TRIPLE-LAYER CONSTRUCTION, 2" (5.1 CM) POLYSTYRENE INSULATION, AN R-VALUE OF 8.34, AND UNMATCHED BEAUTY PUT THE WEATHERGUARD PLUS AT THE TOP OF ITS CLASS.



WEATHERGUARD™ WITH **DuraSafe**

TOP-QUALITY TRIPLE-LAYER CONSTRUCTION AND 1 3/8" (3.5 CM) POLYSTYRENE INSULATION MAKE OUR WEATHERGUARD STEEL DOOR STRONG, QUIET, AND ENERGY EFFICIENT. FEATURING AN R-VALUE OF 5.73, THE WEATHERGUARD IS THE PERFECT ADDITION TO YOUR HOME FOR YEARS OF TROUBLE FREE SERVICE AND GREAT LOOKS.

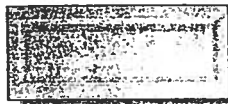


DESIGN ELEMENTS

THE WEATHERGUARD SERIES DOORS ARE AVAILABLE WITH A RAISED SHORT, RAISED LONG, OR FLUSH PANEL DESIGN IN YOUR CHOICE OF FOUR COLORS.*



RAISED SHORT PANEL



RAISED LONG PANEL



FLUSH PANEL



WHITE



BROWN



ALMOND

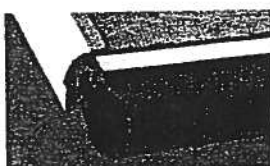


SANDTONE

* ACTUAL PAINT COLORS MAY VARY FROM SAMPLES SHOWN.

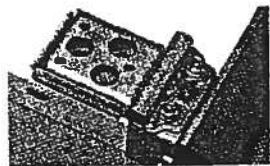
Bottom Seal

NEW ALUMINUM BOTTOM SEAL MEANS EASY AND FAST INSTALLATION AND MAINTENANCE... AS WELL AS A BETTER SEAL AGAINST THE ELEMENTS.



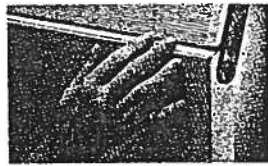
Bottom Bracket

NEW TAMPER RESISTANT BOTTOM BRACKET HELPS PREVENT ACCIDENTS, YET ALLOWS FOR ROLLER MAINTENANCE/CHANGE WITHOUT DISASSEMBLY. FULL LENGTH ROLLER TUBE PREVENTS SLIP-OUTS.



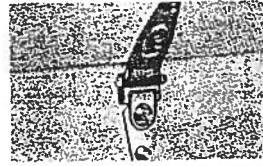
Door Sections

THE SECTION JOINT OF THE FUTURE: TODAY. NEW SECTION PROFILE ASSURES PINCH RESISTANCE BOTH INSIDE AND OUT, EXCEEDING INDUSTRY STANDARDS - NEITHER FINGERS NOR WEATHER GETS IN.



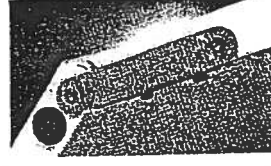
Center Hinge

FLUSH MOUNT INBOARD DESIGN CENTER HINGES PROVIDE PINCH RESISTANT PROTECTION AND A LOW PROFILE CLEAN LOOK ON THE INSIDE OF THE DOOR.



End Hinge

WITH MOST OF ITS ACTION HIDDEN INSIDE THE DOOR, OUR RE-ENGINEERED END HINGES LEAVE NO ROOM FOR EVEN THE SMALLEST FINGERS.



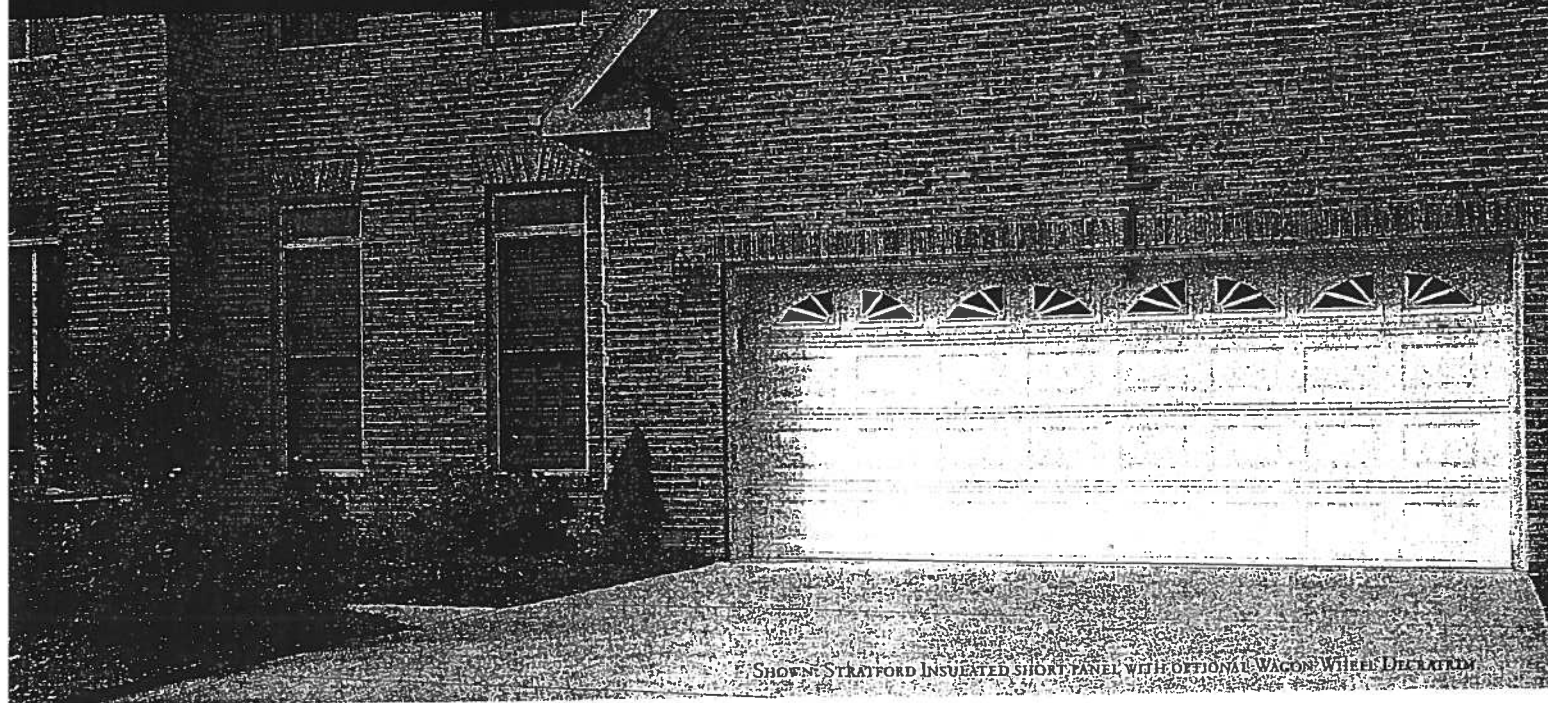
AMARR DURASAFE DOORS UNDER 8'9" WILL BE SUPPLIED WITH DURASAFE HARDWARE. DASMA STANDARDS FOR PINCH-RESISTANCE DO NOT APPLY TO DOORS OVER 8' HIGH SINCE THE POTENTIAL PINCH POINTS ARE ABOVE TYPICAL GRASPING HEIGHTS; AMARR DOORS OVER 8'9" ARE SUPPLIED WITH CONVENTIONAL HARDWARE. THE BOTTOM BRACKET, DOOR SECTIONS, CENTER HINGE AND END HINGE SHOWN ABOVE ARE PATENTED. DOORS SHOWN ARE ELECTRICALLY OPERATED. NON-ELECTRICALLY OPERATED DOORS SHOULD HAVE EXTERIOR AND INTERIOR LIFT HANDLES ATTACHED TO THE DOOR.

Amarr®

GARAGE DOORS

BASIC

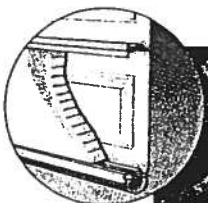
STRATFORD SERIES



SHOWN STRATFORD INSULATED SHORT PANEL WITH OPTIONAL WAGON WHEEL DECORATION

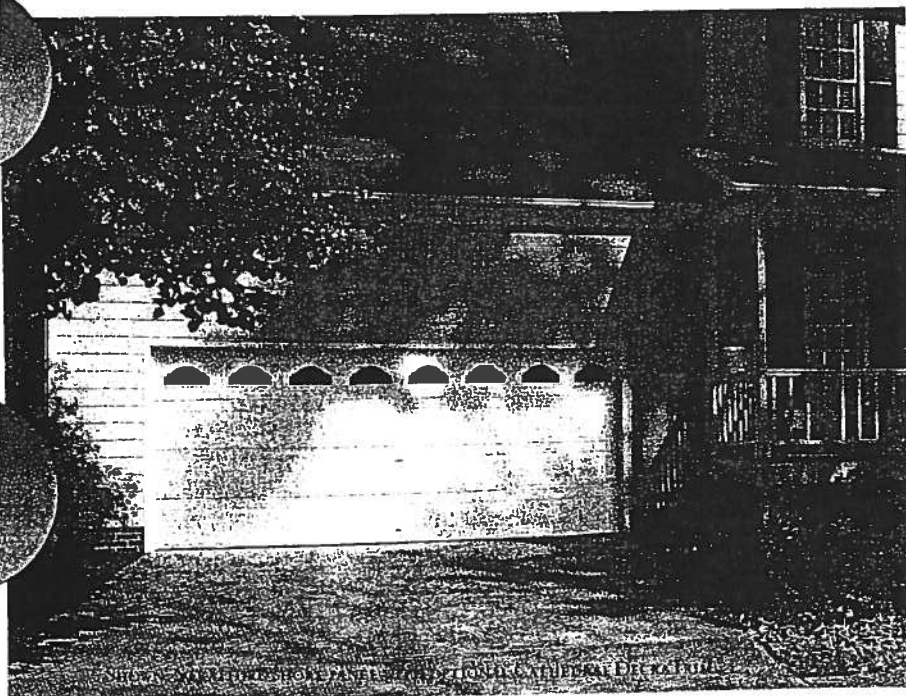
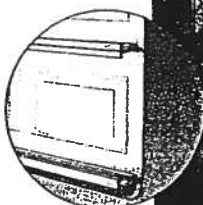
STRATFORD INSULATED

THE 2" (5.1 CM) THICK STRATFORD INSULATED PROVIDES HOMEOWNERS EXCELLENT THERMAL PROTECTION AND HANDSOME GOOD LOOKS. FEATURES INCLUDE DOUBLE-LAYER CONSTRUCTION OF STURDY 25-GAUGE STEEL, AND 1 7/16" (3.7 CM) POLYSTYRENE INSULATION WITH LAMINATED BACKING AND AN R-VALUE OF 5.65.



STRATFORD

A SUPERLATIVE ADDITION TO ANY HOME, THE STRATFORD'S DURABLE SINGLE-LAYER CONSTRUCTION, 25-GAUGE STEEL, AND ATTRACTIVE DESIGN PROVIDE HOMEOWNERS WITH EXCEPTIONAL VALUE.



SHOWN STRATFORD SHORT PANEL WITH OPTIONAL WAGON WHEEL DECORATION

DESIGN ELEMENTS

THE STRATFORD SERIES DOORS ARE AVAILABLE WITH A RAISED SHORT PANEL DESIGN IN YOUR CHOICE OF THREE COLORS.*



RAISED SHORT PANEL



WHITE



ALMOND



SANDTONE

* ACTUAL PAINT COLORS MAY VARY FROM SAMPLES SHOWN.



- Series 165 Single Hung and Fixed Windows
- Series 650 Single Hung and Fixed Windows
- Series 168 Horizontal Slider and Fixed Windows
- Series 680 Horizontal Slider and Fixed Windows

NOTE: SEE INDIVIDUAL TEST REPORT(S) FOR DP RATINGS AND MAXIMUM ALLOWABLE SIZES.

INSTALLATION INSTRUCTIONS FOR **"APPROVED FOR FLORIDA" ALUMINUM FIN WINDOWS**

Capitol Windows & Doors appreciates your recent purchase of a maintenance free prime window, which will not rust, rot, mildew, or warp. This is a quality product that left our factory in good condition – proper handling and installation are just as important as good design and workmanship. Please follow these recommendations to allow this product to complete its function.

1. Handle units one at a time in the closed and locked position and take care not to scratch frame or glass or to bend the nailing fin. Place a continuous bead of caulk on the back side of nail fin (mounting flange).
2. Set unit plumb and square into opening and make sure that there is $3/16" \pm 1/16"$ clearance around the frame. Fasten unit into opening in the closed and locked position, making sure that fasteners are screwed in straight in order to avoid twisting or bowing of the frame. Make sure that sill is straight and level. Check operation of unit frequently as fasteners are set.
3. Use # 8 sheet metal or wood screws with a minimum of 1" penetration into the framing (stud). Place first screws (two at each corner) 3" from end of fin. For positive and negative DPs (design pressures) up to 35, do not exceed 24" spacing of additional screws. For DPs from 35.1 to 50, do not exceed 18" spacing.
4. Caulk entire perimeter of fin to mounting surface joint and caulk over screw heads.
Note: this step can be eliminated if 4" wide adhesive type flashing is used (sill 1st., jambs 2nd., head 3rd.).
5. Fill voids between frame and construction with loose batten type insulation or non-expanding aerosol foam specifically formulated for windows and doors to eliminate drafts. The use of expanding aerosol type insulating foam, which can bow the frame, waives all stated warranties.
6. Remove plaster, mortar, paint, and debris that has collected on the unit and make sure that sash/vent tracks and interlocks are also clean. Do not use abrasives, solvents, ammonia, vinegar, alkaline, or acid solutions for clean-up, especially with insulated glass units as their use could cause chemical breakdown of the glass seal. Take care not to scratch glass; scratches severely weaken glass and it could eventually break from thermal expansion and contraction. Clean units with water and mild detergent.

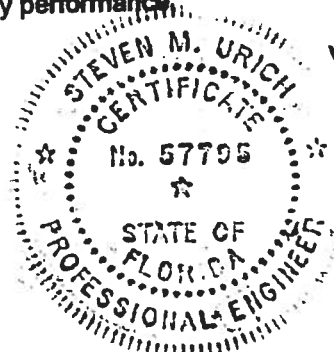
- CAUTION -

Capitol Windows & Doors or its representatives are unable to control and cannot assume responsibility for the selection and placement of their products in a building or structure in a manner required by laws, statutes, and/or building codes. The purchaser is solely responsible for knowledge of and adherence to the same. BetterBilt window products are not provided with safety glazing unless specifically ordered with such. Many laws and codes require safety glazing (tempered glass) near doors, bathtubs, and shower enclosures. Also be aware of other code requirements such as emergency egress and structural / energy performance.

Corporate Headquarters:
M.I. Home Products
650 West Market St.
Gratz, PA 17030-0370
(717) 365-3300

www.mihp.com

JK 221
JULY 29, 2003



Rev. 7-24-03

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

Rendered to:

MI HOME PRODUCTS, INC.

**SERIES/MODEL: 450/650/850 Drop In Glazing
TYPE: Aluminum Single Hung Window**

Title	Summary of Results
AAMA Rating	H-1.C30 53 x 90
Operating Force	24 lb max.
Air Infiltration	0.11 cfm/ft ²
Water Resistance Test Pressure	6.75 psf
Uniform Load Deflection Test Pressure	+32.8 psf -47.2 psf
Uniform Load Structural Test Pressure	+49.2 psf -70.8 psf
De-glazing	Passed
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 01-42487.01 for complete test specimen description and data.



Architectural Testing

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

Rendered to:

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

Report No: 01-22487-01

Test Date: 08/14/02

And: 08/15/02

Report Date: 10/02/02

Expiration Date: 08/15/06

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to perform tests on a Series Model 450/650/850 Drop In Glazing, aluminum single hung window at their facility in Elizabethville, Pennsylvania. The sample tested successfully met the performance requirements for a H-LC 30/53 x 90 rating.

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

Test Specimen Description:

Series/Model: 450/650/850 Drop In Glazing

Type: Aluminum Single Hung Window

Overall Size: 4' 5-1/8" wide by 7' 5-5/8" high

Interior Sash Size: 4' 2-3/4" wide by 3' 8-7/8" high

Fixed Daylight Opening Size: 4' 0" wide by 3' 5-3/8" high

Screen Size: 4' 0-5/4" wide by 3' 8-3/4" high

Finish: The unit was white.

Glazing Details: The specimen utilized 5/8" thick, sealed insulating glass constructed from two sheets of 5/32" thick, clear annealed glass and a metal reinforced butyl spacer system. The lines were interior glazed against double-sided adhesive foam tape and secured with PVC snap in glazing beads.

1200 Hwy. 50, Unit
100, Gratz, PA 17030-0400
Phone: 717-754-1700
Fax: 717-754-4120
www.atitesting.com

Test Specimen Description. (Continued)**Weatherstripping:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.190" high by 0.187" polypile with center fin	1 Row	Fixed meeting rail interlock
0.190" high by 0.187" polypile with center fin	2 Rows	Interior sash stiles
1.4" vinyl foam-filled bulb seal	1 Row	Interior sash bottom rail
5.8" wide by 7.8" long polypile plug	4 Pieces	Interior sash, all corners

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

Sash Construction: The sash was constructed of extruded aluminum. Each corner was coped, butted, and fastened with one #8 x 1-1/4" screw per corner.

Screen Construction: The screen was constructed of 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	2	Interior sash, 6-1.2" from top rail ends
Spring-loaded coil balance	2	One per jamb
Plastic tilt latch	2	Interior sash top rail ends
Metal tilt latch pin	2	Interior sash bottom rail ends
Screen spring-loaded retainer pin	2	6-3/4" from rails on stiles

Test Specimen Description: (Continued)

Drainage: Sloped sill.

Reinforcement: No reinforcement was utilized.

Installation: The specimen was installed into a #2 x 8 Spruce-Pine-Fir wood buck. #8 x 1-5/8" dry wall screws were placed 7" from corners and 15" on center around nailing fln. Polyurethane was used as a sealant 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	24 lbs	35 lbs max
2.2.1.2	Air Infiltration (ASTM E 283-91) @ 1.57 psf (125 mph)	0.11 cfm ft ²	0.3 cfm ft ² max.

Note #1: The tested specimen meets the performance levels specified in AAMA NW70.1 101.1.8, 2-9" for air infiltration.

2.2.1.2	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 3.75 psf	No leakage	No leakage
2.2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 52 seconds) @ 25.0 psf (positive) @ 25.0 psf (negative)	0.64" 0.54"	0.29" max 0.29" max

**Exceeds 1.17" for deflection, but meets all other test requirements.*

2.2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds) @ 37.5 psf (positive) @ 37.5 psf (negative)	0.04" 0.03"	0.20" max 0.20" max
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Test Results:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.2	Deglazing Test (ASTM E 987-88) In operating direction at 70 lbs		
	Interior sash meeting rail	0.12" 25%	0.50" 100%
	Interior sash bottom rail	0.12" 25%	0.50" 100%
	In remaining direction at 50 lbs		
	Interior sash right stile	0.06" 12%	0.50" 100%
	Interior sash left stile	0.06" 12%	0.50" 100%
2.1.8	Forced Entry Resistance (ASTM E 588-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Test 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 = 6.75 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	q̄ 32.8 psf (positive)	0.85"	0.20" max.
	q̄ 47.2 psf (negative)	0.87"	0.20" max.

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

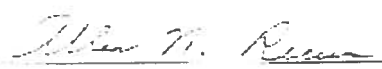
4.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)		
	q̄ 49.2 psf (positive)	0.09"	0.20" max.
	q̄ 70.8 psf (negative)	0.12"	0.20" max.

Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator. This report may not be reproduced except in full without the approval of Architectural Testing.

For ARCHITECTURAL TESTING, INC:


Mark A. Hess
Technician

MAH:nlb
01-42487-01


Allen N. Reeves, P.E.
Director - Engineering Services
11 OCTOBER 2002



AAM/NWDA 101/I.S.2-97
TEST REPORT SUMMARY

Rendered to:

MILHOME PRODUCTS, INC.

SERIES/MODEL: 650


TYPE: Aluminum Picture Window

Title of Test	Results
Rating	F-R45 60 x 80
Overall Design Pressure	+45.0 psf -47.2 psf
Air Infiltration	0.04 cfm ft ²
Water Resistance	8.25 psf
Structural Test Pressure	+67.5 psf -70.8 psf
Forced Entry Resistance	Grade 10

Reference should be made to Report No. 01-1135-01 dated 03-28-02 for complete test specimen description and details.

For ARCHITECTURAL TESTING, INC.


Mark A. Lewis, President


1 APRIL 2002



Architectural Testing

AAMA/NWDA 1014S.2-97 TEST REPORT

Rendered to:

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

Report No: 01-41135-01

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, aluminum picture window at their facility located in Elizabethtown, Pennsylvania. The samples tested successfully met the performance requirements for a E-R45 60 x 80 rating.

Test Specifications: The test specimen was evaluated in accordance with AAMA/NWDA 1014S.2-97, *Standard Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

Test Specimen Description:

Series Model 650

Type Aluminum Picture Window

Overall Size 5'0" wide by 6'8" high

Daylight Opening Size 4'9-1/4" wide by 6'5-1/4" high

Finish All aluminum was white

Glazing Details: The test specimen utilized 7/8" thick, sealed insulating glass constructed from three sheets of 1/4" thick, clear annealed glass and a metal reinforced gasket spacer system. The glass was interlocked against double-sided adhesive foam tape and secured with aluminum snap-on glazing beads.

TESTED BY
ARCHITECTURAL TESTING, INC.
1014S.2-97
E-R45 60 x 80
DATE: 03-07-02

Allen N. Reun
1 APR 2002



Test Specimen Description: (Continued)

Frame Construction: The frame was constructed of extruded aluminum with corner, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss.

Reinforcement: No reinforcement was utilized.

Installation: The test specimen was installed into a 2 x 6 #2 Spruce-Pine-Fir wood test buck. #8 x 2-1/2" installation screws were utilized 18" on center around the interior perimeter. Polyurethane was utilized to seal the exterior.

Test Results:

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.2	Air Infiltration (ASTM E 283-91) Δ 1.57 psf (25 mph)	0.04 cfm ft ²	0.3 cfm ft ² max.

Note #1 - The tested specimen meets the performance levels specified in AIAA/NWDP-101 US-2-97 for air infiltration.

2.1.3	Water Resistance (ASTM E 547-99) 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 jamb) (Loads were held for 32 seconds)		
	Δ 25.9 psf (positive)	0.01"	0.41" max.
	Δ 34.7 psf (negative)	0.01"	0.41" max.

2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the jamb) (Loads were held for 10 seconds)		
	Δ 38.9 psf (positive)	0.01"	0.2" max.
	Δ 52.1 psf (negative)	0.01"	0.2" max.

Allen H. Picerno
4-11-00 4-11-00



Test Results (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.3	Forced Entry Resistance (ASTM F 588-97) Type: D Grade: 10		
	Hand and Tool Manipulation Test	No entry	No entry

Optional Performance

4.3	Water Resistance (ASTM E 547-00) WLP = 8.25 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection (ASTM E 230-97) (Measurements reported were taken on the jamb) (Loads were held for 33 seconds) $\bar{\delta}$ 45.0 psf (positive) $\bar{\delta}$ 47.2 psf (negative)	0.02" 0.02"	0.41" max. 0.41" max.
4.4.2	Uniform Load Structural (ASTM E 230-97) (Measurements reported were taken on the jamb) (Loads were held for 10 seconds) $\bar{\delta}$ 67.5 psf (positive) $\bar{\delta}$ 70.8 psf (negative)	0.01" 0.02"	0.29" max. 0.29" max.

Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by A.T.I. 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. Hines
Technician

0104137-01
REV 02/99

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



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

Rendered to:

MI WINDOWS AND DOORS, INC

**SERIES/MODEL: 420/430/440
PRODUCT TYPE: Aluminum Sliding Glass Door**

Summary of Results			
Title	Test Specimen #1	Test Specimen #2	Test Specimen #3
Rating	SGD-R25 182 x 96	SGD-R35 182 x 80	SGD-R40 144 x 96
Operating Force	17 lbf max.	17 lbf max.	N/A
Air Infiltration	0.23 cfm/ft ²	0.27 cfm/ft ²	N/A
Water Resistance Test Pressure	3.75/6.0/9.0 psf	6.0 psf	N/A
Uniform Load Deflection Test Pressure	±35.0 psf	±35.0 psf	+40.0 psf/-40.1 psf
Uniform Load Structural Test Pressure	±37.5 psf	±52.5 psf	+60.0 psf/-60.2 psf
Forced Entry Resistance	Grade 10	Grade 10	N/A

Reference should be made to ATI Report No. 52112.01-122-47 for complete test specimen description and data.

130 Derry Court
York, PA 17402-9405
phone: 717-764-7700
fax: 717-764-4129
www.archtest.com



ANSI/AAMA/NWDA 101/I.S.2-97 TEST REPORT

Rendered to:

MI WINDOWS AND DOORS, INC
P.O. Box 370
Gratz, Pennsylvania 17030-0370

Report No.: 52112.01-122-47
Revision 1: 09/13/04
Test Dates: 06/30/04
Through: 08/12/04
Report Date: 08/30/04
Expiration Date: 07/02/08

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Windows and Doors, Inc. to witness testing on three Series/Model 420/430/440, aluminum sliding glass doors at MI Windows and Doors, Inc. test facility in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for the following ratings: Test Specimen #1: SGD-R25 182 x 96; Test Specimen #2: SGD-R35 182 x 80; Test Specimen #3: SGD-R40 144 x 96. Test specimen description and results are reported herein.

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

Test Specimen Description:

Series/Model: 420/430/440

Product Type: Aluminum Sliding Glass Door

Test Specimen #1: SGD-R25 182 x 96 (XXO)

Overall Size: 15' 1-3/4" wide by 8' 0" high

Active Door Panel Size (2): 5' 0-1/2" wide by 7' 11" high

Fixed Door Panel Size: 5' 1" wide by 7' 11" high

Screen Size: 5' 0-3/8" wide by 7' 11" high

Overall Area: 121.2 ft²

Reinforcement: The active and fixed interlocking stile utilized a steel U-shaped reinforcement (Drawing #9917525). The fixed intermediate jamb utilized a steel reinforcement (Drawing #9917520).

130 Derry Court
York, PA 17402-9405
phone: 717-764-7700
fax: 717-764-4129
www.archtest.com

Test Specimen Description: (Continued)

Test Specimen #2: SGD-R35 182 x 80 (OXX)

Overall Size: 15' 1-3/4" wide by 6' 8" high

Active Door Panel Size (2): 5' 0-1/2" wide by 6' 7" high

Fixed Door Panel Size: 4' 8-7/8" wide by 6' 2-5/8" high

Screen Size: 5' 0-3/8" wide by 6' 7" high

Overall Area: 101 ft²

Reinforcement: No reinforcement was utilized.

Test Specimen #3: SGD-R40 144 x 96 (XOX)

Overall Size: 12' 0" wide by 8' 0" high

Active Door Panel Size: 3' 8-1/4" wide by 7' 10-1/2" high

Fixed Door Panel Size (2): 3' 8-3/4" wide by 7' 6-1/2" high

Screen Size: 3' 11-1/2" wide by 7' 11-3/8" high

Overall Area: 96 ft²

Reinforcement: The active and fixed interlocking stile utilized a steel U-shaped reinforcement (Drawing #9917525). The fixed intermediate jamb utilized a steel reinforcement (Drawing #9917520). The interlock utilized an aluminum reinforcement (Drawing #SECT4237).

The following descriptions apply to all specimens.

Finish: All aluminum was white.

Glazing Details: All glazing consisted of a single sheet of 3/16" thick clear tempered glass that was channel glazed with a wrap around rubber gasket.

Test Specimen Description: (Continued)

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.187" backed by 0.270" high polypile with center fin	2 Rows	Stiles

Frame Construction: The frame was constructed of extruded aluminum. Corners were coped, butted, sealed, and fastened with two #8 by 5/8" screws.

Door Panel Construction: The door panels were constructed of extruded aluminum members. Corners were coped, butted, and fastened with one 1/4" by 3/4" screw at the bottom and two #8 by 3/4" screws at the top.

Screen Construction: The screen was constructed of extruded aluminum members. Corners were coped, butted, and fastened with one 1/4" by 3/4" and one #8 by 1" screw at the bottom and one #8 by 1" screw at the top.

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Locking handle	1	44" from active panel bottom
Roller assembly	2	3" from bottom rail ends
Screen locking handle	1	46" from screen bottom rail

Drainage:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Sloped sill	1	Sill

Installation: The units were installed into a #2 Spruce-Pine-Fir wood test buck. The units were fastened to the test buck with two rows of #8 by 1-1/4" screws, 8" from each end and 23" on center. The exterior perimeter was sealed with silicone.

Test Results:

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
<u>Test Specimen #1:</u> SGD-R25 182 x 96 (XXO)			
2.2.1.6.1	Operating Force	17 lbf	20 lbf max.
	Breakaway force	24 lbf	30 lbf max.
2.1.2	Air Infiltration per ASTM E 283 1.57 psf (25 mph)	0.23 cfm/ft ²	0.3 cfm/ft ² max.
<i>Note #1: The tested specimen meets the performance levels specified in ANSI/AAMA/NWDA 101/I.S.2-97 for air infiltration.</i>			
2.1.3	Water Resistance per ASTM E 547 (with and without screen) 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting rail) (Loads were held for 52 seconds) 15.0 psf (positive) 15.0 psf (negative)	0.56" 0.57"	See Note #2 See Note #2
<i>Note #2: The Uniform Load Deflection test is not a requirement of ANSI/AAMA/NWDA 101/I.S.2-97 for this product designation. The deflection data is recorded in this report for special code compliance and information only.</i>			
2.1.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for 10 seconds) 22.5 psf (positive) 22.5 psf (negative)	0.02" 0.03"	0.30" max. 0.30" max.
2.2.1.6.2	Deglazing Test per ASTM E 987 In operating direction - 70 lbs Locking stile Interlock stile	0.12"/24% 0.12"/24%	0.50"/100% 0.50"/100%

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
<u>Test Specimen #1: SGD-R25 182 x 96 (XXO) (Continued)</u>			
2.2.1.6.2	Deglazing Test per ASTM E 987 In remaining direction - 50 lbs		
	Top rail	0.06"/12%	0.50"/100%
	Bottom rail	0.06"/12%	0.50"/100%
2.1.8	Forced Entry Resistance per ASTM F 842		
	Type: A	Grade: 10	
	Lock Manipulation Test	No entry	No entry
	Test A1 through A6	No entry	No entry
	Lock Manipulation Test	No entry	No entry
<u>Optional Performance</u>			
4.3	Water Resistance per ASTM E 547 (with and without screen) 3.75 psf	No leakage	No leakage
4.3	Water Resistance per ASTM E 547 (with and without screen) (with sill riser) 6.0 psf	No leakage	No leakage
4.3	Water Resistance per ASTM E 547 (with and without screen) (with 2-5/8" Dade County sill extension) 9.0 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for 10 seconds)		
	35.0 psf (positive)	2.98"	See Note #2
	35.0 psf (negative)	2.52"	See Note #2

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
<u>Test Specimen #1:</u> SGD-R25 182 x 96 (XXO) (Continued)			
4.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for 10 seconds)		
	37.5 psf (positive)	0.20"	0.36" max.
	37.5 psf (negative)	0.19"	0.36" max.
<u>Test Specimen #2:</u> SGD-R35 182 x 80 (OXX)			
2.2.1.6.1	Operating Force	17 lbf	20 lbf max.
	Breakaway force	21 lbf	30 lbf max.
2.1.2	Air Infiltration per ASTM E 283 1.57 psf (25 mph)	0.27 cfm/ft ²	0.3 cfm/ft ² max.
<i>Note #1: The tested specimen meets the performance levels specified in ANSI/AAMA/NWDA 101/I.S.2-97 for air infiltration.</i>			
2.1.3	Water Resistance per ASTM E 547 (with and without screen)		
	2.86 psf	No leakage	No leakage
2.2.1.6.2	Deglazing Test per ASTM E 987 In operating direction - 70 lbs		
	Locking stile	0.12"/24%	0.50"/100%
	Interlock stile	0.12"/24%	0.50"/100%
	In remaining direction - 50 lbs		
	Top rail	0.06"/12%	0.50"/100%
	Bottom rail	0.06"/12%	0.50"/100%
2.1.8	Forced Entry Resistance per ASTM F 842		
	Type: A	Grade: 10	
	Lock Manipulation Test	No entry	No entry
	Test A1 through A6	No entry	No entry
	Lock Manipulation Test	No entry	No entry

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
<u>Test Specimen #2:</u> SGD-R35 182 x 80 (OXX) (Continued)			
<u>Optional Performance</u>			
4.3	Water Resistance per ASTM E 547 (with and without screen) (with sill riser) 6.0 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for 52 seconds) 35.0 psf (positive) 35.0 psf (negative)	1.28" 1.33"	See Note #2 See Note #2
4.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for 10 seconds) 52.5 psf (positive) 52.5 psf (negative)	0.13" 0.15"	0.30" max. 0.30" max.

Test Specimen #3: SGD-R40 144 x 96 (XOX)

Optional Performance

4.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for 52 seconds) 40.0 psf (positive) 40.1 psf (negative)	1.42" 1.28"	See Note #2 See Note #2
4.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for 10 seconds) 60.0 psf (positive) 60.2 psf (negative)	0.27" 0.30"	0.37" max. 0.37" max.

Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years from the original test date. 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. This report may not be reproduced, except in full, without approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC:

Mark A. Hess vlm

Digitally Signed for: Mark A. Hess by Vicki L. McElwain

Mark Hess
Technician

MH:vlm

St 2 2

Digitally Signed by: Steven M. Urich

Steven M. Urich, P.E.
Senior Project Engineer

MI WINDOWS AND DOORS, INC.

420 / 430 / 440 SERIES ALUMINUM SLIDING GLASS DOOR

COMPARATIVE ANALYSIS CHART IN DESIGN PRESSURE

PANEL WIDTH >>	24	30	36	48
PANEL HEIGHT 80	85	71	62	51
96	69	57	49	40

STEEL AND ALUMINUM
REINFORCING

09/08/2004
SGD ALUM & STL REINF

TEST REPORT NO: ATI-52112.01-122-47

DESIGN PRESSURE ACHIEVED IN TEST: POS. & NEG. 40.0 PSF

WATER TEST PRESSURE:

1-3/8 IN. SILL RISER: 3.75 PSF

1-7/8 IN. SILL RISER: 6.0 PSF

2-5/8 IN. SILL RISER: 9.0 PSF

OVERALL TEST SIZE: 12'-0" X 8'-0" NOMINAL

OVERALL PANEL SIZE: 48 IN. X 98 IN. NOMINAL
GLAZING: SINGLE PC. OF 3/16 IN. THK. TEMPERED GLASS
REINFORCING: STEEL IN INTERLOCKING STILES AND
INTERMEDIATE JAMB. ADDITIONAL ALUM. REINFORCING
ON EXTERIOR OF OPERATING INTERLOCK STILE.
CONFIGURATION: XOX

LIMITATIONS:

THE ABOVE ARE POSITIVE AND NEGATIVE STRUCTURAL DESIGN LOADS FROM COMPARATIVE ANALYSIS
& HAVE NOT BEEN CAPPED BY RESULTS OF WATER PERFORMANCE TESTING.

WHERE LOCAL CODE REQUIRES WATER RESISTANCE TESTING TO PASS A MIN. 15% OF DESIGN PRESSURE,
ALLOWABLE POSITIVE DESIGN PRESSURE WOULD BE CAPPED AS FOLLOWS:

WHERE 1-3/8 IN. SILL RISER IS EMPLOYED POSITIVE DESIGN PRESSURE IS CAPPED AT 25.0 PSF.

WHERE 1-7/8 IN. SILL RISER IS EMPLOYED POSITIVE DESIGN PRESSURE IS CAPPED AT 40.0 PSF.

WHERE 2-5/8 IN. SILL RISER IS EMPLOYED POSITIVE DESIGN PRESSURE IS CAPPED AT 60.0 PSF.

PANEL WIDTHS AND HEIGHTS ARE NOMINAL, IN INCHES.

PREPARED BY:

PRODUCT TECHNOLOGY CORPORATION

1150 LOUISIANA AVENUE, SUITE 6

WINTER PARK, FLORIDA 32789

PHONE 407 622-6334 FAX 407 622.6335

www.ptc-corp.com

MI WINDOWS AND DOORS, INC.

420 / 430 / 440 SERIES ALUMNUM SLIDING GLASS DOOR

COMAPARATIVE ANALYSIS CHART IN DESIGN PRESSURE

09/08/2004

SGD non-Relief

PANEL WIDTH >>	24	30	36	48	60
PANEL HEIGHT 80	64	54	47	39	35

TEST REPORT NO: ATI-52112.01-122-47

DESIGN PRESSURE ACHIEVED IN TEST: POS. & NEG. 35.0 PSF

WATER TEST PRESSURE:

1-3/8 IN. SILL RISER: 3.75 PSF

1-7/8 IN. SILL RISER: 6.0 PSF

2-5/8 IN. SILL RISER: 9.0 PSF

OVERALL SIZE TESTED: 15'-0" X 6'-8" NOMINAL

OVERALL PANEL SIZE TESTED: 5'-0" X 6'-8" NOMINAL

GLAZING: SINGLE PC. OF 3/16 IN THICK TEMP. GLASS

REINFORCING: NONE

CONFIGURATION TESTED: XXO

LIMITATIONS:

THE ABOVE ARE POSITIVE AND NEGATIVE STRUCTURAL DESIGN LOADS FROM COMPARATIVE ANALYSIS & HAVE NOT BEEN CAPPED BY RESULTS OF WATER PERFORMANCE TESTING.

WHERE LOCAL CODE REQUIRES WATER RESISTANCE TESTING TO PASS A MIN. 15% OF DESIGN PRESSURE, ALLOWABLE POSITIVE DESIGN PRESSURE WOULD BE CAPPED AS FOLLOWS:

WHERE 1-3/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURE = 25.0 PSF

WHERE 1-7/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURE = 40.0PSF

WHERE 2-5/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURE = 60.0 PSF

PANEL WIDTHS AND HEIGHTS ARE NOMINAL, IN INCHES.

PREPARED BY:

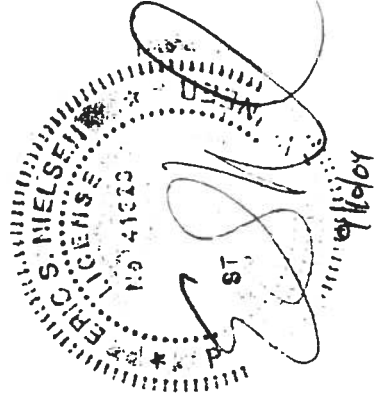
PRODUCT TECHNOLOGY CORPORATION

1150 LOUISIANA AVENUE, SUITE 6

WINTER PARK, FLORIDA 32789

PHONE 407 622-6334 FAX 407 622-6335

www.ptc-corp.com



MI WINDOWS AND DOORS, INC.

420 / 430 / 440 SERIES ALUMINUM SLIDING GLASS DOOR

COMPARATIVE ANALYSIS CHART IN DESIGN PRESSURE

STEEL REINFORCED

09/08/2004

SGD STL REINF

PANEL WIDTH >>	24	30	36	48	60
PANEL HEIGHT 80	61	51	44	37	33
96	49	41	35	29	25

TEST REPORT NO: ATI-52112.01-122-47

DESIGN PRESSURE ACHIEVED IN TEST: POS. & NEG. 25.0 PSF

WATER TEST PRESSURE:

1-3/8 IN. SILL RISER: 3.75 PSF

1-7/8 IN. SILL RISER: 6.0 PSF

2-5/8 IN. SILL RISER: 9.0 PSF

OVERALL SIZE TESTED: 15'-0" X 8'-0" NOMINAL

OVERALL PANEL SIZE TESTED: 60 IN. X 96 IN. NOMINAL

GLAZING: SINGLE PC. OF 3/16 IN. THK. TEMPERED GLASS

REINFORCING: STEEL IN INTERLOCKING STILES, AND

FIXED INTERMEDIATE JAMB

CONFIGURATION TESTED: OXX

LIMITATIONS:

THE ABOVE ARE POSITIVE AND NEGATIVE STRUCTURAL DESIGN LOADS FROM COMPARATIVE ANALYSIS

& HAVE NOT BEEN CAPPED BY RESULTS OF WATER PERFORMANCE TESTING.

WHERE LOCAL CODE REQUIRES WATER RESISTANCE TESTING TO PASS A MIN. 15% OF DESIGN PRESSURE,

ALLOWABLE POSITIVE DESIGN PRESSURE WOULD BE CAPPED AS FOLLOWS:

WHERE 1-3/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURES ARE CAPPED AT 25.0 PSF.

WHERE 1-7/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURES ARE CAPPED AT 40.0 PSF.

WHERE 2-5/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURES ARE CAPPED AT 60.0 PSF.

PANEL WIDTHS AND HEIGHTS ARE NOMINAL, IN INCHES.

PREPARED BY:

PRODUCT TECHNOLOGY CORPORATION

1150 LOUISIANA AVENUE, SUITE 6

WINTER PARK, FLORIDA 32789

PHONE 407 622-6334 FAX 407 622.6335

www.ptc-corp.com



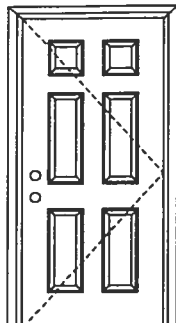
X

Opaque Outswing Unit

COP-WL-MA0121-02

FIBERGLASS DOORS

APPROVED ARRANGEMENT:



Note:

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



Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.itsamko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

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

Design Pressure
+76.0/-76.0

limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is NOT REQUIRED.

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

MINIMUM ASSEMBLY DETAIL:

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

MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:



Flush



6-panel



New England 4-panel



Eyebrow 4-panel



9-panel



Eyebrow 5-panel with scroll

Oakcraft
Wood-Grain *ART*-Textured
FIBERGLASS ENTRY DOORS

ARTEK
Non-Textured Fiberglass Entry Doors

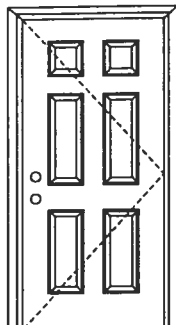
March 10, 2003
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

 **Masonite**

X

Opaque Inswing Unit

COP-WL-MA0101-02

FIBERGLASS DOORS**APPROVED ARRANGEMENT:****Note:**

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



Test Data Review Certificate #3026447A;
#3026447B; #3026447C and COP/Test
Report Validation Matrix #3026447A-
001, 002, 003; #3026447B-001, 002,
003; #3026447C-001, 002, 003
provides additional information
available from the ITS/WH website
(www.etssemko.com), the Masonite
website (www.masonite.com) or the
Masonite technical center.

Single Door

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

Design Pressure

+76.0/-76.0

limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is NOT REQUIRED.

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

MINIMUM ASSEMBLY DETAIL:

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

MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:

Flush



6-panel



New England 4-panel



Eyebrow 4-panel



9-panel



Eyebrow 5-panel with scroll

Oakcraft
Wood Grain & Textured
FIBERGLASS ENTRY DOORS

ARTEK
Non-Textured Fiberglass Entry Doors

March 10, 2003
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Masonite

X

Opaque Outswing Unit

COP-WL-MA0121-02

FIBERGLASS DOORS

CERTIFIED TEST REPORTS:

NCTL 210-1973-1, 2, 3

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

CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886
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).

Kurt L Balthaz

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



Test Data Review Certificate #3026447A,
#3026447B, #3026447C and COP/Test
Report Validation Matrix #3026447A-
001, 002, 003; #3026447B-001, 002,
003; #3026447C-001, 002, 003
provides additional information -
available from the ITS/WH website
(www.etsmko.com), the Masonite
website (www.masonite.com) or the
Masonite technical center.

2

Oakcraft
Wood Grain and Textured
FIBERGLASS ENTRY DOORS

ARTEK
Non-Textured Fiberglass Entry Doors

March 10, 2003
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detail subject to change without notice.

 **Masonite**

X

Opaque Inswing Unit

COP-WL-MA0101-02

FIBERGLASS DOORS

CERTIFIED TEST REPORTS:

NCTL 210-1973-1, 2, 3

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

CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996.

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886

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

Wilmock Hersey



Test Data Review Certificate #3026447A;
#3026447B; #3026447C and COP/Test
Report Validation Matrix #3026447A-
001, 002, 003; #3026447B-001, 002,
003; #3026447C-001, 002, 003
provides additional information -
available from the ITS/WH website
(www.etssemko.com), the Masonite
website (www.masonite.com) or the
Masonite technical center.

2

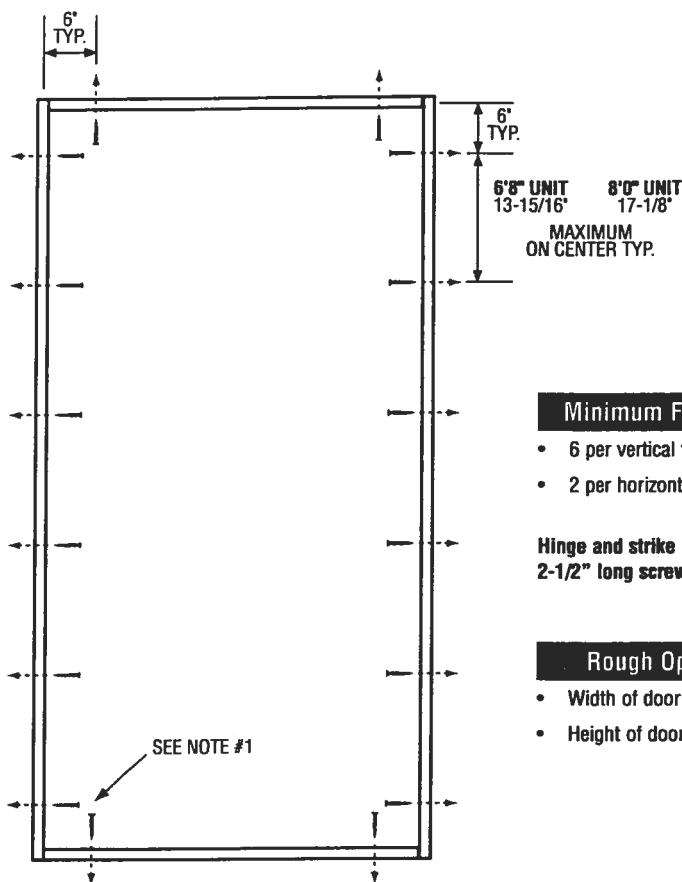
Oakcraft
Wood Grain / Textured
FIBERGLASS ENTRY DOORS

ARTEK™
Non-Textured Fiberglass Entry Doors

March 10, 2003
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 **Masonite®**

SINGLE DOOR



Minimum Fastener Count

- 6 per vertical framing member
- 2 per horizontal framing member

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

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"



Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, 004, #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.itssemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- **UNITS COVERED BY COP DOCUMENT 0246*, 0266*, 3241*, 3246, 3261* or 3266**
Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel - (1) at top and (1) at bottom.

*Based on required Design Pressure - see COP sheet for details.

Notes:

1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
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.

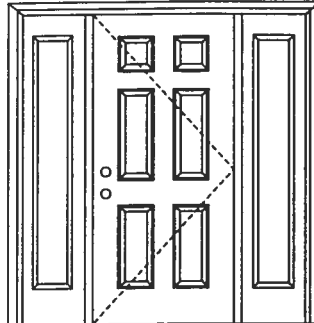
OXO

Opaque Outswing Unit

COP-WL-MA0124-02

FIBERGLASS DOORS

APPROVED ARRANGEMENT:



Single Door with 2 Sidelites
Maximum unit size = 5'4" x 6'8"

Design Pressure

+55.0/-55.0

limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is NOT REQUIRED on opaque panel, but is required on glazed panels.

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.



Test Data Review Certificate #3026447A; #3026447B,
#3026447C and COP/Test Report Validation Matrix
#3026447A-001, 002, 003; #3026447B-001, 002, 003;
#3026447C-001, 002, 003 provides additional
information - available from the ITS/WH website
(www.etsenko.com), the Masonite website
(www.masonite.com) or the Masonite technical center.

Note:

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

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0014-02 or MAD-WL-MA0017-02 and MAD-WL-MA0041-02.

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0004-02.

APPROVED DOOR STYLES:



Flush



6-panel



New England 4-panel



Eyebrow 4-panel



9-panel



Eyebrow 5-panel with scroll

Oakcraft™
Wood-Grain *ART*-Textured
FIBERGLASS ENTRY DOORS

ARTEK™
Non-Textured Fiberglass Entry Doors

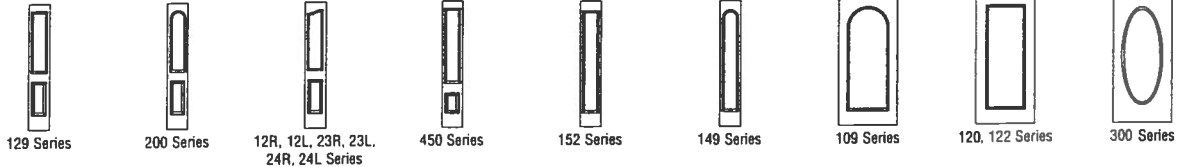
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 **Masonite®**

OXO

Opaque Outswing Unit

COP-WL-MA0124-02

FIBERGLASS DOORS**APPROVED SIDELITE STYLES:****CERTIFIED TEST REPORTS:**

CTLA-772W-2; CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core. Slab and sidelite panel glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886

COMPANY NAME
CITY, STATE

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

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



Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.ettsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

2

Oakcraft
Wood Grain  Textured
FIBERGLASS ENTRY DOORS

ARTEK
Non-Textured Fiberglass Entry Doors

March 10, 2003
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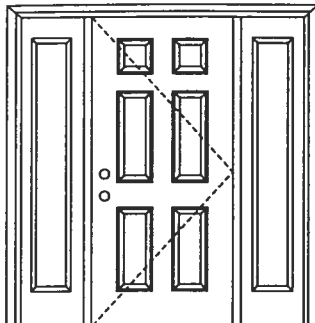
OXO

Opaque Inswing Unit

COP-WL-MA0104-02

FIBERGLASS DOORS

APPROVED ARRANGEMENT:



Single Door with 2 Sidelites
Maximum unit size = 5'4" x 6'8"

Design Pressure

+55.0/-55.0

limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is NOT REQUIRED on opaque panel, but is required on glazed panels.

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.



Test Data Review Certificate #3026447A,
#3026447B, #3026447C and COP/Test
Report Validation Matrix #3026447A-
001, 002, 003, #3026447B-001, 002,
003, #3026447C-001, 002, 003
provides additional information -
available from the ITS/WHL website
(www.itswhl.com), the Masonite
website (www.masonite.com) or the
Masonite technical center.

Note:

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

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0004-02 or
MAD-WL-MA0007-02 and MAD-WL-MA0041-02.

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0004-02.

APPROVED DOOR STYLES:



Flush



6-panel



New England 4-panel



Eyebrow 4-panel



9-panel



Eyebrow 5-panel with scroll

Oakcraft™
Wood Grain & Textured
FIBERGLASS ENTRY DOORS

ARTEK™
Non-Textured Fiberglass Entry Doors

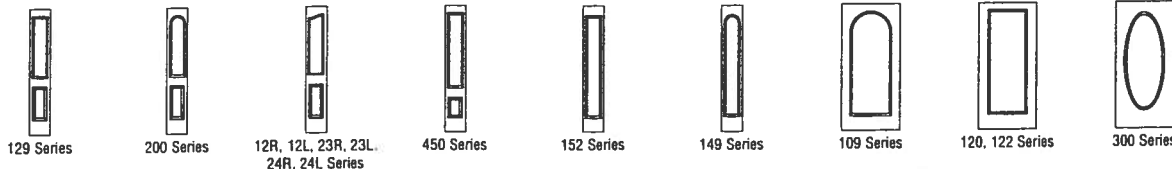
March 10, 2003
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Masonite®

OXO

Opaque Inswing Unit

COP-WL-MA0104-02

FIBERGLASS DOORS**APPROVED SIDELITE STYLES:****CERTIFIED TEST REPORTS:**

CTLA-772W-2; CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core. Slab and sidelite panel glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886

COMPANY NAME
CITY, STATE

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

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



Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITSAWH website (www.itsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

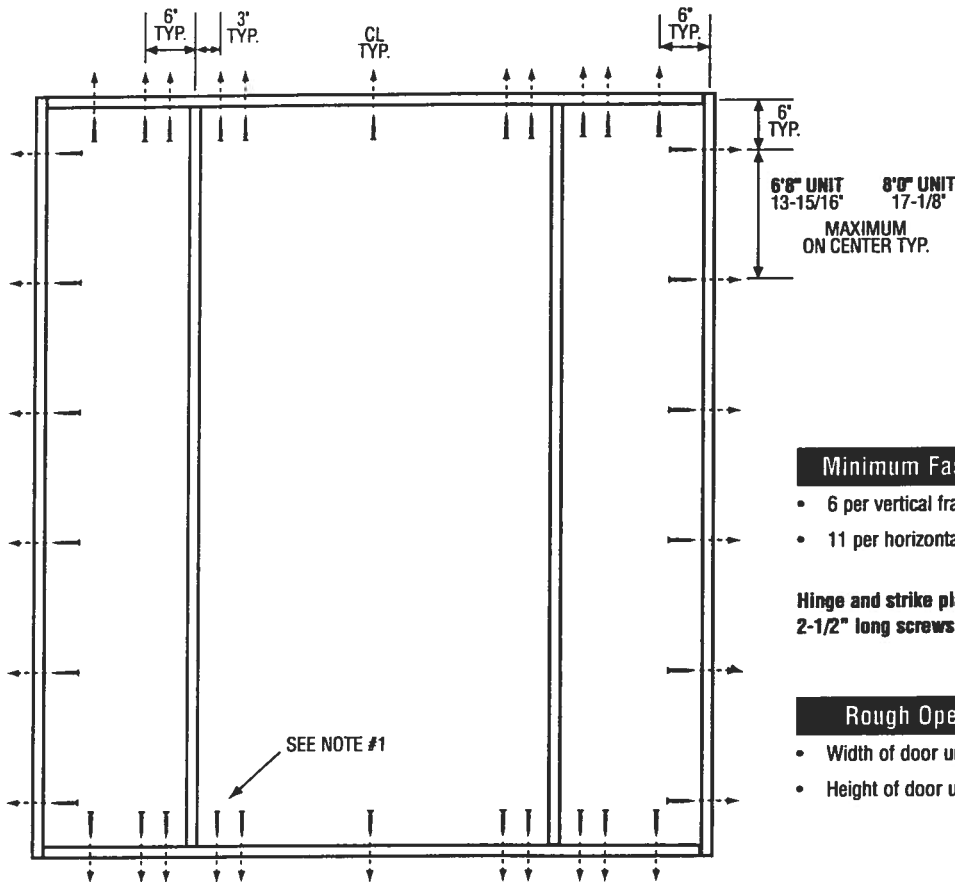
2

Oakcraft
Wood-Grain  Textured
FIBERGLASS ENTRY DOORS

ARTEK
Non-Textured Fiberglass Entry Doors

March 10, 2003
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

SINGLE DOOR WITH 2 SIDELITES



Minimum Fastener Count

- 6 per vertical framing member
- 11 per horizontal framing member

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

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Warnock Hersey Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, 004, #3026447B-001, 002, 003, 004, #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.itswh.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- **UNITS COVERED BY COP DOCUMENT 0249*, 0269*, 3244*, 3249, 3264* or 3269**
Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel - (1) at top and (1) at bottom.

*Based on required Design Pressure - see COP sheet for details.

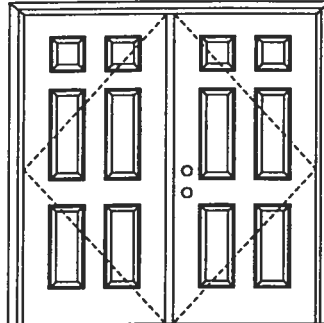
Notes:

1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
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.

XX

Opaque Outswing Unit

COP-WL-MA0122-02

FIBERGLASS DOORS**APPROVED ARRANGEMENT:**

Test Data Review Certificate #3026447A; #3026447B;
#3026447C and COP/Test Report Validation Matrix
#3026447A-001, 002, 003; #3026447B-001, 002, 003;
#3026447C-001, 002, 003 provides additional
information - available from the ITS/WH website
(www.itssemko.com), the Masonite website
(www.masonite.com) or the Masonite technical center.

Note:

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

Double Door

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

Design Pressure

+55.0/-55.0

limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is NOT REQUIRED.

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

MINIMUM ASSEMBLY DETAIL:

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

MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:

Flush



6-panel



New England 4-panel



Eyebrow 4-panel



9-panel



Eyebrow 5-panel with scroll

Oakcraft
Wood Grain  Textured
FIBERGLASS ENTRY DOORS

ARTEK
Non-Textured Fiberglass Entry Doors

March 10, 2003

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 **Masonite®**

XX

Opaque Outswing Unit

COP-WL-MA0122-02

FIBERGLASS DOORS

CERTIFIED TEST REPORTS:

CTLA-772W-2; CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886

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).

Kurt L Balthaz

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



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001, 002, 003; #3026447B-001, 002,
003; #3026447C-001, 002, 003
provides additional information -
available from the ITS/WH website
(www.itssemko.com), the Masonite
website (www.masonite.com) or the
Masonite technical center.

2

Oakcraft
Wood Grain  Textured
FIBERGLASS ENTRY DOORS

ARTEK
Non-Textured Fiberglass Entry Doors

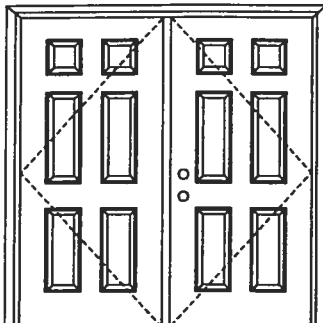
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 **Masonite®**

XX

Opaque Inswing Unit

COP-WL-MA0102-02

FIBERGLASS DOORS**APPROVED ARRANGEMENT:**

Test Data Review Certificate #3026447A;
#3026447B, #3026447C and COP/Test
Report Validation Matrix #3026447A-
001, 002, 003, #3026447B-001, 002,
003, #3026447C-001, 002, 003
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available from the ITS/WH website
(www.itssemko.com), the Masonite
website (www.masonite.com) or the
Masonite technical center.

Note:

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

Double Door

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

Design Pressure**+55.0/-55.0**

limited water unless special threshold design is used.

Large Missile Impact Resistance**Hurricane protective system (shutters) is NOT REQUIRED.**

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

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0002-02.

MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:

Flush



6-panel



New England 4-panel



Eyebrow 4-panel



9-panel



Eyebrow 5-panel with scroll

Oakcraft
Wood-Grain  Textured
FIBERGLASS ENTRY DOORS

ARTEK
Non-Textured Fiberglass Entry Doors

March 10, 2003

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XX

Opaque Inswing Unit

COP-WL-MA0102-02

FIBERGLASS DOORS

CERTIFIED TEST REPORTS:

CTLA-772W-2; CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886

COMPANY NAME
CITY, STATE

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



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



Test Data Review Certificate #3026447A;
#3026447B; #3026447C and COP/Test
Report Validation Matrix #3026447A-
001, 002, 003; #3026447B-001, 002,
003; #3026447C-001, 002, 003
provides additional information -
available from the ITS/WH website
(www.itssemko.com), the Masonite
website (www.masonite.com) or the
Masonite technical center.

2

Oakcraft
Wood Grain  Textured
FIBERGLASS ENTRY DOORS

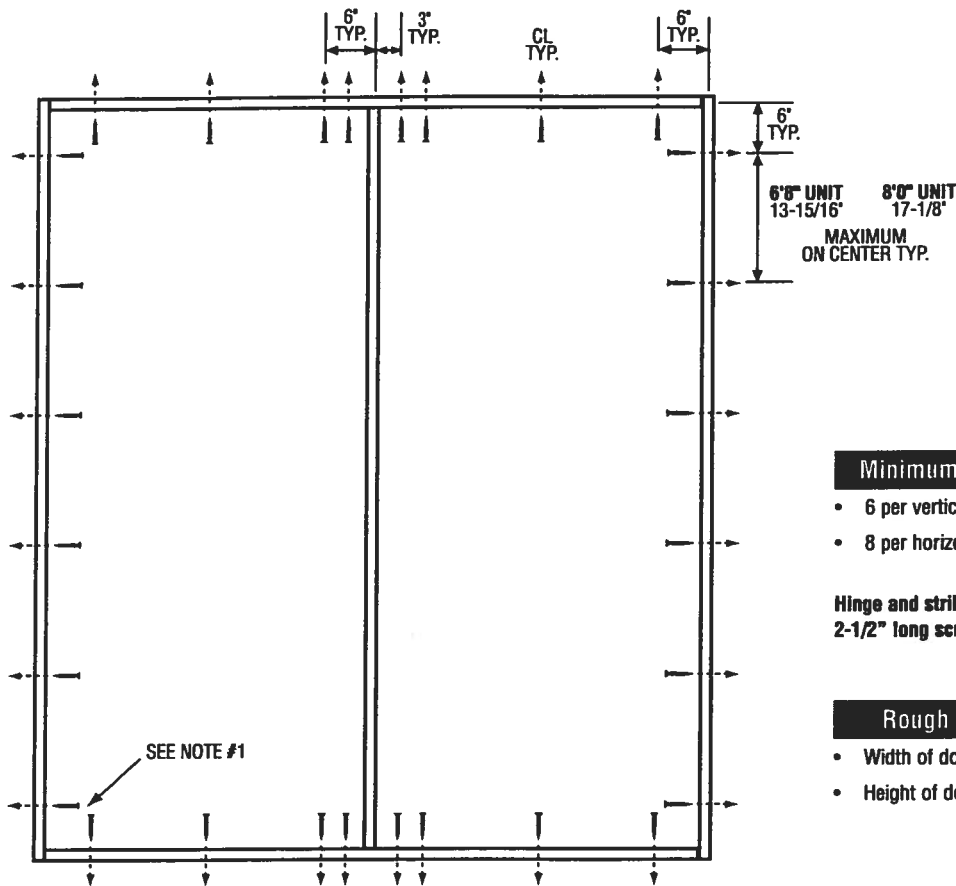
ARTEK
Non-Textured Fiberglass Entry Doors

March 10, 2003

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

 **Masonite®**

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.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Wilmack-Horsey Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, 004; #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etsamko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- **UNITS COVERED BY COP DOCUMENT 0247*, 0267*, 3242*, 3247, 3262* or 3267**
Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel - (1) at top and (1) at bottom.

*Based on required Design Pressure - see COP sheet for details.

Notes:

1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
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.

Residential System Sizing Calculation

Summary

Lisa Riggs
Lake City, FL

Project Title:
Riggs Residence

Code Only
Professional Version
Climate: North

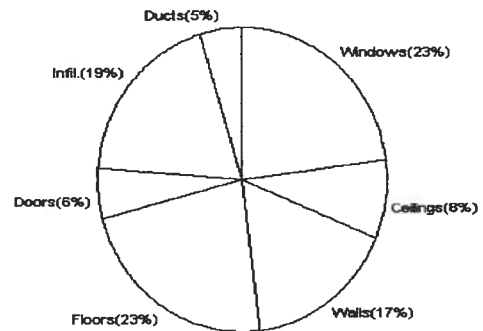
4/28/2006

Location for weather data: Gainesville - Defaults: Latitude(29) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)			
Winter design temperature	31 F	Summer design temperature	93 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	39 F	Summer temperature difference	18 F
Total heating load calculation	22308 Btuh	Total cooling load calculation	20799 Btuh
Submitted heating capacity	24000 Btuh	Submitted cooling capacity	24000 Btuh
Submitted as % of calculated	107.6 %	Submitted as % of calculated	115.4 %

WINTER CALCULATIONS

Winter Heating Load (for 1450 sqft)

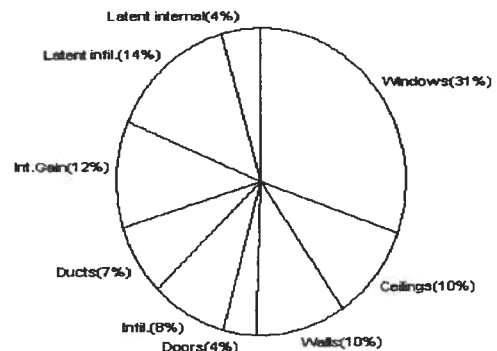
Load component	Load
Window total 182 sqft	5151 Btuh
Wall total 1296 sqft	3694 Btuh
Door total 78 sqft	1242 Btuh
Ceiling total 1450 sqft	1885 Btuh
Floor total 162 ft	5119 Btuh
Infiltration 97 cfm	4155 Btuh
Subtotal	21246 Btuh
Duct loss	1062 Btuh
TOTAL HEAT LOSS	22308 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1450 sqft)

Load component	Load
Window total 182 sqft	6380 Btuh
Wall total 1296 sqft	2104 Btuh
Door total 78 sqft	778 Btuh
Ceiling total 1450 sqft	2059 Btuh
Floor total	0 Btuh
Infiltration 85 cfm	1678 Btuh
Internal gain	2400 Btuh
Subtotal(sensible)	15399 Btuh
Duct gain	1540 Btuh
Total sensible gain	16939 Btuh
Latent gain(infiltration)	2939 Btuh
Latent gain(internal)	920 Btuh
Total latent gain	3859 Btuh
TOTAL HEAT GAIN	20799 Btuh



EnergyGauge® System Sizing based on ACCA Manual J.

PREPARED BY:

DATE: 4-28-06

System Sizing Calculations - Winter

Residential Load - Component Details

Lisa Riggs

Project Title:
Riggs Residence

Code Only
Professional Version
Climate: North

Lake City, FL

Reference City: Gainesville (Defaults) Winter Temperature Difference: 39.0 F

4/28/2006

Window	Panes/SHGC/Frame/U	Orientation	Area X	HTM=	Load
1	2, Clear, Metal, DEF	N	108.0	28.3	3056 Btuh
2	2, Clear, Metal, DEF	W	15.0	28.3	424 Btuh
3	2, Clear, Metal, DEF	W	10.0	28.3	283 Btuh
4	2, Clear, Metal, DEF	S	30.0	28.3	849 Btuh
5	2, Clear, Metal, DEF	E	4.0	28.3	113 Btuh
6	2, Clear, Metal, DEF	E	15.0	28.3	424 Btuh
Window Total			182		5151 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Exterior	13.0	1080	3.1	3348 Btuh
2	Frame - Adjacent	13.0	216	1.6	346 Btuh
Wall Total			1296		3694 Btuh
Doors	Type		Area X	HTM=	Load
1	Wood - Exter		60	17.9	1076 Btuh
2	Wood - Adjac		18	9.2	166 Btuh
Door Total			78		1242 Btuh
Ceilings	Type	R-Value	Area X	HTM=	Load
1	Under Attic	30.0	1450	1.3	1885 Btuh
Ceiling Total			1450		1885 Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab-On-Grade Edge Insul	0	162.0 ft(p)	31.6	5119 Btuh
Floor Total			162		5119 Btuh
Infiltration	Type	ACH X	Building Volume	CFM=	Load
	Natural	0.40	14500(sqft)	97	4155 Btuh
	Mechanical			0	0 Btuh
Infiltration Total				97	4155 Btuh

Totals for Heating	Subtotal	21246 Btuh
	Duct Loss(using duct multiplier of 0.05)	1062 Btuh
	Total Btuh Loss	22308 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)

System Sizing Calculations - Summer

Residential Load - Component Details

Lisa Riggs

Project Title:
Riggs Residence

Code Only
Professional Version
Climate: North

Lake City, FL

Reference City: Gainesville (Defaults)

Summer Temperature Difference: 18.0 F

4/28/2006

Window	Type	Overhang		Window Area(sqft)			HTM		Load		
	Panes/SHGC/U/InSh/ExSh Omt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded			
1	2, Clear, DEF, N, N	N	6	7	108.0	0.0	108.0	22	22	2376	Btuh
2	2, Clear, DEF, N, N	W	1.5	7	15.0	0.0	15.0	22	72	1080	Btuh
3	2, Clear, DEF, N, N	W	1.5	12	10.0	0.0	10.0	22	72	720	Btuh
4	2, Clear, DEF, N, N	S	1.5	7	30.0	15.0	15.0	22	37	885	Btuh
5	2, Clear, DEF, N, N	E	1.5	2	4.0	1.0	3.0	22	72	239	Btuh
6	2, Clear, DEF, N, N	E	1.5	7	15.0	0.0	15.0	22	72	1080	Btuh
Window Total					182					6380	Btuh
Walls	Type	R-Value			Area		HTM		Load		
1	Frame - Exterior	13.0			1080.0		1.7		1879 Btuh		
2	Frame - Adjacent	13.0			216.0		1.0		225 Btuh		
Wall Total					1296.0				2104 Btuh		
Doors	Type	R-Value			Area		HTM		Load		
1	Wood - Exter				60.0		10.0		599 Btuh		
2	Wood - Adjac				18.0		10.0		180 Btuh		
Door Total					78.0				778 Btuh		
Ceilings	Type/Color	R-Value			Area		HTM		Load		
1	Under Attic/Dark	30.0			1450.0		1.4		2059 Btuh		
Ceiling Total					1450.0				2059 Btuh		
Floors	Type	R-Value			Size		HTM		Load		
1	Slab-On-Grade Edge Insulation	0.0			162.0 ft(p)		0.0		0 Btuh		
Floor Total					162.0				0 Btuh		
Infiltration	Type	ACH			Volume		CFM=		Load		
	Natural	0.35			14500		84.8		1678 Btuh		
	Mechanical						0		0 Btuh		
	Infiltration Total						85		1678 Btuh		

Internal gain	Occupants	Btuh/occupant	Appliance	Load
	4	X 300 +	1200	2400 Btuh

Totals for Cooling	Subtotal	15399 Btuh
	Duct gain(using duct multiplier of 0.10)	1540 Btuh
	Total sensible gain	16939 Btuh
	Latent infiltration gain (for 51 gr. humidity difference)	2939 Btuh
	Latent occupant gain (4 people @ 230 Btuh per person)	920 Btuh
	Latent other gain	0 Btuh
TOTAL GAIN		20799 Btuh

Key: Window types (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/Draperies (Shor Roller Shades(R))
(ExSh - Exterior shading device: none(N) or numerical value)

Notice of Treatment

ADD 10
12142

Applicator: Florida Pest Control & Chemical Co. (www.flapest.com)

Address: Bays Ave

City: DAKE CITY Phone: 252 1103

Site Location: Subdivision N/A

Lot # Block# Permit # 24815

Address 456 SW Explorer 6L7

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

Type treatment: ☐ Soil ☒ Wood

Area Treated	Square feet	Linear feet	Gallons Applied
<u>Dwelling</u>	<u>2172</u>	<u>501</u>	<u>5</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

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

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

11/13/06
Date

08:30
Time

F250 GUNN
Print Technician's Name

Remarks: _____

Applicator - White

Permit File - Canary

Permit Holder - Pink

10/05

©

Notice of Treatment

Applicator: Florida Pest Control & Chemical Co. (www.flapest.com)

Address: 8011A Ave

City: Lake City Phone: 7521705

Site Location: Subdivision N/A

Lot # 17 Block# Permit # 24815

Address 456 SW Explorer Blvd

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

Type treatment: ☒ Soil ☐ Wood

Area Treated	Square feet	Linear feet	Gallons Applied
<u>Drilling (600 sq ft) Perch</u>	<u>2122</u>	<u>201</u>	<u>200</u>
<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>

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

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

9-13-06
Date

0830
Time

F254 GUNNY
Print Technician's Name

Remarks: _____

Applicator - White

Permit File - Canary

Permit Holder - Pink

10/05



Afn: Meggie

**Columbia County Building Department
Culvert Waiver**

**Culvert Waiver No.
000001168**

DATE: 01/02/2007

BUILDING PERMIT NO. 24815

APPLICANT KATIE REED

PHONE 752-4072

ADDRESS 2230 SE BAYA DRIVE

LAKE CITY

FL 3202

OWNER LISA RIGGS

PHONE _____

ADDRESS 456 SW EXPLORER GLEN

FT. WHITE

FL 32038

CONTRACTOR DON REED

PHONE 752-4072

LOCATION OF PROPERTY 47S, TL ON HERLONG RD, TR ON OLD WIRE RD, TL ON EXPLORER GLEN,

7TH LOT ON RIGHT

SUBDIVISION/LOT/BLOCK/PHASE/UNIT CROSS ROADS UNREC.

17

PARCEL ID # 12-6S-16-03816-117

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: x Katie Reed

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

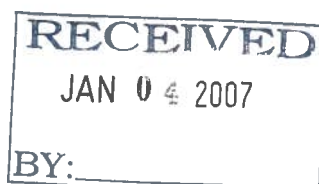
COMMENTS: Private Road

SIGNED: Everett Phillips
Louise Wilson

DATE: 1/5/07

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



COLUMBIA COUNTY FLORIDA DEPARTMENT OF BUILDING AND ZONING

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 12-6S-16-03816-117

Building permit No. 000024815

Use Classification SFD, UTILITY

Fire: 0.00

Permit Holder DON REED

Waste: 134.00

Owner of Building LISA RIGGS

Total: 0.00

Location: 456 SW EXPLORER GLEN (CROSS ROADS UNR L-17)

Date: 02/21/2007



[Signature]
Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)