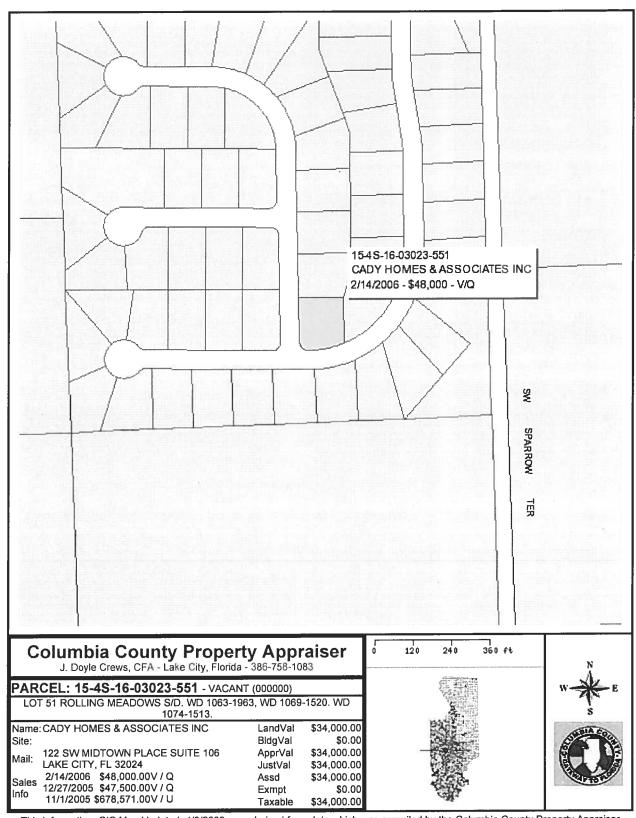
Missey Mecdon UL# 2526 **Columbia County Building Permit Application** For Office Use Only Application # 0605-12 Date Received & 6/3/04 By Permit # 1073/ 24491 Date 09.05.06 Plans Examiner OK JTH Date 5-6 Application Approved by - Zoning Official 31K Flood Zone X Arr Plat. Development Permit NIA Zoning RSF-2 Land Use Plan Map Category Res Land Development

Revised 9-23-04

	:
Applicants Name Linda Roder by M	elanie Roder Phone 752-2281
Address 387 Sw Vemp 4 Lai	le City FC 32024
Owners Name Cady 1-tones & Associ	
911 Address 123 S.W. Batter Car	
Contractors Name Arivan Cardy	Phone
Address 27 SW Midtown Pla	ce Suite 106 Cake City FL 32024
Fee Simple Owner Name & Address N A	
Bonding Co. Name & Address NA	
Architect/Engineer Name & Address Will W	yer IMark Disosway
Mortgage Lenders Name & Address Central	Florida State Rank.
Circle the correct power company - FL Fower &	Light - Clay Elec Suwannee Valley Elec Progressive Energ
Property ID Number 15-49-16-03023	-55/ Estimated Cost of Construction 1/0 K
Subdivision Name Rolling Mandows	SLot 5   Block Unit Phase
Driving Directions 90 will an Sister	ers Welcome, Ron Hope Henry, I on
Morning Glory Dr. Lot or	· Corner of Morning Glory &
Buttercup (9th lot down	on R)
Type of Construction 570	Number of Existing Dwellings on Property
Total Acreage 65 Lot Size Do you no	eed a - Culvert Permit or Culvert Walver or Have an Existing Drive
Actual Distance of Structure from Property Lines - F	ront 45' Side 43' Side 43' Recr 45'
Actual Distance of Structure from Property Lines - F  Total Building Height 2 9 Number of Stor  Porches 220 Garage 472	ront $45$ Side $43$ Side $93$ Regr $45$ ries Regr $45$
Actual Distance of Structure from Property Lines - F Total Building Height 2 9 Number of Stor  FUNCTION 12 POPULATE 12 POPULAT	riont 45' Side 43' Side $\frac{93'}{Rear}$ Rear $\frac{95'}{Rear}$ Roof Pitch $\frac{8-12}{Rear}$ work and installations as indicated. I certify that no work or of a permit and that all work be performed to meet the standards of
Actual Distance of Structure from Property Lines - Forcial Building Height 2   9" Number of Stor Purches 220 (APPE 472)  Application is hereby made to obtain a permit to do installation has commenced prior to the issuance of all laws regulating construction in this jurisdiction.	ront 45 Side 43 Side 93 Rear 45 Rear 4
Actual Distance of Structure from Property Lines - Forcial Building Height 2   9" Number of Store Paralle 220   Number of Stor	Heated Floor Area 1880 Roof Pitch 8-12 work and installations as indicated. I certify that no work or of a permit and that all work be performed to meet the standards of regoing information is accurate and all work will be done in construction and zoning.  D A NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING IT YOU INTEND TO OBTAIN FINANCING. CONSULT WITH YOUR
Actual Distance of Structure from Property Lines - Forcial Building Height 2   9" Number of Store Parallel 220 (APARE 472)  Application is hereby made to obtain a permit to do installation has commenced prior to the issuance of all laws regulating construction in this jurisdiction.  OWNERS AFFIDAVIT: I hereby certify that all the forcempliance with all applicable laws and regulating WARNING TO OWNER: YOUR FAILURE TO RECORTWICE FOR IMPROVEMENTS TO YOUR PROPERTY.	Heated Floor Area 1880 Roof Pfich 8-12 work and installations as indicated. I certify that no work or of a permit and that all work be performed to meet the standards of regoing information is accurate and all work will be done in construction and zoning.  D A NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING IT. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR
Actual Distance of Structure from Property Lines - Forcial Building Height 219" Number of Store Paralle 220 Garage 472  Application is hereby made to obtain a permit to do installation has commenced prior to the issuance of all laws regulating construction in this jurisdiction.  OWNERS AFFIDAVIT: I hereby certify that all the forcempliance with all applicable laws and regulating WARNING TO OWNER: YOUR FAILURE TO RECORTIVICE FOR IMPROVEMENTS TO YOUR PROPERTY LENDER OR ATTORNEY BEFORE RECORDING YOUR PROPERTY CONTROL OF THE PROPERTY OF THE	Heated Floor Area 1880 Roof Pitch 12 TOTAL 2572  work and installations as indicated. I certify that no work or of a permit and that all work be performed to meet the standards of regoing information is accurate and all work will be done in construction and zoning.  A NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR UR NOTICE OF COMMENCEMENT.
Actual Distance of Structure from Property Lines - Forcial Building Height 2   9" Number of Stor Porcials 220 (Arage 472)  Application is hereby made to obtain a permit to do installation has commenced prior to the issuance of all laws regulating construction in this jurisdiction.  OWNERS AFFIDAVIT: I hereby certify that all the forcompliance with all applicable laws and regulating WARNING TO OWNER: YOUR FAILURE TO RECORTIVICE FOR IMPROVEMENTS TO YOUR PROPERTY LENDER OR ATTORNEY BEFORE RECORDING YOUR OWNERS OF AUTORNEY BEFORE RECORDING YOUR PROPERTY LENDER OR ATTORNEY BEFORE RECORDING YOUR PROPERTY AND AUTORNEY BEFORE RECORDING YOUR PROPERTY BEF	Heated Floor Area 1880 Roof Pitch 12 Roof Pitch 12 Roof Pitch 15 Roof Pitch 16 Roof Pitch 17 Roof Pitch 17 Roof Pitch 17 Roof Pitch 17 Roof Pitch 18 Roof Pi
Actual Distance of Structure from Property Lines - Forcial Building Height 2   Number of Store Parallel 222   Number of Store Parallel 2222   Number of Store Parallel 2222   Number of Store Parallel 2222   Number of S	Heated Floor Area 1880 Roof Pitch 12 For B 2 5 72  work and installations as Indicated. I certify that no work or of a permit and that all work be performed to meet the standards of regoing information is accurate and all work will be done in construction and zoning.  DA NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR UR NOTICE OF COMMENCEMENT.  Contractor Ligarian Number Competency Card Number Competency Card Number
Actual Distance of Structure from Property Lines - Frotal Building Height 2   Number of Stor Parallel 222   Number of Stor Par	Heated Floor Area 1880 Roof Pfich 12 TOTAL 2572  work and installations as Indicated. I certify that no work or of a permit and that all work be performed to meet the standards of regoing information is accurate and all work will be done in construction and zoning.  DA NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING IT YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR UR NOTICE OF COMMENCEMENT.  Contractor lighture  Contractor
Actual Distance of Structure from Property Lines - Frotal Building Height 2   Number of Stor Paralle 222   Number of Stor Paralle 2222   Number of Stor Paralle 2	Heated Floor Area 1880 Roof Pitch 12 For B 2 5 72  work and installations as Indicated. I certify that no work or of a permit and that all work be performed to meet the standards of regoing information is accurate and all work will be done in construction and zoning.  DA NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR UR NOTICE OF COMMENCEMENT.  Contractor Lights Number Contractor Lights Number Competency Card Number Notary STAMP/SEAL
Actual Distance of Structure from Property Lines - Frotal Building Height 2   Number of Stor Parallel 222   Number of Stor Par	Heated Floor Area 1880 Roof Pitch 12 For B 2 5 72  work and installations as Indicated. I certify that no work or of a permit and that all work be performed to meet the standards of regoing information is accurate and all work will be done in construction and zoning.  DA NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR UR NOTICE OF COMMENCEMENT.  Contractor Lights Number Contractor Lights Number Competency Card Number Notary STAMP/SEAL



This information, GIS Map Updated: 4/6/2006, was derived from data which was compiled by the Columbia County Property Appraiser
Office solely for the governmental purpose of property assessment. This information should not be relied upon by anyone as a
determination of the ownership of property or market value. No warranties, expressed or implied, are provided for the accuracy of the data
herein, it's use, or it's interpretation. Although it is periodically updated, this information may not reflect the data currently on file in the
Property Appraiser's office. The assessed values are NOT certified values and therefore are subject to change before being finalized for ad
valorem assessment purposes.

Site Pan Site Pan Lot 51 Rolling Meadows 15-45-16-03023-551 Sw Morning Glory Dr. 81.521 Sw Buttercup Dr

Prepared by:
Michael H. Harrell
Abstract & Title Services, Inc.
283 NW Cole Terrace
Lake City, Florida 32055

### Warranty Deed

Individual to Individual

THIS WARRANTY DEED made the 14th day of February, 2006, Mark A. Cook, hereinafter called the grantor, to Cady Homes & Associates, Inc. whose post office address is: 122 SW Midtown Place, Suite 106, Lake City, FL 32024 hereinafter called the grantee:

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

Witnesseth: That the grantor, for and in consideration of the sum of \$10.00 and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys, and confirms unto the grantee, all that certain land situate in COLUMBIA County, Florida, viz: Parcel ID# R03023-551

Lot 51 of Rolling Meadows, a subdivision according to the plat thereof as recorded in Plat Book 8, Page 45 and 46, of the Public Records of Columbia County, Florida.

The above described property is not nor ever has been the Homestead of the Grantor and is in fact Vacant Land.

TOGETHER with all tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

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

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

Signed, sealed and delivered in our presence:

Printed Name:

Witness:

Printed Name:

STATE OF FLORIDA COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me this 14th day of February, 2006 by MARK A. COOK personally known to me or, if not personally known to me, who produced for identification and who did not take an oath.

(yrv0)

NEOLE COLETTE STORES
NE COANSSION & DO 486952
EXPRESE December 6, 2009
Booked Titru Natury Philip Universities

Inst:2006004014 Date:02/17/2006 Time:14:24

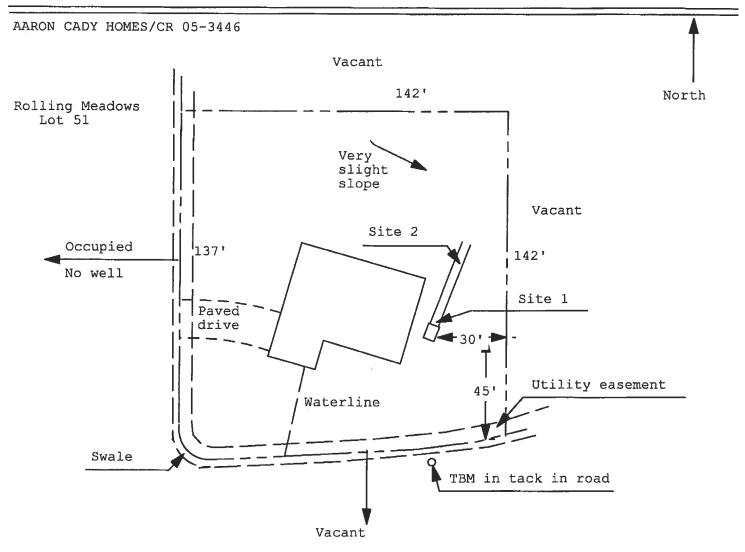
Doc Stamp Deed : 336.00

☑·グːDC,P.Dewitt Cason,Columbia County B:1074 P:1513

# Application for Onsite Sewage Disposal System Construction Permit. Part II Site Plan Permit Application Number: 06-0320N

RODER, LINDA

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



Maria de la companya		1	inch = 40 feet
Site Plan Submit	tted ByNot Approved_	Date Date	3/28/06
ву	02	Columbia	СРНИ
Notes:			

This Instrument Prepared By: Deniese Y. Clements Central Florida State Bank P.O. Box 3340 Belleview, FL 34421

#### NOTICE OF COMMENCEMENT

STATE OF FLORIDA COUNTY OF COLUMBIA

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

1. Description of Property: Lot 51, of Rolling Meadows, a subdivision according to the plat thereof as recorded in Plat Book 8, Page 45 and 46, of the Public Records of Columbia County, Florida.

Street Address: TBD S.W. Morning Glory Drive, Lake City, Florida 32024

- 2. General Description of the Improvements: Construction of Single Family Residence
- 3. Owner Information:
- a. Name and Address:

Cady Homes & Associates, Inc.

P.O. Box 123 Lake City, FL 32024

- b. Interest in Property: Fee Simple
- c. Name and Address of Fee /Simple Title Holder (if other than Owner):
- 4. Contractors Name and Address: Cady Homes & Associates, Inc.

Aaron Matthew Cady

P.O. Box 123

Lake City, FL 32024

5. Surety: N/A

Inst:2006004016 Date:02/17/2006 Time:14:24

💇 DC,P.DeWitt Cason,Columbia County B:1074 P:1517

6. Lender:

Central Florida State Bank Attention: Barbara Shope 11800 So. U.S. Hwy 441 Belleview, FL 34421

Phone: 352-347-4800 Fax: 352-347-4802

- 7. Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1)(a)7, Florida Statutes: Lender
- 8. In addition to himself, Owner designates the following persons to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statues: Lender
- 9. Expiration date of Notice of Commencement (the expiration date is 1 year from the date of recording unless a different date is specified):

Owner:

Cady Homes & Associates, Inc.

Aaron M. Cady, Vice Presiden

STATE OF FLORIDA COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me this day of February, 2006, by Aaron M. Cady the Vice President of Cady Homes & Associates, Inc., a Florida corporation, who is personally known to me or who has produced as identification.

Notary Public

votary I don

### Letter of authorization.txt

Notice of	Authorization
I Haron Cady Linda or Melanie Roda, do hereby	authorize
to be my representative and act on my be applying for a	haf in all aspects of
etic + building permit to be loc columbia county.	ated in
The name of the home owner is Coop Homes + Hssociates	•
Legal description 15-45-16-6302	3-55/
AARON M. CADY  Contractor's signature	Linda R. Roder Commission #DD303275 Expires: Mar 24, 2008 Bonded Thru Atlantic Bonding Co., Inc.
3-74-06  Date	Time R. Rody
Date	

Sworn and subscribed before me this 24 day of march, 200%

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs Residential Whole Building Performance Method A

<b>Project</b>	Name:
----------------	-------

Cady Homes & Associates - Lot 51

Address:

Lot: 51, Sub: Rolling Meadows, Plat:

City, State:

Lake City, FL 32025-

Owner: Climate Zone: Spec House North

Builder:

Cady Homes & Ass.

Permitting Office: **Columbia County** 

Permit Number:

24494

Jurisdiction Number:

7.21000

2. Single family 3. Number of uni 4. Number of Be 5. Is this a worst 6. Conditioned ff 7. Glass type 1 ar a. U-factor: (or Single or b. SHGC: (or Clear or 8. Floor types a. Slab-On-Grad b. N/A c. N/A 9. Wall types a. Frame, Wood b. Frame, Wood c. N/A d. N/A e. N/A 10. Ceiling types a. Under Attic b. N/A c. N/A 11. Ducts(Leak F	case? oor area (ft²) nd area: (Label reqd. by 13- Double DEFAULT) 7a. (D Fint DEFAULT) 7b. e Edge Insulation  Exterior Adjacent	Description Area	<ul> <li>12. Cooling systems <ul> <li>a. Central Unit</li> <li>b. N/A</li> <li>c. N/A</li> </ul> </li> <li>13. Heating systems <ul> <li>a. Electric Heat Pump</li> </ul> </li> <li>b. N/A</li> <li>c. N/A</li> </ul> <li>14. Hot water systems <ul> <li>a. Electric Resistance</li> </ul> </li> <li>b. N/A</li> <li>c. Conservation credits <ul> <li>(HR-Heat recovery, Solar</li> <li>DHP-Dedicated heat pump)</li> </ul> </li> <li>15. HVAC credits <ul> <li>(CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating)</li> </ul> </li>	Cap: 44.0 kBtu/hr
--	---	------------------	--	-------------------

Glass/Floor Area: 0.19

Total as-built points: 26889 Total base points: 27404

**PASS** 

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

PREPARED BY: Will Myers

DATE: 3- 21-06

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

OWNER/AGENT/

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:

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

# **SUMMER CALCULATIONS**

# Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 51, Sub: Rolling Meadows, Plat: , Lake City, FL, 32025-

PERMIT #:

	BASE					AS-	BUI	LT				
GLASS TYPES .18 X Condition Floor A	ned X BS	PM = F	Points	Type/SC	Ove Ornt	erhang Len		Area X	SPN	лх:	SOF =	= Points
.18 1880	.0	20.04	6781.5	Double, Clear	W	1.5	10.0	75.0	38.5	2	0.98	2828.4
				Double, Clear	W	1.5	10.0	6.0	38.5	2	0.98	226.3
				Double, Clear	N	7.5	10.0	40.0	19.2	20	0.76	581.1
				Double, Clear	W	10.5	10.0	63.0	38.5	2	0.52	1258.2
				Double, Clear	SW	10.5	10.0	20.0	40.1	6	0.48	385.9
				Double, Clear	S	7.5	10.0	15.0	35.8	7	0.57	304.2
				Double, Clear	N	1.5	8.0	30.0	19.2	0	0.97	557.1
				Double, Clear	N	1.5	8.0	6.0	19.2	:0	0.97	111.4
				Double, Clear	E	1.5	8.0	16.0	42.0	6	0.96	644.4
				Double, Clear	Е	7.8	10.0	13.3	42.0	6	0.58	324.5
				Double, Clear	Ε	1.5	10.0	56.0	42.0	6	0.98	2304.4
22				Double, Clear	S	1.5	8.0	15.0	35.8	7	0.92	496.7
				As-Built Total:				355.3				10022.6
WALL TYPES	Area X	BSPM	= Points	Туре		R	-Value	e Area	Х	SPM	l =	Points
Adjacent	148.0	0.70	103.6	Frame, Wood, Exterior			13.0	1396.7		1.50		2095.0
Exterior	1396.7	1.70	2374.4	Frame, Wood, Adjacent			13.0	148.0		0.60		88.8
Base Total:	1544.7		2478.0	As-Built Total:				1544.7				2183.8
DOOR TYPES	Area X	BSPM	= Points	Туре				Area	Х	SPM	=	Points
Adjacent	20.0	1.60	32.0	Exterior Insulated				20.0		4.10	_	82.0
Exterior	20.0	4.10	82.0	Adjacent Insulated				20.0		1.60		32.0
			02.0									
Base Total:	40.0		114.0	As-Built Total:				40.0				114.0
CEILING TYPE	<b>S</b> Area X	BSPM	= Points	Туре	,	R-Val	ue /	Area X S	SPM	X SC	M =	Points
Under Attic	1880.0	1.73	3252.4	Under Attic			30.0	1980.0	1.73 X	1.00		3425.4
Base Total:	1880.0		3252.4	As-Built Total:				1980.0				3425.4
FLOOR TYPES	Area X	BSPM	= Points	Туре		R	-Value	e Area	Χ	SPM	=	Points
Slab Raised	224.0(p) 0.0	-37.0 0.00	-8288.0 0.0	Slab-On-Grade Edge Insulat	ion		0.0	224.0(p	_	41.20		-9228.8
Base Total:			-8288.0	As-Built Total:				224.0				-9228.8

# **SUMMER CALCULATIONS**

# Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 51, Sub: Rolling Meadows, Plat: , Lake City, FL, 32025- PERMIT #:

	BASE		AS-BUILT						
INFILTRATION	Area X BSP	M = Points	Area X SPM = Points						
	1880.0 10.2		1880.0 10.21 19194.8						
	se Points: 23	532.7	Summer As-Built Points: 25711.9						
Total Summer Points	X System = Multiplier	Cooling Points	Total X Cap X Duct X System X Credit = Cooling Component Ratio Multiplier Multiplier Multiplier Points (System - Points) (DM x DSM x AHU)						
23532.7	0.4266	10039.1	(sys 1: Central Unit 44000 btuh ,SEER/EFF(11.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0(INS)         25712       1.00 (1.09 x 1.000 x 1.00) 0.310 0.950 8260.9         25711.9       1.00 1.090 0.310 0.950 8260.9						

# WINTER CALCULATIONS

# Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 51, Sub: Rolling Meadows, Plat: , Lake City, FL, 32025-

PERMIT #:

	BASE	1				AS	-BUI	LT				
GLASS TYPES .18 X Condition Floor Are		WPM =	Points	Type/SC	Ove Ornt	erhang Len		Area X	WP	мх	WOF	= Points
.18 1880.0	)	12.74	4311.2	Double, Clear	W	1.5	10.0	75.0	20.7	73	1.01	1563.5
				Double, Clear	W	1.5	10.0	6.0	20.7	73	1.01	125.1
				Double, Clear	N	7.5	10.0	40.0	24.5	58	1.01	997.6
				Double, Clear	W	10.5	10.0	63.0	20.7	73	1.17	1530.8
				Double, Clear	sw	10.5	10.0	20.0	16.7	74	1.63	544.9
				Double, Clear	S	7.5	10.0	15.0	13.3	30	2.27	451.9
				Double, Clear	N	1.5	8.0	30.0	24.5	8	1.00	738.0
				Double, Clear	N	1.5	8.0	6.0	24.5	8	1.00	147.6
				Double, Clear	Ε	1.5	8.0	16.0	18.7	79	1.02	306.7
				Double, Clear	Ε	7.8	10.0	13.3	18.7	<b>'</b> 9	1.22	305.6
				Double, Clear	Ε	1.5	10.0	56.0	18.7		1.01	1065.8
				Double, Clear	S	1.5	8.0	15.0	13.3	30	1.04	207.7
				As-Built Total:				355.3				7985.1
WALL TYPES	Area X	BWPM	= Points	Туре		R	-Value	Area	X	WPN	1 =	Points
Adjacent	148.0	3.60	532.8	Frame, Wood, Exterior			13.0	1396.7		3.40		4748.8
Exterior	1396.7	3.70	5167.8	Frame, Wood, Adjacent			13.0	148.0		3.30		488.4
				,								
Base Total:	1544.7		5700.6	As-Built Total:				1544.7				5237.2
DOOR TYPES	Area X	BWPM	= Points	Туре				Area	Х	WPN	1 =	Points
Adjacent	20.0	8.00	160.0	Exterior Insulated				20.0		8.40		168.0
Exterior	20.0	8.40	168.0	Adjacent Insulated				20.0		8.00		160.0
Base Total:	40.0		328.0	As-Built Total:				40.0				328.0
CEILING TYPES	Area X	BWPM	= Points	Туре	F	R-Value	e Ar	ea X W	/PM	X W	CM =	Points
Under Attic	1880.0	2.05	3854.0	Under Attic			30.0	1980.0	2.05 >	( 1.00		4059.0
Base Total:	1880.0		3854.0	As-Built Total:				1980.0				4059.0
FLOOR TYPES	Area X	BWPM	= Points	Туре		R	-Value	Area	Х	WPN	1 =	Points
Slab 2 Raised	24.0(p) 0.0	8.9 0.00	1993.6 0.0	Slab-On-Grade Edge Insulation	on		0.0	224.0(p		18.80		4211.2
Base Total:			1993.6	As-Built Total:				224.0				4211.2

# WINTER CALCULATIONS

# Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 51, Sub: Rolling Meadows, Plat: , Lake City, FL, 32025- PERMIT #:

BASE	AS-BUILT
INFILTRATION Area X BWPM = Po	nts Area X WPM = Points
1880.0 -0.59 -11	09.2 1880.0 -0.59 -1109.2
Winter Base Points: 1507	3.2 Winter As-Built Points: 20711.3
Total Winter X System = Heating Points Multiplier Points	Total X Cap X Duct X System X Credit = Heating Component Ratio Multiplier Multiplier Multiplier Points (System - Points) (DM x DSM x AHU)
15078.2 0.6274 946	(sys 1: Electric Heat Pump 44000 btuh ,EFF(6.8) Ducts:Unc(S),Unc(R),Gar(AH),R6.0 20711.3 1.000 (1.069 x 1.000 x 1.00) 0.501 0.950 10547.6 20711.3 1.00 1.069 0.501 0.950 10547.6

# **WATER HEATING & CODE COMPLIANCE STATUS**

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 51, Sub: Rolling Meadows, Plat: , Lake City, FL, 32025- PERMIT #:

BASE					AS-BUILT							
WATER HEA Number of Bedrooms	TING X	Multiplier	=	Total	Tank Volume	EF	Number of Bedrooms	х	Tank X Ratio	Multiplier	X Credit Multiplie	= Total
3		2635.00		7905.0	50.0	0.90	3		1.00	2693.56	1.00	8080.7
					As-Built To	otal:						8080.7

	CODE COMPLIANCE STATUS												
	BASE									AS	-BUILT		
Cooling Points	+	Heating Points	+	Hot Water Points	=	Total Points	Cooling Points	+	Heating Points	+	Hot Water Points	=	Total Points
10039		9460		7905		27404	8261	·	10548		8081		26889

**PASS** 



# **Code Compliance Checklist**

# Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 51, Sub: Rolling Meadows, Plat: , Lake City, FL, 32025- PERMIT #:

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

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

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

COMPONENTS	SECTION	REQUIREMENTS	CHECK	
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked cir 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.	ter 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	parate readily accessible manual or automatic thermostat for each system.		
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.		

Tested sealed ducts must be certified in this house.

# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

#### ESTIMATED ENERGY PERFORMANCE SCORE\* = 83.5

The higher the score, the more efficient the home.

Spec House, Lot: 51, Sub: Rolling Meadows, Plat: , Lake City, FL, 32025-

	0,000110	, doo, Lot. 01, Oub. 11011	ing inica	10000, 1 ldt. , Ldt. 0 0tty, 1 L, 0202	•	
1.	New construction or existing	New		12. Cooling systems		
2.	Single family or multi-family	Single family	_	a. Central Unit	Cap: 44.0 kBtu/hr	_
3.	Number of units, if multi-family	1			SEER: 11.00	_
4.	Number of Bedrooms	3		b. N/A		_
5.	Is this a worst case?	No	_			_
6.	Conditioned floor area (ft²)	1880 ft²	·	c. N/A		_
7.	Glass type 1 and area: (Label reqd.	by 13-104.4.5 if not default)				
a.	U-factor:	Description Area	1	13. Heating systems		
	(or Single or Double DEFAULT)	7a. (Dble Default) 355.3 ft <sup>2</sup>	_	a. Electric Heat Pump	Cap: 44.0 kBtu/hr	_
b.	SHGC:	,			HSPF: 6.80	_
	(or Clear or Tint DEFAULT)	7b. (Clear) 355.3 ft <sup>2</sup>	_	b. N/A		_
8.	Floor types	, ,				
a.	Slab-On-Grade Edge Insulation	R=0.0, 224.0(p) ft	<u> </u>	c. N/A		_
b.	. N/A		_			_
c.	N/A		1	14. Hot water systems		
9.	Wall types		_	a. Electric Resistance	Cap: 50.0 gallons	-
a.	Frame, Wood, Exterior	R=13.0, 1396.7 ft <sup>2</sup>			EF: 0.90	
b.	Frame, Wood, Adjacent	R=13.0, 148.0 ft <sup>2</sup>		b. N/A		_
c.	N/A					_
d.	N/A			c. Conservation credits		_
e.	N/A		<del></del>	(HR-Heat recovery, Solar		
10.	Ceiling types		_	DHP-Dedicated heat pump)		
a.	Under Attic	R=30.0, 1980.0 ft <sup>2</sup>	1	15. HVAC credits	PT,	_
b.	N/A	,		(CF-Ceiling fan, CV-Cross ventilation,	,	
c.	N/A			HF-Whole house fan,		
11.	Ducts(Leak Free)		<del>55.7 (c.</del> -	PT-Programmable Thermostat,		
	Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 50.0 ft		MZ-C-Multizone cooling,		
	N/A	,	-	MZ-H-Multizone heating)		
			_	J.		
	rtify that this home has compli-		-	-	THE STA	
	struction through the above en				TO TO	B
in tl	his home before final inspection	n. Otherwise, a new EPL	Display (	Card will be completed		Be
base	ed on installed Code compliant	features.		-	7	爿
	lder Signature:		Date: _		B	
	lress of New Home:		City/FI	7:m.		
Auc	TIESS OF IMEM LIGHTE!		City/F1	∟ ŁIP.	WON THE THE	

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

# **Energy Code Compliance**

## **Duct System Performance Report**

Project Name:

Cady Homes & Associates - Lot 51

Address:

City, State:

Lake City, FL 32025-

Owner:

Spec House

Climate Zone: North

- º Associatos | Let E1

Builder:

Cady Homes & Ass.

Permitting Office: Permit Number:

Jurisdiction Number:

Columbia County

### **Total Duct System Leakage Test Results**

CFM2	CFM25 Total Duct Leakage Test Values				
Line	System	Duct Leakage Total	Duct Leakage to Outdoors		
1	System1	cfm25(tot)	cfm25(out)		
2	System2	cfm25(tot)	cfm25(out)		
3	System3	cfm25(tot)	cfm25(out)		
4	System4	cfm25(tot)	cfm25(out)		
5	Total House Duct System Leakage	Sum lines 1-4  Divide by  (Total Conditioned Floor Area)  =(Q <sub>n</sub> ,tot)  Receive credit if Q <sub>n</sub> ,tot≤ 0.03	Sum lines 1-4  Divide by  (Total Conditioned Floor Area)  =(Q_n,out)  Receive credit if Q_n,out≤ 0.03  AND Q_n,tot≤ 0.09		

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

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Florida Rater Certification #: \_\_\_\_\_

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

Cla htt

testing to confirm leak free duct systems be performed by a Class 1 Florida Energy Gauge Certified Energy Rater. Certified Florida Class 1 raters can be found at: http://energygauge.com/search.htp

Florida Building Code requires that



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

# **Columbia County Building Department Culvert Permit**

# Culvert Permit No. 000001073

DATE 05/10	0/2006 PARCEL ID # 15-4S-	16-03023-551				
APPLICANT	APPLICANT AARON CADY PHONE 867-1458					
ADDRESS _	122 SW MIDOWN PLACE	LAKE CITY	FL	32024		
OWNER AA	ARON CADY	PHONE 752-2281				
ADDRESS 12	23 SW BUTTERCUP DRIVE	LAKE CITY	FL	32024		
CONTRACTO	R CADY HOMES	PHONE 867-1458	3			
LOCATION OF	F PROPERTY 90W, TL ON SISTERS WELCOME,	TR ON HOPE HENRY, TL O	N MORNI	ING		
GLORY DR., LOT	ON CORNER OF MORNING GLORY & BUTTERCUP,	, 9TH ON RIGHT				
SUBDIVISION	/LOT/BLOCK/PHASE/UNIT ROLLING MEAD	OWS 51				
SIGNATURE	Chr					
	INSTALLATION REQUIREMENTS					
X						
	INSTALLATION NOTE: Turnouts will be re a) a majority of the current and existing driv b) the driveway to be served will be paved of Turnouts shall be concrete or paved a min concrete or paved driveway, whichever is current and existing paved or concreted to	veway turnouts are paved, or formed with concrete. himum of 12 feet wide or to greater. The width shall of	the widtl			
	Culvert installation shall conform to the appro-	oved site plan standards.				
	Department of Transportation Permit installation	ion approved standards.				
	Other		_	<del></del>		
		.,,,,				

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

135 NE Hernando Ave., Suite B-21 Lake City, FL 32055

Phone: 386-758-1008 Fax: 386-758-2160

Amount Paid 25.00





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: 0605–12

Contractor Cady Homes Owner Cady Homes & Associates Inc. Lot 51 of Rolling Meadows Subdivision

On the date of May 5, 2006 application 0605-12 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 0605-12 when making reference to this application.

1. 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.
- 2. Please show compliance for the window area in the master bathroom spa area. FRC-2004 section R308.4 Hazardous locations: Glazing in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers. Glazing in any part of a building wall enclosing these compartments where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface. Each pane of glazing installed in hazardous locations as defined in Section R308.4 shall be provided with a manufacturer's or installer's label, designating the type and thickness of glass and the safety glazing standard with which it complies, which is visible in the final installation. The label shall be acid etched, sandblasted, ceramic-fired, embossed mark, or shall be of a type which once applied cannot be removed without being destroyed.
- 3. The electrical plan shows the location of the electrical service, Please indicate on the electrical plan that an overcurrent protection device will 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.

Thank you,

Joe Haltiwanger

Plan Examiner

Columbia County Building Department

Lot SI Wadows

#### COLUMBIA COUNTY BUILDING DEPARTMENT

# RESIDENTIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR FLORIDA BUILDING CODE 2001

### ONE (1) AND TWO (2) FAMILY DWELLINGS

ALL REQUIREMENTS ARE SUBJECT TO CHANGE EFFECTIVE MARCH 1, 2002

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

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

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

#### APPLICANT - PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL

GENERAL	REQUIREME	NTS: Two (2) complete sets of plans containing the following:
Applicant	Plans Examine	
	D	All drawings must be clear, concise and drawn to scale ("Optional" details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.
0		Designers name and signature on document (FBC 104.2.1). If licensed architect or engineer, official seal shall be affixed.
p ,	8	Site Plan including:  a) Dimensions of lot  b) Dimensions of building set backs  c) Location of all other buildings on lot, well and septic tank if applicable, and all utility easements.  d) Provide a full legal description of property.
Ø	D	Wind-load Engineering Summary, calculations and any details required  a) Plans or specifications must state compliance with FBC Section 1606
	al ser	<ul> <li>b) The following information must be shown as per section 1606.1.7 FBC</li> <li>a. Basic wind speed (MPH)</li> <li>b. Wind importance factor (I) and building category</li> <li>c. Wind exposure — if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated</li> <li>d. The applicable internal pressure coefficient</li> <li>e. Components and Cladding. The design wind pressure in terms of psf (kN/m²), to be used for the design of exterior component and cladding materials not specifally designed by the registered design professional</li> </ul>
B	ם	Elevations including:
Ø	0	a) All sides
<b>B</b>	ם	b) Roof pitch
B	0	c) Overhang dimensions and detail with attic ventilation
Ø		d) Location, size and height above roof of chimneys
a a a a a a a a a a a a a a a a a a a	D D	e) Location and size of skylights
Ø	D	f) Building height
D	п	e) Number of stories

17		Floor Plan including:	
	Ď	a) Rooms labeled and dimensioned	
E /	0	b) Shear walls	
B		c) Windows and doors (including garage doors) showing size, mfg., approval listing and attachment specs. (FBC 1707) and safety glazing where needed (egress windows in bedrooms to be shown)	
		d) Fireplaces (gas appliance) (vented or non-vented) or wood burning with hearth	
	O	e) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails	
O O		f) Must show and identify accessibility requirements (accesssable bathroom)  Foundation Plan including:	
0		a) Location of all load-bearing wall with required footings indicated as standard Or monolithic and dimensions and reinforcing	
_		b) All posts and/or column footing including size and reinforcing	
	0	c) Any special support required by soil analysis such as piling	
	0	d) Location of any vertical steel	
		Roof System:	
-	-	a) Truss package including:	
U		1. Truss layout and truss details signed and sealed by Fl. Pro. Eng.	
		<ol> <li>Roof assembly (FBC 104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)</li> </ol>	
-		b) Conventional Framing Layout including:	
0	0	1. Rafter size, species and spacing	
		2. Attachment to wall and uplift	
		3. Ridge beam sized and valley framing and support details	
		<ol> <li>Roof assembly (FBC 104.2.1 Roofing systems, materials, manufacturer, fastening requirements and product evaluation with</li> </ol>	
		wind resistance rating)	
1000		Wall Sections including:	
		a) Masonry wall	
		<ol> <li>All materials making up wall</li> <li>Block size and mortar type with size and spacing of reinforcement</li> </ol>	
	3	3. Lintel, tie-beam sizes and reinforcement	
		4. Gable ends with rake beams showing reinforcement or gable truss	
		and wall bracing details	
		5. All required connectors with uplift rating and required number and	
		size of fasteners for continuous tie from roof to foundation	
		6. Roof assembly shown here or on roof system detail (FBC 104.2.1	
		Roofing system, materials, manufacturer, fastening requirements	
		and product evaluation with resistance rating)	
		7. Fire resistant construction (if required)	
		8. Fireproofing requirements	
		9. Shoe type of termite treatment (termiticide or alternative method)	
	<	10. Slab on grade	
		a. Vapor retarder (6mil. Polyethylene with joints lapped 6 inches and sealed)	
		b. Must show control joints, synthetic fiber reinforcement of	
		Welded fire fabric reinforcement and supports	
		11. Indicate where pressure treated wood will be placed	
		12. Provide insulation R value for the following:	
		a. Attic space	
		b. Exterior wall cavity	
		c. Crawl space (if applicable)	
		e. Class space (it application)	

. n			
	_/		b) Wood frame wall
	D.		1. All materials making up wall
			2. Size and species of studs
			3. Sheathing size, type and nailing schedule
			4. Headers sized
		*	5. Gable end showing balloon framing detail or gable truss and wall
			hinge bracing detail
			6. All required fasteners for continuous tie from roof to foundation
			(truss anchors, straps, anchor bolts and washers)
			7. Roof assembly shown here or on roof system detail (FBC104.2.1
			Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)
			8. Fire resistant construction (if applicable)
			9. Fireproofing requirements
			10. Show type of termite treatment (termiticide or alternative method)
			11. Slab on grade
			a. Vapor retarder (6Mil, Polyethylene with joints lapped 6
		Ş.	inches and sealed
			b. Must show control joints, synthetic fiber reinforcement or
			welded wire fabric reinforcement and supports
			12. Indicate where pressure treated wood will be placed
			13. Provide insulation R value for the following:
			a. Attic space
			<ul><li>b. Exterior wall cavity</li><li>c. Crawl space (if applicable)</li></ul>
			c. Crawl space (if applicable) c) Metal frame wall and roof (designed, signed and sealed by Florida Prof.
	D		Engineer or Architect)
			Floor Framing System:
	19	D	a) Floor truss package including layout and details, signed and sealed by Florida
	п		Registered Professional Engineer
	6		b) Floor joist size and spacing
	0	. 0	c) Girder size and spacing
	n/	D	d) Attachment of joist to girder
	र्व	0	e) Wind load requirements where applicable
	_		Plumbing Fixture layout
		Q.	Electrical layout including:
	<b>1</b>		a) Switches, outlets/receptacles, lighting and all required GFCI outlets identified
	<b>5 7 9 9 9</b>		b) Ceiling fans
	ď/	O	c) Smoke detectors
	ď,	Ö	d) Service panel and sub-panel size and location(s)
	EI /		e) Meter location with type of service entrance (overhead or underground)
	e		f) Appliances and HVAC equipment
	/		HVAC information  a) Manual J sizing equipment or equivalent computation
	B/	0	b) Exhaust fans in bathroom
		0	Energy Calculations (dimensions shall match plans)
(4)	Ø	0	Gas System Type (LP or Natural) Location and BTU demand of equipment
	0	u	Disclosure Statement for Owner Builders
			Notice Of Commencement
			Private Potable Water
			a) Size of pump motor
			b) Size of pressure tank
			c) Cycle stop valve if used



FEB - 4 RET

January 31, 2002

#### TO: OUR FLORIDA CUSTOMERS:

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

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

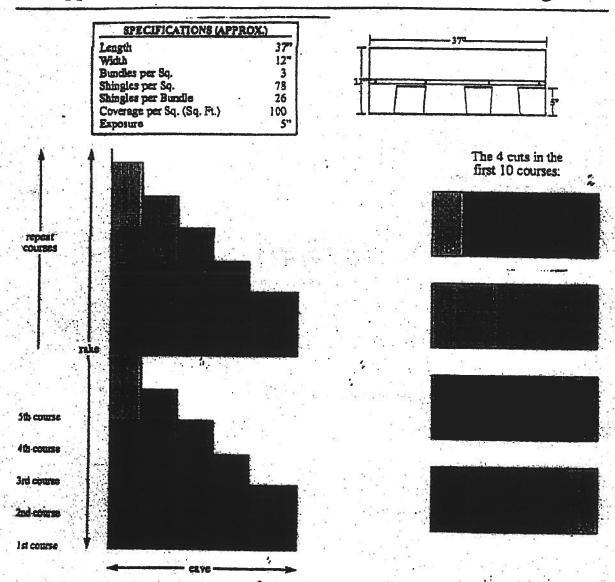
All testing was performed by Florida State certified independent labs.

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

TAMKO Roofing Products, Inc.



# Application Instructions For Heritage® 25 Series Shingles



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

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

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

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



### Application Instructions for

# · Glass-Seal AR

# · Elite Glass-Seal® All

#### THEER-TAR ASPHALT SHIVELES

These are the manufacturer's application instructions for the roofing conditions described. Tanko roofing products, inc. assumes no responsibility for leaks or other roofing defects resulting from failure to follow the manufacturer's instructions.

This product is covered by a limited warranty, the terms of which are printed on the wrapper. In cold weather (below 40°F), care must be taken to avoid damage to the edges and corners of the shingles.

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

#### 1. ROOF BEEK

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

NEWROOF DECK CONSTRUCTION: Roof deck must be smooth, dry and feat from warped surfaces. It is recommended that metal drip edges be installed at eaves and rakes.

PLYWOOD: All phywood shall be exterior grade so defined by the American Physicol Association. Phywood shall be a minimum of 3/8 in. thickness and applied in accordance with the recommendations of the American Physicol Association.

SMEATHING SCARDS: Source shall be well-assumed longue-andgrows boards and not over 5 in. nominal width. Boards shall be si 1 in. nominal minimum shickness. Source shall be properly spaced and nalled.

#### 2. TENTILETION.

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

- 1. Vapor Condensation
- 2. Buckling of skingles due to deck movement.
- 3. Rolling of wood members.
- 4. Premeture failure of roof.

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

PHA minimum property standards require one square foot of net free ventilation area to each 150 square feet of space to be vented, or one square foot per 300 square feet if a venter tention is installed on the ventilation is provided near the fidge. If the ventilation openings are screened, the total area should be doubled.

IT IS PARTICULARLY IMPORTANT TO PROVIDE ADEQUATE VEH-TILATION.

#### J. PASTERDING

NABS: TAMKO recommends the use of naits as the preferred method of scales inc.

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

conditions may impade the sealing of the adhesive strips on the shingles. The inability to seel down may be compounded by prolonged cold weather conditions endfor blowing dust, in these situations, hand sealing of the shingles is recommended. Shingles must also be fastened according to the fastening instructions described below.

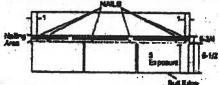
Correct placement of the fasteners is critical to the performance of the shingle. If the fasteners are not placed as shown in the diagrafs and described below, TAMKO will not be responsible for any shingles blown off or displaced. TAMKO will not be responsible for damage to shingles caused by winds or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

FASTENING PATTERNS: Fasteners must be placed above or below the factory applied sestant in an area between 5-1/2" and 5-1/4" from the butt edge of the shingle. Pasteners about the located herizontally according to the diagram below. Do not not into the seatant. TAMKO recommends noting below the seatant whenever possible for greater wind resistance.

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



2) Manaard or High Wind Fastening Pattern. (For use on decks with slopes grader than 21 in. per foot.) One fastener 1 in: best from each end and one fastener 10-1/2 in. back from each end and one fastener 13-1/2 in. back from each end for a total of 5 fastener per shingle, (See Manaard fastening pattern illustrated below.)



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

(Configured)

Visit Our Web Site at

The tree arrest.

Central District Northeast District Southeast District Southwest District Western District 220 West 4th St., Joplin, MO 64801 4500 Temko Dr., Frederick, MD 21701 2300 35th St., Tuscaloosa, AL 35401 7910 S. Central Exp., Delias, TX 75216 5300 East 43rt/Ava., Denver, CO 60218

800-541-4691 800-368-2065 800-228-2656 800-443-1834 800-530-8888

07/01

ELTAR ASPEALT STREET

with quick setting asphalt adhesive coment immediately upon installation. Spots of cament must be aquivalent in size to a 3.25 piece and applied to chingles with a 5 in. exposure, use 5 festeners per chingle. See Section 3 for the Mansard Fastening Pattern.

#### E. REMODING

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

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

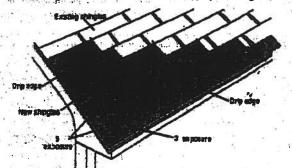
If re-rooting over an existing roof where new fashing is required to protect against ice dams (freeze/thew cycle of water and/or the backup of water in frozen or clogged gutters), remove the old rooking to a point at least 24 in. beyond the interior wall the and apply TAMKO's Moisture Guard Plus waterproofing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

The nepting processive described below letthe preferred method for re-rooting over equate lab skip shingles with a 5 ln. exposure.

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

First Gourse: Cut off approximately 2 in, from the bottom edge of the shingles on that the stangles fit beneath the existing third course and align with the edge of the starter strip. Start the first course with a full 35 in. long shingle and fasten according to the instructions printed in Section 3, and the state of the contract of the c

Bacomi and Succeeding Gourges; According to the off-set applica-ion method you choose to use, remove the appropriate length from the



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

#### S. TALLEY APPLICATION

Over the shingle underlayment, center a 36 in, wide sheet of TANKO Nall-Past\* or a minimum 50 thr roth roofing in the valley. Nati the fall only where necessary to hold it in place and then only hall the outside

edges. IMPORTANT: PRIOR TO INSTALLATION WARM SHINGLES TO PRE-VENT DAMAGE WHICH CAN OCCUR WHILE BENDING SHINGLES TO FORM VALLEY.

Apply the first course of shingles slong the caves of one of the intersecting roof planes and across the valley.

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

- Extend the end shingle at least 12 in. onto the adjoining mot Apply successing courses in the same marrier, extending from ac the velley and onto the adjoining roof.
- Do not trim if the shingle length exceeds 12 in, Lengths should vary.
- Press the shingles tightly into the valley.
  Use normal shingle fastening methods.

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

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

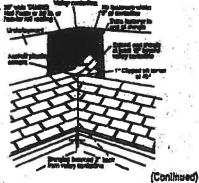
Note: For a neater installation, arrap a challeine over the shingles for quidance.

- Clip the upper comer of each shingle at a 45-degree engle and embed the end of the shingle in a 3 in. wide stip of exphall plastic coment. This will prevent water from penetrating between the courses by directing it into
- CAUTION: Adheshie must be analist in smooth, thin, even layers.

the valley.

Excessive use of adhesive will cause blistering to this product.

TAMKO assumes no responsibility for blistering.



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> to program the sequence of a markets, in the state of the second

Central District Northeast District Southeast District Southwest District **Western District** 

220 West 4th St., Joplin, MO 64801 4500 Tamko Dr., Frederick, ND 21701 2300 35th St., Tuscaloosa, AL 35401 7910 S. Central Exp., Dellas, TX 75216 5300 East 43rd Ave., Denver, CO 80216

800-841-4691 800-368-2065 800-228-2656 800-443-1834 800-530-8868 07/01



 (CONTINUED from Pg. 3)

- Glass-Seal AR

TOWARD WE II

· Elite Glass-Seal® AR

THREE-TAR ASPEAUT SHIVELES

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

### 19. HP AND REDGE PASTERING BETAIL

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

TANKO recommends the use of TANKO Hip & Ridge shingle products. Where matching colors are systable, it is acceptable to use TANKO's Glass-Seal or Ellis Glass-Seal shingles out down to 12 in. pieces.

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

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

วารมาก ผลเมาะของเกิดเกลาการทำทั้ง เพิ่ม (การที่ พ.ศ. 1 เทศได้เกิด เรื่องเหมือน (พ. 1975) เมาะ (การที่

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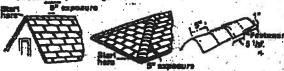
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State out the face than

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

These are the manufacturer's application instructions for the roofing conditions described. Tanko Roofing products, inc. assumes no responsibility for Leaks or other roofing defects resulting from falure to follow the manufacturer's instructions.

Direction of preveiling wind



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

#### IMPORTANT - READ CAREFULLY BEFORE OPENING BUNDLE

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

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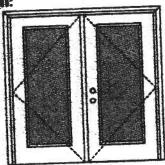
800-841-4691 800-358-2055 800-228-2656 800-443-1834 07/01

800-830-8868

5868

# WOOD-EDGE STEEL DOORS

## APPROVED ARRANGEMENT



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 Molecum unit size = 80° x 6'8°

Design Pressure +40.5/-40.5

Large Misalio Impact Resistance

Hurricane protective system (shutters) is REQUIRED.

### MINIMUM ASSEMBLY DETAIL:

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

## MINIMUM INSTALLATION DETAIL:

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

### APPROVED DOOR STYLES: 1/4 BLASS:











1/2 GLASS:

















"This glass lit may also be send in the following door object 5-panel; 6-panel with scroll; Eyebsow 6-panel; Eyebsow 6-panel with scroll.



# WOOD-EDGE STEEL DOORS

# APPROVED DOOR STYLES: 3/4 GLASS:

















CERTIFIED TEST REPORTS:

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

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

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Evaluation report NCTL-210-2794-1

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

Frame constructed of wood with an extruded aluminum bumper threshold.

### PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH MIAMI-DADE BCCO PA202

COMPANY NAME

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

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

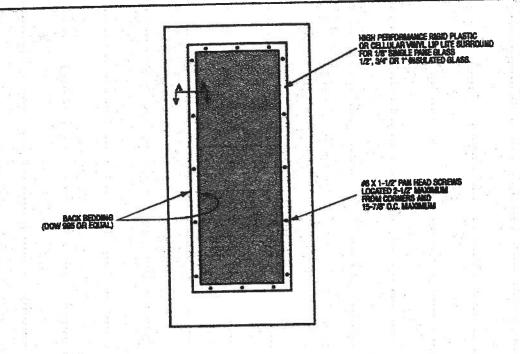
Johnson Extrasporturas

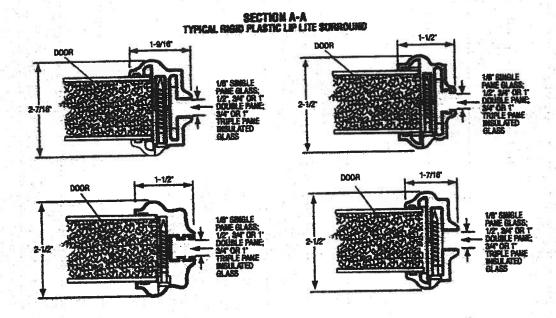
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#### MAD-WI-MACO41-62

### GLASS INSERT IN DOOR OR SIDELITE PANEL

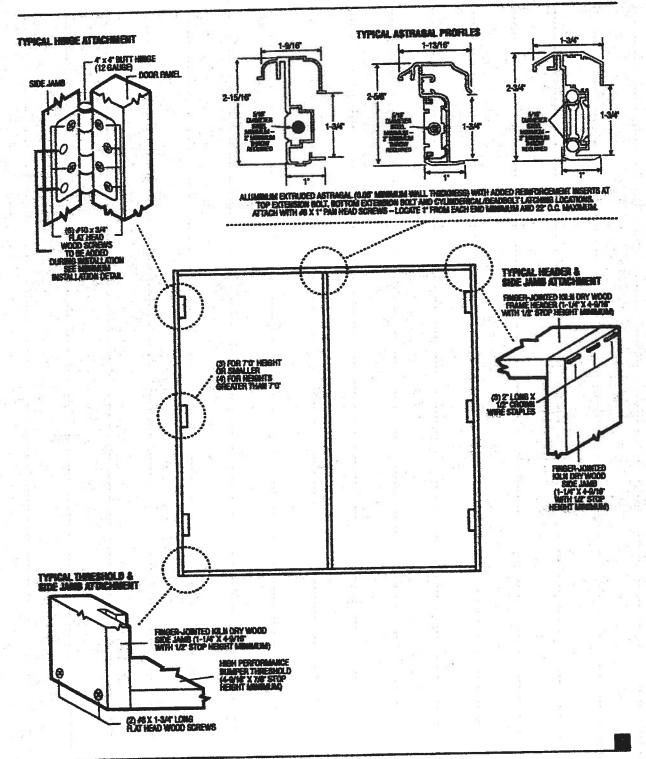






### MAD-WL MA0012-02

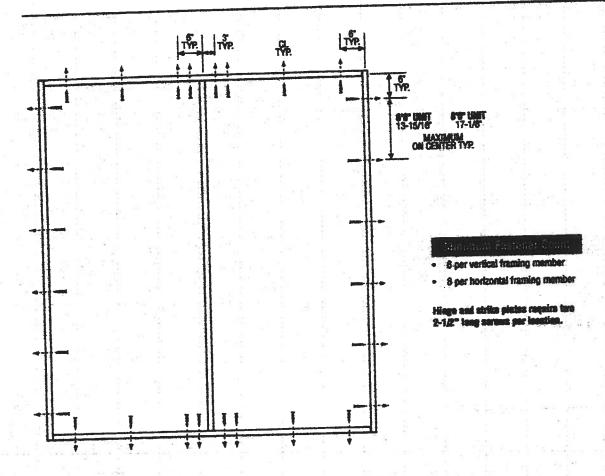
### OUTSWING UNITS WITH DOUBLE DOOR



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### DOUBLE DOOR



### Latching Hardware:

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

#### Notes:

- 1. Anchor calculations have been carried out with the lowest (least) festener rating from the different festeners being considered for use. Fasteners analyzed for this unit include #6 and #10 wood screws or 3/16" Tapcons.
- 2. The wood screw single shear design values come from Table 11.3A of ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment. The 3/16" Tapcon single shear design values come from the ITW and ELCO Dade Country approvals respectively, each with minimum 1-1/4" embedment.
- 3. Wood bucks by others, must be anchored properly to transfer loads to the structure.





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

### Rendered to:

### MI HOME PRODUCTS, INC.

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

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

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

For ARCHITECTURAL TESTING, INC.

Mark A. Hess, Technician

MAHinlb



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

#### Rendered to

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

Report No: 01-41134.01

Test Date:

03/07/02

Report Date:

03/26/02

Expiration Date:

03/07/06

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

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

### Test Specimen Description:

Series/Model: 650 Fin

Type: Aluminum Single Hung Window

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

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

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

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

Finish: All aluminum was white.

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

130 Deny Court York, PA 17402-9405 phone; 717.764.7700 fex: 717.764.4129 www.archtest.com

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### Test Specimen Description: (Continued)

### Weatherstripping:

Quantity	Location
1 Row	Fixed meeting rail
2 Rows	Active sash stiles
4 Pieces	Active sash, top and bottom of stiles
1 Row	Active sash, bottom rail
	1 Row 2 Rows 4 Pieces

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

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

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

### Hardware:

Description	Quantity	Location
Metal cam lock with keeper		Midspan, active meeting rail with keeper adjacent on fixed meeting rail
Plastic tilt latch	2	Active sash, meeting rail ends
Metal tilt pin	2	Active sash, bottom rail ends
Balance assembly	2	One in each jamb
Screen plunger	2	4" from rail ends on top rail KG. 188
		TATE OF E
		CHAPAIL 2002 MANDIAL ENGINEER





Test Specimen Description: (Continued)

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized.

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

### Test Results:

The results are tabulated as follows:

Paragraph	Title of Test - Test Method	Results	Allowed	
2.2.1.6.1	Operating Force	11 lbs	30 lbs max	
	Air Infiltration (ASTM E 283-91)			
	@ 1.57 psf (25 mph)	0.13 cfm/ft <sup>2</sup>	0.3 cfm/ft <sup>2</sup> max	10 CM

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

	Water Resistance (ASTM E 5. (with and without screen)	47-00)	
	WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (AS	TM E 330-97)	
	(Loads were held for 33 second	laires on the manual	ail)
1. 1. 19	@ 25.9 psf (positive) @ 34.7 psf (negative)	0.42**	0.26" max.
Allegania de la co		0.43**	0.26" max.

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

2.1.4.2	Uniform Load Structural (AST (Measurements reported were a (Loads were held for 10 second	eliana an all	rail)
	@ 38.9 psf (positive)	0.02"	0.18" max.
	@ 52.1 psf (negative)	0.02"	0.18" max.

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### Test Specimes Description: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
2.2.1.6.2	Deglazing Test (ASTM E 987) In operating direction at 70 lbs		
	Meeting rail Bottom rail	0.12"/25% 0.12"/25%	0.50"/100% 0.50"/100%
	In remaining direction at 50 lbs		
	Left stile Right stile	0.06"/12% 0.06"/12%	0.50°/100% 0.50°/100%
	Forced Entry Resistance (ASTA	4 F 588-97)	
	Type: A Grade: 10		
	Lock Manipulation Test	No entry	No entry
tien ki	Tests A1 through A5 Test A7	No entry No entry	No entry No entry
	Lock Manipulation Test	No entry	No entry
Optional Per	formance		
4.3	Water Resistance (ASTM E 547 (with and without screen)	-00)	
	WTP = 6.00 psf	No leakage	No leakage
	Uniform Load Deflection (ASTA (Measurements reported were tal	A E 330-97)	
	A SECUMAL	cen on the meeting rail)	
	@ 45.0 psf (positive) @ 47.2 psf (negative)	0.47"* 0.46"*	0.26" max. 0.26" max.
*Exceeds 7/15	75 cm and and		U.ZO MEX,

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

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

@ 70.8 psf (negative)

0.05"

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01-41134.01 Page 5 of 5

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

For ARCHITECTURAL TESTING, INC:

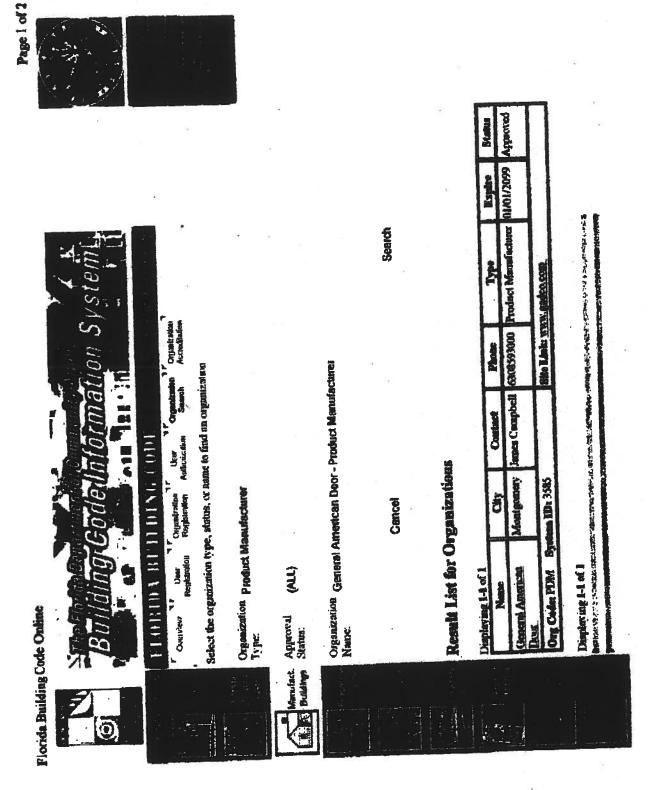
1.4 Technician

MAH:nlb 01-41134.01 Allen N. Reeves, P.E.

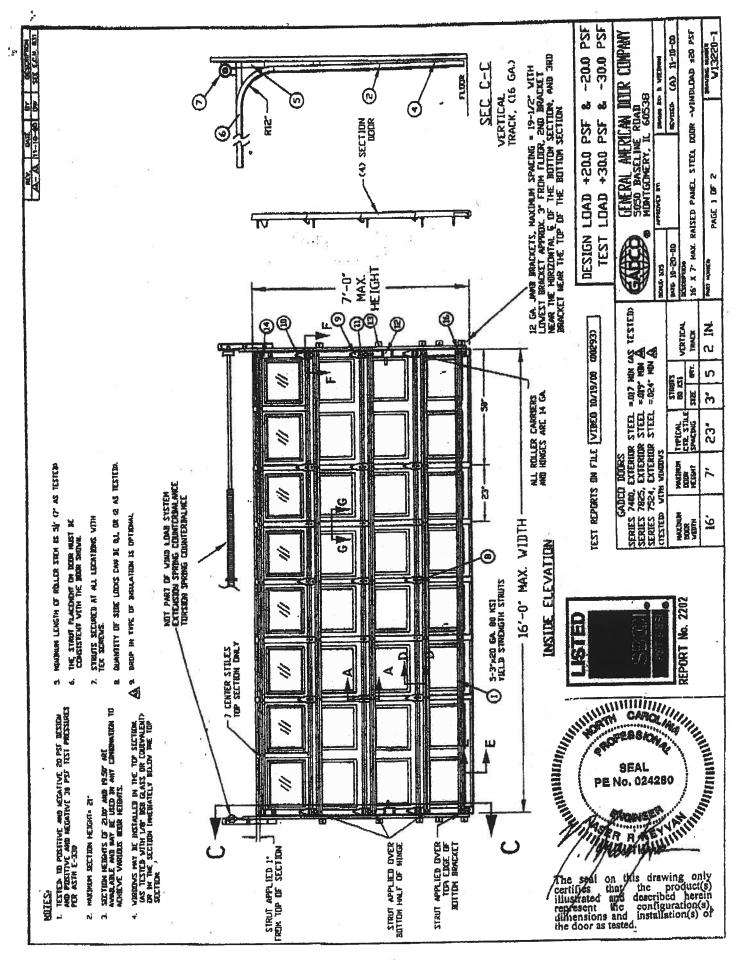
Director - Engineering Services I APRIL 2002

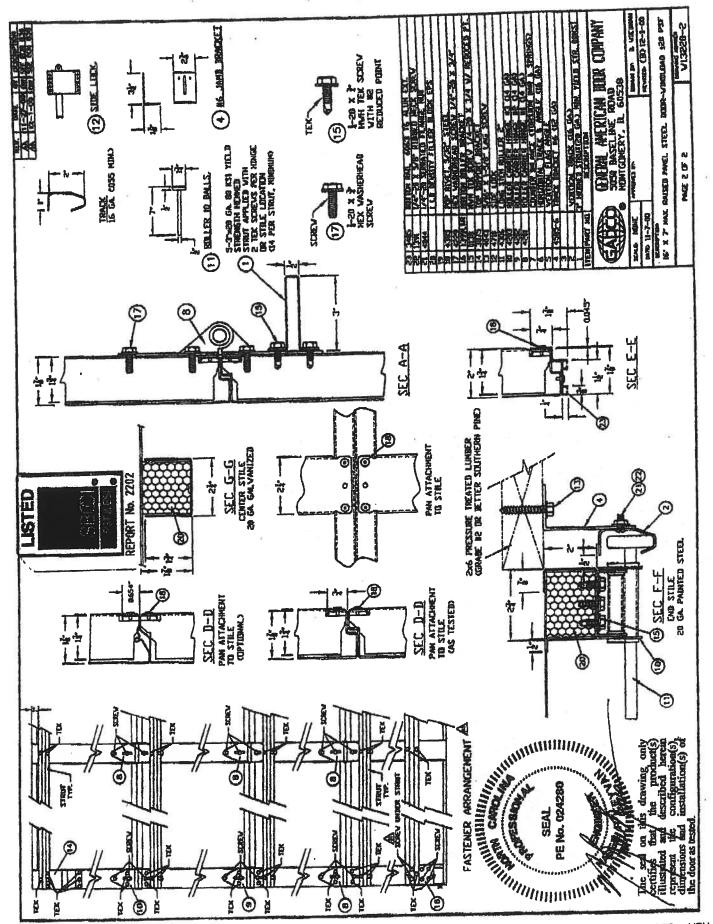






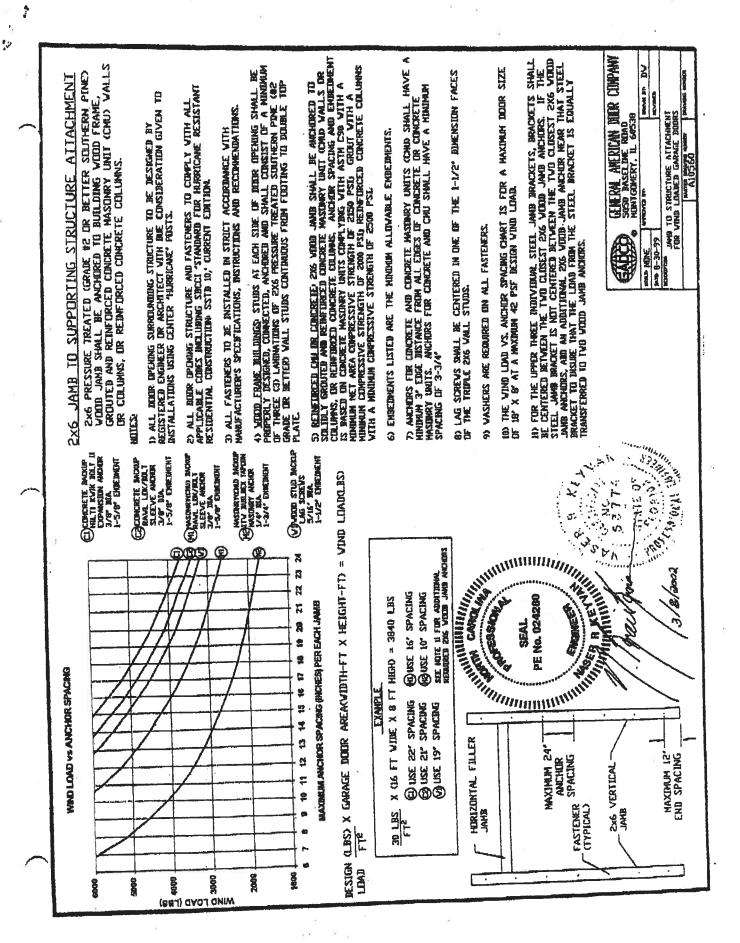
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# **Residential System Sizing Calculation**

Summary

Spec House

Project Title: Cady Homes & Associates - Lot 51

Code Only Professional Version Climate: North

Lake City, FL 32025-

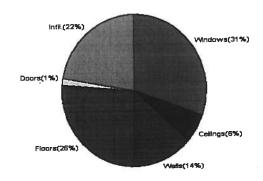
3/29/2006

Location for weather data: Gainesville - User customized: Latitude(29) Altitude(152 ft.) Temp Range(M)										
Humidity data: Interior RH (50%)	Outdoor	wet bulb (7)	9F) Humidity difference(54gr.)							
Winter design temperature	33	F	Summer design temperature	99						
Winter setpoint	70	F	Summer setpoint	75						
Winter temperature difference	37		Summer temperature difference	24						
Total heating load calculation	37264		Total cooling load calculation	45436	Btuh					
	% of calc		Submitted cooling capacity	% of calc	Btuh					
Oubtineed Health g capacity		44000	Sensible (SHR = 0.75)	87.2	33000					
Total (Electric Heat Pump)			· · · · · · · · · · · · · · · · · · ·	144 5	11000					
Heat Pump + Auxiliary(0.0kW)	118.1	44000	Latent		44000					
Ì			Total (Electric Heat Pump)	90.6	44000					

### WINTER CALCULATIONS

Winter Heating Load (for 1880 sqft)

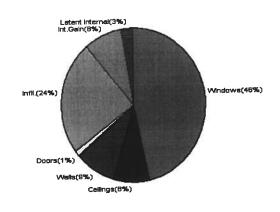
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Load component			Load	
Window total	355	sqft	11437	Btuh
Wall total	1545	sqft	5073	Btuh
Door total	40	sqft	518	Btuh
Ceiling total	1980	sqft	2333	Btuh
Floor total	224	sqft	9780	Btuh
Infiltration	201	cfm	8123	Btuh
Duct loss			0	Btuh
Subtotal			37264	Btuh
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS	_		37264	Btuh



# **SUMMER CALCULATIONS**

Summer Cooling Load (for 1880 sqft)

Load component			Load	
Window total	355	sqft	21126	Btuh
Wall total	1545	sqft	4096	Btuh
Door total	40	sqft	490	Btuh
Ceiling total	1980	sqft	3720	Btuh
Floor total			0	Btuh
Infiltration	175	cfm	4610	Btuh
Internal gain			3780	Btuh
Duct gain			0	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Total sensible gain			37823	Btuh
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			6412	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occup	ants/othe	er)	1200	Btuh
Total latent gain		•	7612	Btuh
TOTAL HEAT GAIN			45436	Btuh





For Florida residences only

EnergyGauge® System Sizing
PREPARED BY: Will MyEKS
DATE: 3-39-06

# **System Sizing Calculations - Winter**

### Residential Load - Whole House Component Details

Spec House

Project Title: Cady Homes & Associates - Lot 51 Code Only Professional Version

Lake City, FL 32025-

Climate: North

Reference City: Gainesville (User customized) Winter Temperature Difference: 37.0 F

3/29/2006

### Component Loads for Whole House

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load			
1	2, Clear, Metal, 0.87	W	75.0	32.2	2414 Btuh			
2	2, Clear, Metal, 0.87	W	6.0	32.2	193 Btuh			
3	2, Clear, Metal, 0.87	N	40.0	32.2	1288 Btuh			
4	2, Clear, Metal, 0.87	W	63.0	32.2	2028 Btuh			
5	2, Clear, Metal, 0.87	SW	20.0	32.2	644 Btuh			
6	2, Clear, Metal, 0.87	S	15.0	32.2	483 Btuh			
7	2, Clear, Metal, 0.87	N	30.0	32.2	966 Btuh			
8	2, Clear, Metal, 0.87	N	6.0	32.2	193 Btuh			
9	2, Clear, Metal, 0.87	E	16.0	32.2	515 Btuh			
10	2, Clear, Metal, 0.87	E	13.3	32.2	428 Btuh			
11	2, Clear, Metal, 0.87	E	56.0	32.2	1803 Btuh			
12	2, Clear, Metal, 0.87	S	15.0	32.2	483 Btuh			
	Window Total		355(sqft)		11437 Btuh			
Walls	Туре	R-Value	Area X	HTM=	Load			
1	Frame - Wood - Ext(0.09)	13.0	1397	3.3	4587 Btuh			
2	Frame - Wood - Adj(0.09)	13.0	148	3.3	486 Btuh			
	Wall Total		1545		5073 Btuh			
Doors	Туре		Area X	HTM=	Load			
1	Insulated - Adjacent		20	12.9	259 Btuh			
2	Insulated - Exterior		20	12.9	259 Btuh			
	Door Total		40		518Btuh			
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load			
1	Vented Attic/D/Shin)	30.0	1980	1.2	2333 Btuh			
	Ceiling Total		1980		2333Btuh			
Floors	Туре	R-Value	Size X	HTM=	Load			
1	Slab On Grade	0	224.0 ft(p)	43.7	9780 Btuh			
	Floor Total		224		9780 Btuh			
		2	Zone Envelope :	Subtotal:	29141 Btuh			
Infiltration	Туре	ACH X	Zone Volume	CFM=				
	Natural	0.80	15040	200.5	8123 Btuh			
Ductload	Proposed leak free, R6.0, S	Proposed leak free, R6.0, Supply(Attic), Return(Attic) (DLM of 0.00)						
Zone #1		Sen	sible Zone Sub	ototal	37264 Btuh			

### **Manual J Winter Calculations**

# Residential Load - Component Details (continued)

Spec House

Project Title:

Cady Homes & Associates - Lot 51

Code Only

Professional Version

Climate: North

3/20/2006

WHOLE HOUSE TOTALS

Lake City, FL 32025-

Subtotal Sensible Ventilation Sensible Total Btuh Loss

37264 Btuh 0 Btuh 37264 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 - Winter**

# Residential Load - Room by Room Component Details

Spec House

Project Title:

Cady Homes & Associates - Lot 51

Code Only

Professional Version Climate: North

Lake City, FL 32025-

Reference City: Gainesville (User customized) Winter Temperature Difference: 37.0 F

3/29/2006

### Component Loads for Zone #1: Main

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	2, Clear, Metal, 0.87	W	75.0	32.2	2414 Btuh
2	2, Clear, Metal, 0.87	W	6.0	32.2	193 Btuh
3	2, Clear, Metal, 0.87	N	40.0	32.2	1288 Btuh
4	2, Clear, Metal, 0.87	W	63.0	32.2	2028 Btuh
5	2, Clear, Metal, 0.87	SW	20.0	32.2	644 Btuh
6	2, Clear, Metal, 0.87	S	15.0	32.2	483 Btuh
7	2, Clear, Metal, 0.87	N	30.0	32.2	966 Btuh
8	2, Clear, Metal, 0.87	N	6.0	32.2	193 Btuh
9	2, Clear, Metal, 0.87	E	16.0	32.2	515 Btuh
10	2, Clear, Metal, 0.87	Ε	13.3	32.2	428 Btuh
11	2, Clear, Metal, 0.87	E	56.0	32.2	1803 Btuh
12	2, Clear, Metal, 0.87	S	15.0	32.2	483 Btuh
	Window Total	<u> </u>	355(sqft)		11437 Btuh
Walls	Туре	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1397	3.3	4587 Btuh
2	Frame - Wood - Adj(0.09)	13.0	148	3.3	486 Btuh
	Wall Total		1545		5073 Btuh
Doors	Туре		Area X	HTM=	Load
1	Insulated - Adjacent		20	12.9	259 Btuh
2	Insulated - Exterior		20	12.9	259 Btuh
	Door Total		40		518Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	1980	1.2	2333 Btuh
	Ceiling Total		1980		2333Btuh
Floors	Туре	R-Value	Size X	HTM=	Load
1	Slab On Grade	0	224.0 ft(p)	43.7	9780 Btuh
	Floor Total		224		9780 Btuh
		2	Zone Envelope S	Subtotal:	29141 Btuh
Infiltration	Туре	ACH X	Zone Volume	CFM=	
	Natural	0.80	15040	200.5	8123 Btuh
Ductload	Proposed leak free, R6.0, S	upply(Attic), R	eturn(Attic)	(DLM of 0.00)	0 Btuh
Zone #1		Sen	sible Zone Sub	total	37264 Btuh

### **Manual J Winter Calculations**

# Residential Load - Component Details (continued)

**Spec House** 

Project Title:

Cady Homes & Associates - Lot 51

Code Only Professional Version

Climate: North

Lake City, FL 32025-

Subtotal Sensible 37264 Btuh Ventilation Sensible 0 Btuh Total Btuh Loss 37264 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 - Whole House Component Details

Spec House

**Project Title:** 

Cady Homes & Associates - Lot 51

Professional Version

Climate: North

Lake City, FL 32025-

Reference City: Gainesville (User customized)

Summer Temperature Difference: 24.0 F

3/29/2006

### **Component Loads for Whole House**

	Type*		Over	hang	Win	dow Area	ı(sqft)	Н	ITМ	Load	
Window	Pn/SHGC/U/InSh/ExSh/IS	Ornt	Len	Hgt	Gross		Unshaded	Shaded	Unshaded		
1	2, Clear, 0.87, None,N,N	W	1.5ft	10ft.	75.0	0.0	75.0	35	86	6420	Btuh
2	2, Clear, 0.87, None,N,N	W	1.5ft	10ft.	6.0	0.0	6.0	35	86	514	
3	2, Clear, 0.87, None,N,N	N	7.5ft	10ft.	40.0	0.0	40.0	35	35		Btuh
4	2, Clear, 0.87, None,N,N	W	10.5f	10ft.	63.0	51.4	11.6	35	86	2793	
5	2, Clear, 0.87, None,N,N	sw	10.5f	10ft.	20.0	20.0	0.0	35	69	701	
6	2, Clear, 0.87, None,N,N	S	7.5ft	10ft.	15.0	15.0	0.0	35	40	526	
7	2, Clear, 0.87, None,N,N	N	1.5ft	8ft.	30.0	0.0	30.0	35 35	35 35		Btuh Btuh
8 9	2, Clear, 0.87, None,N,N	N E	1.5ft 1.5ft	8ft. 8ft.	6.0 16.0	0.0 0.0	6.0 16.0	35 35	35 86	1370	
10	2, Clear, 0.87, None,N,N 2, Clear, 0.87, None,N,N	E	7.83	οιι. 10ft.	13.3	6.3	7.0	35 35	86	819	
11	2, Clear, 0.87, None,N,N	E	1.5ft	10ft.	56.0	0.0	56.0	35	86	4794	
12	2, Clear, 0.87, None,N,N	S	1.5ft	8ft.	15.0	15.0	0.0	35	40		Btuh
12	Window Total	J	1.51	Oit.	355 (		0.0	00	70	21126	
Walls	Туре		R-Va	alue/U	-Value	Area	(sqft)		нтм	Load	
1	Frame - Wood - Ext			13.0/	0.09	139			2.7	3781	Btuh
2	Frame - Wood - Adj			13.0/		148			2.1	315	
	Wall Total					1545 (sqft)				4096	Btuh
Doors	Туре					Area			нтм	Load	
1	Insulated - Adjacent					20			12.3	245	Btuh
2	Insulated - Exterior					20			12.3	245	Btuh
	Door Total					4	0 (sqft)			490	Btuh
Ceilings	Type/Color/Surface		R-Va	alue		Area			HTM	Load	
1	Vented Attic/DarkShingle			30.0		198	0.0		1.9	3720	Btuh
	Ceiling Total					198	0 (sqft)			3720	Btuh
Floors	Туре		R-Va	alue		Size			HTM	Load	
1	Slab On Grade			0.0		22	4 (ft(p))		0.0	0	Btuh
	Floor Total						0 (sqft)			0	Btuh
		Zone Envelop			elope Su	ıbtotal:	29433	Btuh			
nfiltration	Туре		Α	CH		Volume			CFM=	Load	
	SensibleNatural			0.70		150			175.5		Btuh
Internal		(	Occup			Btuh/oc		A	Appliance	Load	
gain				6		X 23	0 +		2400	3780	
Duct load	Proposed leak free, R6.	0, Sup	ply(At	tic), R	eturn(A	(ttic)		DGM	= 0.00	0.0	Btul
							Sensib	le Zone	Load	37823	Btuh

### **Manual J Summer Calculations**

Residential Load - Component Details (continued)

Spec House

Project Title: Cady Homes & Associates - Lot 51 Code Only **Professional Version** 

Climate: North

3/29/2006

Lake City, FL 32025-

### WHOLE HOUSE FOTALS

	Sensible Envelope Load All Zones	37823	Btuh
	Sensible Duct Load	0	Btuh
	Total Sensible Zone Loads	37823	Btuh
	Sensible ventilation	0	Btuh
	Blower	0	Btuh
Whole House	Total sensible gain	37823	Btuh
Totals for Cooling	Latent infiltration gain (for 54 gr. humidity difference)	6412	Btuh
	Latent ventilation gain	0	Btuh
	Latent duct gain	0	Btuh
	Latent occupant gain (6 people @ 200 Btuh per person)	1200	Btuh
	Latent other gain	0	Btuh
1	Latent total gain	7612	Btuh
	TOTAL GAIN	45436	Btuh

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

(SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(U - Window U-Factor or 'DEF' for default)
(InSh - Interior shading device: none(N), Blinds(B), Draperies(D) or Roller Shades(R))

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

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

(Ornt - compass orientation)



# **System Sizing Calculations - Summer**

### Residential Load - Room by Room Component Details

Spec House

Project Title:

Code Only Professional Version

Lake City, FL 32025-

Cady Homes & Associates - Lot 51

Climate: North

Reference City: Gainesville (User customized)

Summer Temperature Difference: 24.0 F

3/29/2006

### Component Loads for Zone #1: Main

	Type* Overhang Window Area(sqft) HTM					Load					
Window	Pn/SHGC/U/InSh/ExSh/IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	2, Clear, 0.87, None,N,N	W	1.5ft	10ft.	75.0	0.0	75.0	35	86	6420	Btuh
2	2, Clear, 0.87, None,N,N	W	1.5ft	10ft.	6.0	0.0	6.0	35	86	514	
3	2, Clear, 0.87, None,N,N	N	7.5ft	10ft.	40.0	0.0	40.0	35	35		Btuh
4	2, Clear, 0.87, None,N,N	W	10.5f	10ft.	63.0	51.4	11.6	35	86	2793	
5	2, Clear, 0.87, None,N,N	SW	10.5f	10ft.	20.0	20.0	0.0	35	69	701	
6	2, Clear, 0.87, None,N,N	S	7.5ft	10ft.	15.0	15.0	0.0	35	40	526 1052	Btuh Btuh
7 8	2, Clear, 0.87, None,N,N 2, Clear, 0.87, None,N,N	N N	1.5ft 1.5ft	8ft. 8ft.	30.0 6.0	0.0 0.0	30.0 6.0	35 35	35 35	210	Btuh
9	2, Clear, 0.87, None,N,N	E	1.5ft	οπ. 8ft.	16.0	0.0	16.0	35	86	1370	
10	2, Clear, 0.87, None, N,N	E	7.83	10ft.	13.3	6.3	7.0	35	86	819	Btuh
11	2, Clear, 0.87, None,N,N	Ē	1.5ft	10ft.	56.0	0.0	56.0	35	86	4794	
12	2, Clear, 0.87, None,N,N	s	1.5ft	8ft.	15.0	15.0	0.0	35	40		
	Window Total			• • • •	355 (					21126	Btuh
Walls	Туре		R-Va	alue/U	-Value	Área	(sqft)		НТМ	Load	
1	Frame - Wood - Ext			13.0/	0.09	139	6.7		2.7	3781	Btuh
2	Frame - Wood - Adj			13.0/	0.09	148	3.0		2.1	315	Btuh
	Wall Total					154	5 (sqft)			4096	Btuh
Doors	Туре					Area	(sqft)		HTM	Load	
1	Insulated - Adjacent					20	.0		12.3	245	Btuh
2	Insulated - Exterior					20	.0		12.3	245	Btuh
	Door Total					4	0 (sqft)			490	Btuh
Ceilings	Type/Color/Surface		R-Va	alue		Area(	(sqft)		HTM	Load	
1	Vented Attic/DarkShingle			30.0		198	0.0		1.9	3720	Btuh
	Ceiling Total					198	0 (sqft)			3720	Btuh
Floors	Туре		R-Va	alue		Siz	ze		HTM	Load	
1	Slab On Grade			0.0		22	4 (ft(p))		0.0	0	Btuh
	Floor Total						0 (sqft)			0	Btuh
				Zone Enve			elope Su	ıbtotal:	29433	Btuh	
nfiltration			Α	CH	09-111	Volume			CFM=	Load 4610	Divis
Internal	SensibleNatural			0.70		150			175.5		Btuh
Internal gain		(	Occup	pants 6		Btuh/oc		,	Appliance 2400	Load 3780	Btuh
Duct load	Proposed leak free, R6.	0, Sup	ply(At				U T	DGM	= 0.00	0.0	Btuh
		,	. , ,				Sensib	le Zone		37823	Btuh

# **Manual J Summer Calculations**

Residential Load - Component Details (continued)

Spec House

Project Title: Cady Homes & Associates - Lot 51

Lake City, FL 32025-

Code Only Professional Version Climate: North

3/29/2006

### WHOLE HOUSE TOTALS

	Sensible Envelope Load All Zones	37823	Btuh
	Sensible Duct Load	0	Btuh
	Total Sensible Zone Loads	37823	Btuh
	Sensible ventilation	0	Btuh
	Blower	0	Btuh
Whole House	Total sensible gain	37823	Btuh
Totals for Cooling	Latent infiltration gain (for 54 gr. humidity difference)	6412	Btuh
	Latent ventilation gain	. 0	Btuh
	Latent duct gain	0	Btuh
	Latent occupant gain (6 people @ 200 Btuh per person)	1200	Btuh
	Latent other gain	0	Btuh
	Latent total gain	7612	Btuh
	TOTAL GAIN	45436	Btuh

\*Key: Window types (Pn - Number of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(U - Window U-Factor or 'DEF' for default)

(InSh - Interior shading device: none(N), Blinds(B), Draperies(D) or Roller Shades(R))
(ExSh - Exterior shading device: none(N) or numerical value)
(BS - Insect screen: none(N), Full(F) or Half(H))

(Ornt - compass orientation)



# **Residential Window Diversity**

### MidSummer

Spec House

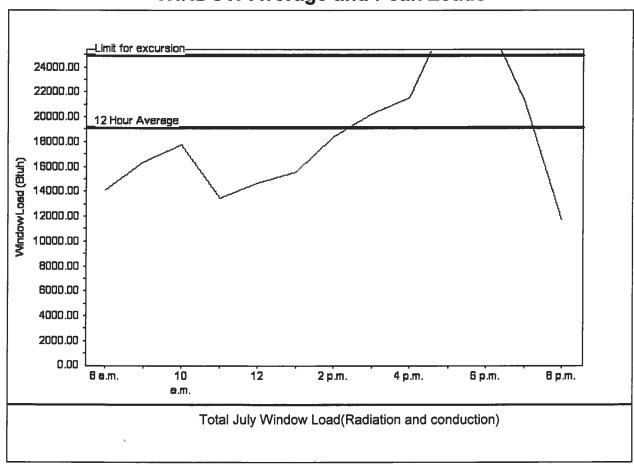
Lake City, FL 32025-

Project Title: Cady Homes & Associates - Lot 51 Code Only
Professional Version
Climate: North

3/29/2006

Weather data for: Gainesville - User customized						
Summer design temperature	99 F	Average window load for July	19152 Btu			
Summer setpoint	75 F	Peak window load for July	28720 Btu			
Summer temperature difference	24 F	Excusion limit(130% of Ave.)	24897 Btu			
Latitude	29 North	Window excursion (July)	3823 Btuh			

### **WINDOW Average and Peak Loads**

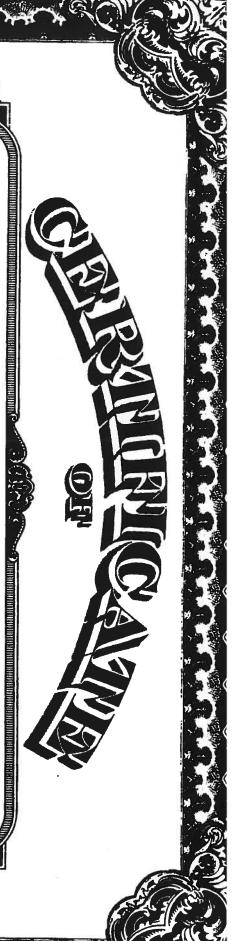


Warning: This application has glass areas that produce relatively large heat gains for part of the day. Variable air volume devices may be required to overcome spikes in solar gain for one or more rooms. A zoned system may be required or some rooms may require zone control.

EnergyGauge® System Sizing for Florida residences only
PREPARED BY:
DATE:



EnergyGauge® FLRCPB v4.1



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# COLUMBIA COUNTY, FLORIDA

artment of Building and Zoning

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

Use Classification SFD, UTILITY Parcel Number 15-4S-16-03023-551 Building permit No. 000024494

Fire: 61.38

Total: 245.63

Waste: 184.25

Location: 123 SW BUTTERCUP DR(ROLLING MEADOWS,LOT 51)

Owner of Building AARON CADY

Permit Holder CADY HOMES

Date: 11/14/2006

**Building Inspector** 

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