Columbia County Building Permit Application

For Office Use Only Application # 06-10-07 Date Received 10/3/06 By G Permit # 123/2509

Application Approved by - Zoning Official BLK Date 06.10.06 Plans Examiner OK JTH Date 10-6-06

Flood Zone X Development Permit N/A Zoning A-3 Land Use Plan Map Category A-3

Comments ~~NOC~~ Application shows 25' side setbacks as does EH Site Plan

NOC

Applicants Name Marilyn L Kesterke Phone 386-418-0804 / 352-284-2645

Address 16613 N SR 121

Owners Name Marilyn L Kesterke Phone 386-418-0804

911 Address 1069 Newark Dr FT. White, FL 32038

Contractors Name Owner Phone

Address Same as Above

Fee Simple Owner Name & Address N/A

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address Christian C. Steputat, P.E.

Mortgage Lenders Name & Address

Circle the correct power company – FL Power & Light – (Clay Elec.) – Suwannee Valley Elec. – Progressive Ener

Property ID Number 01408-000 (00-00-00) Estimated Cost of Construction $70,000-$80,000

Subdivision Name 3 Rivers Estate Lot 35 Block ____ Unit 22 Phase ____

Driving Directions From Lake City go South on 47 (cross 27 @ Fort White) go 2 Blks, Turn Right @ library, go to stop sign (1 Blk) Turn Left Wilson Springs Rd. Follow Wilson Springs to end Turn Right on Newark Dr. 1069 Newa between Illonois + Montana

Type of Construction Frame - SFD Number of Existing Dwellings on Property 0

Total Acreage .91 Lot Size 100 X 400 Do you need a (Culvert Permit) or Culvert Waiver or Have an Existing Dr

Actual Distance of Structure from Property Lines - Front 150' Side 25' Side 25' Rear 290'

Total Building Height 21' Number of Stories 1 Heated Floor Area 1476 Total 2160 Roof Pitch 4/12

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 o 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 COMMENCMENT 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.

Marilyn L. Kesterke
Owner Builder or Agent (Including Contractor)

Contractor Signature

Contractors License Number

Competency Card Number

NOTARY STAMP/SEAL

STATE OF FLORIDA
COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me this 3rd day of October 2006.

Personally known ✓ or Produced Identification

Notary Signature

ISABEL E. SMITH
MY COMMISSION # DD 430477
EXPIRES: September 17, 2009
Bonded Thru Notary Public Underwriters

JW called Marilyn on 10.6.06

1

ARROW EXTERMINATORS
TERMITE AND PEST CONTROL

5602 N.W. 13th STREET
GAINESVILLE, FLORIDA 32653-2198

P.O. BOX 5875
GAINESVILLE, FLORIDA 32627-5875

PHONE (352) 373-3642
FAX (352) 373-9037

CERTIFICATE OF PROTECTIVE TREATMENT

Builder: Marilyn Kosterkey

Date: 10-27-06 Time: _____ AM _____ PM

Site Location: 1069 Newark Dr

Area Treated: Living Entry Garage

Product Used: Bifenthrin Chemical Used: Bifenthrin

% Concentration: .06% # Gallons Used: 4.00

Applicator: Jerry

CERTIFICATE OF OCCUPANCY

COLUMBIA COUNTY, FLORIDA

Department of Building and Zoning Inspection

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

Parcel Number 25-6S-15-01408-000 **Building permit No.** 000025098

Use Classification SFD/UTILITY **Fire:** 39.06

Permit Holder MARILYN KESTERKE **Waste:** 117.25

Owner of Building MARILYN KESTERKE **Total:** 156.31

Location: 1069 SW NEWARK DRIVE(3 RIVERS EST., LOT 35)

Date: 03/20/2007

Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)

STATE OF FLORIDA
DEPARTMENT OF HEALTH

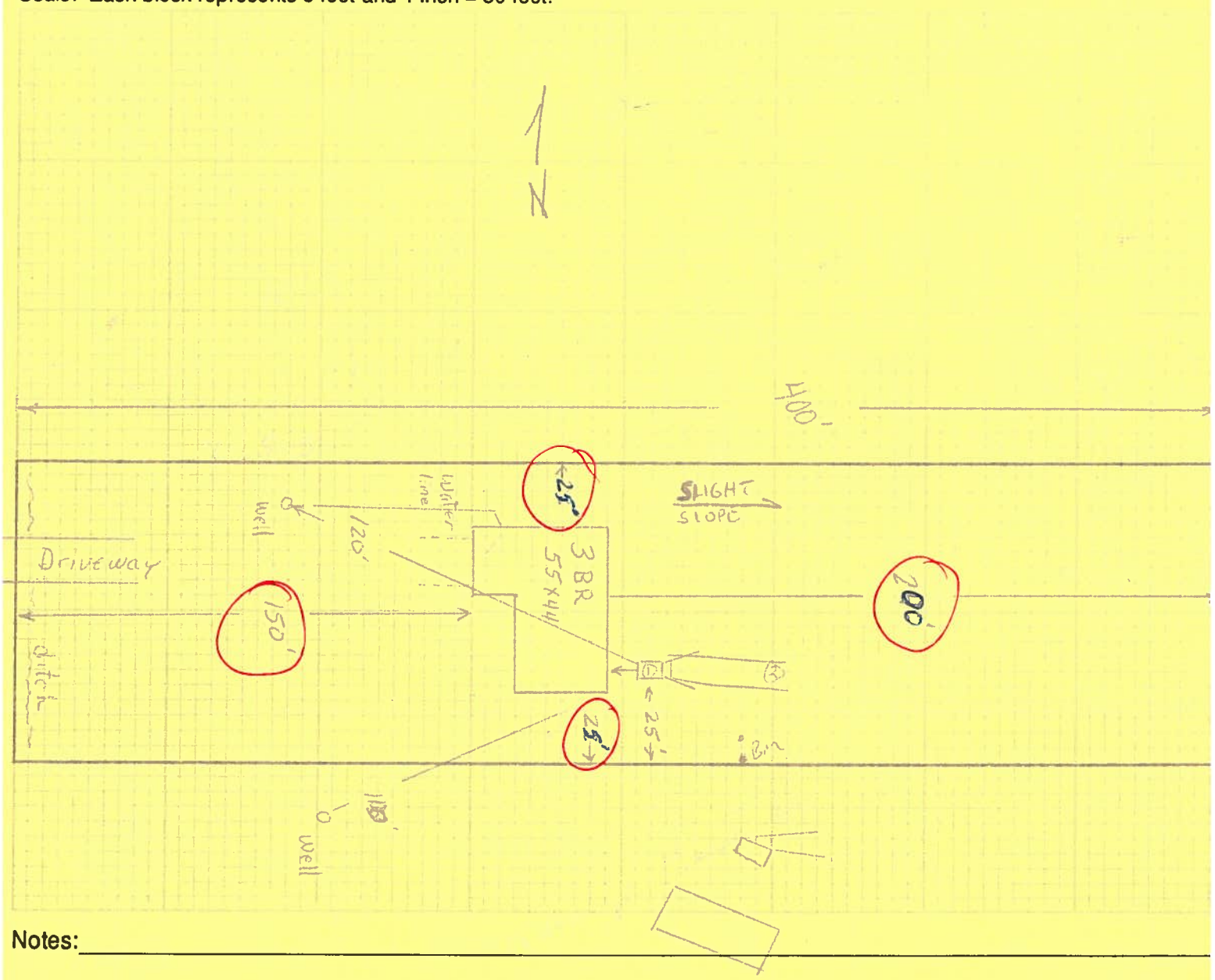
APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number 06 0760-N

Kesterke

PART II - SITE PLAN

Scale: Each block represents 5 feet and 1 inch = 50 feet.



Notes: No sig

Site Plan submitted by: James E. Kesterke (Signature) owner (Title)

Plan Approved X Not Approved _____ Date 9/1/06

By [illegible] County Health Departmer

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

NOTICE OF COMMENCEMENT FORM
COLUMBIA COUNTY, FLORIDA

*****THIS DOCUMENT MUST BE RECORDED AT THE COUNTY CLERKS OFFICE BEFORE YOUR FIRST INSPECTION.*****

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

Tax Parcel ID Number 25-6S-15-01408-000 **PERMIT NUMBER** 00025098

1. **Description of property: (legal description of the property and street address or 911 address)**
   1069 Newark Dr.
   Unit 22 Lot 35 3 Rivers Ft. White, FL 32038
2. **General description of improvement:** Build New Home
3. **Owner Name & Address** Marilyn Kesterke 16653 N SR 121 Gainesville FL. 32653 **Interest in Property** Home Owner
4. **Name & Address of Fee Simple Owner (if other than owner):** Marilyn Kesterke 16613 N SR 121, Gainesville, FL.
5. **Contractor Name** Owner Marilyn Kesterke **Phone Number** 386-418-0804
   Address 16613 N SR 121 Gainesville, FL 32653
6. **Surety Holders Name** — **Phone Number** —
   Address
   Amount of Bond —
7. **Lender Name** —
   Address — **Phone Number**
8. **Persons within the State of Florida designated by the Owner upon whom notices or other documents may be served as provided by section 718.13 (1)(a) 7; Florida Statutes:**
   Name N/A **Phone Number**
   Address
9. **In addition to himself/herself the owner designates** _____ **of** _____ **to receive a co**
   (a) 7. Phone Number of the designee _____
10. **Expiration date of the Notice of Commencement (tl**
    (Unless a different date is specified) _____

Inst:2006024148 Date:10/10/2006 Time:11:38
DC,P.DeWitt Cason,Columbia County B:1098 P:1617

NOTICE AS PER CHAPTER 713, Florida Statutes:
The owner must sign the notice of commencement and no one else may be permitted to sign in his/her stead.

Marilyn Kesterke
Signature of Owner

Sworn to (or affirmed) and subscribed before 10th **day of** October **, 20** 06

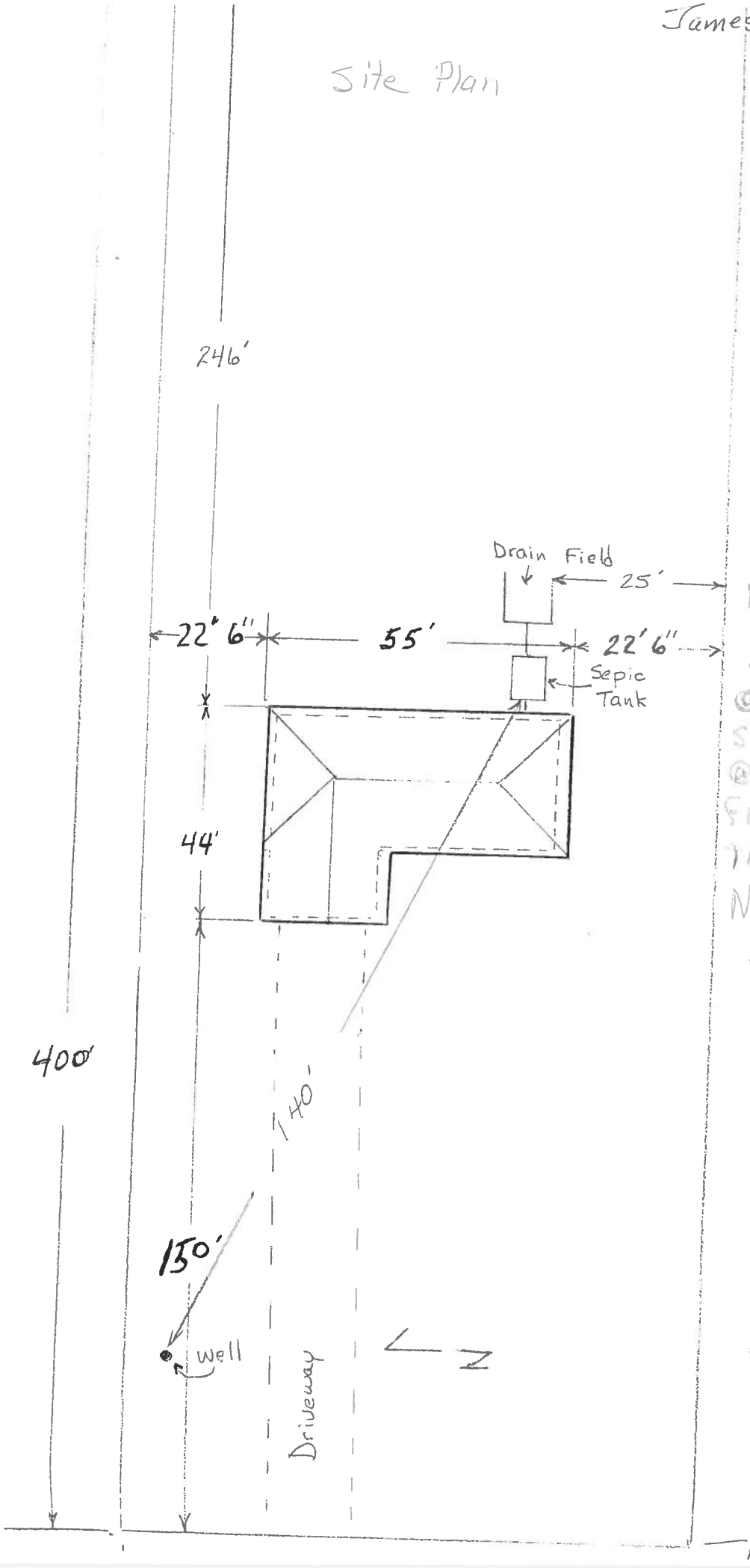
NOTARY STAMP/SEAL

GALE TEDDER
MY COMMISSION # DD 333586
EXPIRES: June 28, 2008
Bonded Thru Notary Public Underwriters

Gale Tedder
Signature of Notary

James, Marilyn Kesterke
Lt 35 3 Rivers E
Unit 22 Plat BK 6
Pg 16 Columbia Cou
386-418-0804

Site Plan



Driving Directi

From L.C. go South on
41 (cross 27 @ FT Wh
go 2 Blks Turn Ri
@ library, go to Sto
Sign (1 Blk) Turn Le
@ Wilson Springs Ro
Follow Wilson Spring
Toward Turn right o
Newark Dr.
1069 Newark D

DISCLOSURE STATEMENT

FOR OWNER/BUILDER WHEN ACTING AS THER OWN CONTRACTOR AND CLAIMING EXEMPTION OF CONTRACTOR LICENSING REQUIREMENTS IN ACCORDANCE WITH FLORIDA STATUTES, ss. 489.103(7).

State law requires construction to be done by licensed contractors. You have applied for a permit under an exemption to that law. The exemption allows you, as the owner of your property, to act as your own contractor with certain restrictions even though you do not have a license. You must provide direct, onsite supervision of the construction yourself. You may build or improve a one-family or two-family residence or a farm outbuilding. You may also build or improve a commercial building, provided your costs do not exceed $25,000. The building or residence must be for your own use or occupancy. It may n be built or substantially improved for sale or lease. If you sell or lease a building you have built or substantially improved yourself within 1 year after the construction is complete, the law will presume that you built or substantially improved it for sale or lease, which is a violation of this exemption. You may not hire an unlicensed person to act as your contractor or to supervise people working on your building. It is your responsibility to make sure that people employed by you have licenses required by state law and by county or municipal licensing ordinances. You may not delegate the responsibility for supervising work to a licensed contractor who is not licensed to perform the work being done. Any person working on your building who is not licensed must work under your direct supervision and must be employed by you, which means that you must deduct F .I.C.A. and withholding tax and provide workers' compensation for that employee, all as prescribed by law. Your construction must comply with all applicable laws, ordinances, building codes, and zoning regulations.

TYPE OF CONSTRUCTION

(X) Single Family Dwelling
( ) Two-Family Residence
( ) Farm Outbuilding
( ) Other_____
( ) New Construction
( ) Addition, Alteration, Modification or other Improvemen

NEW CONSTRUCTION OR IMPROVEMENT

I Marilyn Kesterke , have been advised of the above disclosure statement for exemption from contractor licensing as an owner/builder. I agree to comply with all requirements provided for in Florida Statutes ss.489.103(7) allowing this exception for the construction permitted by Columbia County Building Permit Number_____

Marilyn Kesterke 9/8/06
Signature Date

FOR BUILDING USE ONLY

I hereby certify that the above listed owner/builder has been notified of the disclosure statement in Florida Statutes ss 489.103(7).

Date 9.8.06 Building Official/Representative _____

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: 8/8/2006 **DATE ISSUED:** 8/11/2006

ENHANCED 9-1-1 ADDRESS:

1069 SW NEWARK DR

FORT WHITE FL 32038

PROPERTY APPRAISER PARCEL NUMBER:

00-00-00-01408-000

Remarks:

LOCATED ON LOT 35 UNIT 22 THREE RIVERS ESTATES 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.

368

COLUMBIA COUNTY
9-1-1 ADDRESSING
APPROVED

FORM 600A-2004 EnergyGauge® 4.0

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

Project Name:	**Kesterke Res**	Builder:	
Address:		Permitting Office:	Columbia
City, State:	,	Permit Number:	8S098
Owner:		Jurisdiction Number:	221000
Climate Zone:	**North**		

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 30.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 13.00
4. Number of Bedrooms	3	b. N/A	
5. Is this a worst case?	Yes	c. N/A	
6. Conditioned floor area (ft²)	1476 ft²	13. Heating systems	
7. Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)		a. Electric Heat Pump	Cap: 30.0 kBtu/hr
a. U-factor:	Description Area		HSPF: 8.00
(or Single or Double DEFAULT)	7a. (Dble Default) 215.0 ft²	b. N/A	
b. SHGC:		c. N/A	
(or Clear or Tint DEFAULT)	7b. (Clear) 215.0 ft²	14. Hot water systems	
8. Floor types		a. Electric Resistance	Cap: 50.0 gallons
a. Slab-On-Grade Edge Insulation	R=0.0, 174.0(p) ft		EF: 0.90
b. N/A		b. N/A	
c. N/A		c. Conservation credits (HR-Heat recovery, Solar DHP-Dedicated heat pump)	
9. Wall types		15. HVAC credits (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating)	
a. Frame, Wood, Exterior	R=13.0, 1192.0 ft²		
b. Frame, Wood, Adjacent	R=13.0, 400.0 ft²		
c. N/A			
d. N/A			
e. N/A			
10. Ceiling types			
a. Under Attic	R=30.0, 1476.0 ft²		
b. Under Attic	R=19.0, 268.0 ft²		
c. N/A			
11. Ducts			
a. Sup: Con. Ret: Con. AH: Interior	Sup. R=6.0, 160.0 ft		
b. N/A			

Glass/Floor Area: 0.15 Total as-built points: 21221 Total base points: 24404 **PASS**

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

PREPARED BY: _____

DATE: 8-29-06

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.

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , , PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned Floor Area	X BSPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	SPM X	SOF	= Points
.18	1476.0	20.04	5324.2	Double, Clear	W	0.0	0.0	40.0	38.52	1.00	1541.0
				Double, Clear	N	0.0	0.0	57.0	19.20	1.00	1094.4
				Double, Clear	S	0.0	0.0	26.0	35.87	1.00	932.5
				Double, Clear	E	0.0	0.0	92.0	42.06	1.00	3869.9
				As-Built Total:				**215.0**			**7437.7**
WALL TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM =		Points
Adjacent	400.0	0.70	280.0	Frame, Wood, Exterior			13.0	1192.0	1.50		1788.0
Exterior	1192.0	1.70	2026.4	Frame, Wood, Adjacent			13.0	400.0	0.60		240.0
Base Total:	**1592.0**		**2306.4**	**As-Built Total:**				**1592.0**			**2028.0**
DOOR TYPES	Area X	BSPM =	Points	Type				Area X	SPM =		Points
Adjacent	18.0	2.40	43.2	Exterior Insulated				20.0	4.10		82.0
Exterior	20.0	6.10	122.0	Adjacent Insulated				18.0	1.60		28.8
Base Total:	**38.0**		**165.2**	**As-Built Total:**				**38.0**			**110.8**
CEILING TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM X SCM =		Points
Under Attic	1476.0	1.73	2553.5	Under Attic			30.0	1476.0	1.73 X 1.00		2553.5
				Under Attic			19.0	268.0	2.34 X 1.00		627.1
Base Total:	**1476.0**		**2553.5**	**As-Built Total:**				**1744.0**			**3180.6**
FLOOR TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM =		Points
Slab	174.0(p)	-37.0	-6438.0	Slab-On-Grade Edge Insulation			0.0	174.0(p	-41.20		-7168.8
Raised	0.0	0.00	0.0								
Base Total:			**-6438.0**	**As-Built Total:**				**174.0**			**-7168.8**
INFILTRATION	Area X	BSPM =	Points					Area X	SPM =		Points
	1476.0	10.21	15070.0					1476.0	10.21		15070.0

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , ,	PERMIT #:

BASE				AS-BUILT						
Summer Base Points: 18981.3				**Summer As-Built Points:**						**20658.3**
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
				(sys 1: Central Unit 30000 btuh ,SEER/EFF(13.0) Ducts:Con(S),Con(R),Int(AH),R6.0(INS)						
				20658	1.00	(1.00 x 1.147 x 0.91)	0.263	1.000		5661.0
18981.3	**0.4266**		**8097.4**	**20658.3**	**1.00**	**1.044**	**0.263**	**1.000**		**5661.0**

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , , PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BWPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	WPM X	WOF	= Points	
.18	1476.0	12.74	3384.8	Double, Clear	W	0.0	0.0	40.0	20.73	1.00	829.1	
				Double, Clear	N	0.0	0.0	57.0	24.58	1.00	1400.9	
				Double, Clear	S	0.0	0.0	26.0	13.30	1.00	345.7	
				Double, Clear	E	0.0	0.0	92.0	18.79	1.00	1729.0	
				As-Built Total:				**215.0**			**4304.7**	
WALL TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM =		Points	
Adjacent	400.0	3.60	1440.0	Frame, Wood, Exterior			13.0	1192.0	3.40		4052.8	
Exterior	1192.0	3.70	4410.4	Frame, Wood, Adjacent			13.0	400.0	3.30		1320.0	
Base Total:	**1592.0**		**5850.4**	**As-Built Total:**				**1592.0**			**5372.8**	
DOOR TYPES	Area X	BWPM =	Points	Type				Area X	WPM =		Points	
Adjacent	18.0	11.50	207.0	Exterior Insulated				20.0	8.40		168.0	
Exterior	20.0	12.30	246.0	Adjacent Insulated				18.0	8.00		144.0	
Base Total:	**38.0**		**453.0**	**As-Built Total:**				**38.0**			**312.0**	
CEILING TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM X	WCM =	Points	
Under Attic	1476.0	2.05	3025.8	Under Attic			30.0	1476.0	2.05 X	1.00	3025.8	
				Under Attic			19.0	268.0	2.70 X	1.00	723.6	
Base Total:	**1476.0**		**3025.8**	**As-Built Total:**				**1744.0**			**3749.4**	
FLOOR TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM =		Points	
Slab	174.0(p)	8.9	1548.6	Slab-On-Grade Edge Insulation			0.0	174.0(p	18.80		3271.2	
Raised	0.0	0.00	0.0									
Base Total:			**1548.6**	**As-Built Total:**				**174.0**			**3271.2**	
INFILTRATION	Area X	BWPM =	Points					Area X	WPM =		Points	
	1476.0	-0.59	-870.8					1476.0	-0.59		-870.8	

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , ,	PERMIT #:

BASE			AS-BUILT					
Winter Base Points:		**13391.7**	**Winter As-Built Points:**					**16139.3**
Total Winter Points	X System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points
			(sys 1: Electric Heat Pump 30000 btuh ,EFF(8.0) Ducts:Con(S),Con(R),Int(AH),R6.0					
			16139.3	1.000	(1.000 x 1.169 x 0.93)	0.426	1.000	7479.0
13391.7	**0.6274**	**8402.0**	**16139.3**	**1.00**	**1.087**	**0.426**	**1.000**	**7479.0**

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: , , ,	PERMIT #:

BASE				AS-BUILT							
WATER HEATING											
Number of Bedrooms	X	Multiplier	= Total	Tank Volume	EF	Number of Bedrooms	X Tank Ratio	X Multiplier	X Credit Multiplier	= Total	
3		2635.00	7905.0	50.0	0.90	3	1.00	2693.56	1.00	8080.7	
				As-Built Total:						**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
8097	**8402**	**7905**	**24404**	**5661**	**7479**	**8081**	**21221**

PASS

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: , , , 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.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 85.5

The higher the score, the more efficient the home.

1.	New construction or existing	New		12.	Cooling systems	
2.	Single family or multi-family	Single family			a. Central Unit	Cap: 30.0 kBtu/hr
3.	Number of units, if multi-family	1				SEER: 13.00
4.	Number of Bedrooms	3			b. N/A	
5.	Is this a worst case?	Yes				
6.	Conditioned floor area (ft²)	1476 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		13.	Heating systems	
	(or Single or Double DEFAULT)	7a. (Dble Default) 215.0 ft²			a. Electric Heat Pump	Cap: 30.0 kBtu/hr
	b. SHGC:					HSPF: 8.00
	(or Clear or Tint DEFAULT)	7b. (Clear) 215.0 ft²			b. N/A	
8.	Floor types					
	a. Slab-On-Grade Edge Insulation	R=0.0, 174.0(p) ft			c. N/A	
	b. N/A					
	c. N/A			14.	Hot water systems	
9.	Wall types				a. Electric Resistance	Cap: 50.0 gallons
	a. Frame, Wood, Exterior	R=13.0, 1192.0 ft²				EF: 0.90
	b. Frame, Wood, Adjacent	R=13.0, 400.0 ft²			b. N/A	
	c. N/A					
	d. N/A				c. Conservation credits	
	e. N/A				(HR-Heat recovery, Solar	
10.	Ceiling types				DHP-Dedicated heat pump)	
	a. Under Attic	R=30.0, 1476.0 ft²		15.	HVAC credits	
	b. Under Attic	R=19.0, 268.0 ft²			(CF-Ceiling fan, CV-Cross ventilation,	
	c. N/A				HF-Whole house fan,	
11.	Ducts				PT-Programmable Thermostat,	
	a. Sup: Con. Ret: Con. AH: Interior	Sup. R=6.0, 160.0 ft			MZ-C-Multizone cooling,	
	b. N/A				MZ-H-Multizone heating)	

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

Builder Signature: _____ Date: _____

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

**NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ 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.

Columbia County Building Department
Culvert Permit

Culvert Permit No.
000001231

DATE 10/10/2006 PARCEL ID # 25-6S-15-01408-000

APPLICANT MARILYN KESTERKE PHONE 352.284.2645

ADDRESS 16613 N SR 121 GAINESVILLE FL 32653

OWNER MARILYN KESTERKE PHONE 386.418.0804

ADDRESS 1069 NEWARK DRIVE FT. WHITE FL 32038

CONTRACTOR MARILYN KESTERKE PHONE 386.418.0804

LOCATION OF PROPERTY 47-S TO US 27 @ LIBRARY,TR GO TO STOP SIGN TO WILSON SPRINGS,TL GO TO END. TO NEWARK,TR & IT'S BETWEEN ILLINOIS & MONTANA.

SUBDIVISION/LOT/BLOCK/PHASE/UNIT 3 RIVERS ESTATES 35 22

SIGNATURE Marilyn Kesterke

INSTALLATION REQUIREMENTS

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

INSTALLATION NOTE: Turnouts will be required as follows:
a) a majority of the current and existing driveway turnouts are paved, or;
b) the driveway to be served will be paved or formed with concrete.
Turnouts shall be concrete or paved a minimum of 12 feet wide or the width of the concrete or paved driveway, whichever is greater. The width shall conform to the current and existing paved or concreted turnouts.

[ ] Culvert installation shall conform to the approved site plan standards.

[ ] Department of Transportation Permit installation approved standards.

[ ] Other _____

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

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

Amount Paid 25.00

STRUCTURAL DIMENSIONS, INC.
CONSULTING • ENGINEERING • TESTING • RESEARCH

P.O. BOX 1910, WINTER PARK, FLORIDA 32790-1910
1745 HOLLYWOOD AVENUE, WINTER PARK, FLORIDA 32789-4016

TELEPHONE (407) 645-1121
FACSIMILE (407) 645-3099

e-mail: visions@magicnet.net
Website: http://www.magicnet.net/~visions

The Columbia County Building & Zoning Dept.
135 N.E. Hernando Avenue
P.O. Box 1529
Lake City, Florida 32056-1529

September 22, 2006
Review Comments of Sept. 14, 2006

Attention: Mr. Joe Haltiwanger - Columbia County Building Department (Plan Review)

Subject: **Structural Engineering Review Comments** for 1-Story Kesterke Residence (I.D.#01408-000) Columbia County, Florida. **[BUILDING PERMIT APPLICATION No.**

Dear Mr. Haltiwanger:

In response to your review comments, we can offer the following information, with respect to Structural Engineering Specifications for this project.

ITEM No. 01: Tempered Glass, etc.. - to be addressed by architect, owner and/or contractor.

ITEM No. 02: Door Openings at Bathroom - to be addressed by architect, owner and/or contractor.

ITEM No. 03: Discussions with the owner indicated that no Soil Borings will be conducted. Therefore, the minimum assumed soil bearing capacity of 2,000 psf. will need to be reduced to 1,000 psf. For Columbia County (Site Specific). We recommend to increase the minimum 8" x 16" x Continuous Strip Foundation Footings (steel reinforced with a minimum of 2 # 5 Steel Rebars) to 12" x 24" x Continuous (steel reinforced with a minimum of 3 # 5 Steel Rebars), to compensate for the lesser Ultimate Soil Bearing Capacity (i.e. only 1,000 psf.), that is required by the Columbia County Building Department.

ITEM No. 04: Header Beams shall be attached per details shown in construction documents (i.e. construction plans and project specifications). Please follow the span Tables in the drawings, as well as per Florida Residential Building Code, r502.5 (1).

The 16 foot garage-door shall receive a minimum of three (3) 2" x 12" S.Y.P. with two (2) ½" CDX Plywood inter-layerd (i.e. sandwhich type construction), if roof is constructed such that roof-truss support loads are supported (direct bearing) on both adjacent walls only, i.e. garage beam only receives valley-type framing (for completion). If gable-type construction is used and/or trusses are directly load bearing (long direction) on the garage beam, it will be required to use a minimum of two (2) 1.75" x 14" LVL beams. Please note that a Continuous Load Path shall be provided at all times, i.e. secure all trusses and/or all roof framing with a minimum of one (1) Simpson MTS-12 Hurricane Strap per truss and/or attachment condition. Beam Support shall be achieved by a minimum of six (6) 2" x 6" S.Y.P. at each end of the Garage Door Beam (Composite type of Construction, i.e. all members ahll be nailed together to act as a unit with two rows of 16d nails at a maximum of 12" on center - staggered both rows, i.e. 6" o.c.). Minimum Beam Bearing shall be 8" at each end. Use two (2) LSTA36 Simpson Hurricane Straps at each Beam-End (i.e. one on inside face and one on outside face).

ITEM No. 05: Garage Door/s - to be addressed by architect, owner and/or contractor.

Structural Dimensions, Inc. appreciates the opportunity to provide our services on this project and we trust that the information presented is sufficient for your immediate needs. Should you have further questions concerning the contents of this report, or as we may be of further assistance during the construction phase, please feel free to contact us at your convenience. We may be contacted in **Gainesville** at **Tel. 352.335.6100**, and/or **Fax. 352.335.3010.**

Sincerely,

Structural Dimensions, Inc.

09/22/2004

Christian C. Steputat, P.E.
Principal Engineer
Fl. Registration No. 46762

ABOVE AND BELOW GROUND

wrightsoft Version 6

Project Summary
Entire House
Bertie Heating & Air Conditioning

Job: Personal Residence
Date: Aug 07, 2006
By: Debra Davis

1730 NE 23rd Avenue, Gainesville, Fl 32609 Phone: 352-331-2005 Fax: 352-371-4942 Email: estimating@bertieair.com

Project Information

For: James Kesterke
Phone: 352-284-2645
Notes: Kesterke Residence

Home: 386-418-0804

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db	33	°F
Inside db	70	°F
Design TD	37	°F

Summer Design Conditions

Outside db	***95***	°F
Inside db	75	°F
Design TD	20	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	47	gr/lb

Heating Summary

Structure	24223	Btuh
Ducts	2422	Btuh
Central vent (0 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	***26645***	Btuh

Sensible Cooling Equipment Load Sizing

Structure	17723	Btuh
Ducts	1772	Btuh
Central vent (0 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	1.00	
Equipment sensible load	***19496***	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft²)	1473	1473
Volume (ft³)	13741	13741
Air changes/hour	1.00	0.50
Equiv. AVF (cfm)	229	115

Latent Cooling Equipment Load Sizing

Structure	5012	Btuh
Ducts	0	Btuh
Central vent (0 cfm)	0	Btuh
Equipment latent load	***5012***	Btuh
Equipment total load	24508	Btuh
Req. total capacity at 0.70 SHR	2.3	ton

Heating Equipment Summary

Make	Goodman Mfg.
Trade	Janitrol, GMC, Franklin, Goodman, Amana, EverStar
Model	CPRT30-1

Efficiency	8 HSPF	
Heating input		
Heating output	30000	Btuh @ 47°F
Temperature rise	28	°F
Actual air flow	967	cfm
Air flow factor	0.036	cfm/Btuh
Static pressure	0.00	in H2O
Space thermostat		

Cooling Equipment Summary

Make	Goodman Mfg.
Trade	Janitrol, GMC, Franklin, Goodman, Amana, EverSt
Cond	CPRT30-1
Coil	ARUF032-00*-1*

Efficiency	13 SEER	
Sensible cooling	20300	Btuh
Latent cooling	8700	Btuh
Total cooling	29000	Btuh
Actual air flow	967	cfm
Air flow factor	0.050	cfm/Btuh
Static pressure	0.00	in H2O
Load sensible heat ratio	0.80	

Bold/italic values have been manually overridden

Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

wrightsoft Version 6

Short Form
Entire House
Bertie Heating & Air Conditioning

Job: Personal Residence
Date: Aug 07, 2006
By: Debra Davis

1730 NE 23rd Avenue, Gainesville, Fl 32609 Phone: 352-331-2005 Fax: 352-371-4942 Email: estimating@bertieair.com

Project Information

For: James Kesterke

Phone: 352-284-2645

Design Information

	Htg	Clg
Outside db (°F)	33	***95***
Inside db (°F)	70	75
Design TD (°F)	37	20
Daily range	-	M
Inside humidity (%)	-	50
Moisture difference (gr/lb)	-	47

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

HEATING EQUIPMENT

Make	Goodman Mfg.
Trade	Janitrol, GMC, Franklin, Goodman, Amana, EverStar
Model	CPRT30-1

Efficiency	8 HSPF	
Heating input		
Heating output	30000	Btuh @ 47°F
Temperature rise	28	°F
Actual air flow	967	cfm
Air flow factor	0.036	cfm/Btuh
Static pressure	0.00	in H2O
Space thermostat		

COOLING EQUIPMENT

Make	Goodman Mfg.
Trade	Janitrol, GMC, Franklin, Goodman, Amana, Eve
Cond	CPRT30-1
Coil	ARUF032-00*-1*

Efficiency	13 SEER	
Sensible cooling	20300	Btuh
Latent cooling	8700	Btuh
Total cooling	29000	Btuh
Actual air flow	967	cfm
Air flow factor	0.050	cfm/Btuh
Static pressure	0.00	in H2O
Load sensible heat ratio	0.80	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Master Suite	236	4705	3843	171	191
Master Bath	92	1330	916	48	45
WIC	40	347	183	13	9
Dining	170	3927	1671	143	83
Kitchen	131	1292	2306	47	114
Bath 2	69	806	399	29	20
Bed 3	210	4655	3467	169	172
Bed 2	206	4495	3701	163	184
Living Rm	319	5088	3010	185	149

Bold/italic values have been manually overridden

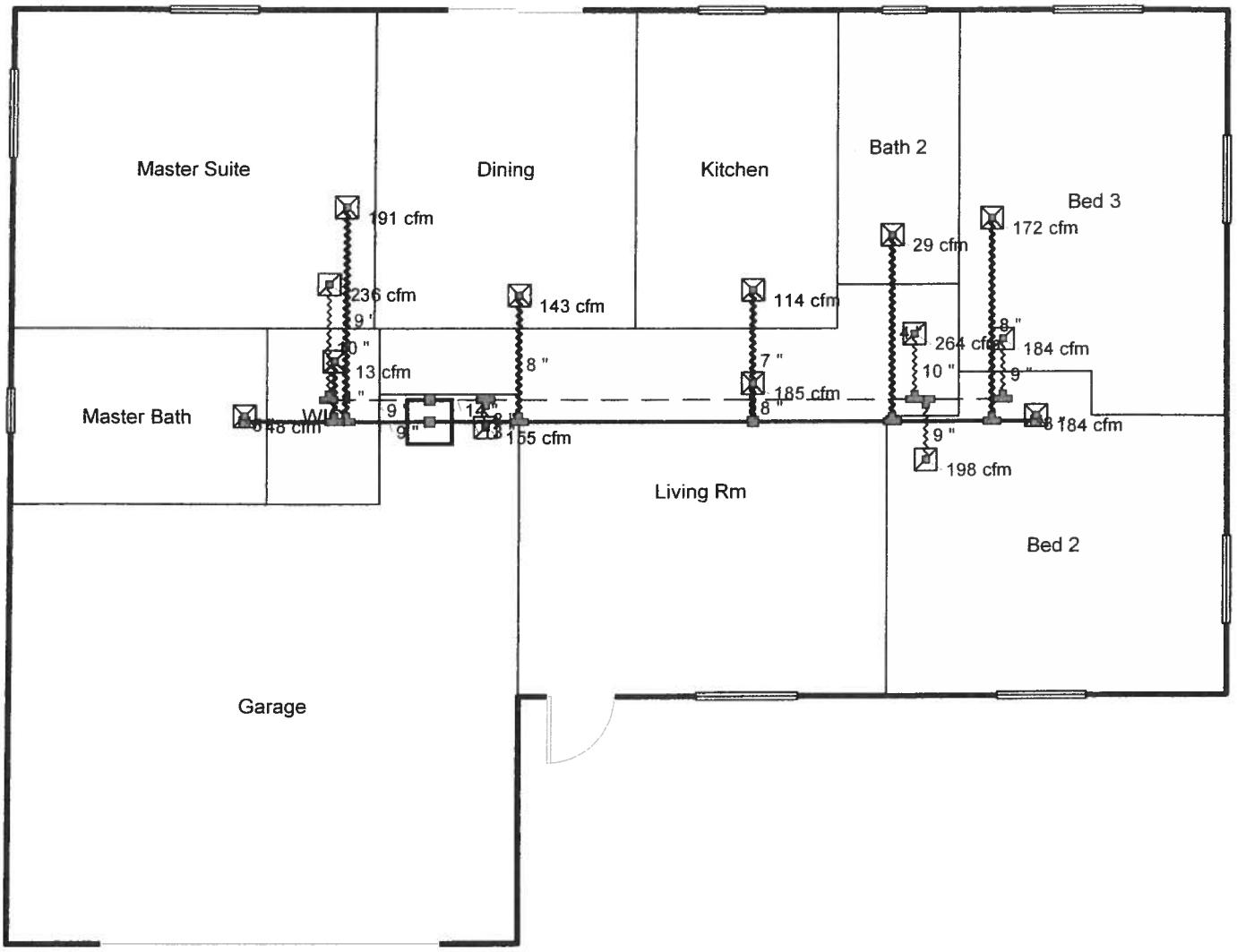
Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

Entire House	d	1473	26645	19496	967	967
Other equip loads			0	0		
Equip. @ 1.00	RSM			***19496***		
Latent cooling				***5012***		
TOTALS		1473	***26645***	24508	967	967

Bold/Italic values have been manually overridden

Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

Single Story Home



Job #: Personal Residence **Performed by Debra Davis for:** James Kesterke Phone: 352-284-2645	**Bertie Heating & Air Conditioning** 1730 NE 23rd Avenue Gainesville, Fl 32609 Phone: 352-331-2005 Fax: 352-371-4942 estimating@bertieair.com	Scale: 1 : 94 Page 1 Right-Suite Residential 6.0.53 RSR27178 2006-Aug-07 15:16:48 Z:\Public\Estimating\Owner-Builder

PRODUCT APPROVAL SPECIFICATION SHEET

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and approval numbers on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. Statewide approved products are listed online @ www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s
1. EXTERIOR DOORS			
A. SWINGING	Plastpro	3' Fiberglass Door w/ 1 sidelite	FI-1321.1
B. SLIDING	Better Built	2-3' Pannels - 470 HP Tempered Glass	FI 47182
C. SECTIONAL/ROLL UP	Clopay	Model 1001 16 X 7	FI 3026.1
D. OTHER			
2. WINDOWS			
A. SINGLE/DOUBLE HUNG	American Craftman	4050 - Series 2900 - S.H.	FI 6166
B. HORIZONTAL SLIDER			
C. CASEMENT			
D. FIXED			
E. MULLION			
F. SKYLIGHTS			
G. OTHER			
3. PANEL WALL			
A. SIDING	Mitten	D/L D-5 - 550108	FI 5208.2
B. SOFFITS	Mitten	T/4 Sys Soffit	FI 5668.1
C. STOREFRONTS			
D. GLASS BLOCK			
E. OTHER			
4. ROOFING PRODUCTS			
A. ASPHALT SHINGLES	Heritage	Architectural 30yr	FI 1956.3
B. NON-STRUCT METAL			
C. ROOFING TILES			
D. SINGLE PLY ROOF			
E. OTHER			
5. STRUCT COMPONENTS			
A. WOOD CONNECTORS			
B. WOOD ANCHORS			
C. TRUSS PLATES			
D. INSULATION FORMS			
E. LINTELS			
F. OTHERS			
6. NEW EXTERIOR ENVELOPE PRODUCTS			
A.			

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

James Kestler
APPLICANT SIGNATURE

Marilyn Kestler

8-31-06
DATE

R-1305 01-04

All brackets to be Simpson

Truss to Top plate	MTS-20 or	H2.5
Post to Concrete	CBS-44	
PT Floor plate to Stud	H4	
STUD to Double Top Plate	SP-4	
Header/stud to Top Plate	LSTA-21 or	RT-18
Concrete to P.T. bottom plate	½ x 8 J or L	w/washer
Truss Hangers	LUS-210	

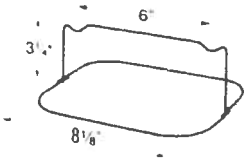
WRC WIRE REBAR CHAIRS

The WRC holds rebar in position during the concrete pour

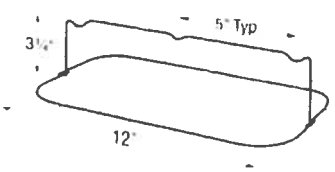
MATERIAL: 11 gauge

FINISH: None

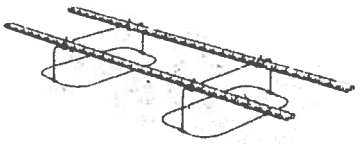
INSTALLATION: • Tie rebar to chair with wire twists prior to the concrete pour



WRC2



WRC3



Typical WRC2 Installation

CNW COUPLER NUTS

All-thread rod is correctly installed when visible through CNW's "witness" holes. CNW's dimple provides a positive stop to allow even bolt threading top and bottom.

CNW's are tested and load-rated coupler nuts. They can be used for extending anchor bolts, for example, through floor framing. CNW's meet and exceed the capacity of corresponding ASTM A307, A36, SAE1018 and Grade 2 bolts and threaded rod. Contact factory for other coupler nut sizes.

FINISH: Zinc Plated.

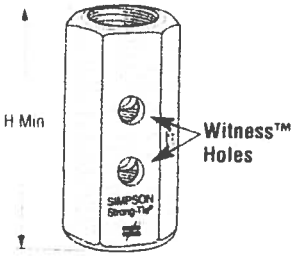
INSTALLATION:

- Each rod must be threaded halfway through CNW.
- Each rod must meet at the center.
- Tighten the two rods against the central stop in the coupler nut.

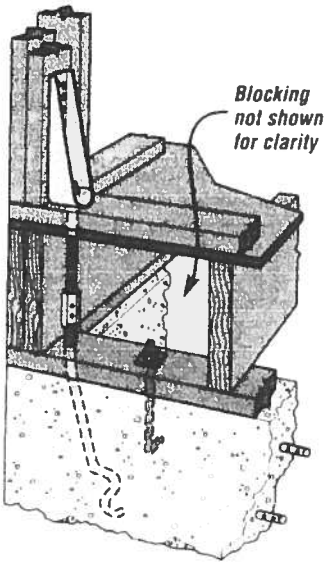
CODES: See page 10 for Code Listing Key Chart

Model No.	Rod Dia.	H Min	Allowable Tension Capacity (100)	Code Ref.
CNW½	0.50	1½	3750	160
CNW⅝	0.625	1⅞	5875	
CNW¾	0.75	2	8460	
CNW⅞	0.875	2 7/16	11,500	

1. Allowable loads may be increased as permitted on page 12.
2. Allowable loads shown are based on threaded rod allowable load.



CNW allows fast visual check for correct all thread rod installation



Typical CNW Rim Joist Installation

BP/LBP BEARING PLATES

The new BP½-3 and BP⅝-3 Bearing Plates meet the latest requirements of the International Residential Code®, *(see 2004 IRC Supplement to section R602.11.1 Wall Anchorage)*. These plate washers are available uncoated or with a hot dip galvanized (HDG) finish.

The BP⅝SKT uses SDS¼ x 1½ screws to provide lateral resistance when ⅝" diameter sill holes are overdrilled (screws are provided). The shear capacity is 975 lbs. (100%) and 1300 lbs. (133%) for DFL. Bearing Plates give greater bearing surface than standard cut washers, and help distribute the load at these critical connections.

MATERIAL: See table

FINISH: LBP, LBPS & BP⅝S—galvanized; BP—None. BP's may be ordered HDG. LBP's may be ordered ZMAX™, check factory. Refer to page 5 for corrosion information.

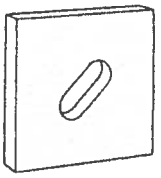
INSTALLATION: See General Notes

CODES: See page 10 for Code Listing Key Chart

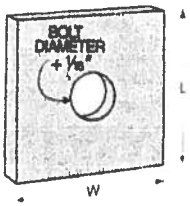
● ***Available with additional corrosion protection. Check with factory.***

Model No.	Thick-ness	Dimensions W	Dimensions L	Bolt Dia.	Code Ref.
LBP½	9/64	2	2	½	180
LBP⅝	9/64	2	2	⅝	
LBPS½	9/64	3	3	½	
LBPS⅝	9/64	3	3	⅝	
BP½	3/16	2	2	½	97
BP½-3	3/16	3	3	½	190
BP⅝-2	3/16	2	2	⅝	170
BP⅝SKT	3 ga	4	2	⅝	97
BP⅝	¼	2½	2½	⅝	190
BP⅝-3	¼	3	3	⅝	
BP¾	5/16	2¾	2¾	¾	97
BP⅞	5/16	3	3	⅞	
BP1	⅜	3½	3½	1	

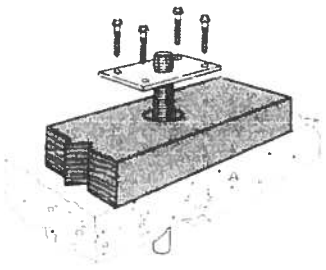
1 BP⅝SKT sold as a kit



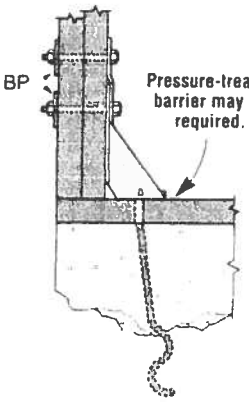
LBPS



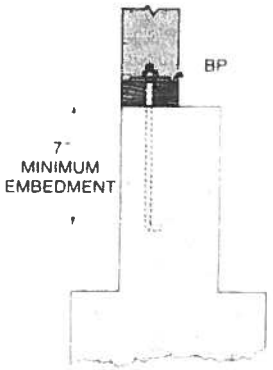
BP *(LBP similar)*



The BP⅝SKT is used when ⅝" diameter sill bolt holes are overdrilled



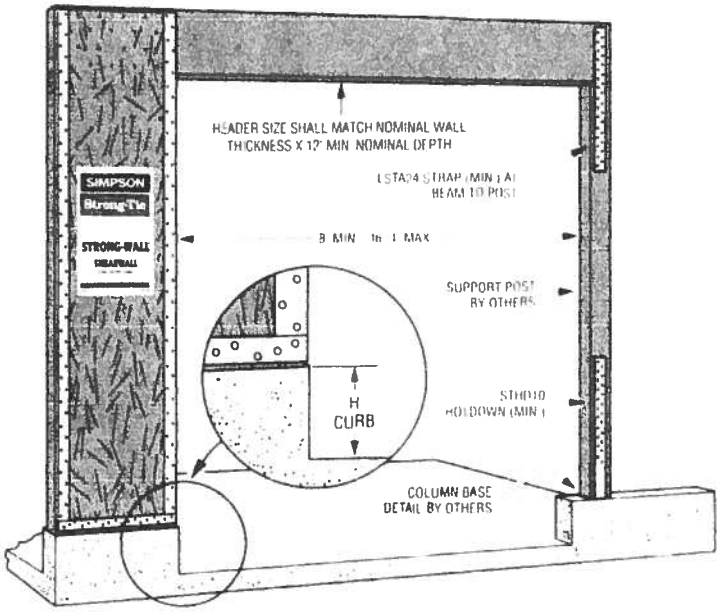
Typical BPs Installed with a Holdown and SSTB Anchor Bolt



Typical BP Installed with a Mudsill Anchor Bolt

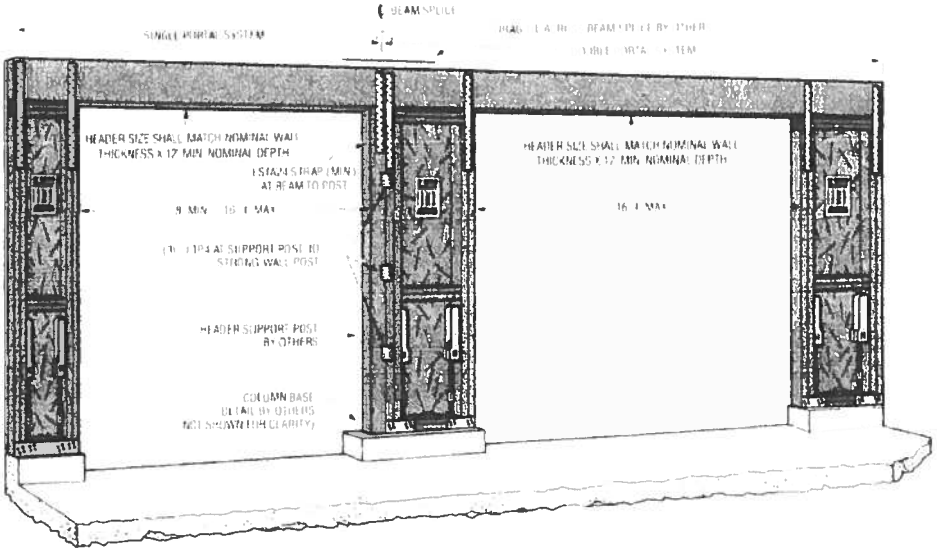
tail 1 - Single Wall Garage Portal

Beam to support post and support post to foundation uplift connectors may be reduced where justified by calculations
This detail reflects lateral load requirements of a Single Wall Portal system It is the designer's responsibility to provide a complete load path for all loads in accordance with the governing codes
Longer header spans can be accommodated if larger headers are used such that equivalent stiffness is equal to or greater than that provided by the minimum header and maximum length indicated
STHD10 and LSTA24 *(design by others)* are minimum requirements to achieve the allowable loads



tail 2 - Single and Double Wall arage Portal

Beam to support post and support post to foundation uplift connectors may be reduced where justified by calculations
This detail reflects lateral load requirements of a Single and Double Wall Portal system It is the designer's responsibility to provide a complete load path for all loads in accordance with the governing codes
System rating equals the sum of the Single and Double Wall Portal values
Alternate Installation A single piece header *(no camber)* may be substituted for the two headers shown The design rating for this condition may then be evaluated as the sum of the individual wall *(pier)* ratings Individual wall *(pier)* ratings for this condition may be taken as half of their Double Wall Portal values
Longer header spans can be accommodated if larger headers are used such that equivalent stiffness is equal to or greater than that provided by the minimum header and maximum length indicated
LTP4 and LSTA24 *(design by others)* are minimum requirements to achieve the allowable loads



INGLE WALL GARAGE PORTAL[4]

Model No.	W (in)	H (in)	T (in)	Number of Fasteners in Top of Wall	Number of Mudsill Anchors[5]	Holdown[2] Anchor Bolts	Allowable Shear V Load (lbs) for Portal System	Drift at Allowable Shear V (in)	Allowable Shear V Load (lb/ft)	Wall Weight (lbs)	Code Ref
SW16x7x4	16	78	4	8-SDS¼x6	2-⅝	2-SSTB28	1460	.348	1095	90	34
SW16x7x6	16	78	5¾	8-SDS¼x6	2-⅝	2-SSTB28	1460	348	1095	112	
SW16x8x4	16	90	4	8-SDS¼x6	2-⅝	2-SSTB28	1245	.420	935	95	
SW16x8x6	16	90	5¾	8-SDS¼x6	2-⅝	2-SSTB28	1245	420	935	120	
SW22x7x4	22	78	4	10-SDS¼x6	2-⅝	2-SSTB28	2190	.396	1195	95	
SW22x7x6	22	78	5¾	10-SDS¼x6	2-⅝	2-SSTB28	2190	.396	1195	117	
SW22x8x4	22	90	4	10-SDS¼x6	2-⅝	2-SSTB28	1995	.446	1090	105	
SW22x8x6	22	90	5¾	10-SDS¼x6	2-⅝	2 SSTB28	1995	446	1090	130	

CODES: See page 10 for Code Listing Key Chart

For plywood shear panel add "P" to model name (e g SW24x8P), and multiply loads by 0 88
For two-pour applications use the SSTB34
Recommended header moisture content is 19% or less at time of installation
A single wall garage portal system consists of 1 wall with a header spanning over the top and connected as shown
Recommended minimum 5/8 x 12 mudsill anchor
6 The minimum header sizes listed are the minimum required for lateral rigidity of the portal system Larger headers may be required due to vertical loading
7 Portal walls may be installed with sheathing facing inside or outside
8 Maximum shim height between Strong-Wall Portal Walls and header is ½" Shims of greater thickness will result in load reductions
9 See allowable vertical load table on page 53 for Strong-Wall maximum compression and tension capacities

The building designer shall verify that these details are consistent with the complete load path requirements of the structure.

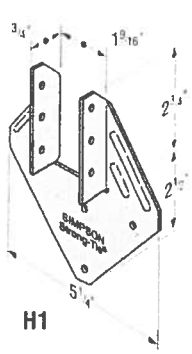
The H14 is the high uplift hurricane tie. It can be installed with rafter nailing flanges facing inwards or outwards.

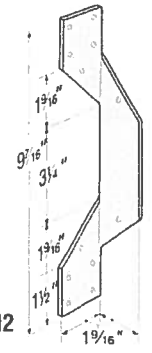
The H2.5A is designed for easy installation, with higher uplift loads to meet new code requirements. H5A has installed cost benefit, it only requires 6 nails, to meet lower uplift requirements.

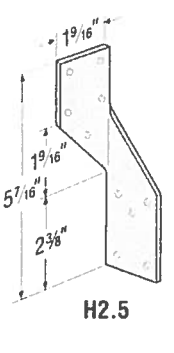
MATERIAL: See table **FINISH**: Galvanized. H7Z and H11Z–Z-MAX. Some models available in stainless steel or Z-MAX; see Corrosion-Resistance, page 5.

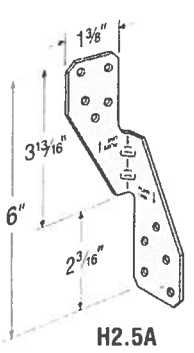
INSTALLATION: • Use all specified fasteners. See General Notes.
- H1 can be installed with flanges facing inwards *(reverse of H1 drawing number 1)*.
- H2.5, H3, H4, H5, H5A and H6 ties are only shipped in equal quantities of rights and lefts.
- Hurricane Ties do not replace solid blocking.

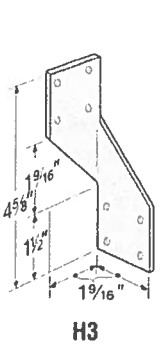
CODES: See page 10 for Code Listing Key Chart.

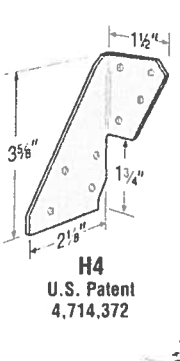


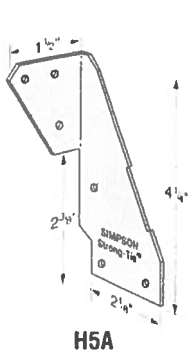


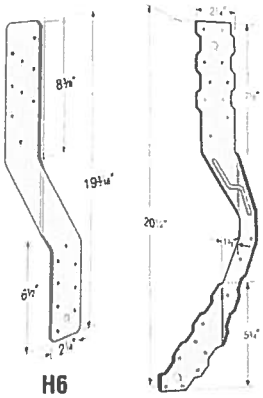


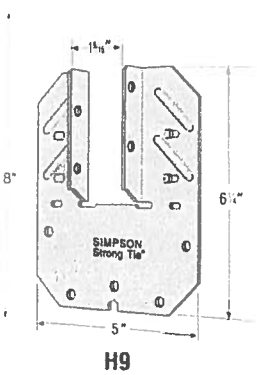


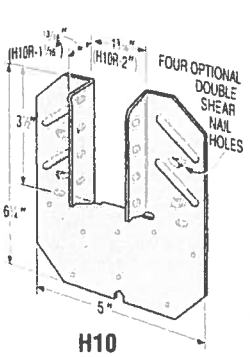


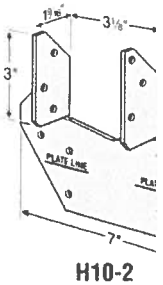


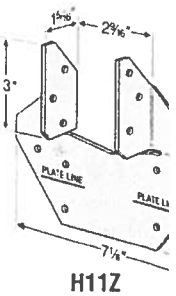


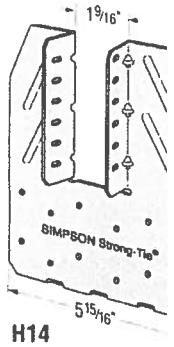


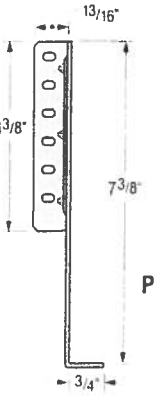












Available with additional corrosion protection. Check with factory.

Model No.	Ga	Fasteners: To Rafters/ Truss	Fasteners: To Plates	Fasteners: To Studs	Uplift Avg Ult	DF/SP Allowable Loads: Uplift (133)	DF/SP Allowable Loads: Uplift (160)	DF/SP Allowable Loads: Lateral (133/160) F_1	DF/SP Allowable Loads: Lateral (133/160) F_2	Uplift Load with 8dx1½" Nails (133 & 160)	SPF/HF Allowable Loads: Uplift (133)	SPF/HF Allowable Loads: Uplift (160)	SPF/HF Allowable Loads: Lateral (133/160) F_1	SPF/HF Allowable Loads: Lateral (133/160) F_2	Uplift Load with 8dx1½" Nails (133 & 160)	Code Ref.
H1	18	6-8dx1½	4-8d	—	1958	490	585	485	165	455	400	400	415	140	370	2, 40, 82, 121, 140
H2	18	5-8d	—	5-8d	1040	335	335	—	—	335	230	230	—	—	230	
H2.5	18	5-8d	5-8d	—	1300	415	415	150	150	415	365	365	130	130	365	
H2.5A	18	5-8d	5-8d	—	1793	600	600	110	110	480	520	535	110	110	480	122
H3	18	4-8d	4-8d	—	1433	455	455	125	160	415	320	320	105	140	290	2, 40, 82, 121, 140
H4	20	4-8d	4-8d	—	1144	360	360	165	160	360	235	235	140	135	235	
H5	18	4-8d	4-8d	—	1485	455	465	115	200	455	265	265	100	170	265	
H5A	18	3-8d	3-8d	—	1500	350	420	115	180	290	245	245	100	120	170	10
H6	16	—	8-8d	8-8d	3983	915	950	650	—	—	785	820	560	—	—	5, 41, 121,140
H7Z	16	4-8d	2-8d	8-8d	2991	930	985	400	—	—	800	845	345	—	—	
H8	18	5-10dx1½	5-10dx1½	—	2422	620	745	—	—	—	530	565	—	—	—	125
H9KT	18	4-SDS¼x1½	5-SDS¼x1½	—	2812	875	875	680	125	—	755	755	680	125	—	170
H10	18	8-8dx1½	8-8dx1½	—	3135	905	990	585	525	—	780	850	505	450	—	9, 121
H10R	18	8-8dx1½	8-8dx1½	—	3135	905	990	585	525	—	780	850	505	450	—	
H10-2	18	6-10d	6-10d	—	2447	760	760	455	395	—	655	655	390	340	—	6, 121
H11Z	18	6-16dx2½	6-16dx2½	—	5097	830	830	525	760	—	715	715	450	655	—	170
H14	18	[1] 12-8dx1½	13-8d	—	4197	1350	1350	515	265	—	1050	1050	480	245	—	125
		[2] 12-8dx1½	15-8d	—	4380	1350	1350	515	265	—	1050	1050	480	245	—	

1. Loads have been increased 33% and 60% for earthquake or wind loading with no further increase allowed; reduce where other loads govern.
2. **Allowable loads are for one anchor. A minimum rafter thickness of 2½" must be used when framing anchors are installed on each side of the joist and on the same side of the plate.**
3. Allowable uplift load for stud to bottom plate installation is 400 lbs (H2.5); 390 lbs (H2.5A); 360 lbs (H4) and 310 lbs (H8).
4. When cross-grain bending or cross-grain tension cannot be avoided, mechanical reinforcement to resist such forces should be considered.
5. Hurricane Ties are shown installed on the outside of the wall for clarity. Installation on the inside of the wall is acceptable. For a Continuous Load Path, connections must be on same side of the wall.
6. Southern Pine allowable loads for H14: 1465 lbs *(133/160)*, 560 lbs *(F_1 Lateral 133/160)* and 285 lbs *(F_2 Lateral 133/160)*.

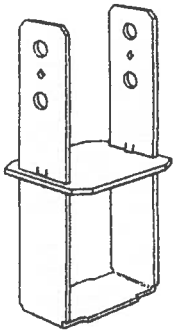
LCB/CB COLUMN BASES

FINISH LCB, CB44, CB46, CB66—galvanized; all other CB-Simpson gray paint or HDG.

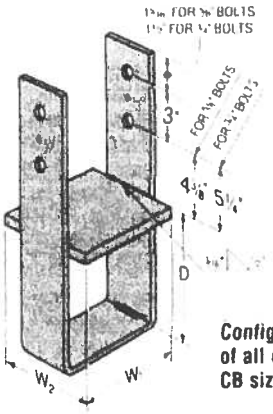
INSTALLATION • Use all specified fasteners. See General Notes.
- For full loads, minimum side cover required is 3" for CB, 2" for LCB.
- Install all models with bottom of base plate flush with concrete.
- Post bases do not provide adequate resistance to prevent members from rotating about the base and therefore are not recommended for non top-supported installations *(such as fences or unbraced carports)*.
- Contact engineered wood manufacturers for connections that are not through the wide face.

OPTIONS • The LCB may be shipped unassembled; specify "Disassembled".
- LCB and CB are available in rough size. Other sizes available for CB; specify W1 and W2 dimensions. Consult Simpson for bolt sizes and allowable loads. See PBS.

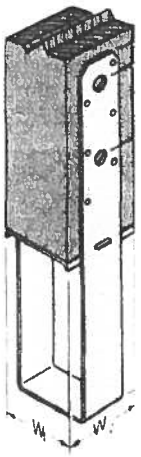
CODES: See page 10 for Code Listing Key Chart.



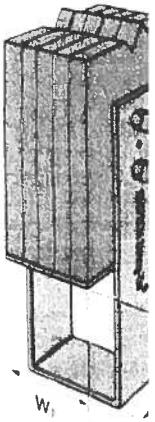
CB44
(CB46, CB66 similar)



Configuration of all other CB sizes



LCB



CB9
(CB5, CB7 sin
for glulam col

Available with additional corrosion protection. Check with factory.

Model No.	Nominal Column Size	Material: Strap	Material: Base (Ga)	Dimensions: W_1	Dimensions: W_2	Dimensions: D	Column Fasteners: Nails	Column Fasteners: Machine Bolts Qty	Column Fasteners: Machine Bolts Dia	Uplift Avg Ult	Allowable Uplift Loads: Nails (133)	Allowable Uplift Loads: Nails (160)	Allowable Uplift Loads: Bolts (133)	Allowable Uplift Loads: Bolts (160)	Code Ref.
LCB44	4x4	12 ga x2	16	3⁹⁄₁₆	3½	6½	12-16d	2	½	17853	2255	2705	3545	4250	2, 40
CB44	4x4	7 ga x2	7	3⁹⁄₁₆	3⁹⁄₁₆	8	—	2	⅝	14350	—	—	4200	4200	2, 40, 82, 121
LCB46	4x6	12 ga x2	16	3⁹⁄₁₆	5½	6½	12-16d	2	½	17853	2255	2705	3530	4240	2, 40
CB46	4x6	7 ga x2	7	3⁹⁄₁₆	5½	8	—	2	⅝	14350	—	—	4200	4200	
CB48	4x8	7 ga x2	7	3⁹⁄₁₆	7½	8	—	2	⅝	14350	—	—	4200	4200	2, 40, 82, 121
CB5-4.5	GLULAM	7 ga x3	7	4⁹⁄₁₆	5⅛	8	—	2	⅝	14350	—	—	4200	4200	
CB5-6	GLULAM	7 ga x3	7	6⅛	5⅛	8	—	2	⅝	14350	—	—	4200	4200	
LCB66	6x6	12 ga x2	16	5½	5½	5½	12-16d	2	½	17853	2255	2705	3525	4230	2, 40
CB64	6x4	7 ga x3	7	5½	3⁹⁄₁₆	8	—	2	⅝	14350	—	—	4200	4200	
CB66	6x6	7 ga x3	7	5½	5½	8	—	2	⅝	14350	—	—	4200	4200	
CB6-7	6x	7 ga x3	7	5½	7	8	—	2	⅝	14350	—	—	4200	4200	
CB7⅛-4	PSL	3 ga x3	7	7⅛	3½	8	—	2	¾	20650	—	—	6650	6650	
CB7⅛-6	PSL	3 ga x3	7	7⅛	5½	8	—	2	¾	20650	—	—	6650	6650	
CB7⅛-7	PSL	3 ga x3	7	7⅛	7	8	—	2	¾	20650	—	—	6650	6650	
CB68	6x8	7 ga x3	7	5½	7½	8	—	2	⅝	14350	—	—	4200	4200	
CB7-6	GLULAM	3 ga x3	7	6⅛	6¾	8	—	2	¾	20650	—	—	6650	6650	
CB7-7.5	GLULAM	3 ga x3	7	7⁹⁄₁₆	6¾	8	—	2	¾	20650	—	—	6650	6650	
CB7-9	GLULAM	3 ga x3	7	9⅛	6¾	8	—	2	¾	20650	—	—	6650	6650	2, 40, 82, 121
CB7-10.5	GLULAM	3 ga x3	7	10⁹⁄₁₆	6¾	8	—	2	¾	20650	—	—	6650	6650	
CB86	8x6	3 ga x3	7	7½	5½	8	—	2	¾	20650	—	—	6650	6650	
CB88	8x8	3 ga x3	7	7½	7½	8	—	2	¾	20650	—	—	6650	6650	
CB9-6	GLULAM	3 ga x3	7	6⅛	8¾	8	—	2	¾	20650	—	—	6650	6650	
CB9-7.5	GLULAM	3 ga x3	7	7⁹⁄₁₆	8¾	8	—	2	¾	20650	—	—	6650	6650	
CB9-9	GLULAM	3 ga x3	7	9⅛	8¾	8	—	2	¾	20650	—	—	6650	6650	
CB9-10.5	GLULAM	3 ga x3	7	10⁹⁄₁₆	8¾	8	—	2	¾	20650	—	—	6650	6650	
CB1010	10x10	3 ga x3	3	9½	9½	8	—	2	¾	20650	—	—	6650	6650	
CB1012	10x12	3 ga x3	3	9½	11½	8	—	2	¾	20650	—	—	6650	6650	
CB1212	12x12	3 ga x3	3	11½	11½	8	—	2	¾	20650	—	—	6650	6650	

1 Uplift loads have been increased 33⅓% and 60% for earthquake or wind loading, with no further increase allowed; reduce where other loads govern.
2 PSL is parallel strand lumber.
3 LCB nail or bolt loads do not combine.

LUS/MUS/HUS/HHUS/HGUS DOUBLE SHEAR JOIST HANGERS

SIMPSON Strong-Tie

This product is preferable to similar connectors because of a) easier installation, b) higher loads, c) lower installed cost, or a combination of these features.

MUS completes the Simpson Strong-Tie line of face mount truss to truss connectors. The MUS has increased load capacity and bearing compared to LUS connectors for medium load truss applications.

All hangers in this series have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation, and the use of common nails for all connections. *(Do not bend or remove tabs)*

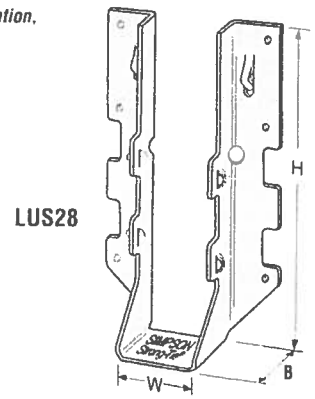
MATERIAL: See tables on page 108 and 109.

FINISH: Galvanized. Some products available in stainless steel or Z-MAX; see Corrosion-Resistance, page 5.

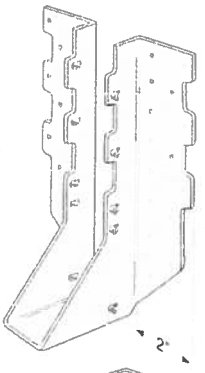
INSTALLATION • Use all specified fasteners. See General Notes.
- Nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.
- 16d sinkers *(9 gauge x 3¼")* may be used where 10d commons are specified with no reduction in load. Where 16d commons are specified, 10d commons or 16d sinkers *(9 gauge x 3¼")* may be used at 0.85 of the table load.
- With 3x carrying members, use 16d x 2½" nails into the header and 16d commons into the joist with no load reduction. With single 2x carrying members, use 10d x 1½" nails into the header and 10d commons into the joist, and reduce the load to 0.64 of the table value.

OPTIONS: • LUS and MUS hangers cannot be modified.
- HUS hangers available with the header flanges turned in for 2-2x *(3⅛")* and 4x only, with no load reduction. See HUSC Concealed Flange illustration.
- Concealed flanges are not available for HGUS and HHUS.
- See Hanger Options, page 164, for sloped and/or skewed HHUS models.
- Other sizes available; consult your Simpson representative.

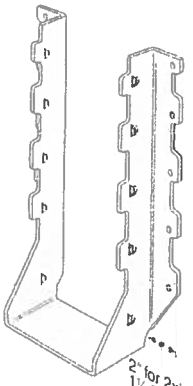
CODES: See page 10 for Code Listing Key Chart.



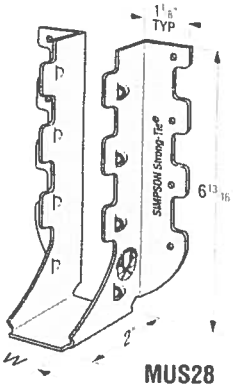
LUS28



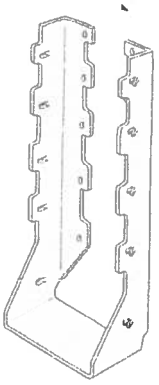
HUS210 *(HUS26, HUS28, and HHUS similar)*



HUS412

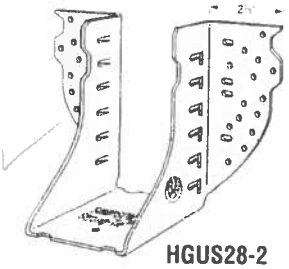


MUS28

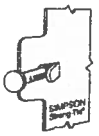


HUSC Concealed Flanges *(not available for HHUS, HGUS and HUS2x)*

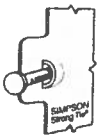
Model No.	Min. Heel Height	Ga	Dimensions W	Dimensions H	Dimensions B	Fasteners Carrying Member	Fasteners Carried Member
SINGLE 2x SIZES							
LUS24	2⅜	18	1⅜6	3⅛	1¾	4-10d	2-10d
LUS26	4¼	18	1⅜6	4¾	1¼	4-10d	4-10d
MUS26	4 1⅜6	18	1⅜6	5⅜6	2	6-10d	6-10d
HUS26	4⅝6	16	1⅝	5⅜	3	14-16d	6-16d
HGUS26	4⅝6	12	1⅝	5⅜	5	20-16d	8-16d
LUS28	4⅝6	18	1⅜6	6⅛	1¾	6-10d	4-10d
MUS28	6⅝6	18	1⅜6	6 13⅜6	2	8-10d	8-10d
HUS28	6½	16	1⅝	7	3	22-16d	8-16d
HGUS28	6⅝6	12	1⅝	7⅛	5	36-16d	12-16d
LUS210	4¼	18	1⅜6	7 1⅜6	1¾	8-10d	4-10d
HUS210	8⅛	16	1⅛	9	3	30-16d	10-16d



HGUS28-2



Double Shear Nailing Side View

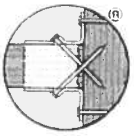


Dome Double Shear Nailing prevents tabs breaking off *(available on some models)*

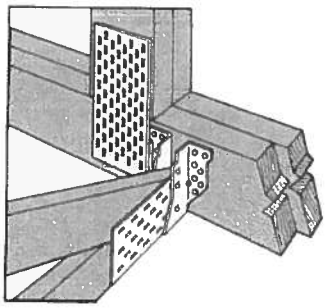
U.S. Patent 5,603,580

Available with additional corrosion protection. Check with factory.

1. See table on page 109 for allowable loads.



Double Shear Nailing Top View



Typical HUS26 with Reduced Heel Height

(Truss Designer to provide fastener quantity for connecting multiple members together)

REDUCED HEEL HEIGHT ALLOWABLE LOADS - DFL ***(See Illustration at Right)***

Model No.	Reduced Heel Height	No. of Carrying Member Plys	Joist Nails	Face Nails	Uplift (133)	Uplift (160)	2x6 Carrying Member Floor (100)	2x6 Snow (115)	2x6 Roof (125)	2x6 Wind (133)	2x6 Wind (160)	2x8 Carrying Member Floor (100)	2x8 Snow (115)	2x8 Roof (125)	2x8 Wind (133)	2x8 Wind (160)
LUS26	3½	1	3-10d	4-10d	730	875	700	805	875	905	905	700	805	875	905	905
		2	3-10d	4-10d	730	875	775	890	970	1030	1235	775	890	970	1030	1235
MUS26	3½	1	4-10d	6-10d	725	725	1000	1150	1250	1330	1390	1000	1150	1250	1330	1390
		2	4-10d	6-10d	725	725	1110	1280	1390	1420	1420	1110	1280	1390	1420	1420
HUS26	3½	1	4-10d	14-10d	985	1035	1360	1360	1360	1360	1360	1360	1360	1360	1360	1360
			4-16d	14-16d	1035	1035	1760	1760	1760	1760	1760	1500	1725	1760	1760	1760
		2	4-10d	14-10d	985	1035	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
			4-16d	14-16d	1035	1035	2425	2695	2695	2695	2695	2425	2695	2695	2695	2695
HGUS26	3⅝6	2	6-10d	20-10d	1535	1745	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
			6-16d	20-16d	1745	1745	2830	2830	2830	2830	2830	2860	2830	2830	2830	2830
LUS28	3½	1	3-10d	6-10d	730	875	700	805	875	905	905	900	1035	1110	1110	1110
		2	3-10d	6-10d	730	875	775	890	970	1030	1235	1010	1160	1260	1340	1480
MUS28	3½	1	4-10d	8-10d	775	775	1000	1150	1250	1330	1390	1200	1300	1300	1300	1300
		2	4-10d	8-10d	775	775	1110	1280	1390	1420	1420	1345	1550	1685	1690	1690
HUS28	3½	1	4-10d	22-10d	985	1000	1360	1360	1360	1360	1360	1710	1710	1710	1710	1710
			4-16d	22-16d	1000	1000	1760	1760	1760	1760	1760	2630	2630	2630	2630	2630
		2	4-10d	22-10d	985	1000	1950	1950	1950	1950	1950	2475	2475	2475	2475	2475
			4-16d	22-16d	1000	1000	2425	2695	2695	2695	2695	3215	3275	3315	3350	3455
HGUS28	3⅝6	2	6-10d	36-10d	1535	1610	2350	2350	2350	2350	2350	3105	3105	3105	3105	3105
			6-16d	36-16d	1610	1610	2830	2830	2830	2830	2830	3740	3740	3740	3740	3740

1. Allowable loads shown consider ANSI/TPI 1-2002 member design criteria.
2. For allowable loads on 2x10 girder bottom chords, multiple ply hangers and on SPF/HF header wood species, see Technical Bulletin **T-REDHEEL**.
3. HGUS, HHUS and HGUQ hangers installed with the joist fastener quantities shown above are recommended for installation on minimum 2-ply 2x girder bottom chords. See **T-REDHEEL** for HHUS and HGUQ allowable loads.
4. Allowable loads are based on the lowest joist fastener holes filled. For the LUS, fill the two lowest joist fasteners holes on the right side of the hanger and the single lowest joist fastener hole on the left side of the hanger.
5. **Wind (133) and (160) is a download rating.**

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

Project Name:	**Kesterke Res**	Builder:	
Address:		Permitting Office:	Columbia
City, State:	,	Permit Number:	
Owner:		Jurisdiction Number:	221000
Climate Zone:	**North**		

1.	New construction or existing	New	
2.	Single family or multi-family	Single family	
3.	Number of units, if multi-family	1	
4.	Number of Bedrooms	3	
5.	Is this a worst case?	Yes	
6.	Conditioned floor area (ft²)	1476 ft²	
7.	Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)		
a.	U-factor: (or Single or Double DEFAULT)	Description Area 7a. (Dble Default) 215.0 ft²	
b.	SHGC: (or Clear or Tint DEFAULT)	7b. (Clear) 215.0 ft²	
8.	Floor types		
a.	Slab-On-Grade Edge Insulation	R=0.0, 174.0(p) ft	
b.	N/A		
c.	N/A		
9.	Wall types		
a.	Frame, Wood, Exterior	R=13.0, 1192.0 ft²	
b.	Frame, Wood, Adjacent	R=13.0, 400.0 ft²	
c.	N/A		
d.	N/A		
e.	N/A		
10.	Ceiling types		
a.	Under Attic	R=30.0, 1476.0 ft²	
b.	Under Attic	R=19.0, 268.0 ft²	
c.	N/A		
11.	Ducts		
a.	Sup: Con. Ret: Con. AH: Interior	Sup. R=6.0, 160.0 ft	
b.	N/A		

12.	Cooling systems		
a.	Central Unit	Cap: 30.0 kBtu/hr SEER: 13.00	
b.	N/A		
c.	N/A		
13.	Heating systems		
a.	Electric Heat Pump	Cap: 30.0 kBtu/hr HSPF: 8.00	
b.	N/A		
c.	N/A		
14.	Hot water systems		
a.	Electric Resistance	Cap: 50.0 gallons EF: 0.90	
b.	N/A		
c.	Conservation credits (HR-Heat recovery, Solar DHP-Dedicated heat pump)		
15.	HVAC credits (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating)		

Glass/Floor Area: 0.15

Total as-built points: 21221
Total base points: 24404

PASS

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

PREPARED BY: _____

DATE: 8-29-06

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.

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , , PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BSPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	SPM X	SOF	= Points	
.18	1476.0	20.04	5324.2	Double, Clear	W	0.0	0.0	40.0	38.52	1.00	1541.0	
				Double, Clear	N	0.0	0.0	57.0	19.20	1.00	1094.4	
				Double, Clear	S	0.0	0.0	26.0	35.87	1.00	932.5	
				Double, Clear	E	0.0	0.0	92.0	42.06	1.00	3869.9	
				As-Built Total:				**215.0**			**7437.7**	
WALL TYPES	Area X	BSPM	= Points	Type			R-Value	Area X	SPM	=	Points	
Adjacent	400.0	0.70	280.0	Frame, Wood, Exterior			13.0	1192.0	1.50		1788.0	
Exterior	1192.0	1.70	2026.4	Frame, Wood, Adjacent			13.0	400.0	0.60		240.0	
Base Total:	**1592.0**		**2306.4**	**As-Built Total:**				**1592.0**			**2028.0**	
DOOR TYPES	Area X	BSPM	= Points	Type				Area X	SPM	=	Points	
Adjacent	18.0	2.40	43.2	Exterior Insulated				20.0	4.10		82.0	
Exterior	20.0	6.10	122.0	Adjacent Insulated				18.0	1.60		28.8	
Base Total:	**38.0**		**165.2**	**As-Built Total:**				**38.0**			**110.8**	
CEILING TYPES	Area X	BSPM	= Points	Type			R-Value	Area X	SPM X SCM	=	Points	
Under Attic	1476.0	1.73	2553.5	Under Attic			30.0	1476.0	1.73 X 1.00		2553.5	
				Under Attic			19.0	268.0	2.34 X 1.00		627.1	
Base Total:	**1476.0**		**2553.5**	**As-Built Total:**				**1744.0**			**3180.6**	
FLOOR TYPES	Area X	BSPM	= Points	Type			R-Value	Area X	SPM	=	Points	
Slab	174.0(p)	-37.0	-6438.0	Slab-On-Grade Edge Insulation			0.0	174.0(p	-41.20		-7168.8	
Raised	0.0	0.00	0.0									
Base Total:			**-6438.0**	**As-Built Total:**				**174.0**			**-7168.8**	
INFILTRATION	Area X	BSPM	= Points					Area X	SPM	=	Points	
	1476.0	10.21	15070.0					1476.0	10.21		15070.0	

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , ,	PERMIT #:

BASE			AS-BUILT					
Summer Base Points: 18981.3			**Summer As-Built Points:**					**20658.3**
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
			(sys 1: Central Unit 30000 btuh ,SEER/EFF(13.0) Ducts:Con(S),Con(R),Int(AH),R6.0(INS)					
			20658	1.00	(1.00 x 1.147 x 0.91)	0.263	1.000	5661.0
18981.3	**0.4266**	**8097.4**	**20658.3**	**1.00**	**1.044**	**0.263**	**1.000**	**5661.0**

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , , PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BWPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	WPM X	WOF	= Points	
.18	1476.0	12.74	3384.8	Double, Clear	W	0.0	0.0	40.0	20.73	1.00	829.1	
				Double, Clear	N	0.0	0.0	57.0	24.58	1.00	1400.9	
				Double, Clear	S	0.0	0.0	26.0	13.30	1.00	345.7	
				Double, Clear	E	0.0	0.0	92.0	18.79	1.00	1729.0	
				As-Built Total:				**215.0**			**4304.7**	
WALL TYPES	Area X	BWPM	= Points	Type			R-Value	Area X	WPM	=	Points	
Adjacent	400.0	3.60	1440.0	Frame, Wood, Exterior			13.0	1192.0	3.40		4052.8	
Exterior	1192.0	3.70	4410.4	Frame, Wood, Adjacent			13.0	400.0	3.30		1320.0	
Base Total:	**1592.0**		**5850.4**	**As-Built Total:**				**1592.0**			**5372.8**	
DOOR TYPES	Area X	BWPM	= Points	Type				Area X	WPM	=	Points	
Adjacent	18.0	11.50	207.0	Exterior Insulated				20.0	8.40		168.0	
Exterior	20.0	12.30	246.0	Adjacent Insulated				18.0	8.00		144.0	
Base Total:	**38.0**		**453.0**	**As-Built Total:**				**38.0**			**312.0**	
CEILING TYPES	Area X	BWPM	= Points	Type			R-Value	Area X	WPM X	WCM =	Points	
Under Attic	1476.0	2.05	3025.8	Under Attic			30.0	1476.0	2.05 X	1.00	3025.8	
				Under Attic			19.0	268.0	2.70 X	1.00	723.6	
Base Total:	**1476.0**		**3025.8**	**As-Built Total:**				**1744.0**			**3749.4**	
FLOOR TYPES	Area X	BWPM	= Points	Type			R-Value	Area X	WPM	=	Points	
Slab	174.0(p)	8.9	1548.6	Slab-On-Grade Edge Insulation			0.0	174.0(p	18.80		3271.2	
Raised	0.0	0.00	0.0									
Base Total:			**1548.6**	**As-Built Total:**				**174.0**			**3271.2**	
INFILTRATION	Area X	BWPM	= Points					Area X	WPM	=	Points	
	1476.0	-0.59	-870.8					1476.0	-0.59		-870.8	

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , ,	PERMIT #:

BASE				AS-BUILT						
Winter Base Points:			**13391.7**	**Winter As-Built Points:**						**16139.3**
Total Winter Points	X	System Multiplier	= Heating Points	Total Component (System - Points)	X	Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points
				(sys 1: Electric Heat Pump 30000 btuh ,EFF(8.0) Ducts:Con(S),Con(R),Int(AH),R6.0						
				16139.3		1.000	(1.000 x 1.169 x 0.93)	0.426	1.000	7479.0
13391.7		**0.6274**	**8402.0**	**16139.3**		**1.00**	**1.087**	**0.426**	**1.000**	**7479.0**

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: , , , PERMIT #:

BASE			AS-BUILT						
WATER HEATING									
Number of Bedrooms	X Multiplier	= Total	Tank Volume	EF	Number of Bedrooms	X Tank Ratio	X Multiplier	X Credit Multiplier	= Total
3	2635.00	7905.0	50.0	0.90	3	1.00	2693.56	1.00	8080.7
			As-Built Total:						**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
8097	**8402**	**7905**	**24404**	**5661**	**7479**	**8081**	**21221**

PASS

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: , , ,	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.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 85.5

The higher the score, the more efficient the home.

1.	New construction or existing	New	12.	Cooling systems	
2.	Single family or multi-family	Single family		a. Central Unit	Cap: 30.0 kBtu/hr
3.	Number of units, if multi-family	1			SEER: 13.00
4.	Number of Bedrooms	3		b. N/A	
5.	Is this a worst case?	Yes			
6.	Conditioned floor area (ft²)	1476 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	13.	Heating systems	
	(or Single or Double DEFAULT) 7a.	(Dble Default) 215.0 ft²		a. Electric Heat Pump	Cap: 30.0 kBtu/hr
	b. SHGC:				HSPF: 8.00
	(or Clear or Tint DEFAULT) 7b.	(Clear) 215.0 ft²		b. N/A	
8.	Floor types				
	a. Slab-On-Grade Edge Insulation	R=0.0, 174.0(p) ft		c. N/A	
	b. N/A				
	c. N/A		14.	Hot water systems	
9.	Wall types			a. Electric Resistance	Cap: 50.0 gallons
	a. Frame, Wood, Exterior	R=13.0, 1192.0 ft²			EF: 0.90
	b. Frame, Wood, Adjacent	R=13.0, 400.0 ft²		b. N/A	
	c. N/A				
	d. N/A			c. Conservation credits	
	e. N/A			(HR-Heat recovery, Solar	
10.	Ceiling types			DHP-Dedicated heat pump)	
	a. Under Attic	R=30.0, 1476.0 ft²	15.	HVAC credits	
	b. Under Attic	R=19.0, 268.0 ft²		(CF-Ceiling fan, CV-Cross ventilation,	
	c. N/A			HF-Whole house fan,	
11.	Ducts			PT-Programmable Thermostat,	
	a. Sup: Con. Ret: Con. AH: Interior	Sup. R=6.0, 160.0 ft		MZ-C-Multizone cooling,	
	b. N/A			MZ-H-Multizone heating)	

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

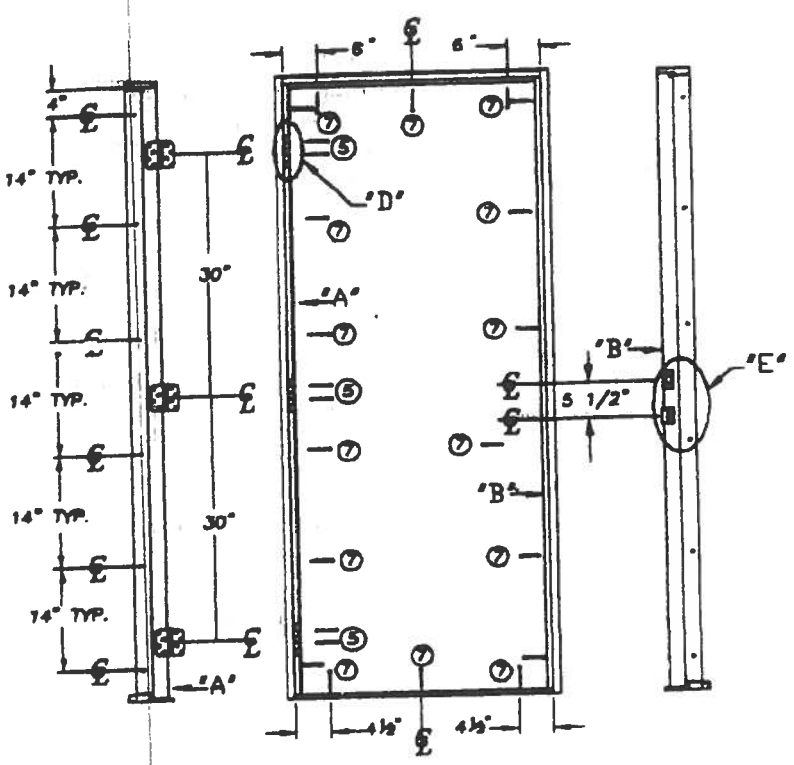
Builder Signature: _____ Date: _____

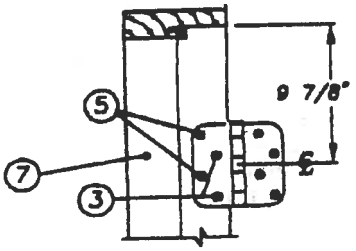
Address of New Home: _____ City/FL Zip: _____

**NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ 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.

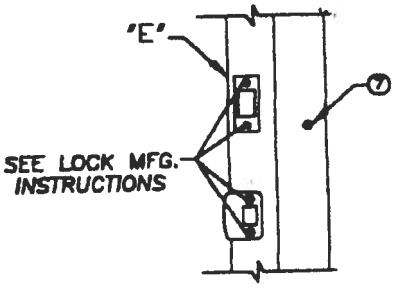
FINAL ANCHORING OF A WOOD FRAME UP TO 5'4 X 6'8
SINGLE OUTSWING UNIT W/WO SIDELITES
PRODUCT ACCEPTANCE No.: DS0221





"D" HINGE DETAIL

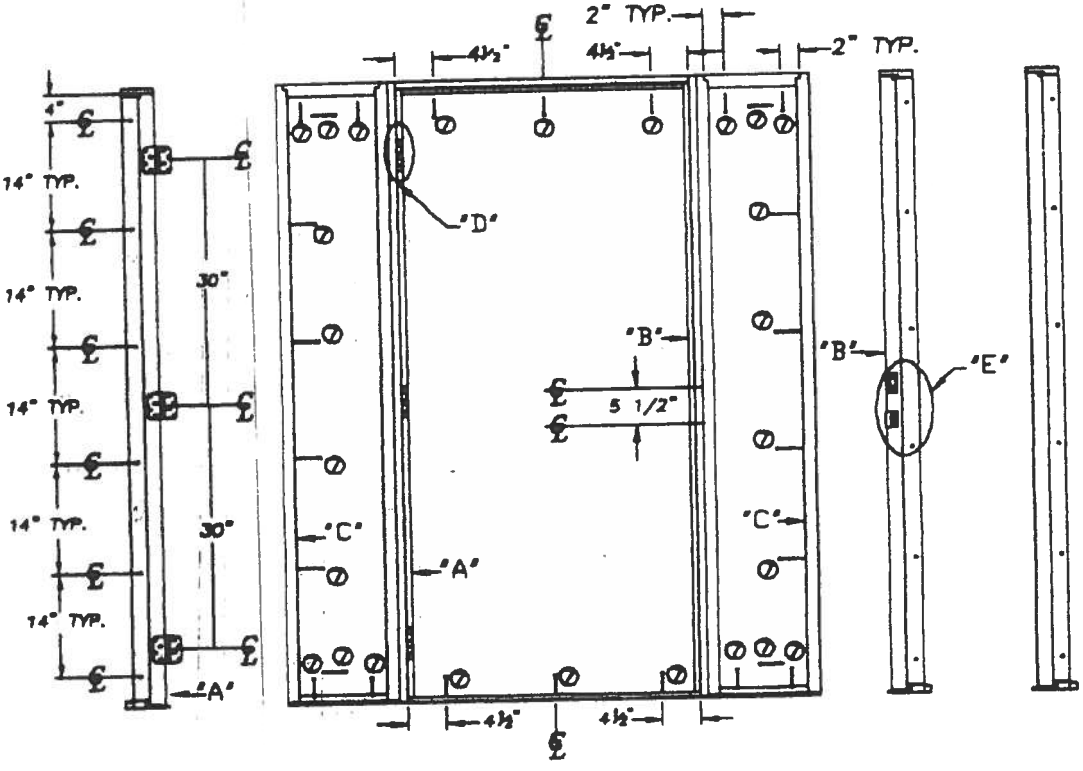
NOTE:
WHEN SIDELITE IS ATTACHED TO HINGE JAMB A #④ SCREW MUST BE USED INSTEAD OF A #⑤ SCREW AND A #⑦ SCREW PER SCREW SCHE

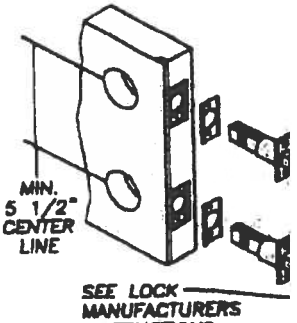


"E" LATCH DETAIL

NOTE:
WHEN SIDELITE IS ATTACHED TO LATCH JAMB USE #8 X 1 3/4" PHILLIPS FLAT HEAD SCREWS IN STRIKE PLATES, AND #④ SCREW INPLACE OF #⑦ FROM SCREW SCHEDUL

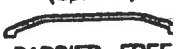
SCREW SCHEDULE		
③	#10 X 5/8"	PHILLIPS FLAT HEAD
④	#10 X 1 3/4"	PHILLIPS FLAT HEAD
⑤	#10 X 2"	PHILLIPS FLAT HEAD
⑦	#10 X 3"	PHILLIPS FLAT HEAD



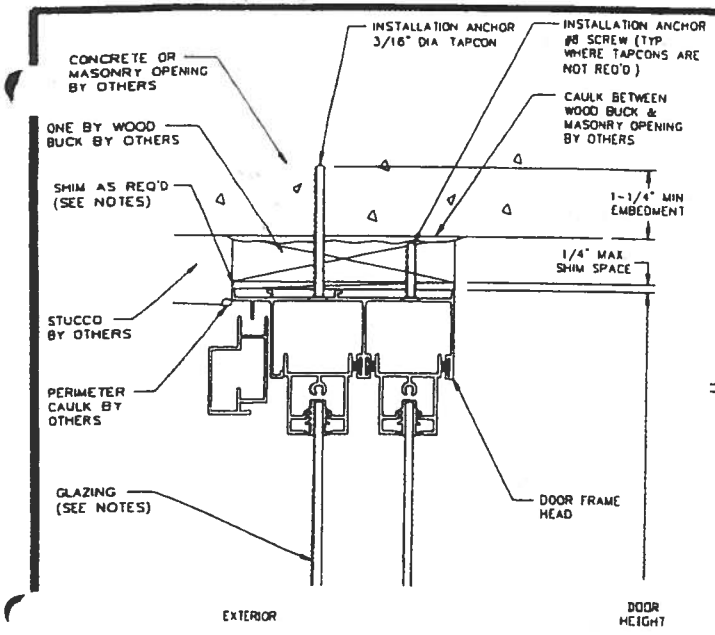


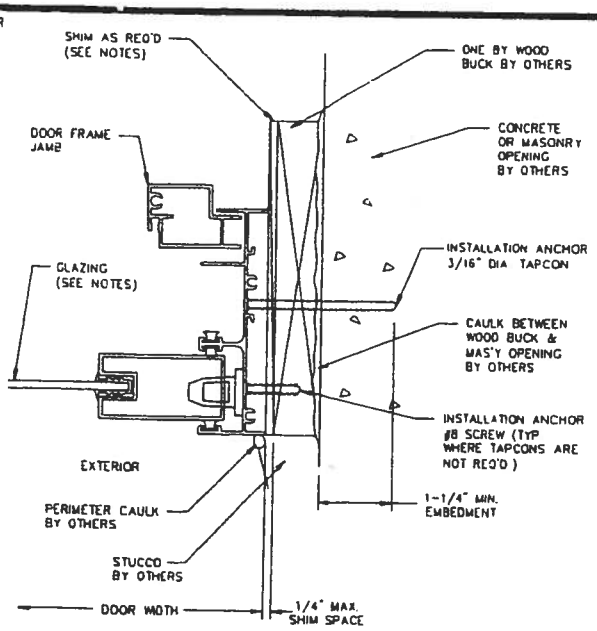
ALUMINUM / WOOD
Outswing Threshol

ALUMINUM BU
Outswing Thresh
(Optional)



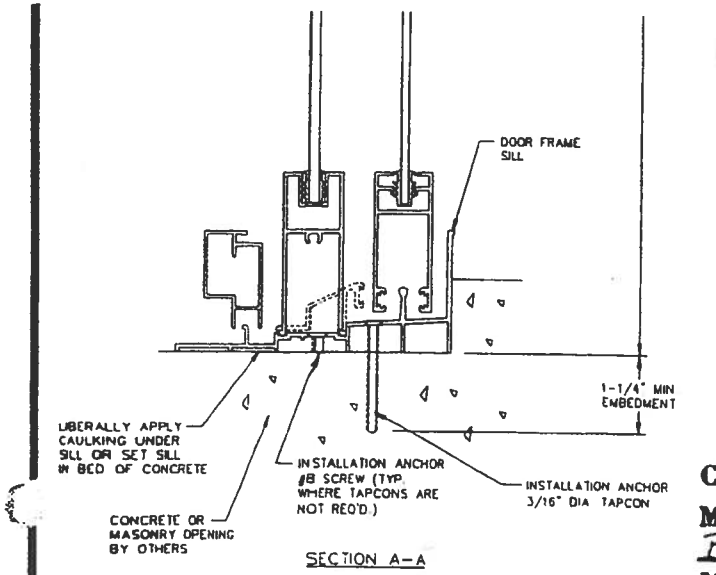
BARRIER-FREE
Threshold



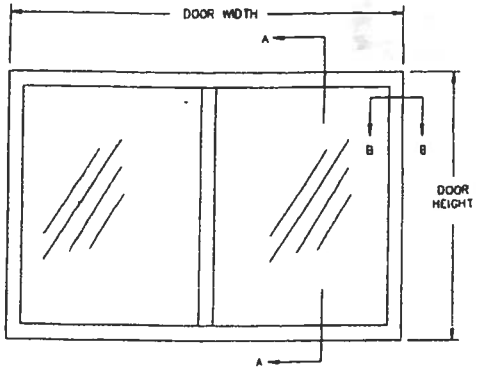


SECTION B-B

TAPCON INSTALLATION CHART					
CALL SIZE	DOOR SIZE	LOCATION IN HEAD & SILL			EA JAMB
		UP TO 45 PSF DP	46 PSF TO 60 PSF DP	61 PSF TO 70 PSF DP	UP TO 70 PSF DP
5068 XO, OX, XX	60 x 80	3	3	3	4
6068 XO, OX, XX	72 x 80	4	4	4	4
8068 XO, OX, XX	96 x 80	5	5	5	4
10068 XO, OX, XX	120 x 80	6	6	7	4
5080 XO, OX, XX	60 x 96	3	3	3	5
6080 XO, OX, XX	72 x 96	3	3	3	5
8080 XO, OX, XX	96 x 96	4	4	5	5
10080 XO, OX, XX	120 x 96	6	6	7	5
7668 OXO	91-3/4 x 80	5	5	5	4
9068 OXO	109-3/4 x 80	5	5	6	4
12068 OXO	145-3/4 x 80	7	7	9	4
15068 OXO	181-3/4 x 80	8	10	11	4
7680 OXO	91-3/4 x 96	5	5	5	5
9080 OXO	109-3/4 x 96	5	5	6	5
12080 OXO	145-3/4 x 96	7	8	9	5
15080 OXO	181-3/4 x 96	8	11	13	5
7668 XIX	88-9/16 x 80	5	5	5	4
9068 XIX	106-9/16 x 80	5	5	6	4
12068 XIX	142-9/16 x 80	7	7	8	4
15068 XIX	178-9/16 x 80	8	10	11	4
7680 XIX	88-9/16 x 96	5	5	5	5
9080 XIX	106-9/16 x 96	5	5	6	5
12080 XIX	142-9/16 x 96	7	8	9	5
15080 XIX	178-9/16 x 96	8	11	13	5
10068 OXXO, XXXX	120-5/8 x 80	6	6	7	4
12068 OXXO, XXXX	144-5/8 x 80	7	7	8	4
16068 OXXO, XXXX	192-5/8 x 80	9	10	12	4
10080 OXXO, XXXX	120-5/8 x 96	6	6	7	5
12080 OXXO, XXXX	144-5/8 x 96	7	8	9	5
16080 OXXO, XXXX	192-5/8 x 96	9	12	14	5



SECTION A-A



EXTERIOR ELEVATION

NOTES:
1) DOOR MATERIAL: ALUMINUM ALLOY 6063.
2) TAPCON TYPE INSTALLATION ANCHORS MUST BE OF SUFFICIENT LENGTH TO ACHIEVE MIN EMBEDMENT OF 1-1/4" INTO MASONRY OR CONCRETE.
3) ALTERNATE TAPCON INSTALLATION ANCHORS FRONT TO BACK IN ALL FRAME MEMBERS
4) USE LATEX CAULK FOR PERIMETER SEAL AROUND EXTERIOR OF DOOR.
5) IF EXACT DOOR SIZE IS NOT LISTED IN ANCHOR CHART, USE ANCHOR QUANTITY LISTED WITH NEXT LARGER SIZE, FOR THE APPROPRIATE DESIGN PRESSURE REQ'D.
6) SINGLE GLAZING SHOWN, INSULATED GLAZING ALSO APPROVED. TEMPERED GLASS THICKNESS MAY VARY PER REQUIREMENTS OF ASTM E1300 GLASS CHARTS.
7) ALL FACTORY APPLIED HOLES NOT DESIGNED FOR TAPCON ANCHOR SHOULD BE FILLED WITH #8 SCREWS OF SUFFICIENT LENGTH TO PROVIDE MIN 5/8" EMBEDMENT INTO WOOD BUCK.
8) JAMB / SILL CORNERS ARE TO BE SEALED WITH A SMALL JOINT SEAM SEALER.
9) SHIM AS REQ'D. AT CA. SET OF INSTALLATION ANCHORS. MAX. ALLOWABLE SHIM STACK TO BE 1/4".
10) ALL INSTALLATION ANCHORS MUST BE MADE OF CORROSION RESISTANT MATERIALS.
11) WHERE "X" REPRESENTS MOVING PANEL AND "O" REPRESENTS FIXED PANEL APPROVED CONFIGURATIONS ARE AS LISTED ON INSTALLATION CHART.
12) NOT ALL CONFIGURATIONS LISTED ABOVE ARE SHOWN ON THIS DRAWING, HOWEVER INSTALLATION SECTIONS "A-A" & "B-B" APPLY TO INSTALLATION OF ALL APPROVED CONFIGURATIONS.
13) MAX ALLOWABLE SPACING BETWEEN TAPCON ANCHORS TO BE 24" O.C.
14) SERIES 470 SLIDING GLASS DOOR IS SHOWN. THIS PRINT ALSO APPLIES TO SERIES 440 SERIES
15) WHERE DOOR IS INSTALLED IN WOOD FRAME STRUCTURE, USE [illegible] LENGTH TO ACHIEVE 1-3/8" MIN. EMBEDMENT INTO SUBSTRATE. PLACE #10 SCREWS [illegible]

CENTRAL FLORIDA B.O.

MANUFACTURER NAME: BETTER BILT / MI HOMES

MASTER FILE # 2

02-15-02

MI HOME PRODUCTS GRATZ, PA.			
TITLE: SERIES 470 SLIDING GLASS DOOR INSTALLATION WITH TAPCONS			
ENGINEER: MANUAL MARTINEZ	DRN: BB	DATE: 1/29/02	
DISCIPLINE: CIVIL	SCALE: N.T.S.	DWG. NO: MIHP0018	
FL. REG NO: 47182	REV. LETTER:	SHEET: 1 OF 1	

PREPARED BY: PRODUCT & APPLICATION ENGINEERING, INC. 250 INTERNATIONAL BLVD., SUITE 230, HEATHROW, FLORIDA 32746 PHONE (407) 333-6383 FAX (407) 333-6384

GARAGE

EVALUATION ENTITY
Gary Pfuehler, P. E.
5665 Green Oak Court
Fairfield, OH 45014

Product Evaluation Report for Florida DCA

Evaluation Report # 73W4-16

MANUFACTURER
Clopay Building Products Company
8585 Duke Blvd.
Mason, OH 45040
513.770.4800

Statement of Compliance:

The Clopay Building Products Company sectional doors as described on the drawings listed below meet the design and test pressures shown. Based on the testing and rational analysis detailed below, this product is evaluated to be in compliance with the following provisions of the Florida Building Code:

☒ **Outside the HVHZ**: Wind Loads (tested in compliance with FBC 1714.5.3.1, ref. ANSI/DASMA 108 or TAS 202)

☐ **Inside the HVHZ**: Wind Loads for HVHZ (tested in compliance with FBC 1714.5.3.1, ref. TAS 202), 1625 Cyclic Tests for HVHZ (ref. TAS 203), 1626 Impact Tests for HVHZ (ref. TAS 201)

Description of Product: Steel Pan (min. 25 ga.) Double Car (9'2" to 16'0" wide) WINDCODE® W4 Garage Door
Design Pressures: +24/-24.5 Test Pressures: +36/-37

Specific Models and Technical Documentation:

Model	Test Report	Drawing No.	Comments
73W4, 1500W4, 75W4, 190W4, 84AW4, 94W4	HCN-41	101711-Rev06	Glazing approved per HCN-41, HCN-3. Low head room track approved per HCN-126.
42W4, 48W4, 55W4	HCN-41	102047-Rev05	Glazing approved per HCN-41, HCN-3. Low head room track approved per HCN-126.
4RSTW4, 6RSTW4	HCN-41	102138-Rev03	Glazing approved per HCN-41, HCN-3. Low head room track approved per HCN-126.
4RSFW4, 6RSFW4	HCN-41	102410-Rev02	Glazing approved per HCN-41, HCN-3. Low head room track approved per HCN-126
110RW4, 120RW4	HCN-41	101980-Rev05	Glazing approved per HCN-41, HCN-3. Low head room track approved per HCN-126
H73W4, H500W4, H94W4	HCN-41	102486-Rev03	Model uses horizontal reinforcement, door height does not affect performance.
H4STW4, H6STW4	HCN-41	102492-Rev02	Model uses horizontal reinforcement, door height does not affect performance.
H4SFW4, H6SFW4	HCN-41	102577-Rev02	Model uses horizontal reinforcement; door height does not affect performance.

Installation requirements: Installation must be in accordance with manufacturer's installation instructions.

Limitations and conditions of use: Jambs, lintels, sills or other structural elements required to prepare openings are not covered. The design of the supporting structural elements shall be the responsibility of the professional of record for the building or structure and in accordance with current building codes for the loads listed on the drawing(s) referenced above.

Certification of Independence of Evaluation Entity: I hereby certify that (1) I have no financial interest in Clopay Building Products Company; (2) I am an independent licensed Professional Engineer in the State of Florida, and (3) I comply with the criteria of independence as stated in 9B-72.110 F.A.C.

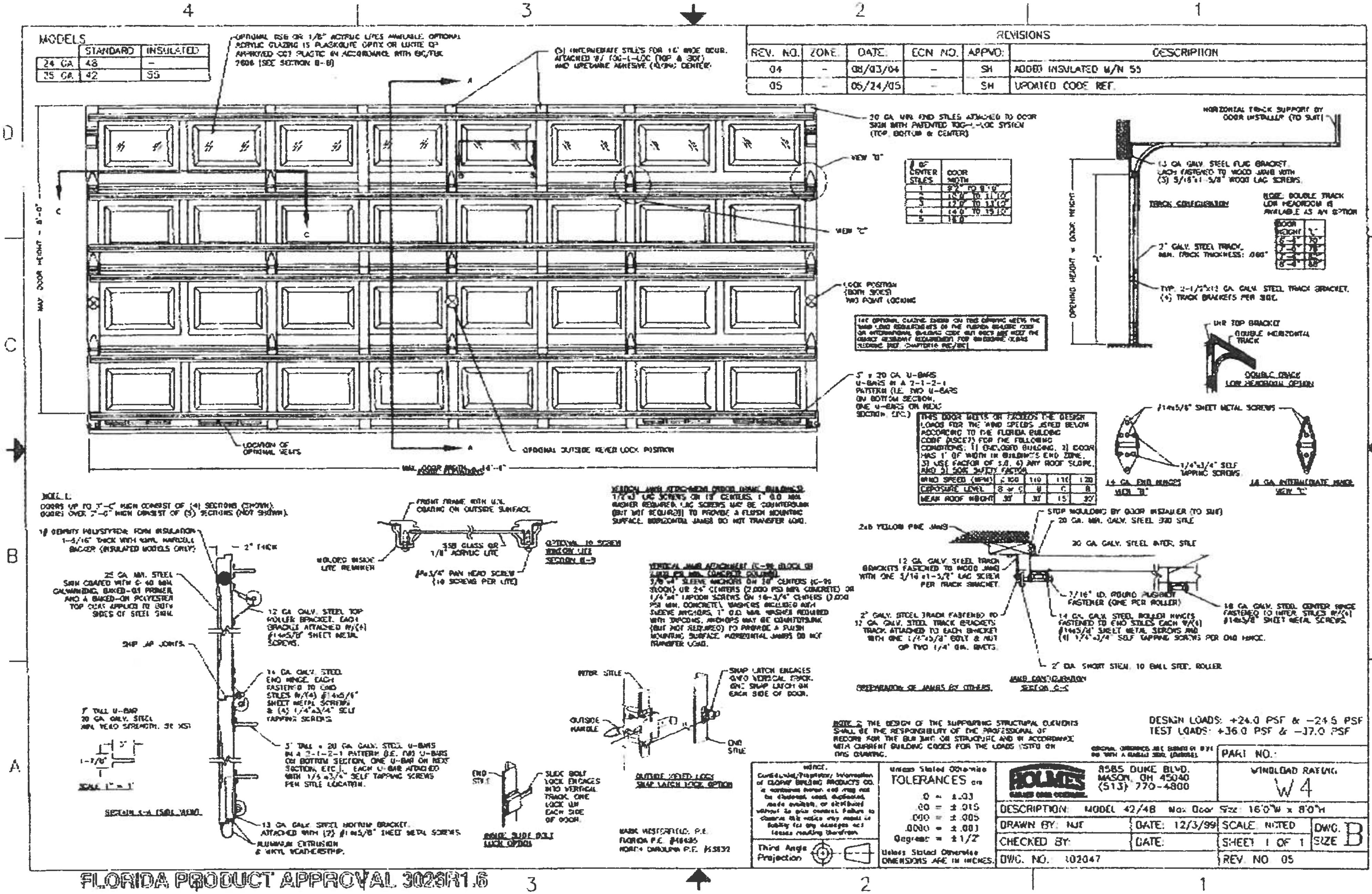
Signature:

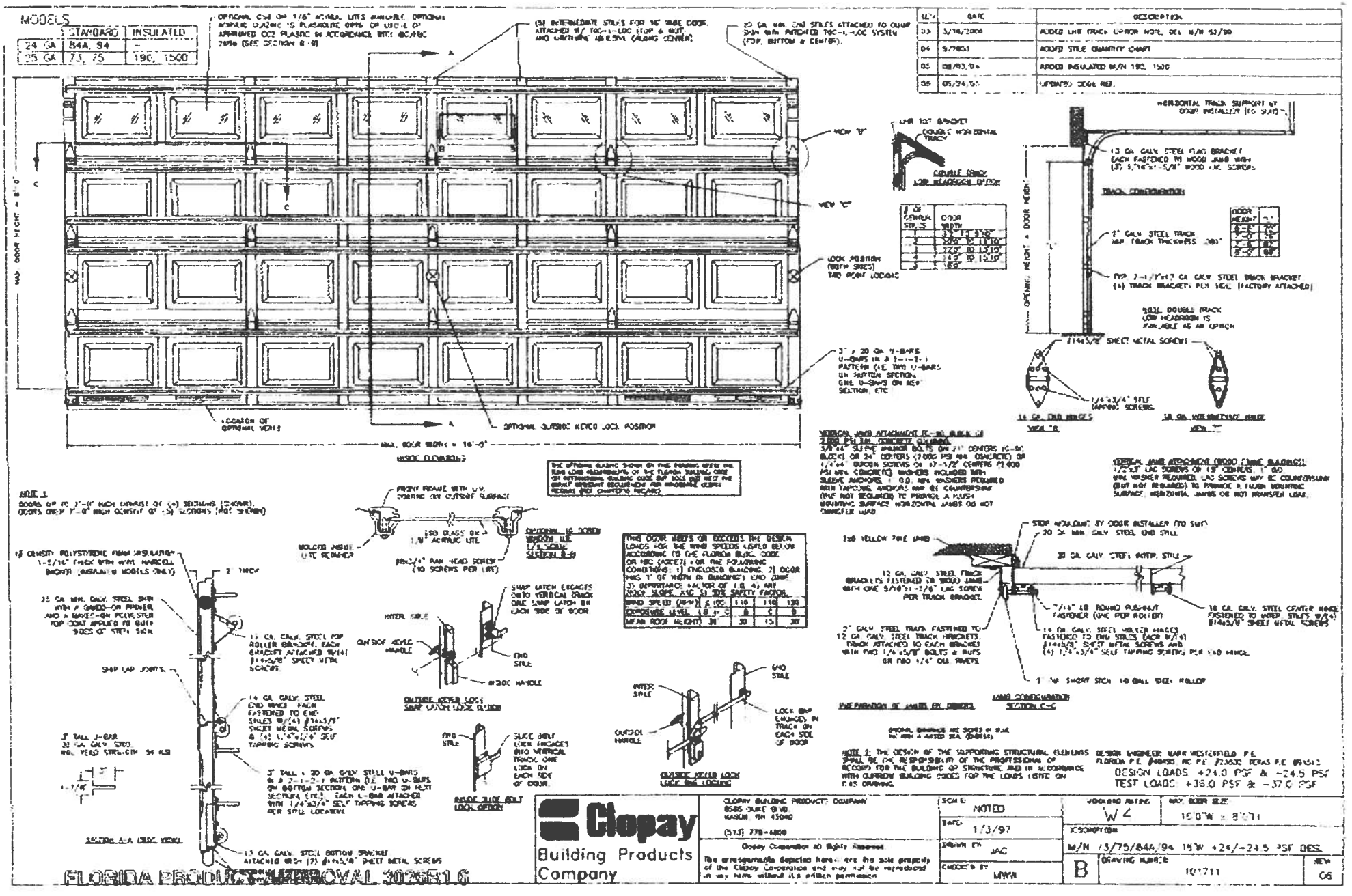
Gary Pfuehler, P. E.
Florida P. E. No. 49850

Date: 6/30/05

FILE: 73W4-16-Rev03

FLORIDA PRODUCT APPROVAL 3026R1.6


MODELS
STANDARD | INSULATED
24 GA. | 48 | -
25 GA. | 42 | 55
REVISIONS
REV. NO. | ZONE | DATE | ECN NO. | APPVD. | DESCRIPTION
04 | - | 08/03/04 | - | SH | ADDED INSULATED M/N 55
05 | - | 05/24/05 | - | SH | UPDATED CODE REF.
DESIGN LOADS: +24.0 PSF & -24.5 PSF
TEST LOADS: +36.0 PSF & -37.0 PSF
HOLMES
8585 DUKE BLVD.
MASON, OH 45040
(513) 770-4800
TOLERANCES
.0 = ±.03
.00 = ±.015
.000 = ±.005
.0000 = ±.001
Degrees = ±1/2°
Third Angle Projection
PART NO.
WINDLOAD RATING
W 4
DESCRIPTION: MODEL 42/48 Max Door Size: 16'0"W x 8'0"H
DRAWN BY: NJF
DATE: 12/3/99
SCALE: NOTED
CHECKED BY:
DATE:
SHEET 1 OF 1
DWG. SIZE B
DWG. NO. 102047
REV. NO. 05
FLORIDA PRODUCT APPROVAL 3026R1.6



REV	DATE	DESCRIPTION
03	3/14/2006	ADDED LIFT TRACK OPTION NOTE, DEL M/N 93/99
04	9/2003	ADDED STILE QUANTITY CHART
05	08/03/04	ADDED INSULATED M/N 19G, 15G
06	05/24/05	UPDATED DOOR REF.

W4- 3026.1

INSTALLATION INSTRUCTIONS

Single Car Clopay WindCode® Instructions

(For use with Insulated and Uninsulated Steel Residential Garage Door Instruction Manual)

Things to Know Before You Begin

This is a supplement to the Clopay **Steel Residential Garage Door Instructions (Steel)** and **Insulated Steel Garage Door Instructions (Insulated)** (Referred to as MANUAL). It covers important information unique to Clopay WindCode® Doors. For all other information and safety warnings concerning your Clopay WindCode® garage door, see the MANUAL. Read all of the information below before beginning installation.

WindCode® doors require additional struts and hinge attachments beyond what is required on standard doors. The installation and attachment of these struts and hinges are outlined in this manual. Specifically, these instructions cover the following hardware attachment:

1) Attachment of Hinges
2) Top Bracket Installation
3) Addition and Attachment of Struts
4) Jamb / Track Configuration
5) Track Bracket Placement

Each Clopay WindCode® door is included in one of nine categories: W1 - W9. Each category covers a different range of windload and subsequently, a specific strut configuration. (Tables 1 & 2)

Table 1

Windload Category	Test Windload (P.S.F.)	Approximate Test MPH Gust Speed
W1	16 to 23	90
W2	24 to 28	100
W3	29 to 33	110
W4	34 to 42	120
W5	43 to 54	140
W6	55 to 60	150
W7	60 to 68	155
W8	69 to 81	170
W9	81 +	180

Clopay®

Consumer Hotline
1-800-225-6729

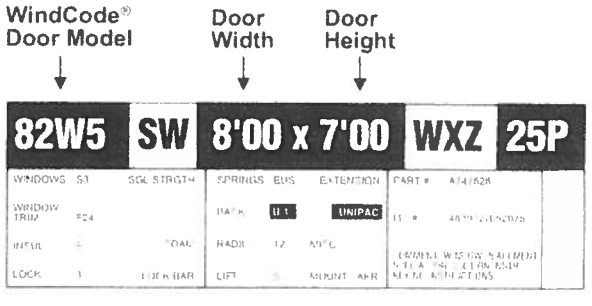
NOTE: It is the buyer's responsibility to purchase the garage door required to meet local building codes.

Clopay WindCode® garage doors not installed with the proper reinforcement (struts, hinges, jamb brackets, track, fasteners) will not perform as designed to meet the building code requirements.

Windload reinforcement on single car doors (9'0" wide and under) is configured differently than strutting on double car doors (9'2" wide and over).

An electric impact gun is strongly recommended for installation of WindCode® doors.

To determine what door you have, locate the identification sticker found on the end of the door package. This sticker will identify the door size, door model, and windload category. (FIG. 1)



IDENTIFICATION STICKER (Located On Package)
(Example: Model 82 Windload Category W5)

Fig. 1

Bottom Section Strut Installation

Strut Attachment on Bottom of Bottom Section

Depending on the strutting configuration of the WindCode® Door, there are two possible positions that a strut can be installed. For the correct placement, see Table 2 and the corresponding Figures 11 to 16. Position bottom bracket as shown in MANUAL. Position the strut according to the correct figure for the corresponding door model. Drill one 5/32" hole at the top and one 5/32" hole at the bottom of the strut at all hinge locations. If an electric impact gun is used, no holes need to be drilled beforehand. Attach strut to door section with 1/4" x 3/4" self-tapping screws at each drilled hole. (FIG. 2A & 2B)

NOTE: For some models, pushnuts are required with the roller installation. Refer to Table 2 to determine which models use pushnuts. (FIG. 8)

End Hinge Installation

End Hinges

14 Gauge hinges are used at all end stile locations (for more detail see MANUAL). Insert the (4) sheet metal screws as indicated in the MANUAL. Insert the (4) 1/4" x 3/4" self-tapping screws per hinge as shown. (You may have to pilot drill 5/32" holes before installing self-tapping screws.) (FIG. 3)

NOTE: For some models, pushnuts are required with the roller installation. Refer to Table 2 to determine which models use pushnuts. (FIG. 8)

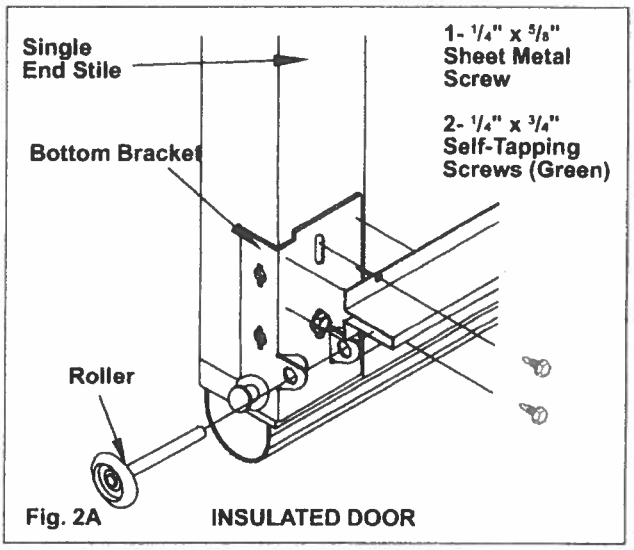


Fig. 2A INSULATED DOOR

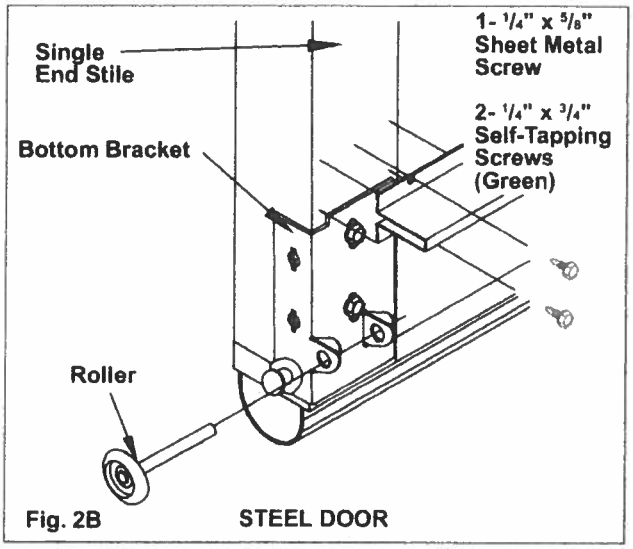


Fig. 2B STEEL DOOR

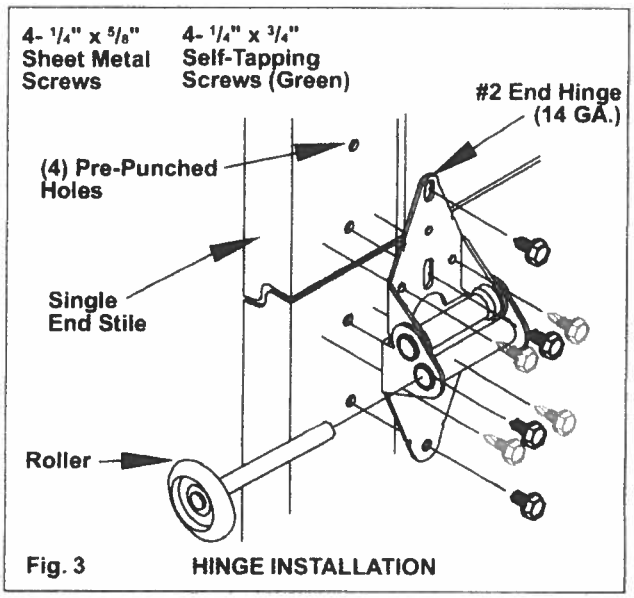


Fig. 3 HINGE INSTALLATION

Intermediate Section Strut Installation

The strut installation for the intermediate section is different for steel and insulated doors. Refer to the appropriate section below.

Single Hinge Strut Attachment (Steel)

Depending on the strutting configuration of the WindCode® Steel Door, there are two possible positions that a strut can be installed. For the correct placement, see Table 2 and the corresponding Figures 11 to 16. To attach strut, position the strut on the door. Drill one 5/32" hole at the top and one 5/32" hole at the bottom of the strut at all hinge locations. If an electric impact gun is being used, no holes need to be drilled beforehand. Attach strut to door section with 1/4" x 3/4" self-tapping screws at each drilled hole. (FIG. 4)

Note that the strut on the top of the section overlaps the bottom leaf of the hinge. If required, a strut mounted at the bottom of the section can be mounted above the hinge leaf. (FIG. 4A)

NOTE: For some models, pushnuts are required with the roller installation. Refer to Table 2 to determine which models use pushnuts. (FIG. 8)

Single Hinge Strut Attachment (Insulated)

Depending on the strutting configuration of the WindCode® insulated door, there are two possible positions that a strut can be installed. For the correct placement, see Table 2 and the corresponding Figures 11 to 16. For insulated doors the struts must overlap the hinge leafs on both the top and bottom. To attach strut, position the strut on the door. Drill one 5/32" hole at the top and one 5/32" hole at the bottom of the strut at all hinge locations. If an electric impact gun is used, no holes need to be drilled beforehand. Attach strut to door section with 1/4" x 3/4" self-tapping screws at each drilled hole. (FIG. 5 & 5A)

NOTE: For some models, pushnuts are required with the roller installation. Refer to Table 2 to determine which models use pushnuts. (FIG. 8)

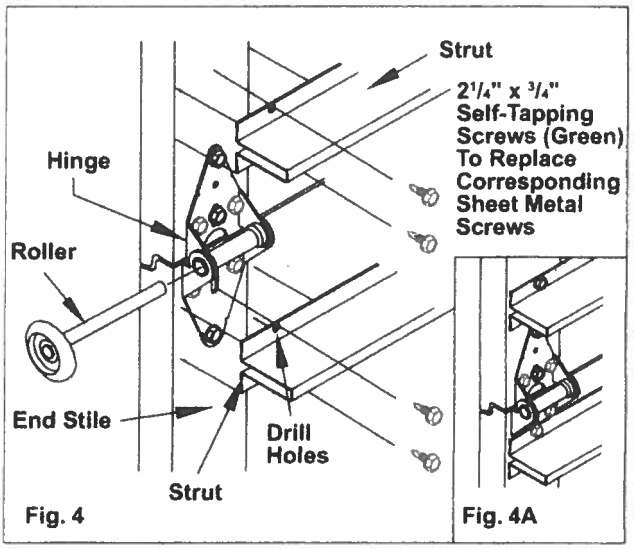


Fig. 4

Fig. 4A

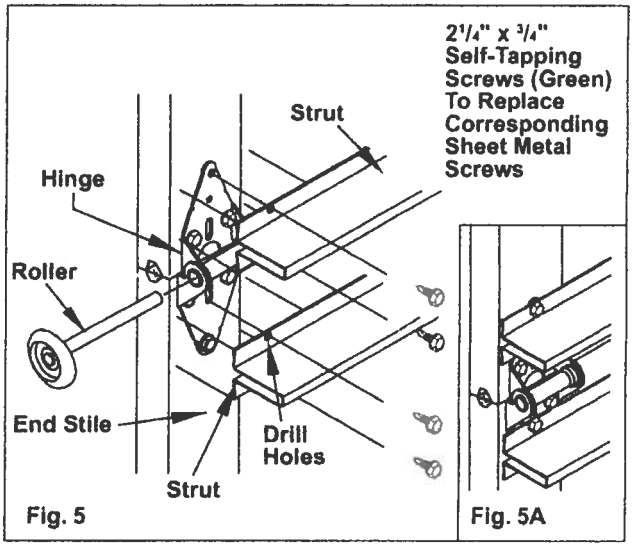


Fig. 5

Fig. 5A

Top Bracket Installation

Top Bracket

In most instances, WindCode® doors use a heavier gauge top bracket. Due to this, the holes in the bracket will not line up with the holes in the stiles. Install the top of the top brackets approximately 3" to 3 1/2" below the top of the section with (4) 1/4" x 3/4" self-tapping screws. Once installed, the slide adjustments must be aligned so that the roller lines up with the track so the door will close flush to the door jamb. (FIG. 6)

NOTE: For some models, pushnuts are required with the roller installation. Refer to Table 2 to determine which models use pushnuts. (FIG. 8)

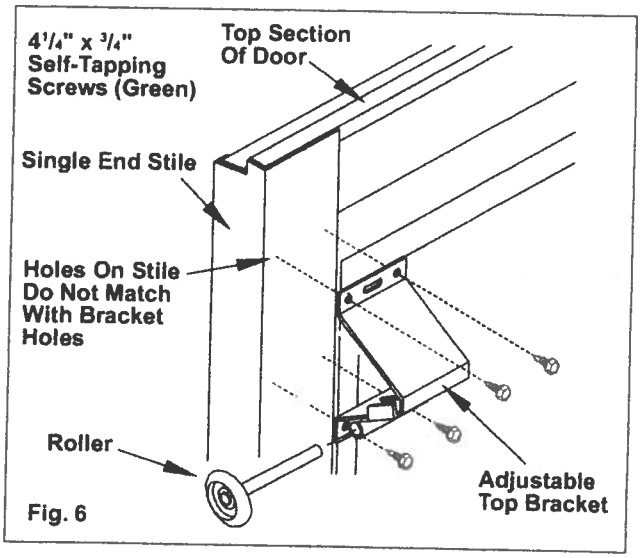


Fig. 6

Top Section Strut Attachment

Depending on the strutting configuration of the WindCode® door, a strut may be required on the top section (See Table 2 and corresponding drawing). To attach a strut at the top of the top section it must be placed above the top roller bracket. Drill one 5/32" hole at the top and one 5/32" hole at the bottom of the strut at all hinge (or back-up plate (insulated) locations.) If an electric impact gun is used, no holes need to be drilled beforehand. Attach strut to door section with 1/4" x 3/4" self-tapping screws at each drilled hole. (FIG. 7)

NOTE: For some models, pushnuts are required with the roller installation. Refer to Table 2 to determine which models use pushnuts. (FIG. 8)

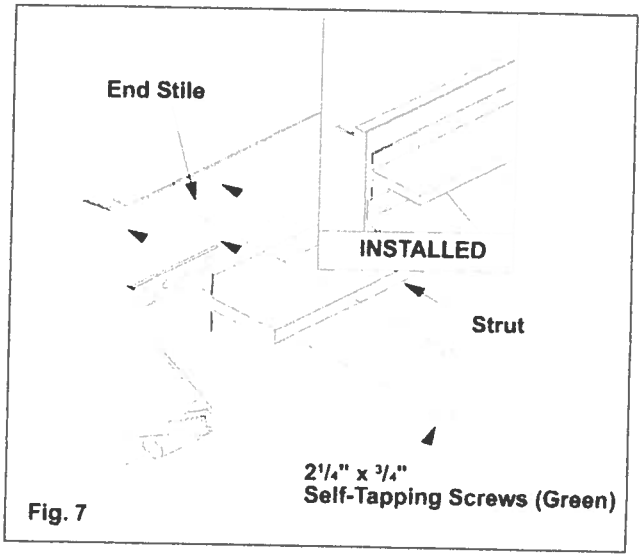


Fig. 7

Roller and Pushnut

To install the pushnut roller, slide the roller into the hinge then slide the pushnut onto the shaft of the roller until it is within an 1/8" to 1/4" from the hinge. (FIG. 8)

NOTE: Do NOT install pushnut before installing roller into hinge. Use 1/2" Deep Draw socket and hammer to tap on pushnuts.

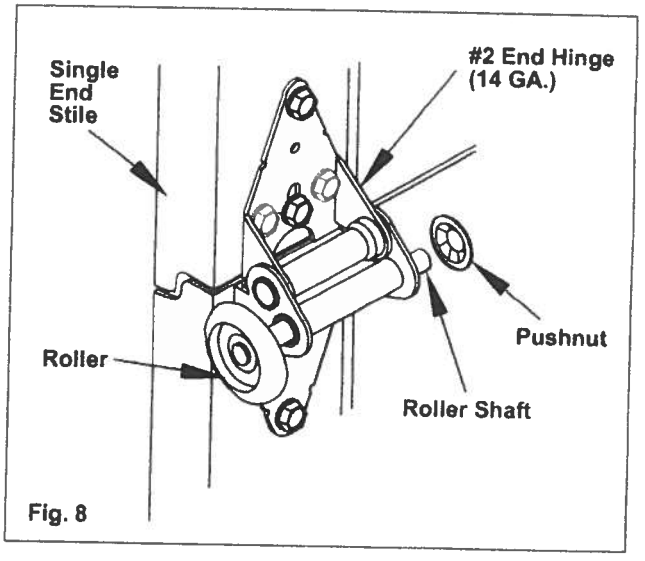


Fig. 8

Jamb Configuration

IMPORTANT

The design of the supporting structural elements (i.e. door jamb) shall be the responsibility of the professional of record for the building or structure and in accordance with current building codes for the loads listed on the technical drawing (attached) for the specific model.

It is also important that the vertical 2 x 6 wood jambs are attached to the supporting structure in a method that is sufficient to transfer the loads exerted by the wind pressures. Some suggested vertical jamb attachment methods are included in the drawings. (FIG. 11 to 16)

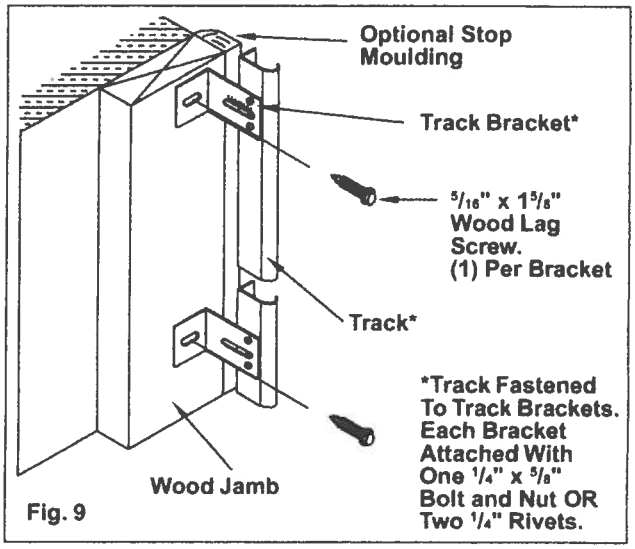
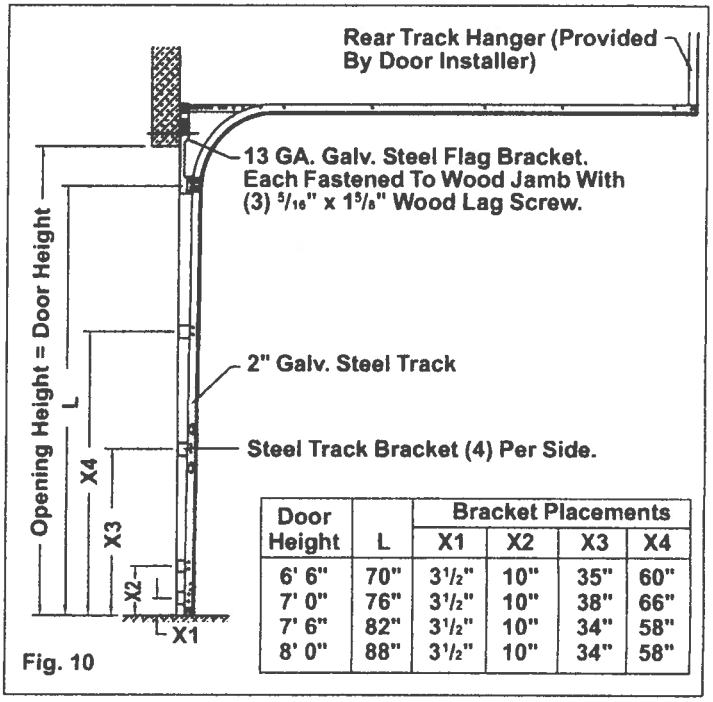


Fig. 9

Track Bracket Placement

Track bracket placement are configured differently according to height. Typically, WindCode® doors require more track brackets than non-WindCode® doors. However, each track bracket is attached to the track and jamb using the same fasteners and method of attachment as shown in the MANUAL. (FIG. 9 & 10)



Door Height	L	Bracket Placements			
		X1	X2	X3	X4
6' 6"	70"	3 1/2"	10"	35"	60"
7' 0"	76"	3 1/2"	10"	38"	66"
7' 6"	82"	3 1/2"	10"	34"	58"
8' 0"	88"	3 1/2"	10"	34"	58"

Fig. 10

Opener Reinforcement Installation

Attachment of Opener Reinforcement

Refer to the MANUAL for installation instructions. If the Clopay WindCode® door requires a strut across the top of the top section, this takes the place of any horizontal angle iron required by the MANUAL. The vertical angle as shown in the MANUAL is still required on WindCode® Doors.

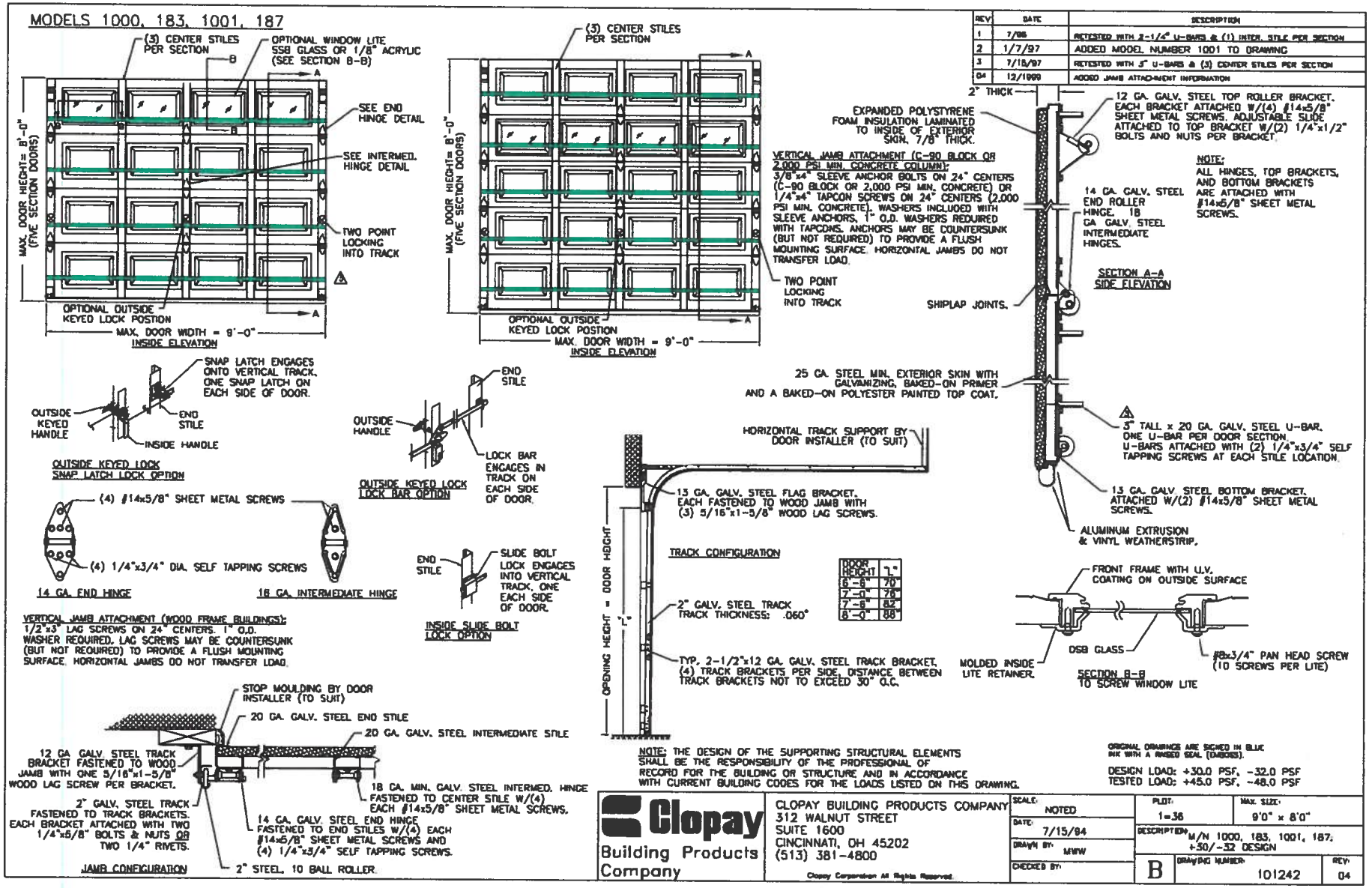


Fig. 13

CATEGORY: W5 MODELS: 1000, 183, 187, 1001
STRUT PLACEMENT SHOWN IN GREEN

Home Depot Store 0270

7107 NW 4TH BLVD
GAINESVILLE, FL 32607
(352)332-7440

DATE: 08/30/2006

CUSTOMER: KESTERKE,JAMES & MARYLAND
10613 NW SR 121

GAINESVILLE, FL-32608
(386)-4180804

SALES ASSOCIATE:

P.O. #:

Thank you for shopping The Home Depot! We value your business!

ITEM FRAME SIZE	LOCATION	PRODUCT CODE DESCRIPTION	UNIT PRICE	QTY	TOTAL PRICE
0004	Kesterke 4050	MANUFACTURER: American Craftsman		6	

Frame Size = 48" W x 60" H
RO Size = 48 1/2" W x 60 1/2" H

Scale: 1/4" equals 1'

Manufacturer: American Craftsman
Building Application: New Construction
Product Line: 2900
Product: Single Hung
Series: 2900
Product Type: Full Window
Product Style: Equal Lite
Product Configuration: Single Equal Single Hung
Sizing Group: Standard
Frame Size Width: 48"
Frame Size Height: 60"
Rough Opening Width: 48 1/2"
Rough Opening Height: 60 1/2"
Nominal Size: 4050
Color: White
Glazing Option: Clear I G.
Design Pressure Rating: DP 35
Tempered: None
Glass Strength: Double Strength Glass
Obscure: None
Tint: None
Grille Type: Colonial Flat
Grille Location: Full Window
Top Lite Arrangement: 3W3H
Bottom Lite Arrangement: 3W3H
Screen: Half Screen
Sheetrock: No
Extension Jamb: None
J-Channel Filler: Yes
SKU: 481271 / S/O SILVERLINE NEW CONSTRUCTN WINDOW
{2901[48|60]|S|1|35|F|F|9|9|3A3D|3A3D|0|200|0|0|1||0|2|0|}
Catalog Version 2.7.3

Base Price 2900 White	$	128.27
Double Strength Glass:	$	10.13
White Colonial Flat Grille: Full Window	$	21.26
2900 White Screen:	$	7.59
J-Channel Filler:	$	11.90

ITEM FRAME SIZE	LOCATION	PRODUCT CODE DESCRIPTION	UNIT PRICE	QTY	TOTAL PRICE
			$ 179.15	$	1,074.90
0005	2030	MANUFACTURER: American Craftsman		2	

Frame Size = 24" W x 36" H
RO Size = 24 1/2" W x 36 1/2" H

Scale: 1/4" equals 1'

Manufacturer: American Craftsman
Building Application: New Construction
Product Line: 2900
Product: Single Hung
Series: 2900
Product Type: Full Window
Product Style: Equal Lite
Product Configuration: Single Equal Single Hung
Sizing Group: Standard
Frame Size Width: 24"
Frame Size Height: 36"
Rough Opening Width: 24 1/2"
Rough Opening Height: 36 1/2"
Nominal Size: 2030
Color: White
Glazing Option: Clear I.G.
Design Pressure Rating: DP 50
Tempered: Full
Obscure: Full
Tint: None
Grille Type: Colonial Flat
Grille Location: Full Window
Top Lite Arrangement: 3W3H
Bottom Lite Arrangement: 3W3H
Screen: Half Screen
Sheetrock: No
Extension Jamb: None
J-Channel Filler: Yes
SKU: 481271 / S/O SILVERLINE NEW CONSTRUCTN WINDOW
{2901[24|36]|S|1|50|F|F|9|9|3A3D|3A3D|0|05|0|0|1||0|2|0|}
Catalog Version 2 7.3

Base Price 2900 White	$	77.17	
Tempered Glass:Full	$	37.92	
Obscure Glass:Full	$	6.49	
White Colonial Flat Grille: Full Window	$	21.26	
2900 White Screen	$	4.97	
J-Channel Filler:	$	11.90	
	$	159.71	$ 319.42

ITEM FRAME SIZE	LOCATION	PRODUCT CODE DESCRIPTION	UNIT PRICE	QTY	TOTAL PRICE
0006	3030	MANUFACTURER: American Craftsman		1	

Frame Size = 36" W x 36" H
RO Size = 36 1/2" W x 36 1/2" H

Scale: 1/4" equals 1'

Manufacturer: American Craftsman
Building Application: New Construction
Product Line: 2900
Product: Single Hung
Series: 2900
Product Type: Full Window
Product Style: Equal Lite
Product Configuration: Single Equal Single Hung
Sizing Group: Standard
Frame Size Width: 36"
Frame Size Height: 36'
Rough Opening Width: 36 1/2"
Rough Opening Height: 36 1/2"
Nominal Size: 3030
Color: White
Glazing Option: Clear I G.
Design Pressure Rating: DP 50
Tempered: None
Glass Strength: Double Strength Glass
Obscure: None
Tint: None
Grille Type: Colonial Flat
Grille Location: Full Window
Top Lite Arrangement: 3W3H
Bottom Lite Arrangement: 3W3H
Screen: Half Screen
Sheetrock: No
Extension Jamb: None
J-Channel Filler: Yes
SKU: 481271 / S/O SILVERLINE NEW CONSTRUCTN WINDOW
{2901[36|36]|S|1|50|F|F 9|9|3A3D|3A3D|0|200|0|0|1||0|2|0|}
Catalog Version 2.7.3

Base Price 2900 White	$	90.01		
Double Strength Glass	$	4.56		
White Colonial Flat Grille: Full Window	$	21.26		
2900 White Screen:	$	5.70		
J-Channel Filler:	$	11.90		
	$	133.43	$	133.43

ITEM FRAME SIZE	LOCATION	PRODUCT CODE DESCRIPTION	UNIT PRICE	QTY	TOTAL PRICE
0007	MULL 3050	MANUFACTURER: American Craftsman		1	

Frame Size = 73 3/4" W x 60" H
RO Size = 74 1/4" W x 60 1/2" H

Scale: 1/8" equals 1'

Manufacturer: American Craftsman
Product Configuration: Custom Composite Unit
Frame Size Width: 73 3/4"
Frame Size Height: 60"
Catalog Version 2 7.3

COMPOSITE:White Mull 2932 (Qty of 1 at 60"):	$ 32.40		
	$ 32.40	$	32.40

Frame Size = 36" W x 60" H

Manufacturer: American Craftsman
Building Application: New Construction
Product Line: 2900
Product: Single Hung
Series: 2900
Product Type: Full Window
Product Style: Equal Lite
Product Configuration: Single Equal Single Hung
Mull Type: Field
Sizing Group: Standard
Frame Size Width: 36"
Frame Size Height: 60"
Rough Opening Width: 36 1/2"
Rough Opening Height: 60 1/2"
Nominal Size: 3050
Color: White
Glazing Option: Clear I.G.
Design Pressure Rating: DP 50
Tempered: None
Glass Strength: Double Strength Glass
Obscure: None
Tint: None
Grille Type: Colonial Flat
Grille Location: Full Window
Top Lite Arrangement: 3W3H
Bottom Lite Arrangement: 3W3H
Screen: Half Screen
Sheetrock: No
Extension Jamb: None
J-Channel Filler: Yes
SKU: 481271 / S/O SILVERLINE NEW CONSTRUCTN WINDOW
{2901[36|60]|S|1|50|F|F|9|9|3A3D|3A3D|0|200|0|0|1||0|2|0|}
Catalog Version 2 7.3

Base Price 2900 White	$ 109.92		
Double Strength Glass:	$ 7.60		
White Colonial Flat Grille: Full Window	$ 21.26		
2900 White Screen:	$ 6.66		
J-Channel Filler:	$ 11.90		
	$ 157.34	$	157.34

ITEM FRAME SIZE	LOCATION	PRODUCT CODE DESCRIPTION	UNIT PRICE	QTY	TOTAL PRICE

Frame Size = 36" W x 60" H

Manufacturer: American Craftsman
Building Application: New Construction
Product Line: 2900
Product: Single Hung
Series: 2900
Product Type: Full Window
Product Style: Equal Lite
Product Configuration: Single Equal Single Hung
Mull Type: Field
Sizing Group: Standard
Frame Size Width: 36"
Frame Size Height: 60"
Rough Opening Width: 36 1/2"
Rough Opening Height: 60 1/2"
Nominal Size: 3050
Color: White
Glazing Option: Clear I.G.
Design Pressure Rating: DP 50
Tempered: None
Glass Strength: Double Strength Glass
Obscure: None
Tint: None
Grille Type: Colonial Flat
Grille Location: Full Window
Top Lite Arrangement: 3W3H
Bottom Lite Arrangement: 3W3H
Screen: Half Screen
Sheetrock: No
Extension Jamb: None
J-Channel Filler: Yes
SKU: 481271 / S/O SILVERLINE NEW CONSTRUCTN WINDOW
{2901[36|60]|S|1|50|F|F|9|S|3A3D|3A3D|0|200|0|0|1||0|2|0|}
Catalog Version 2 7.3

Base Price 2900 White	$	109.92		
Double Strength Glass	$	7.60		
White Colonial Flat Grille: Full Window	$	21.26		
2900 White Screen	$	6.66		
J-Channel Filler:	$	11.90		
	$	157.34	$	157.34
			$	347.08

ITEM FRAME SIZE	LOCATION	PRODUCT CODE DESCRIPTION	UNIT PRICE	QTY	TOTAL PRICE
0068	Sliding door	MANUFACTURER: American Craftsman		1	

Frame Size = 0" W x 0" H
RO Size = 0" W x 0" H

Scale: equals 1"

Manufacturer: American Craftsman
Building Application: Quick Ship
Quick Ship Product: K.D. Patio Doors
Quick Ship Series: 5500
Quick Ship Size: 6'
Quick Ship Color: White
Quick Ship Glass: CLEAR INSULATED GLASS
Quick Ship Grille: None
Quick Ship Screen: Included
SKU: 394156 / S/O QUICK SHIP PATIO DOORS
{QS=55WCB06NCW}
Catalog Version 2 7.3

Quick Ship Price:	$ 376.85		
	$ 376.85	$	376.85

QUOTE #:	PRETAX TOTAL	$	4,036.68

Estimated Lead Time _____

Shingles

Product Approval Method	Method 1 Option A
Application Status	Approved
Date Validated	06/20/2005
Date Approved	06/29/2005
Date Certified to the 2004 Code	

Page Go

Page 1 / 1

App/Seq #	Product Model # or Name	Model Description	Limits of Use
1956.1	Elite Glass-Seal AR	A heavy weight 3 tab asphalt shingle.	Asphalt shingles shall be used only on roof slopes of 2:12 or greater. Not approved for use in HVHZ.
1956.2	Glass-Seal AR	A 3 tab asphalt shingle.	Asphalt shingles shall be used only on roof slopes of 2:12 or greater. Not approved for use in HVHZ.
1956.3	Heritage 30 AR	A heavy weight dimensional asphalt shingle.	Asphalt shingles shall be used only on roof slopes of 2:12 or greater. Not approved for use in HVHZ.
1956.4	Heritage 40 AR	A heavy weight dimensional asphalt shingle.	Asphalt shingles shall be used only on roof slopes of 2:12 or greater. Not approved for use in HVHZ.
1956.5	Heritage 50 AR	A heavy weight dimensional asphalt shingle.	Asphalt shingles shall be used only on roof slopes of 2:12 or greater. Not approved for use in HVHZ.
1956.6	Heritage Declaration	A heavy weight triple laminate asphalt shingle.	Asphalt shingles shall be used only on roof slopes of 2:12 or greater. Not approved for use in HVHZ.
1956.7	Heritage XL	A heavy weight dimensional asphalt shingle.	Asphalt shingles shall be used only on roof slopes of 2:12 or greater. Not approved for use in HVHZ.

Next

Siding + Soffit

Mitten™

Mitten Inc. Florida Building Code Reference Numbers
As of March 3, 2006

Application/Sequence Number	Product Description
5208.1	Oregon Pride D4" Dutchlap
5667.3	Oregon Pride & Cabot D5" Dutchlap
5667.2	Oregon Pride & Cabot D4.5" Dutchlap
5667.1	Cambridge D4.5" Dutchlap
5208.2	Sentry D5" Dutchlap
5208.4	InsulPlank D6" Horizontal
5208.3	Double 5" Vertical
5668.1	D5" Soffit
5212.1	T4" Soffit
6353	6" Beaded Soffit

Florida Building Code Web Site: http://www.floridabuilding.org/pr/pr_srch.asp

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

Reference to a building permit application Number: 0609-21

Owner/Builder Marilyn Kesterke Property ID#01408-000

On the date of September 14, 2006 application 0609-21 and plans for construction of a single family dwelling were reviewed and the following information or alteration to the plans will be required to continue processing this application. If you should have any question please contact the above address, or contact phone number (386) 758-1163 or fax any information to (386) 754-7088.

Please include application number 0609-21 and when making reference to this application.

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

1. The windows in the bathroom may be required to comply with section R308.4 of the Florida Residential Building Code: 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. Please verify that these windows comply with this building code requirement.

2. Please provide for compliance with the Florida Residential Building Code section R322.1.1 All new single-family houses, duplexes, triplexes, condominiums and townhouses shall provide at least one bathroom, located with maximum possible privacy, where bathrooms are provided on habitable grade levels, with a door that has a 29-inch (737 mm) clear opening. However, if only a toilet room is provided at grade level, such toilet rooms shall have a clear opening of not less than 29 inches (737 mm).

3. Section 4: Foundations 4.1 of your plans requires that the soils bearing capacity be equal 2,000 PSF. The Columbia County Building Department assumes that soils within this county to have a soils bearing capacity of 1,000 PSF. Please consult with the structural designer or have a have a registered professional conduct subsurface explorations at the project site upon which foundations are to be constructed, a sufficient number (not

less than four, one boring on each corner of the building foundation) borings shall be made to a depth of not less than 10 feet (3048 mm) below the level of the foundations to provide assurance of the soundness of the foundation bed and its load-bearing capacity.

4. Please have the structural designer provide the correct header sizing as required by table r502.5 (1) of the Florida Residential Building Code girder spans and header spans for exterior bearing walls. Also provide the correct header size to span the 16' garage opening and show the method of attachment of all headers and beams to the foundation.

5. In the garage area the following code requirements need to be corrected or verified.

A. Show the method of protecting the appliances (water heater) 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.

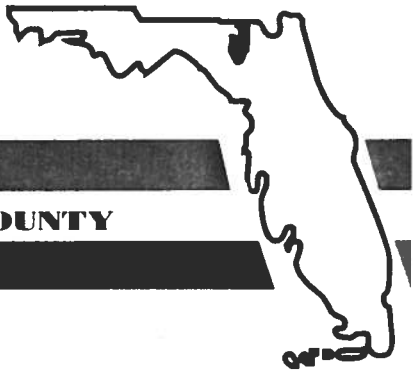
B. Please verify that section R309.1 of the Florida Residential Building Code will be complied with as this section relates to the garage entry door in to the residence. Opening protection: Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings 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

C. If the attic access opening is a (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.

Joe Haltiwanger

Plan Examiner
Columbia County Building
Department



BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY

19 September 2006

James E. and Marilyn L. Kesterke
16613 North State Road 121
Gainesville, FL 32653

RE: Building Permit Application # 0609-21 for Lot 35, Unit 22, 3 Rivers Estate Subdivision

Dear Mr. and Mrs. Kesterke:

Upon review of the above referenced building permit application for compliance with the Columbia County's Land Development Regulations (LDR's). The property is located within an Agriculture-3 (A-3) zoning district. The LDR's require side setbacks from the property line of twenty-five (25) feet. The site plan submitted with the application show twenty-two (22) feet. A variance can be applied for concerning a reduction to twenty-two (22) feet as shown on the site plan. The variance requires a public hearing before the Board of Adjustment and a $500.00 fee. The Board of Adjustment meets the fourth Thursday of each month and applications must be received 1 month in advance of the next month hearing date. The next Board of Adjustment agenda you could be placed on would be the 26 October 2006 date. The application would have to be received no later than the end of the day on 26 September 2006. Please find enclosed an application for a variance request.

If you have any questions concerning this matter, please do not hesitate to contact me at (386) 758-1007.

Sincerely,

Brian L. Kepner
Land Development Regulation Administrator,
County Planner

Enclosure

STRUCTURAL DIMENSIONS, INC.
CONSULTING • ENGINEERING • TESTING • RESEARCH

P.O. BOX 1910, WINTER PARK, FLORIDA 32790-1910
1745 HOLLYWOOD AVENUE, WINTER PARK, FLORIDA 32789-4016

TELEPHONE (407) 645-1121
FACSIMILE (407) 645-3099

e-mail: visions@magicnet.net
Website: http://www.magicnet.net/~visions

The Columbia County Building & Zoning Dept.
135 N.E. Hernando Avenue
P.O. Box 1529
Lake City, Florida 32056-1529

September 22, 2006
Review Comments of Sept. 14, 2006

Attention: Mr. Joe Haltiwanger - Columbia County Building Department (Plan Review)

Subject: **Structural Engineering Review Comments** for 1-Story Kesterke Residence (I.D.#01408-000) Columbia County, Florida. **[BUILDING PERMIT APPLICATION No. 0609-21]**.

Dear Mr. Haltiwanger:

In response to your review comments, we can offer the following information, with respect to Structural Engineering Specifications for this project.

ITEM No. 01: Tempered Glass, etc.. - to be addressed by architect, owner and/or contractor.

ITEM No. 02: Door Openings at Bathroom - to be addressed by architect, owner and/or contractor.

ITEM No. 03: Discussions with the owner indicated that no Soil Borings will be conducted. Therefore, the minimum assumed soil bearing capacity of 2,000 psf. will need to be reduced to 1,000 psf. For Columbia County (Site Specific). We recommend to increase the minimum 8" x 16" x Continuous Strip Foundation Footings (steel reinforced with a minimum of 2 # 5 Steel Rebars) to 12" x 24" x Continuous (steel reinforced with a minimum of 3 # 5 Steel Rebars), to compensate for the lesser Ultimate Soil Bearing Capacity (i.e. only 1,000 psf.), that is required by the Columbia County Building Department.

ITEM No. 04: Header Beams shall be attached per details shown in construction documents (i.e. construction plans and project specifications). Please follow the span Tables in the drawings, as well as per Florida Residential Building Code, r502.5 (1).

The 16 foot garage-door shall receive a minimum of three (3) 2" x 12" S.Y.P. with two (2) ½" CDX Plywood inter-layerd (i.e. sandwhich type construction), if roof is constructed such that roof-truss support loads are supported (direct bearing) on both adjacent walls only, i.e. garage beam only receives valley-type framing (for completion). If gable-type construction is used and/or trusses are directly load bearing (long direction) on the garage beam, it will be required to use a minimum of two (2) 1.75" x 14" LVL beams. Please note that a Continuous Load Path shall be provided at all times, i.e. secure all trusses and/or all roof framing with a minimum of one (1) Simpson MTS-12 Hurricane Strap per truss and/or attachment condition. Beam Support shall be achieved by a minimum of six (6) 2" x 6" S.Y.P. at each end of the Garage Door Beam (Composite type of Construction, i.e. all members ahll be nailed together to act as a unit with two rows of 16d nails at a maximum of 12" on center - staggered both rows, i.e. 6" o.c.). Minimum Beam Bearing shall be 8" at each end. Use two (2) LSTA36 Simpson Hurricane Straps at each Beam-End (i.e. one on inside face and one on outside face).

ITEM No. 05: Garage Door/s - to be addressed by architect, owner and/or contractor.

Structural Dimensions, Inc. appreciates the opportunity to provide our services on this project and we trust that the information presented is sufficient for your immediate needs. Should you have further questions concerning the contents of this report, or as we may be of further assistance during the construction phase, please feel free to contact us at your convenience. We may be contacted in **Gainesville** at **Tel. 352.335.6100**, and/or **Fax. 352.335.3010.**

Sincerely,

Structural Dimensions, Inc.

09/22/2004

Christian C. Steputat, P.E.
Principal Engineer
Fl. Registration No. 46762

ABOVE AND BELOW GROUND

See letter sent

COLUMBIA COUNTY BUILDING DEPARTMENT

Revised 10-01-05

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

ALL REQUIREMENTS ARE SUBJECT TO CHANGE
EFFECTIVE OCTOBER 1, 2005

ALL BUILDING PLANS MUST INDICATE THE FOLLOWING ITEMS AND INDICATE COMPLIANCE WITH CHAPTER 16 OF THE FLORIDA BUILDING CODE 2004 BY PROVIDING CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY DWELLINGS. FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEED AS PER FIGURE 1609 SHALL BE USED.

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

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

APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL

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

Applicant	Plans Examiner	
☑	☐	All drawings must be clear, concise and drawn to scale ("Optional " details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.
☑	☐	Designers name and signature on document (FBC 106.1). If licensed architect or engineer, official seal shall be affixed.
☑	☐	**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.
☑	☐	**Wind-load Engineering Summary, calculations and any details required** Plans or specifications must state compliance with FBC Section 1609. The following information must be shown as per section 1603.1.4 FBC a. Basic wind speed (3-second gust), miles per hour (km/hr). b. Wind importance factor, Iw, and building classification from Table 1604.5 or Table 6-1, ASCE 7 and building classification in Table 1-1, ASCE 7. c. Wind exposure, if more than one wind exposure is utilized, the wind exposure and applicable wind direction shall be indicated. d. The applicable enclosure classifications and, if designed with ASCE 7, internal pressure coefficient. e. Components and Cladding. The design wind pressures in terms of psf (kN/m²) to be used for the design of exterior component and cladding materials not specifally designed by the registered design professional.
		Elevations including:
☑	☐	a) All sides
☑	☐	b) Roof pitch
☑	☐	c) Overhang dimensions and detail with attic ventilation

☐ ☐ d) Location, size and height above roof of chimneys.

☐ ☐ e) Location and size of skylights

☐ ☐ f) Building height

☐ ☐ e) Number of stories

Floor Plan including:

☐ ☐ a) Rooms labeled and dimensioned.

☐ ☐ b) Shear walls identified.

☐ ☐ c) Show product approval specification as required by Fla. Statute 553.842 and Fla. Administrative Code 9B-72 **(see attach forms).**

☐ ☐ d) Show safety glazing of glass, where required by code.

☐ ☐ e) Identify egress windows in bedrooms, and size.

☐ ☐ f) Fireplace (gas vented), (gas non-vented) or wood burning with hearth, **(Please circle applicable type).**

☐ ☐ g) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails.

☐ ☐ h) Must show and identify accessibility requirements (accessible bathroom)

Foundation Plan including:

☐ ☐ a) Location of all load-bearing wall with required footings indicated as standard or monolithic and dimensions and reinforcing.

☐ ☐ b) All posts and/or column footing including size and reinforcing

☐ ☐ c) Any special support required by soil analysis such as piling

☐ ☐ d) Location of any vertical steel.

Roof System:

☐ ☐ a) Truss package including:

1. Truss layout and truss details signed and sealed by Fl. Pro. Eng.
2. Roof assembly (FBC 106.1.1.2)Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

☐ ☐ b) Conventional Framing Layout including:

1. Rafter size, species and spacing
2. Attachment to wall and uplift
3. Ridge beam sized and valley framing and support details
4. Roof assembly (FBC 106.1.1.2)Roofing systems, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

Wall Sections including:

☐ ☐ a) Masonry wall

1. All materials making up wall
2. Block size and mortar type with size and spacing of reinforcement
3. Lintel, tie-beam sizes and reinforcement
4. Gable ends with rake beams showing reinforcement or gable truss and wall bracing details
5. All required connectors with uplift rating and required number and size of fasteners for continuous tie from roof to foundation shall be designed by a Windload engineer using the engineered roof truss plans.
6. Roof assembly shown here or on roof system detail (FBC 106.1.1.2) 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 or Welded fire fabric reinforcement and supports
11. Indicate where pressure treated wood will be placed
12. Provide insulation R value for the following:

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

☐ ☐ b) Wood frame wall

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

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

Floor Framing System:

☐ ☐ a) Floor truss package including layout and details, signed and sealed by Florida Registered Professional Engineer

☐ ☐ b) Floor joist size and spacing

☐ ☐ c) Girder size and spacing

☐ ☐ d) Attachment of joist to girder

☐ ☐ e) Wind load requirements where applicable

☐ ☐ **Plumbing Fixture layout**

Electrical layout including:

☐ ☐ a) Switches, outlets/receptacles, lighting and all required GFCI outlets identified

☐ ☐ b) Ceiling fans

☐ ☐ c) Smoke detectors

☐ ☐ d) Service panel and sub-panel size and location(s)

☐ ☐ e) Meter location with type of service entrance (overhead or underground)

☐ ☐ f) Appliances and HVAC equipment

☐ ☐ g) Arc Fault Circuits (AFCI) in bedrooms

☐ ☐ h) Exhaust fans in bathroom

HVAC information

☐ ☐ a) Energy Calculations (dimensions shall match plans)

☐ ☐ b) Manual J sizing equipment or equivalent computation

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

☐ ☐ **Disclosure Statement for Owner Builders**

☐ ☐ ***Notice Of Commencement Required Before Any Inspections Will Be Done**

☐ ☐ **Private Potable Water**