

October 21, 2003
Page 1 of 5**1. PROJECT DATA**

Project: AAMA 450-00 Performance Test
Series 3180 Fixed / 3950 Twin Single Hung

Dates of Testing: October 23, 2003

Tested For: Action Windoor Technologies
1312 Crosby Rd
Carrollton, TX 75006

Witnessed By: (All or Partial Viewing)

Tony Rodriguez Action Windoor Technologies
Jay Halsey Action Windoor Technologies

Wesley A. Wilson Construction Consulting Laboratory, *International*

CONSTRUCTION CONSULTING LABORATORY, *INTERNATIONAL*



2. INTRODUCTION

This report presents the performance results of Action Window Technologies Series 3180 PVC Fixed over Series 3950 PVC Twin Single Hung. Tests were conducted at Construction Consulting Laboratory, International, (CCLI) testing facility in Carrollton, TX.

3. SCOPE

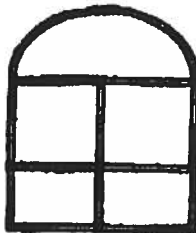
CCLI was requested to report the testing results for an Action Window Technologies Series 3180 / 3950. Tests were conducted in accordance with AAMA 450-00 and ASTM E 330-02.

4. SUMMARY

Action Window Technologies Series 3180 / 3950 was tested in accordance AAMA 450-00 and ASTM E 330-02 and achieved a Design 50 rating.

5. TEST SPECIMEN

PRODUCT TYPE:	PVC Fixed over PVC Twin Single Hung, Photograph, Appendix B, and Product Drawings, Appendix A
SERIES/MODEL:	Action Series 3180 fixed and Series 3950 Hung
REGISTRATION:	AAMA 405-00
OVERALL SIZE:	5'-11 3/4" X 8'-11 11/16"
FIXED SIZE:	5'-11 3/4" X 3'-0"
HUNG SIZE:	2'-11 5/8" X 5'-11 1/2"
SASH SIZE:	2'-8 1/4" X 2'-5 3/16"
FRAME DIMENSION:	2.795"
CONFIGURATION:	



CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL



May 24, 2005
Page 3 of 5

Refer to Mock-Up drawing in Appendix A. This report is not complete unless this drawing is stamped and Initialed by CCI as illustrated below.



CONSTRUCTION CONSULTING
LABORATORY, INTERNATIONAL

1601 LUNA ROAD
CARROLLTON TEXAS 75006
Phone (672) 242-0556

03-261 GW 11-21-03

Weather-strip: One row pile weather-strip with integral plastic fin (0.300" thickness) at the exterior face sash top rail. One row pile weather-strip with integral plastic fin (0.250" thickness) at the exterior and lateral face sash stiles. One row bulb vinyl with foam walls (0.500") diameter at the exterior leg beneath sash bottom rail.

Hardware: Cam action locks, one (1), 7" on center from each end of sash top rail, attached with two (2), #8 x 1" self tapping screws with keeper groove at fixed interlock rail. One tilt latch and one steel pivot bar at top and bottom of sash stiles. One spiral type balance per jamb for sash operation.

Glass Fixed Lite: 1/2" overall thickness sealed insulating glass, two pieces DSB with 1/8" swiggle strip air spacer.

Sash Glass: 1/2" overall thickness sealed insulating glass, two pieces SSB with 1/16" swiggle strip metal air spacer.

Glazing: Exterior glazed with silicone sealant at interior of glass and rigid vinyl snap-in glazing bead at exterior of glass.

Fixed Window Weep Arrangement: 1/2" x 1/4" weep slot spaced 5 1/4" from each end in the glazing pocket at frame sill with a 1" x 1/8" weep slot at the exterior of frame sill spaced 3 1/4" from each end.

Hung Weep Arrangement: 3/16" x 1/8" weep slot spaced 2 1/4" from each end in the glazing pocket punched through fixed interlock. 3/16" x 1/8" weep slot punched through sash bottom rail spaced 2 1/4" from each end. Screen retaining legs and frame sill center leg notched 1/4" at each end

Reinforcement: T-shaped extruded aluminum reinforcement at sash members and L-shaped at fixed interlock. T-shaped extruded aluminum at vertical and horizontal mullion.

CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL



November 21, 2003
Page 4 of 5

Installation: Test buck was constructed from nominal 2" x 6" and 2" x 4" at the perimeter with 1/2" OSB or strand board at the infil. Window opening is cut into the OSB and then framed with nominal 2" x 4" SPF. Window nail fin is attached through OSB into 2" x 4" with # 8 x 1 1/2" wood screws spaced 2-3" from each end and on approximately 12" centers.

Other Features: Frame and sash corners are mitered and welded. Fixed interlock reinforcement attached to frame jambs with one (1) #8 x 2" wafer head screw and one (1) 7/8" dia flat washer per end.

Mullion Features: Mullion brackets (steel plate 2 1/4" x 3 1/4" x 0.050"t) are attached to each end of horizontal mullion and bottom of vertical mullion with two (2) # 8 x 1" wafer or pan head screws into mullion screw spine, Photograph 2, Appendix B. Mullion brackets are then attached into test buck with two (2) #8 x 1 1/2" wood screws. Frame members are attached to extruded aluminum mullion with #8 x 1" screws spaced approximately 2-3" from each end and on 12" centers. Rigid vinyl mull cover is applied to the extruded aluminum mulls at interior and exterior face of mullion.

Date Tests Started: October 23, 2003
Date Tests Completed: October 23, 2003
Testing Performed at: Construction Consulting Laboratory, International in Carrollton, Texas

6. PERFORMANCE RESULTS

<u>Title Of Test</u>	<u>Test Method</u>	<u>Measured</u>	<u>Allowed</u>
Uniform Deflection @ Horizontal Mullion	ASTM E 330-02 (10 Second Duration)		
-Positive @ 60 PSF		.550"	.408"
-Permanent Set		.040"	.286"
-Negative @ 60 PSF		.595"	.408"
-Permanent Set		.080"	.286"
Uniform Deflection @ Vertical Mullion	ASTM E 330-02 (10 Second Duration)		
-Positive @ 60 PSF		.830"	.408"
-Permanent Set		.000"	.286"
-Negative @ 60 PSF		.890"	.408"
-Permanent Set		.050"	.286"

CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL

8

Page 5 of 5

Uniform Structural	ASTM E 330-02 (10 Second Duration)	
-Positive	75.00 PSF	75.00 PSF
-Negative	75.00 PSF	75.00 PSF
-Permanent Set (Horizontal)	.110	0.286"
-Permanent Set (Vertical)	.085	0.336"

Detailed extrusion and assembly drawings indicating measured wall thickness and corner construction are on file and were compared to the test sample submitted. These records will be retained at CCLI for a period of four years.

7. CONCLUSION

The tests noted in Section 6 of this report were conducted in accordance with the structural requirements of AAMA 450-00 using ASTM E 330-02.

Respectfully submitted,
CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL


JUVENAL AZUA
TECHNICIAN


WESLEY A. WILSON
LABORATORY MANAGER

CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL



BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

Therma-Tru Corporation
1687 Woodlands Drive
Maumee, OH 43537

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Series "Benchmark" Glazed Inswing Residential Insulated Steel Doors w/Adjusta-Fit Steel Frame

APPROVAL DOCUMENT: Drawing No. S-2007, titled "Benchmark Glazed Inswing Steel Door w/Adjusta-Fit Steel Frame", sheets 1 through 5 of 5, prepared by the Rick Wright Building Consulting, Inc., dated 2/28/00 with revision on 3/28/00, bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: None

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews NOA # 99-1028.11 and, consists of this page 1 as well as approval document mentioned above. The submitted documentation was reviewed by Jaime Eisen, P.E.



NOA No 03-0109.04
Expiration Date: April 21, 2008
Approval Date: February 20, 2003
Page 1

Therma-Tru Corporation**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

(For File ONLY. Not part of NOA)

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. S-2007, titled "Benchmark Inswing Glazed Steel Door w/Adjusta-Fit Steel Frame", sheets 1 through 5 of 5, prepared by the Rick Wright Building Consulting, Inc., dated 2/28/00 with revision on 3/28/00.

B. TESTS*Submitted under NOA#99-1028.11*

1. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, per FBC 2411 3.2.1 and TAS 202-94
along with marked-up drawings and installation diagram of outswing and inswing steel edge opaque residential insulated steel pairs of doors, prepared by Certified Testing Laboratories, Test Report No. CTLA-469W, dated February 16, 2000, signed and sealed by Ramesh C. Patel, P.E.

C. CALCULATIONS*Submitted under NOA#99-1028.11*

1. Anchor Calculations and structural analysis, dated November 1, 1999 prepared, signed and sealed by Mark Fetherman, P.E.

D. MATERIAL CERTIFICATIONS*Submitted under NOA#99-1028.11*

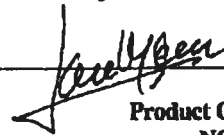
1. Tensile Test prepared by Certified Testing Laboratories, Project No. CTLA-469W, dated October 26, 1999, for steel samples referenced DADE 990044, tested per ASTM E8/A370 or B557, signed and sealed by Ramesh C. Patel, P.E.
2. Test report # WHI-495-0920, issued to General Products Company, Inc. for "Two single swing 3' 0" x 7' 0" door and frame assemblies" ASTM E-152, dated August 28, 1988.

E. STATEMENTS

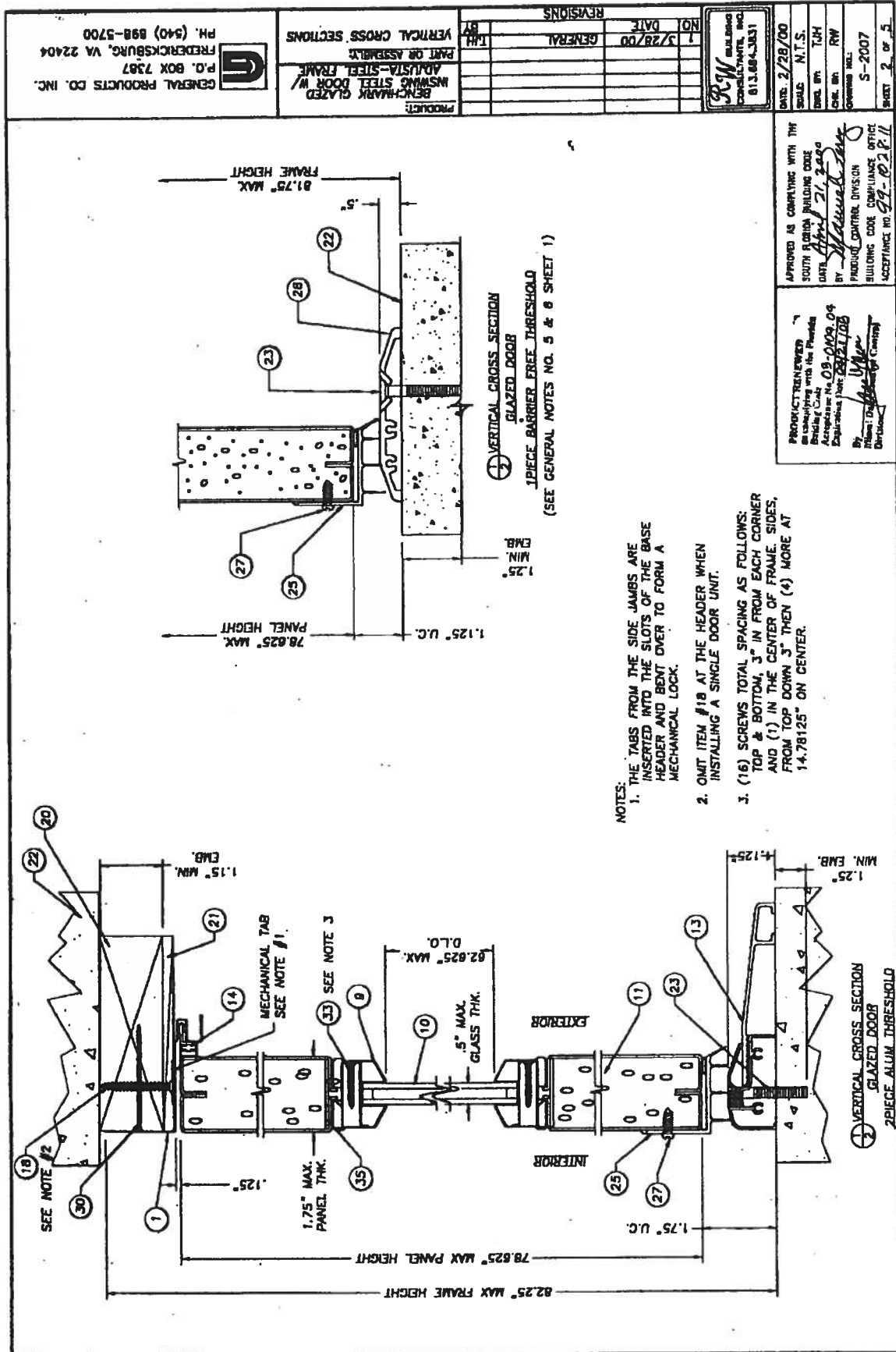
1. Statement letter of no change, prepared by R.W. Building Consultants, Inc., dated 12/22/02.

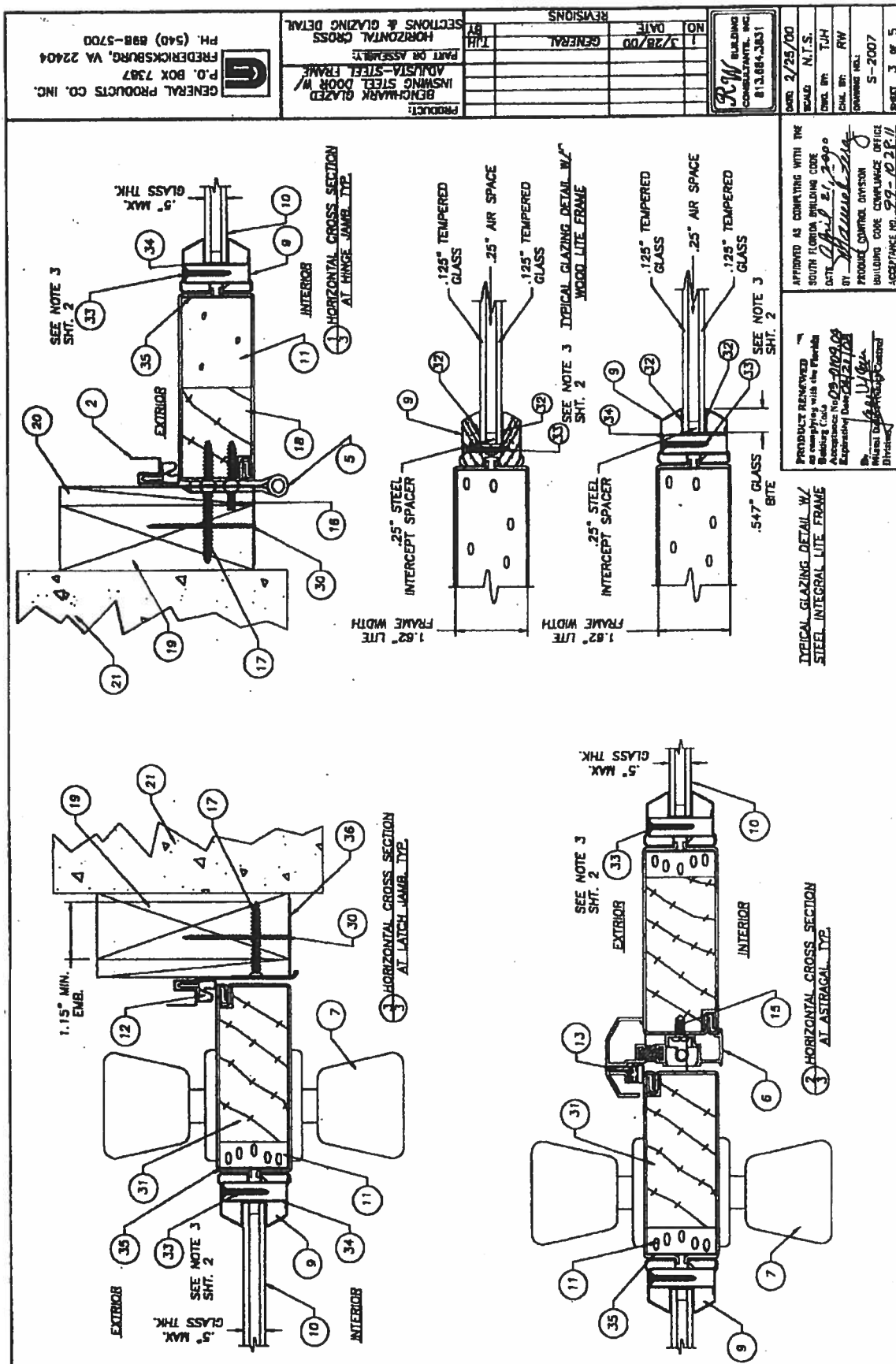
F. OTHER

1. Notice of Acceptance No. 99-1028.11, General Products, Co., Inc., Benchmark" Inswing Glazed Residential Insulated Steel Doors w/Adjusta-Fit Steel Frame, approved on 4/21/00 and expiring on 4/21/03.


Jaime Eisen, P.E.
Product Control Examiner
NOA No 03-0109.04
Expiration Date: April 21, 2008
Approval Date: February 20, 2003

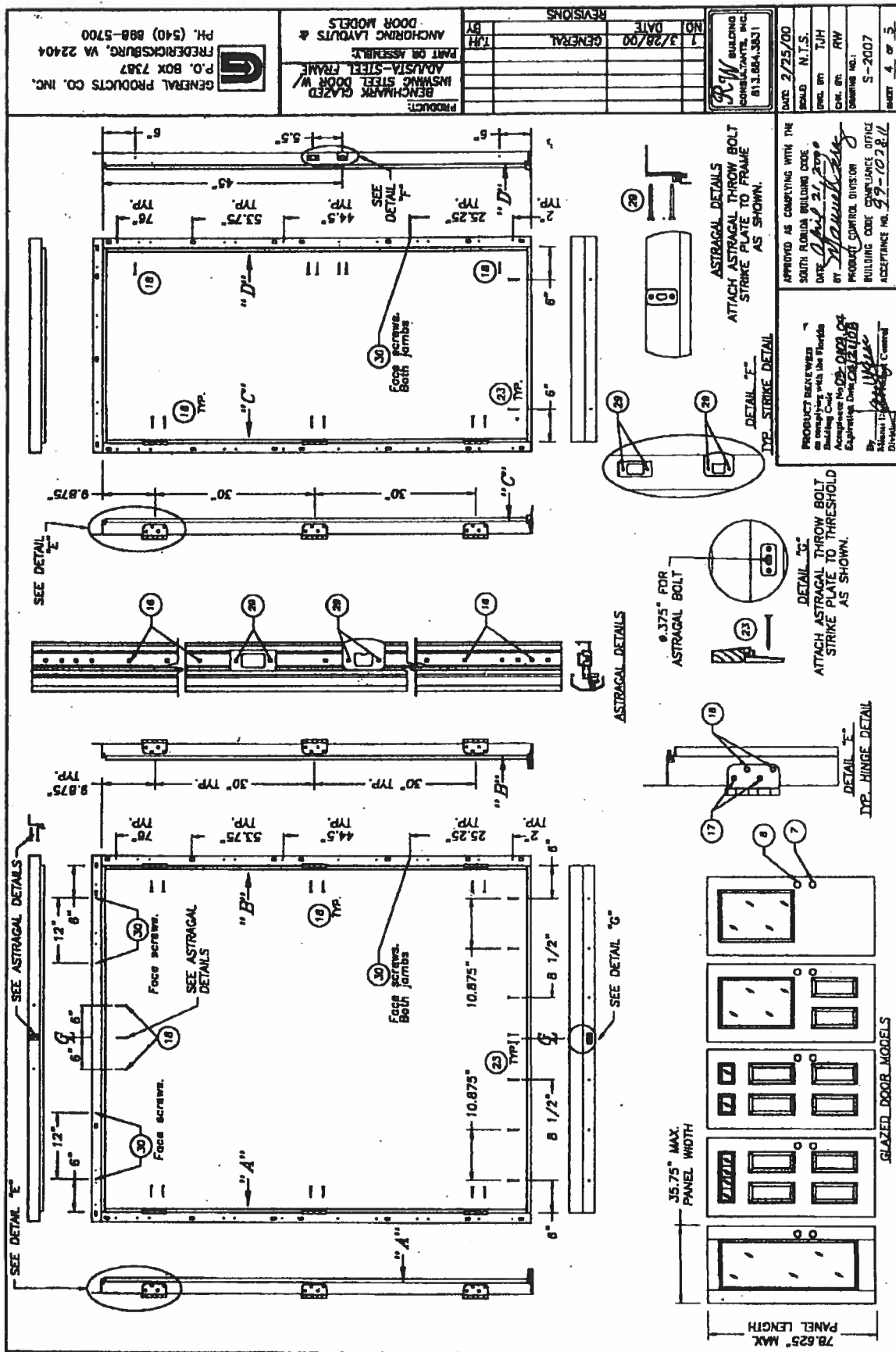
BENCHMARK INSWING GLAZED STEEL DOOR W/ADJUSTA-STEEL FRAME		GENERAL NOTES 1. THIS PRODUCT IS DESIGNED TO MEET THE SOUTH FLORIDA BUILDING CODE 1984 EDITION FOR MIAMI-DADE COUNTY. 2. WOOD BRACKS BY OTHERS MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE. 3. PRODUCT ANCHORS SHALL BE AS LISTED AND SPACED AS SHOWN ON DETAILS. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. 4. IMPACT RESISTANT SHUTTERS ARE REQUIRED. 5. THIS SYSTEM WAS TESTED FOR 2.86 LBS. WATER PRESSURE AS PER ASTM-E331. 6. THIS SYSTEM DOES NOT MEET THE WATER REQUIREMENTS IN MIAMI-DADE COUNTY.		DOOR SYSTEM CONSTRUCTION: DOOR PANEL A. FACE SHEETS: 24 GA. (.025") MINIMUM THICKNESS. GALVANIZED STEEL A-325 COMMERCIAL QUALITY - ANCO PER ASTM 620 WITH YIELD STRENGTH FY (MIN.) = 27,000psi B. CORE DESIGN: POLYURETHANE FOAM (CARPENTER CHEMICAL WITH 2.15 LBS. DENSITY) CORE LAMINATED TO INSIDE FACES. C. CONSTRUCTION: THE VERTICAL STILES ARE EXTENSIONS OF THE SKIN, ROLL FORMED TO A MECHANICAL INTERLOCK. HORIZONTAL EDGES ARE WELDED TOGETHER AT TWO PLACES EACH D. THE GLAZING OPENINGS ARE STAMPED PRECISION EDGES TO RECEIVE INTEGRAL GLASS STOPS. STEEL FRAME A. BASE FRAME MATERIAL: 160A (.054" MIN. THK.) B. CLOSURE FRAME MATERIAL: 20GA. (.033" MIN. THK.) C. THE FRAMES ARE ROLL FORMED AND PRESS BROKE WITH TABS AND SLOTS ON THE HEADERS TO FORM A LOCK.																	
DOUBLE GLAZED DOOR ELEVATION VIEWED FROM INTERIOR SIDE		SINGLE GLAZED DOOR ELEVATION VIEWED FROM INTERIOR SIDE																			
DESIGN PRESSURE RATING <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED</td> <td style="width: 50%;"></td> </tr> <tr> <td style="text-align: center;">POSITIVE</td> <td style="text-align: center;">+ 60.0 PSF</td> </tr> <tr> <td style="text-align: center;">NEGATIVE</td> <td style="text-align: center;">- 60.0 PSF</td> </tr> </table>		WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED		POSITIVE	+ 60.0 PSF	NEGATIVE	- 60.0 PSF	TABLE OF CONTENTS <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">SHEET #</th> <th style="width: 90%;">DESCRIPTION</th> </tr> <tr> <td style="text-align: center;">1</td> <td>GENERAL NOTES AND ELEVATIONS</td> </tr> <tr> <td style="text-align: center;">2</td> <td>VERTICAL CROSS SECTIONS</td> </tr> <tr> <td style="text-align: center;">3</td> <td>HORIZONTAL CROSS SECTIONS & GLAZING DETAILS</td> </tr> <tr> <td style="text-align: center;">4</td> <td>ANCHOR LAYOUTS & DOOR MODELS</td> </tr> <tr> <td style="text-align: center;">5</td> <td>FRAME COMPONENTS & BILL OF MATERIAL</td> </tr> </table>		SHEET #	DESCRIPTION	1	GENERAL NOTES AND ELEVATIONS	2	VERTICAL CROSS SECTIONS	3	HORIZONTAL CROSS SECTIONS & GLAZING DETAILS	4	ANCHOR LAYOUTS & DOOR MODELS	5	FRAME COMPONENTS & BILL OF MATERIAL
WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED																					
POSITIVE	+ 60.0 PSF																				
NEGATIVE	- 60.0 PSF																				
SHEET #	DESCRIPTION																				
1	GENERAL NOTES AND ELEVATIONS																				
2	VERTICAL CROSS SECTIONS																				
3	HORIZONTAL CROSS SECTIONS & GLAZING DETAILS																				
4	ANCHOR LAYOUTS & DOOR MODELS																				
5	FRAME COMPONENTS & BILL OF MATERIAL																				
REVISIONS <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">NO.</th> <th style="width: 10%;">DATE</th> <th style="width: 80%;">BY</th> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">5/28/00</td> <td style="text-align: center;">GENERAL</td> </tr> </table>		NO.	DATE	BY	1	5/28/00	GENERAL	GENERAL NOTES PRODUCT: BENCHMARK GLAZED INSWING STEEL DOOR W/ ADJUSTA-STEEL FRAME PART OR ASSEMBLY: ELEVATIONS & GENERAL NOTES GENERAL PRODUCTS CO. INC. P.O. BOX 7387 FREDERICKSBURG, VA 22404 PH. (540) 898-5700													
NO.	DATE	BY																			
1	5/28/00	GENERAL																			
APPROVED AS CORRESPONDING WITH THE SOUTH FLORIDA BUILDING CODE DATE: <u>April 21, 2005</u> BY: <u>Reynold Day</u> PRODUCT CONTROL DIVISION BUILDING CODE COMPLIANCE OFFICE COMPLIANCE NO. <u>44-102 P.11</u>		PRODUCT REVIEWED as corresponding with the Florida Building Code Reynold Day 05-0109.04 Supplemental Report 05-0108 BY: <u>W. J. J.</u> REVIEWED BY: <u>W. J. J.</u>																			



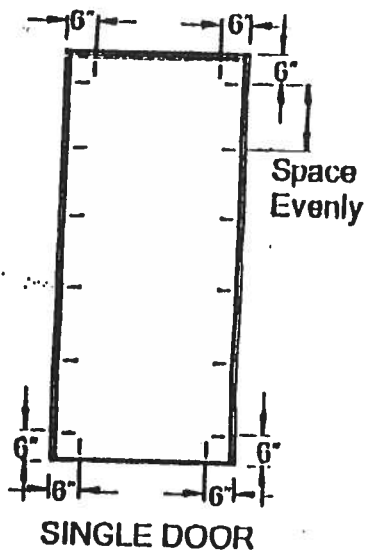


APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE: April 21, 2000
BY: [Signature]
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-102811

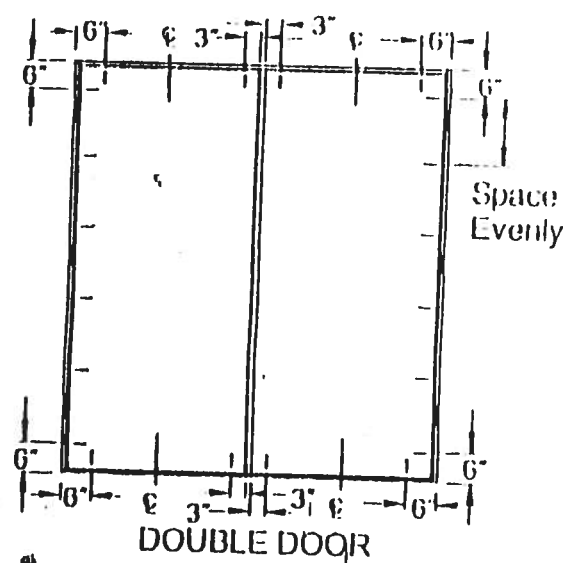
PRODUCT REMOVED
as complying with the Florida
Building Code
Acceptance No. 99-0109 of
Expiring Date 02/21/08
By: [Signature]
Manual Building Code
Division



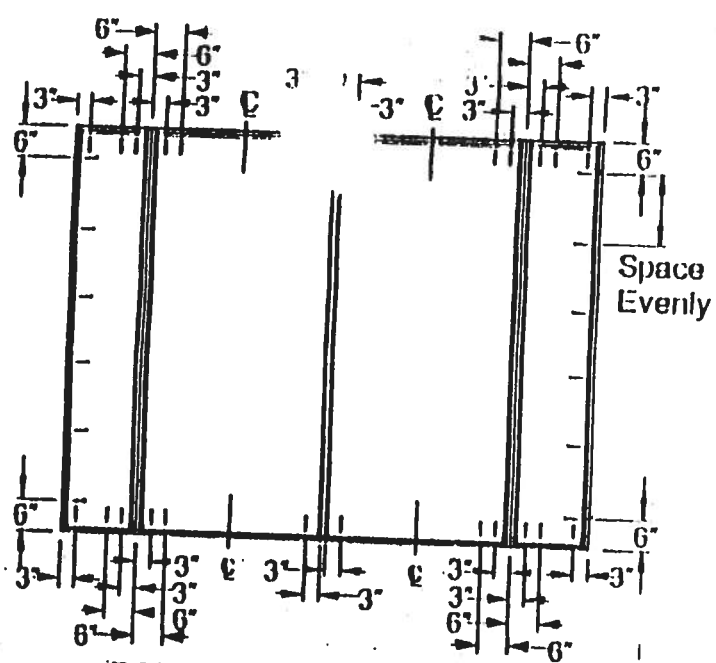
GENERAL PRODUCTS CO. INC. P.O. BOX 7387 FREDERICKSBURG, VA 22404 PH. (540) 888-5700				BENCHMARK GLAZED INSWING STEEL FRAME ADJUSTA-STEEL FRAME PART OR ASSURANCE FRAME COMPONENTS & BILL OF MATERIALS		REVISIONS NO. DATE 1 3/28/00 GENERAL 2 3/28/00 GENERAL		BUILDING CONSULTANTS, INC. 813.684.3831		DATE: 2/28/00 SCALE: N.T.S. DWG. BY: T.J.H. CHK. BY: RW ISSUANCE NO.: S-2007 SHEET 5 OF 5				
ITEM	DESCRIPTION	MATERIAL												
1	STEEL BASE HEADER (16GA. .054" MIN.)	STEEL												
2	STEEL HINGE JAMB (16GA. .054" MIN.)	STEEL												
3	STEEL CLOSURE HEADER (20GA. .033" MIN.)	STEEL												
4	STEEL CLOSURE JAMB (20GA. .033" MIN.)	STEEL												
5	BENCHMARK 4" x 4" HINGE PROPRIETARY .097" THK.	STEEL												
6	1-ASTRAGAL (.093" WALL THK.)	ALUMINUM												
7	KWIKSET 200 DL PASSAGE	-												
8	KWIKSET 860 DEADBOLT	-												
9	STEEL INTEGRAL LITE FRAME OR WOOD LITE FRAME (PINE OR POPLAR)	STEEL												
10	GLAZING 1/2" INSULATED GLASS	WOOD												
11	POLYURETHANE FOAM CARPENTER CHEM. 2.15 lbs DENSITY	-												
12	COMPRESSION WEATHER STRIPPING	FOAM												
13	2PIECE ALL ALUMINUM INSWING THRESHOLD	ALUMINUM												
14	MAGNETIC WEATHER STRIPPING	VINYL												
15	COMPRESSION WEATHER STRIPPING 0-LON QDS 630	FOAM												
16	#12 x 1/2" L SCREW (ASTRAGAL TO DOOR)	STEEL												
17	10-24 x 3/8" PHILLIPS FLATHEAD SCREW	STEEL												
18	#10 x 1 3/4" L PHILLIPS FLATHEAD SCREW	STEEL												
19	WOOD HINGE REIN. 1 11/16" SQ. x 5 7/8" L	WOOD												
20	2X WOOD (BUCK)	WOOD												
21	1/4" MAX. SHIM SPACER	-												
22	MASONRY WALL	-												
23	3/16" TAPCON ANCHOR (ELCO)	STEEL												
24	#10 x 5/8" SCREW (HINGE TO DOOR)	VINYL												
25	ADJUSTABLE SWEEP	STEEL												
26	#10 x 1" WOOD SCREW (WOOD HINGE REIN.)	STEEL												
27	#8 x 1/2" TYPE "AB" PANHEAD SCREW (SWEEP)	STEEL												
28	1PIECE BARRIER FREE THRESHOLD	ALUMINUM												
29	#8 x 2 1/2" L PHILLIPS FLATHEAD SCREW	STEEL												
30	#6 x 2 1/2" L PHILLIPS FLATHEAD SCREW	STEEL												
31	SOLID LATCH WOOD BLOCK 3 1/2" x 1 11/16" x 48" LG.	WOOD												
32	CAULK SCHNEE MOREHEAD S-M 8500	SILICONE												
33	#8 x 1 1/2" L PHILLIPS FLATHEAD SCREW	STEEL												
34	INTEGRAL STEEL LITE FRAME RETAINER CLIP	STEEL												
35	FOAM STOP	CARDBOARD												
36	STEEL LATCH JAMB (16GA. .054" MIN.)	STEEL												
 IEE ASTRAGAL			 ADJUSTA-STEEL BASE FRAME W/FLAT FACE 16GA. (.054" MIN.)			 ADJUSTA-STEEL CLOSURE FRAME W/FLAT FACE 20GA. (.033" MIN.)			 VINYL ADJUSTABLE SWEEP			 WOOD LITE FRAME (PINE OR UNPRIMED POPLAR)		
 INTEGRAL STEEL LITE FRAME 24GA. (.023" MIN.)			 ADJUSTA-STEEL CLOSURE FRAME W/FORMED BRICK MOLD 20GA. (.033" MIN.)			 BARRIER FREE THRESHOLD			 2PIECE INSWING ALL ALUMINUM THRESHOLD					
APPROVED AS COMPLIING WITH THE SOUTH FLORIDA BUILDING CODE DATE: 04/21/2000 BY: [Signature] PROJECT: [Signature] BUILDING CODE COMPLIANCE OFFICE ACCEPTANCE NO. 99-1022-11														



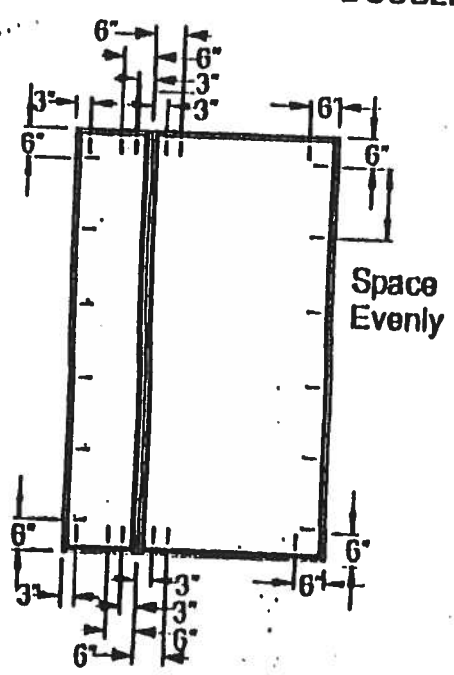
SINGLE DOOR



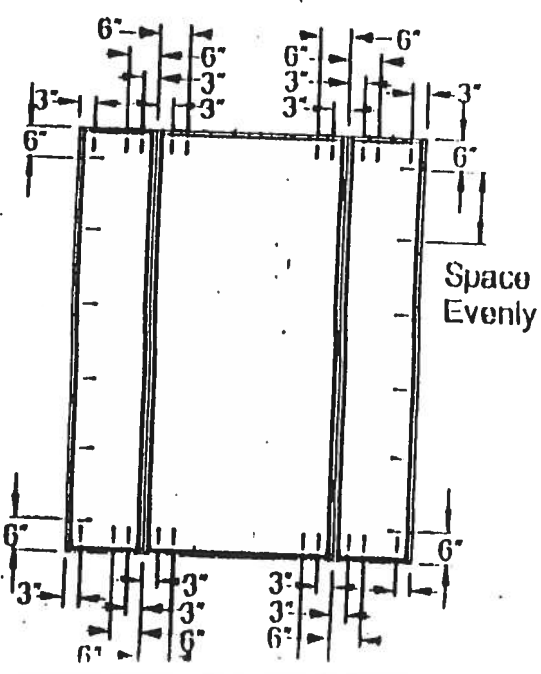
DOUBLE DOOR



DOUBLE DOOR W/SIDELITES



Space Evenly



Space Evenly



Quality Garage Doors
General American Door Company

IMPORTANT!

WINDLOAD DOORS

**ATTACHED ENVELOPE CONTAINS
YOUR WINDLOAD INSTALLATION
DRAWINGS AND LABEL AS WELL AS A
DUPLICATE SET OF WARNING LABELS.**

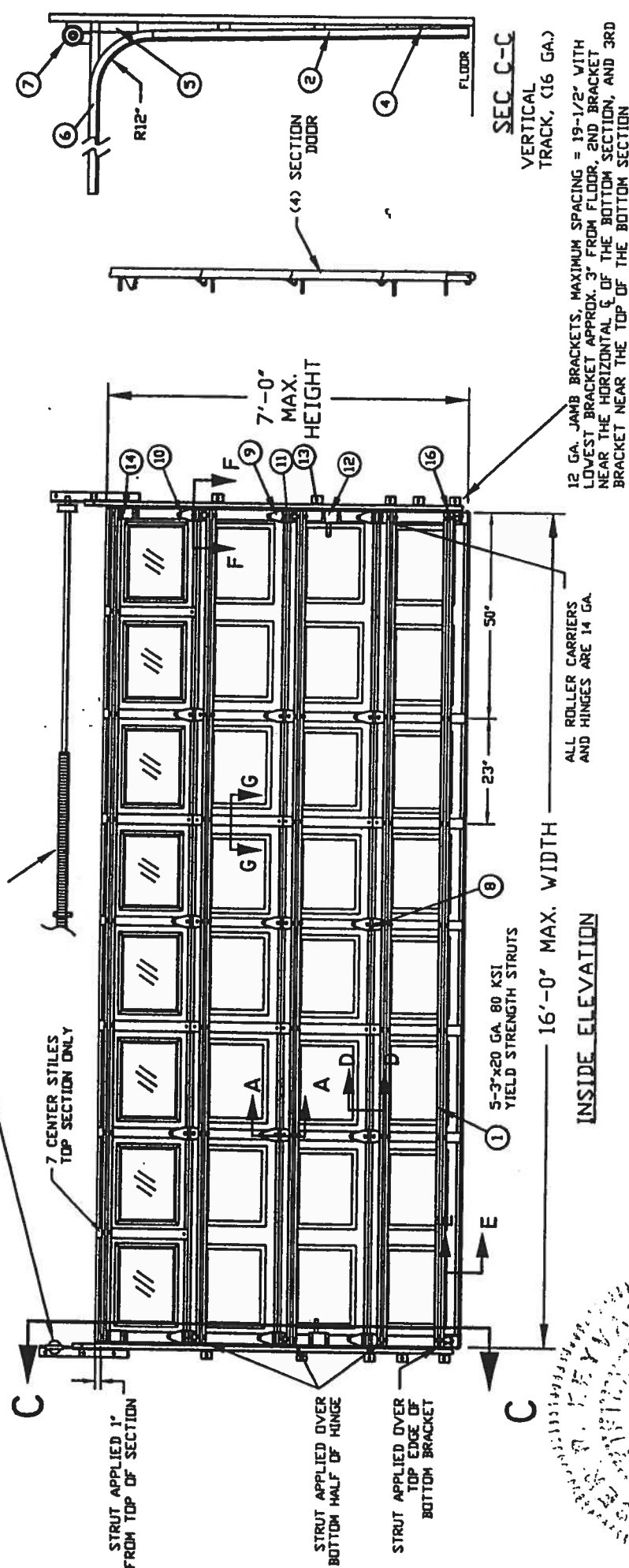
**THE INSTALLER OF THIS DOOR IS
RESPONSIBLE FOR REPLACEMENT OF
WARNING LABELS THAT ARE COVERED
WITH STRUTS OR CHANNELS AS
REQUIRED BY THE WINDLOAD
DRAWINGS. THE BOTTOM FIXTURE
WARNING LABELS MUST BE NEAR THE
BOTTOM FIXTURES. ALL LABELS
MUST BE LEGIBLE UPON COMPLETION
OF THE DOOR INSTALLATION.**

A10570 1107-00035

NOTES:

1. TESTED TO POSITIVE AND NEGATIVE 20 PSF DESIGN AND POSITIVE AND NEGATIVE 30 PSF TEST PRESSURES PER FBC 2001-BUILDING, ASCE 7-02, AND ASTM-E330.
2. MAXIMUM SECTION HEIGHT= 21'
3. SECTION HEIGHTS OF 21.00' AND 19.50' ARE AVAILABLE AND MAY BE USED IN ANY COMBINATION TO ACHIEVE VARIOUS DOOR HEIGHTS.
4. WINDOWS MAY BE INSTALLED IN THE TOP SECTION. (AS TESTED WITH 1/8" DSB GLASS OR EQUIVALENT) OR IN THE SECTION IMMEDIATELY BELOW THE TOP SECTION.
5. MINIMUM LENGTH OF ROLLER STEM IS 51" 67" AS TESTED
6. THE STRUT PLACEMENT ON DOOR MUST BE CONSISTENT WITH THE DOOR SHOWN.
7. STRUTS SECURED AT ALL LOCATIONS WITH TER SCREWS.
8. QUANTITY OF SIDE LOCKS CAN BE 0,1, OR 12 AS TESTED.
9. DROP IN TYPE OF INSULATION IS OPTIONAL

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



TEST REPORTS ON FILE VIDEO 10/19/00 (00293)

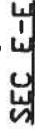
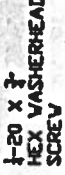
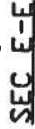
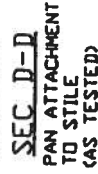
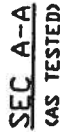
DESIGN LOAD +20.0 PSF & -20.0 PSF
TEST LOAD +30.0 PSF & -30.0 PSF

		GENERAL AMERICAN DOOR COMPANY 5050 BASELINE ROAD MONTGOMERY, IL 60538	
SCALE: 1/8" = 1'-0"	DATE: 6-9-04	APPROVED BY: [Signature]	DRAWN BY: B. VEDRAM
REVISION:	DESCRIPTION:	REVISED:	
16' X 7' MAX. RAISED PANEL STEEL DOOR - WINDLOAD +20 F. PART NUMBER:		DRAWING NUMBER: J13220	

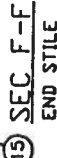
GADCO DOORS
SERIES 7400, EXTERIOR STEEL = .017 MIN (AS TESTED)
SERIES 7825, EXTERIOR STEEL = .019" MIN
SERIES 7524, EXTERIOR STEEL = .024" MIN
(TESTED) WITH WINDOWS

MAXIMUM DOOR WIDTH	MAXIMUM DOOR HEIGHT	TYPICAL CTR. STILE SPACING	STRUTS 80 KSI SIZE	STRUTS QTY.	VERTICAL TRACK
16'	7'	23"	3"	5	2 IN.

THE SEAL ON THIS DRAWING ONLY
CERTIFIES THAT THE PRODUCT(S)
ILLUSTRATED AND DESCRIBED HEREIN
REPRESENT THE CONFIGURATION(S),
DIMENSIONS AND INSTALLATION(S) OF
THE DOOR AS TESTED.



PAGE 2 OF 3



THE SEAL ON THIS DRAWING ONLY
CERTIFIES THAT THE PRODUCT(S)
ILLUSTRATED AND DESCRIBED HEREIN
REPRESENT THE CONFIGURATION(S),
DIMENSIONS AND INSTALLATION(S) OF
THE DOOR AS TESTED.

REV.	DATE	BY	DESCRIPTION

2x6 JAMB TO SUPPORTING STRUCTURE ATTACHMENT

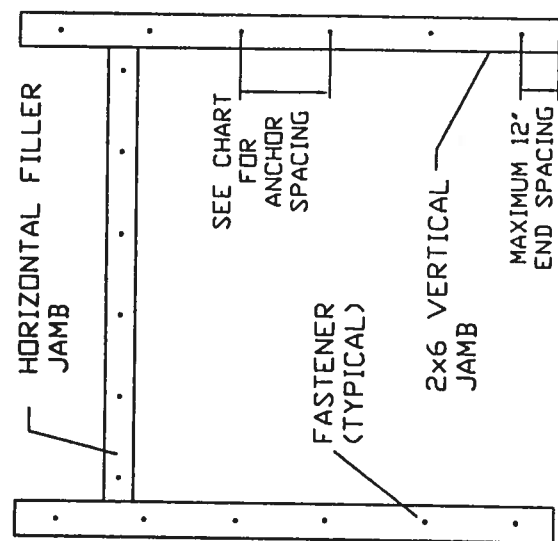
2x6 PRESSURE TREATED GRADE #2 OR BETTER SOUTHERN PINE WOOD JAMB SHALL BE ANCHORED TO BUILDING WOOD FRAME, GROUTED AND REINFORCED CONCRETE MASONRY UNIT (CMU) WALLS OR COLUMNS, OR REINFORCED CONCRETE COLUMNS.

NOTES:

- 1) ALL DOOR OPENING SURROUNDING STRUCTURE TO BE DESIGNED BY REGISTERED ENGINEER OR ARCHITECT TO RESIST APPLIED LOADS.
- 2) ALL DOOR OPENING STRUCTURE AND FASTENERS TO COMPLY WITH ALL APPLICABLE CODES INCLUDING SBCCI "STANDARD FOR HURRICANE RESISTANT RESIDENTIAL CONSTRUCTION" SSTD 10," CURRENT EDITION.
- 3) ALL FASTENERS TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, INSTRUCTIONS AND RECOMMENDATIONS.
- 4) REINFORCED CMU OR CONCRETE: 2X6 WOOD JAMB SHALL BE ANCHORED TO SOLIDLY GROUTED AND REINFORCED CONCRETE MASONRY UNIT (CMU) WALLS OR COLUMNS, OR REINFORCED CONCRETE COLUMNS. ANCHOR SPACING AND EMBEDMENT IS BASED ON CONCRETE MASONRY UNITS COMPLYING WITH ASTM C90 WITH A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2150 PSI; GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI; REINFORCED CONCRETE COLUMNS WITH A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.
- 5) EMBEDMENTS LISTED ARE THE MINIMUM ALLOWABLE EMBEDMENTS.
- 6) WASHERS ARE REQUIRED ON ALL FASTENERS. SEE CHART FOR ACCEPTABLE WASHERS.
- 7) USE THE DOOR WIDTH / ANCHOR SPACING TABLE TO DETERMINE THE ANCHOR SPACING IN INCHES. ANCHOR SPACINGS ON THE TABLE ARE FOR USE WITH SPECIAL INSPECTION. REDUCE ANCHOR SPACING BY HALF FOR USE WITHOUT INSPECTION.
- 8) FOR THE UPPER THREE INDIVIDUAL STEEL JAMB BRACKETS, BRACKETS SHALL BE CENTERED BETWEEN THE TWO CLOSEST 2X6 WOOD JAMB ANCHORS. IF THE STEEL JAMB BRACKET IS NOT CENTERED BETWEEN THE TWO CLOSEST 2X6 WOOD JAMB ANCHORS, ADD AN ADDITIONAL 2X6 WOOD JAMB ANCHOR NEAR THAT STEEL BRACKET TO INSURE THAT THE LOAD FROM THE STEEL BRACKET IS EQUALLY TRANSFERRED TO TWO WOOD JAMB ANCHORS.
- 9) FOR CONCRETE COMPRESSIVE STRENGTH OF 2500 PSI USE ANCHOR SPACING FOR 2000 PSI CONCRETE.

	DOOR WIDTH			
	9'-0"	10'-0"	12'-0"	14'-0"
1/4" X 3" ITW TAPCON CONCRETE ANCHORS, WITH 2-1/2" MIN EDGE DISTANCE & 1" OD WASHER	16.0	14.0	12.0	10.0
IN CMU BLOCK, 1-1/4" EMBEDMENT	16.0	14.0	12.0	10.0
IN 2000 PSI CONCRETE, 1-1/2" EMBEDMENT	24.0	24.0	24.0	22.0
IN 4000 PSI CONCRETE, 1-1/2" EMBEDMENT	24.0	24.0	24.0	22.0
3/8" X 3" SIMPSON STRONG - TIE SLEEVE - ALL SLEEVE EXPANSION ANCHORS.	24.0	24.0	24.0	24.0
WITH 3" MIN EDGE DISTANCE & WASHERS PROVIDED	24.0	24.0	24.0	24.0
IN 2000 PSI CONCRETE, 1-1/2" EMBEDMENT	24.0	24.0	24.0	24.0
IN 4000 PSI CONCRETE, 1-1/2" EMBEDMENT	24.0	24.0	24.0	24.0
3/8" X 3-1/2" SIMPSON STRONG-TIE WEDGE-ALL WEDGE STAINLESS STEEL EXPANSION ANCHORS	24.0	24.0	24.0	24.0
WITH 3" MIN EDGE DISTANCE & WASHERS PROVIDED	24.0	24.0	24.0	24.0
IN 2000 PSI CONCRETE, 1-1/2" EMBEDMENT	24.0	24.0	24.0	24.0
IN 4000 PSI CONCRETE, 1-1/2" EMBEDMENT	24.0	24.0	24.0	24.0
7/16" X 8" L BOLTS, W/ 2" MIN SQUARE WASHERS	36.0	36.0	36.0	36.0
WITH 3 ANCHORS PER JAMB, MIN 2" EDGE DISTANCE	36.0	36.0	36.0	36.0
3/8" X 3" LAG SCREW, WITH 1" OD WASHER	24.0	24.0	24.0	24.0
SOUTHERN YELLOW PINE, SPECIFIC GRAVITY = .35, WITH 1-1/2" MIN EDGE DISTANCE & 1-1/2" EMBEDMENT IN 3/16" PREDRILLED HOLES	24.0	24.0	24.0	24.0

DOOR WIDTH / ANCHOR SPACING TABLE



THE SEAL ON THIS DRAWING ONLY CERTIFIES THAT THE PRODUCT(S) ILLUSTRATED AND DESCRIBED HEREIN REPRESENT THE CONFIGURATION(S), DIMENSIONS AND INSTALLATION(S) OF THE DOOR AS TESTED.

GENERAL AMERICAN DOOR COMPANY
5050 BASELINE ROAD
MONTGOMERY, IL 60538

SCALE: NONE	APPROVED BY: J. K. C.
DATE: 6/9/04	REVISED: -
DESCRIPTION: 16' X 7' MAX. RAISED PANEL STEEL DOOR - WINDLOAD	