



**TAS 201, TAS 202 and TAS 203  
PERFORMANCE TEST REPORT**

**Rendered to:**

**Diamond Door Products**

**SERIES/MODEL: Diamond GEM 150 MPH Series  
PRODUCT TYPE: Outswing Steel Entry Door**

**Report No.: 55994.01-801-18**

**Test Dates: 03/07/05**

**Through: 03/16/05**

**Report Date: 05/11/05**

**Expiration Date: 03/16/15**

**Metro-Dade County Notification No.: ATITX05001**

2865 Market Loop, Suite B  
Southlake, Texas 76092  
phone: 817-410-7202  
fax: 817-424-8463  
www.archtest.com

*Joseph A. Reed*  
5/20/08



## TAS 201, TAS 202 and TAS 203 PERFORMANCE TEST REPORT

Rendered to:

Diamond Door Products  
6525 Cunningham, Building C  
Houston, Texas 77041

Report No.: 55994.01-801-18

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**Project Summary:** Architectural Testing, Inc. (ATI) was contracted by Diamond Door Products to perform testing per Florida Building Code, Test Protocols for High Velocity Hurricane Zone, Protocols TAS 201-94, TAS 202-94 and TAS 203-94. The samples tested met the performance requirements set forth in each of the protocols for a +50.7/-64.0 psf Design Pressure rating.

**Test Procedure:** The test specimens were evaluated in accordance with the following Florida Building Code Protocols:

TAS 201-94, *Impact Test Procedures.*

TAS 202-94, *Criteria for Testing Impact and Non Impact Resistant Building Envelope Components Using Uniform Static Air Pressure Loading.*

TAS 203-94, *Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.*

**Drawing Reference:** The following drawings have been checked by ATI, and are representative of the samples tested: 150MPH 1, 2, & 3, Deadbolt Strike Jamb, "CW" Series Insulated Doors, Universal Hinge Jamb, Hurricane Mounting Clip, Sill Anchor Hole Locations, Cylinder Lock Box, Hinge Reinforcement, Parker Leversets, Heavy Duty Deadbolt Locks, PD-39980199, Cap Trim, Typical 3070 Door, TH-2.

### **Test Specimen Description:**

**Series/Model:** Diamond GEM 150 MPH Series

**Product Type:** Outswing Steel Entry Door

**Test Specimen Description:** (Continued)

**Overall Size:** 40-3/4" wide by 86-1/4" high

**Leaf Size:** 35-7/8" wide by 83-1/4" high by 1-3/4" thick

**Finish:** White Painted Steel

**Steel Thicknesses:**

Leaf skin: 0.033"  
 Hinge: 0.131"  
 Hinge reinforcement: 0.122"  
 Leaf top and bottom channel: 0.056"  
 Door frame: 0.058"  
 Surface bolt strike plate: 0.117"  
 Head and jamb flashing: 0.023"  
 Wall panel: 0.025"  
 Head to jamb Z-bracket: 0.098"  
 Head to jamb L-bracket: 0.098"  
 Sill to jamb bracket: 0.098"  
 Strike plate reinforcement: 0.120"  
 2-1/2" x 8" C-channel: 0.058"  
 C-channel to buck L-bracket: 0.100"  
 Lock box reinforcement: 0.121"

**Weatherstripping:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
1/4" high two finger rubber	1 Row	Aluminum kerf attached to frame jamb and head
1" high one finger rubber	1 Row	Aluminum kerf attached to leaf bottom exterior skin

**Frame Construction:** Frame head and jamb were steel and measured 8-1/4" wide by 3" deep and had a 1-15/16" x 5/8" rabbet at the interior and exterior. The top corners were coped and butted. Two steel Z-shaped brackets were projection welded to the head and a steel angle bracket was projection welded to each jamb at the top and bottom. The head to jamb joint was secured with two (2) 5/16" x 3/4" bolts and nuts. The bottom bracket at each jamb was secured to the buck with two (2) 3/8" x 4" lag bolts. Strike plate reinforcements were projection welded to the lock jamb. Steel strike plates were secured to the reinforcement with two (2) #10 x 5/8" screws. A steel surface bolt strike plate was secured to the head with two (2) 5/16" x 1" bolts and nuts. A steel surface bolt strike plate was secured to the threshold and buck with two (2) #10 x 1-3/4" screws. During the test the top surface bolt was held in the engaged position by installing a 1/4" x 1-1/8" self tapping hex head screw in the door leaf beneath the bolt eliminating it's ability to become disengaged.

**Test Specimen Description:** (Continued)

**Leaf Construction:** The door leaf was constructed with a top and bottom skin having folded lock edges. The doors contained a bonded polystyrene core. Flush top and bottom channels were welded to both face sheets. Two lock boxes were projection welded to the lock stile of the door leaf.

**Flashing Construction:** 3" x 1-1/2" x 1" J-shaped flashing was located at the head. The flashing was secured to the door frame and C-channel with four (4) 1/4" x 1-1/8" self tapping hex head screws located 1" and 4-1/2" from each end. The screw heads were ground flush with the flashing. 3" x 1-1/2" x 1" J-shaped flashing was located at the jambs. The flashing was secured to the door frame and C-channel with six (6) 1/4" x 1-1/8" self tapping hex head screws located 4-1/2", 44-1/2", and 84-1/2" from the top. The screw heads were ground flush with the flashing.

**Hardware:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
1" x 1/2" x 8" steel surface bolt	2	Interior top and bottom of door leaf
Steel surface bolt strike plate	2	Head and sill
Grade 2 Lever lock	1	38" from the bottom of the leaf
Single cylinder heavy duty dead bolt	1	46" from the bottom of the leaf
Steel strike plate	2	38" and 46" from the bottom of the lock jamb
Three barrel ball bearing hinge	3	8-1/2", 41-1/2", and 74-1/2" from the bottom of the leaf

**Drainage:** Sloped sill

**Reinforcement:** Reinforcement was projection welded at the frame jamb strike plates, frame jamb hinge and door leaf hinge.

**Installation:**

**Rough opening:** The test unit was installed into a 2-1/2" x 8" metal C-channel rough opening at the head and jambs. The 2-1/2" x 8" C-channel was secured to a buck constructed of a 6x10 lumber at the sill, 4x10 lumber at the head, and 2x10 lumber at the jambs. The 2-1/2" x 8" C-channel was secured to a 1-3/4" by 8" by 5" wide L-shaped bracket at the top and bottom using five (5) 1/4" x 1" self tapping hex head screws. The brackets were secured to the buck at the head with two (2) 5/16" x 3" lag bolts and secured to the sill with two (2) 3/8" x 4" lag bolts. The 2-1/2" by 8" C-channel at the head was secured to the buck with eight (8) #8 x 2" screws at each end.

**Test Specimen Description:** (Continued)

**Installation:** (Continued)

Door Frame: Each door frame jamb was secured at the interior to the 2-1/2" x 8" C-channel with ten (10) 1/4" x 1-1/8" self tapping hex head screws located 1", 5", 8-1/2", 20", 32", 44", 56", 68", 80", and 90-1/2" from the sill. Each door frame jamb was secured at the exterior to the 2-1/2" x 8" C-channel with ten (10) 1/4" x 1-1/8" self tapping hex head screws with integral neoprene washers located 1", 5", 8-1/2", 20", 32", 44", 56", 68", 80"; and 90-1/2" from the sill. The door frame head was secured at the interior to the 2-1/2" x 8" C-channel with four (4) 1/4" x 1-1/8" self tapping hex head screws located 1" and 14" from each jamb. The door frame head was secured at the exterior to the 2-1/2" x 8" C-channel with four (4) 1/4" x 1-1/8" self tapping hex head screws with integral neoprene washers located 1" and 14" from each jamb.

Flashing and threshold: Exterior door frame to 2-1/2" x 8" C-channel exterior fasteners also secured the head flashing, jamb flashing, and exterior wall panels to the C-channel. The exterior steel skin was secured to the wood buck with 1/4" x 1-1/8" self tapping hex head screws with integral neoprene washers located 1" from each corner and on 12" center thereafter. An aluminum threshold was secured to the buck at the sill with three (3) #10 x 1-3/4" screws. An aluminum sill flashing extrusion was secured to the buck at the sill beneath the wall panels.

**Test Results:** The following results have been recorded:

**Protocol TAS 202-94, *Static Air Pressure Tests***

**Test Unit #1**

**Design Pressure:** +50.7/-64.0 psf

Title of Test	Results		
	1	2	3
Structural Loads			
50% of Test Pressure (+38.0 psf)			
Maximum Deflection	0.22"	0.19"	0.10"
Permanent Set	0.03"	0.03"	0.02"
Design Pressure (+50.7 psf)			
Maximum Deflection	0.24"	0.22"	0.10"
Permanent Set	0.04"	0.05"	0.03"
50% of Test Pressure (-48.0 psf)			
Maximum Deflection	0.06"	0.14"	0.05"
Permanent Set	0.02"	0.03"	0.01"
Design Pressure (-64.0 psf)			
Maximum Deflection	0.10"	0.20"	0.09"
Permanent Set	0.04"	0.04"	0.00"
Test Pressure (+76.0 psf)			
Maximum Deflection	0.29"	0.31"	0.14"
Permanent Set	0.03"	0.05"	0.03"
Test Pressure (-96.0 psf)			
Maximum Deflection	0.29"	0.53"	0.29"
Permanent Set	0.12"	0.17"	0.07"
Forced Entry - 300 lb Pull Test		Pass	
300 lb force in opening direction at top, middle and then bottom			

**Test Results:** (Continued)

**Protocol TAS 201-94, *Impact Test Procedures***

**Missile Weight:** 9.3 lbs

**Muzzle Distance from Test Specimen:** 17 ft.

**Test Unit #1**

**Impact #1:** Missile Velocity: 50.1 fps

**Impact Area:** Bottom Left Corner

**Observations:** Dented

**Results:** Pass

**Impact #2:** Missile Velocity: 50.0 fps

**Impact Area:** Center

**Observations:** Dented

**Results:** Pass

**Test Unit #2**

**Impact #1:** Missile Velocity: 50.2 fps

**Impact Area:** Center

**Observations:** Dented

**Results:** Pass

**Impact #2:** Missile Velocity: 50.5 fps

**Impact Area:** Bottom right corner

**Observations:** Dented

**Results:** Pass

**Test Results:** (Continued)

**Protocol TAS 201-94, *Impact Test Procedures***

**Missile Weight:** 9.3 lbs

**Muzzle Distance from Test Specimen:** 17 ft.

**Test Unit #3**

**Impact #1:** Missile Velocity: 50.6 fps

**Impact Area:** Center near latch

**Observations:** Dented

**Results:** Pass

**Impact #2:** Missile Velocity: 50.1 fps

**Impact Area:** Top right corner

**Observations:** Dented

**Results:** Pass

Test Results: (Continued)

Protocol TAS 203-94, *Cyclic Wind Pressure Loading*

Test Unit #1

Design Pressure: +50.7/-64.0 psf

**POSITIVE PRESSURE**

Pressure Range (psf)	Number of Cycles	Average Cycle Time (sec.)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
0.0 to 25.34	600	1.85	0.08	0.11	0.02
0.0 to 30.41	70	1.92	0.10	0.16	0.02
0.0 to 65.88	1	2.00	0.11	0.26	0.03
			Permanent Set (inch)		
			0.06	0.03	0.03

**NEGATIVE PRESSURE**

Pressure Range (psf)	Number of Cycles	Average Cycle Time (sec.)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
0.0 to 31.99	600	1.61	0.10	0.09	0.10
0.0 to 38.39	70	1.62	0.11	0.09	0.10
0.0 to 83.17	1	2.00	0.19	0.21	0.20
			Permanent Set (inch)		
			0.06	0.05	0.05

Result: Pass

**Test Results:** (Continued)

**Protocol TAS 203-94, Cyclic Wind Pressure Loading**

**Test Unit #2**

**Design Pressure:** +50.7/-64.0 psf

**POSITIVE PRESSURE**

Pressure Range (psf)	Number of Cycles	Average Cycle Time (sec.)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
0.0 to 25.34	600	1.79	0.07	0.12	0.12
0.0 to 30.41	70	1.82	0.08	0.13	0.12
0.0 to 65.88	1	2.00	0.10	0.20	0.18
			Permanent Set (inch)		
			0.04	0.03	0.06

**NEGATIVE PRESSURE**

Pressure Range (psf)	Number of Cycles	Average Cycle Time (sec.)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
0.0 to 31.99	600	1.58	0.11	0.09	0.08
0.0 to 38.39	70	1.69	0.12	0.11	0.10
0.0 to 83.17	1	2.00	0.25	0.25	0.31
			Permanent Set (inch)		
			0.07	0.07	0.10

**Result:** Pass

**Test Results: (Continued)**

**Protocol TAS 203-94, Cyclic Wind Pressure Loading**

**Test Unit #3**

**Design Pressure: +50.7/-64.0 psf**

**POSITIVE PRESSURE**

Pressure Range (psf)	Number of Cycles	Average Cycle Time (sec.)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
0.0 to 25.34	600	1.80	0.15	0.18	0.06
0.0 to 30.41	70	1.74	0.19	0.20	0.08
0.0 to 65.88	1	2.00	0.28	0.30	0.09
			Permanent Set (inch)		
			0.03	0.03	0.02

**NEGATIVE PRESSURE**

Pressure Range (psf)	Number of Cycles	Average Cycle Time (sec.)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
0.0 to 31.99	600	1.57	0.12	0.08	0.10
0.0 to 38.39	70	1.61	0.14	0.09	0.12
0.0 to 83.17	1	1.22	0.36	0.26	0.29
			Permanent Set (inch)		
			0.05	0.02	0.02

**Result: Pass**

*Note: Refer to ATI Sketch #1 for indicator locations.*

**Test Equipment:**

**Cannon:** Steel pipe barrel utilizing compressed air to propel the missile(s)

**Missile(s):** 2 by 4 Southern Pine

**Timing Device:** Electronic Beam Type

**Cycling Mechanism:** Computer controlled centrifugal blower with electronic pressure measuring device

**Deflection Measuring Device:** Linear transducers and 1" dial indicators

Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

**List of Official Observers:**

Name	Company
Steve Curry	Diamond Door Company
Joseph A. Reed, P.E.	Architectural Testing, Inc.
Andy Cost	Architectural Testing, Inc.

Representative samples of the test specimen and a copy of this report will be retained by ATI for a period of ten years from the original test date. This report is the exclusive property of the client so named herein and is applicable to the sample tested. Results obtained are tested values and do not constitute an opinion or endorsement by this laboratory. This report may not be reproduced, except in full, without the approval of Architectural Testing.

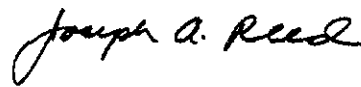
For ARCHITECTURAL TESTING, INC.



Digitally Signed for: Andy Cost by John H. Waskow

---

Andy Cost  
Laboratory Manager



Digitally Signed by: Joseph A. Reed

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Joseph A. Reed, P.E.  
Director - Engineering and Product Testing

AC:br/cmd

Attachments (pages):

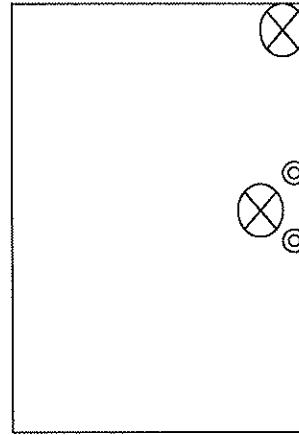
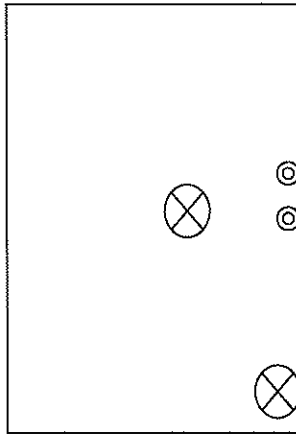
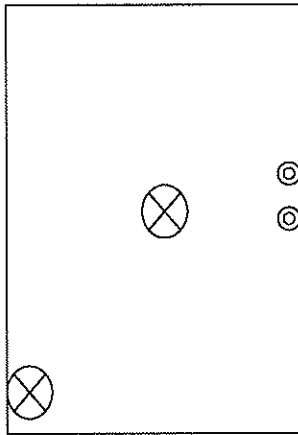
Appendix A: Sketches (1)  
Appendix B: Drawings (16)

### Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	05/11/05	N/A	Original report issue

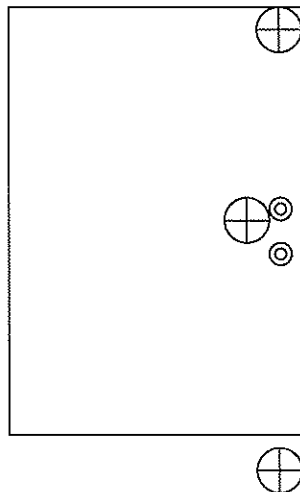
## Appendix A

### ATI Sketch #1 Impact and Indicator Locations



 **Impact Location**

 **Indicator Location**

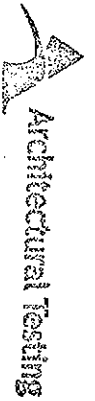


## **Appendix B**

### **Drawings**

# DIAMOND DOOR PRODUCTS

5525 Cunningham Blvd. c  
Houston, TX 77041  
Ph. (713)849-5086



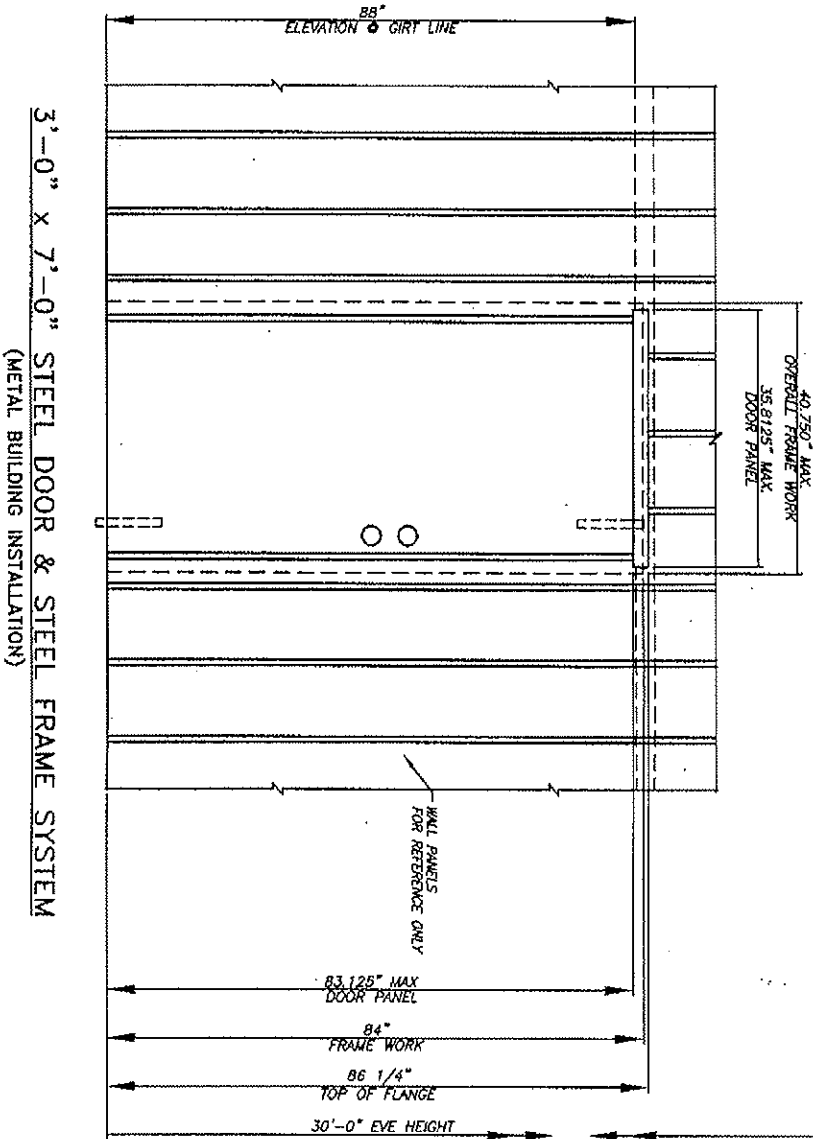
Test sample complies with these details.  
Drawings are noted.

Report# 55994  
Date 5-2-05 Tech BR

"DIAMOND"  
STEEL DOOR & FRAME SYSTEM  
FOR METAL BUILDINGS  
3'-0" x 7'-0" SINGLE DOOR

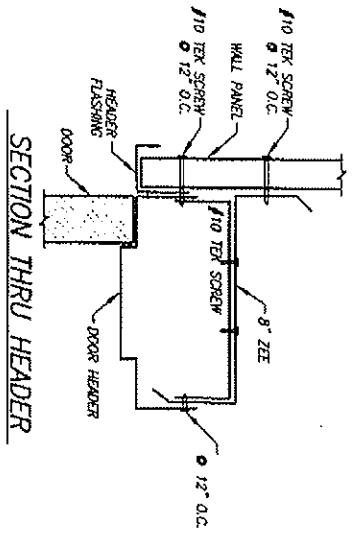
#### GENERAL NOTES

1. THIS PRODUCT IS EVALUATED TO COMPLY WITH THE FLORIDA BUILDING CODE AND TEXAS BOARD OF INSURANCE (FOR USE INSIDE OF THE HWZ AREA).
2. PRODUCT ANCHORS SHALL BE AS LISTED AND SPACED AS SHOWN ON DETAILS. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING.
3. MAIN WIND FORCE RESISTING SYSTEM (WAFRS) COMPONENT SPACING TO BE DETERMINED BY OTHERS.
4. ENGINEER OF RECORD SHALL EVALUATE THE SUB-JAMBS FOR ADDITIONAL WINDLOADS FROM COMPONENTS AND CLADDING ELEMENTS SUCH AS WALL PANELS.

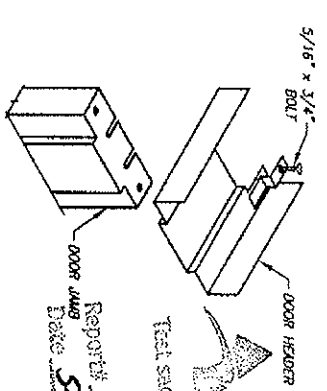


150 mph

DIAMOND DOOR PRODUCTS, LTD.

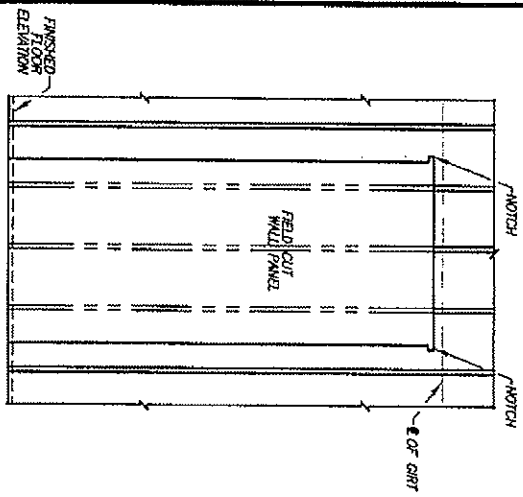


SECTION THRU HEADER

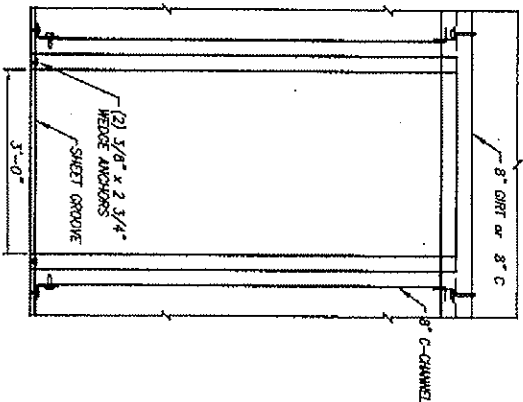


DOOR FRAME ASSEMBLY

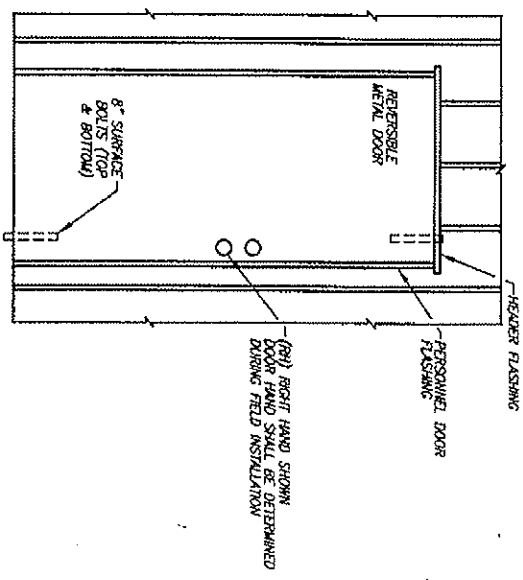
Architectural Testing  
 Test sample conforms with these details.  
 Deviations are noted.  
 Report # 55994  
 Date 5-2-05  
 Tech [Signature]



CUTOUT WALLPANEL ELEVATION



FRAMING ELEVATION



EXTERIOR ELEVATION OF DOOR

GENERAL NOTES

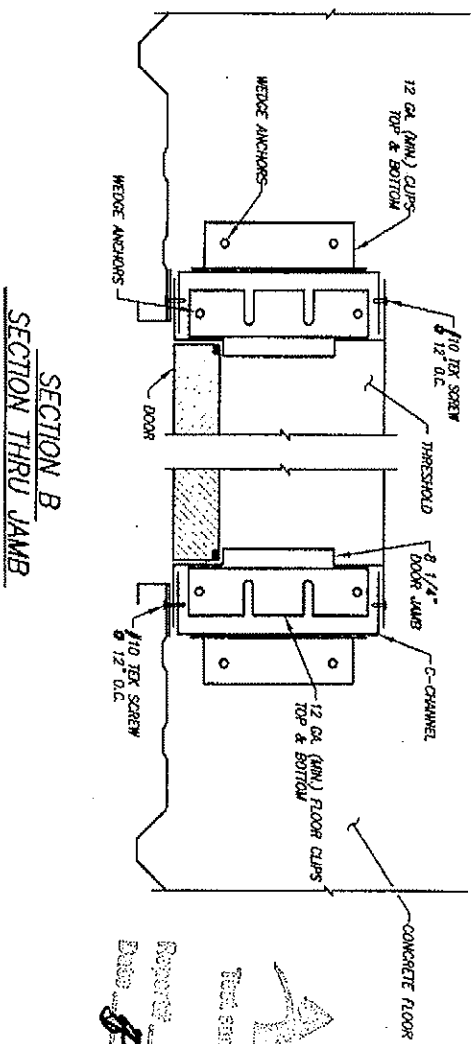
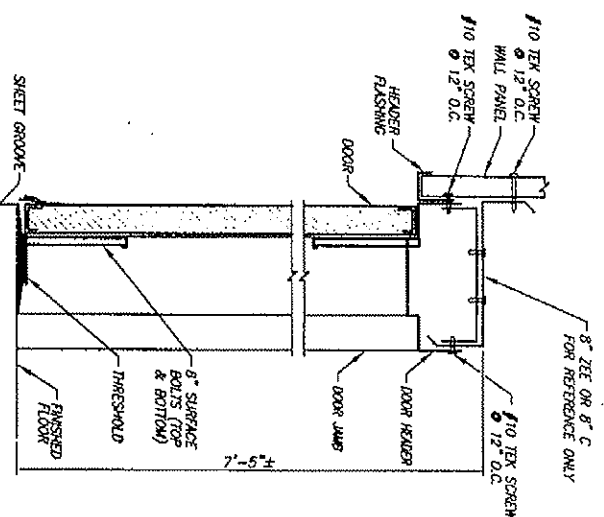
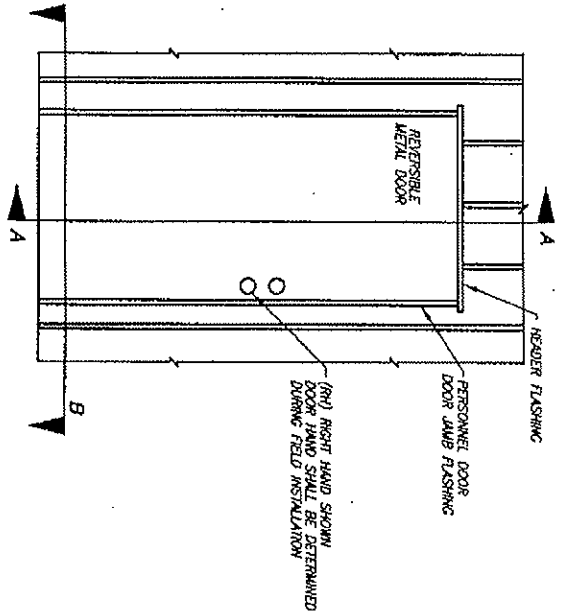
- 1) FIELD LOCATE DOOR, REMOVE AND CUT NECESSARY GIRTS IN BAY.
- 2) ARRANGE JAMBS ACCORDING TO REQUIRED SING, THEN FASTEN
- 3) AFTER ASSEMBLING FRAME, PLACE IN POSITION, SQUARE AND PLUMB, NAIL DOOR PANEL.
- 4) FASTEN DOOR FRAME TO GIRTS WITH SCREWS OR TACK WELDING.
- 5) FASTEN BOTTOM OF DOOR JAMBS WITH 3/8" x 2 3/4" WEDGE ANCHORS.
- 6) INSTALL THRESHOLD AND DOOR HARDWARE.
- 7) INSTALL C CHANNEL W/ L CLIPS.
- 8) ANCHOR L CLIP TO FLOOR WITH 3/8" x 2 3/4" WEDGE ANCHORS.
- 9) FASTEN UPPER L CLIP TO GIRT USING #10 TEK SCREWS.
- 10) FLASH ACCORDINGLY.

PERSONNEL DOOR SPECIFICATION

DOOR PANELS SHALL BE 3'-0" X 7'-0" X 1 3/4" CONSTRUCTED OF 20 GAUGE STEEL SHEET OVER A ONE PIECE POLYSTYRENE CORE. DOOR FRAME SHALL BE FABRICATED FROM 16 GAUGE GALVANNEAL HARDWARE SHALL INCLUDE (2) 4 1/2" x 4 1/2" STANDARD WEIGHT HINGES AND A GRADE 2 TYPE LOCKSET WITH ASA STRIKE W/DEADBOLT AND 8" SURFACE BOLTS. DOOR PANELS AND FRAMES FINISHED SHALL BE MANUFACTURED BY DIAMOND DOOR PRODUCTS, LTD.

150 mph

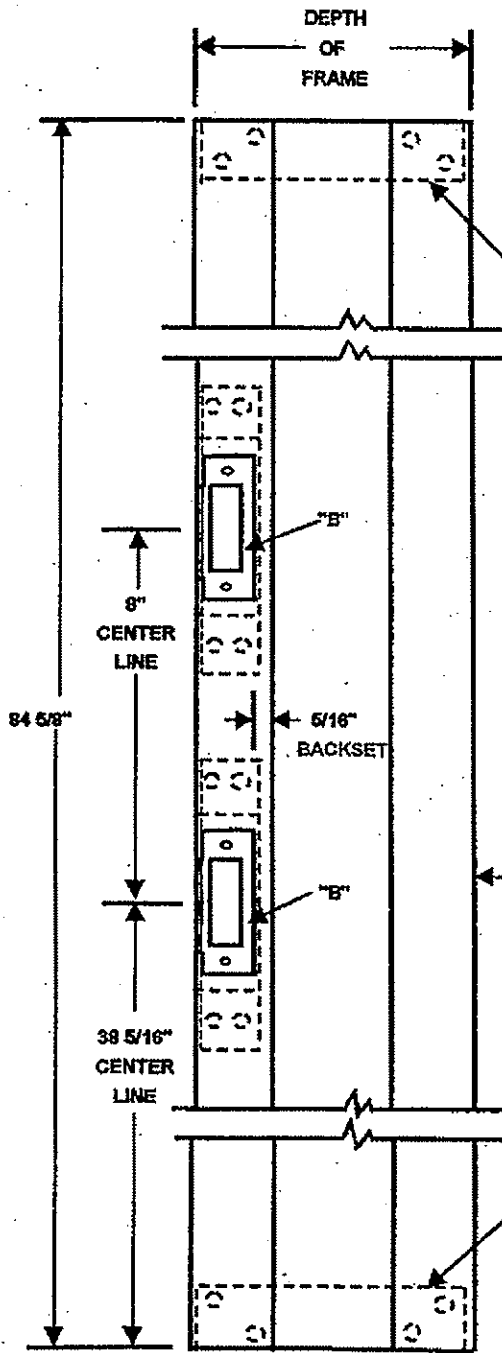
DIAMOND DOOR PRODUCTS, LTD.



Test sample completed with these results.  
 Deviations are noted.  
 Report # 59944  
 Date 8-2-05  
 [Signature]

150 mph  
 DIAMOND DOOR PRODUCTS, LTD.

Diamond Door Products, Ltd.  
 Universal A.S.A. Dead Bolt Strike Jamb



Architectural Testing  
 55994  
 5-2-07

"A" 12 GAUGE GALV. SILL ANCHOR  
 PROJECTION WELDED IN 4 PLACES EACH

"B" 12 GAUGE STRIKE REINFORCEMENT  
 PROJECTION WELDED IN 4 PLACES EACH

16 GAUGE GALV.  
 ASTM GRADE : CS

7/12/03

Diamond Dead Bolt Strike Jamb



# DIAMOND DOOR PRODUCTS, LTD.

6525 CUNNINGHAM BLDG. C  
HOUSTON, TX 77041  
Phone: 713-849-5085  
Fax: 713-849-5295



## "CW" SERIES INSULATED DOORS

### SPECIFICATIONS

20 GA. GALVANIZED FACE SHEETS  
EMBOSSED OR SMOOTH SURFACES  
MILL BONDERIZED 18 GA. SMOOTH SURFACE ONLY

FLUSH MOUNTED TOP AND BOTTOM  
CHANNELS WELDED TO BOTH  
FACE SHEETS

POLYSTYRENE CORES BONDED  
TO BOTH FACE SHEETS USING A  
TWO PART EPOXY

FOLDED FULL FLUSH FACE SHEETS  
ALLOWING NO RAW EDGES

LONG LASTING BAKED ON SPRAY  
COATED FINISH

AVAILABLE IN WHITE OR BRONZE  
EMBOSSED OR GRAY SMOOTH  
FINISHES

FULLY CARTONED IN CORUGATED  
BOXES AND POLY BAGGED  
FOR ADDED PROTECTION

### SPECIFICATION COMPLIANCE

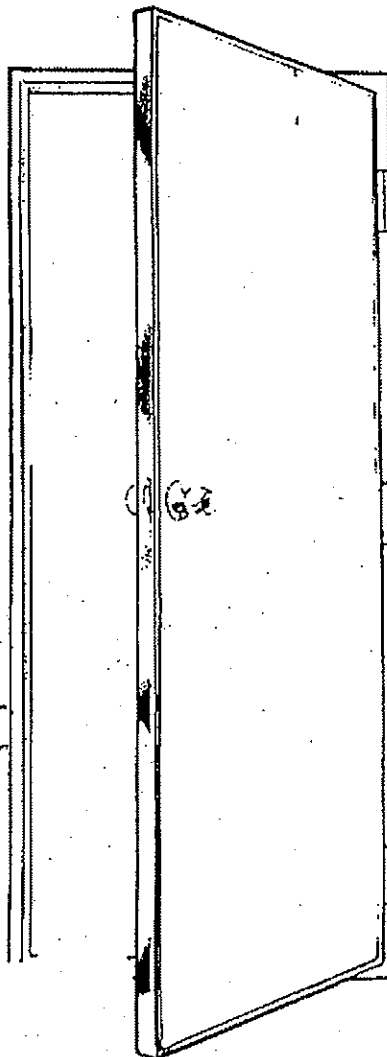
MEETS OR EXCEEDS:  
FED SPEC'S HH-1-524C  
TYPES I, II, & III  
MIL-P-40619A, CLASS II GRADE A  
MIL-P-196644C, TYPE II CLASS I  
DOD4270,1-M  
ASTM-C-578-69, TYPE I & II GRADE II

### BUILDING CODES

ICBO-UNIFORM BUILDING CODE  
SECTION 1717  
BOCA-BASIC BUILDING CODE  
SECTION 8765  
SBCCS- STANDARD BUILDING CODE  
SECTION 718  
FHAIHUD-USE OF MATERIALS  
BULLETIN 71

### HIGH POINTS

POLYSTYRENE CORE  
THERMOPLASTIC POLYMER  
SOUND TRANSMISSION 32  
"U" FACTOR .16  
"R" FACTOR 6.5 OR GREATER



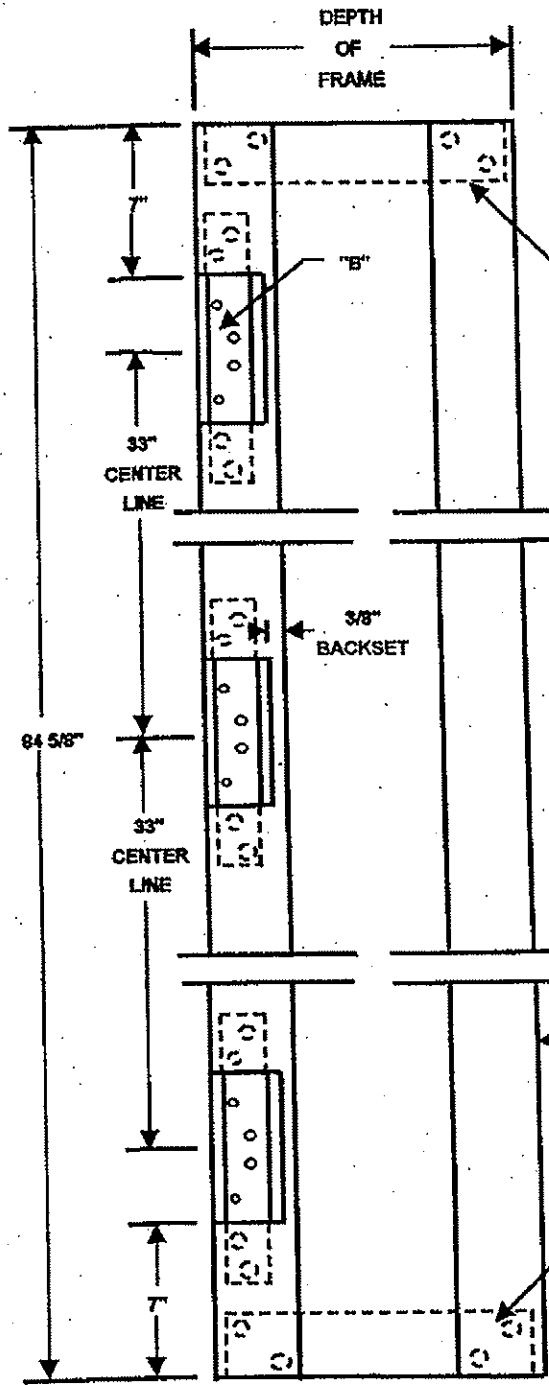
### Architectural Testing

Test sample complies with these details.  
Deviations are noted.

Report# SS994  
Date 5-2-05 Tech [Signature]

Diamond Door Products, Ltd.

Universal Hinge Jamb



**Architectural Testing**  
Test sample complies with these details.  
Deviations are noted.  
Report: SS994  
Date: 5-2-05 Tech: R

"A" 12 GAUGE GALV. SILL ANCHOR  
PROJECTION WELDED IN 4 PLACES EACH

"B" 10 GAUGE HINGE REINFORCEMENT  
PROJECTION WELDED IN 4 PLACES

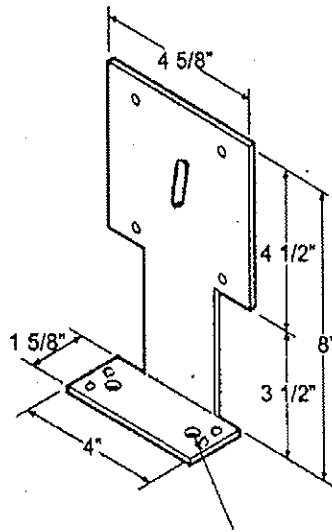
16 GAUGE GALV.  
ASTM GRADE : CS

7/12/03

Diamond Knock-Down Hinge Jamb

# HURRICANE-MOUNTING-CLIP

## 12GA.-GALVANIZED-STEEL



Architectural Testing

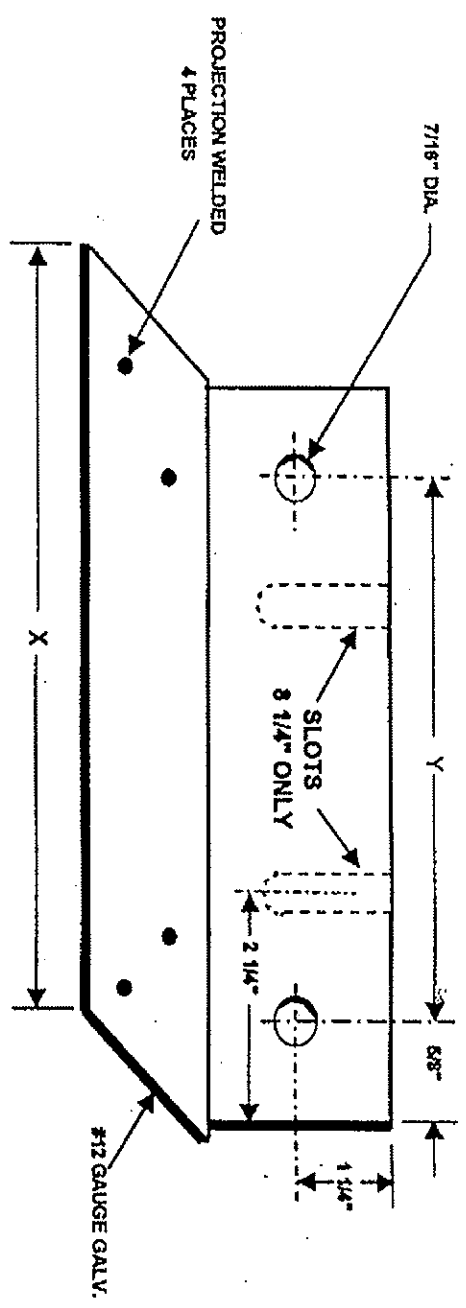
Test sample complies with these details.  
Deviations are noted.

Report# SS994

Date 5-2-05

Tech AP

Diamond Door Products, Ltd.  
Sill Anchor Hole Locations



X = LENGHT	Y = CENTER LINE
4.00"	2 3/4"
6.00"	4 3/4"
7.00"	5 3/4"
8.00"	6 3/4"
10.00"	8 3/4"

\*\* NOTE \*\* WHEN LOCATING HOLES FROM OUTSIDE FACE OF FRAME ADD 1/8" TO FIRST HOLE TO ACCOMMODATE FOR MATERIAL THICKNESS AND CLEARANCE OF CLIP.

**Architectural Testing**

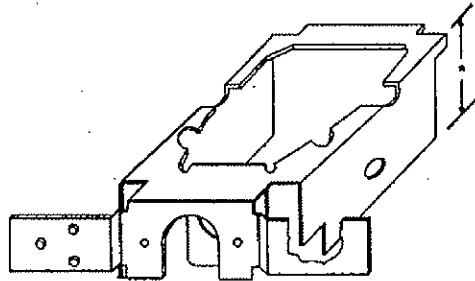
Test sample complies with these details. Deviations are noted.

Report# SS 994  
Date 5-2-05 Tech PR

**CYLINDER LOCK BOX**

**BEVEL, with PROJECTIONS**

**16GA-C.R.S.**



**\*158 = 1 5/8" LEG HEIGHT**

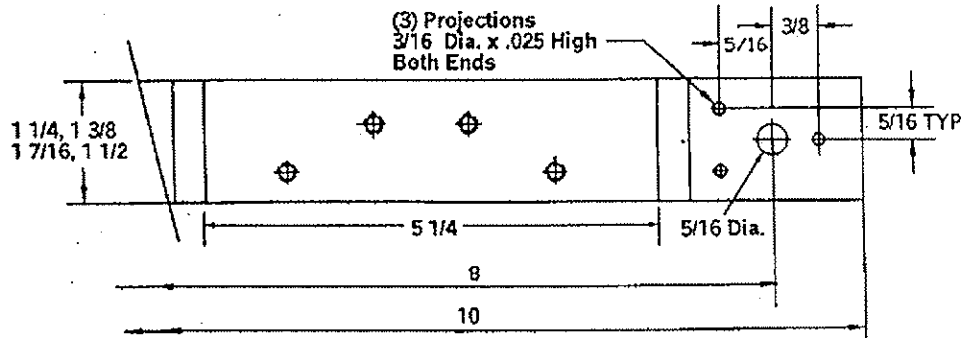
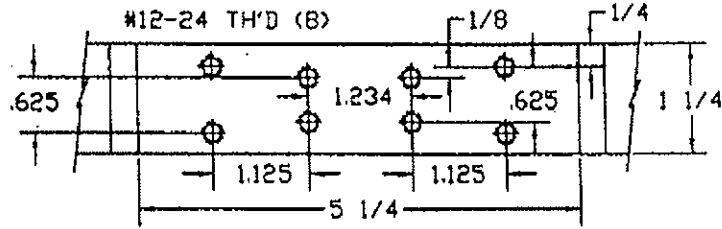


**Architectural Testing**

Test sample complies with these details.  
Deviations are noted.

Report# SS994  
Date 5-2-05 Tech RP

# 10GA. HINGE-REINFORCEMENT



**Architectural Testing**

Test sample complies with those details.  
Deviations are noted.

Report# SS994  
Date 5-2-05 Tech R

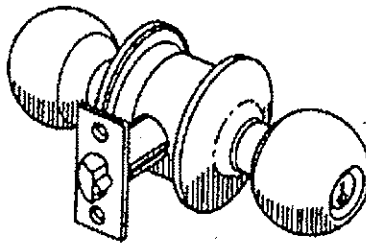


# DIAMOND DOOR PRODUCTS, LTD.

## GRADE 2 BALL KNOB DIAMOND PT# HLB2

S. Parker UL listed entry locks have three hour fire rated latches, and otherwise have all the features of the heavy duty B9160 series.

Additionally, they meet ANSI-A156-2, Series 4000, Grade 2 specifications. The keyway is SC-1 #1145, or Arrow keyway K. The tumbler is six pin keyed to five pins, and the exit from the inside is panic-resistant. The cylindrical lock housing is cold rolled steel that has been line dichromated for corrosion resistance.



S. Parker UL listed locks have 3 hour fire rated latches & 2 spin-on roses. All with 4 7/8" ANSI Strike.

*Not Tested*



Architectural Testing

Test Report available on request.

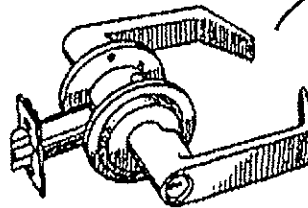
Report # SS 994

Date 5-2-05 Tech CR

## GRADE 2 LEVER LOCK DIAMOND PT# HLL2 - P

SL7160 Series with Two Step Rose is Ideal for Retrofitting

UL listed, ADA approved Grade 2 barrier-free leversets are ready for all ADA and other needs in passage, privacy, storeroom, classroom and dummy functions, in addition to entry models. The customer may provide the lock cylinder and key. Leversets meet ANSI A156.2 Series 4000 Grade standards and more than fulfill ADA requirements. The ANSI Series 4000 standard exceeds 400,000 operating cycles.



*Tested*



S. Parker Leversets meet all Grade 2 requirements, and are available in boxed or clamshell package.

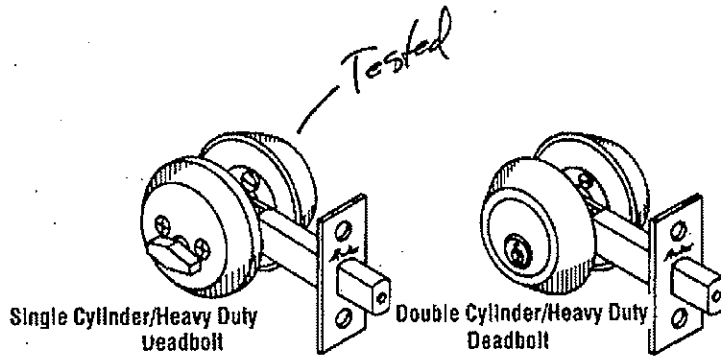
Special keying available (Master & Grand Master)

2 3/8" BS available upon request

Grade 2 Leverset with Two Step Rose




# HEAVY-DUTY-DEADBOLT-LOCKS



All deadbolts have a solid brass bolt, with a hardened steel core that rotates to make hacksawing almost impossible.

Bolt throws are a full 1".

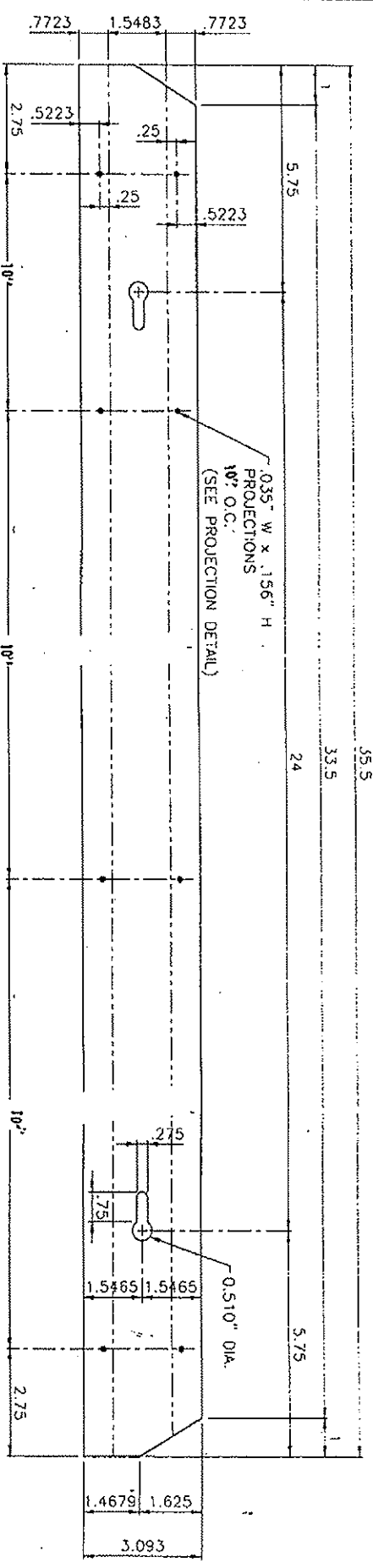
The single cylinder deadbolt 92160 series has a 2 1/4" backset, and double cylinder uses an 1145 SC-1 keyway. Using a six pin tumbler keyed to five pins, it has a latch face plate that is 1 1/8" x 2 1/4". It uses Keyblank V, and comes keyed alike if desired.

 Architectural Testing

Test sample complies with these details.  
Variations are noted.

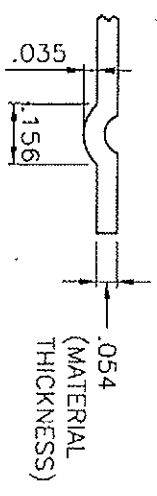
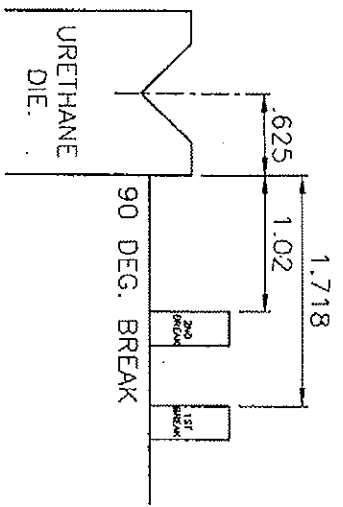
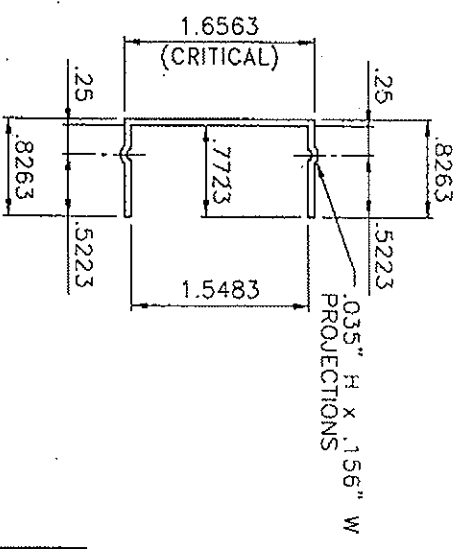
Report # 55914

Date 5-2-05 Tech [Signature]

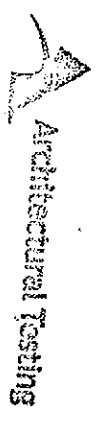


PATTERN - 3'-0 DOOR CHANNEL

3'-0 DOOR CHANNEL - SECTION



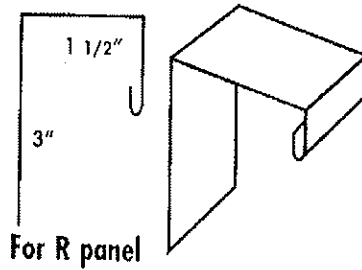
Report# SS924  
 Date 5-2-05 Tech R



Test samples comply with these details.  
 Deviations are noted.

ITEM NO.	WT.	REVISION	DESC
MATERIAL		NEW ISSUE	
16 GA. (.054) GGN		REV DATE	
BLANK SIZE	3.093 x .355	REV BY	
		REV APPVD	
FINISH	MILL	DRAWING DESC	
		3'-0 DOOR CHANNEL	
		DRAWN BY	LAS
		APPROV BY	JWT
		DWG SET - DOOR	
		FILENAME - CHANNEL	
		DRAWING NO.	PD-39980199
		SHEET 1 OF 1	
		REV NO.	0

## CAP TRIM



Sold by Ft.

R Panel

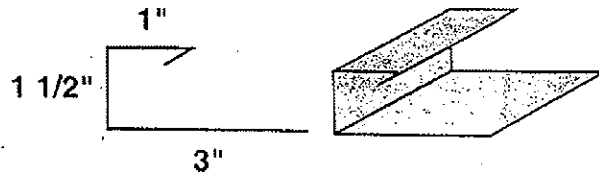


Architectural Testing

Test sample complies with these details.  
Deviations are noted.

Report# SS994  
Date 5-2-05 Tech R

## DOOR JAMB TRIM FOR USE WITH R & U PANEL



Stocked in 88", 120", 146" lengths

R Panel

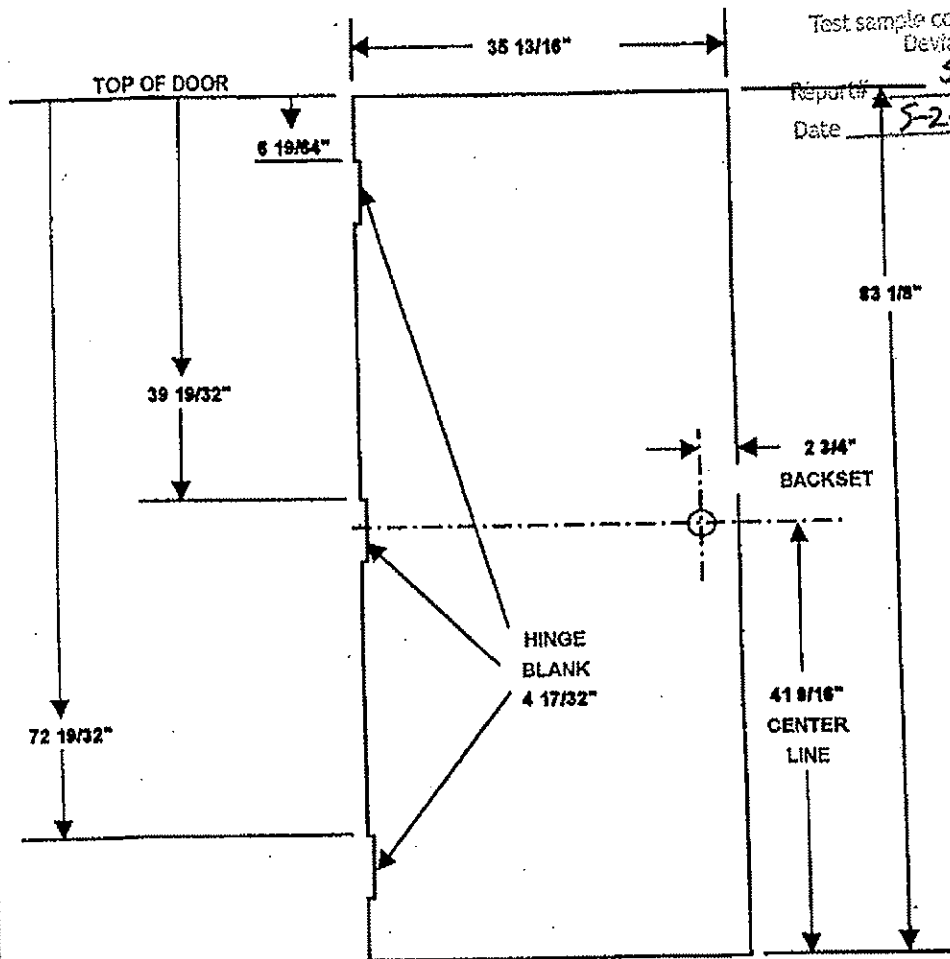
Diamond Door Products, Ltd.

TYPICAL 3070 M DOOR



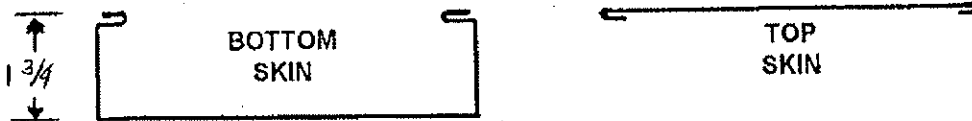
Architectural Testing

Test sample complies with these details.  
Deviations are noted.



Report # 55944  
Date 5-2-05 Tech P

\*\* NOTE \*\* BEVELED EDGE DOORS ARE REVERSIBLE BY FLIPPING LEAF END FOR END.



- \*\* LOCK EDGE IS BEVELED 1/8" IN 2" TO ASSURE PROPER FIT.
- \*\* LOCK EDGE CAN BE SQUARED FOR USE ON 1/2 GLASS DOORS SO HANDING IS NOT NECESSARY.
- \*\* ALL VERTICAL EDGES OF DOOR ARE HEMMED TO ELIMATE RAW EDGE METAL

8/15/03

Diamond Reversible Door

FR: DWG LG @ AFCD 10: DWAN

PART NO. TH-2

SF

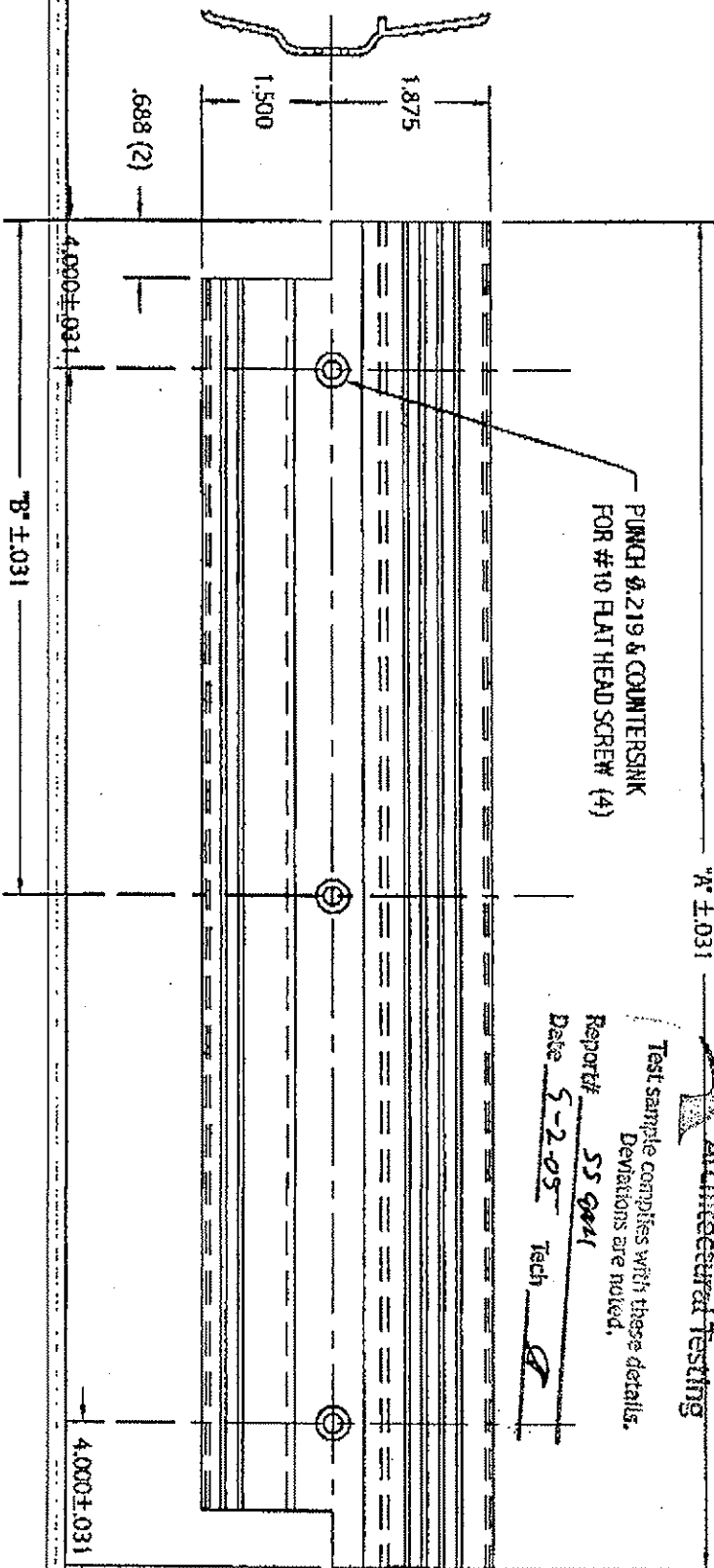
AF- FAB3764  
FAB3764REV 081500

Architectural Testing

Test sample complies with these details.  
Deviations are noted.

Report# 55 0041

Date 5-2-05 Tech



OPENING	DIM. "A"	DIM. "B"
30"	36"	18"
40"	48"	24"
60"	72"	36"

ALUMINIUM ASSOCIATION STANDARD TOLERANCES APPLY UNLESS OTHERWISE NOTED

REV. DESCRIPTION & DATE

REV.

DESCRIPTION & DATE

.080 TYPICAL WALL EXCEPT AS SHOWN

.010R BREAK SHARP CORNERS

CUSTOMER: AFCD ALUMINIUM PRODUCTS  
 P.O. BOX 5085  
 3400 ROY STREET  
 ALEXANDRIA, LA. 71302

CUST. PART NO: TH-2  
 Dwg USE: SILL

ALLOW: 6063  
 DE SIZE: TEMPER: T-5 TYPE DR: BACKER

BOASTER: FEDER P/L: BULLET:  
 EST. AREA: EST. PERIMETER: FACTOR:  
 EST. WT/FT: CIRCUMSCRIBED CR. DIA: RATIO:

DRAWN BY: DWG LG DATE: 11/03/00 SCALE: 0.5X

