



**TAS 201, TAS 202, TAS 203 and ASTM E330
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

Revision 1: 02/11/13

Metro-Dade County Notification No.: ATITX05001



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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.*

ATM E330, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

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 |
| ASTM E330 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" |
| ASTM E330 Design Pressure (+50.7 psf) | | | |
| Maximum Deflection | 0.24" | 0.22" | 0.10" |
| Permanent Set | 0.04" | 0.05" | 0.03" |
| ASTM E330 50% of Test Pressure (-48.0 psf) | | | |
| Maximum Deflection | 0.06" | 0.14" | 0.05" |
| Permanent Set | 0.02" | 0.03" | 0.01" |
| ASTM E330 Design Pressure (-64.0 psf) | | | |
| Maximum Deflection | 0.10" | 0.20" | 0.09" |
| Permanent Set | 0.04" | 0.04" | 0.00" |
| ASTM E330 Test Pressure (+76.0 psf) | | | |
| Maximum Deflection | 0.29" | 0.31" | 0.14" |
| Permanent Set | 0.03" | 0.05" | 0.03" |
| ASTM E330 Test Pressure (-96.0 psf) | | | |
| Maximum Deflection | 0.29" | 0.53" | 0.29" |
| Permanent Set | 0.12" | 0.17" | 0.07" |
| ASTM E330 Forced Entry - 300 lb Pull Test 300 lb force in opening direction at top, middle and then bottom | | 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 #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.

Andy Cost
Laboratory Manager

John H. Waskow, P.E.
Director – Regional Operations

AC:hd

Attachments (pages):

Appendix A: Sketches (1)

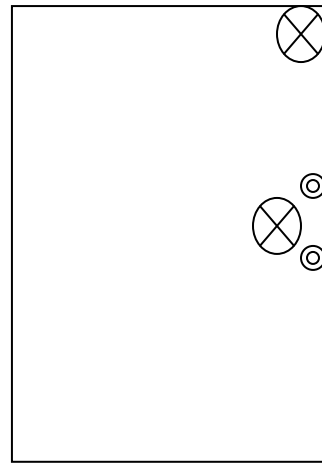
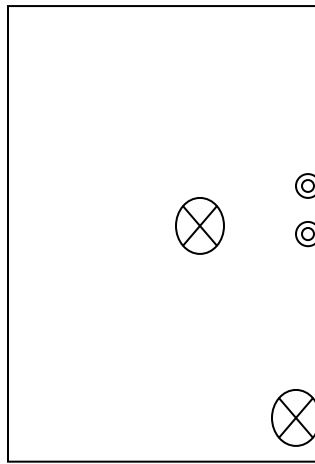
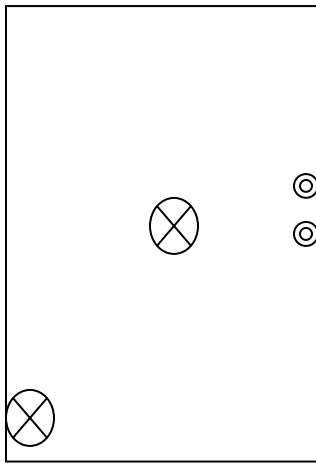
Appendix B: Drawings (16)

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 |
| 1 | 02/11/13 | 2, 5, 11 | Added ASTM E330 to Test Methods. Changed signature of Joseph Reed to John Waskow |

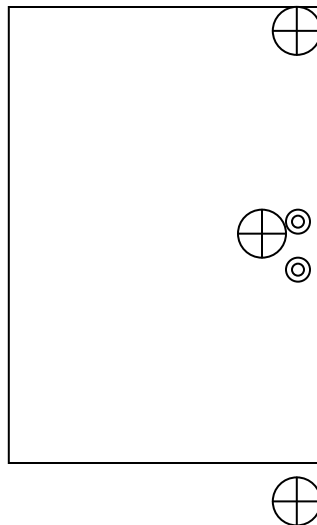
Appendix A

ATI Sketch #1 Impact and Indicator Locations



 **Impact Location**

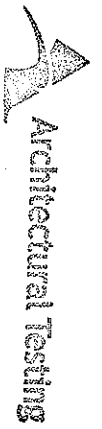
 **Indicator Location**



Appendix B

Drawings

DIAMOND DOOR PRODUCTS



Test sample complies with these details.
 Deviations are noted.

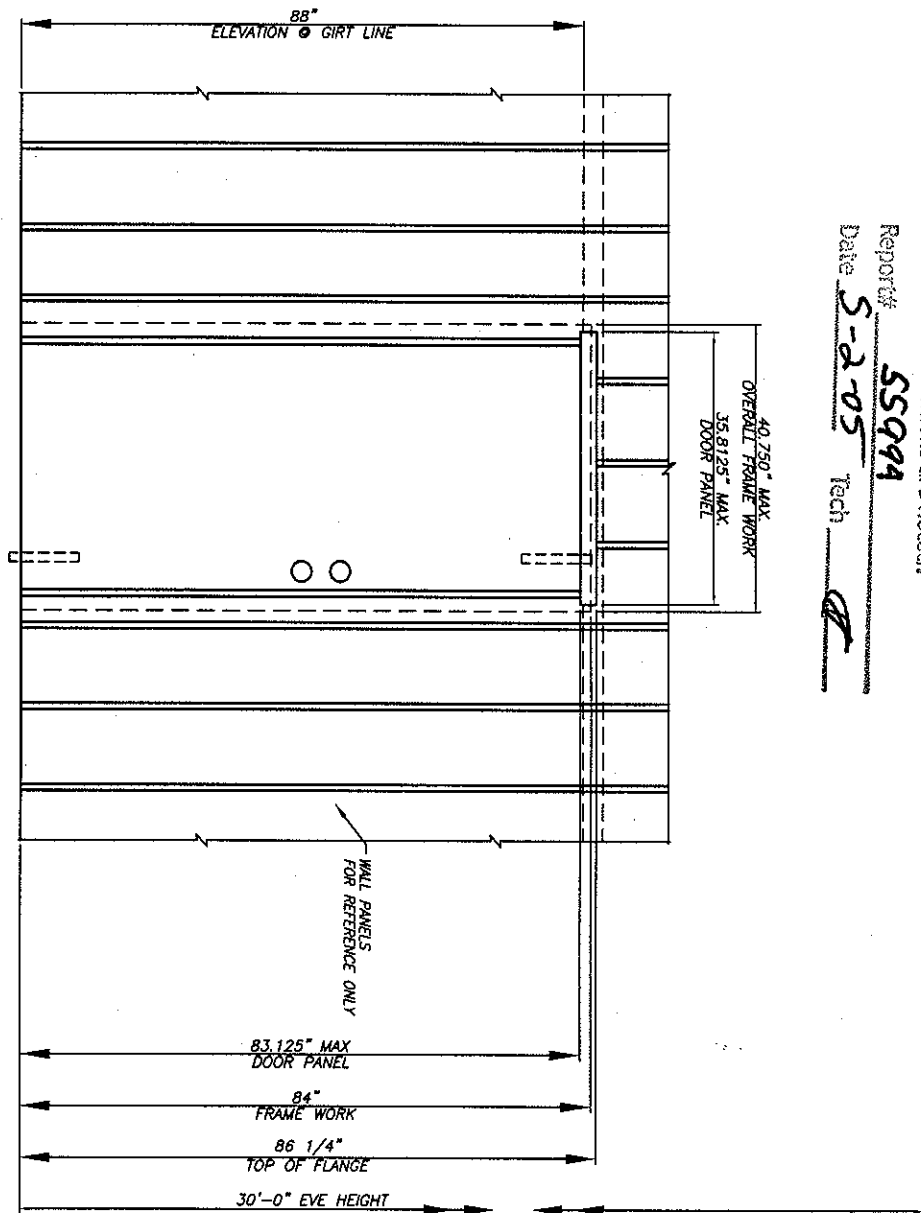
6525 Cunningham Bldg. C
 Houston, TX 77041
 Ph. (713)849-5085

Report# 55994
 Date 5-2-05 Tech BA

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

GENERAL NOTES

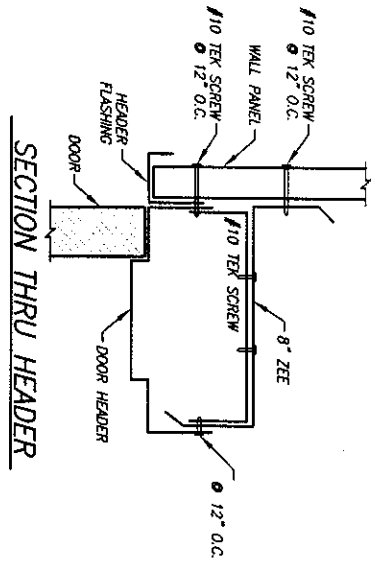
1. THIS PRODUCT IS EVALUATED TO COMPLY WITH THE FLORIDA BUILDING CODE AND TEXAS BOARD OF INSURANCE (FOR USE INSIDE OF THE HVHZ AREA).
2. PRODUCT ANCHORS SHALL BE AS LISTED AND SPACED AS SHOWN ON DETAILS. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING.
3. MAIN WIND FORCE RESISTING SYSTEM (MWRFS) 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.



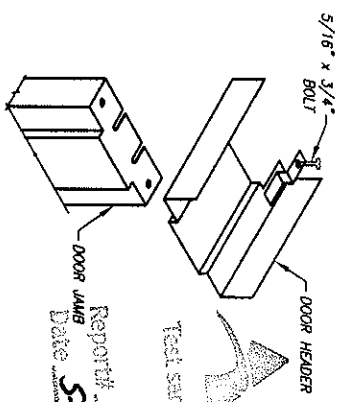
3'-0" x 7'-0" STEEL DOOR & STEEL FRAME SYSTEM
 (METAL BUILDING INSTALLATION)

150 mph

DIAMOND DOOR PRODUCTS, LTD.



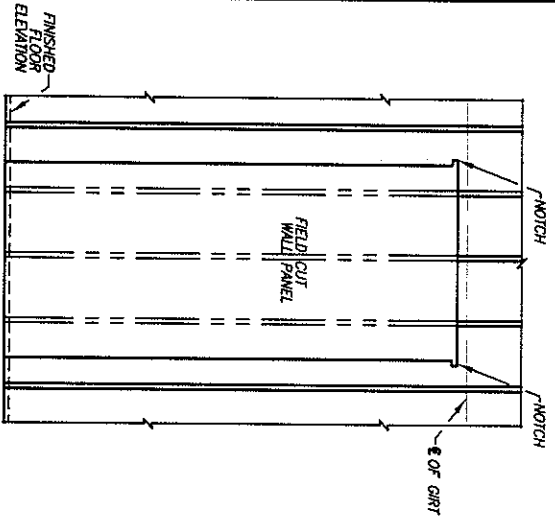
SECTION THRU HEADER



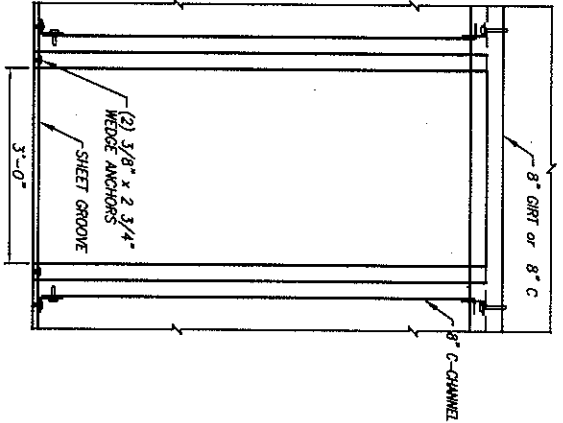
DOOR FRAME ASSEMBLY

Architectural Testing
 Test sample complies with these details.
 Deviations are noted.

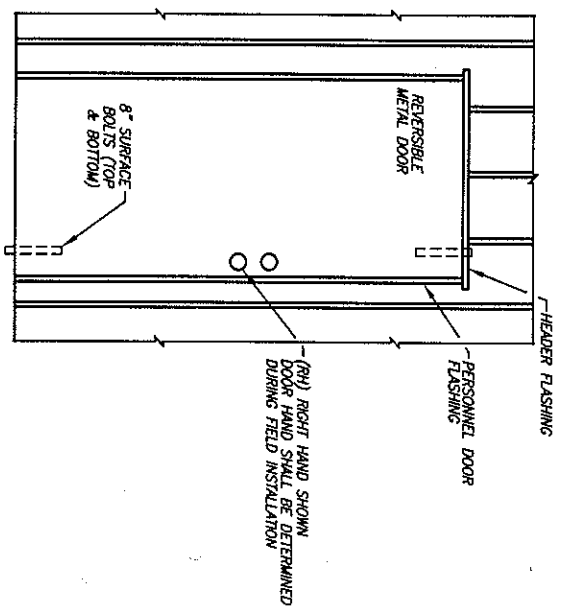
Report # 55994
 Date 5-2-05
 Tech [Signature]



CUTOUT WALLPANEL ELEVATION



FRAMING ELEVATION

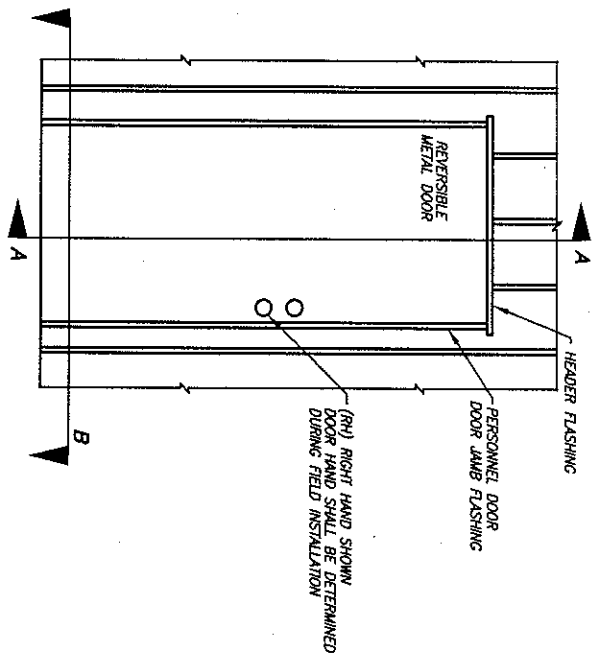


EXTERIOR ELEVATION OF DOOR

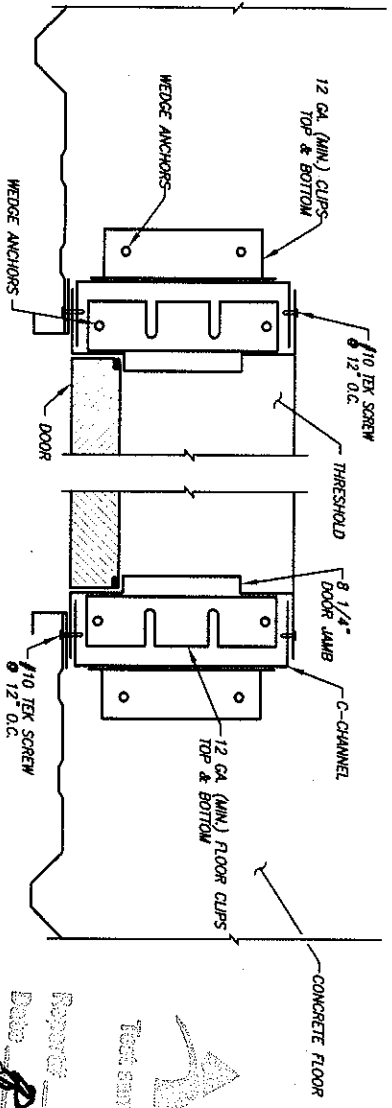
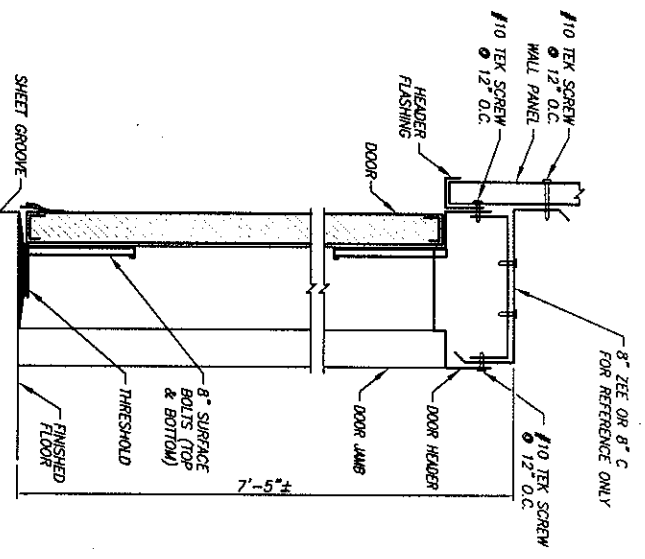
GENERAL NOTES

- 1) FIELD LOCATE DOOR, REMOVE AND CUT NECESSARY GIRTS IN BAY,
- 2) ARRANGE JAMBS ACCORDING TO REQUIRED SWING, THEN FASTEN HEADER TO JAMB,
- 3) AFTER ASSEMBLING FRAME, PLACE IN POSITION, SQUARE AND PLUMB, HANG DOOR PANEL,
- 4) FASTEN DOOR FRAME TO GIRTS WITH SCREWS OR TACK WELDING,
- 5) FASTEN BOTTOM OF DOOR JAMBS WITH 3/8\"/>

PERSONNEL DOOR SPECIFICATION
 DOOR PANELS SHALL BE 3'-0\"/>



EXTERIOR ELEVATION OF DOOR



SECTION B
SECTION THRU JAMB

150 mph

DIAMOND DOOR PRODUCTS, LTD.

Architectural Testing

Test sample complies with these details. Deviations are noted.

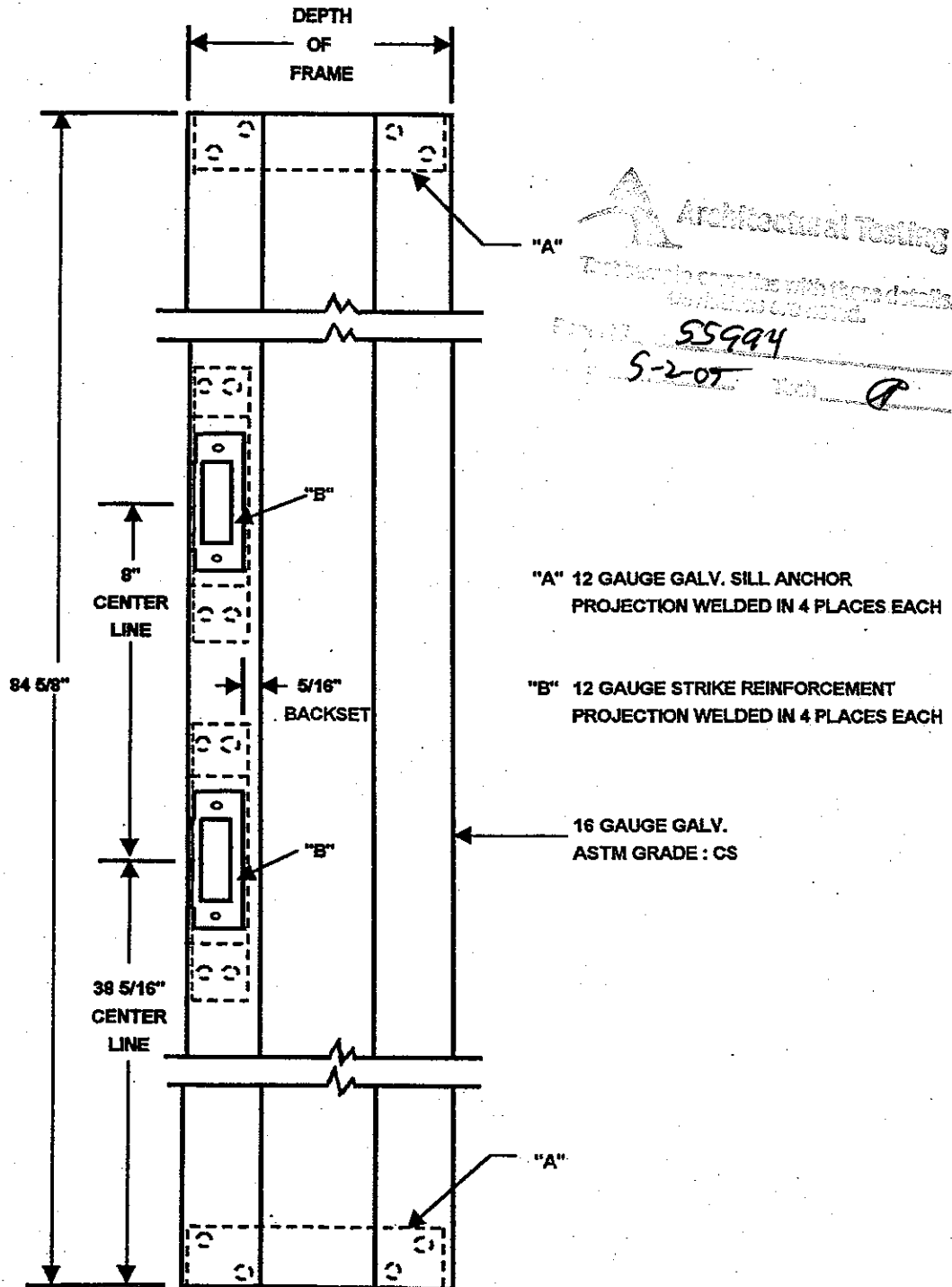
Report: 55994

Date: 8-2-05

Test: 8

Diamond Door Products, Ltd.

Universal A.S.A. Dead Bolt Strike Jamb



Architectural Testing
This drawing complies with these details.
55994
S-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. GALVINIZED FACE SHEETS
EMBOSSSED 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
EMBOSSSED OR GRAY SMOOTH
FINISHES

FULLY CARTONED IN CORUGATED
BOXES AND POLY BAGGED
FOR ADDED PROTECTION

SPECIFICATION COMPLIANCE

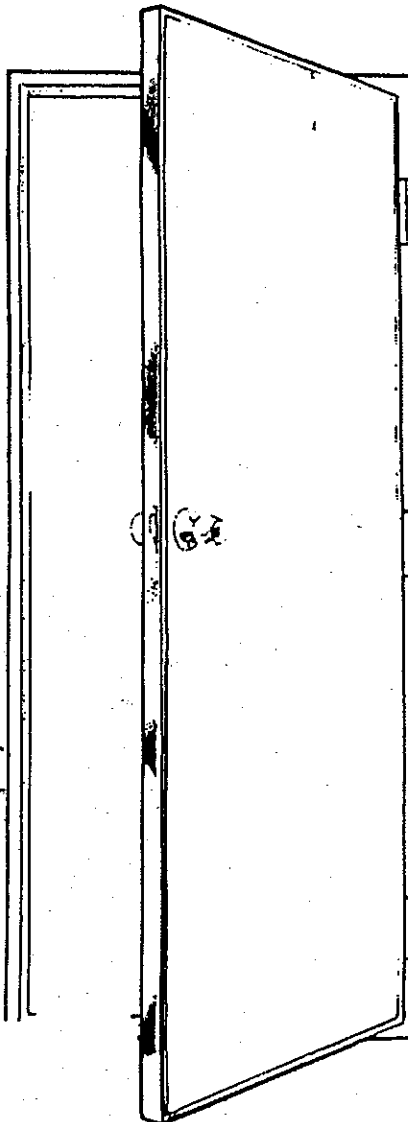
MEETS OR EXCEEDS:
FED SPEC'S HH-1-524C
TYPES I, II, & III
MIL-P-40619A, CLASS II GRADE A
MIL-P- 196644C, TYPE II CLASS I
DOD4270,1-M
ASTM-C-578-69, TYPE I & II GRADE II


BUILDING CODES

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

HIGH POINTS

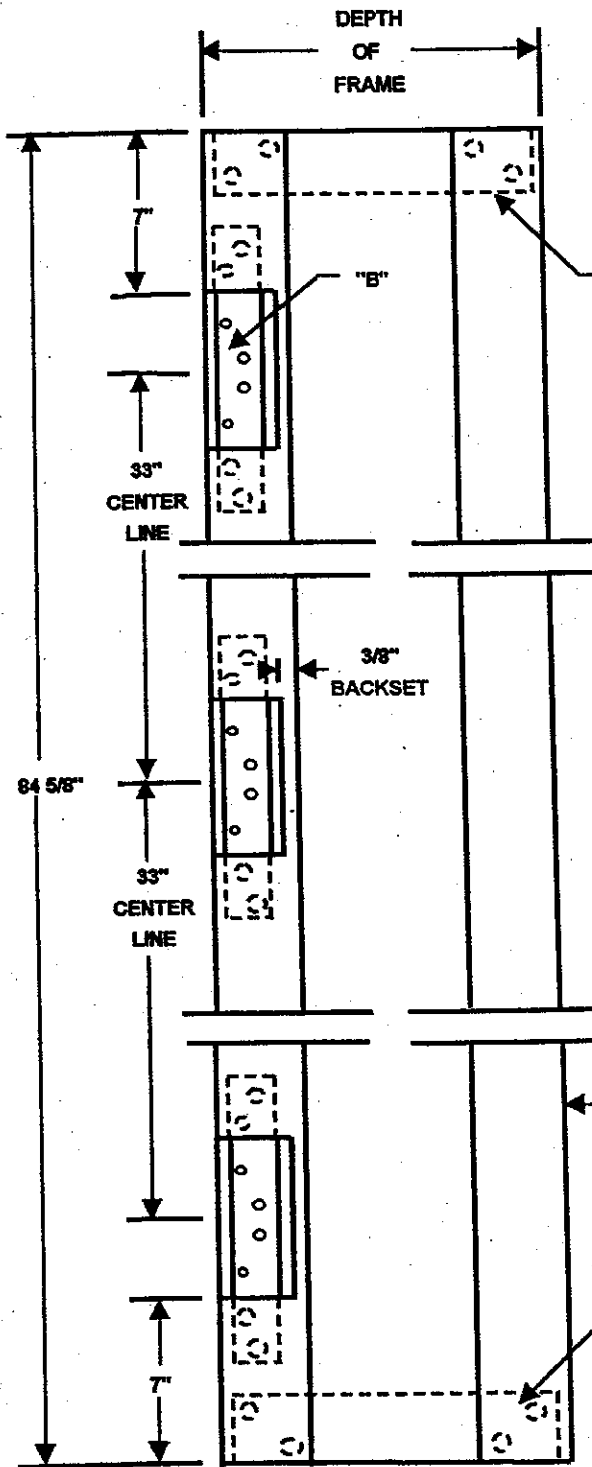
POLYSTRENE CORE
THERMOPLASTIC POLYMER
SOUND TRANSMISSION 32
"U" FACTOR .16
"R" FACTOR 6.5 OR GREATER



 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# SS944
 Date 5-2-05 Tech P

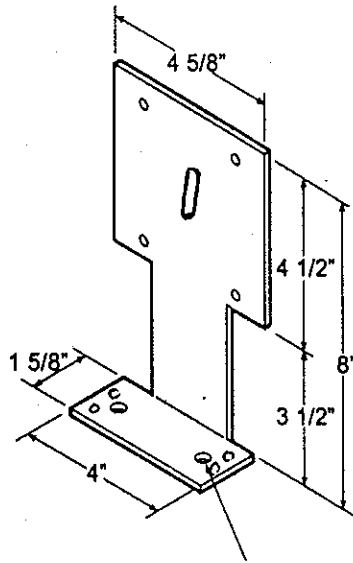
"A" 12 GAUGE GALV. SILL ANCHOR
 PROJECTION WELDED IN 4 PLACES EACH

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

16 GAUGE GALV.
 ASTM GRADE : CS

HURRICANE-MOUNTING-CLIP

12GA.-GALVANIZED-STEEL



Architectural Testing

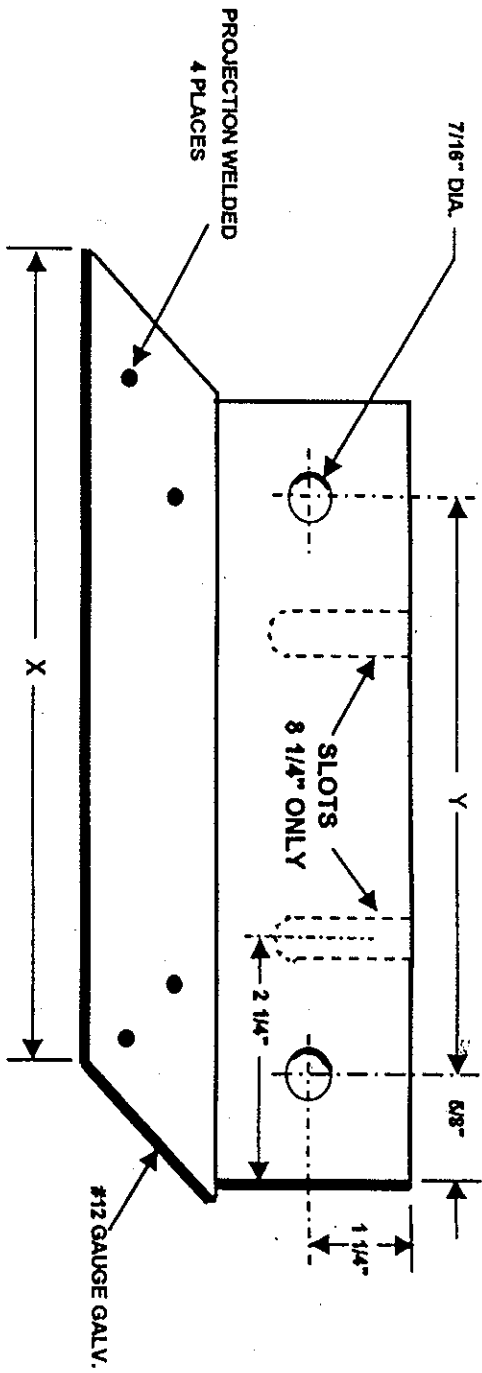
Test sample complies with these details.
Deviations are noted.

Report# SS994

Date 5-2-05

Tech. R

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" |

Architectural Testing

Test sample complies with these details.
Deviations are noted.

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

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

8/14/03

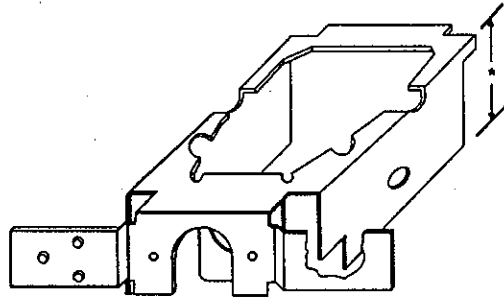
Diamond Sill Anchor

Page DF 09

CYLINDER LOCK BOX

BEVEL, with PROJECTIONS

16GA-C.R.S.



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

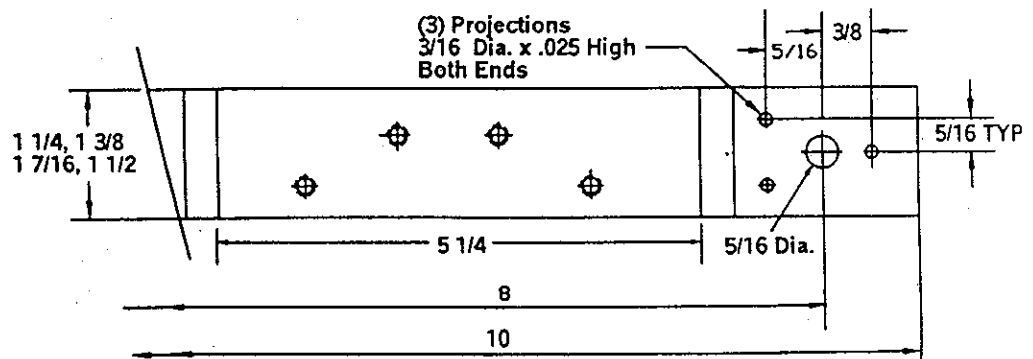
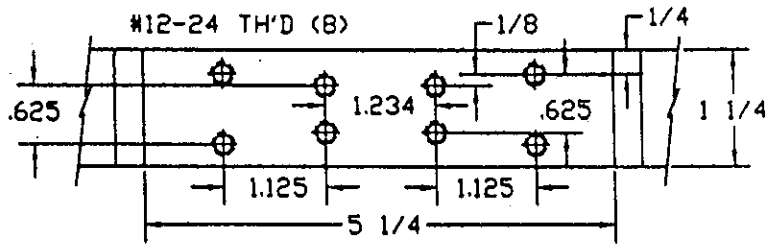


Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# SS994
Date 5-2-05 Tech Ⓟ

10GA. HINGE-REINFORCEMENT



Test sample complies with these details.
Deviations are noted.

Report# SS994
Date 5-2-05 Tech P

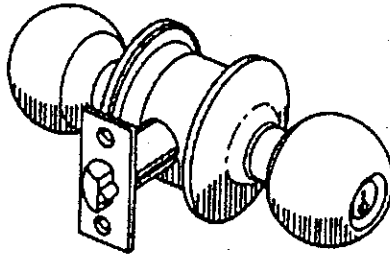


DIAMOND DOOR PRODUCTS, LTD.

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

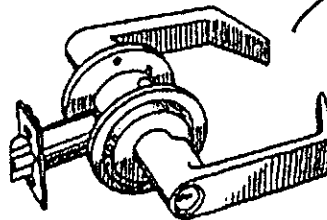
Test sample serial #s with photo details. See website for more info.

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

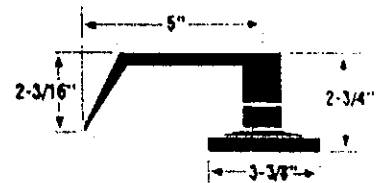


S. Parker Leversets meet all Grade 2 requirements, and are available in boxed or clamshell package.

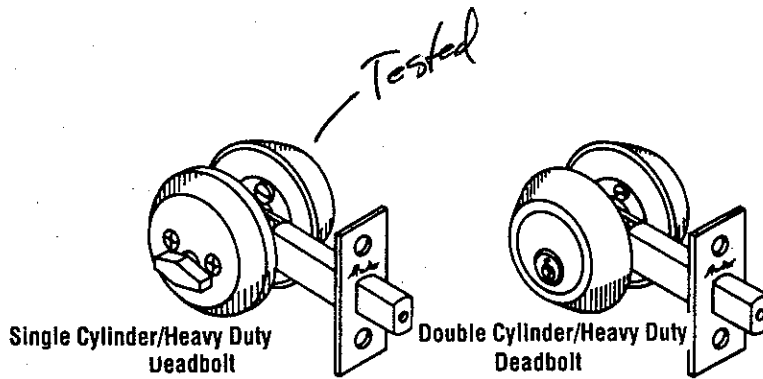
Special keying available (Master & Grand Master)

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 1/2" 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.



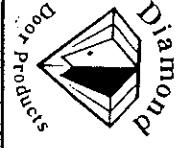
Architectural Testing

Test sample complies with these details.
Variations are noted.

Report: SSQA4

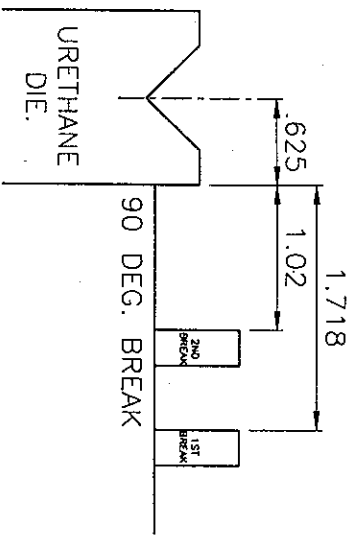
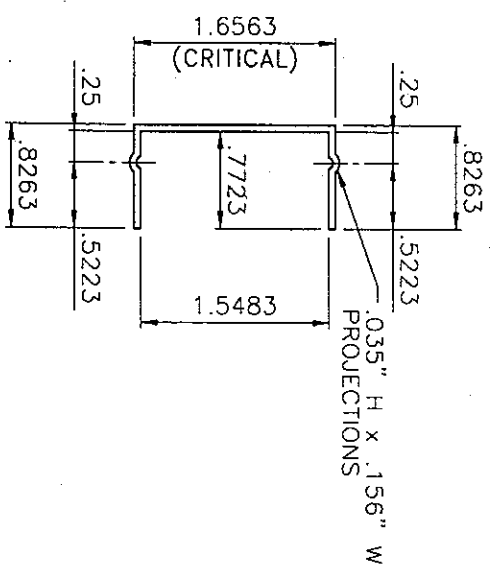
Date: 5-2-05

Tech: [Signature]

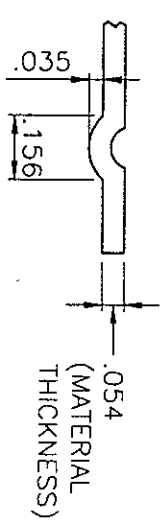


| | | | | | | | | | | | | | |
|------------|--|-------------------|--|---------------|--|-----------|--|-------------------|--|--------------------|--|--------------|--|
| ITEM NO. | | WT. | | REVISION DESC | | NEW ISSUE | | DRAWING DESC | | DWG SET - DOOR | | REV NO. | |
| MATERIAL | | 16 GA. (.054) CGN | | REV DATE | | REV BY | | 3'-0 DOOR CHANNEL | | FILENAME - CHANNEL | | 0 | |
| BLANK SIZE | | 3.093 x 35.5 | | REV DATE | | REV BY | | DRAWN BY | | LAS | | APRVD BY | |
| FINISH | | MILL | | REV DATE | | REV BY | | APRVD BY | | JMT | | PD-39980199 | |
| | | | | | | | | | | | | SHEET 1 OF 1 | |

3'-0 DOOR CHANNEL - SECTION

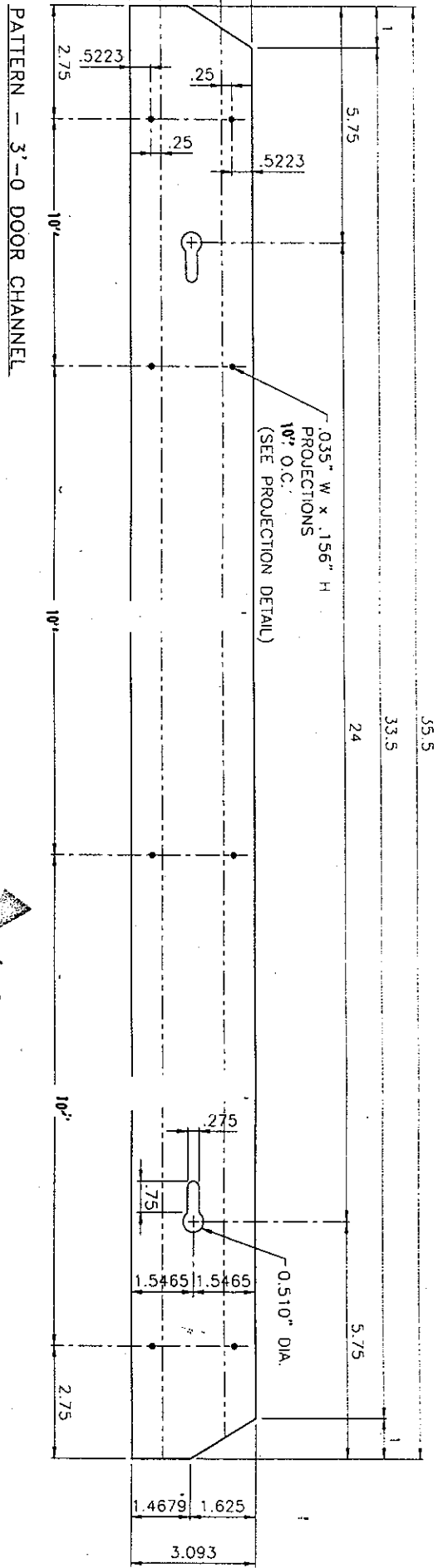


PROJECTION DETAIL



Report# SS924
 Date 5-2-05 Tech R

Architectural Testing
 Test sample complies with these details.
 Deviations are noted.



35.5

33.5

24

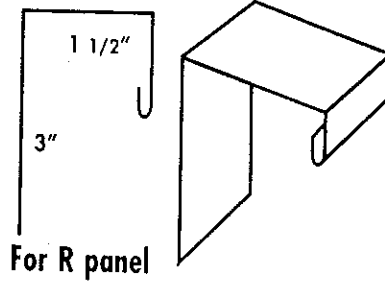
10'-0

10'-0

2.75

1.4679 1.625 3.093

CAP TRIM



Sold by Ft.

R Panel

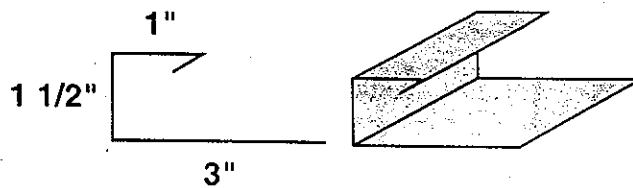


Architectural Testing

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

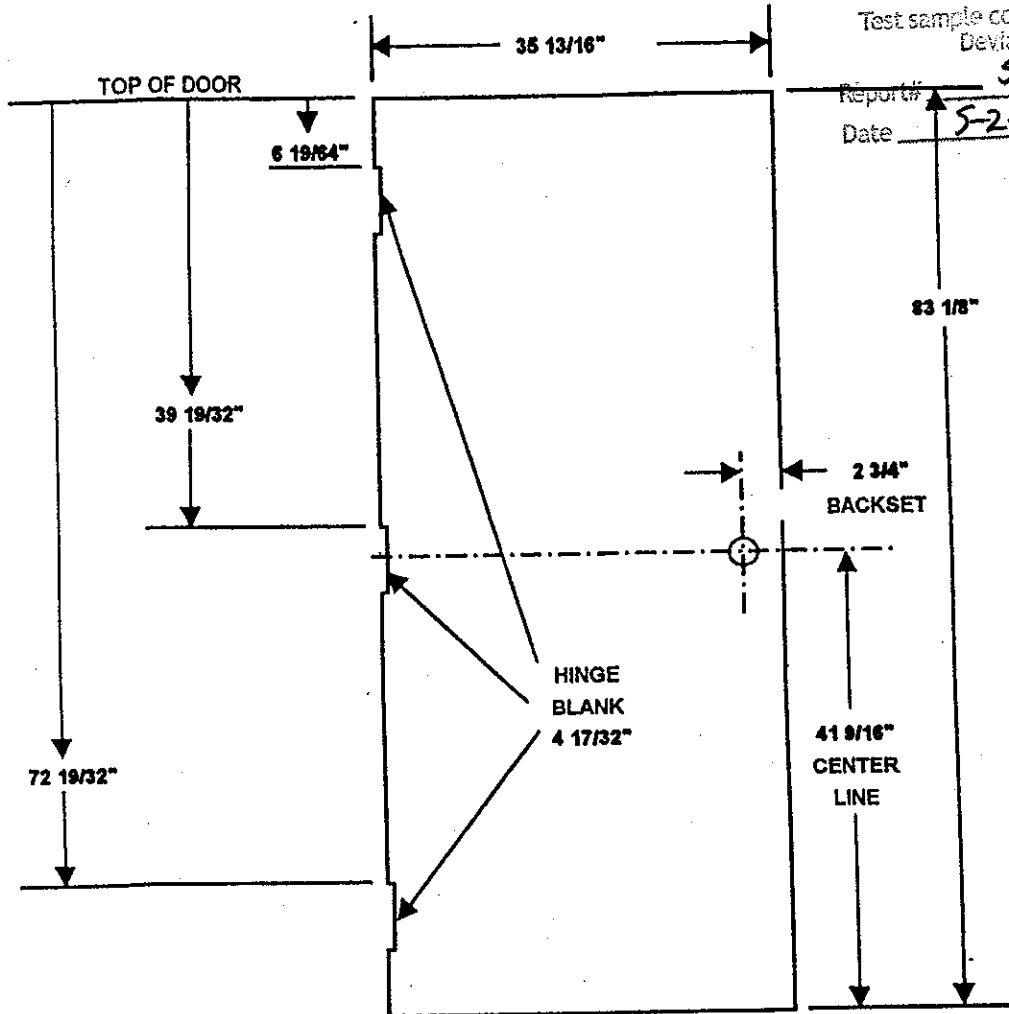
Diamond Door Products, Ltd.

TYPICAL 3070 M DOOR



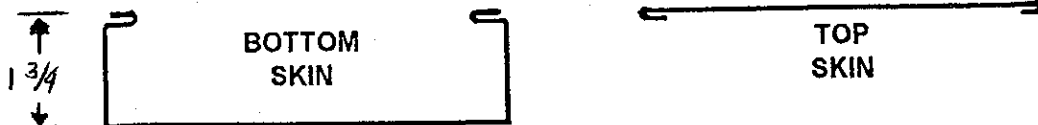
Architectural Testing

Test sample complies with these details.
Deviations are noted.



Report # 55904
Date 5-2-03 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

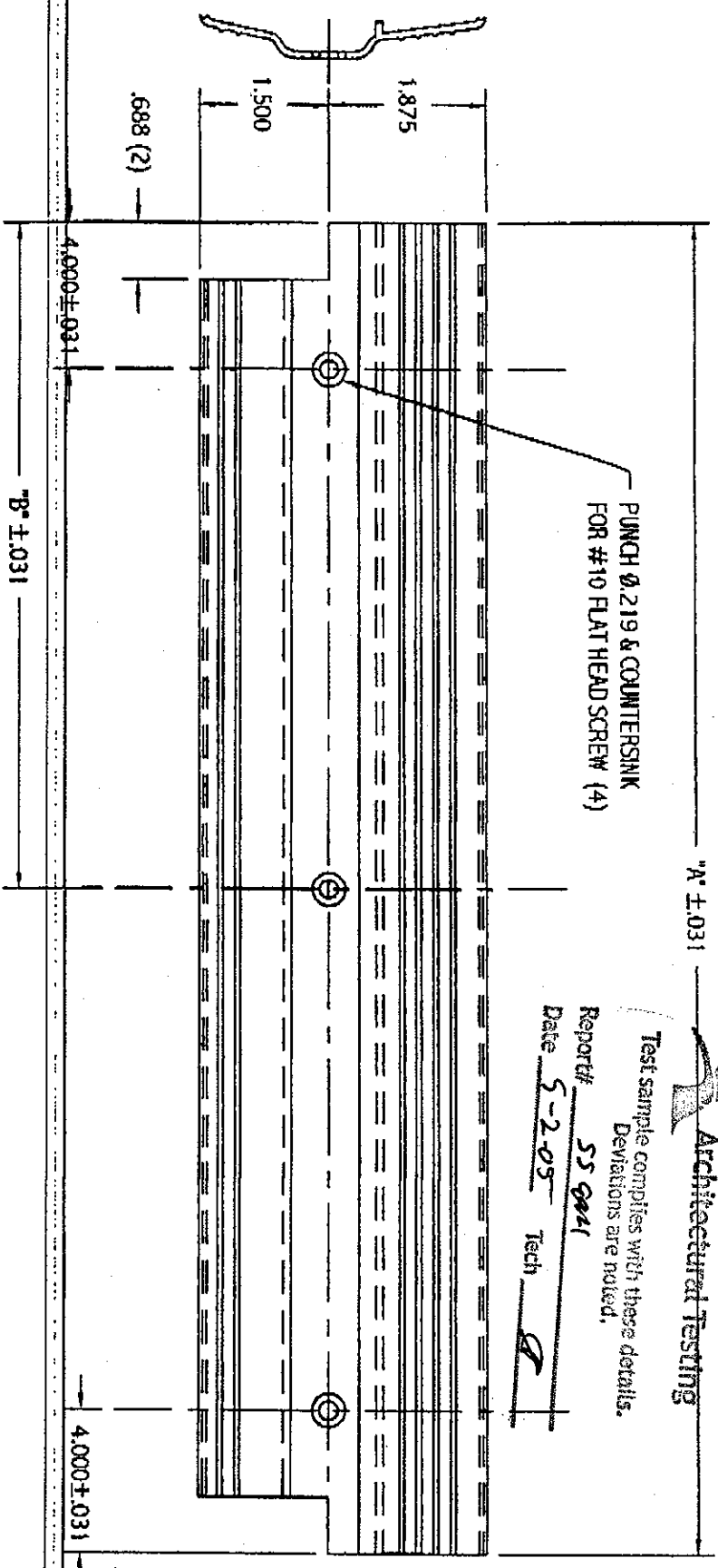
Diamond Reversible Door

PART NO. TH-2

FR: DUC LE @ ALCO 10: DRAW

SF AF- FAB3764
FAB3764REV 081300

Architectural Testing
Test sample complies with these details.
Deviations are noted.
Report# 55 0041
Date 5-2-05 Tech *Q*



| OPENING | DIM. "A" | DIM. "B" |
|---------|----------|----------|
| 3'0" | 36" | 18" |
| 4'0" | 48" | 24" |
| 6'0" | 72" | 36" |

ALUMINUM ASSOCIATION STANDARD TOLERANCES APPLY UNLESS OTHERWISE NOTED

| REV. | DESCRIPTION & DATE | REV. | DESCRIPTION & DATE |
|------|--------------------|------|--------------------|
| | | | |
| | | | |
| | | | |
| | | | |

.080 TYPICAL WALL EXCEPT AS SHOWN

.010R BREAK SHARP CORNERS

| | | | |
|----------------|--------|------------------------|----------|
| CUSTOMER: | TH-2 | | |
| CUST. PART NO: | SILL | | |
| DWG USE: | SILL | | |
| ALLOY: | 6063 | TEMPER: | T-5 |
| DIE SIZE: | | NO. OF HOLES: | |
| BOLSTER: | | FEEDER P/L: | |
| EST. AREA: | | EST. PERIMETER: | |
| EST. WT/LT: | | CIRCUMSCRIBED CR. DIA: | |
| FINISH: | | RATIO: | |
| DRAWN BY: | DUC LE | DATE: | 11/03/00 |
| SCALE: | 0.5X | | |

ALCO ALUMINUM PRODUCTS
P.O. BOX 5085
3400 ROY STREET
ALEXANDRIA, LA. 71302

