Architectural Testing

MIAMI-DADE COUNTY PERFORMANCE TEST REPORT

Report No.: B6673.01-401-18

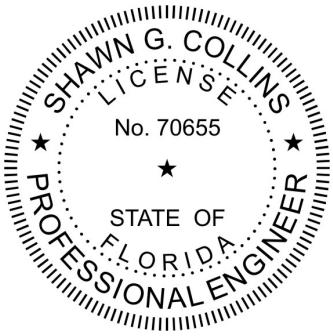
Rendered to:

CORAL ARCHITECTURAL PRODUCTS
Tuscaloosa, Alabama

PRODUCT TYPE: Exterior Side-Hinged Out-Swing Aluminum Double Door
SERIES/MODEL: MARK Series 381 Dry Glazed (Medium) Double Door

This report contains in its entirety:

Cover Page:	1 page
Report Body:	14 pages
Sketches:	1 pages
Photographs:	2 pages
Drawings:	6 pages



Digitally Signed by: Shawn G. Collins

2012.07.31 11:15:50 -04'00'

Test Dates:	03/29/12
Through:	06/11/12
Report Date:	07/30/12
Test Record Retention End Date:	07/30/22
Miami-Dade County Notification No.:	ATI FL 12001

1.0 Report Issued To: Coral Architectural Products
3010 Rice Mine Road
Tuscaloosa, Alabama 35406

2.0 Test Laboratory: Architectural Testing, Inc.
2250 Massaro Boulevard
Tampa, Florida 33619
813-628-4300

3.0 Project Summary:

3.1 Product Type: Exterior Side-Hinged Out-Swing Aluminum Double Door

3.2 Series/Model: MARK Series 381 Dry Glazed (Medium) Double Door

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method(s). The samples were tested per Florida Building Code, Test Protocols for High Velocity Hurricane Zone, Protocols TAS 201-94, TAS 202-94, and TAS 203-94. The three samples tested met the performance requirements set forth in the protocols for a ±70.0 psf *Design Pressure* rating.

3.4 Miami-Dade County Notification No.: ATI FL 12001

3.5 Test Dates: 03/29/2012 – 06/11/2012

3.6 Test Location: Architectural Testing, Inc. test facility in Tampa, Florida.

3.7 Test Sample Source: The test specimens were provided by the client. Representative samples of the test specimen(s) will be retained by Architectural Testing for a minimum of ten years from the report completion date.

3.8 Drawing Reference: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Architectural Testing per the drawings located in Appendix C. Any deviations are documented herein or on the drawings.

3.9 List of Official Observers:

Name	Company
William Smith	Coral Architectural Products
John C. McClane	Architectural Testing, Inc.
Shawn G. Collins, P.E.	Architectural Testing, Inc.
Scott D. Parker	Architectural Testing, Inc.

4.0 Test Specification(s):

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*.

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 46.3 ft²	**Width (inches)**	**Height (inches)**
Overall size	77	86-1/2
Door leaf	35-11/16	83-1/4

5.2 Frame Construction:

Frame Member	**Material**	**Description**
Head	Extruded aluminum	Part #FL507; 6063-T6, square-cut and butted into jambs.
Jambs	Extruded aluminum	Part #FL504; 6063-T6, square-cut, sealed with Schnee-Morehead butyl tape and secured to head with four #12 x 1-1/4" hex head screws.
Snap-in filler	Extruded aluminum	Part #FL515; 6063-T6, square-cut, snapped onto jambs.
Threshold	Extruded aluminum	Part #TH4; 6063-T6, square-cut and butted into jambs.
Threshold clip	Zinc plated steel	Secures threshold to jambs, secured with four #10 x 3/8" flat head screws at each corner. Two into the threshold and two into the jambs.
Door stop	Extruded aluminum	Part #DS501; 6063-T6, square-cut, butted and sealed at the corners with Dow Corning 995 silicone.

	Joinery Type	**Detail**
All corners	Mechanically fastened	Square-cut, butted and secured.

5.0 Test Specimen Description: (Continued)

5.3 Leaf Construction: *Drawing #MS381_4*

Leaf Member	Material	Description
Hinge stile	Extruded aluminum	*P/N D110*; 6063-T6, square-cut
Active lock stile	Extruded aluminum	*P/N D112*; 6063-T6, square-cut
Active lock stile adjustable astragal	Extruded aluminum	*P/N D106*; 6063-T6, square-cut
Inactive lock stile	Extruded aluminum	*P/N D111*; 6063-T6, square-cut
Corner blocks	Extruded aluminum	*P/N CB108*; 6063-T6, One 1-7/16" by 2" by 1/4" thick corner block at each end of top rails and one 1-7/8" by 5-1/2" by 1/4" thick corner block at each end of bottom rail; secured through the stile at each rail location into square nut with one 3/8" x 1" hex and/or cap head bolt at top rail location and two 3/8" x 1" hex and/or cap head bolts at bottom rail location.
Square nut	Zinc plated steel	*P/N AS13*; 1-1/2" by 1-1/2" by 3/16"
Top rails	Extruded aluminum	*P/N D102*; 6063-T6, square-cut and butted, secured to the corner blocks with four #8 x 3/4" flat head screws at each end.
Bottom rails	Extruded aluminum	*P/N D108*; 6063-T6, square-cut and butted, secured to the corner block with four #8 x 3/4" flat head screws at each end.
Glass stop	Extruded aluminum	*P/N DG504*; 6063-T6, square-cut, butted, sealed at corners with Dow Corning 995 silicone and secured with #8 x 3/4" POH self-drilling screws located 10" from each corner and one midspan. Exterior glass stops were snap-in place.

	Joinery Type	Detail
All corners	Mechanically fastened	*Drawing #MS381_4*

5.0 Test Specimen Description: (Continued)

5.4 Weatherstripping:

Description	Quantity	Location
0.275" backed by 0.410" wide by 0.280" high hollow EPDM bulb seal - *P/N NG5*	1	Interior door stop
0.110" backed by 0.540" high polypile - *P/N WP106*	2 Rows	Full length of adjustable astragal
0.120" backed by 0.870" high by 0.060" thick vinyl sweep - *P/N VG1 and WS100*	1 Each	Exterior side of bottom rail
EPDM glazing gasket - *P/N NG17*	1 Each	Interior and exterior perimeter glass stops.

5.5 Glazing:

Glass Type	Glazing	Glazing Method
Monolithic	Nominal 9/16" thick glass comprised of two pieces 1/4" thick tempered glass separated with 0.090" thick SGP® by DuPont	Exterior glazed onto interior mechanically fastened glass stops; and secured with exterior snap-in glass stops. The interior and exterior glazing gasket corners were sealed with Dow Corning 995 silicone.

Location	Quantity	Daylight Opening	Glass Bite
Door leaf	2	26" x 69-1/4"	3/4"

5.6 Drainage: No drainage was utilized.

5.0 Test Specimen Description: (Continued)

5.7 Hardware:

Description	Quantity	Location
Butt hinges - 4-1/2" x 4" *P/N DH1 10SS by Hager*	6	11-3/8", 43-3/8", and 75-1/8" from the bottom corner to the center of each hinge.
Lock cylinder - *P/N DH078*	1	Active leaf; 34" from the bottom of door leaf to center of tumbler.
Thumbturn - *P/N DH 079*	1	Active leaf; adjacent to lock cylinder.
Pull handle - *P/N PH401 by CORAL*	1	Active and inactive leafs; 34" from the bottom of door leaf to center of pull handles.
Flushbolt - *P/N DH176*	2	Inactive meeting stile: 12" from top and bottom of stile.
Three point lock - *DH072*	1	Active meeting stile.

5.8 Reinforcement: No reinforcement was utilized.

6.0 Installation:

The specimen was installed into a nominal C8 steel buck. The rough opening allowed for a 1/4" shim space at the head and jambs. The interior and exterior perimeter of the door frame was sealed with Dow Corning 795 silicone.

Location	Anchor Description	Anchor Location
Head	#14 x 4" self-drilling hex head screws.	6" and 34" from each corner and one midspan. (total 5)
Jambs	#14 x 4" self-drilling hex head screws.	8" and 40" from the top and bottom corners. (total 4 each jamb)
Threshold	#14 x 1-1/2" self-drilling flat head screws.	6" and 34" from each corner and one midspan. (total 5)
Threshold and jamb corner clip	#8 x 1/2" flat head screws.	1" from the corner; two through the threshold into clip and two through the jambs into the clip. (total 4)

7.0 Test Results: The temperature during testing was 75°F. The results are tabulated as follows:

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

Test Unit #1
Design Pressure: ±70.0 psf

Title of Test	Results
Air Infiltration at 1.57 psf (25 mph)	0.89 cfm/ft²

	Indicator Reading (inches)					
Structural Loads 50% of Test Pressure (+52.5 psf)	#1	#2	#3	#4	#5	#6
Maximum Deflection	0.04	0.11	0.13	0.22	0.60	0.32
Permanent Set	0.01	0.01	0.02	0.06	0.11	0.14
Design Pressure (+70.0 psf)						
Maximum Deflection	0.08	0.17	0.17	0.27	0.78	0.42
Permanent Set	0.03	0.03	0.04	0.07	0.12	0.13
50% of Test Pressure (-52.5 psf)						
Maximum Deflection	0.05	0.15	0.12	0.15	0.47	0.15
Permanent Set	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Design Pressure (-70.0 psf)						
Maximum Deflection	0.08	0.20	0.16	0.20	0.64	0.22
Permanent Set	0.01	0.01	0.01	0.01	0.01	0.01
Water Infiltration was not conducted	No test results					
Test Pressure (+105.0 psf)						
Maximum Deflection	0.15	0.28	0.27	0.33	1.11	0.73
Permanent Set	0.06	0.07	0.08	0.13	0.18	0.19
Test Pressure (-105.0 psf)						
Maximum Deflection	0.15	0.34	0.27	0.34	1.00	0.37
Permanent Set	0.05	0.07	0.06	0.07	0.07	0.06
Forced Entry - 300 lb Pull Test	Pass					

***Note**: See Architectural Testing Sketch #1 for indicator locations.*

7.0 Test Results: (Continued)

Protocol TAS 201-94, *Impact Test Procedures*

Missile Weight: 9.2 lbs
Missile Length: 7' 11-1/4"
Muzzle Distance from Test Specimen: 17' 0"

Test Unit #1:

Impact #1: Missile Velocity: 50.5 fps	
Impact Area:	Right active leaf; midspan of glass.
Observations:	Missile hit target area, fractured interior glass
Results:	Pass

Impact #2: Missile Velocity: 50.4 fps	
Impact Area:	Right active leaf; lower right corner of glass.
Observations:	Missile hit target area, fractured glass
Results:	Pass

Impact #3: Missile Velocity: 50.1 fps	
Impact Area:	Midspan of the locking stiles.
Observations:	Missile hit target area, dented aluminum.
Results:	Pass

Impact #4: Missile Velocity: 49.9 fps	
Impact Area:	Left active leaf; midspan of the bottom rail.
Observations:	Missile hit target area, dented aluminum.
Results:	Pass

***Note**: See Architectural Testing Sketch #1 for impact locations.*

7.0 Test Results: (Continued)

Protocol TAS 201-94, *Impact Test Procedures*

Missile Weight: 9.20 lbs
Missile Length: 7' 11-1/4"
Muzzle Distance from Test Specimen: 17' 0"

Test Unit #2:

Impact #1: Missile Velocity: 49.4 fps	
Impact Area:	Right active leaf; midspan of glass.
Observations:	Missile hit target area, fractured glass
Results:	Pass

Impact #2: Missile Velocity: 49.5 fps	
Impact Area:	Right active leaf; lower right corner of glass.
Observations:	Missile hit target area, re-fractured glass
Results:	Pass

Impact #3: Missile Velocity: 49.5 fps	
Impact Area:	Midspan of the locking stiles.
Observations:	Missile hit target area, dented aluminum.
Results:	Pass

Impact #4: Missile Velocity: 49.3 fps	
Impact Area:	Left active leaf; midspan of the bottom rail.
Observations:	Missile hit target area, dented aluminum.
Results:	Pass

***Note**: See Architectural Testing Sketch #1 for impact locations.*

7.0 Test Results: (Continued)

Protocol TAS 201-94, *Impact Test Procedures*

Missile Weight: 9.20 lbs
Missile Length: 7' 11-1/4"
Muzzle Distance from Test Specimen: 17' 0"

Test Unit #3:

Impact #1: Missile Velocity: 50.8 fps	
Impact Area:	Right active leaf; midspan of glass.
Observations:	Missile hit target area, fractured glass.
Results:	Pass

Impact #2: Missile Velocity: 50.7 fps	
Impact Area:	Right active leaf; lower right corner of glass.
Observations:	Missile hit target area, re-fractured glass.
Results:	Pass

Impact #3: Missile Velocity: 50.8 fps	
Impact Area:	Midspan of locking stiles.
Observations:	Missile hit target area, dented aluminum.
Results:	Pass

Impact #4: Missile Velocity: 51.0 fps	
Impact Area:	Left active panel; midspan of the bottom rail.
Observations:	Missile hit target area, dented aluminum.
Results:	Pass

***Note**: See Architectural Testing Sketch #1 for impact locations.*

7.0 Test Results: (Continued)

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

Test Unit #1
Design Pressure: ±70.0 psf

POSITIVE PRESSURE

Pressure Range psf	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inches)					
			#1	#2	#3	#4	#5	#6
14 to 35	3500	2.92	0.04	0.16	0.11	0.24	0.61	0.47
0 to 42	300	2.79	0.04	0.16	0.11	0.24	0.66	0.48
35 to 56	600	3.77	0.05	0.20	0.13	0.26	0.89	0.58
21 to 70	100	3.35	0.06	0.23	0.15	0.29	1.00	0.62
			Permanent Set (inches)					
			0.03	0.06	0.04	0.13	0.24	0.34

NEGATIVE PRESSURE

Pressure Range psf	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inches)					
			#1	#2	#3	#4	#5	#6
21 to 70	50	3.73	0.16	0.72	0.80	0.29	1.05	0.58
35 to 56	1050	4.11	0.16	0.67	0.77	0.28	0.92	0.54
0 to 42	50	3.96	0.16	0.67	0.77	0.28	0.92	0.54
14 to 35	3350	2.64	0.14	0.61	0.72	0.24	0.72	0.47
			Permanent Set (inches)					
			0.08	0.21	0.26	0.10	0.23	0.33

***Observations**: During the 30%-100% negative pressure range; the flush bolt guide became disengaged. (See Photograph #2)*

Result: Pass

***Note**: See Architectural Testing Sketch #1 for indicator locations.*

7.0 Test Results: (Continued)

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

Test Unit #2
Design Pressure: ±70.0 psf

POSITIVE PRESSURE

Pressure Range psf	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inches)					
			#1	#2	#3	#4	#5	#6
14 to 35	3500	2.46	0.04	0.12	0.12	0.10	0.48	0.24
0 to 42	300	3.94	0.05	0.18	0.17	0.14	0.55	0.25
35 to 56	600	2.73	0.05	0.18	0.17	0.14	0.69	0.28
21 to 70	100	5.44	0.05	0.20	0.18	0.15	0.82	0.31
			Permanent Set (inches)					
			0.02	0.01	0.01	<0.01	0.06	0.10

NEGATIVE PRESSURE

Pressure Range psf	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inches)					
			#1	#2	#3	#4	#5	#6
21 to 70	50	4.65	0.13	0.31	0.22	0.26	0.90	0.34
35 to 56	1050	3.64	0.08	0.24	0.14	0.20	0.71	0.29
0 to 42	50	7.97	0.03	0.18	0.10	0.19	0.60	0.27
14 to 35	3350	3.24	0.02	0.16	0.09	0.17	0.53	0.24
			Permanent Set (inches)					
			0.03	0.03	0.01	0.01	0.14	0.16

***Observations**: No additional damage or deglazing was observed.*

Result: Pass

***Note**: See Architectural Testing Sketch #1 for indicator locations*

7.0 Test Results: (Continued)

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

Test Unit #3
Design Pressure: ±70.0 psf

POSITIVE PRESSURE

Pressure Range psf	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inches)					
			#1	#2	#3	#4	#5	#6
14 to 35	3500	2.43	0.07	0.17	0.08	0.17	0.51	0.26
0 to 42	300	4.25	0.08	0.18	0.08	0.19	0.57	0.27
35 to 56	600	3.30	0.09	0.23	0.10	0.21	0.73	0.35
21 to 70	100	3.27	0.11	0.26	0.12	0.25	0.891	0.58
			Permanent Set (inches)					
			0.05	0.09	0.01	0.08	0.13	0.15

NEGATIVE PRESSURE

Pressure Range psf	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inches)					
			#1	#2	#3	#4	#5	#6
21 to 70	50	6.65	0.07	0.38	0.23	0.25	0.42	0.29
35 to 56	1050	3.02	0.06	0.24	0.19	0.20	0.67	0.26
0 to 42	50	5.30	0.05	0.20	0.16	0.17	0.54	0.23
14 to 35	3350	2.70	0.05	0.18	0.15	0.16	0.47	0.22
			Permanent Set (inches)					
			<0.01	<0.01	<0.01	0.01	0.02	0.01

***Observations**: No additional damage or deglazing was observed.*

Result: Pass

***Note**: See Architectural Testing Sketch #1 for indicator locations.*

8.0 Test Equipment:

Cannon: Constructed from steel piping utilizing compressed air to propel the missile

Missile: 2x4 Southern Pine

Timing Device: Electronic Beam Type

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

Deflection Measuring Device: Linear transducers

9.0 Laboratory Compliance Statements: The following are provided as required by the protocols for the testing reported herein.

Upon completion of testing, specimens tested for TAS 201-94 met the requirements of Section 1626 of the Florida Building Code, Building.

Upon completion of testing, specimens tested for TAS 202-94 met the requirements of Section 1620 of the Florida Building Code, Building

Upon completion of testing, specimens tested for TAS 203-94 met the requirements of Section 1626 of the Florida Building Code, Building.

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.

The service life of this report will expire on the stated Test Record Retention End Date, at which time such materials as drawings, data sheets, samples of test specimens, copies of this report, and any other pertinent project documentation, shall be discarded without notice.

If test specimen contains glazing, no conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, Inc.

Digitally Signed by: Scott Parker

Scott D. Parker
Technician

Digitally Signed by: Shawn G. Collins

Shawn G. Collins, P.E.
Manager-Regional Operations

SDP:coc

Attachments (pages): This report is complete only when all attachments listed are included.
- Appendix-A: Sketch (1)
- Appendix-B: Photographs (2)
- Appendix-C: Drawings (6)

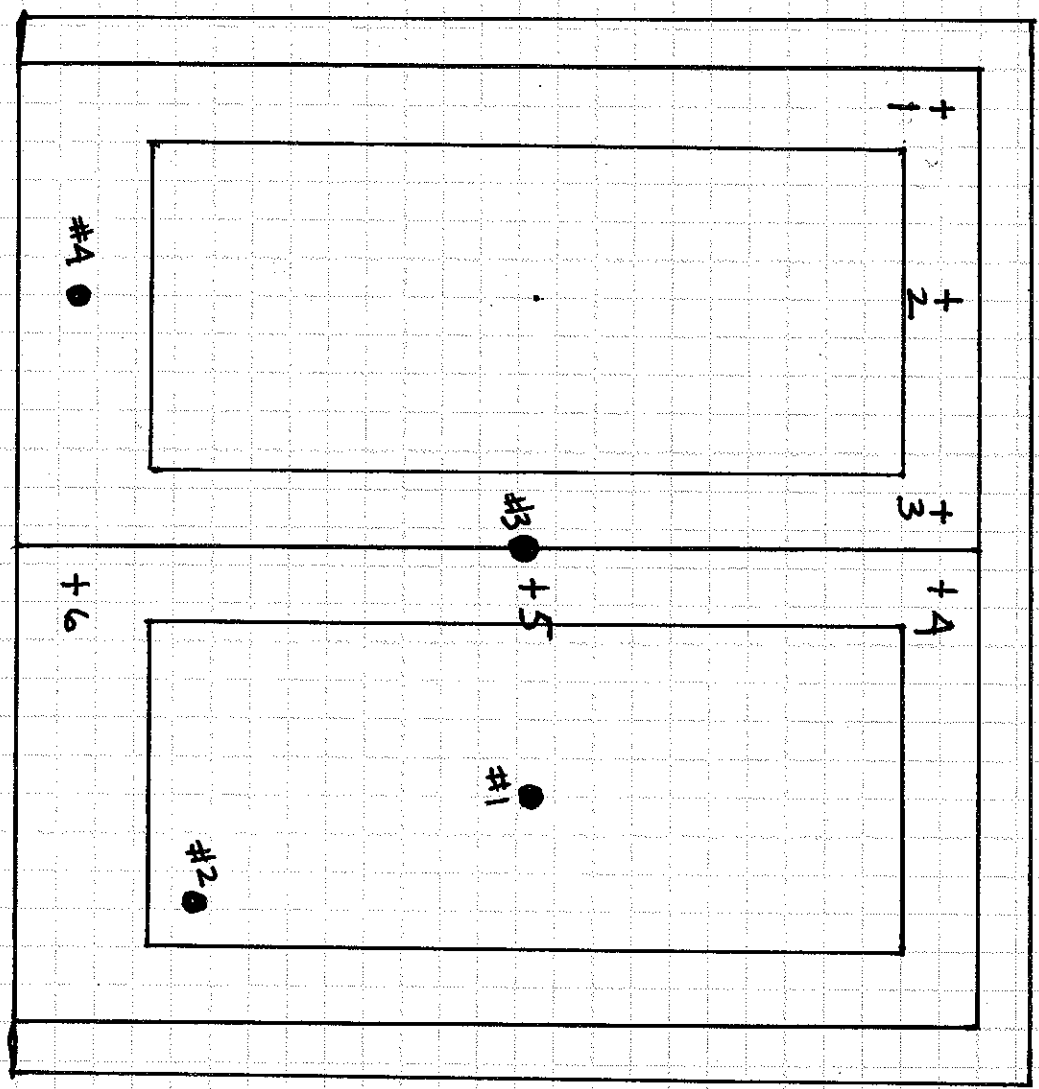
Appendix A

Sketches

Architectural Testing	DATE: 06/19/2012 BY: SP	PROJECT NO. B6673.01-4048 SHEET 1 OF 1 PROJECT NAME: Coral Architectural Products

Sketch #1

+ = INDICATOR LOCATIONS
● = IMPACT LOCATIONS



Appendix B

Photographs

Photo No. 1
MARK Series 381 Dry Glaze (Medium) Double Door

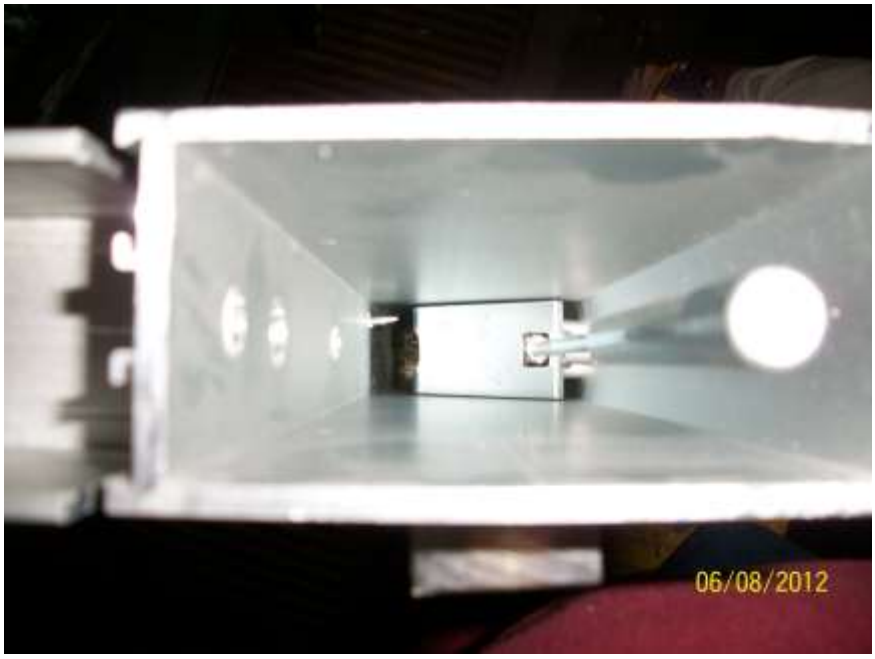


Photo No. 2
Flush Bolt Guide Block Disengaged

Appendix C

Drawings

MS381 DRY GLAZE IMPACT DOORS
TEST DRAWINGS

INDEX TO DRAWINGS	
1	INDEX TO DRAWINGS AND NOTES
2	FRAMING ELEVATION
3	FRAMING DETAILS
4	CORNER CONSTRUCTION
5	BILL OF MATERIALS, HARDWARE AND GLASS TYPES
6	DIE DRAWINGS

GENERAL NOTES:

TEST STANDARDS
AIR–TAS202
STATIC–TAS202
IMPACT–TAS201
CYCLIC–TAS203

DESIGN PRESSURE VARIES
+70/–70

ALL ALUMINUM EXTRUSIONS SHALL BE MADE FROM 6063–T6 ALLOY AND TEMPER.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH FLORIDA BUILDING CODE ADDITION 2010 INCLUDING HIGH VELOCITY HURRICANE ZONES.

MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME IN CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2010 FLORIDA BUILDING CODE SECTION 2003.8.4

ABBREVIATIONS:
D.L.O. = DAY LIGHT OPENING
D.O.H. = DOOR OPENING HEIGHT
D.O.W. = DOOR OPENING WIDTH
C.O.C. = CONCEALED OVERHEAD CLOSER
C.V.R. = CONCEALED VERTICAL ROD

Architectural Testing

Test sample complies with [illegible] details.
Deviations are [illegible]

Report# B6673.01-401-18
Date 7/6/12 Tech SP

REV	BY	DATE	DESCRIPTION

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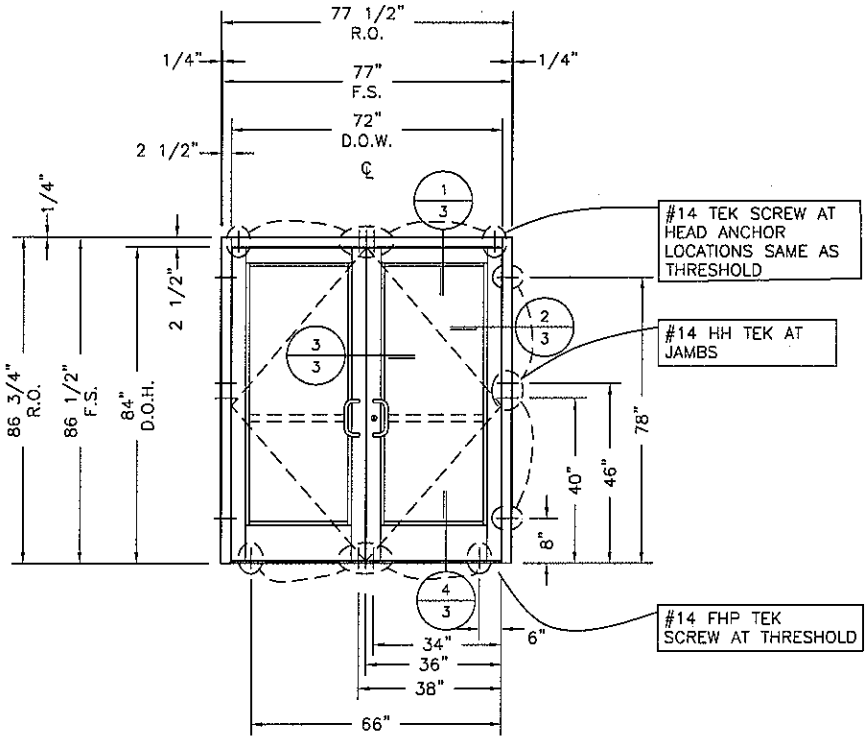
MS381 DRY GLAZE IMPACT DOORS
TEST DRAWINGS

INDEX TO DRAWINGS AND NOTES

DATE 7/6/2012
DRAWN MLF | CHECKED --- | APPROVED WS
PROJECT NO.
DRAWING NO. MS381_4
SHEET 1 OF 6



TYPICAL ELEVATIONS FOR SERIES 381 IMPACT OUT SWING DOORS AND F5 FRAMES

NOTES:
1. DOOR GLASS SIZE= D.L.O. + 1-1/2".
2. THESE DOORS WERE NOT TESTED FOR WATER INFILTRATION.

Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# B6673.01-401-18

Date 7/6/12 Tech SP

MS381 DRY GLAZE IMPACT DOORS
TEST DRAWINGS

FRAMING ELEVATION

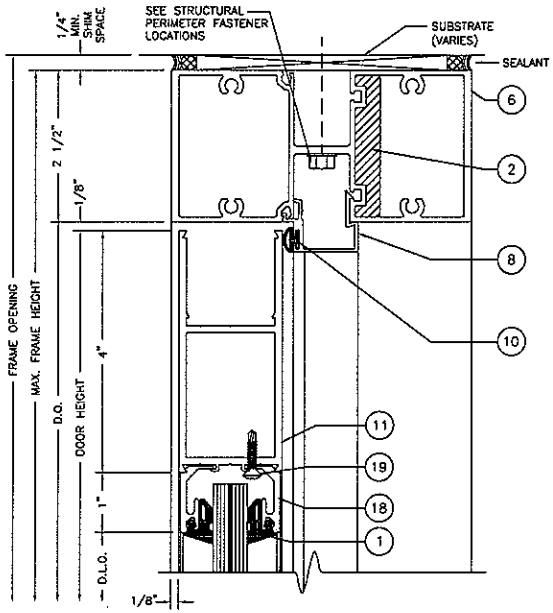
DATE ----

DRAWN	CHECKED	APPROVED
MLF	---	WS

PROJECT NO.

DRAWING NO. MS381_4

SHEET 2 OF 6



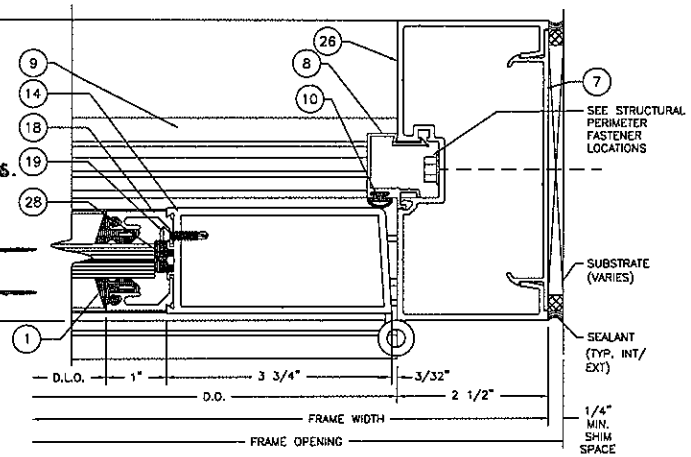
1 – DETAIL

Architectural Testing

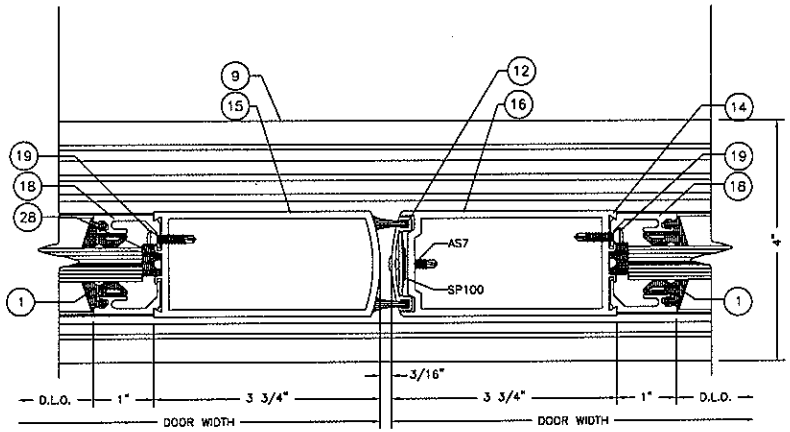
Test sample complies with these details.
Deviations are noted.

Report# B6673.01-401-18

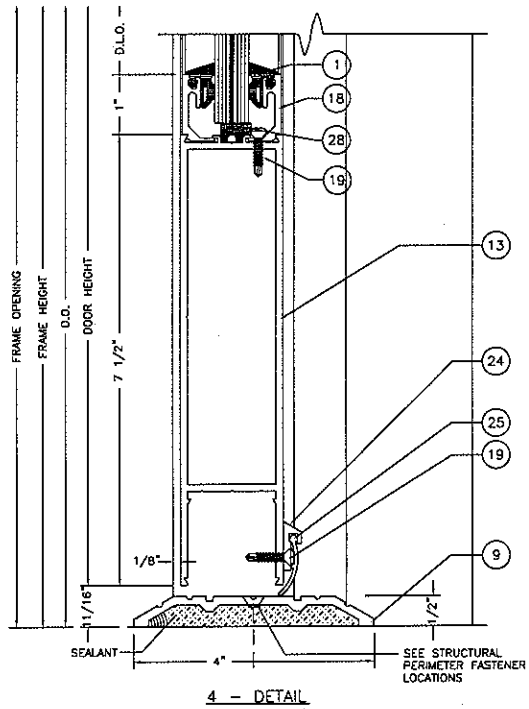
Date 7/6/12 Tech SP



3 – DETAIL



2 – DETAIL



4 – DETAIL

MS381 DRY GLAZE IMPACT DOORS
TEST DRAWINGS

FRAMING DETAILS

DESCRIPTION | DATE | REV BY

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DATE ----

DRAWN MLF | CHECKED --- | APPROVED WS

PROJECT NO.

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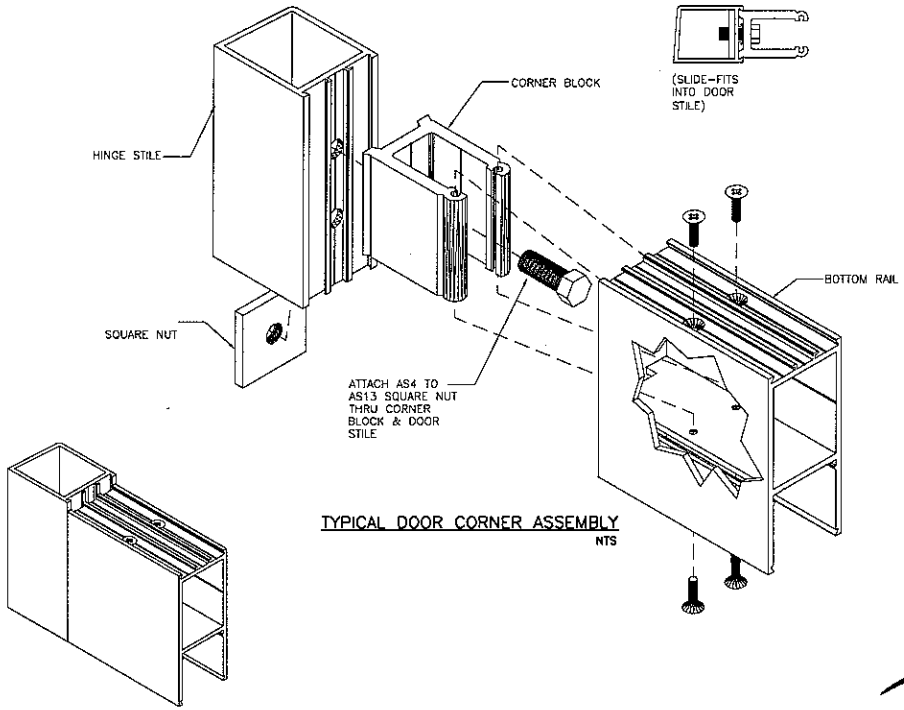
SHEET 3 OF 6



TYPICAL DOOR CORNER ASSEMBLY
NTS

Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# B6673.01-401-18

Date 7/5/12 Tech SP

Coral
Architectural Products
3910 PINE MAN ROAD, TUSCALOOSA, AL 35406
PHONE 800-772-7797 FAX 800-443-6251

REV	BY	DATE	DESCRIPTION
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MS381 DRY GLAZE IMPACT DOORS
TEST DRAWINGS

CORNER CONSTRUCTION

DATE 7/3/2012

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PROJECT NO.

DRAWING NO. MS381_4

SHEET 4 OF 6

BILL OF MATERIALS

ITEM NO.	P/N	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER	NOTES
1	NG17	INTERIOR/EXTERIOR GLAZING GASKET	.120 SPACE	EPDM	VARIES	MEETS ASTM C864
2	SM5601	JOINT SEALANT TAPE	.50 X .125 X VARIES	BUTYL	SCHNEE-MOOREHEAD	
3	795	SILICONE- PERIMETER SEALANT	FILL SPACE	SILICONE	DOW CORNING	USED AT PERIMETER
4	995	SILICONE -GLASS TO METAL	FILL SPACE	SILICONE	DOW CORNING	GLASS TO METAL
5	AS16	FASTENER	#14 X 1 HHSTS	STEEL	VARIES	TYPICAL SPLINE SCREW VERTICAL/HORIZONTAL JOINTS
6	FL507	DOOR HEADER	2.5 X 4.98 X .080	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
7	FL515	FLAT FILLER AT DOOR JAMB	.681 X 4.67 X .080	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	RUNS FULL LENGTH OF DOOR JAMB AT WALL
8	DS501	DOOR STOP	1.012 X .882 X 1.258	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
9	TH4	THRESHOLD	.50 X 4.00 X .125	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
10	NG5	BULB GASKET FOR DS500	.260 X SPACE	EPDM	CORAL INDUSTRIES, INC.	
11	D102	DOOR- TOP RAIL	4.000 X 1.71 X .120	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
12	D106	DOOR- ADJUSTABLE ASTRAGAL	.331 X 1.562 X .062	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
13	D108	DOOR- BOTTOM RAIL	7.5 0 X 1.71 X .120	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
14	D110	DOOR -HINGE STILE	3.75 X 1.75 X .120	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
15	D111	DOOR- INACTIVE MEETING STILE	3.75 X 1.75 X .120	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
16	D112	DOOR- ACTIVE MEETING STILE	6.614 X 1.75 X .120	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
17	CB108	DOOR- CORNER BLOCK	2.130 X 1.54 X .25	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	CUT 5.553 LONG
18	DG504	DOOR- GLASS STOP	1.105 X .546 X .298	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
19	AS7	FASTENER	#8 X 3/4" POH S.D.	STEEL	VARIES	
20	AS18	FASTENER	#10 X 1-1/4" FHP	S. STEEL	VARIES	ATTACH DS500 TO FL504
21	NA	NOT USED				
22	CB102	DOOR- CORNER BLOCK	2.130 X 1.54 X .25	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	CUT 2.032 LONG
23	WS100	DOOR SWEEP	.812 X .302 X .125	6063-T6 ALUM.	CORAL INDUSTRIES, INC.	CUT TO DOOR OPENING WIDTH (LESS CLEARANCE)
24	WP106	WEATHERING- D106 ADJUSTABLE ASTRAGAL	VARIABLE SPACE	WOOL PILE	VARIES	DOUBLE ROW- FULL LENGTH OF ASTRAGAL
25	VG1	WEATHERING FOR WS100	1.142 X ..120 X .06	SOFT VINYL	CORAL INDUSTRIES, INC.	CUT TO DOOR OPENING WIDTH (LESS CLEARANCE)
26	FL504	DOOR JAMB	2.5 X 4.98 X .080	6063-T6 ALUMINUM	CORAL INDUSTRIES, INC.	
27	SP100	ADJUSTABLE ASTRAGAL SPRING	VARIABLE SPACE	ALUM	VARIES	
28	SB11	DOOR-SETTING/ EDGE BLOCK	.319 X .523 X 4"	EPDM	VARIES	

HARDWARE SCHEDULE

DESCRIPTION	PART #	MANUFACTURER
BUTT HINGE 4-1/2" X 4"	DH110SS	HAGER
PULL HANDLE	PH401	CORAL
CYLINDER	DH078	VARIES
THUMBTURN	DH079	VARIES
FLUSHBOLT	DH176	VARIES
3 PT LOCK	DH072	VARIES

GLASS TYPE
- .25 TEMPERED X .090 SENTRY GLAS X .25 TEMPERED

Architectural Testing
Test sample complies with these details.
Deviations are noted.
Report# B6673.01-401-18
Date 8/6/12 Tech SP

REV	BY	DATE	DESCRIPTION
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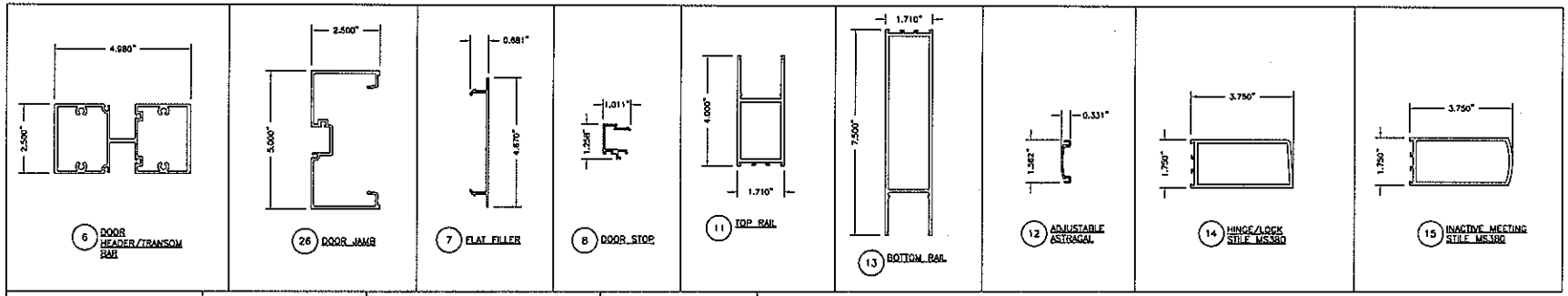
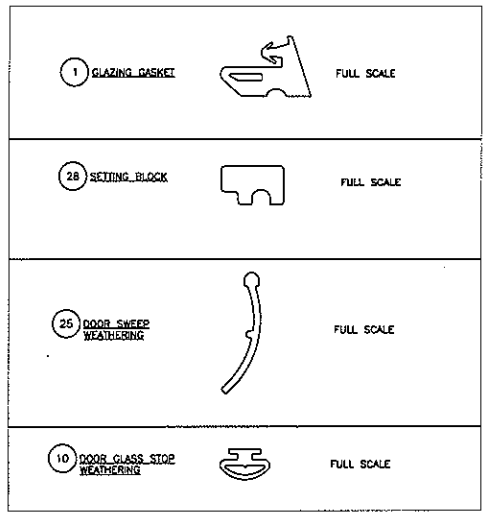
Coral
■ Architectural Products ■
3010 RICE MINE ROAD, TUSCALOOSA, AL 35406
PHONE: 800-772-7737 FAX: 800-443-0261

MS381 DRY GLAZE IMPACT DOORS
TEST DRAWINGS

BILL OF MATERIALS, HARDWARE AND GLASS TYPES

DATE		
7/6/2012		
DRAWN: MLF	CHECKED: ---	APPROVED: WS
PROJECT NO.		
DRAWING NO.: MS381_4		
SHEET: 5 OF 6		





Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# B6673.01-401-18

Date 7/6/12 Tech SP

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MS381 DRY GLAZE IMPACT DOORS
TEST DRAWINGS

DIE DRAWINGS

DATE 7/6/2012

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PROJECT NO.

DRAWING NO. MS381_4

SHEET 6 OF 6