

# Fenestration Testing Laboratory, Inc. 8148 N.W. 74th Avenue Medley, FL 33166 Phone: (305) 885-3328 Fax: (305) 885-3329 (888) 819-7877

e-mail: clientservices@ftl-inc.com www.ftl-inc.com

Report Date: 9/24/2015 Test Date: 8/25/2015 8/25/2019 **Expiration Date:** 8644 Lab. Number: Project Number: 15-5995 **Revision Number:** 0

### **Condensation Performance Test Report**

Manufacture: Coral Architectural Products

Address: 7704B Industrial Lane

Tampa, Florida 33637

Specifications: AAMA 1503-2009: Voluntary Test Method for Thermal Transmittance and Condensation

Resistance of Windows, Doors and Glazed Wall Sections

### **Product Description**

Model Designation:	Series: PW257 Impact Curtain Wall
Overall Size:	2000mm (79") by 2000mm (79") high

Frame Construction		
Frame Material, Color and Finish:	Painted gray aluminum alloy non thermally broken	

Glazing Description		
Layer 1:	1/4" clear glass **(Sungate 500 on surface #2)	
Gap:	1/2" gap using a Super Spacer	
Layer 2:	1/4" clear-0.090 SGP-1/4" clear	

<sup>\*\*</sup>as per manufacture

Glazing Method	
Interior Condition:	Silicone and vinyl gasket
<b>Exterior Condition:</b>	EPDM

Gas Type	Filling Technique	Gas Fill Percentage
None	None	None

Daylight Opening	
Left and Right Sections	35 3/4" by 74" high

Weathers-Stripping			
Quantity	Description	Location	
Single row	**EPDM thermal isolator gasket	Behind each pressure plate	
Single row	**EPDM gasket	Between the frame head and pressure plate	

<sup>\*\*</sup>as per manufacture

### Quality Accuracy Assurance



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Hardware		
Quantity	Description	Location
None	None	None

Weep Holes			
Quantity	Description	Location	
None	None	None	

Reinforcement		
Material	Location	
None	None	

Dividers/Grids			
Grid Size	Material	Grid Pattern	
None	None	None	

### Quality Accuracy Assurance

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### **Measured and Calculated Test Data**

### **Condensation Resistance Factor (CRF):**

Warm side ambient air temperature (T <sub>h):</sub>	69.80 F
Cold side ambient air temperature (T <sub>c)</sub>	-0.31 F
Average of pre-specified frame temperature (FT <sub>p</sub> )	43.2 F
Average of roving thermocouples (FT <sub>r</sub> )	35.8 F
Calculated Weighting Factor	
Frame Temperature (FT)	42.5 F
Glass Temperature (GT)	46.8 F
Condensation Resistance Factor of glass (CRF <sub>G</sub> )	67
Condensation Resistance Factor of frame (CRF <sub>f</sub> )	61
Thermal Transmittance (U <sub>c</sub> ):	
Nominal sample Area	43.34 ft <sup>2</sup>
Total measured input to calorimeter	1533.04 Btu/hr
Calorimeter correction	119.26 Btu/hr
Net specimen	1413.78 Btu/hr
Thermal Transmittance (U <sub>c</sub> )	0.47 Btu/hr·ft <sup>2</sup> ·F
Static pressure difference across test sample 15 mph dynamic perpendicular wind at exterior(P)	0.00 psf



18

19

20

GT

49.8

52.4

41.2

46.8

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### **Temperature Data**

Indiv	idual A
1	42.7
2	43.1
3	43.2
4	49.8
5	48.8
6	49.8
7	47.9
8	47.8
)	46.4
LO	44.1
11	43.5
12	45.1
13	40.2
14	48.6
T <sub>p</sub>	43.2
Indiv	idual A
15	34.1
16	51.7
17	51.5

Indiv	Individual Average Frame Cold Point (Roving)					
21	33.8					
22	35.4					
23	36.8					
24	37.1					
FT,	35.8					

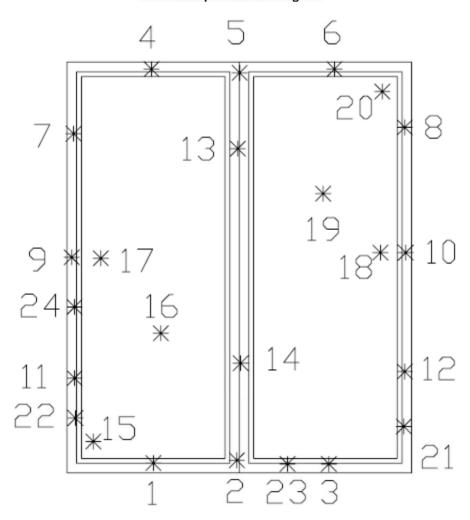


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### **Thermocouple Location Diagram**





## Fenestration Testing Laboratory, Inc.

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Test Date: 8/25/2015
Expiration Date: 8/25/2019
Lab. Number: 8644
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### **Test Duration**

- 1. The environmental systems were started at 15:34 hours on 8/24/2015.
- 2. The test parameters were considered stable from 06:34 hours on 8/25/2015 to 10:34 hours on 8/25/2015.

Glazing Deflection (in.)	Left Section	Right Section
Gap width upon receipt of sample in laboratory	1/2"	1/2"
Gap width at laboratory ambient conditions on day of testing	1/2"	1/2"
Center of gap at conclusion of test	3/8"	7/16"

### Remarks

The sample was inspected for the formation of frost or condensation, which may influence the surface temperature measurements. The sample showed no evidence of condensation/frost at the conclusion of the test.

The calibration of Fenestration Testing Laboratory's "thermal test chamber" was conducted in June 2015.

Drawings referenced in this document are an integral part of this report, therefore, are required when distributing this test report. Test results obtained represent the actual value of the tested specimens and do not constitute opinion, endorsement or certification by this laboratory.

This test report is considered the exclusive property of the client named herein and is applicable to the sample tested. This report may not be reproduced without the approval of Fenestration Testing Laboratory, Inc and if so must be in full.

The sample was sealed with silicone on the interior and tested per Section 9.3.4 for air infiltration. The testing described in this test report was conducted in accordance with AAMA 1503 requirements.

	Revision Hist	ory Table	
Revision	Description	Author	Effective Date
0	Initial Release	Jose Sanchez	9/24/2015

### FENESTRATION TESTING LABORATORY, INC.

Jose Sanchez

Jose Sanchez **Test Performed by** 

Jose Sanchez

Person - in- Responsible- Charge



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### **APPENDIX**

Fenestration Product Drawings and Bill of Material



# PW257 AAMA 507 NFRC CMAST SUBMITTAL DRAWINGS

5 DIE DRAWINGS BILL OF MATERIALS STANDARD FRAMING DETAILS STANDARD FRAMING ELEVATION INDEX TO DRAWINGS AND NOTES INDEX TO DRAWINGS

detail except where noted Date: 11/24/2015 **Laboratory Report Number:** Tested Sample complies wit

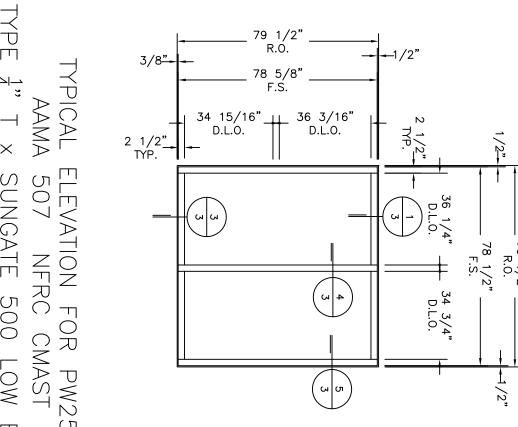
Initials: JS

	LEET	 CHECKED	DRAWN <i>MJ</i>	PROJECT NO. AAM	
<b>├</b>		 APPROVED	DATE 5/5/2014	NO. AAMA PW257	

PW257 AAMA 507 NFRC CMAST SUBMITTAL DRAWINGS

INDEX TO DRAWINGS AND NOTES

7			******
7			
EV	BY	DATE	DESCRIPTION



TYPICAL ELEVATION FOR PW257

AAMA 507 NFRC CMAST

GLASS TYPE ‡" T × SUNGATE 500 LOW E SURFACE 2

× ½" AS × ‡"CL T × .090 Sentry Glas × ‡" CL T

detail except where noted Tested Sample complies with this

Laboratory Report Number: 8644

Date: 11/24/2015

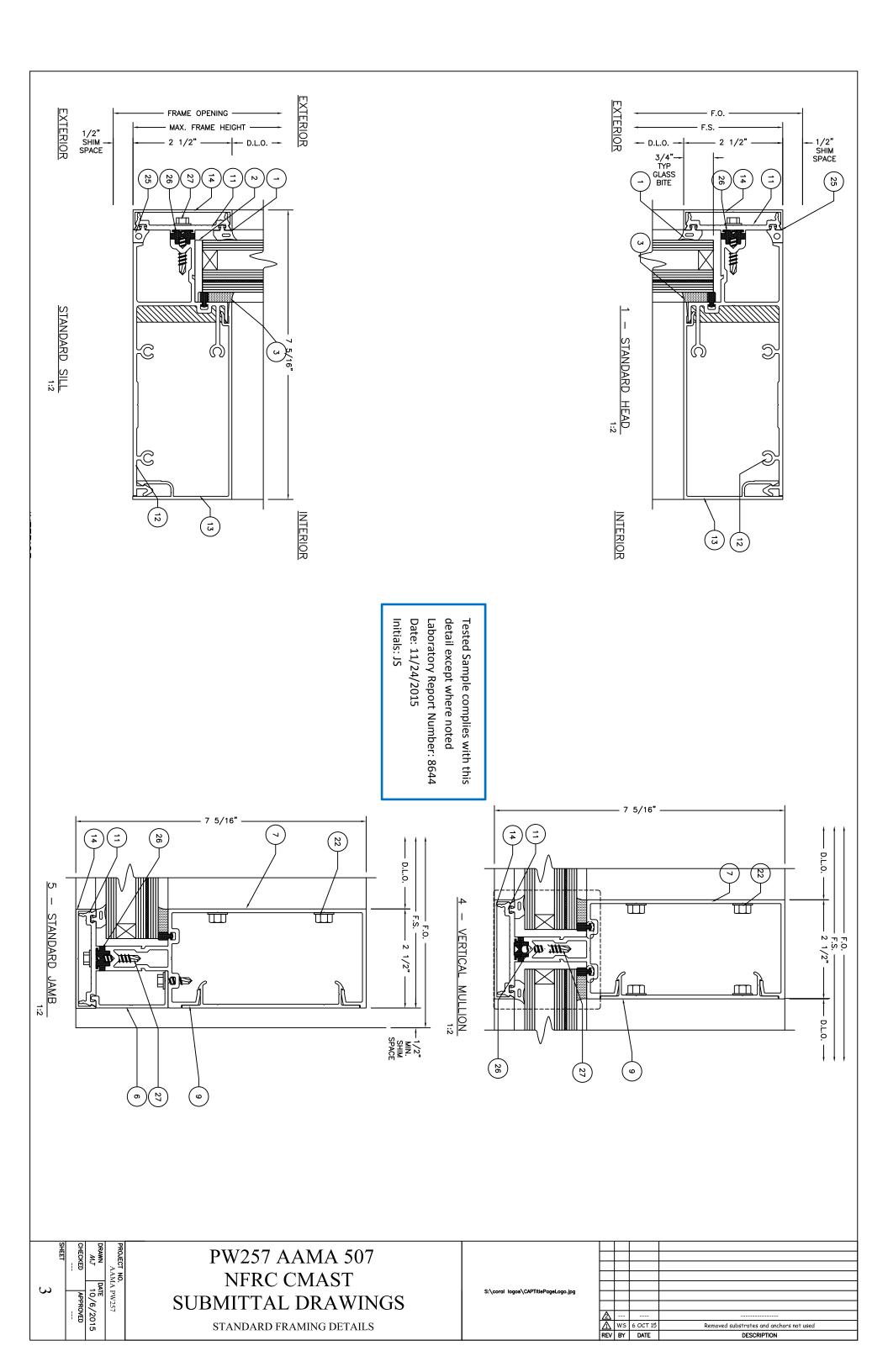
)		
DRAWN <i>MJ</i>	PROJECT NO AAN	
DATE 10/7/201	). MA PW257	
	7 DA	\AN

PW257 AAMA 507 NFRC CMAST SUBMITTAL DRAWINGS

FRAMING ELEVATION



7			***************************************
7	WS	6-OCT-15	Removed Horiz.
EV	BY	DATE	DESCRIPTION



		D	DILL OF MAILMALD	PNIALS		
ITEM NO.	P/N	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER	NOTES
1	NG10	GLAZING GASKET	.561 × .350	EPDM	VARIES	USED ON EXT. AND INT.
2	SB18	SETTING BLOCK	0.188 X 1.561 X 0.084	EPDM	VARIES	
3	995	STRUCTURAL SEALANT	VARIABLE SPACE	SILICONE	DOW	
7	PW650	VERTICAL MULLION/JAMB	2.50 × 5 × .078	6063-T6 ALUMINUM	CORAL	
œ	PW655	HORIZONTAL MULLION	6.480 X 2.390	6063-T6 ALUMINUM	CORAL	
9	PW202	VERTICAL FILLER	4.484 X .681	6063-T6 ALUMINUM	CORAL	
11	PW204	PRESSURE BAR	2.427 X .433	6063-T6 ALUMINUM	CORAL	
12	PW652	HEAD/SILL JAMB	2.390 X 6.387 X .078	6063-T6 ALUMINUM	CORAL	
13	PW203	SILL/HEAD/HORIZONTAL COVER	2.50 X 4.460	6063-T6 ALUMINUM	CORAL	
14	PW205	PRESSURE PLATE COVER	2.50 X .500	6063—T6 ALUMINUM	CORAL	
22	AS16	TYPICAL SPLINE SCREW	#14 X 1" HHSTS	STEEL	VARIES	TYPICAL SPLINE SCREW
25	NG11	GASKET	.340 x .403	EPDM	VARIES	
26	NG12	ISOLATER GASKET	.625 x .35	EPDM	VARIES	
27	AS32	SCREW	#12 × 1-1/4"	ZINC PLATED STEEL	VARIES	USED AT HEAD, SILL, AND HORIZONTAL
N A	AS53	HEX CAP BOLT SCREW	1/4-20 X 3"	STAINLESS STEEL	VARIES	
NA	AS54	FLAT WASHER	1/4"	STAINLESS STEEL	VARIES	
Z >	AS55	LOCK NUT WITH NYLON INSERT	1/4"-20	STAINLESS STEEL	VARIES	

Tested Sample complies with this detail except where noted

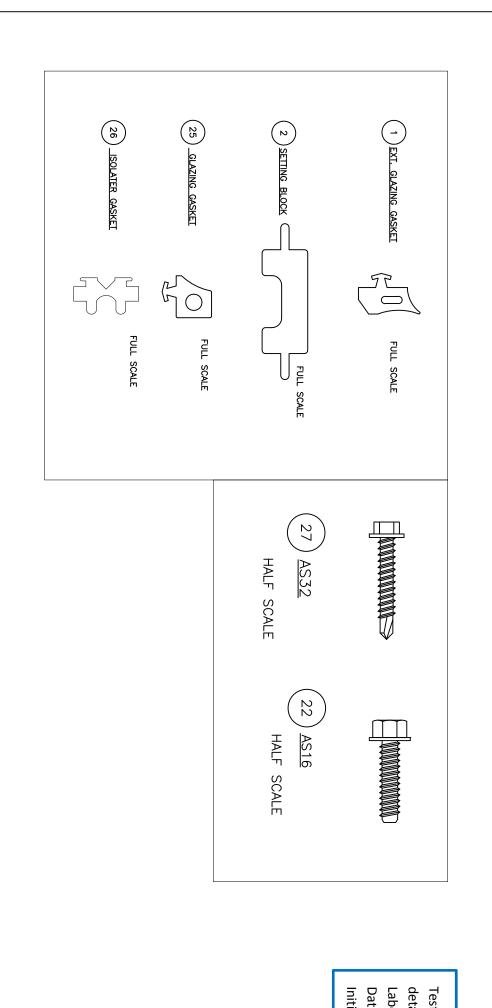
Date: 11/24/2015 Initials: JS Laboratory Report Number: 8644

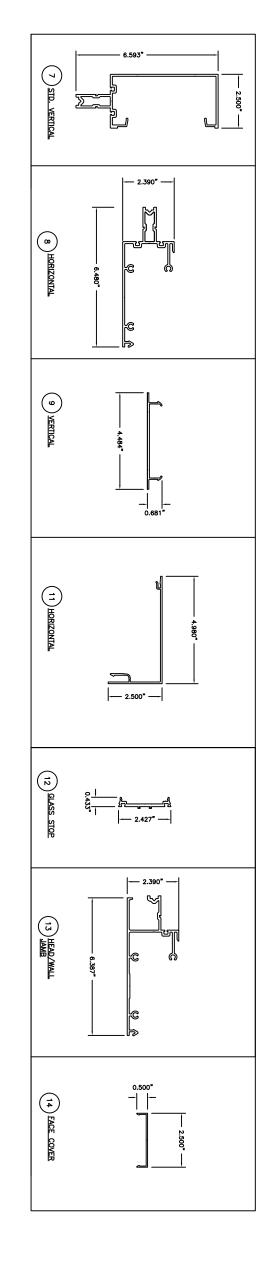
	LEET	1	CHECKED	DRAWN MJ	PROJECT NO. AAM
4		1	APPROVED	DATE 06-OCT-	r <b>NO.</b> AAMA PW257

PW257 AAMA 507 NFRC CMAST SUBMITTAL DRAWINGS

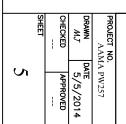
BILL OF MATERIALS

<u>A</u>			
<u> </u>	WS	6 OCT 15	Added item 3 (995) and removed thru bolts
REV	BY	DATE	DESCRIPTION





Tested Sample complies with this detail except where noted Laboratory Report Number: 8644 Date: 11/24/2015 Initials: JS



PW257 AAMA 507 NFRC CMAST SUBMITTAL DRAWINGS

DIE DRAWINGS



