



Quality Accuracy Assurance

Fenestration Testing Laboratory, Inc.

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Report Date: 7/3/2015
 Completion Date: 6/4/2015
 Expiration Date: 6/4/2019
 Page No. Page 1 of 16
 Lab. Number: 8398
 Project Number: 15-5706

OFFICIAL TEST REPORT

CLIENT: Aluminco S.A.

SPECIFICATIONS: Florida Building Code
 Concentrated Load Test

ADDRESS: Inofita, Viotia Greece, 32011

PROJECT: Aluminco S.A.

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DESCRIPTION OF SAMPLE	
Model Designation:	Series: F50 Vertical-R Picket Railing
Overall Size:	10'-6" (126") by 3'-6 3/8" (42 3/8") high
Size and Location of Post:	Four 41" high aluminum vertical post located 4", 43 1/4", 82 1/4" and 121 5/8" from left
Size and Location of Pickets:	Twenty four 31 3/8" long aluminum vertical pickets located 4 1/2" on center
Sample E-1	

MATERIAL CHARACTERISTICS			
Members	Material**	Part Number**	Joint Type
Two Piece Top Rail	6060-T6	F50-306	n/a
Two Piece Bottom Rail	6060-T6	F50-306	n/a
Hand Rail	6060-T6	F50-200	n/a
Vertical Post	6060-T6	F50-107	n/a
Vertical Pickets	6060-T6	F50-303	n/a
Top and Bottom Rail Bracket	6063-T6	4225	Butt joint
Saddle	6063-T6	4314	Butt joint
Anchor Base Tube	6060-T6	4217	Butt joint
Anchor Plate	6060-T6	4217	Butt joint

Additional Information
<p>The sample was tested using one 126" long aluminum hand rail. The hand rail was fastened to the vertical post using one saddle (part No. 4314) per post. The saddle slides onto the vertical post and is secured with epoxy and the saddle is fastened to the hand rail using two No. 8 by 3/4" FH SDS.</p>
<p>The top and bottom rails were fastened using one extruded aluminum bracket (part No. 4225). The top and bottom rails slide into the bracket and were fastened to the bracket using one 12-24 by 3/16" socket set MS and the bracket was fastened to the vertical post using one No. 10 by 1 1/4" FH SDS.</p>
<p>The pickets slide into the top and bottom rails and were fastened to the top and bottom rails using one No. 8 by 3/4" FH SDS.</p>
<p>The sample was tested using an aluminum anchor base tube (part No. 4217). The vertical post slides on to the anchor base tube and the anchor base tube is fastened to the vertical post using two 5/16-24 by 3/8" socket set MS.</p>
<p>The sample was tested using an aluminum anchor plate (part No. 4217) which was epoxied to the anchor base tube.</p>



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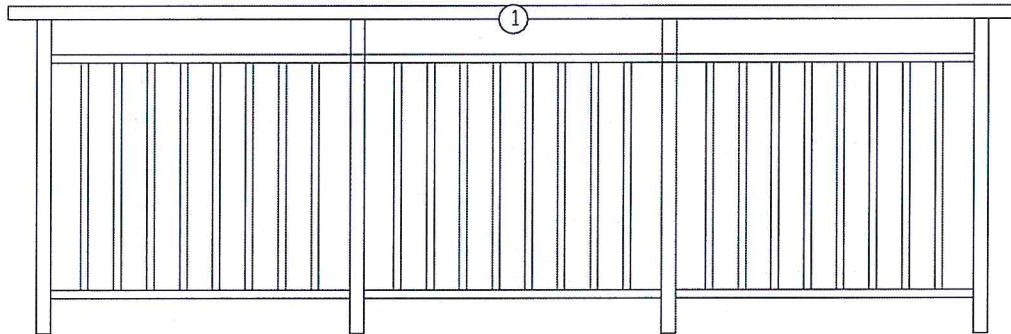
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Sample Installation	
The anchor plate was fastened to the concrete test slab using six 1/2" by 4" HWH wedge bolts.	

Sample: E-1	Temperature: 85.0°F	Barometric Reading: 30.15 inches Hg
Title of Test	Load	Notes
Concentrated Load Test	525.0 lbs	As per FBC section 1607.7.1 A horizontal load was applied at the center of the handrail.



Reading#	Deflection	Permanent Set	Results	Add. Info
1	2.250"	0.460"	Passed	



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Sample: E-1		Temperature: 85.0°F		Barometric Reading: 30.15 inches Hg	
Title of Test		Load		Notes	
Concentrated Load Test		200.0 lbs		As per FBC section 1607.7.1.1 A horizontal load was applied at the corner of the handrail.	
Reading#	Deflection	Permanent Set	Results	Add. Info	
1	2.500"	0.437"	Passed		



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Notes

* designates measurements by laboratory

** as per manufacturer

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.

At conclusion of above tests, there was no apparent damage to the concrete slab/wall, sample or fasteners.

Remarks

Detailed drawings and test report will be retained by Fenestration Testing Laboratory for a period of four years from the original test date. Due to the code cycle change of four years, it is recommended that this report be evaluated during the lifespan of this document.

This product was tested and meets the requirement set forth by the Florida Building Code (2010) concentrated load test sections 1607.7.1, 1607.7.1.1 and 1607.7.1.2.

Testing was conducted as per instructions received from the manufacturers company representative.

Witnessed by:
Ms. Idamis Ortega, P.E.

Technicians:
Mr. Harold Anacona

FENESTRATION TESTING LABORATORY, INC.

Mr. Manny Sanchez
Chief Executive Officer