Architectural Testing

TEST REPORT

Report No.: B7076.01-109-44

Rendered to:

ASTECH ASSOCIATES, INC.
Midlothian, Virginia

PRODUCT TYPE: Thin Exterior Brick
SERIES/MODEL: Brick Fast Panels

Title	Summary of Results
Design Pressure	+4800 Pa (+100.25 psf)
Negative Design Pressure	-5110 Pa (-106.67 psf)
Uniform Load Structural Test Pressure	+7200 Pa (+150.38 psf)
Uniform Load Structural Test Pressure	-7660 Pa (-160.00 psf)

Reference must be made to Report No. B7076.01-109-44, dated 03/21/12 for complete test specimen description and detailed test results.

1.0 Report Issued To: AsTech Associates, Inc.
3201 Waterton Drive
Midlothian, Virginia 23113

2.0 Test Laboratory: Architectural Testing, Inc.
130 Derry Court
York, Pennsylvania 17406-8405
717-764-7700

3.0 Project Summary:

3.1 Product Type: Thin Exterior Brick

3.2 Series/Model: Brick Fast Panels

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method(s). Test specimen description and results are reported herein.

3.4 Test Date: 03/14/2012

3.5 Test Record Retention End Date: All test records for this report will be retained until March 21, 2016.

3.6 Test Location: Architectural Testing, Inc. test facility in York, Pennsylvania.

3.7 Test Sample Source: The test specimen was provided by the client. Representative samples of the test specimen(s) will be retained by Architectural Testing for a minimum of four years from the test 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 B. Any deviations are documented herein or on the drawings.

3.9 List of Official Observers:

Name	Company
Russ Asmus	AsTech Associates, Inc.
Michael D. Stremmel, P.E	Architectural Testing, Inc.
Aaron M. Shultz	Architectural Testing, Inc.

4.0 Test Method:

ASTM E 330-02, *Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.*

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 4.5 m^2 (48.0 ft^2)	**Width**		**Height**	
	millimeters	**inches**	**millimeters**	**inches**
Overall size	3658	144	1219	48
Panel sizes (3)	1219	48	1219	48

5.2 Frame Construction: The test buck measured 144" wide by 48" high and was constructed of #2 Spruce-Pine-Fir nominal 2x6 lumber. Wood studs were spaced 16" on center (9 spans) and were attached to the top and bottom plates with 3" long drywall screws. A sheet of nominal 1/2" thick plywood, with eight 4" diameter holes to allow pressure to the siding, was secured to the studs with #8 x 1-5/8" long drywall screws. A layer of building wrap was applied to the exterior of the plywood sheathing. Silicone was utilized on the backside of the test panel to seal the perimeter. A 2 mil thick plastic film was loosely applied to enable attainment of pressure.

5.3 Installation: Three 4' wide by 4' high metal support panels were utilized. Each panel was secured to the wood base wall with #10 x 1-1/2" long screws. One screw was utilized for each square foot of metal support panel (16 screws per support panel evenly spaced). Thin bricks, measuring 7-1/2" long by 2-1/4" high by 5/8" thick, were applied to the metal support panel using adhesive. Mortar was then applied to joints between the thin bricks.

6.0 Test Results: The temperature during testing was 21°C (70°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
Uniform Load Deflection, per ASTM E 330 taken at midspan of the panel			
+4800 Pa (+100.25 psf)	1.0 mm (0.04")	5.1 mm (0.20") max.	
-5270 Pa (-110.07 psf)	1.8 mm (0.07")	5.1 mm (0.20") max.	1, 2
Uniform Load Structural, per ASTM E 330 taken at midspan of the panel			
+7200 Pa (+150.38 psf)	<0.3 mm (<0.01")		
-7660 Pa (-160.00 psf)	1.0 mm (0.04")	Report Only	1, 2

***General Note**: All testing was performed in accordance with the referenced standard(s).*

Note 1: Loads were held for 10 seconds.

Note 2: A span of 48" was used for all deflection / permanent set measurements.

Architectural Testing will service this report for the entire test record retention period. Test records that are retained such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Architectural Testing, Inc. for the entire test record retention period.

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 for: Aaron Shultz by Vicki L. McElwain

Aaron M. Shultz
Technician

Digitally Signed by: Michael D. Stremmel

Michael D. Stremmel, P.E.
Senior Project Engineer

AMS:vlm

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

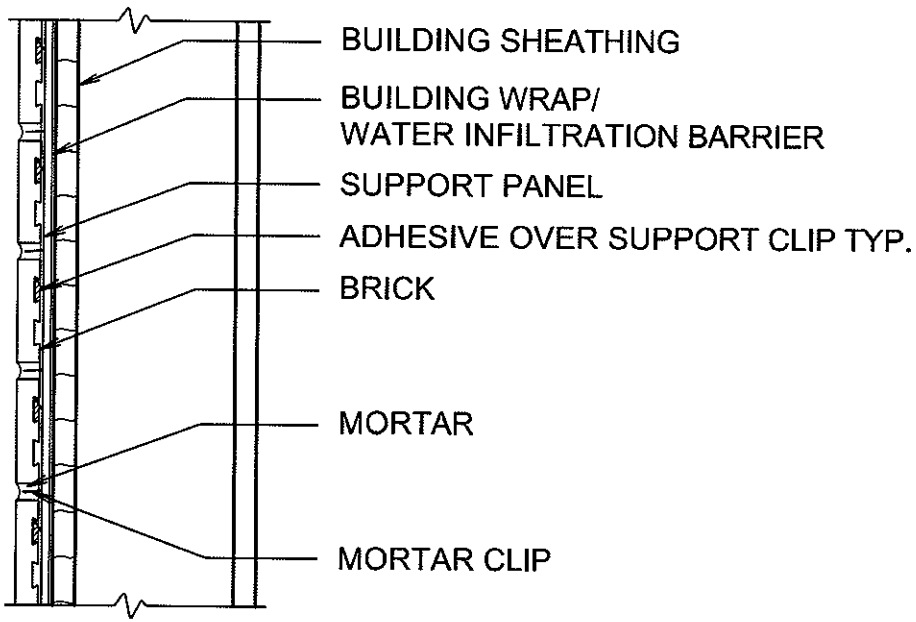
Appendix A

Photograph

Photo No. 1
Brick Fast Panel

Appendix B

Drawings



NOTE:
1. GLUE ON TABS IS TO BE URETHANE ADHESIVE.

Architectural Testing

Test sample complies with these details.
Deviations are noted.

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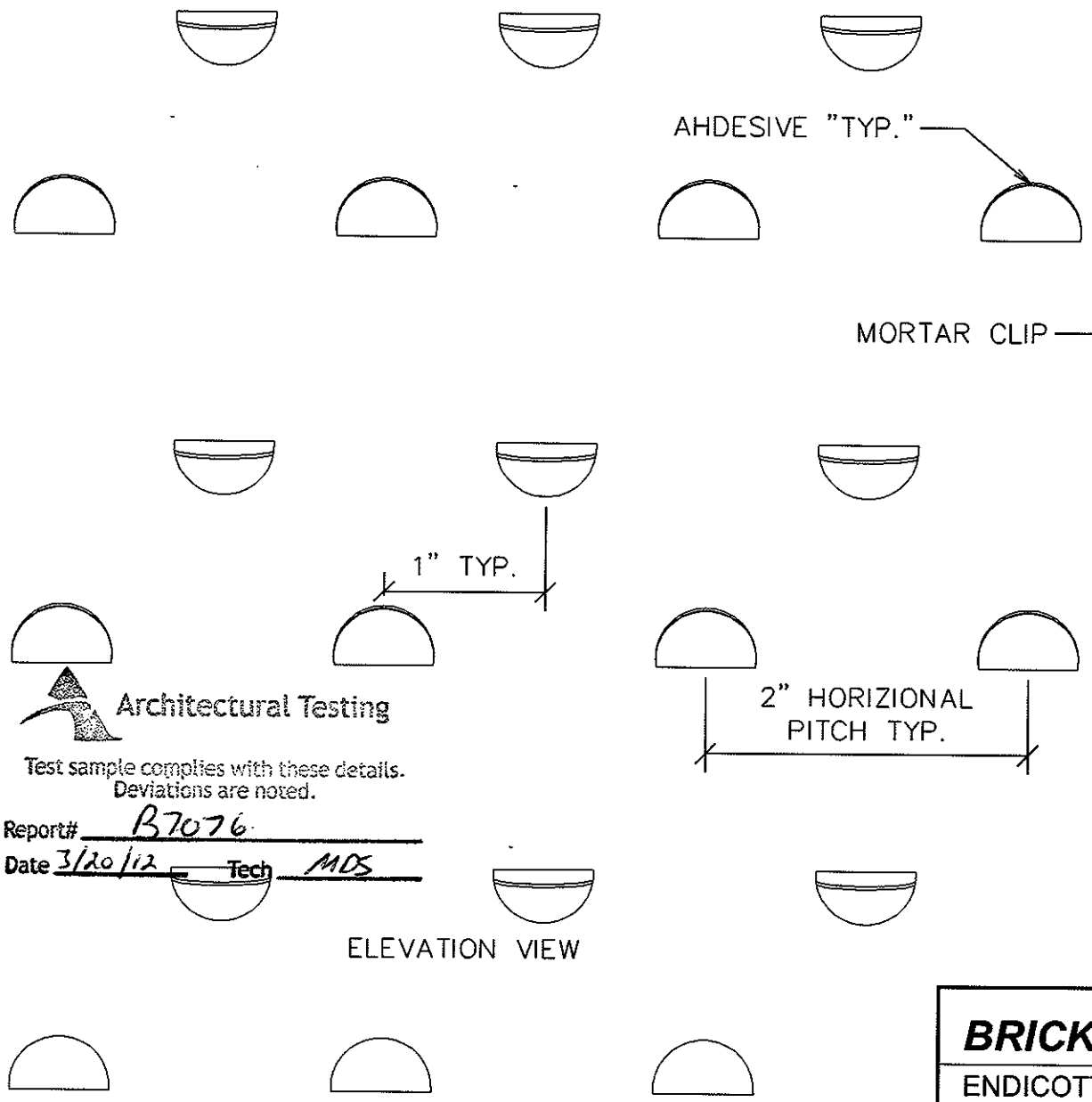
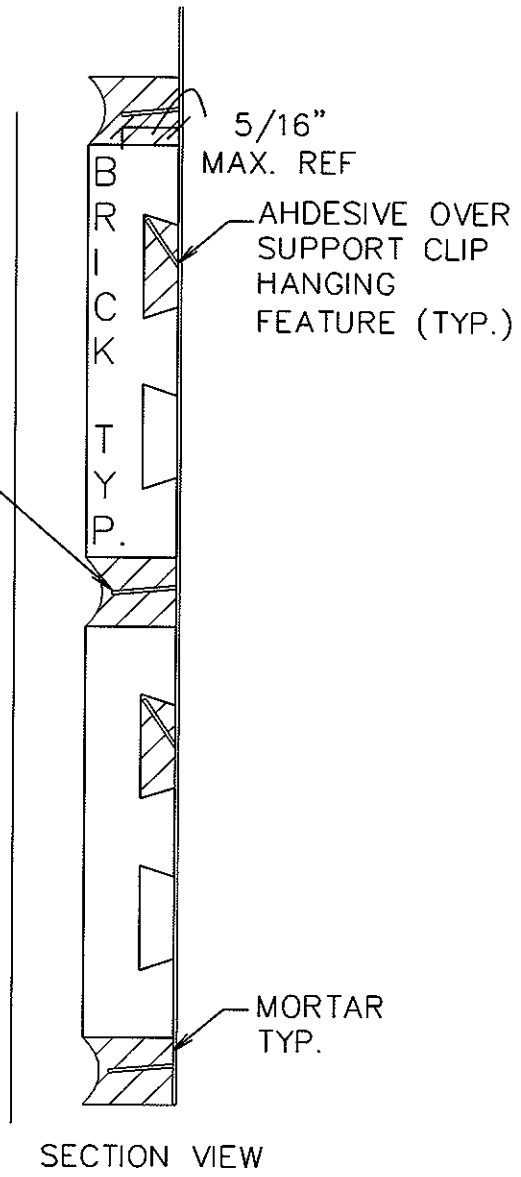
Date 3/20/12 Tech MOS

BRICK-FAST™	
BASE DETAIL ABOVE GRADE	DN: FBS
SCALE: 3" = 1'-0" 5-25-07	AP: C.S. R.A.



ELEVATION VIEW



SECTION VIEW

Architectural Testing

Test sample complies with these details.
Deviations are noted.

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Date 3/20/12 Tech MDS

BRICK-FAST™

ENDICOTT 2-1/4" PANEL DETAIL		DN: FBS
FULL SCALE	5-25-07	AP: C.S. R.A.