Architectural Testing

PERFORMANCE TEST REPORT

Rendered to:

BERRIDGE MANUFACTURING COMPANY

SERIES/MODEL: Berridge Deep Deck Panels
PRODUCT TYPE: Steel Roof Panels

Title	Summary of Results
Air Infiltration	0.01 cfm/ft^2
Water Resistance Test Pressure	6.24 psf

Reference should be made to Architectural Testing, Inc. Report No. A0977.01-801-44 for complete test specimen description and data.

2865 Market Loop
Southlake, Texas 76092
phone: 817-410-7202
fax: 817-424-8463
www.archtest.com

Architectural Testing

PERFORMANCE TEST REPORT

Rendered to:

BERRIDGE MANUFACTURING COMPANY
1720 Maury Street
Houston, TX 77026

Report No.:	A0977.01-801-44
Test Date:	05/17/10
Through:	09/09/10
Report Date:	09/13/10
Expiration Date:	09/09/14

Project Summary: Architectural Testing, Inc. was contracted by Berridge Manufacturing Company to perform testing on a Series/Model Berridge Deep Deck Steel Roof Panels. Test specimen description and results are reported herein. The sample was provided by the client.

Test Methods: The test specimen was evaluated in accordance with the following:

ASTM E 1680-95 (2003), *Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Systems.*

ASTM E 1646-95 (2003), *Standard Test Method for Water Penetration of Exterior Metal Roof Systems by Uniform Static Air Pressure Difference.*

Test Specimen Description:

Series/Model: Berridge Deep Deck Panels

Product Type: Steel Roof Panels

Overall Size: 9' 0" wide by 15' 0" long

Panel Size: 3' 0" wide by 15' 0" long

Overall Area: 135.0 ft^2

Finish: The panels were painted.

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Test Specimen Description: (Continued)

Roof Panel: The roof system consisted of two full width 36" steel panels and two half width 18" steel panels that measured 0.67 mm (0.027") thick, 36" wide by 180" long, and 18" wide by 180" long. The panel utilized 7.2" peak to peak ridges by 1.5" deep, to channel water, and a 42˚ bend between each of the 1.94" wide ridges and 1.94" wide peaks.

Installation: The unit was installed over a Spruce-Pine-Fir wood deck. The deck utilized a 2x6 Spruce-Pine-Fir wood frame with notches to keep water under the specified depth. Five purlins were located 28.5" from each end and 30" on center thereafter. Three side lap seams were sealed with butyl tape and fastened using 5/16" x 3/4" long hex head screws with neoprene gasket located 1" from each end and on 12" spacing thereafter. The panels were fastened to each purlin with two (2) 5/16" x 3/4" long hex head screws located 3-1/2" from the side laps. The perimeter of the panels were secured to the test deck with 1/4" x 1" long hex head screws located at each corner and spaced 12" on center thereafter.

Test Results: The temperature during testing was 79°F. The results are tabulated as follows:

Test Method	Title of Test	Results
ASTM E 1680	Preloads (50% of Design Pressure)	
ASTM E 1646	50.0 psf (positive)	No damage
	50.0 psf (negative)	No damage
	50.0 psf (positive)	No damage
	50.0 psf (negative)	No damage
	50.0 psf (positive)	No damage
	50.0 psf (negative)	No damage
ASTM E 1680	Air Infiltration	
	1.57 psf (25 mph)	<0.01 cfm/ft^2
	6.24 psf	<0.01 cfm/ft^2
ASTM E 1642	Water Resistance (no slope)	
	6.24 psf	No leakage

***General Note**: All testing was performed in accordance with the referenced standards.*

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.

Drawing Reference: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen reported herein.

List of Official Observers:

Name	Company
Chris P. Bertaut	Architectural Testing, Inc.
Tom D. Klein	Architectural Testing, Inc.

Detailed drawings, data sheets, representative samples of test specimens, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing, Inc. for a period of four years from the original test date. At the end of this retention period, such materials shall be discarded without notice and the service life of this report will expire.

Results obtained are tested values and were secured by using the designated test methods. 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: Chris Bertaut

Chris P. Bertaut
Technician

Digitally Signed by: Andy Cost

Andy Cost
Laboratory Manager

CB:hd

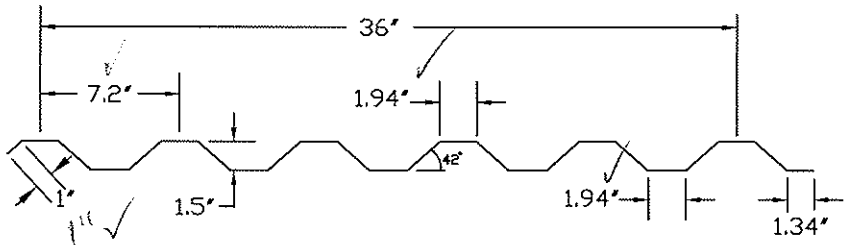
Attachments (pages): This report is complete only when all attachments listed are included.
Appendix-A: Drawings (2)

Revision Log

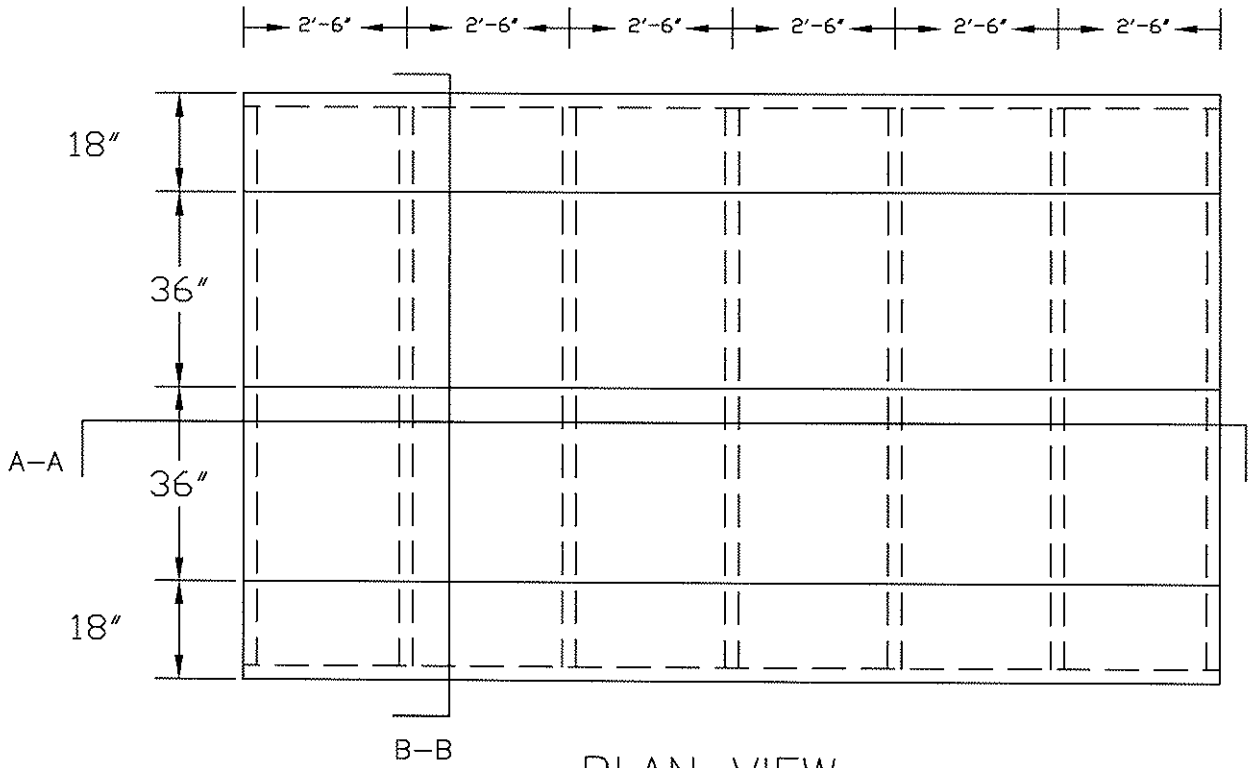
Rev. #	Date	Page(s)	Revision(s)
0	09/13/10	N/A	Original report issue

Appendix A

Drawing



DEEP–DECK PANEL SECTION



PLAN VIEW

Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# A0977.01

Date 9/13/10 Tech CB

Berridge Manufacturing Company

Roofs of Distinction

BERRIDGE DEEP DECK PANEL
24 ga., 40 KSI STEEL

ASTM E 1646 & 1680 TEST ASSEMBLY

DATE: 07–08–10

DRAWN BY: TA

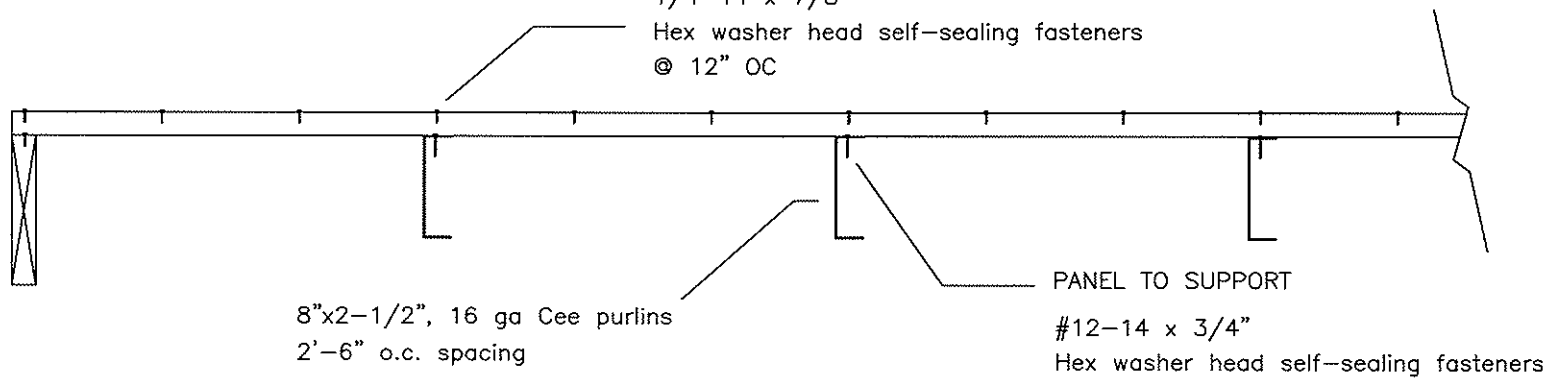
Architectural Testing

Test sample complies with these details.
Deviations are noted.

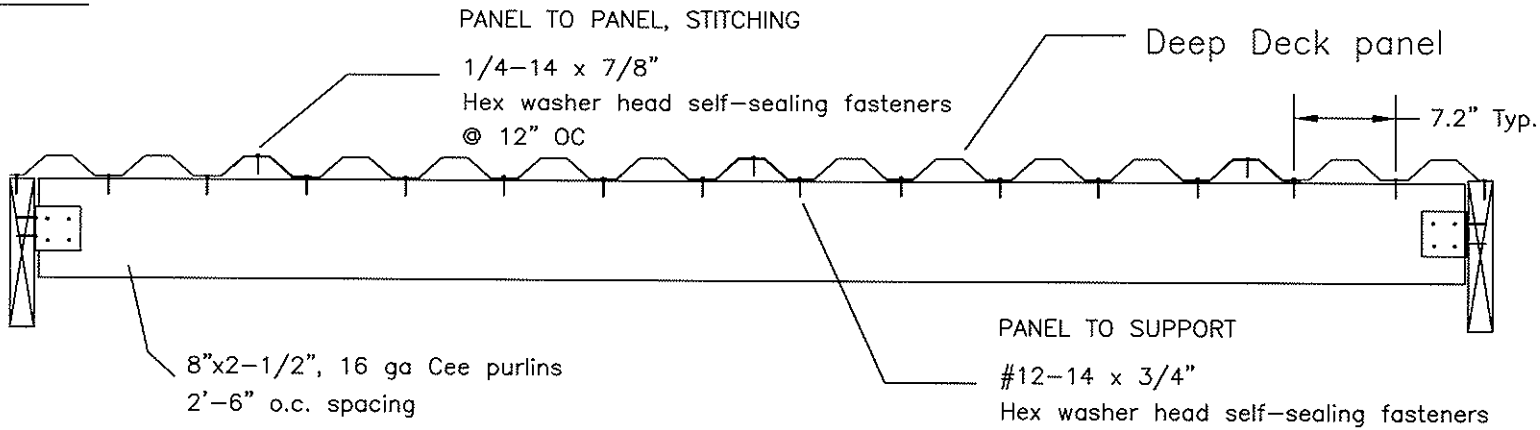
Report# A0977.01

Date 9/13/10 Tech GB

A – A



B – B



Berridge Manufacturing Company

Roofs of Distinction

BERRIDGE DEEP DECK PANEL
24 ga., 40 KSI STEEL

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