

Product Evaluation

SHU223 | 0421

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: SHU-223

Effective Date: April 1, 2021

Re-evaluation Date: December 2022

Product Name: Bahama Single, Single Mulled, and Double Mulled Aluminum Shutters

Manufacturer: LAS Enterprises
2413 L & A Road
Metairie, LA 7001
(504) 832-1429

General Description:

The single, single mulled, and double mulled Bahama shutters are manufactured of extruded aluminum and are assembled using extruded aluminum blades measuring 2.00" x 0.375".

The shutters are secured to the exterior side of the wall (wall mount) and must be installed in accordance with the design drawing referenced in this evaluation report.

Limitations:

Design Drawings:

"Bahama Shutter Large & Small Missile Impact Rated;" manufactured by LAS Enterprises; Drawing No. 08-02482; Sheets 1 thru 11 of 11; dated September 09, 2014; with Revision B, dated December 29, 2020; signed, sealed, and dated December 29, 2020 by Luis R. Lomas, P.E. The stated drawings will be referred to as approved drawings in this report.

Bahama Shutter Configurations: The Bahama shutters may be installed as a single configuration, a single mulled configuration, or as a double mulled configuration. Refer to the approved drawings for the specific types of configurations.

Mounting Conditions: The Bahama shutters must be wall mounted. Refer to the approved drawings for the specific mounting requirements.

Wall Construction: The colonial Bahama may be mounted to the following types of wall framing:

- Pre-cast concrete, cast-in-place concrete (minimum compressive strength required specified in drawings)
- Grout-filled concrete masonry units (CMU)
- Wood (minimum Spruce-Pine-Fir dimension lumber, S.G. = 0.42).

Allowable Design Pressure: The allowable design pressure for both the double mulled configuration and the single mulled configuration is +/-45.0 psf. The allowable design pressure for the single configuration is +/-50.0 psf. **Note:** The shutters must be in a closed and locked position to achieve the allowable design pressure rating.

Maximum Width:

- Double Mulled Shutter: 99"
- Single Mulled Shutter: 73"
- Single Shutter: 40"

Maximum Height:

- Double Mulled Shutter: 75-7/8"
- Single Mulled Shutter: 75-7/8"
- Single Shutter: 75-7/8"

Minimum Separation from Glass: The shutter assembly is considered a non-porous impact protective system. No minimum separation from glass is required. The shutters may not be installed in essential facilities as defined in ASCE 7-16.

Product Identification (Certification Agency Label on Shutter):

System		
Bahama Double Mulled	Certification Agency	NAMI
	Manufacturer's Name or Code Name	LAS Enterprises, Inc.
	Product Name	Bahama Double Mulled Shutter Assembly
	Maximum Size Tested	8'3" x 6'4"
	Design Pressure	+45 / -45 psf
	Test Standards	ASTM E330-02 ASTM E 1886-05; ASTM E 1996-05; Missile Level D

Product Identification (Certification Agency Label on Shutter)-continued:

System		
Bahama Single Mulled	Certification Agency	NAMI
	Manufacturer's Name or Code Name	LAS Enterprises, Inc.
	Product Name	Bahama Single Mulled Shutter Assembly
	Maximum Size Tested	6'1" x 6'4"
	Design Pressure	+45 / -45 psf
	Test Standards	ASTM E330-02 ASTM E 1886-05; ASTM E 1996-05; Missile Level D

Product Identification (Certification Agency Label on Shutter) - Continued:

System		
Bahama Single Panel	Certification Agency	NAMI
	Manufacturer's Name or Code Name	LAS Enterprises, Inc.
	Product Name	Bahama Double Mulled Shutter Assembly
	Maximum Size Tested	3'4" x 6'4"
	Design Pressure	+50 / -50 psf
	Test Standards	ASTM E330-02 ASTM E 1886-05; ASTM E 1996-05; Missile Level D

Compliance: The shutter assemblies passed test criteria equivalent to ASTM E 330-14; ASTM E 1886-13a, and ASTM E 1996-14a.

Impact Resistance: These shutter assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris. The assemblies passed Missile Level D specified in ASTM E 1996-14a. The assemblies may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded. The shutters may not be installed in essential facilities as defined in ASCE 7-16.

Installation Instructions:

General Installation Requirements: The shutters must be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report. Copies of the approved drawings must be available on the jobsite during inspection of the shutter assembly.

Anchorage: The shutters must be anchored to the structure in accordance with the approved drawings. Anchorage of the shutters to concrete, grout-filled concrete masonry units (CMU), and wood wall framing must follow the mounting conditions and fastener options specified on the approved drawings and the wall construction requirements in this evaluation report.

Note: Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.