

## Florida Professional Engineering Services, Inc.

Professional Engineering Design, Analysis and Testing Services, PE License #:

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Date:

TO:

From: Mufid Abu-Zahra

DBA: Florida Professional Engineering Services

Subject: Certifying compliance of door installation

Contractor:

Permit #:

Dear Sir/ Madam;

The installation details of the exterior doors and windows to the subjected residence are inspected and reviewed by myself on 01/09/2019. The purpose of the review is to determine the level of code conformances for the installation of the doors and windows.

Based on the information provided by the contractor, the followings are noted regarding the doors;

- 1) 3' X 6'-8" exterior – rated door takes place in exposure **C** area. Door is installed within interior (P4) zone into the existing masonry opening
- 2) Door opening is provided within a minimum 1X6 PT door bucks on each side. Door bucks are secured to fill cell blocks using  $\varnothing$  1/4" X 2' 1/4" Tapcon masonry screws spaced at 12" o. c. max
- 3) The door frame/jambes are secured to masonry blocks through PT bucks using  $\varnothing$  1/4" X 3" Tapcons spaced at max 18" o. c.

All existing windows and hurricane shutters of the subjected residence are removed and replaced with new impact units. Based on my careful inspection after the completion of all windows and shutter installation, the following were observed;

The property is located in **exposure B** area and has **15 ft.** mean roof height. The existing structure consists of masonry walls and reinforced concrete beams. The window design pressures for the extreme conditions are calculated as follows;

Exposure B / Enclosed Building / Mean Roof Height: 15 ft.

Positive Pressure (Zone 4 + 5): **+34 psf.**

Negative Pressure (Zone 4 + 5): **- 52 psf.**

The scope of this letter cover the installation of the following windows and hurricane shutters:

- |                                     |                        |                                     |
|-------------------------------------|------------------------|-------------------------------------|
| A) <b>Lawson</b> single hung window | <b>NOA #09-0720.05</b> | Design Load: <b>+70 / -100 psf.</b> |
| B) <b>AMF</b> Hurricane Shutters    | <b>NOA #17-0118.08</b> | Design Load: <b>+/- 85 psf.</b>     |

The above specified window were observed to be secured to **PT** wood buck as per their respective **NOA** specification by using **# 14 SS X 3"** long masonry screws spaced at maximum of **12" o. c.** in field and with **6"** end distance at corners.

Aluminum shutter panels, top and bottom rail with embedded wing-nuts are observed to be properly installed conforming to their AMF NOA #17-0118.08 product approvals.

In conclusion, this letter certify that the installation of the exterior doors of the subject residence does completely conform to the requirements of current Florida Building Code which specifies a 170 MPH ultimate wind speed for Risk Category II in exposure C area. This letter also certify that the installation of PT wood bucks replacement windows and hurricane shutters of the subjected residence are completely conform to the requirements of chapter 6, level 1 of the current Florida Building code which specified a 170 MPH ultimate wind velocity for Risk Category II in exposure B area

If you have any questions regarding this matter or if I may be of any further assistance, please do not hesitate to call me

Sincerely;

Mufid Abu-Zahra, P.E. #: 84596

DBA; Florida Professional Engineering Services, Inc.