

# STRUCTURAL SOLUTIONS, P.A.

Structural Engineering ■ Investigations ■ Consulting

## GARAGE DOOR EVALUATION REPORT

|                        |                                                                         |  |                 |                                            |                 |              |                    |  |                 |  |
|------------------------|-------------------------------------------------------------------------|--|-----------------|--------------------------------------------|-----------------|--------------|--------------------|--|-----------------|--|
| Garage Door No.:       | IRC-P509-120-11                                                         |  | Model #         | P500                                       |                 | Report Date: | 6/19/2024          |  |                 |  |
| Design Pressures:      | +22.8 psf, -26.9 psf                                                    |  | Test Pressures: | +34.2 psf, -40.4 psf                       |                 |              | Project No. 16-053 |  |                 |  |
| Test Date:             | 6/23/2016                                                               |  | Test Location:  | Amarr, 165 Carriage Ct., Winston-Salem, NC |                 |              |                    |  |                 |  |
| ASCE 7-22<br>Criteria: | Up to 5 Feet of Door Width in Zone 5; Any Roof Slope; Enclosed Building |  |                 |                                            |                 |              |                    |  |                 |  |
|                        | Exp. B, 30' MRH                                                         |  | Exp. C, 15' MRH |                                            | Exp. C, 25' MRH |              | Exp. D, 15' MRH    |  | Exp. D, 25' MRH |  |
|                        | 155 mph                                                                 |  | 141 mph         |                                            | 134 mph         |              | 128 mph            |  | 122 mph         |  |

### Reference Drawing and Test Report(s):

- Amarr Drawing number IRC-P509-120-11 dated 08/01/2016
- Structural Solutions, P.A. report for IRC-P509-120-11 dated 06/19/2024
  - Static Air Pressure Test witnessed by Thomas L. Shelmerdine, PE

### Description of Test Specimen:

A 9'-0" wide x 7'-0" high x 2" thick sectional garage door, Model # P500. All sections were made of 27 ga exterior / 27 ga interior galvanized steel sheet. The test unit is further described on Drawing IRC-P509-120-11.

### Test Standards and Report Conclusions:

The above referenced Test Report states the following:

- The tests were conducted in accordance with ANSI/DASMA 108-05; ASTM E330-14
- The tests were witnessed and certified by: Thomas L. Shelmerdine, PE
- All tests passed the referenced Test Standards.
- The Amarr test facility is accredited by the American Association for Laboratory Accreditation, Cert. #2595.01.

### Summary:

The 9'-0"x7'-0" Model # P500 door as described on drawing IRC-P509-120-11 meets or exceeds the testing criteria as described above. By comparison to the construction of the 9'-0"x7'-0" Model # P500, the following doors also meet or exceed the above testing criteria, when constructed in accordance with drawing IRC-P509-120-11:

- 9' x 7' Model D500 doors, which have alternate embossment patterns in the skin
- 9' x 7' Amarr Olympus 500 & Amarr Designer's Choice DC500 doors, which are alternate names for Models P500 & D500
- Model P500, D500, Amarr Olympus 500 & Amarr Designer's Choice DC500 doors, with widths up to 9'-0" and heights up to 14'-0"
- Up to 4 short-panel windows (18 1/8" x 10 5/8" x 3/32" SSB) or up to 2 long-panel windows (38 1/8" x 10 5/8" x 3/32" SSB) or up to 2 slimline windows (38" x 4" x 1/8" insulated Annealed glass) may be installed in one section.
- Windows are not required to be installed in any section.

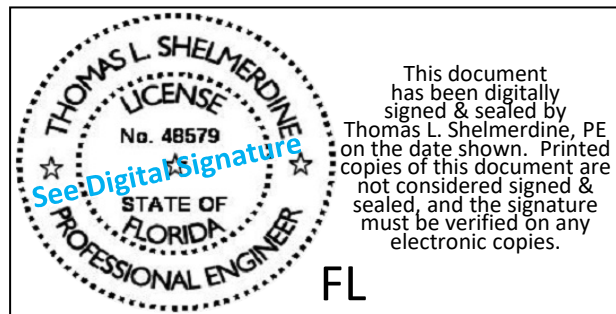
To the best of my knowledge, the above garage door conforms to the requirements of the Florida Building Code 8th Edition (2023).

I certify that I have no financial interest in the testing lab(s) that performed the tests, nor in Amarr Garage Doors.

Submitted By:

Thomas L  
Shelmerdine

Digitally signed by Thomas L  
Shelmerdine  
DN: c=US, o=North Carolina,  
dnQualifier=A01410D000001856487A7B  
100125CE2, cn=Thomas L Shelmerdine  
Date: 2024.06.19 09:08:16 -04'00'



**STRUCTURAL SOLUTIONS, P.A.**

Thomas L. Shelmerdine, PE (Florida PE #0048579) (dba Structural Solutions of North Carolina, Inc., Florida Firm #29412)

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