

# STRUCTURAL SOLUTIONS, P.A.

Structural Engineering ■ Investigations ■ Consulting

## GARAGE DOOR EVALUATION REPORT

|                        |                                                                           |  |                 |      |                                            |              |                 |                    |                 |  |
|------------------------|---------------------------------------------------------------------------|--|-----------------|------|--------------------------------------------|--------------|-----------------|--------------------|-----------------|--|
| Garage Door No.:       | IBC-1016-120-15                                                           |  | Amarr           | 2432 |                                            | Report Date: | 9/27/2023       |                    |                 |  |
| Design Pressures:      | +20 psf, -22.4 psf                                                        |  | Test Pressures: |      | +30 psf, -33.6 psf                         |              |                 | Project No. 18-050 |                 |  |
| Test Date:             | 5/9/2018                                                                  |  | Test Location:  |      | Amarr, 165 Carriage Ct., Winston-Salem, NC |              |                 |                    |                 |  |
| ASCE 7-22<br>Criteria: | Up to 5 Feet of Door Width in Zone 5; Roof Slope ≤ 10°; 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 IBC-1016-120-15 dated 06/14/2018
- Structural Solutions, P.A. report for IBC-1016-120-15 dated 09/27/2023
  - Static Air Pressure Test witnessed by Thomas L. Shelmerdine, PE

### Description of Test Specimen:

A 16'-2" wide x 8'-0" high x 2" thick sectional garage door, Amarr 2432. All sections were made of 24 ga exterior / 27 ga interior galvanized steel sheet. The test unit is further described on Drawing IBC-1016-120-15.

### Test Standards and Report Conclusions:

The above referenced Test Report states the following:

- The tests were conducted in accordance with ANSI/DASMA 108-12; 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 16'-2"x8'-0" Amarr 2432 door as described on drawing IBC-1016-120-15 meets or exceeds the testing criteria as described above. By comparison to the construction of the 16'-2"x8'-0" Amarr 2432, the following doors also meet or exceed the above testing criteria, when constructed in accordance with drawing IBC-1016-120-15:

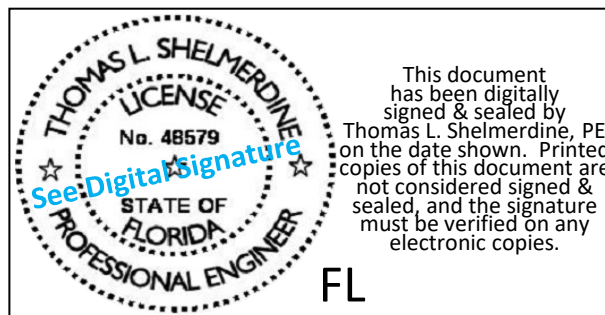
- Amarr 2432 doors with widths up to 16'-2" and heights up to 24'-0"
- Up to 4 windows may be installed in one section (21-3/8" x 3-1/4" x 0.080" plexiglass, or 21-5/8" x 9-5/8" x 1/8" DSB glass)
- Windows are not required to be installed in any section.

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=A01410D000001856487A7B1  
00125CE2, cn=Thomas L Shelmerdine  
Date: 2023.09.27 16:39:19 -04'00'



**STRUCTURAL SOLUTIONS, P.A.**

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

5921-G West Friendly Avenue ■ Greensboro, North Carolina 27410 ■ (336) 856-2686 ■ www.sspa.biz ■ NC Firm #C-1096