



ENGINEERING EXPRESS® PRODUCT EVALUATION REPORT

August 13, 2020

Application Number: FL# 15273.1-R4
EX Project Number: 20-29758

Product Manufacturer: Crawford Tracey Corporation
Manufacturer Address: 3301 SW 13th Drive
Deerfield Beach, FL 33442

Product Name & Description: Pro-Tech 4SG Structurally Glazed System
Non-Impact

Scope of Evaluation:

This Product Evaluation Report is being issued in accordance with the requirements of the Florida Department of Business and Professional Regulation (Florida Building Commission) Rule Chapter 61G20-3.005, F.A.C., for statewide acceptance per Method 1 (d). The product noted above has been tested and/or evaluated as summarized herein to show compliance with the Florida Building Code Seventh Edition (2020) and is, for the purpose intended, at least equivalent to that required by the Code. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or revisions.

Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**

Drawing #20-29758 titled "Pro-Tech 4SG Structural Glazed System", sheets 1-15, prepared by Engineering Express, signed & sealed by Frank Bennardo, P.E. is an integral part of this Evaluation Report.

- **TEST REPORTS**

Uniform static structural performance has been tested in accordance with the ASTM E330-02 test standard per test report(s) #ATLSF 0819.01-11 by American Test Lab of South Florida.

Water infiltration performance has been tested in accordance with the ASTM E331-00 test standard per test report(s) #ATLSF 0819.01-11 by American Test Lab of South Florida.

The samples tested per the above test reports had an overall size of 181-1/8" wide x 120" high, and were assembled (3) bays wide with the left and center bays having (1) fixed lite each, and the right bay with (1) top fixed lite and (1) bottom fixed spandrel glass lite. The left lite had glass dimensions of 60-3/4" x 119-3/4" with a daylight opening 57.750" x 116.620", and the center lite had glass dimensions of 59-3/4" x 119-3/4" with a daylight opening of 57.750" x 116.620". The bottom right fixed lite had glass dimensions of 59-5/8" x 53-1/2" with a daylight opening of 57.750" x 50.125" and the top right fixed lite had glass dimensions of 59-5/8" x 66-1/4" with a daylight opening of 57.750" x 64.250". All samples had a 1.00" glass bite and all samples were tested to +60.0psf and -57.0psf design pressure.

- **STRUCTURAL ENGINEERING CALCULATIONS**

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

1. Anchor Spacing

Crawford Tracey – Pro-Tech 4SG Structurally Glazed System - Non-Impact

2. Maximum Allowable Size/Pressure Combinations
3. Glass Capacity using ASTM E-1300-04
4. Anchor Capacity

No 33% increase in allowable stress has been used in the design of this product.

Impact Resistance:

Missile impact resistance has NOT been demonstrated as evidenced in previously listed test reports, and is accounted for in the engineering design of this product.

Wind Load Resistance

This product has been designed to resist wind loads as indicated on its respective Product Evaluation Document (i.e. engineering document).

Installation

The product listed above shall be installed in strict compliance with the Product Evaluation Document (i.e. engineering document), along with all components noted therein.

The product components shall be of the material specified in the Product Evaluation Document (i.e. engineering document).

Limitations & Conditions of Use:

Use of each product shall be in strict accordance with its respective Product Evaluation Document (i.e. engineering document) as noted herein.

All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in each product's respective anchor schedule. Host structure conditions which are not accounted for in each product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer.

All components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times. Any alteration to the respective Product Evaluation Document will invalidate it. This product has NOT been designed for use inside the High Velocity Hurricane Zone (HVHZ).

Respectfully,



Frank Bennardo, PE
ENGINEERING EXPRESS®
#PE0046549 | Cert. Auth. 9885