Engineering Express® (EX)
Product Evaluation Report

December 21, 2023

Application Number:	FL 42079.1
EX Project Number:	23-58183
Product Manufacturer:	FBR Limited
Manufacturer Address:	122 Sultana Road West High Wycombe, WA 6057, Australia
Product Name & Description:	FBR Dry-Stack Concrete Masonry System

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 2 (b). The product noted above has been tested and/or evaluated as summarized herein to show compliance with standard ASCE 7-22 (ASD) and the Florida Building Code Eighth Edition (2023) and is, for the purpose intended, at least equivalent to that required by the Standard and Code. Re-evaluation of this product shall be required following pertinent Florida Building Code or ASCE Standard modifications or revisions.

Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**

EX Performance Evaluation document # 23-58183 titled “FBR DRY-STACK CONCRETE MASONRY SYSTEM”, prepared by Engineering Express, Inc., signed & sealed by Frank Bennardo, P.E. is an integral part of this Evaluation Report, pages 1 through 4.

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- **TEST REPORTS (Continued on Next Page)**

The product has been tested per the following:

Test Lab	Test Report #	Test Standard	Test Description	Signed & Sealed By:
National Concrete Masonry Association (NCMA) Research and Development Laboratory (R&D Lab)	Appendix A of NCMA Assessment # 20-456	ASTM C90-14	Standard Specification for Loadbearing Concrete Masonry Units	Donald A. Beers, P.E. FL PE # 32530
NCMA R&D Lab	Appendix A & C of NCMA Assessment # 20-456	ASTM C140/1C140M-17b	Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units	Donald A. Beers, P.E. FL PE # 32530
NCMA R&D Lab	Appendix B & D of NCMA Assessment # 20-456	ASTM C426-16	Standard Test Method for Linear Drying Shrinkage of Concrete Masonry Units	Donald A. Beers, P.E. FL PE # 32530
NCMA R&D Lab	Appendix E of NCMA Assessment # 20-456	ASTM C1314-07a	Assembly Compressive Strength	Donald A. Beers, P.E. FL PE # 32530
NCMA R&D Lab	Appendix F & G of NCMA Assessment # 20-456	ASTM C1072-00a	Flexural Strength – Minimum & Maximum Joint Thickness	Donald A. Beers, P.E. FL PE # 32530
NCMA R&D Lab	Appendix H & I of NCMA Assessment # 20-456	ASTM C1072-00a	Flexural Strength – Freeze/Thaw Assessment	Donald A. Beers, P.E. FL PE # 32530
NCMA R&D Lab	Appendix J & K of NCMA Assessment # 20-456	ASTM C1072-00a:	Flexural Strength – High-Temperature Cycling	Donald A. Beers, P.E. FL PE # 32530
NCMA R&D Lab	Appendix L & M of NCMA Assessment # 20-456	ASTM C1072-00a	Flexural Strength – Wet/Dry Cycling	Donald A. Beers, P.E. FL PE # 32530
NCMA R&D Lab	Appendix N & O of NCMA Assessment # 20-456	ASTM C1072-00a	Flexural Strength – Minimum & Maximum Service Temperatures	Donald A. Beers, P.E. FL PE # 32530

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FBR Limited: FBR Dry-Stack Concrete Masonry System

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Test Lab	Test Report #	Test Standard	Test Description	Signed & Sealed By:
NCMA R&D Lab	NCMA Assessment 20-456, Report Section 4.7	ASTM E72-02	Out-of-Plane Transverse Loading	Donald A. Beers, P.E. FL PE # 32530
NCMA R&D Lab	NCMA Assessment 20-456, Report Section 4.8	ASTM E519/E519M-02	ASTM E519/E519M-02: Shear Stress, Modulus of Rigidity	Donald A. Beers, P.E. FL PE # 32530
Q-Lab Florida & NCMA R&D Lab	Appendix P & Q of NCMA Assessment # 20-456	ASTM G151-00	UV Exposure Testing	Donald A. Beers, P.E. FL PE # 32530

Impact Resistance:

Impact Resistance has not been demonstrated.

Installation:

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

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

Limitations & Conditions of Use:

Use of each product shall be in strict accordance with its respective Performance 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 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 Performance Evaluation document will invalidate it. This product has been designed for use inside and outside of the High-Velocity Hurricane Zone (HVHZ & NON-HVHZ).

Respectfully,

FRANK L. BENNARDO LICENSE No 0046549 STATE OF FLORIDA PROFESSIONAL ENGINEER SIGNED: &[Date]

Digitally signed by Frank Bennardo
Date: 2023.12.22 15:21:06 -05'00'

Frank Bennardo, P.E.
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