



**MIAMI-DADE COUNTY**  
**BUILDING CODE COMPLIANCE OFFICE (BCCO)**  
**PRODUCT CONTROL DIVISION**

**MIAMI-DADE COUNTY, FLORIDA**  
**METRO-DADE FLAGLER BUILDING**

**140 WEST FLAGLER STREET, SUITE 1603**  
**MIAMI, FLORIDA 33130-1563**  
**(305) 375-2901 FAX (305) 375-2908**

[www.miamidade.gov](http://www.miamidade.gov)

**NOTICE OF ACCEPTANCE (NOA)**

**GFRC Cladding Systems, Inc.**  
**118 North Shiloh Road**  
**Garland, Texas 75042**

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: "Class 2" Glass Fiber Reinforced Concrete Wall Panels**

**APPROVAL DOCUMENT:** Drawing No. 1037, titled "Class 2 Glass Fiber Reinforced Concrete Wall Panels", sheets 1 through 4 of 4, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated 01/29/2001, signed and sealed by Warren W. Schaefer, P.E. on 08/17/2005, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by Miami-Dade County Product Control Division.

**MISSILE IMPACT RATING: Large and Small Missile Impact**

**LABELING:** Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises & renews** NOA #01-0216.05 and consists of this page 1, evidence submitted page E-1 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E.**

*Helmy A. Makar*  
 07/13/2006



**NOA No 05-0901.03**  
**Expiration Date: 05/31/2011**  
**Approval Date: 07/13/2006**  
**Page 1**

**GFRC Cladding Systems, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #01-0216.05**

**A. DRAWINGS**

1. *Drawing No. 1037, sheets 1 through 4 of 4, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated January 29, 2001, signed and sealed by Warren W. Schaefer, P.E. on May 1, 2001.*

**B. TESTS**

1. *Test report on Large Missile Impact Test, Cyclic Wind Pressure Test and Uniform Static Air Pressure Test on GFRC Glass Fiber Reinforced Concrete Wall Panel, prepared by Hurricane Test Laboratory, Inc., Report No. 0250-1203-00, dated February 14, 2001, signed and sealed by Vinu J. Abraham, P.E.*

**C. CALCULATIONS**

1. *Calculations, dated February 2, 2001, 3 pages, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E. on February 5, 2001.*

**D. MATERIAL CERTIFICATIONS**

1. *Daracem ML 500 Superplasticizer ASTM Type A and Type F by Grace Construction Products.*
2. *Technical data and specifications.*

**2. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. *Drawing No. 1037, titled "Class 2 Glass Fiber Reinforced Concrete Wall Panels", sheets 1 through 4 of 4, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated 01/29/2001, signed and sealed by Warren W. Schaefer, P.E. on 08/17/2005.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**


1. *By Miami-Dade County Building Code Compliance Office.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**F. STATEMENTS**

1. *Letter from W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E., stating that he is still in the engineering business, dated January 13, 2006.*



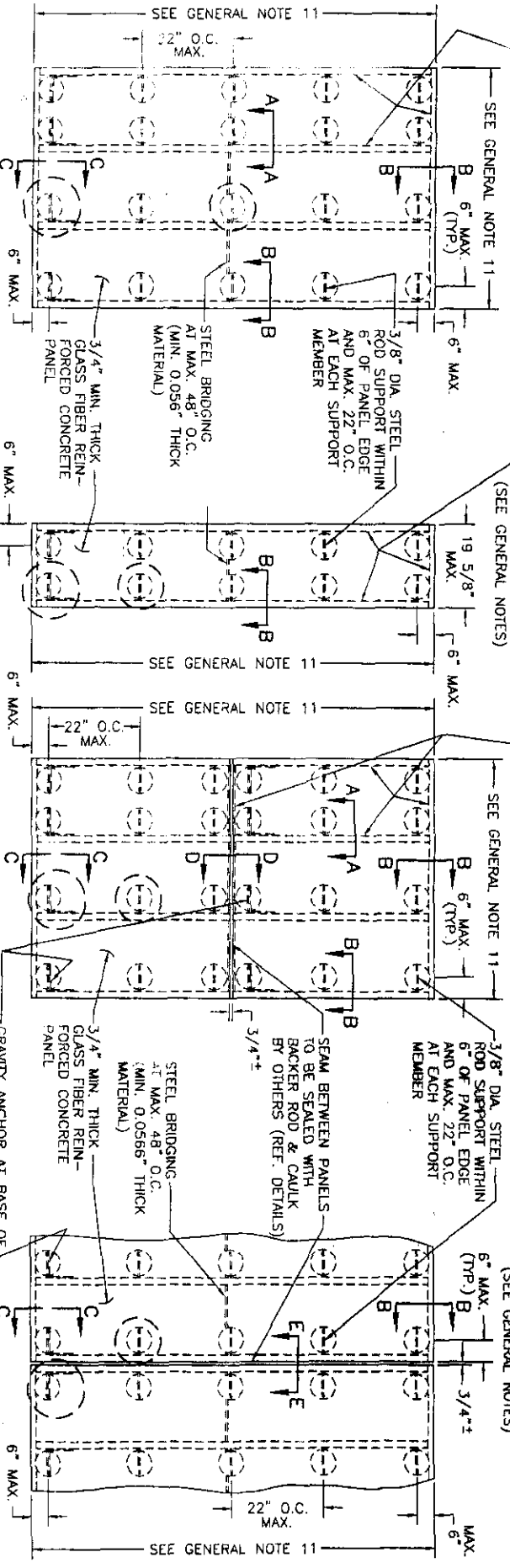
**Helmy A. Makar, P. E.**  
**Product Control Examiner**  
**NOA No 05-0901.03**  
**Expiration Date: 05/31/2011**  
**Approval Date: 07/13/2006**

SUPPORT FRAMING @ MAX. 18" O.C. (SEE GENERAL NOTES)

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**GENERAL NOTES:**

- IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS SUPERIMPOSED BY THE PANELS.
- THIS PANEL SYSTEM HAS BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE PROTOCOLS TABS-201, 202 & 203 INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
- THE PANELS AND THEIR 3/8" STEEL ROD ATTACHMENT TO THE FRAMING/STRUCTURE ARE PART OF THIS NOTICE OF APPROVAL & THEY SHALL BE REVIEWED BY THE CORRESPONDING BUILDING DEPARTMENT FOR EACH JOB.
- ALL SUPPORT FRAMING SHALL BE MIN. 4" X 0.056" THK. ( $F_y = 50$  ksi.) STUDS WITH 1 5/8" FLANGES & 1/2" REBURNS AND MIN. 4" X 0.056" THK. TRACK WITH 1 1/4" FLANGES.
- MAXIMUM ALLOWABLE DEFLECTION FOR THIS ASSEMBLY SHALL BE L/360.
- DETAILS ON SHEETS 2 THROUGH 4 ARE TYPICAL AND SHOW INTENT TO PREVENT WATER INFILTRATION INTO AND BEHIND THE SYSTEM.
- THIS SYSTEM IS A LARGE MISSILE IMPACT APPROVED SYSTEM.
- THIS WALL PANEL SYSTEM SHALL NOT BE CONSIDERED TO OR BE USED FOR TRANSFER OF DIAPHRAGM ACTION OF WALL TO STRUCTURE.
- PANEL SIZES ARE LIMITED BY SHIPPING & HANDLING REQUIREMENTS (TYPICALLY LIMITED TO 12 FT. IN ONE DIRECTION) AND/OR JOB REQUIREMENTS ONLY AND ARE NOT LIMITED TO THE 55 5/8" X 96" SIZES TESTED.

**PANEL SPECIFICATIONS**

**BRIEF DESCRIPTION:**  
GLASS FIBER REINFORCED CONCRETE (GFRG) PANEL WITH MIN. THICKNESS = 3/4" MANUFACTURED BY THE SPRAY-UP PROCESS USING SPECIAL ALKALI RESISTANT GLASS FIBERS THAT ARE CHOPPED AND SPRAYED ONTO A MOLD WITH AN APPROPRIATE CEMENT/AGGREGATE SLURRY. A 20 OZ. HEAVY WEIGHT GLASS FIBER ALKALI RESISTANT MESH BY BAY MILLS IS EMBEDDED INTO PANEL 1/4" OFF THE OUTER PANEL FACE.

MATERIAL	AMOUNT	MIX DESIGN
TYPE 1 PORTLAND CEMENT	94 LBS	
SAND (1:1 RATIO TO CEMENT)	94 LBS	
WATER	26 LBS	
COPOLYMER DISPERSION COMPOUND BY BALL CONSULTING, LTD.	11 LBS	
ALKALI RESISTANT GLASS FIBER BY NIPPON ELECTRIC GLASS AMERICA, INC.	4.5% BY WEIGHT MIN. OF TOTAL MIX	
WR GRACE DUFACEM MLS00 PLASTICIZER	D-9 OZ. AS REQ'D. TO OBTAIN CORRECT SLUMP	

**THE GEMENT AND THE SAND MATERIALS ARE COMBINED WITH WATER AND THE THERMOPLASTIC COPOLYMER DISPERSION AGENT IN A HIGH SHEAR MIXER AFTER WAXING. SLURRY IS PUMPED THROUGH A HOSE TO A CONCENTRIC SPRAY GUN, WHERE THE CHOPPED GLASS FIBER IS ADDED & SPRAYED ONTO THE MOLD.**

**ALLOWABLE DESIGN PRESSURE**

POSITIVE	NEGATIVE
105 PSF	150 PSF
LARGE MISSILE IMPACT APPROVED	

**EXTERIOR ELEVATIONS**

RECEIVED  
AUG 29 2005

PROJECT CONTACT:  
Assembling Code  
Approval No. 05-99.01.03  
Approval Date: 05-31-2001  
Equipment Date: 05-31-2001  
W. W. Schaefer Engineering & Consulting, P.A.  
Product Control

**CERTIFICATION**  
AUG 17 2005

**DRAWING TITLE**  
CLASS 2 GLASS FIBER REINFORCED CONCRETE WALL PANELS

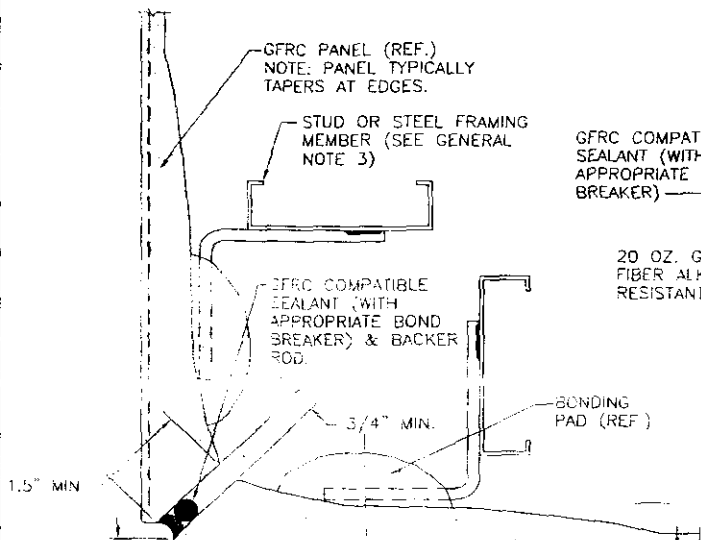
**CONSULTANTS**  
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.  
8895 N. MILITARY TRAIL, SUITE C-204  
PALM BEACH GARDENS, FL 33410  
PHONE: 561-776-4902 FAX: 561-775-4903

**MANUFACTURER**  
GFRG CLADDING SYSTEMS, INC.  
118 NORTH SHILOH ROAD  
GARLAND, TEXAS 75042  
972-494-9000

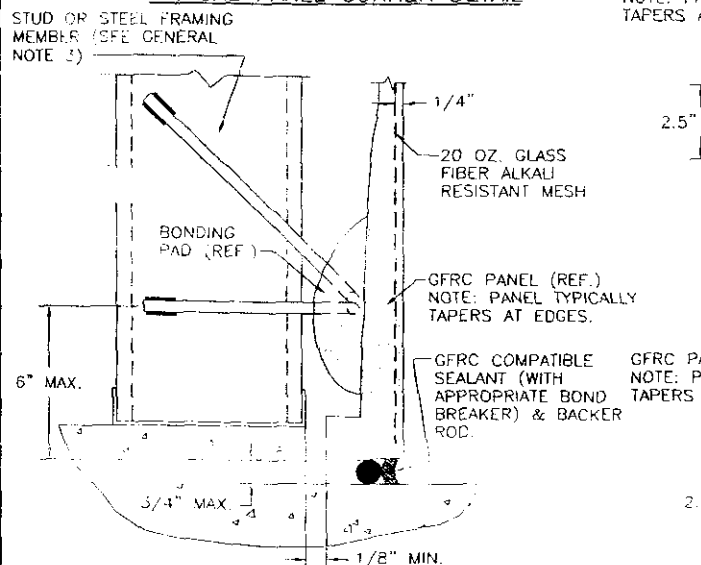
NO.	REVISION DESCRIPTION	BY	DATE
A1	UPDATE GENERAL NOTES TO 2004 CODE COMPLIANT	TAL	08/18/05

PROJECT NO. 05-99.01.03  
SHEET NO. 1037  
OF 4

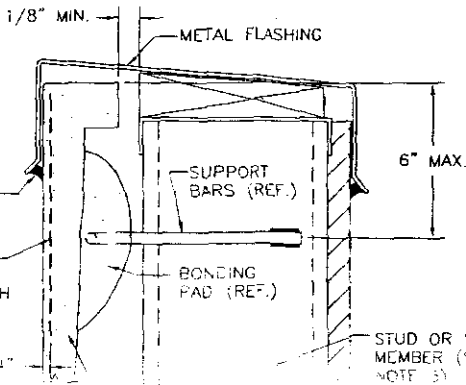




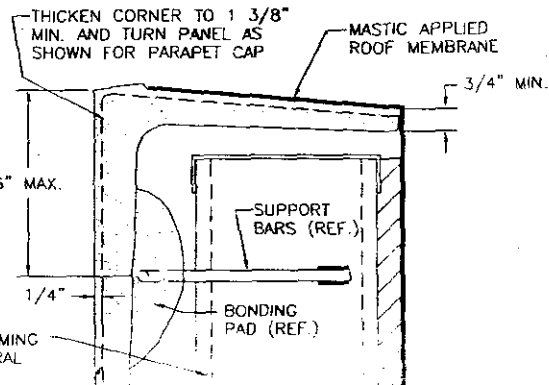
TYPICAL PANEL CORNER DETAIL



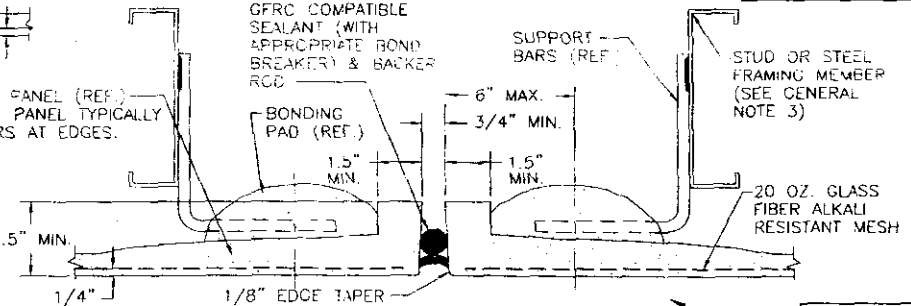
WALL BASE DETAIL



PARAPET DETAIL WITH FLASHING

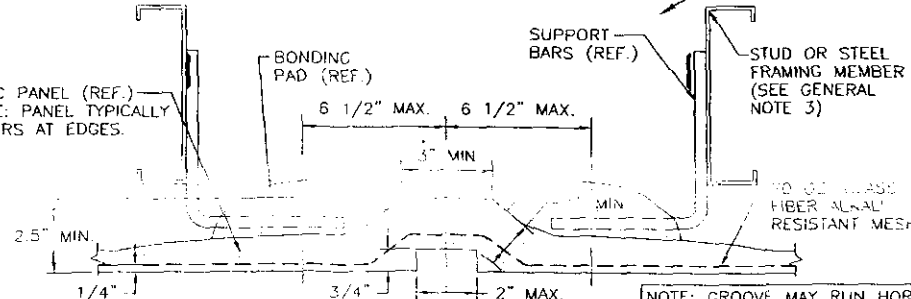


PARAPET DETAIL WITH FLASHING



OPTION CONTROL/EXPANSION JOINT

THESE DETAILS SHOWS A VERTICAL JOINT. HORIZONTAL JOINT SIMILAR EXCEPT JOINT RUNS PERPENDICULAR TO STUDS.



TYP. PANEL GROOVE DETAIL

NOTE: GROOVE MAY RUN HORIZONTAL OR VERTICAL AND MAY BE OF ANY SHAPE WITHIN DIMENSION PERIMETERS.

DRAWING TITLE		CLASS 2 GLASS FIBER REINFORCED CONCRETE WALL PANEL	
CONSULTANTS		W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. VALUARY HALL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4892 FAX: 561-775-1903	
MANUFACTURER		GFRF CLADDING SYSTEMS, INC. 118 NORTH SHILOH ROAD GARLAND, TEXAS 75042 1/2 - 494-9000	
DESIGNED BY	W.W.S.	CHECKED BY	W.W.S.
DRAWN BY	W.W.S.	DATE	01/29/01
NO.	REVISION	DESCRIPTION	BY
1			
2			
3			
CERTIFICATION		REV	A
DRAWING NO		1037	
SHEET NO.		4	

