MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Building Blocks GFRC
1150 Joelson Road
Kissimmee, FL 34744

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER- Product Control Section 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 Section (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. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section 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: Glass Fiber Reinforced Concrete (GFRC) Wall System

APPROVAL DOCUMENT: Drawing No. **1940**, titled "Glass Fiber Reinforced Concrete (GFRC) Wall System" sheets 1 through 5 of 5, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated JAN 18, 2024, signed and sealed by Warren W. Schaefer, P.E., bearing Miami-Dade County Product Control renewal stamp with the Notice of Acceptance number and the expiration date by Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

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 #20-0622.08** and consists of this page 1, evidence submitted pages E-1 and E-2, as well as approval document mentioned above.
The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.**

Ishaq I. Chanda

MIAMI-DADE COUNTY APPROVED

NOA No. 24-0129.03
Expiration Date: March 14, 2029
Approval Date: February 29, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #19-0110.02

A. DRAWINGS

1. Drawing No. 1940, titled "Glass Fiber Reinforced Concrete (GFRC) Wall System" sheets 1 through 5 of 5, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E., on 01/04/2019.

B. TESTS

1. Test report on Large Missile Impact, Cyclic Wind Pressure and Uniform Static Air Pressure Tests on GFRC Glass Fiber Reinforced Concrete Wall System, issued by Intertek, Report #17800.01-450-18 R0, dated 12/11/18, signed and sealed by Vinu J. Abraham, P.E.

C. *CALCULATIONS*

1. Calculation, dated Jan. 04, 2019, 2 pages, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E. on Jan. 04, 2019.

D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources.

E. MATERIAL CERTIFICATIONS

1. Technical data and specifications.

F. STATEMENTS

1. Compliance Letter with the FBC, 2017 Edition from W. W. Schaefer Engineering & Consulting, P.A., dated 01/04/19, signed & sealed by Warren W. Schaefer, P.E.

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. None.

B. TESTS

1. None.

C. *CALCULATIONS*

1. None.

D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources.

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Compliance Letter with the FBC, 2020 Edition from W. W. Schaefer Engineering & Consulting, P.A., dated 06/03/20, signed & sealed by Warren W. Schaefer, P.E.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 24-0129.03
Expiration Date: March 14, 2029
Approval Date: February 29, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. NEW **EVIDENCE SUBMITTED**

A. DRAWINGS

1. Drawing No. **1940**, titled "Glass Fiber Reinforced Concrete (GFRC) Wall System" 1 through 5 of 5, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated JAN 18, 2024, signed and sealed by Warren W. Schaefer, P.E.

B. TEST REPORTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letters of code conformance to the 8th Edition (2023) of the FBC, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated JAN 18, 2024, signed and sealed by Warren W. Schaefer, P.E.

2. Statement letter of no financial interest and renewal with No change, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated JAN 18, 2024, signed and sealed by Warren W. Schaefer, P.E.

3. Statement for renewal with no change, issued by Building Blocks, dated Dec01, 2023, signed by Kevin Miske, Chief Executive Officer.

G. OTHER

1. This NOA **revises & renews NOA No. NOA #20-0622.08,** expiring 03/14/29.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 24-0129.03
Expiration Date: March 14, 2029
Approval Date: February 29, 2024

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. 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.
3. THE PANELS AND THEIR 3/8" STEEL ROD ATTACHMENT TO THE FRAMING/STRUCTURE ARE PART OF THIS APPROVAL. ALL SUPPORTING STUDS AND/OR STEEL FRAMING MEMBERS ARE NOT PART OF THIS APPROVAL AND SHALL BE REVIEWED BY THE CORRESPONDING BUILDING DEPARTMENT FOR EACH JOB.
4. ALL SUPPORT FRAMING SHALL BE MIN. 4" X 0.056" THICK (Fy = 50 KSI) STUDS WITH 1 5/8" FLANGES & 1/2" RETURNS & MIN. 4" X 0.056" THICK TRACK WITH 1 1/4" FLANGES.
5. MAXIMUM ALLOWABLE DEFLECTION FOR THIS ASSEMBLY SHALL BE L/360.
6. DETAILS HERE-IN SHOW INTENT TO PREVENT WATER INFILTRATION INTO & BEHIND THE SYSTEM. IT SHALL BE THE INSTALLERS RESPONSIBILITY TO INSURE THAT THE SYSTEM IS WATER TIGHT.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT PRODUCTS.
5. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
7. THIS WALL PANEL SYSTEM SHALL NOT BE CONSIDERED TO OR BE USED FOR TRANSFER OF DIAPHRAM ACTION OF WALL TO STRUCTURE.
8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF Kd = 0.85 MAY BE APPLIED PER THE ASCE-7 STANDARD.
9. PANEL SIZES ARE LIMITED BY SHIPPING & HANDLING REQUIREMENTS (TYPICALLY LIMITED TO 12 FT. IN ONE DIRECTION) AND/OR JOB REQUIREMENTS ONLY & ARE NOT LIMITED TO THE 55 5/8" X 96" SIZES TESTED.

PANEL SPECIFICATIONS

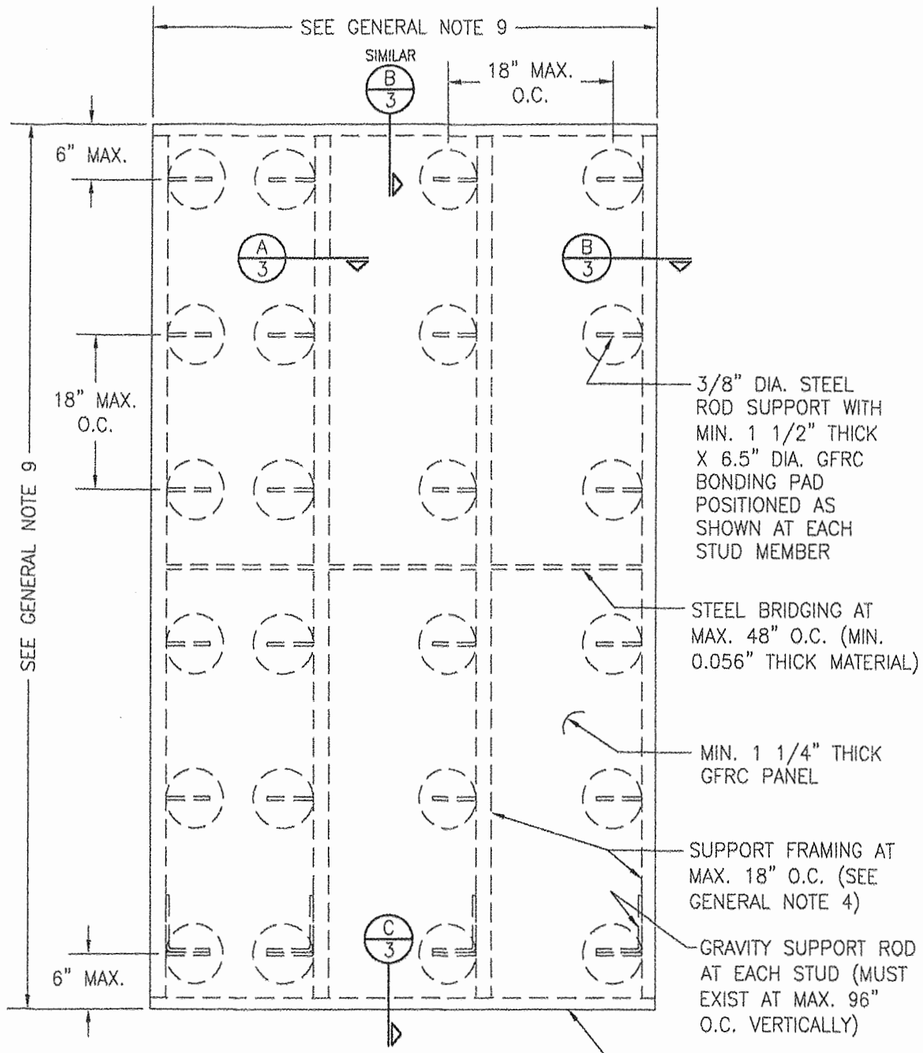
BRIEF DESCRIPTION:

GLASS FIBER REINFORCED CONCRETE (GFRC) PANEL WITH MIN. THICKNESS = 1 1/4" MANUFACTURED BY THE SPRAY-UP PROCESS USING SPECIAL ALKALI RESISTANT GLASS FIBERS THAT ARE HIPPED AND SPRAYED ONTO A MOLD WITH AN APPROPRIATE CEMENT/AGGREGATE SLURRY. TWO(2) 20 OZ HEAVY WEIGHT GLASS FIBER ALKALI RESISTANT MESH LAYERS BY BAY MILLS IS EMBEDDED INTO PANEL APPROXIMATELY 1/4" & 1/2" OFF THE OUTER PANEL FACE.

MIX DESIGN

MATERIAL	AMOUNT
TYPE 1 PORTLAND CEMENT	92.6 LBS
SAND (1:1 RATIO TO CEMENT)	100 LBS
WATER	26 LBS
FORTON COPOLYMER DISPERSION COMPOUND	11 LBS
ALKALI RESISTANT GLASS FIBER BY NIPPON ELECTRIC GLASS AMERICA, INC.	4.5% BY WEIGHT MIN. OF TOTAL MIX.
WR GRACE DURANCE ML500 PLASTICIZER	0-8 OZ. AS REQUIRED TO OBTAIN CORRECT SLUMP TO PUMP

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



EXTERIOR ELEVATION:
SINGLE PANEL SECTION WITH MULTIPLE BAYS
SCALE: 3/4" = 1'-0"

ALLOWABLE DESIGN PRESSURE (ALL CONDITIONS)	
POSITIVE	NEGATIVE
105 PSF	150 PSF
LARGE MISSILE IMPACT APPROVED	

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 24-0129.03
Expiration Date 03/14/2029
By Ishaq I. Chanda
Miami-Dade Product Control

WARREN W. SCHAEFER ★ LICENSE NO. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

JAN 18 2024

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=16	DATE: 01/03/19

NO.	REVISION DESCRIPTION	BY	DATE
A1	UPDATE ENGINEERS ADDRESS	W.W.S.	01/18/24

DRAWING TITLE: GLASS FIBER REINFORCED CONCRETE (GFRC) WALL SYSTEM

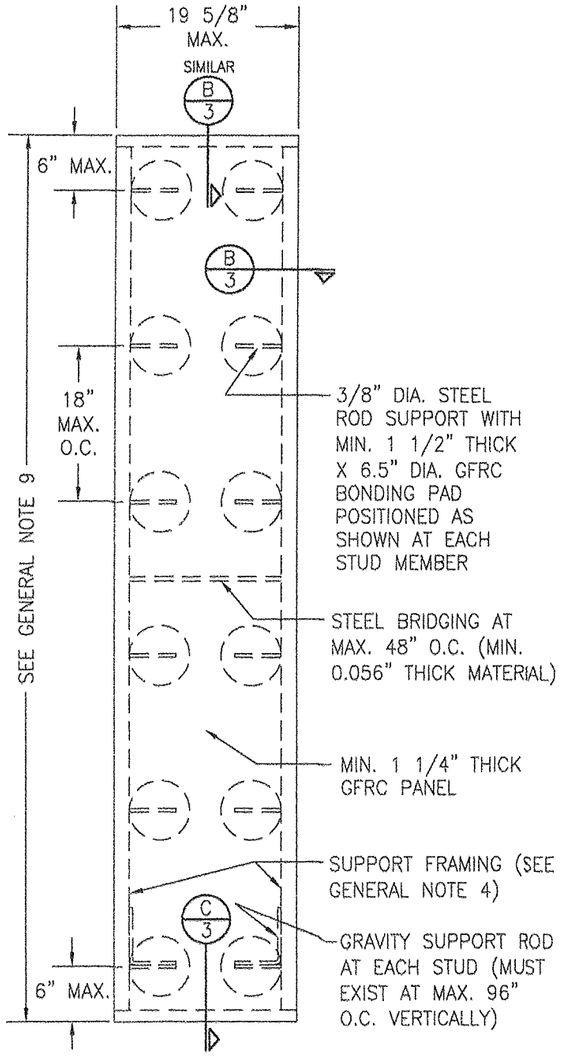
MANUFACTURER: BUILDING BLOCKS, INC.
1150 JOELSON ROAD
KISSIMMEE, FL 34744
214-289-9737

CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
25601 AYSEN DRIVE
PUNTA GORDA, FL 33983
PHONE: 561-744-3424

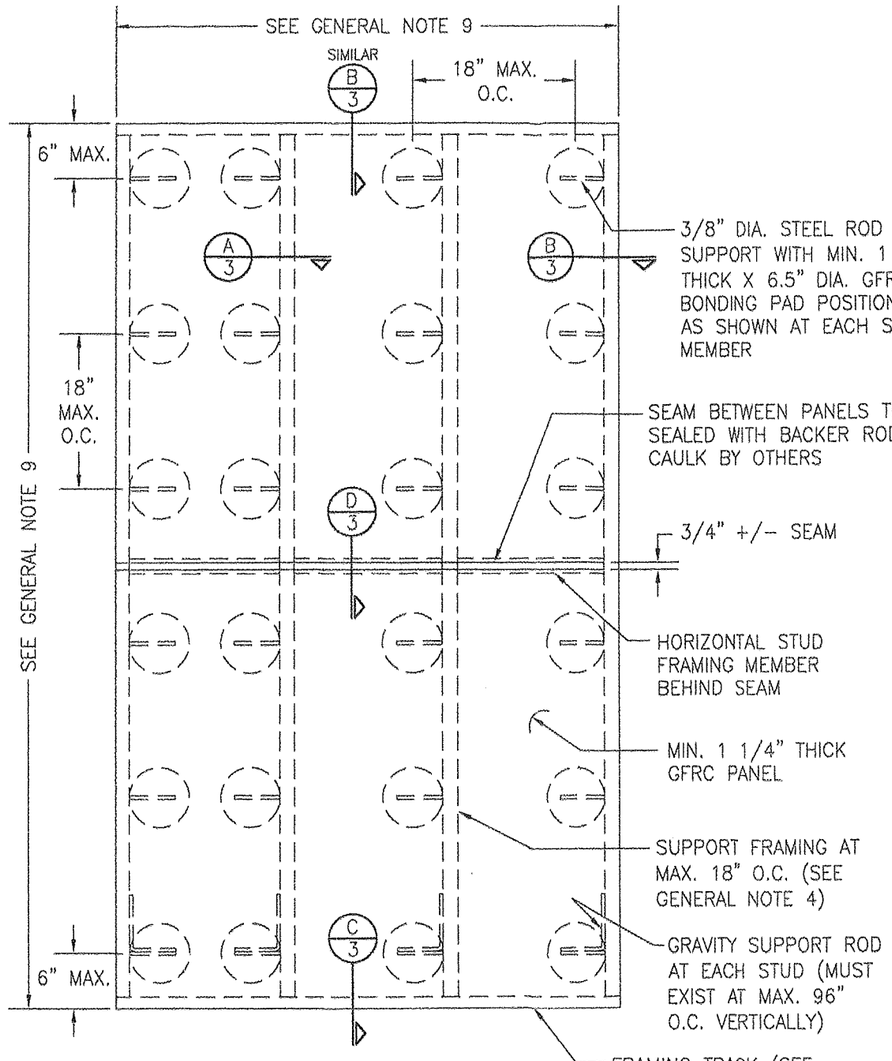
CERTIFICATION: WARREN W. SCHAEFER, P.E. P.E. NO. 44135

DRAWING NO. 1940 | REV. A

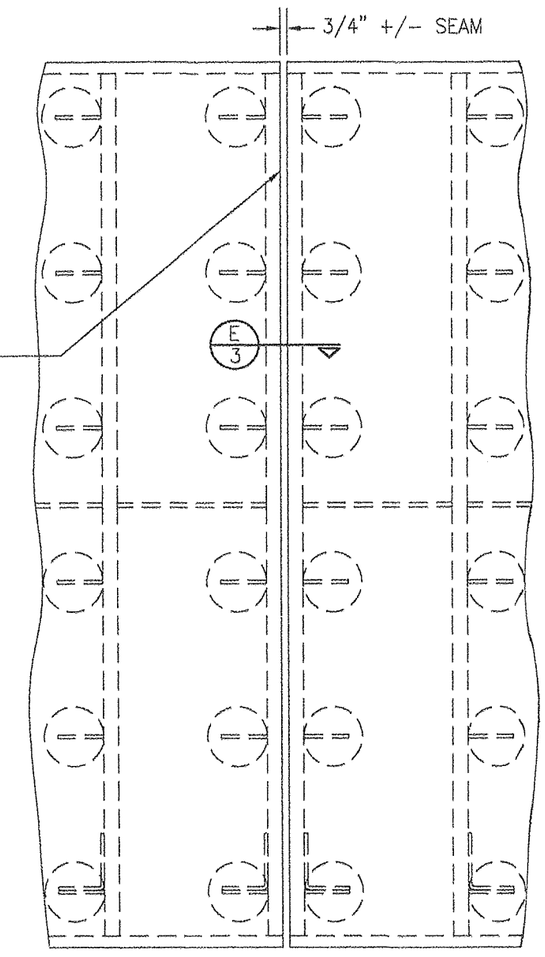
SHEET NO. 1 OF 5



EXTERIOR ELEVATION:
SINGLE PANEL SECTION WITH A SINGLE BAY
SCALE: 3/4" = 1'-0"



EXTERIOR ELEVATION:
MULTIPLE PANEL SECTION WITH A HORIZONTAL SEAM
SCALE: 3/4" = 1'-0"



EXTERIOR ELEVATION:
PANEL SECTIONS SIDE-BY-SIDE WITH VERTICAL SEAM
SCALE: 3/4" = 1'-0"
(SEE OTHER ELEVATIONS FOR ALL DETAIL NOT SHOWN.)

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 24-0129.03
Expiration Date 03/14/2029
By Ishaq I. Chanda
Miami-Dade Product Control

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PLOT: 1=16	DATE: 01/03/19

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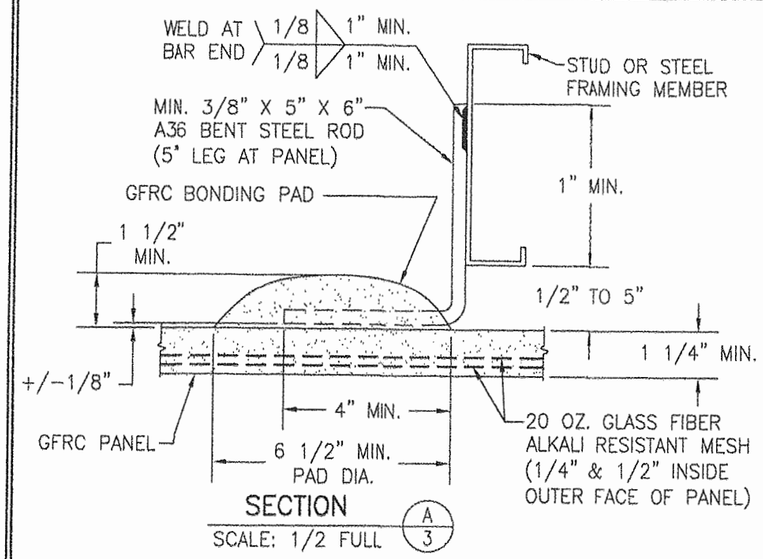
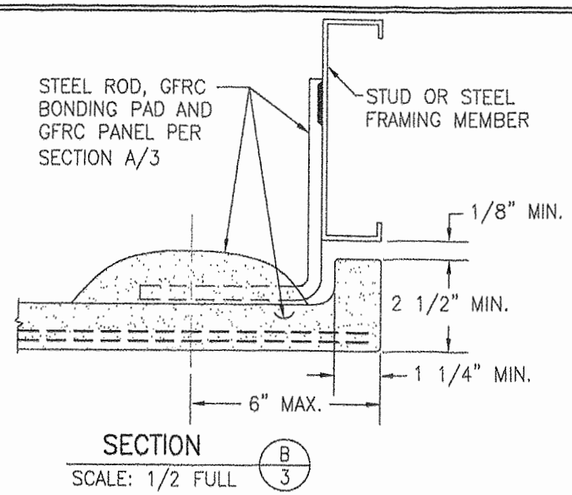
CERTIFICATION
JAN 18 2024
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

WARREN W. SCHAEFER ★ LICENSE NO. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

DRAWING NO. 1940 | REV. A
SHEET NO. 2 OF 5

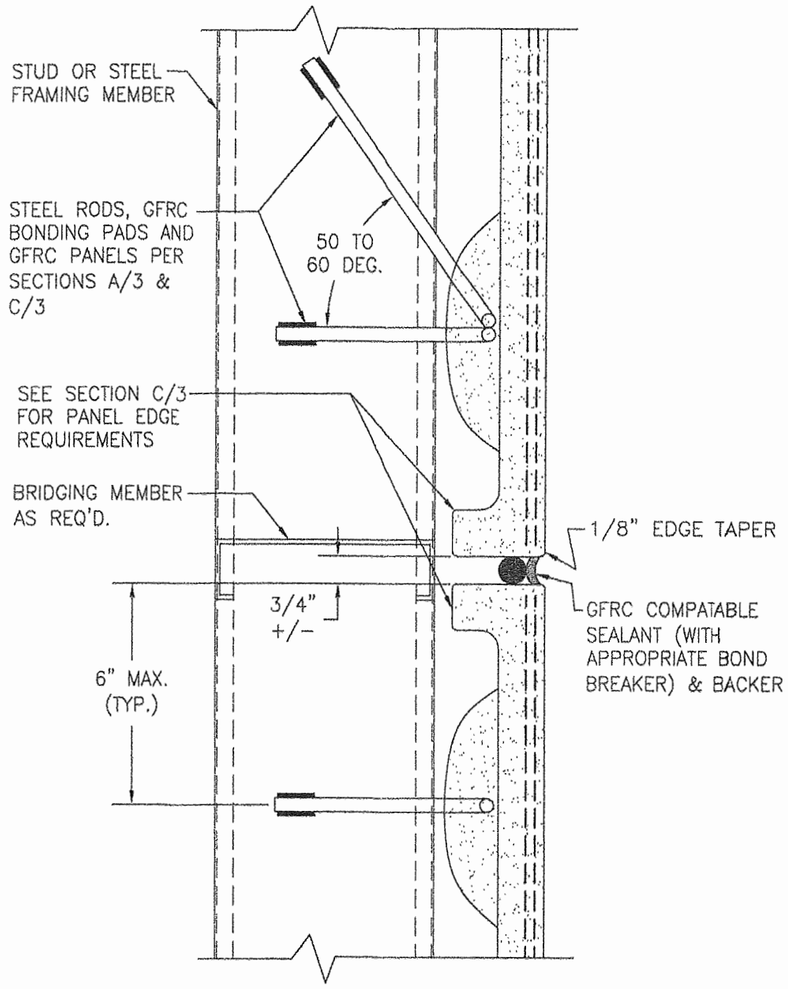


SECTION A/3
SCALE: 1/2 FULL



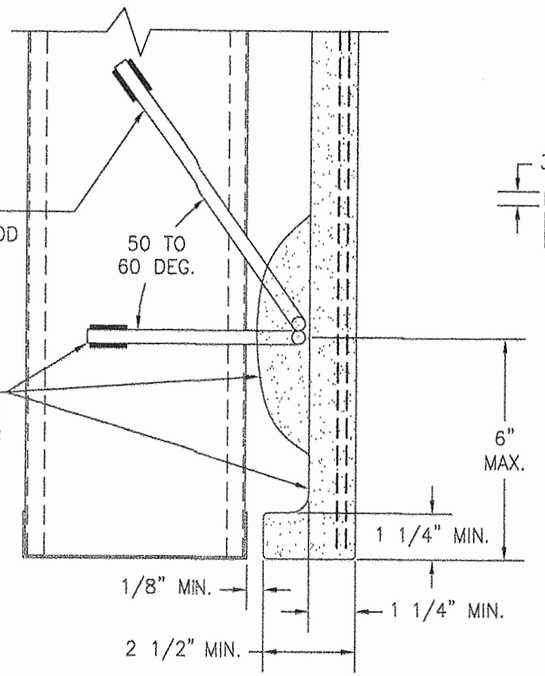
SECTION B/3
SCALE: 1/2 FULL

(FOR ALL DETAIL NOT SHOWN, SEE SECTION A/3)



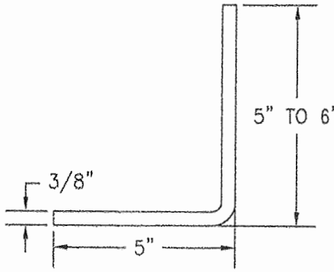
SECTION D/3
SCALE: 1/2 FULL

(FOR ALL DETAIL NOT SHOWN, SEE SECTIONS A/3 & C/3)

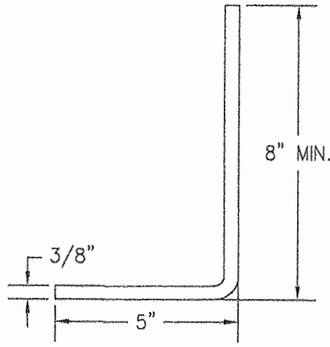


SECTION C/3
SCALE: 1/2 FULL

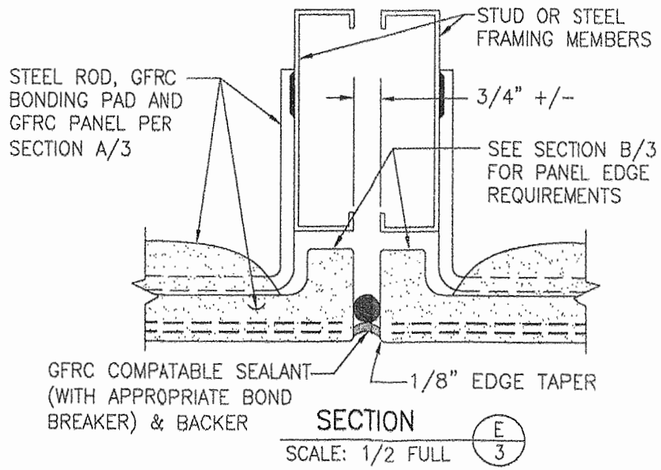
(FOR ALL DETAIL NOT SHOWN, SEE SECTION A/3)



ANCHOR ROD DETAIL (STANDARD ANCHOR)



ANCHOR ROD DETAIL (GRAVITY ANCHOR)



SECTION E/3
SCALE: 1/2 FULL

(FOR ALL DETAIL NOT SHOWN, SEE SECTIONS A/3 & B/3)

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 24-0129.03
Expiration Date 03/14/2029
By Ishaq I. Chanda
Miami-Dade Product Control

NO.	REVISION DESCRIPTION	BY	DATE

DRAWN BY: W.W.S. | CHECKED BY: W.W.S.
PLOT: 1=4 | DATE: 01/03/19

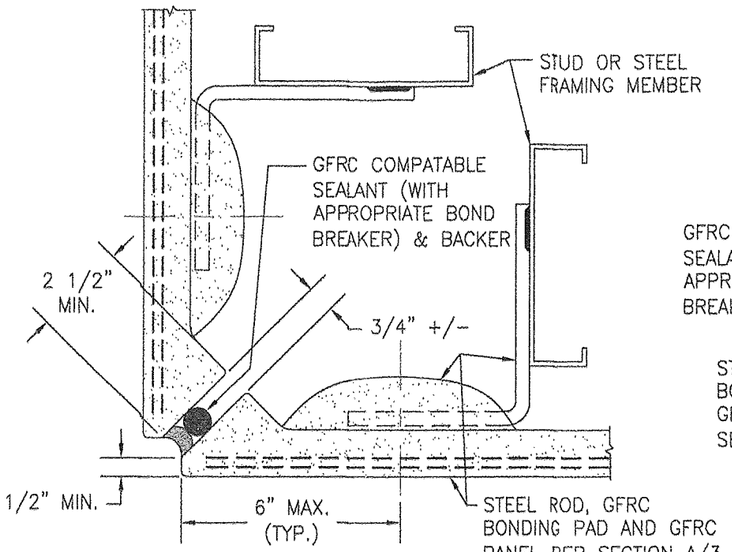
DRAWING TITLE: GLASS FIBER REINFORCED CONCRETE (GFRC) WALL SYSTEM

MANUFACTURER: BUILDING BLOCKS, INC.
1150 JOELSON ROAD
KISSIMMEE, FL 34744
214-289-9737

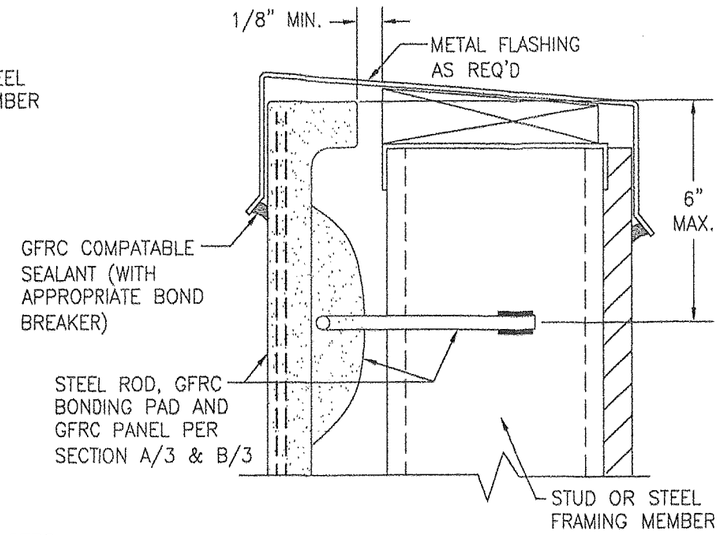
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
25601 AYSEN DRIVE
PUNTA GORDA, FL 33983
PHONE: 561-744-3424

CERTIFICATION
JAN 18 2024
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

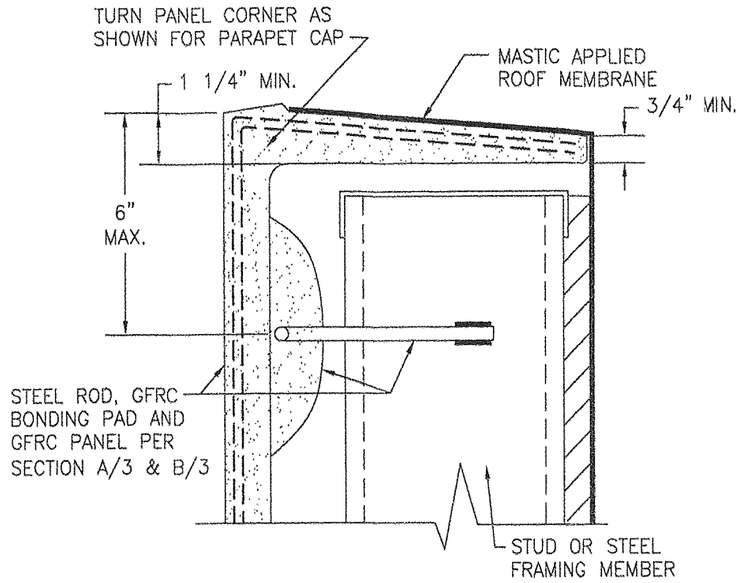
DRAWING NO. 1940 | REV. A
SHEET NO. 3 OF 5



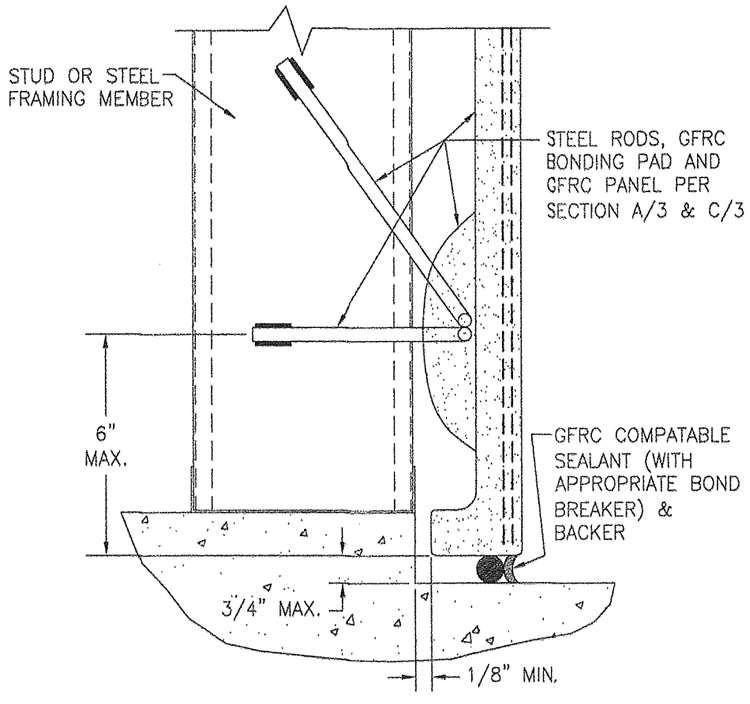
TYP. PANEL CORNER DETAIL



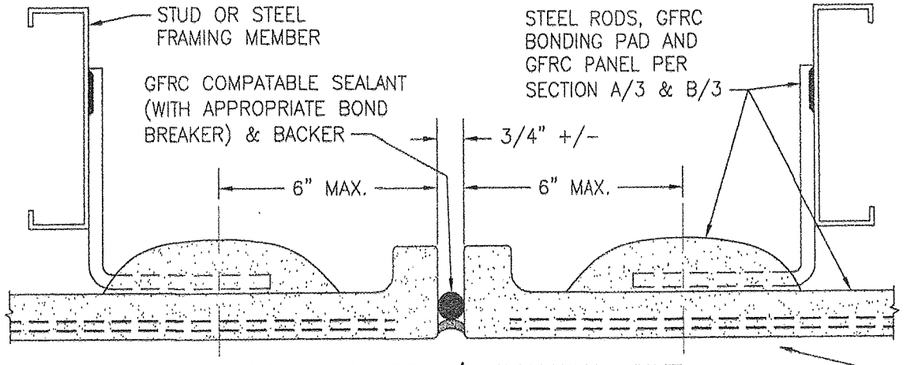
TYP. PARAPET DETAIL OPTION 1 WITH FLASHING



TYP. PARAPET DETAIL OPTION 2 WITHOUT FLASHING

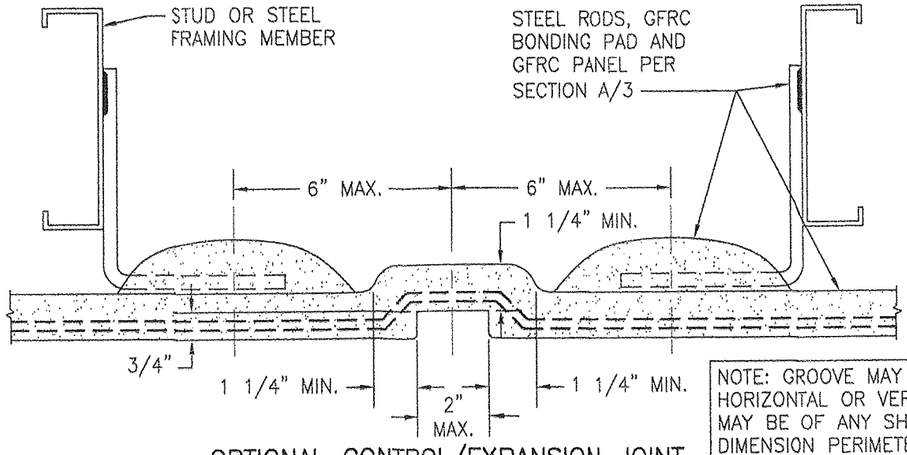


TYP. WALL BASE DETAIL



OPTIONAL CONTROL/EXPANSION JOINT

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



OPTIONAL CONTROL/EXPANSION JOINT

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

PRODUCT RENEWED
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JAN 18 2024
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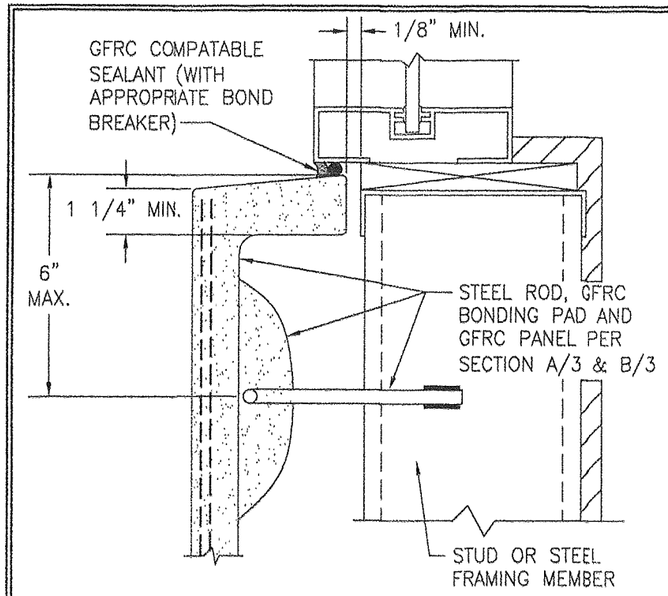
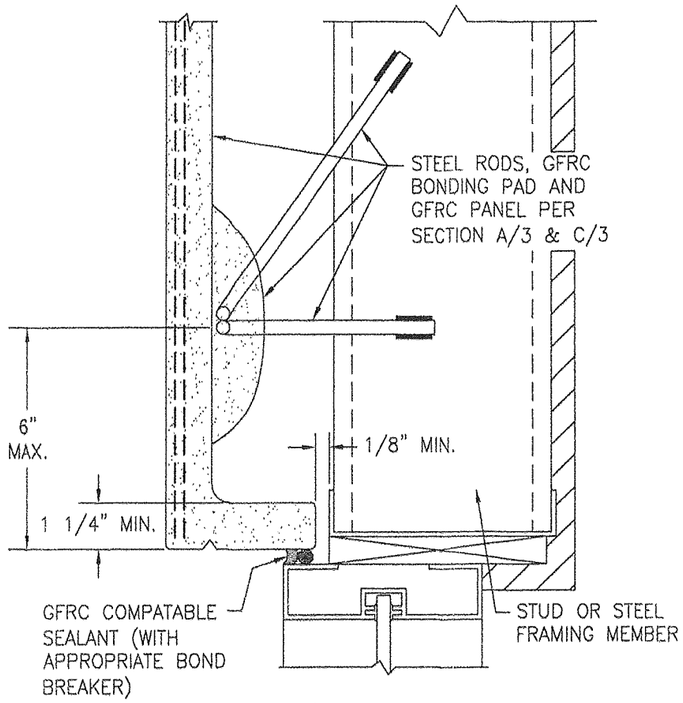
P.E. NO. 44135

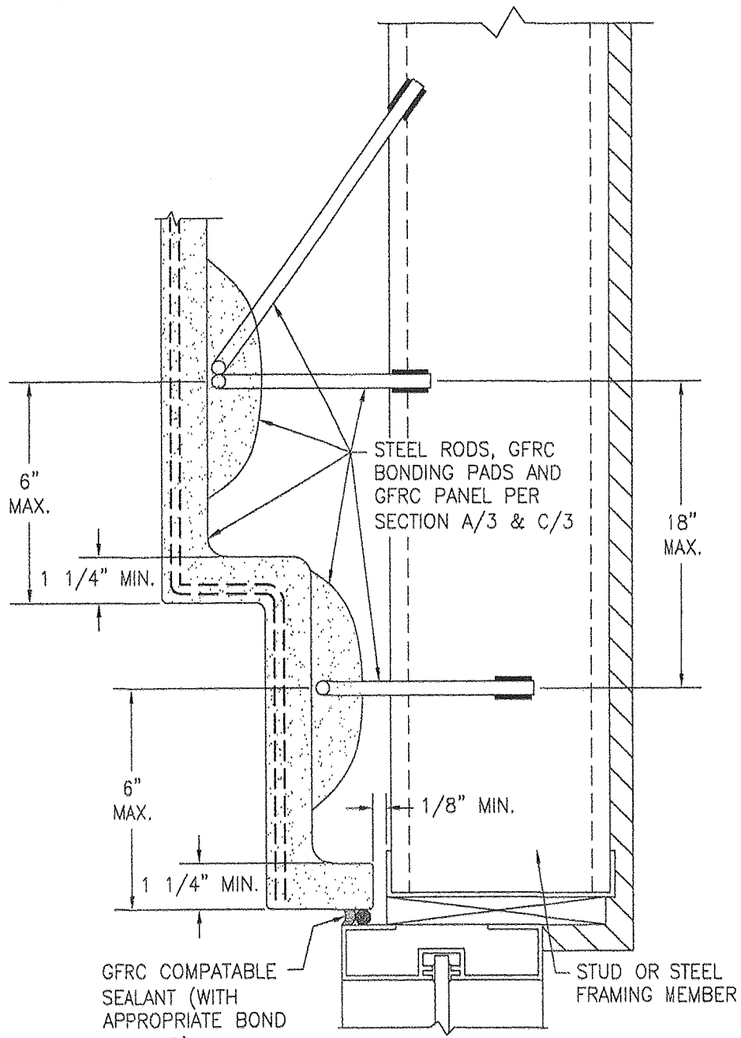
DRAWING NO. 1940 | REV. A
SHEET NO. 4 OF 5



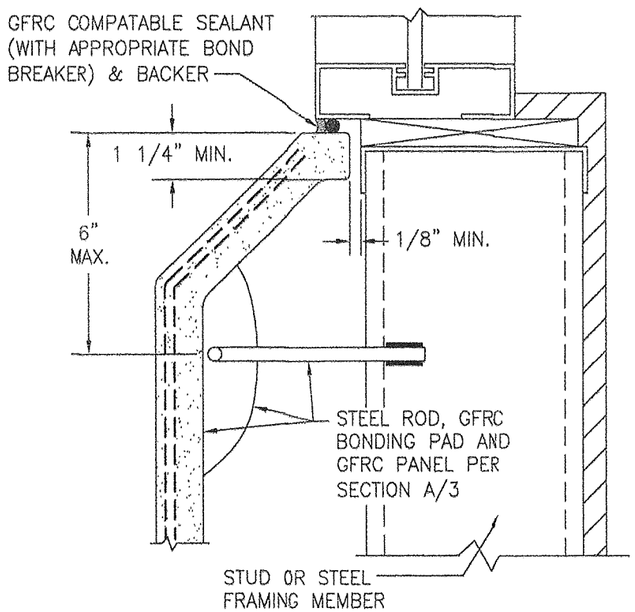
TYP. WINDOW SILL DETAIL
(SIMILAR FOR SIDE JAMBS)



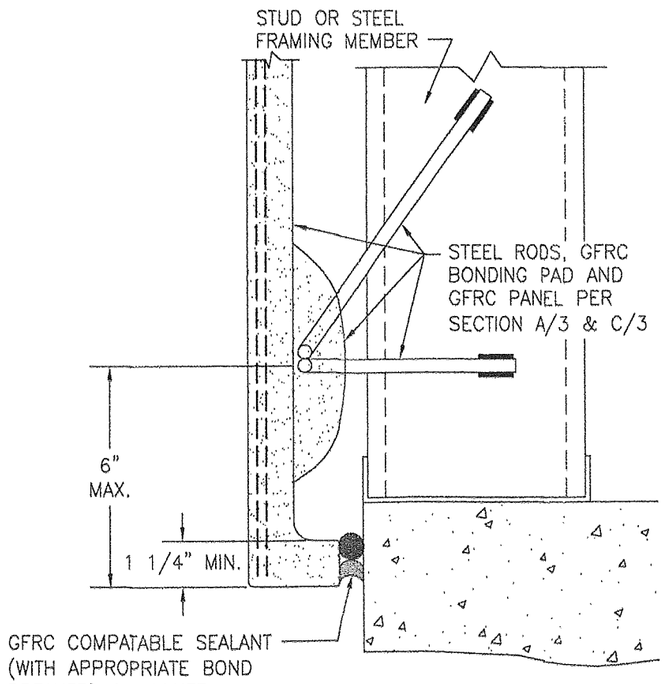
TYP. WINDOW/DOOR HEAD DETAIL



MISCELLANEOUS DETAIL



MISCELLANEOUS DETAIL



TYP. DETAIL AT KNEE WALL

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 24-0129.03
Expiration Date 03/14/2029
By Ishaq I. Chanda
Miami-Dade Product Control

NO.	REVISION DESCRIPTION	BY	DATE

DRAWN BY: W.W.S. | CHECKED BY: W.W.S.
PLOT: 1=4 | DATE: 01/03/19

DRAWING TITLE
GLASS FIBER REINFORCED CONCRETE (GFRC) WALL SYSTEM

MANUFACTURER
BUILDING BLOCKS, INC.
1150 JOELSON ROAD
KISSIMMEE, FL 34744
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