

## *PRODUCT APPROVAL EVALUATION REPORT*

Product Manufacturer : Elicc Americas Corporation  
13475 Danielson St Suite 250  
Poway, California 92064

Product Name/ Model &Description  
Series RL -501 Railing System  
Specimen # 7- Large Missile impact.  
Specimen # 8- Small Missile impact.  
Specimen # 9- Large Missile impact.  
Specimen # 10- Small Missile impact.

**Scope:** This product has been evaluated by the below - signed Florida Professional Engineer for compliance with the code noted herein and is for the purpose intended, at least equivalent to that required by the Code, in accordance with section 553.842 F.S & Chapter 61G20-3.005 F.A.C. Re-evaluation of this product shall be required following applicable code modifications or revisions.

**Code:** 8th Edition Florida Building Code (2023) inclusive of all Supplements effective as of this report date.

**Compliance Method:** 61G20 - 3.005(1)(d) - Evaluation report from a licensed professional Engineer .

**Product Description:** Product Approval Drawing RL 501 SERIES SMALL MISSILE IMPACT RESISTANT(S.M.I) and Large Missile Impact Resistant (LMI- D) prepared by ELICC AMERICAS CORPORATION Signed and Sealed by Pavan Manepalli P.E, is an integral part of this Evaluation Report.

**Limitations and Conditions of use:**

1. This product has been evaluated for use Inside and Outside of the HVHZ ( High - Velocity Hurricane Zone )
2. Impact Resistance : Small Missile Impact (S.M.I) Large Missile Impact - D
3. Refer to Product Approval Drawing noted above for :
  - a. Maximum allowable wind loads at the related maximum allowable size (S)
  - b. Other load limitations applicable to the product, if any
  - c. Overall dimensions and material/grade of main product components, accessories, etc.
  - d. Illustrated diagrams of the attachment of the product to the structure.
  - e. Anchor type(s), size(s), substrate(s), embedment, edge distance and spacing/ locations.

## TEST REPORTS :

Mandatory Tests (Tested in accordance with Florida Building Code Tests Protocols)

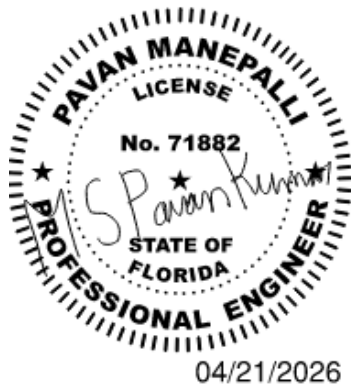
Test Lab : Black water Testing Inc - West Palm Beach , FL

Report Number: BT -ELG- 25- 003C Signed and Sealed by Michael D. Caldwell, PE FL# 49979

Test Report Date: 03/10/2026 TO 04/13/2026

Test Standard and Description: **Distributed loads** : Specimens 7 8 9 10 were subjected to 100 lbf/ft load pre and post impact loading and passed the test criteria.

**Concentrated Load** : Specimens 7 8 9 10 were subjected to 400 lbf load pre and 200 lbf post impact loading and passed the test criteria



TAS 201-94/ASTM E1996-20 - (Mock Up 8 and 10 was subjected to small missile impacts (Level A ) per TAS 201-94 and successfully completed. Mock Up 7 and 11 was subjected to Large missile impacts (Level D ) per TAS 201-94 and successfully completed.

TAS 202-94 - Mock Up 7 8 9 10 were subjected to static wind loads in accordance with TAS 202-94. All specimens completed wind loads to verify a Design Load of +/-100 psf.

## Engineering Analysis :

The following engineering analysis and/or Calculations have been performed

1. No comparative analysis has been performed for conditions other than those tested.
2. No rational analysis has been performed.
3. Anchor calculations are based on manufacturer's published anchor capacity.

**Equivalency Evaluation to AAMA 501** : It has been determined that for the above referenced product with Florida Product Approval # 48184 the testing performed for the TAS 201, TAS 202 meet or exceed the requirement of AAMA 501.



# BLACKWATER TECHNICAL SERVICES INC.

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MIAMI-DADE CERTIFICATION #21-0909.01 ISO/IEC 17025:2017 AT-2584



## Client:

### **ELICC AMERICAS CORPORATION**

13475 DANIELSON ST.

POWAY, CA 92064

TEL:760-233-0066

FAX:760-233-0065

## Product Description:

Railing System – Shore Club

## Test Dates

Start: 3/10/2026

End: 4/13/2026

## Witness to Testing:

Mike Caldwell, P.E. Test Engineer, BT President

Warner Ward, BT Lead Lab Technician

## Testing Summary

**DISTRIBUTED LOADS:** Specimens 7, 8, 9 and 10 were subjected to distributed loads of 100 lb/ft (50 lbs/ft with a 2X safety factor). Specimens 7, 8, 9, and 10 passed the testing criteria.

**CONCENTRATED LOADS:** Specimens 7, 8, 9 and 10 were subjected to concentrated loads of 400 lb (200 lb with a 2X safety factor). Specimens 7, 8, 9 and 10 passed testing criteria.

**WIND LOAD TAS 202-94:** Specimens 7, 8, 9 and 10 were subjected to static wind loads in accordance with **TAS 202-94**. Specimens 7, 8, 9 and 10 passed testing criteria for design pressure of +/-100.00 psf.

**ANSI Z97.1:** Specimens 7, 8, 9 and 10 passed **ANSI Z97.1** impact testing criteria with no failure.

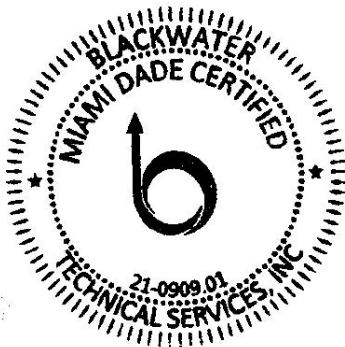
**MISSILE IMPACTS TAS 201-94:** Specimens 8 and 10 were subjected to small missile impacts (Level A). Specimens 8 and 10 passed **TAS 201-94** Small Missile Impact Testing. Specimens 7 and 9 were subjected to large missile impacts (Level D). Specimens 7 and 9 passed **TAS 201-94** Large Missile Impact Testing.

**WIND LOAD TAS 202-94:** Specimens 7, 8, 9 and 10 were subjected to post impact static wind loads in accordance with **TAS 202-94**. Specimens 7, 8, 9 and 10 passed testing criteria for design pressure of +/-100.00 psf.

**DISTRIBUTED LOADS:** Specimens 7, 8, 9 and 10 were subjected to post impact distributed loads of 50 lbs/ft. Specimen 1 passed testing criteria.

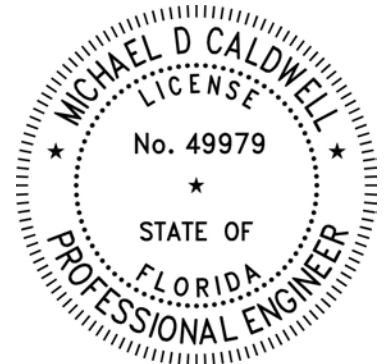
**CONCENTRATED LOADS:** Specimens 7, 8, 9 and 10 were subjected to post impact concentrated loads of 200 lb. Specimens 1&2 passed testing criteria.

**CONCLUSION:** Following testing Specimens 7, 8, 9 and 10 were disassembled. No failures were observed in the panes, posts, fastenings, or anchorages. **The “Railing System – Shore Club” product was tested in accordance with and meets the requirements to comply with Florida Building Code 2023.**



Mike Caldwell, President

**Disclaimer:** This is a general statement and does not supersede the specific product descriptions in this report. The specimens are in conformance with drawings provided by the manufacturer. These drawings have been marked to indicate the appropriate portions descriptive of this test series. Blackwater Technical Services, Inc. does not take responsibility of product performance and whose only purpose is to test and gather pertinent data under test report format for the client.



This item has been digitally signed and sealed by Michael Caldwell, PE, on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



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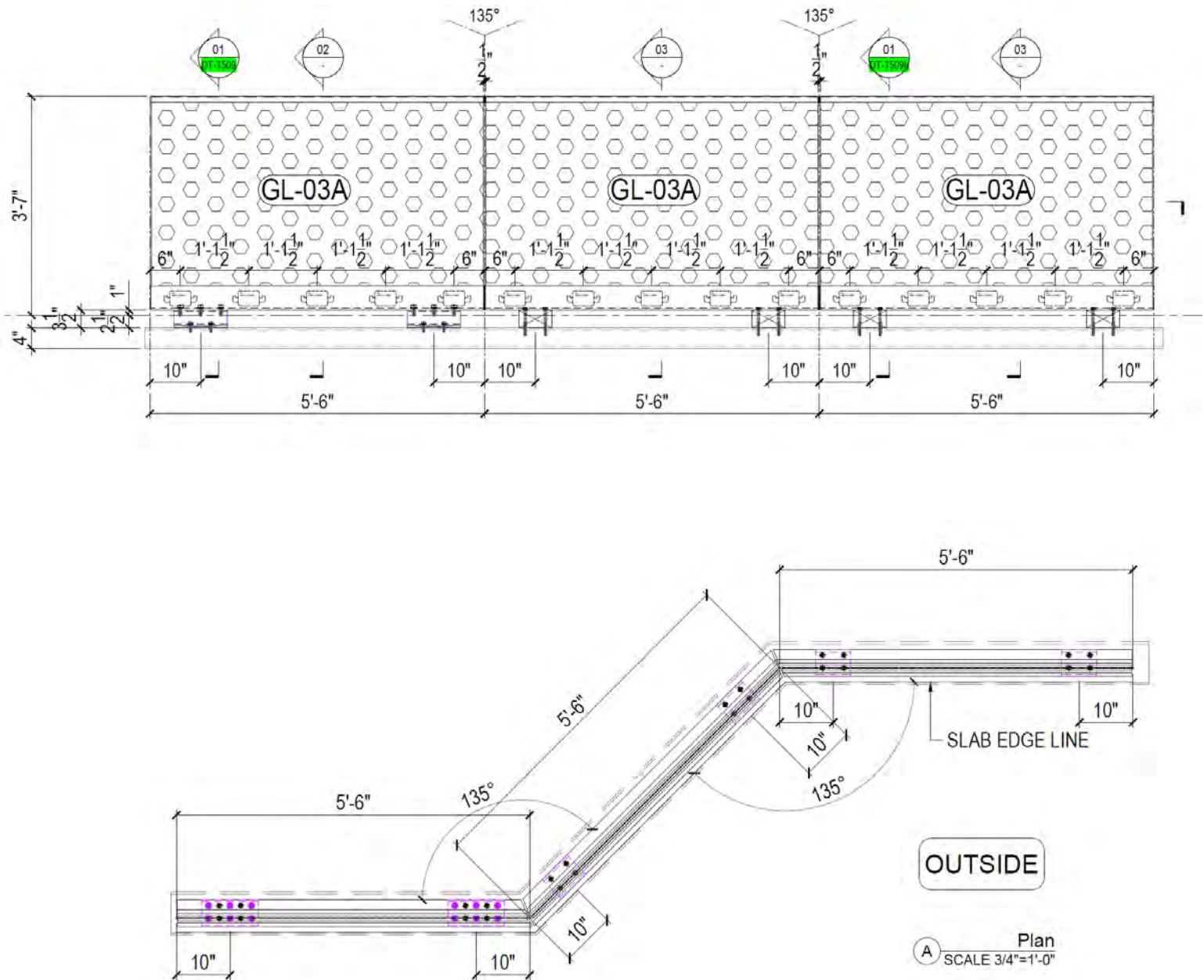
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## Specimen Elevations:



Specimen 7

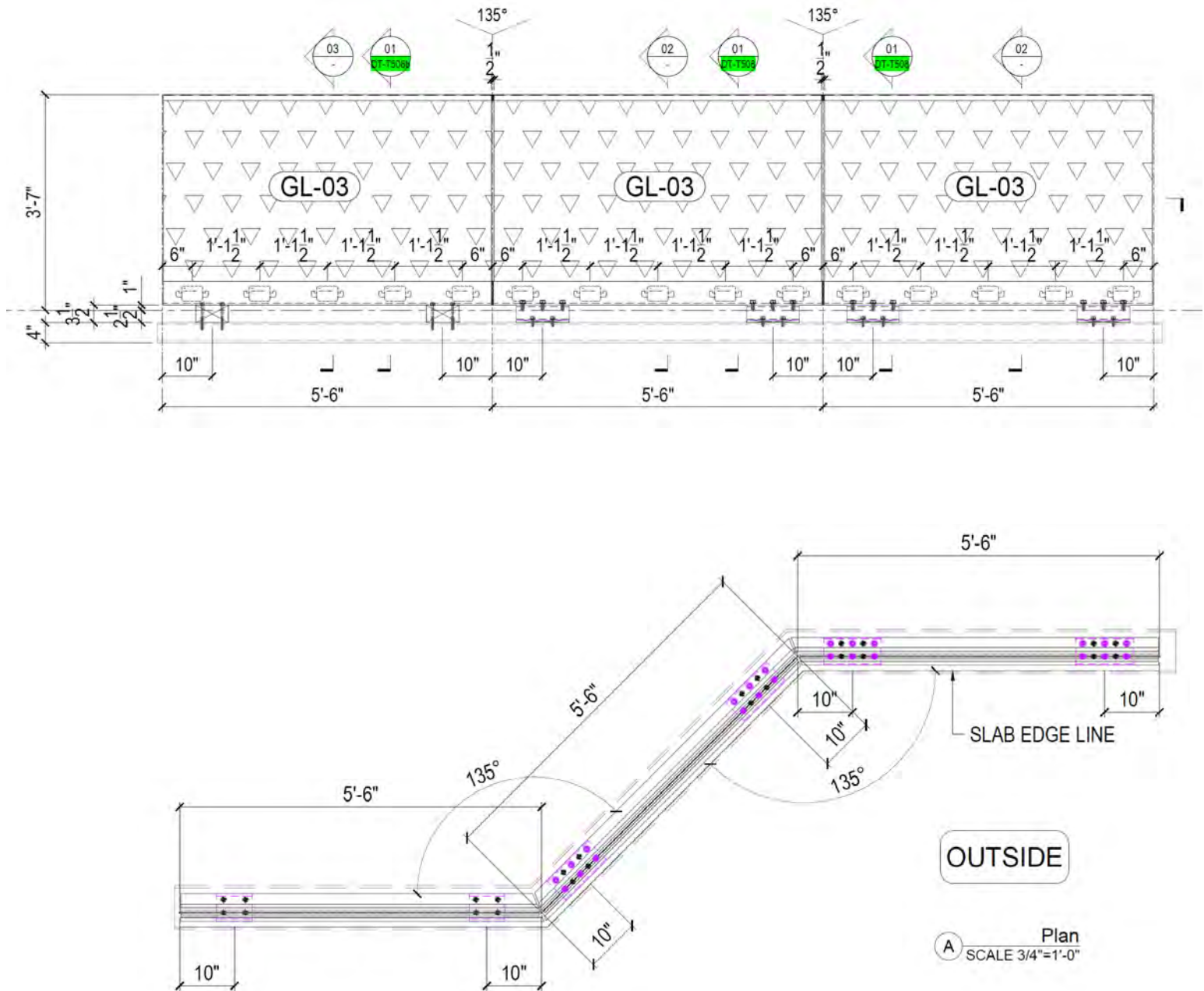


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Specimen 8

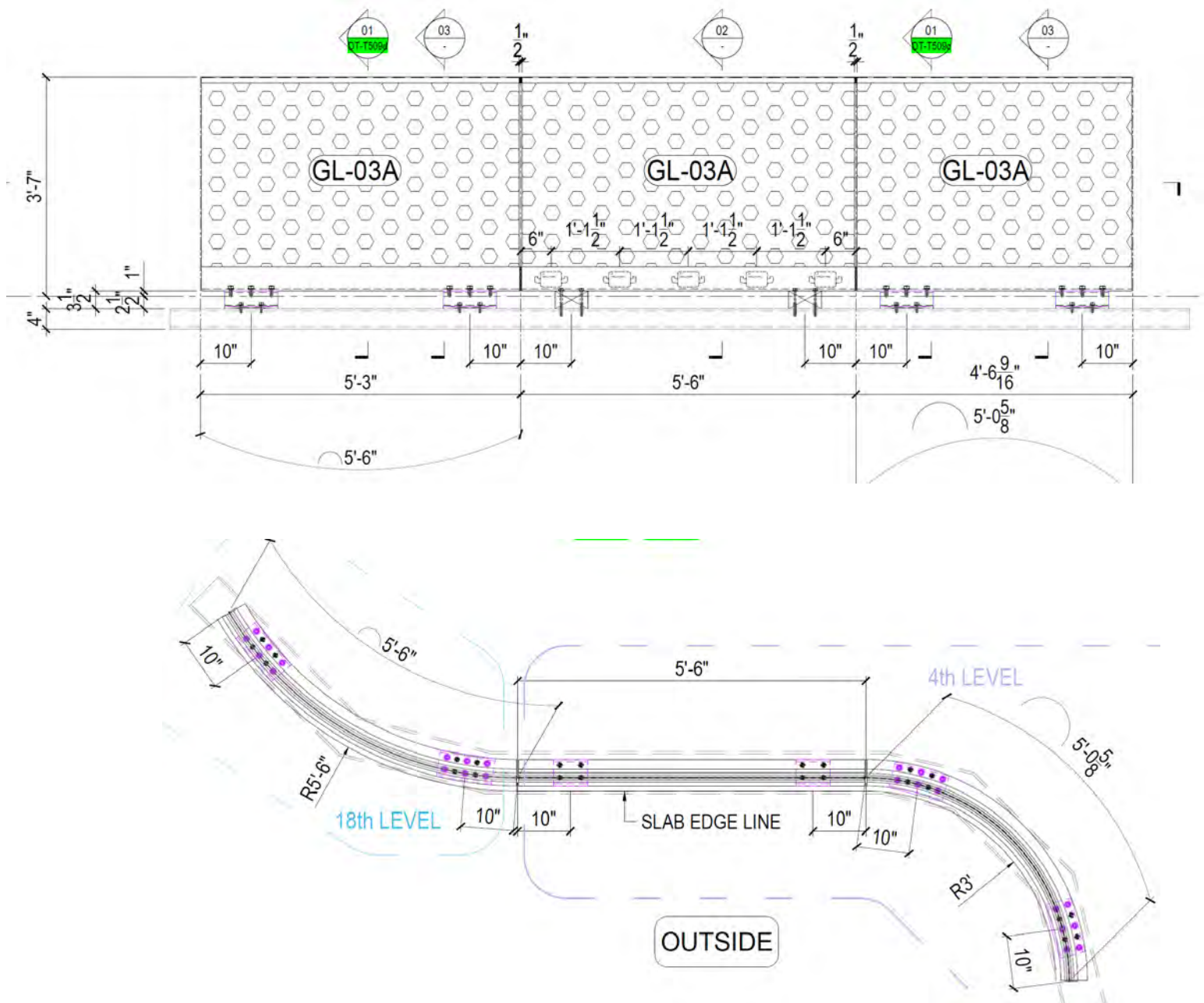


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Specimen 9

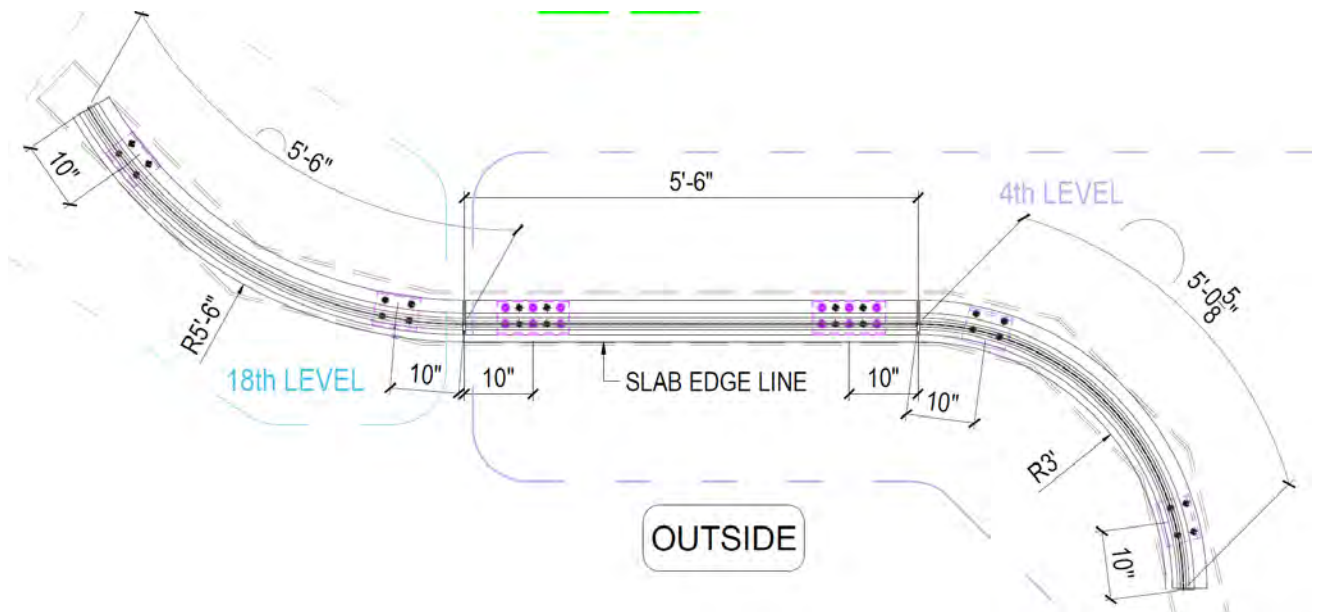
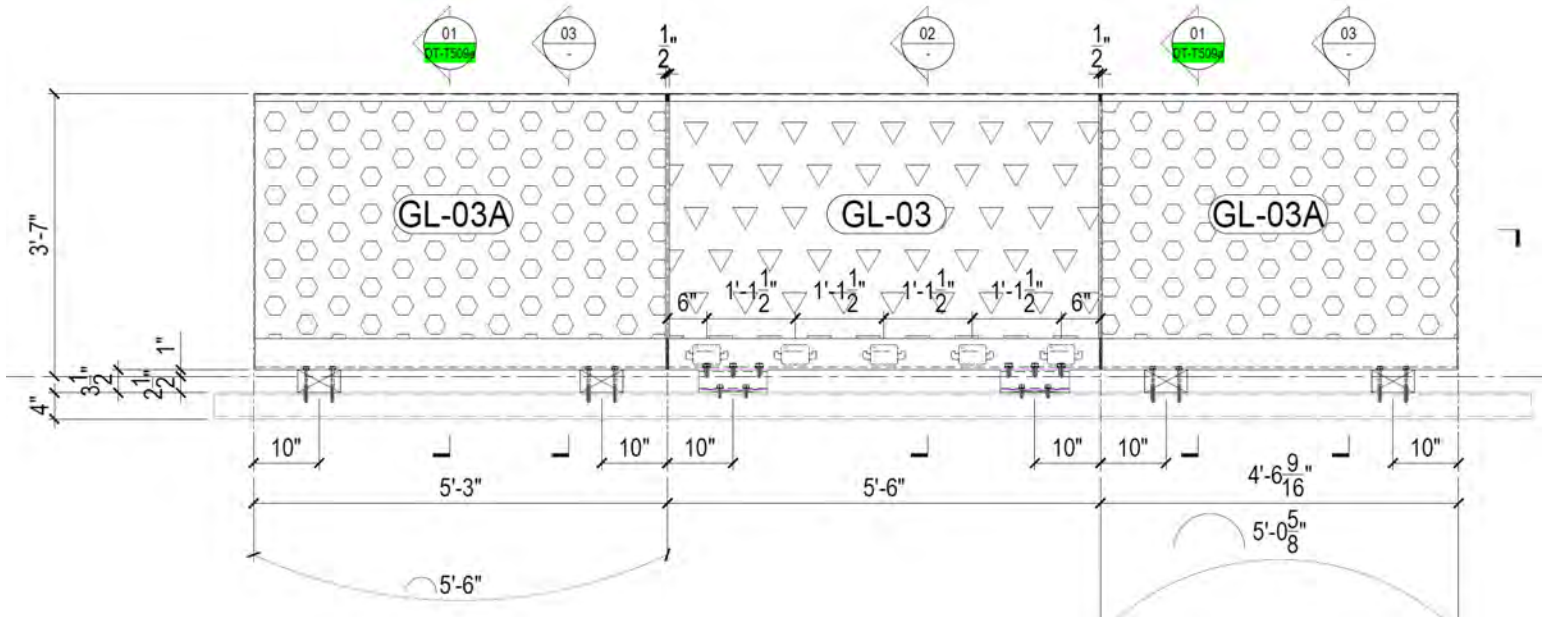


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Specimen 10

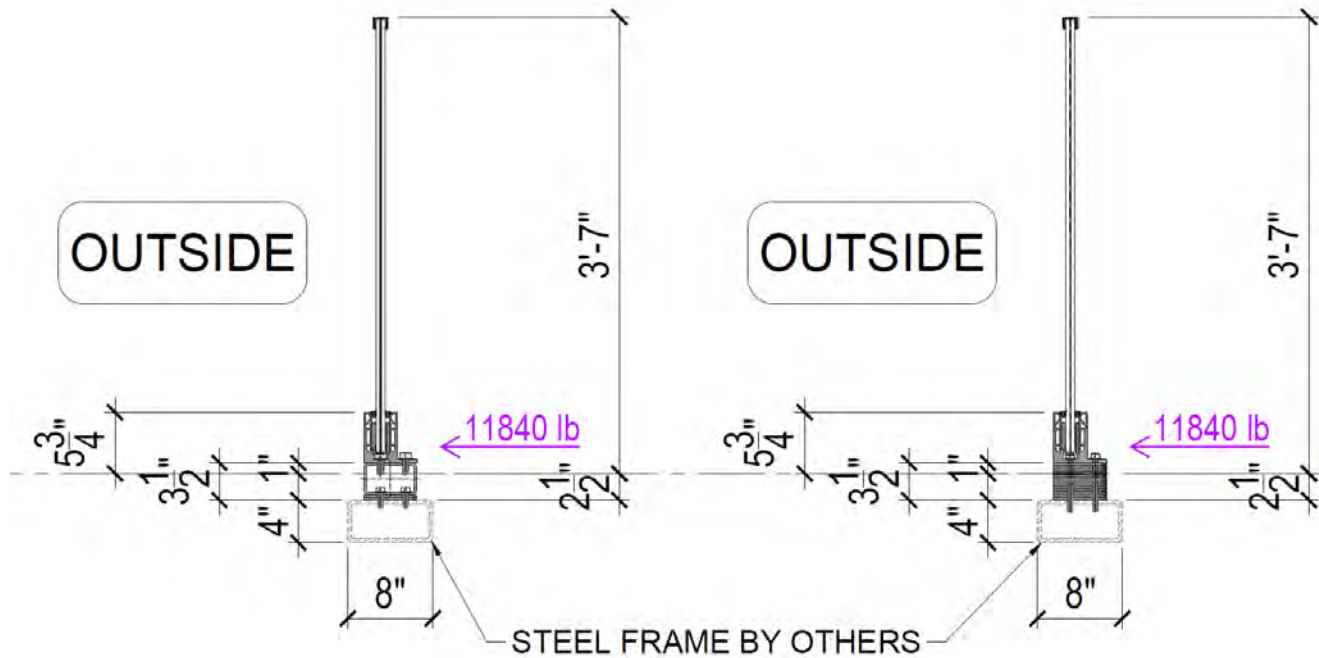


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Sections (typical all specimens)



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## Overall Size:

Specimens 7 and 8:

- 5'-6" x 5'-6" x 5'-6" W by 45-1/2" H, straight glass segments at 135 degrees forming a z pattern

Specimens 9 and 10:

- 5'-6" x 5'-6" x 5'-5/8" W by 45-1/2" H, curved glass segments (2 with 5'-6" radius, one with 5'-5/8" radius) with intermediate straight glass segments

## Glass Size:

Specimens 7 and 8:

- 3X 65-1/2" W by 40-3/4" H

Specimens 9 and 10:

- 1X 65-1/2" W by 40-3/4" H straight
- 1x 5'-6" radius segment x 40-3/4" H
- 1x 5'-0 5/8" radius segment x 40-3/4" H

## Glazing Composition:

Specimens 7 and 9:

- GL-03A
  - o FT 10MM CLEAR + 2.28 SGP + FT 10MM Clear Laminated Glass
- Interlayer – SentryGlas by Kuraray

Specimen 8:

- GL-03
  - o FT 10MM CLEAR + 1.52 SGP + FT 10MM Clear Laminated Glass
- Interlayer – SentryGlas by Kuraray

Specimen 10:

- (2) GL-03A, (1) GL-03

**Glass Bite :** 3-3/4"

## General Construction:

Specimens 7 and 8:

- Extruded aluminum base shoe (Extrusion 20024) anchored to aluminum tubing or through aluminum shim stacks, glass set with CR Laurence TAPER "LTL10X" taper locks at 6" from ends and 13-1/2" OC spacing (minimum), silicone gasket weather seal top and bottom, 1-7/16" x 1-1/8" aluminum extrusion top cap (extrusion EN54011). Top caps are joined with 1/8" thick aluminum splices that are snug fit into the cap. (See attached drawings for complete details)

Specimens 9 and 10:

- Extruded aluminum base shoe (Extrusion 20024) anchored to aluminum tubing or aluminum shim stacks, with straight glass set with CR Laurence TAPER "LTL10X" taper locks at 6" from ends and 13-1/2" OC spacing (minimum), curved glass set with CRL Kwixset expanding cement, silicone gasket weather seal top and bottom, 1-7/16" x 1-1/8" aluminum extrusion top cap (extrusion EN54011). Top caps are joined with 1/8" thick aluminum splices that are snug fit into the cap. (See attached drawings for complete details)

## Railing mounting substrate:

All specimens:

- 8"x8"x1/4" carbon steel HSS

## Anchoring Details:

All Specimens

o Condition 1:

- Base shoe attached to 5"x3"x1/4" x 10-1/2" lg aluminum tubing with (6) 5/8"-11 x 1-1/2" Grade 5 tapflex screws (BOM Item F3603), aluminum tubing attached to substrate with (4) 1/2"-13 x 1-1/2" Grade 5 tapflex screws (BOM Item F3602), through two serrated aluminum shims.

o Condition 2:

- Base shoe resting on 5"x1/4" x 6-1/2" long serrated aluminum shim stack, anchored through the shim stack to the substrate with (4) 5/8"-11 x 5" Grade 5 tapflex screws

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1/8" THK. ALUM. SPLICE  
SNUG FIT INTO CAP

MODULE DIM.

F3602  
F3603

1" 1/4" 4" 4" 1" 1/4"

1" 2"

GL-03A

3" 1/4" 4" 3" 1/4"

10'0"

10'0"

3'0"

4"

4"

10'

F3606

MODULE DIM.

02 PLAN DETAIL  
Scale: 3"=1'-0"



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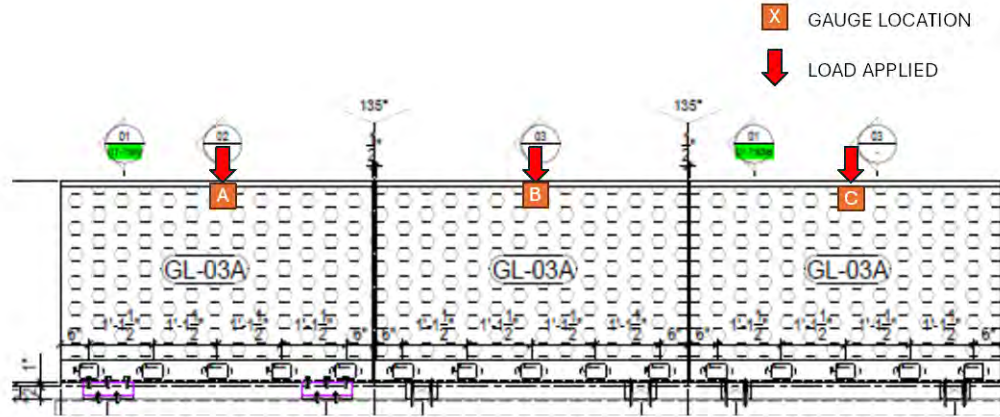
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## Test Results

### Concentrated Load

SPECIMEN #7



#### #1A Concentrated load (A) T= 71 ° F

|                  |                     |                  |                     |                  |                            |  |  |
|------------------|---------------------|------------------|---------------------|------------------|----------------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction        |                            |  |  |
| Total Load       | 400                 |                  | lb                  |                  | Z (perpendicular to glass) |  |  |
| Gauge Location   |                     |                  |                     |                  |                            |  |  |
| A                |                     | B                |                     | C                |                            |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.)        |  |  |
| 0.438            | 0.000               | 0.063            | 0.000               | 0.000            | 0.000                      |  |  |

#### #1B Concentrated load (B) T= 71 ° F

|                  |                     |                  |                     |                  |                            |  |  |
|------------------|---------------------|------------------|---------------------|------------------|----------------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction        |                            |  |  |
| Total Load       | 400                 |                  | lb                  |                  | Z (perpendicular to glass) |  |  |
| Gauge Location   |                     |                  |                     |                  |                            |  |  |
| A                |                     | B                |                     | C                |                            |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.)        |  |  |
| 0.063            | 0.000               | 0.250            | 0.000               | 0.063            | 0.000                      |  |  |

#### #1C Concentrated load (C) T= 71° F

|                  |                     |                  |                     |                  |                            |  |  |
|------------------|---------------------|------------------|---------------------|------------------|----------------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction        |                            |  |  |
| Total Load       | 400                 |                  | lb                  |                  | Z (perpendicular to glass) |  |  |
| Gauge Location   |                     |                  |                     |                  |                            |  |  |
| A                |                     | B                |                     | C                |                            |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.)        |  |  |
| 0.063            | 0.000               | 0.063            | 0.000               | 0.438            | 0.000                      |  |  |



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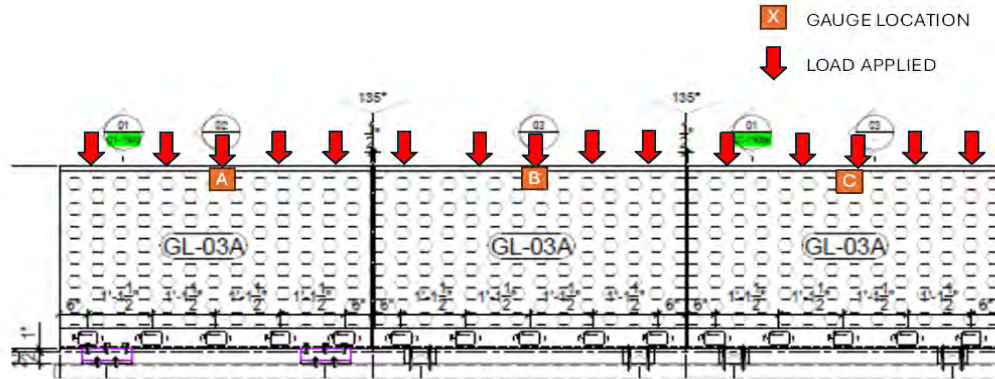
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Distributed Load



SPECIMEN #7



## #2A Distributed load (A) T= 73 ° F

|                  |                     |                  |                     |                            |                     |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |
| Total Load       | 533                 | lb               |                     | Z (perpendicular to glass) |                     |
| Gauge Location   |                     |                  |                     |                            |                     |
| A                |                     | B                |                     | C                          |                     |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |
| 0.438            | 0.000               | 0.063            | 0.000               | 0.063                      | 0.000               |

## #2B Distributed load (B) T= 73 ° F

|                  |                     |                  |                     |                            |                     |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |  |
| Total Load       | 533                 |                  | lb                  | Z (perpendicular to glass) |                     |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |
| A                |                     | B                |                     | C                          |                     |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |
| 0.063            | 0.000               | 0.313            | 0.000               | 0.188                      | 0.000               |  |

## #2C Distributed load (C) T= 73° F

|                  |                     |                  |                     |                            |                     |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |  |
| Total Load       | 533                 |                  | lb                  | Z (perpendicular to glass) |                     |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |
| A                |                     | B                |                     | C                          |                     |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |
| 0.125            | 0.000               | 0.063            | 0.000               | 0.500                      | 0.000               |  |



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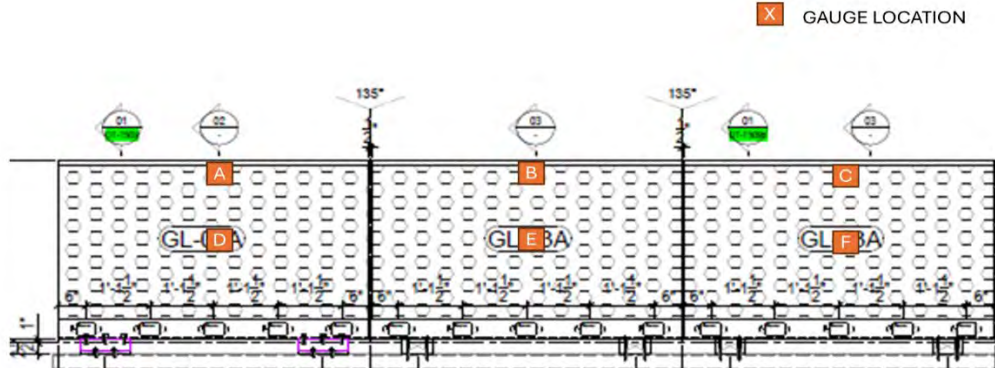
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TAS 202

SPECIMEN #7



## #3 Static Preload T= 78 ° F

| STATIC LOAD DATA SHEET |                       |          |                 |                   | Design Pressure Positive |                     | Design Pressure Negative |                     |           |                     |           |                     |           |                     |           |                     |
|------------------------|-----------------------|----------|-----------------|-------------------|--------------------------|---------------------|--------------------------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|
|                        |                       |          |                 |                   | 100.00                   |                     | 100.00                   |                     |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   | A                        |                     | B                        |                     | C         |                     | D         |                     | E         |                     | F         |                     |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch Water | Load Duration (s) | Defl(in.)                | Permanent Set (in.) | Defl(in.)                | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) |
| 0.5TL                  | Positive              | 75.000   | 14.423          | 30.000            | 0.250                    | 0.000               | 0.250                    | 0.000               | 0.250     | 0.000               | 0.125     | 0.000               | 0.125     | 0.000               | 0.125     | 0.000               |
| 0.5TL                  | Negative              | 75.000   | 14.423          | 30.000            | 0.375                    | 0.000               | 0.250                    | 0.000               | 0.375     | 0.000               | 0.125     | 0.000               | 0.188     | 0.000               | 0.125     | 0.000               |

## #4 Static Design load T= 78 ° F

| STATIC LOAD DATA SHEET |                       |          |                 |                   | Design Pressure Positive |                     | Design Pressure Negative |                     |           |                     |           |                     |           |                     |           |                     |
|------------------------|-----------------------|----------|-----------------|-------------------|--------------------------|---------------------|--------------------------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|
|                        |                       |          |                 |                   | 100.00                   |                     | 100.00                   |                     |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   | A                        |                     | B                        |                     | C         |                     | D         |                     | E         |                     | F         |                     |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch Water | Load Duration (s) | Defl(in.)                | Permanent Set (in.) | Defl(in.)                | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) |
| DP                     | Positive              | 100.000  | 19.231          | 30.000            | 0.375                    | 0.063               | 0.250                    | 0.000               | 0.500     | 0.000               | 0.250     | 0.000               | 0.125     | 0.000               | 0.063     | 0.000               |
| DP                     | Negative              | 100.000  | 19.231          | 30.000            | 0.500                    | 0.063               | 0.250                    | 0.125               | 0.750     | 0.063               | 0.250     | 0.063               | 0.188     | 0.000               | 0.125     | 0.063               |

## #5 Static Overload T= 78 ° F

| STATIC LOAD DATA SHEET |                       |          |                 |                   | Design Pressure Positive |                     | Design Pressure Negative |                     |           |                     |           |                     |           |                     |           |                     |
|------------------------|-----------------------|----------|-----------------|-------------------|--------------------------|---------------------|--------------------------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|
|                        |                       |          |                 |                   | 100.00                   |                     | 100.00                   |                     |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   | A                        |                     | B                        |                     | C         |                     | D         |                     | E         |                     | F         |                     |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch Water | Load Duration (s) | Defl(in.)                | Permanent Set (in.) | Defl(in.)                | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) |
| TL                     | Positive              | 200.000  | 38.462          | 30.000            | 0.563                    | 0.188               | 0.375                    | 0.188               | 2.000     | 0.063               | 0.313     | 0.063               | 0.000     | 0.000               | 0.125     | 0.125               |
| TL                     | Negative              | 200.000  | 38.462          | 30.000            | 0.750                    | 0.063               | 0.375                    | 0.250               | 0.500     | 0.063               | 0.125     | 0.063               | 0.063     | 0.000               | 0.063     | 0.063               |

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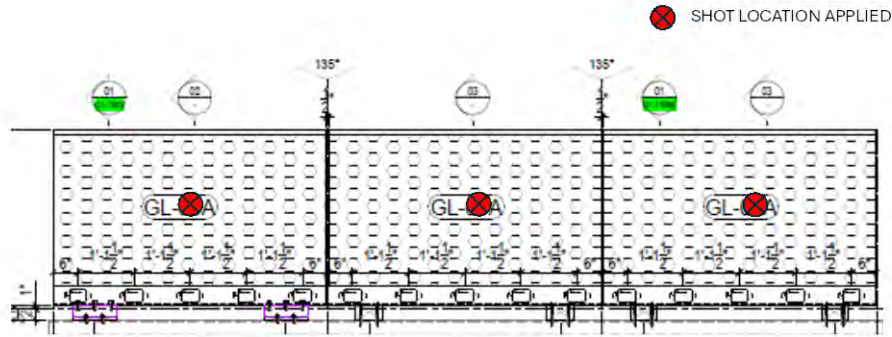
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## ANSI Z97.1

### SPECIMEN # 7



### #6 ANSI Z97.1 Class (A) T= 72 ° F

| Impact 100lb ball at 400 ft*lb                                  |        |              |          |         |         |
|-----------------------------------------------------------------|--------|--------------|----------|---------|---------|
| Glazing                                                         | Target | Area         | Location |         | Results |
|                                                                 |        |              | X (in.)  | Y (in.) |         |
| GL1                                                             | 1      | Center Glass | 33       | 28      | PASS    |
| GL2                                                             | 2      | Center Glass | 101      | 29      | PASS    |
| GL3                                                             | 3      | Center Glass | 166      | 28      | PASS    |
| Notes: Coordinate origin bottom left hand corner for Shot 1,2,3 |        |              |          |         |         |



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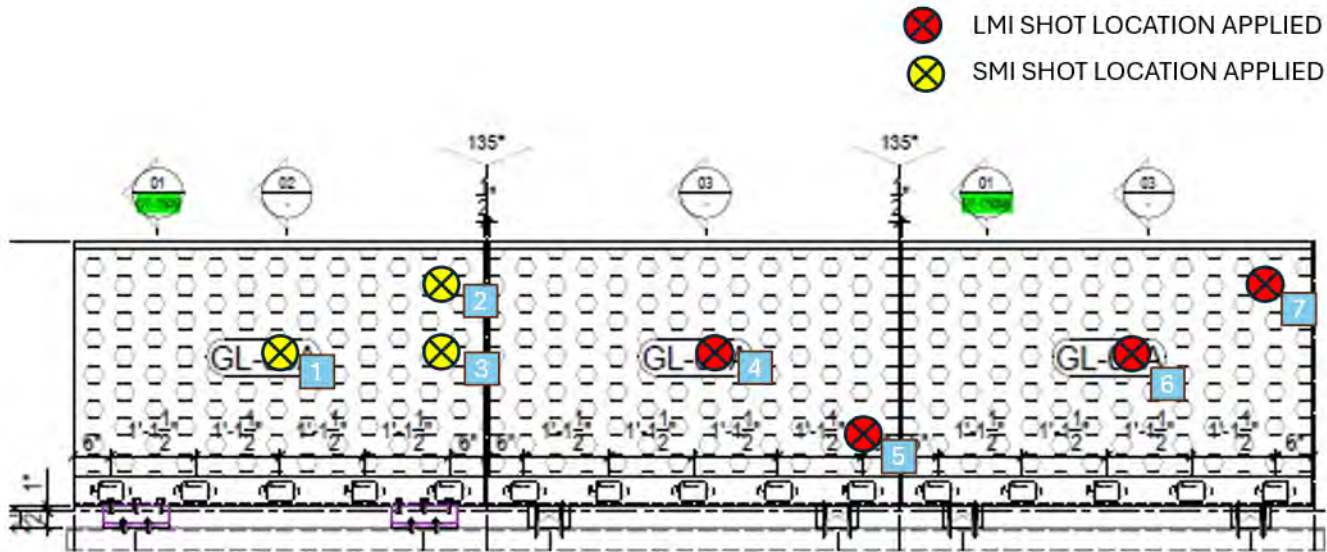
Phone: 561-508-2830 E-mail: Engdep@blackwatertesting.com

MIAMI-DADE CERTIFICATION #21-0909.01 ISO/IEC 17025:2017 AT-2584



TAS 201/ASTM E1996 (LARGE)

SPECIMEN #7



## #7 LARGE/SMALL Missile Impact Test T= 73° F

| LARGE/SMALL MISSILE IMPACT DATA SHEET |          |         |         |                |           |
|---------------------------------------|----------|---------|---------|----------------|-----------|
| Shot                                  | Location |         |         |                | Results   |
|                                       | Area     | X (in.) | Y (in.) | Keyence (ft/s) | Pass/Fail |
| 1                                     | Center   | 34      | 26      | N/A            | PASS      |
| 2                                     | Corner   | 59      | 40      | N/A            | PASS      |
| 3                                     | Edge     | 59      | 26      | N/A            | PASS      |
| 4                                     | Center   | 101     | 29      | 50             | PASS      |
| 5                                     | Corner   | 125     | 19      | 50             | PASS      |
| 6                                     | Center   | 166     | 28      | 50             | PASS      |
| 7                                     | Corner   | 190     | 39      | 50             | PASS      |



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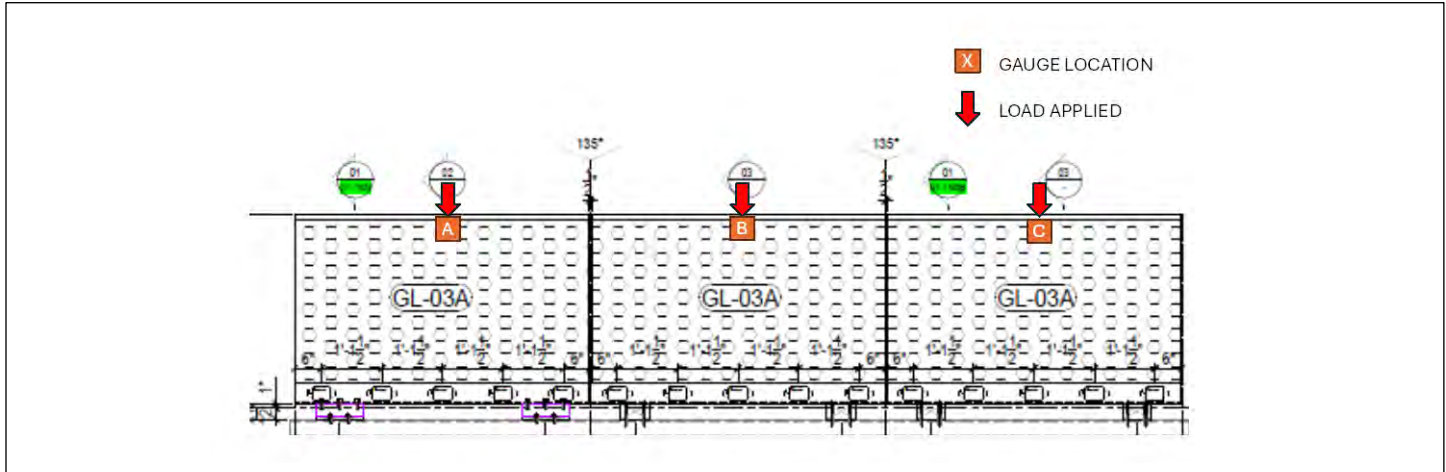
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## Concentrated Load(Pass/Fail ) /2023 FBC 1618.4.6

SPECIMEN #7



### #8A Concentrated load Pass/Fail (A) T= 76 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

### #8B Concentrated load Pass/Fail (B) T= 76 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

### #8C Concentrated load Pass/Fail (C) T= 76 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |



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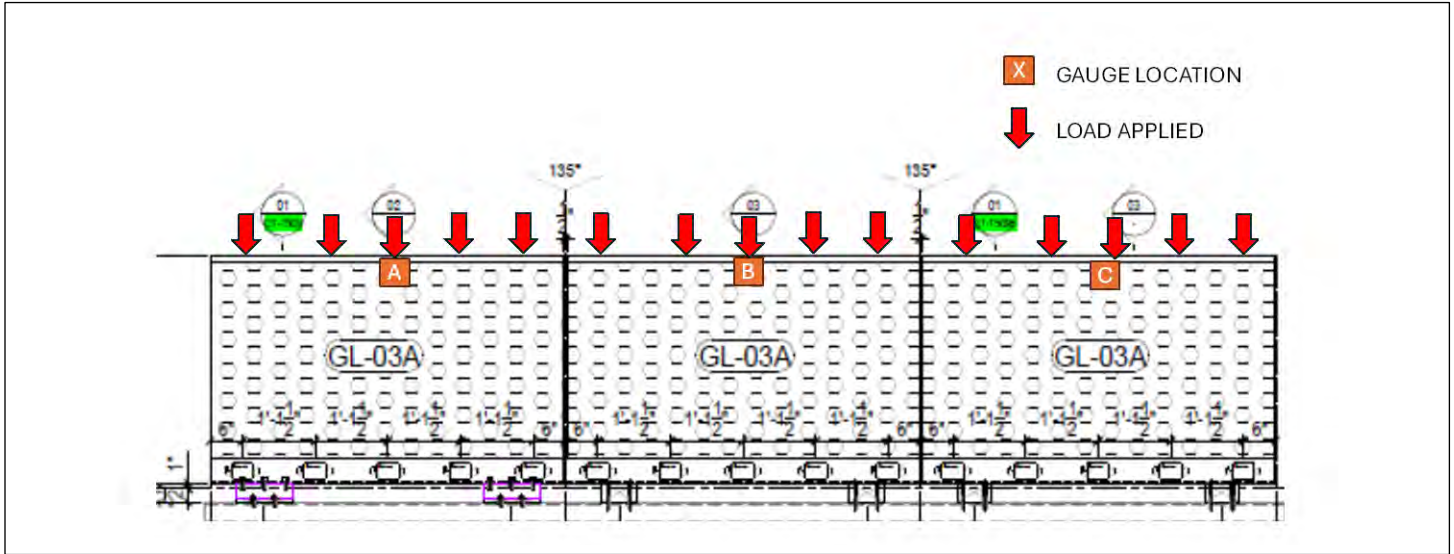
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Distributed Load Pass/Fail



SPECIMEN #7



## #9A Distributed load (A) T= 77 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

## #9B Distributed load (B) T=77 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

## #9C Distributed load (C) T=77° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |



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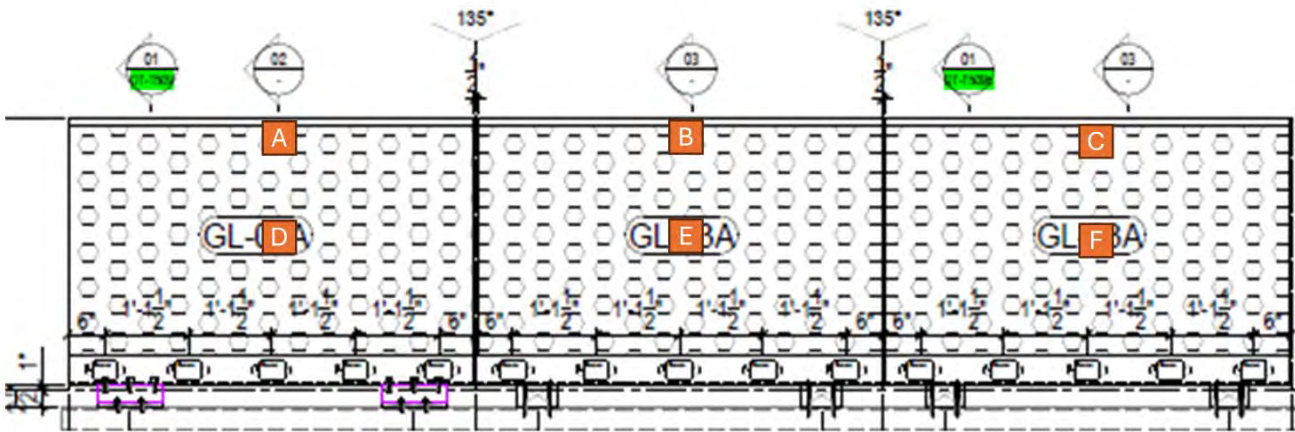
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TAS 202 Pass/Fail



SPECIMEN #7

**X** GAUGE LOCATION



## #10 Static Design load T= 80 ° F

| STATIC LOAD DATA SHEET |          |                 | High      | Low |  |
|------------------------|----------|-----------------|-----------|-----|--|
|                        |          |                 | 100       | 100 |  |
| Positive Pressure      |          |                 |           |     |  |
| Load Factor            | Load psf | Load Inch Water | Pass/Fail |     |  |
| DP                     | 100      | 19.23           | PASS      |     |  |
| Negative Pressure      |          |                 |           |     |  |
| Load Factor            | Load psf | Load Inch Water | Pass/Fail |     |  |
| DP                     | 100      | 19.23           | PASS      |     |  |



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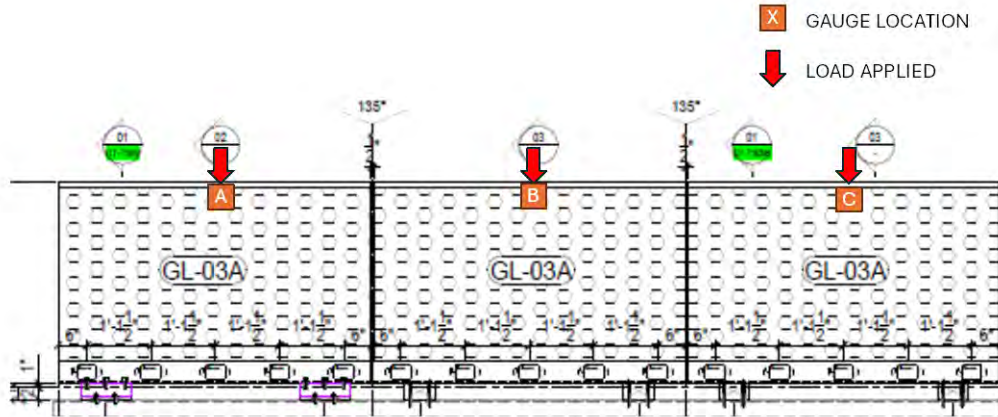
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Concentrated Load



## SPECIMEN #8



### #1A Concentrated load (A) T= 81° F

|                  |                     |                  |                     |                  |                            |  |  |
|------------------|---------------------|------------------|---------------------|------------------|----------------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction        |                            |  |  |
| Total Load       | 400                 |                  | lb                  |                  | Z (perpendicular to glass) |  |  |
| Gauge Location   |                     |                  |                     |                  |                            |  |  |
| A                |                     | B                |                     | C                |                            |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.)        |  |  |
| 0.438            | 0.000               | 0.125            | 0.000               | 0.000            | 0.000                      |  |  |

### #1B Concentrated load (B) T= 81° F

|                  |                     |                  |                     |                            |                     |  |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction                  |                     |  |  |
| Total Load       | 400                 |                  | lb                  | Z (perpendicular to glass) |                     |  |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |  |
| A                |                     | B                |                     | C                          |                     |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |  |
| 0.063            | 0.000               | 0.375            | 0.000               | 0.000                      | 0.000               |  |  |

### #1C Concentrated load (C) T= 81° F

|                  |                     |                  |                     |                            |                     |  |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction                  |                     |  |  |
| Total Load       | 400                 |                  | lb                  | Z (perpendicular to glass) |                     |  |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |  |
| A                |                     | B                |                     | C                          |                     |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |  |
| 0.000            | 0.000               | 0.000            | 0.000               | 0.250                      | 0.063               |  |  |



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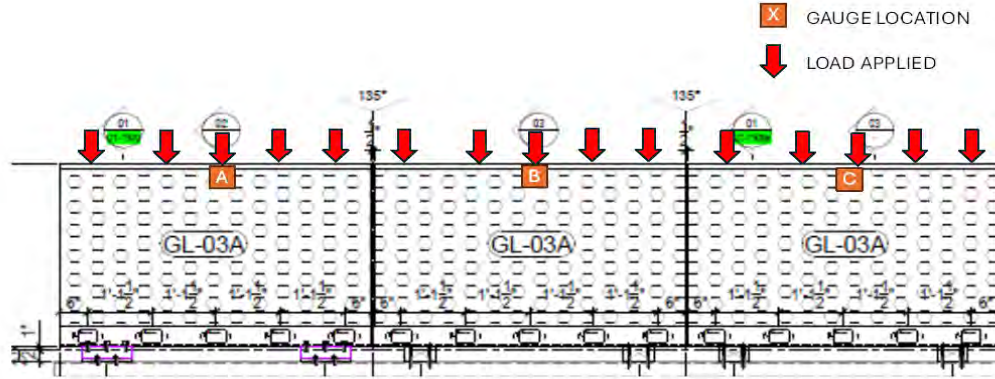
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Distributed Load



## SPECIMEN #8



### #2A Distributed load (A) T= 81 ° F

|                  |                     |                  |                     |                            |                     |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |
| Total Load       | 533                 | lb               |                     | Z (perpendicular to glass) |                     |
| Gauge Location   |                     |                  |                     |                            |                     |
| A                |                     | B                |                     | C                          |                     |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |
| 1.250            | 0.063               | 0.000            | 0.000               | 0.000                      | 0.000               |

### #2B Distributed load (B) T= 81 ° F

|                  |                     |                  |                     |                            |                     |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |  |
| Total Load       | 533                 |                  | lb                  | Z (perpendicular to glass) |                     |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |
| A                |                     | B                |                     | C                          |                     |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |
| 0.125            | 0.000               | 0.375            | 0.000               | 0.063                      | 0.000               |  |

### #2C Distributed load (C) T= 81 ° F

|                  |                     |                  |                     |                            |                     |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |
| Total Load       | 533                 | lb               |                     | Z (perpendicular to glass) |                     |
| Gauge Location   |                     |                  |                     |                            |                     |
| A                |                     | B                |                     | C                          |                     |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |
| 0.063            | 0.000               | 0.250            | 0.000               | 0.688                      | 0.000               |



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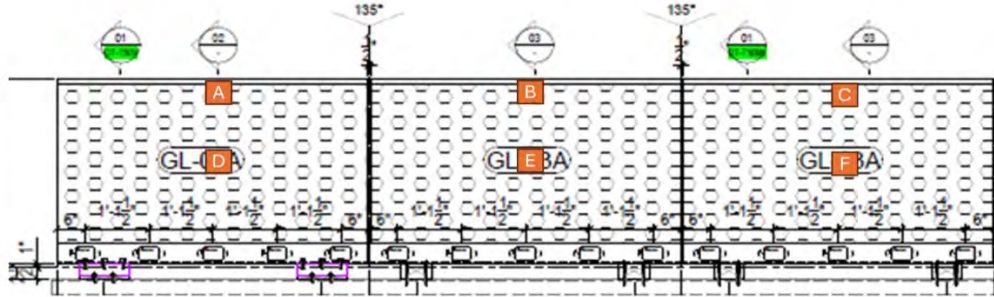
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TAS 202

SPECIMEN #8

X GAUGE LOCATION



## #3 Static Preload T= 78 ° F

| STATIC LOAD DATA SHEET |                       |          |                    |                      | Design Pressure |                        |           |                        |           |                        |           |                        |           |                        |           |                        |
|------------------------|-----------------------|----------|--------------------|----------------------|-----------------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|
|                        |                       |          |                    |                      | Positive        |                        | Negative  |                        |           |                        |           |                        |           |                        |           |                        |
|                        |                       |          |                    |                      | 100.00          |                        | 100.00    |                        |           |                        |           |                        |           |                        |           |                        |
|                        |                       |          |                    |                      | A               |                        | B         |                        | C         |                        | D         |                        | E         |                        | F         |                        |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch<br>Water | Load<br>Duration (s) | Defl(in.)       | Permanent Set<br>(in.) | Defl(in.) | Permanent Set<br>(in.) | Defl(in.) | Permanent<br>Set (in.) | Defl(in.) | Permanent Set<br>(in.) | Defl(in.) | Permanent<br>Set (in.) | Defl(in.) | Permanent<br>Set (in.) |
| 0.5TL                  | Positive              | 75.000   | 14.423             | 30.000               | 0.313           | 0.000                  | 0.250     | 0.000                  | 0.313     | 0.000                  | 0.125     | 0.000                  | 0.188     | 0.000                  | 0.000     | 0.000                  |
| 0.5TL                  | Negative              | 75.000   | 14.423             | 30.000               | 0.375           | 0.000                  | 0.313     | 0.000                  | 0.375     | 0.000                  | 0.125     | 0.000                  | 0.188     | 0.000                  | 0.000     | 0.000                  |

## #4 Static Design load T= 78 ° F

| STATIC LOAD DATA SHEET |                       |          |                    |                      | Design Pressure |                        |           |                        |           |                        |           |                        |           |                        |           |                        |
|------------------------|-----------------------|----------|--------------------|----------------------|-----------------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|
|                        |                       |          |                    |                      | Positive        |                        | Negative  |                        |           |                        |           |                        |           |                        |           |                        |
|                        |                       |          |                    |                      | 100.00          |                        | 100.00    |                        |           |                        |           |                        |           |                        |           |                        |
|                        |                       |          |                    |                      | A               |                        | B         |                        | C         |                        | D         |                        | E         |                        | F         |                        |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch<br>Water | Load<br>Duration (s) | Defl(in.)       | Permanent Set<br>(in.) | Defl(in.) | Permanent Set<br>(in.) | Defl(in.) | Permanent<br>Set (in.) | Defl(in.) | Permanent Set<br>(in.) | Defl(in.) | Permanent<br>Set (in.) | Defl(in.) | Permanent<br>Set (in.) |
| DP                     | Positive              | 100.000  | 19.231             | 30.000               | 0.375           | 0.063                  | 0.250     | 0.063                  | 0.563     | 0.000                  | 0.250     | 0.000                  | 0.125     | 0.000                  | 0.000     | 0.000                  |
| DP                     | Negative              | 100.000  | 19.231             | 30.000               | 0.438           | 0.063                  | 0.313     | 0.063                  | 0.750     | 0.063                  | 0.313     | 0.063                  | 0.188     | 0.000                  | 0.125     | 0.063                  |

## #5 Static Overload T= 78 ° F

| STATIC LOAD DATA SHEET |                       |          |                    |                      | Design Pressure |                        |           |                        |           |                        |           |                        |           |                        |           |                        |
|------------------------|-----------------------|----------|--------------------|----------------------|-----------------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|
|                        |                       |          |                    |                      | Positive        |                        | Negative  |                        |           |                        |           |                        |           |                        |           |                        |
|                        |                       |          |                    |                      | 100.00          |                        | 100.00    |                        |           |                        |           |                        |           |                        |           |                        |
|                        |                       |          |                    |                      | A               |                        | B         |                        | C         |                        | D         |                        | E         |                        | F         |                        |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch<br>Water | Load<br>Duration (s) | Defl(in.)       | Permanent Set<br>(in.) | Defl(in.) | Permanent Set<br>(in.) | Defl(in.) | Permanent<br>Set (in.) | Defl(in.) | Permanent Set<br>(in.) | Defl(in.) | Permanent<br>Set (in.) | Defl(in.) | Permanent<br>Set (in.) |
| TL                     | Positive              | 200.000  | 38.462             | 30.000               | 0.625           | 0.125                  | 0.375     | 0.188                  | 0.500     | 0.000                  | 0.313     | 0.000                  | 0.188     | 0.000                  | 0.250     | 0.000                  |
| TL                     | Negative              | 200.000  | 38.462             | 30.000               | 0.750           | 0.125                  | 0.438     | 0.188                  | 0.563     | 0.125                  | 0.375     | 0.063                  | 0.250     | 0.000                  | 0.375     | 0.000                  |

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BT-ELG-25-003C



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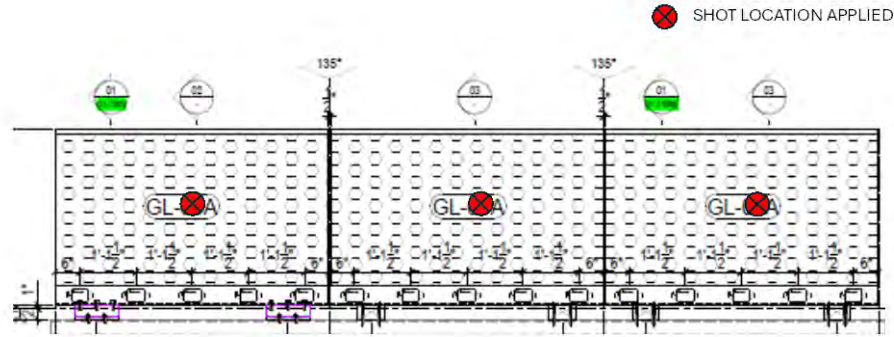
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## ANSI Z97.1

### SPECIMEN # 8



### #6 ANSI Z97.1 Class (A) T= 80 ° F

| Impact 100lb ball at 400 ft*lb                                  |        |              |          |         |         |
|-----------------------------------------------------------------|--------|--------------|----------|---------|---------|
| Glazing                                                         | Target | Area         | Location |         | Results |
|                                                                 |        |              | X (in.)  | Y (in.) |         |
| GL1                                                             | 1      | Center Glass | 32       | 19      | PASS    |
| GL2                                                             | 2      | Center Glass | 99       | 20      | PASS    |
| GL3                                                             | 3      | Center Glass | 165      | 19      | PASS    |
| Notes: Coordinate origin bottom left hand corner for Shot 1,2,3 |        |              |          |         |         |



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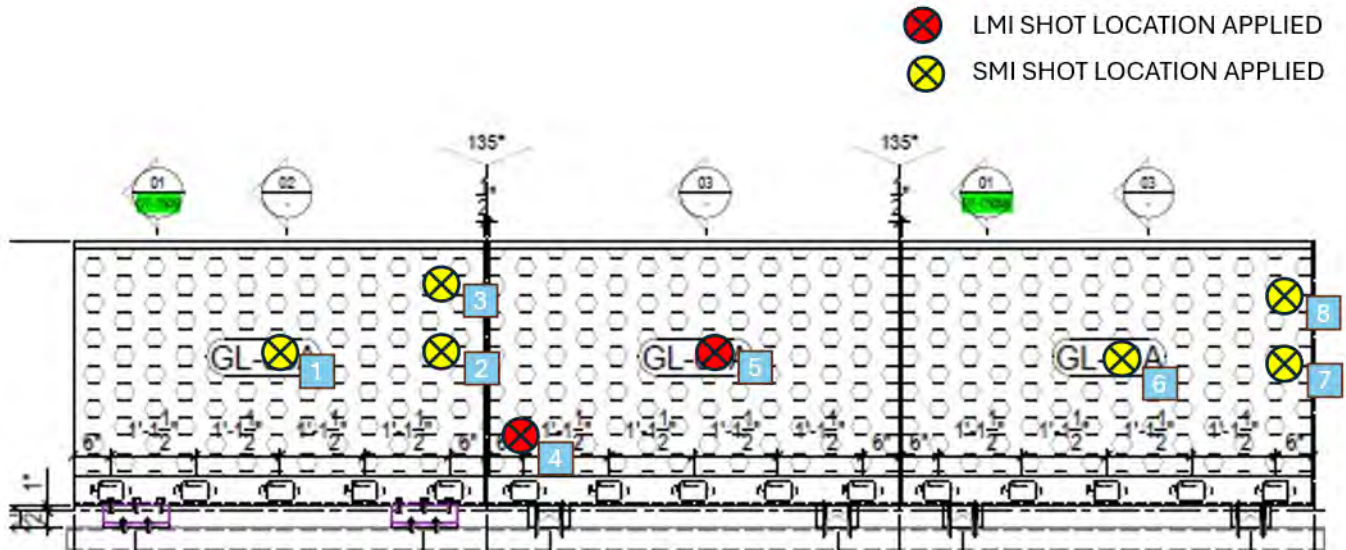
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TAS 201/ASTM E1996 (LARGE)

SPECIMEN #8



## #7 LARGE/SMALL Missile Impact Test T= 81 ° F

| LARGE/SMALL MISSILE IMPACT DATA SHEET |          |         |         |                |           |
|---------------------------------------|----------|---------|---------|----------------|-----------|
| Shot                                  | Location |         |         |                | Results   |
|                                       | Area     | X (in.) | Y (in.) | Keyence (ft/s) | Pass/Fail |
| 1                                     | Center   | 33      | 19      | N/A            | PASS      |
| 2                                     | Edge     | 56      | 22      | N/A            | PASS      |
| 3                                     | Corner   | 56      | 29      | N/A            | PASS      |
| 4                                     | Corner   | 68      | 7       | 50.1           | PASS      |
| 5                                     | Center   | 100     | 20      | 50             | PASS      |
| 6                                     | Center   | 163     | 19      | N/A            | PASS      |
| 7                                     | Edge     | 186     | 19      | N/A            | PASS      |
| 8                                     | Corner   | 186     | 31      | N/A            | PASS      |



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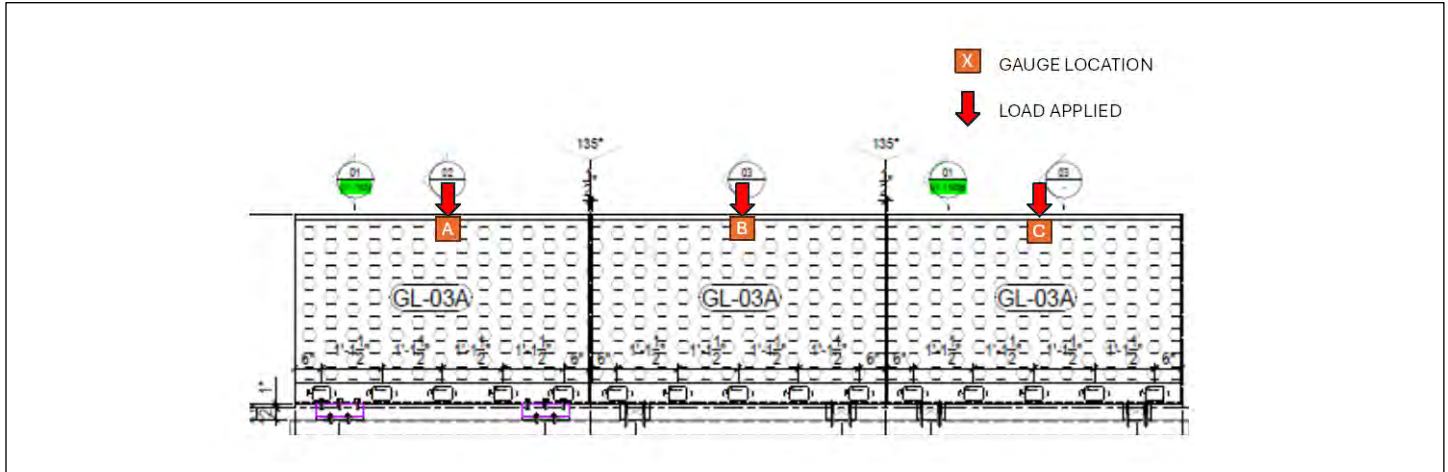
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## Concentrated Load(Pass/Fail ) /2023 FBC 1618.4.6

SPECIMEN #8



### #8A Concentrated load Pass/Fail (A) T= 82° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

### #8B Concentrated load Pass/Fail (B) T= 82 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

### #8C Concentrated load Pass/Fail (C) T= 82 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |



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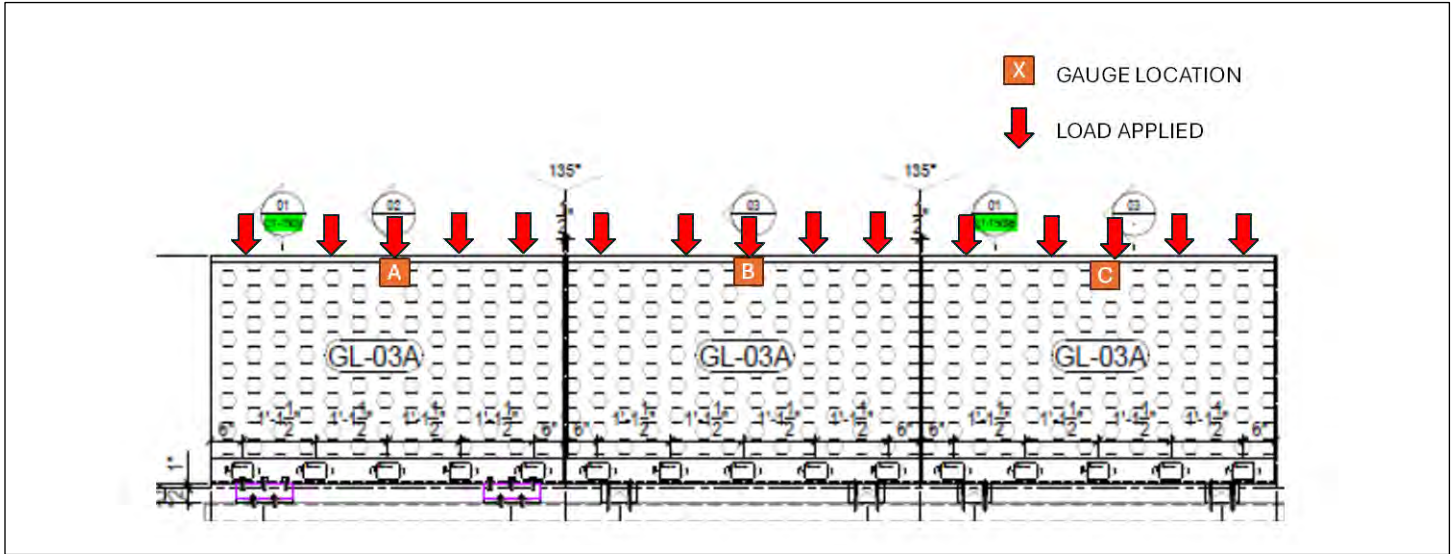
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Distributed Load Pass/Fail



SPECIMEN #8



## #9A Distributed load (A) T= 82° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

## #9B Distributed load (B) T= 82 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

## #9C Distributed load (C) T= 82 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |



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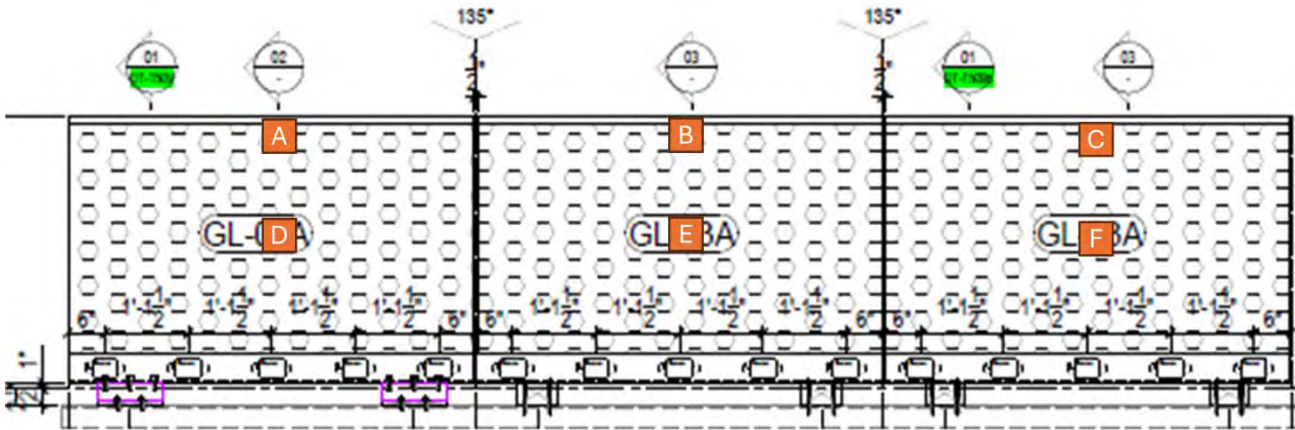
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TAS 202 Pass/Fail



SPECIMEN #8

 GAUGE LOCATION



## #10 Static Design load T= 75° F

|                        |          |                 |           |      |     |  |
|------------------------|----------|-----------------|-----------|------|-----|--|
| STATIC LOAD DATA SHEET |          |                 |           | High | Low |  |
|                        |          |                 |           | 100  | 100 |  |
| Positive Pressure      |          |                 |           |      |     |  |
| Load Factor            | Load psf | Load Inch Water | Pass/Fail |      |     |  |
| DP                     | 100      | 19.23           | PASS      |      |     |  |
| Negative Pressure      |          |                 |           |      |     |  |
| Load Factor            | Load psf | Load Inch Water | Pass/Fail |      |     |  |
| DP                     | 100      | 19.23           | PASS      |      |     |  |



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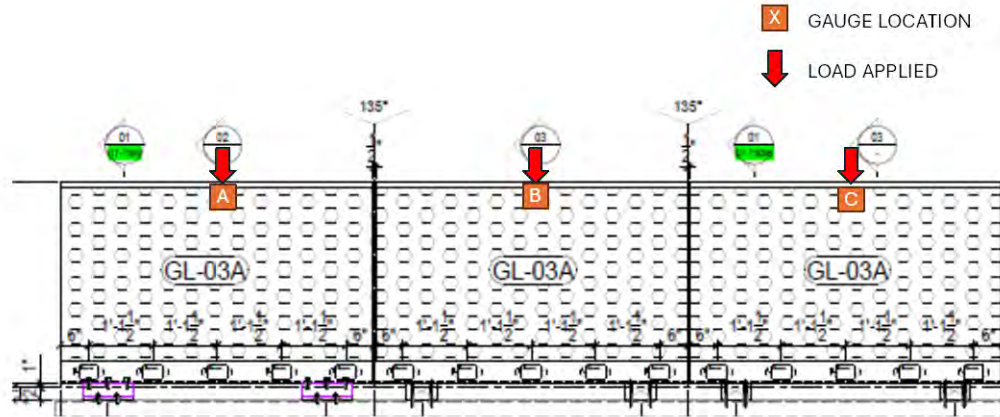
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Concentrated Load



SPECIMEN #9



## #1A Concentrated load (A) T= 69 ° F

|                  |                     |                  |                     |                            |                     |  |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction                  |                     |  |  |
| Total Load       | 400                 |                  | lb                  | Z (perpendicular to glass) |                     |  |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |  |
| A                |                     | B                |                     | C                          |                     |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |  |
| 0.500            | 0.000               | 0.250            | 0.063               | 0.250                      | 0.000               |  |  |

## #1B Concentrated load (B) T= 69 ° F

|                  |                     |                  |                     |                  |                            |  |  |
|------------------|---------------------|------------------|---------------------|------------------|----------------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction        |                            |  |  |
| Total Load       | 400                 |                  | lb                  |                  | Z (perpendicular to glass) |  |  |
| Gauge Location   |                     |                  |                     |                  |                            |  |  |
| A                |                     | B                |                     | C                |                            |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.)        |  |  |
| 0.250            | 0.000               | 0.313            | 0.000               | 0.313            | 0.000                      |  |  |

## #1C Concentrated load (C) T= 69 ° F

|                  |                     |                  |                     |                  |                            |  |  |
|------------------|---------------------|------------------|---------------------|------------------|----------------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction        |                            |  |  |
| Total Load       | 400                 |                  | lb                  |                  | Z (perpendicular to glass) |  |  |
| Gauge Location   |                     |                  |                     |                  |                            |  |  |
| A                |                     | B                |                     | C                |                            |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.)        |  |  |
| 0.063            | 0.000               | 0.250            | 0.000               | 0.500            | 0.063                      |  |  |



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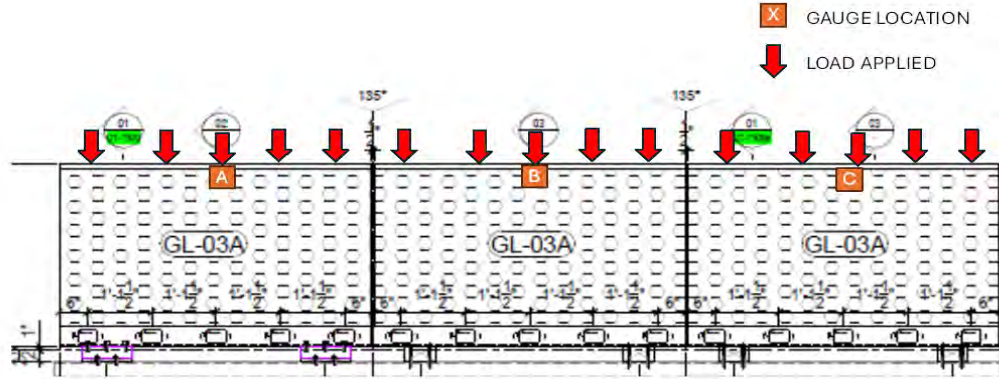
Phone: 561-508-2830 E-mail: Engdep@blackwatertesting.com

MIAMI-DADE CERTIFICATION #21-0909.01 ISO/IEC 17025:2017 AT-2584

Distributed Load



SPECIMEN #9



## #2A Distributed load (A) T= 77 ° F

|                  |                     |                  |                     |                            |                     |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |
| Total Load       | 533                 | lb               |                     | Z (perpendicular to glass) |                     |
| Gauge Location   |                     |                  |                     |                            |                     |
| A                |                     | B                |                     | C                          |                     |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |
| 0.500            | 0.000               | 0.375            | 0.000               | 0.000                      | 0.000               |

## #2B Distributed load (B) T= 77 ° F

|                  |                     |                  |                     |                            |                     |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |  |
| Total Load       | 533                 |                  | lb                  | Z (perpendicular to glass) |                     |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |
| A                |                     | B                |                     | C                          |                     |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |
| 0.063            | 0.000               | 0.500            | 0.125               | 0.188                      | 0.063               |  |

## #2C Distributed load (C) T= 77 ° F

|                  |                     |                  |                     |                            |                     |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |  |
| Total Load       | 533                 |                  | lb                  | Z (perpendicular to glass) |                     |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |
| A                |                     | B                |                     | C                          |                     |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |
| 0.750            | 0.063               | 0.375            | 0.063               | 0.063                      | 0.000               |  |



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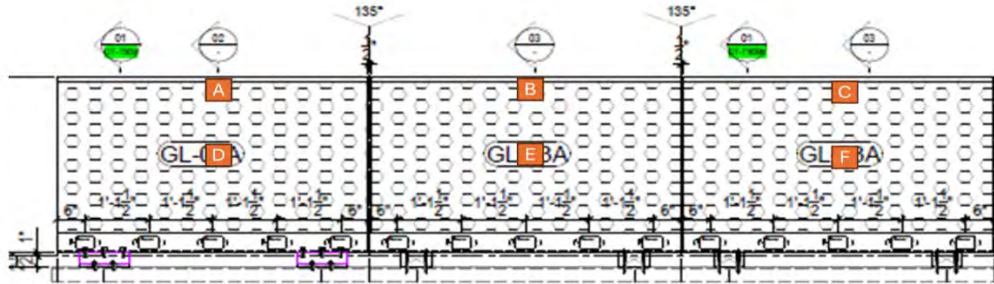
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TAS 202

SPECIMEN #9

X GAUGE LOCATION



## #3 Static Preload T= 78 ° F

| STATIC LOAD DATA SHEET |                       |          |                 |                   | Design Pressure Positive |                     | Design Pressure Negative |                     |           |                     |           |                     |           |                     |           |                     |
|------------------------|-----------------------|----------|-----------------|-------------------|--------------------------|---------------------|--------------------------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|
|                        |                       |          |                 |                   | 100.00                   |                     | 100.00                   |                     |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   |                          |                     |                          |                     |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   | A                        |                     | B                        |                     | C         |                     | D         |                     | E         |                     | F         |                     |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch Water | Load Duration (s) | Defl(in.)                | Permanent Set (in.) | Defl(in.)                | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) |
| 0.5TL                  | Positive              | 75.000   | 14.423          | 30.000            | 0.875                    | 0.063               | 0.438                    | 0.000               | 0.625     | 0.125               | 0.000     | 0.000               | 0.438     | 0.125               | 0.250     | 0.063               |
| 0.5TL                  | Negative              | 75.000   | 14.423          | 30.000            | 1.313                    | 0.000               | 0.688                    | 0.000               | 1.000     | 0.000               | 0.500     | 0.000               | 0.188     | 0.063               | 0.188     | 0.063               |

## #4 Static Design load T= 78 ° F

| STATIC LOAD DATA SHEET |                       |          |                 |                   |           |                     | Design Pressure Positive | Design Pressure Negative |           |                     |           |                     |           |                     |           |                     |
|------------------------|-----------------------|----------|-----------------|-------------------|-----------|---------------------|--------------------------|--------------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|
|                        |                       |          |                 |                   |           |                     | 100.00                   | 100.00                   |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   |           |                     |                          |                          |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   | A         |                     | B                        |                          | C         |                     | D         |                     | E         |                     | F         |                     |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch Water | Load Duration (s) | Defl(in.) | Permanent Set (in.) | Defl(in.)                | Permanent Set (in.)      | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) |
| DP                     | Positive              | 100.000  | 19.231          | 30.000            | 1.125     | 0.063               | 1.500                    | 0.063                    | 0.875     | 0.063               | 0.625     | 0.063               | 0.250     | 0.063               | 0.375     | 0.063               |
| DP                     | Negative              | 100.000  | 19.231          | 30.000            | 1.500     | 0.125               | 1.625                    | 0.063                    | 1.625     | 0.063               | 0.688     | 0.000               | 0.375     | 0.063               | 0.313     | 0.063               |

## #5 Static Overload T= 78 ° F

| STATIC LOAD DATA SHEET |                       |          |                 |                   |           |                     | Design Pressure Positive | Design Pressure Negative |           |                     |           |                     |           |                     |           |                     |
|------------------------|-----------------------|----------|-----------------|-------------------|-----------|---------------------|--------------------------|--------------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|
|                        |                       |          |                 |                   |           |                     | 100.00                   | 100.00                   |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   |           |                     |                          |                          |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   | A         |                     | B                        |                          | C         |                     | D         |                     | E         |                     | F         |                     |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch Water | Load Duration (s) | Defl(in.) | Permanent Set (in.) | Defl(in.)                | Permanent Set (in.)      | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) |
| TL                     | Positive              | 200.000  | 38.462          | 30.000            | 2.000     | 0.125               | 1.875                    | 0.063                    | 1.000     | 0.063               | 1.250     | 0.063               | 1.125     | 0.063               | 0.625     | 0.063               |
| TL                     | Negative              | 200.000  | 38.462          | 30.000            | 2.250     | 0.063               | 2.125                    | 0.125                    | 1.375     | 0.063               | 1.375     | 0.000               | 1.125     | 0.063               | 0.750     | 0.063               |



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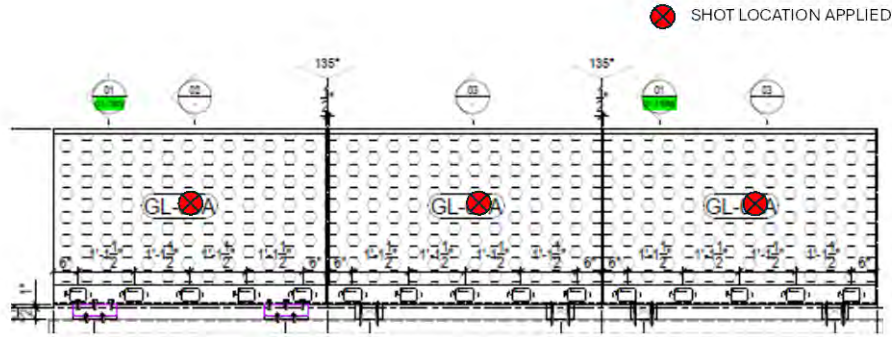
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ANSI Z97.1



## SPECIMEN # 9



## #6 ANSI Z97.1 Class (A) T= 80 ° F

| Impact 100lb ball at 400 ft*lb                                  |        |              |          |         |         |
|-----------------------------------------------------------------|--------|--------------|----------|---------|---------|
| Glazing                                                         | Target | Area         | Location |         | Results |
|                                                                 |        |              | X (in.)  | Y (in.) |         |
| GL1                                                             | 1      | Center Glass | 35       | 28      | PASS    |
| GL2                                                             | 2      | Center Glass | 102      | 26      | PASS    |
| GL3                                                             | 3      | Center Glass | 158      | 26      | PASS    |
| Notes: Coordinate origin bottom left hand corner for Shot 1,2,3 |        |              |          |         |         |



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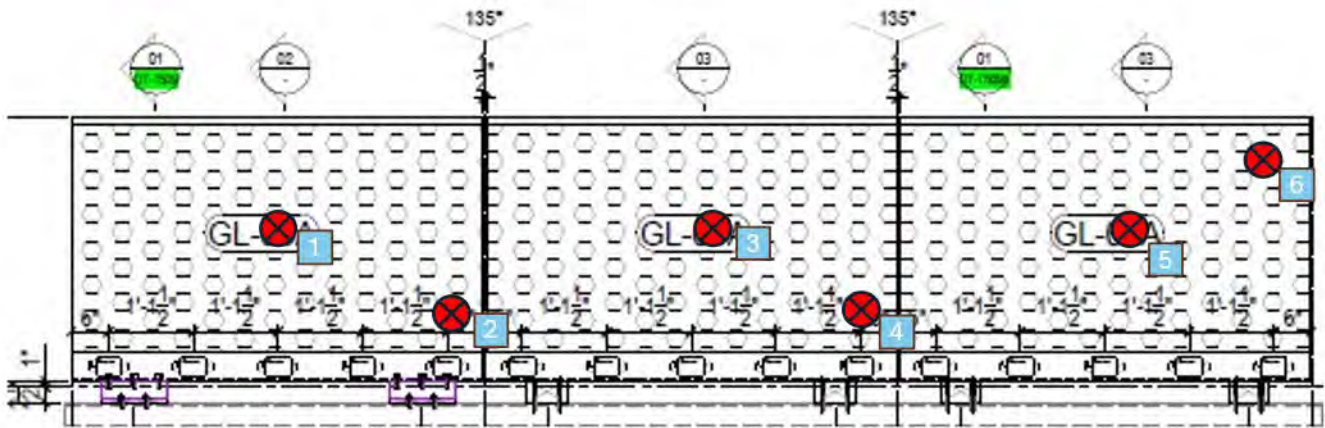
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TAS 201/ASTM E1996 (LARGE)

SPECIMEN #9

LMI SHOT LOCATION APPLIED



#7 LARGE/SMALL Missile Impact Test T= 73° F

| LARGE/SMALL MISSILE IMPACT DATA SHEET |          |         |         |                |           |
|---------------------------------------|----------|---------|---------|----------------|-----------|
| Shot                                  | Location |         |         |                | Results   |
|                                       | Area     | X (in.) | Y (in.) | Keyence (ft/s) | Pass/Fail |
| 1                                     | Center   | 35      | 28      | 50             | PASS      |
| 2                                     | Corner   | 62      | 16      | 50             | PASS      |
| 3                                     | Center   | 102     | 26      | 50             | PASS      |
| 4                                     | Corner   | 126     | 16      | 50             | PASS      |
| 5                                     | Center   | 158     | 26      | 50             | PASS      |
| 6                                     | Corner   | 182     | 36      | 50             | PASS      |



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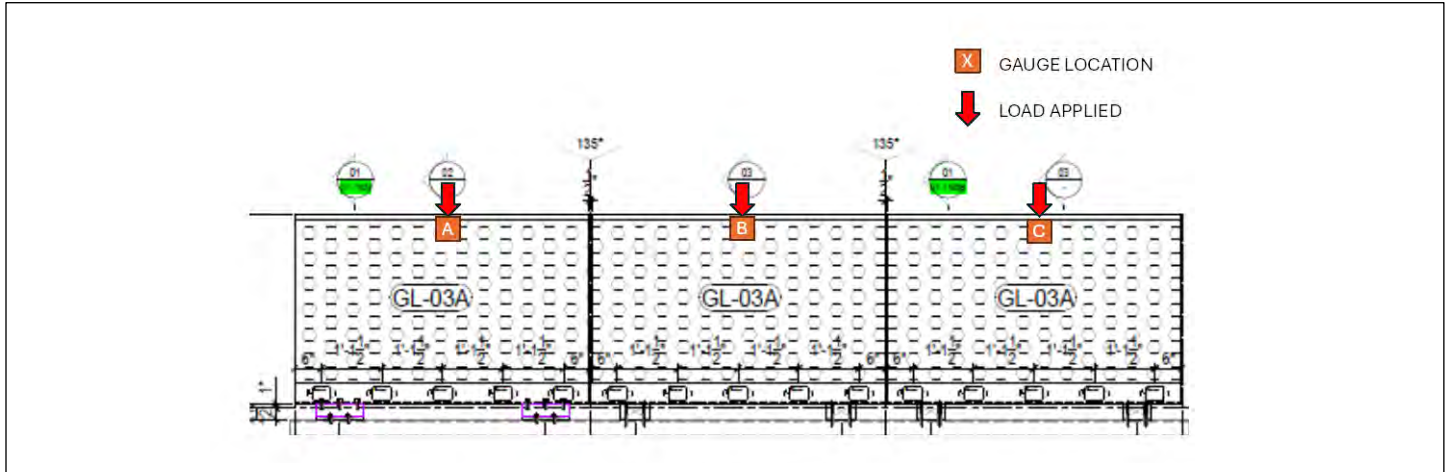
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## Concentrated Load(Pass/Fail ) /2023 FBC 1618.4.6

SPECIMEN #9



### #8A Concentrated load Pass/Fail (A) T= 75 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

### #8B Concentrated load Pass/Fail (B) T= 75 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

### #8C Concentrated load Pass/Fail (C) T= 75 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |



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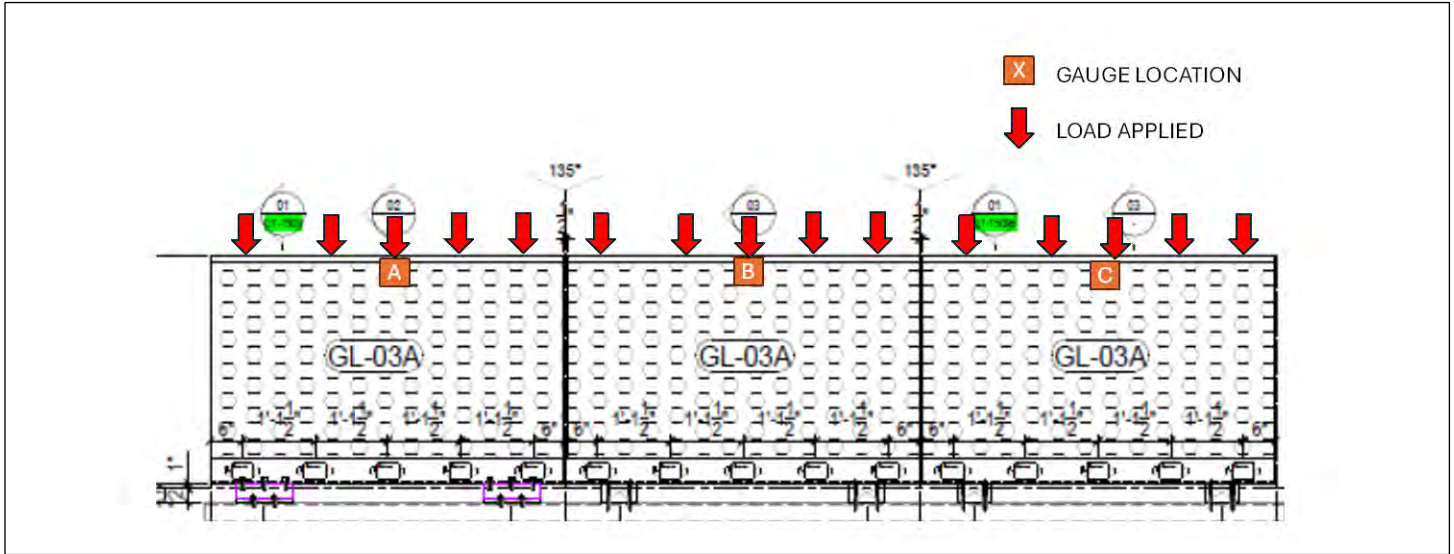
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Distributed Load Pass/Fail



SPECIMEN #9



## #9A Distributed load (A) T= 77 ° F

|                |     |                  |                            |
|----------------|-----|------------------|----------------------------|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |
| Gauge Location |     |                  |                            |
| PASS           |     |                  |                            |

## #9B Distributed load (B) T= 77 ° F

|                |     |                  |                            |
|----------------|-----|------------------|----------------------------|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |
| Gauge Location |     |                  |                            |
| PASS           |     |                  |                            |

## #9C Distributed load (C) T= 77 ° F

|                |     |                  |                            |
|----------------|-----|------------------|----------------------------|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |
| Gauge Location |     |                  |                            |
| PASS           |     |                  |                            |



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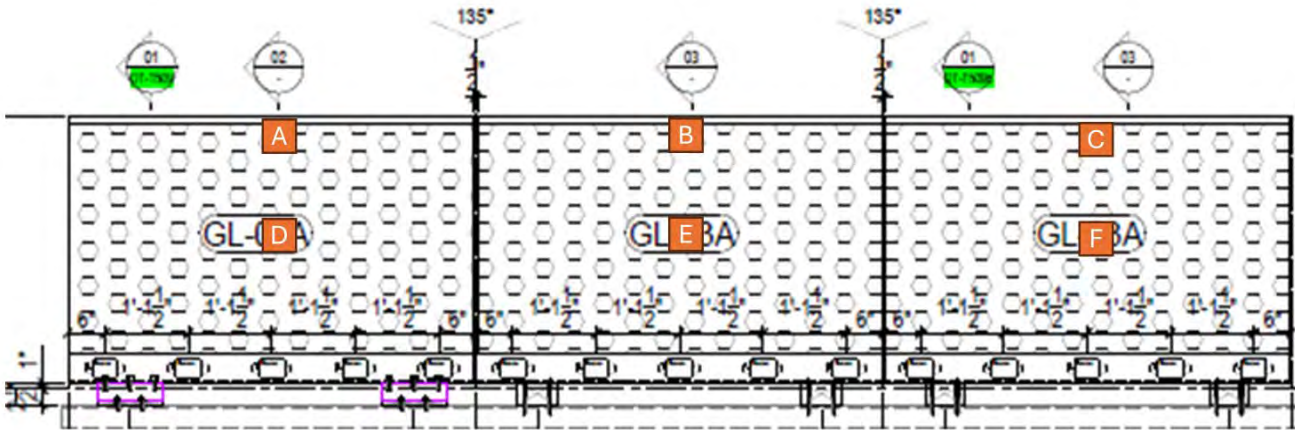
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TAS 202 Pass/Fail



SPECIMEN #9

**X** GAUGE LOCATION



## #10 Static Design load T= 78 ° F

| STATIC LOAD DATA SHEET |          |                 | High      | Low |  |
|------------------------|----------|-----------------|-----------|-----|--|
|                        |          |                 | 100       | 100 |  |
| Positive Pressure      |          |                 |           |     |  |
| Load Factor            | Load psf | Load Inch Water | Pass/Fail |     |  |
| DP                     | 100      | 19.23           | PASS      |     |  |
| Negative Pressure      |          |                 |           |     |  |
| Load Factor            | Load psf | Load Inch Water | Pass/Fail |     |  |
| DP                     | 100      | 19.23           | PASS      |     |  |



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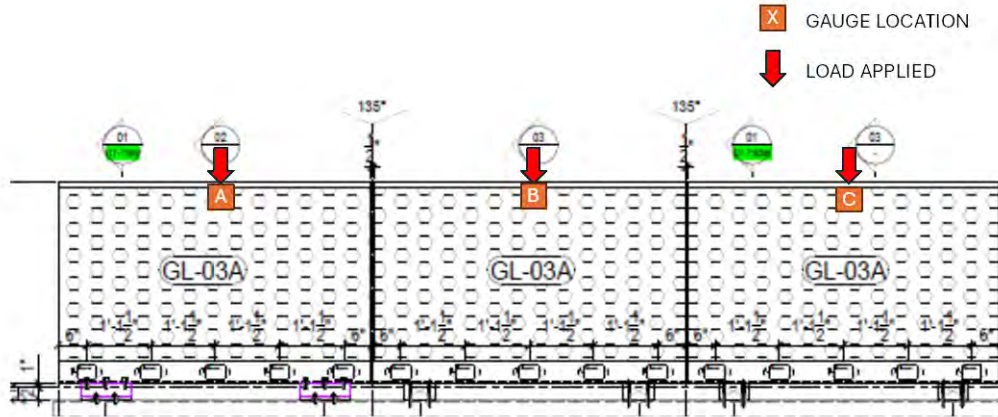
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Concentrated Load



## SPECIMEN #10



### #1A Concentrated load (A) T= 77 ° F

|                  |                     |                  |                     |                  |                            |  |  |
|------------------|---------------------|------------------|---------------------|------------------|----------------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction        |                            |  |  |
| Total Load       | 400                 |                  | lb                  |                  | Z (perpendicular to glass) |  |  |
| Gauge Location   |                     |                  |                     |                  |                            |  |  |
| A                |                     | B                |                     | C                |                            |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.)        |  |  |
| 0.438            | 0.000               | 0.125            | 0.000               | 0.000            | 0.000                      |  |  |

### #B Concentrated load (B) T= 77 ° F

|                  |                     |                  |                     |                            |                     |  |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction                  |                     |  |  |
| Total Load       | 400                 |                  | lb                  | Z (perpendicular to glass) |                     |  |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |  |
| A                |                     | B                |                     | C                          |                     |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |  |
| 0.188            | 0.063               | 0.750            | 0.063               | 0.125                      | 0.000               |  |  |

### #1C Concentrated load (C) T= 77 ° F

|                  |                     |                  |                     |                            |                     |  |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|--|
| Load (lb)        | 200                 | Safety Factor= 2 |                     | Direction                  |                     |  |  |
| Total Load       | 400                 |                  | lb                  | Z (perpendicular to glass) |                     |  |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |  |
| A                |                     | B                |                     | C                          |                     |  |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |  |
| 0.063            | 0.000               | 0.125            | 0.063               | 0.438                      | 0.063               |  |  |



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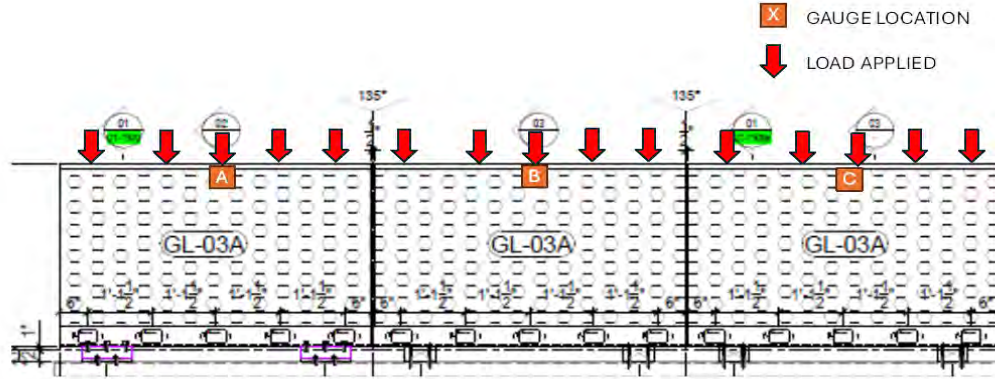
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Distributed Load



## SPECIMEN #10



### #2A Distributed load (A) T= 77 ° F

|                  |                     |                  |                     |                            |                     |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |
| Total Load       | 533                 | lb               |                     | Z (perpendicular to glass) |                     |
| Gauge Location   |                     |                  |                     |                            |                     |
| A                |                     | B                |                     | C                          |                     |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |
| 0.750            | 0.063               | 0.375            | 0.000               | 0.125                      | 0.000               |

### #2B Distributed load (B) T= 77 ° F

|                  |                     |                  |                     |                            |                     |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |  |
| Total Load       | 533                 |                  | lb                  | Z (perpendicular to glass) |                     |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |
| A                |                     | B                |                     | C                          |                     |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |
| 0.188            | 0.000               | 0.563            | 0.063               | 0.125                      | 0.000               |  |

### #2C Distributed load (C) T= 77 ° F

|                  |                     |                  |                     |                            |                     |  |
|------------------|---------------------|------------------|---------------------|----------------------------|---------------------|--|
| Load (lb/ft)     | 50                  | Safety Factor= 2 |                     | Direction                  |                     |  |
| Total Load       | 533                 |                  | lb                  | Z (perpendicular to glass) |                     |  |
| Gauge Location   |                     |                  |                     |                            |                     |  |
| A                |                     | B                |                     | C                          |                     |  |
| Deflection (In.) | Permanent Set (In.) | Deflection (In.) | Permanent Set (In.) | Deflection (In.)           | Permanent Set (In.) |  |
| 0.063            | 0.000               | 0.313            | 0.000               | 0.625                      | 0.000               |  |



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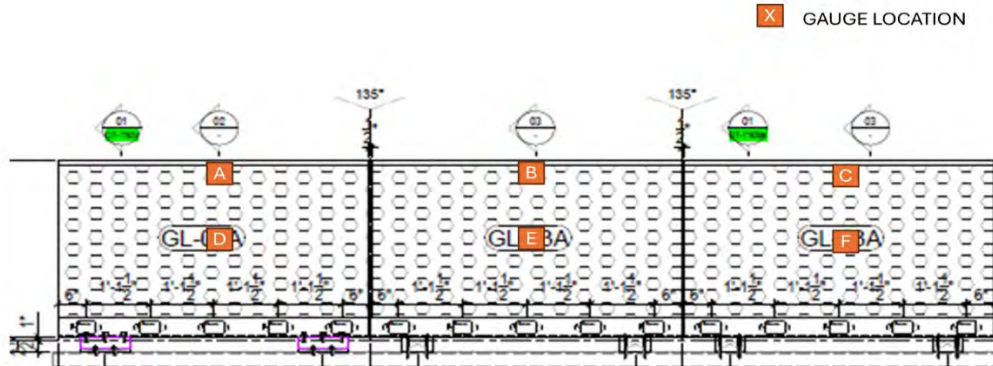
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TAS 202

SPECIMEN #10



## #3 Static Preload T= 76 ° F

| STATIC LOAD DATA SHEET |                       |          |                    |                      |           |                        | Design<br>Pressure<br>Positive | Design<br>Pressure<br>Negative |           |                        |           |                        |           |                        |           |                        |
|------------------------|-----------------------|----------|--------------------|----------------------|-----------|------------------------|--------------------------------|--------------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|-----------|------------------------|
|                        |                       |          |                    |                      |           |                        | 100.00                         | 100.00                         |           |                        |           |                        |           |                        |           |                        |
|                        |                       |          |                    |                      |           |                        |                                |                                |           |                        |           |                        |           |                        |           |                        |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch<br>Water | Load<br>Duration (s) | Defl(in.) | Permanent Set<br>(in.) | Defl(in.)                      | Permanent Set<br>(in.)         | Defl(in.) | Permanent<br>Set (in.) | Defl(in.) | Permanent Set<br>(in.) | Defl(in.) | Permanent<br>Set (in.) | Defl(in.) | Permanent<br>Set (in.) |
| 0.5TL                  | Positive              | 75.000   | 14.423             | 30.000               | 1.000     | 0.125                  | 0.875                          | 0.063                          | 0.625     | 0.063                  | 0.500     | 0.000                  | 0.625     | 0.063                  | 0.500     | 0.000                  |
| 0.5TL                  | Negative              | 75.000   | 14.423             | 30.000               | 0.063     | 0.188                  | 1.063                          | 0.125                          | 0.625     | 0.125                  | 0.563     | 0.063                  | 0.750     | 0.125                  | 0.438     | 0.063                  |

## #4 Static Design load T= 76 ° F

| STATIC LOAD DATA SHEET |                       |          |                 |                   |           |                     | Design Pressure Positive |                     | Design Pressure Negative |                     |           |                     |           |                     |           |                     |
|------------------------|-----------------------|----------|-----------------|-------------------|-----------|---------------------|--------------------------|---------------------|--------------------------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|
|                        |                       |          |                 |                   |           |                     | 100.00                   |                     | 100.00                   |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   |           |                     |                          |                     |                          |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   | A         |                     | B                        |                     | C                        |                     | D         |                     | E         |                     | F         |                     |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch Water | Load Duration (s) | Defl(in.) | Permanent Set (in.) | Defl(in.)                | Permanent Set (in.) | Defl(in.)                | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) |
| DP                     | Positive              | 100.000  | 19.231          | 30.000            | 1.125     | 0.063               | 1.500                    | 0.063               | 0.750                    | 0.063               | 0.125     | 0.063               | 0.250     | 0.000               | 0.375     | 0.000               |
| DP                     | Negative              | 100.000  | 19.231          | 30.000            | 1.375     | 0.063               | 1.688                    | 0.063               | 0.750                    | 0.063               | 0.750     | 0.063               | 0.063     | 0.000               | 0.438     | 0.125               |

## #5 Static Overload T= 76 ° F

| STATIC LOAD DATA SHEET |                       |          |                 |                   | Design Pressure Positive |                     | Design Pressure Negative |                     |           |                     |           |                     |           |                     |           |                     |
|------------------------|-----------------------|----------|-----------------|-------------------|--------------------------|---------------------|--------------------------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|
|                        |                       |          |                 |                   | 100.00                   |                     | 100.00                   |                     |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   |                          |                     |                          |                     |           |                     |           |                     |           |                     |           |                     |
|                        |                       |          |                 |                   | A                        |                     | B                        |                     | C         |                     | D         |                     | E         |                     | F         |                     |
| Load Factor            | Positive/<br>Negative | Load psf | Load Inch Water | Load Duration (s) | Defl(in.)                | Permanent Set (in.) | Defl(in.)                | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) | Defl(in.) | Permanent Set (in.) |
| TL                     | Positive              | 200.000  | 38.462          | 30.000            | 1.875                    | 0.063               | 2.000                    | 0.063               | 1.000     | 0.063               | 1.250     | 0.063               | 1.375     | 0.125               | 0.500     | 0.000               |
| TL                     | Negative              | 200.000  | 38.462          | 30.000            | 2.250                    | 0.125               | 2.500                    | 0.125               | 1.063     | 0.063               | 1.313     | 0.063               | 1.563     | 0.125               | 0.500     | 0.000               |

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BT-ELG-25-003C



# BLACKWATER TECHNICAL SERVICES INC.

7341 Westport Pl Suite 1A, West Palm Beach Fl. 33413

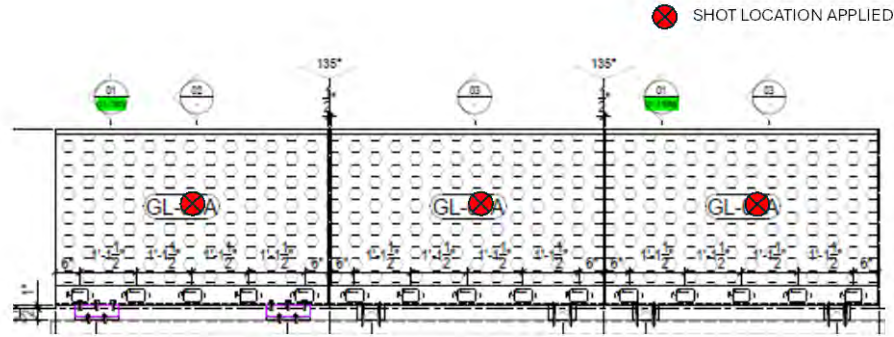
Phone: 561-508-2830 E-mail: Engdep@blackwatertesting.com

MIAMI-DADE CERTIFICATION #21-0909.01 ISO/IEC 17025:2017 AT-2584



## ANSI Z97.1

SPECIMEN # 10



#6 ANSI Z97.1 Class (A) T= 82 ° F

| Impact 100lb ball at 400 ft*lb                                  |        |              |          |         |         |
|-----------------------------------------------------------------|--------|--------------|----------|---------|---------|
| Glazing                                                         | Target | Area         | Location |         | Results |
|                                                                 |        |              | X (in.)  | Y (in.) |         |
| GL1                                                             | 1      | Center Glass | 33       | 26      | PASS    |
| GL2                                                             | 2      | Center Glass | 100      | 26      | PASS    |
| GL3                                                             | 3      | Center Glass | 163      | 26      | PASS    |
| Notes: Coordinate origin bottom left hand corner for Shot 1,2,3 |        |              |          |         |         |



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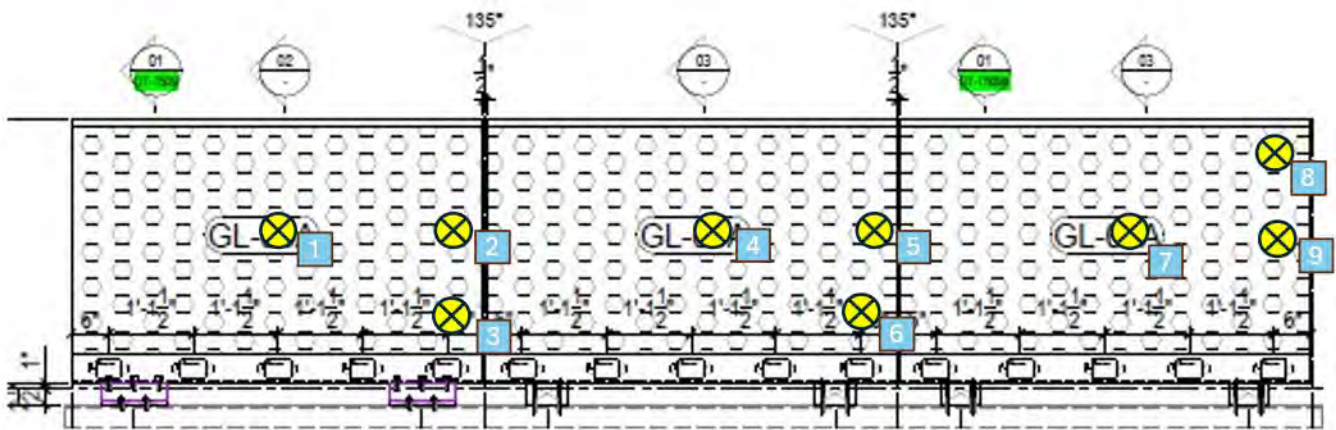
MIAMI-DADE CERTIFICATION #21-0909.01 ISO/IEC 17025:2017 AT-2584



TAS 201/ASTM E1996 (LARGE)

SPECIMEN #10

SMI SHOT LOCATION APPLIED



#7 SMALL Missile Impact Test T= 82° F

| SMALL MISSILE IMPACT DATA SHEET |          |         |         |                |           |
|---------------------------------|----------|---------|---------|----------------|-----------|
| Shot                            | Location |         |         |                | Results   |
|                                 | Area     | X (in.) | Y (in.) | Keyence (ft/s) | Pass/Fail |
| 1                               | Center   | 42      | 29      |                | PASS      |
| 2                               | Edge     | 60      | 30      |                | PASS      |
| 3                               | Corner   | 60      | 17      |                | PASS      |
| 4                               | Center   | 100     | 28      |                | PASS      |
| 5                               | Edge     | 127     | 29      |                | PASS      |
| 6                               | Corner   | 127     | 19      |                | PASS      |
| 7                               | Center   | 163     | 29      |                | PASS      |
| 8                               | Corner   | 184     | 41      |                | PASS      |
| 9                               | Edge     | 184     | 29      |                | PASS      |



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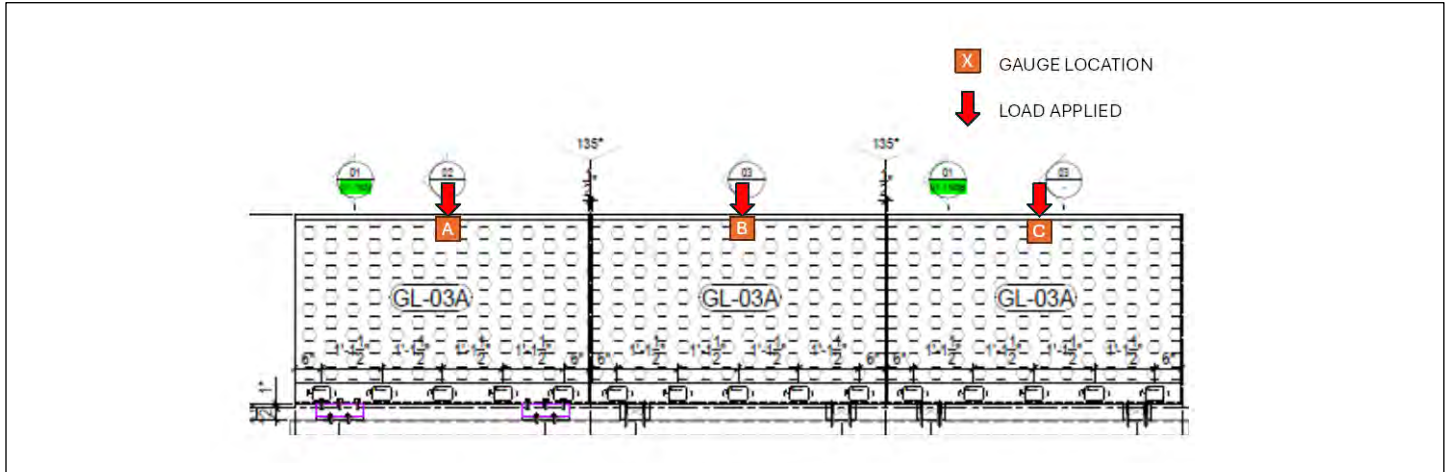
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MIAMI-DADE CERTIFICATION #21-0909.01 ISO/IEC 17025:2017 AT-2584



## Concentrated Load(Pass/Fail ) /2023 FBC 1618.4.6

SPECIMEN #10



### #8A Concentrated load Pass/Fail (A) T= 78 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

### #8B Concentrated load Pass/Fail (B) T= 78 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

### #8C Concentrated load Pass/Fail (C) T= 78 ° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb)      | 200 | Safety Factor= 1 | Direction                  |  |
| Total Load     | 200 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |



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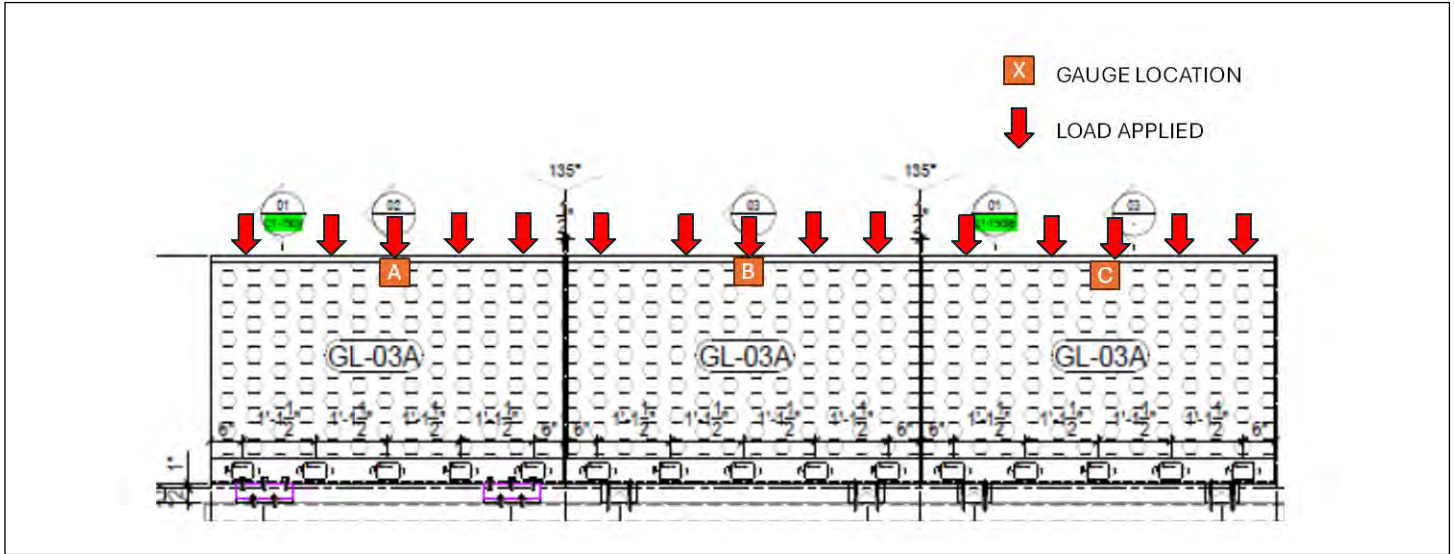
Phone: 561-508-2830 E-mail: Engdep@blackwatertesting.com

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Distributed Load Pass/Fail



SPECIMEN #10



## #9A Distributed load (A) T= 81° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

## #9B Distributed load (B) T= 81° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |

## #9C Distributed load (C) T= 81° F

|                |     |                  |                            |  |
|----------------|-----|------------------|----------------------------|--|
| Load (lb/ft)   | 50  | Safety Factor= 1 | Direction                  |  |
| Total Load     | 267 | lb               | Z (perpendicular to glass) |  |
| Gauge Location |     |                  |                            |  |
| PASS           |     |                  |                            |  |



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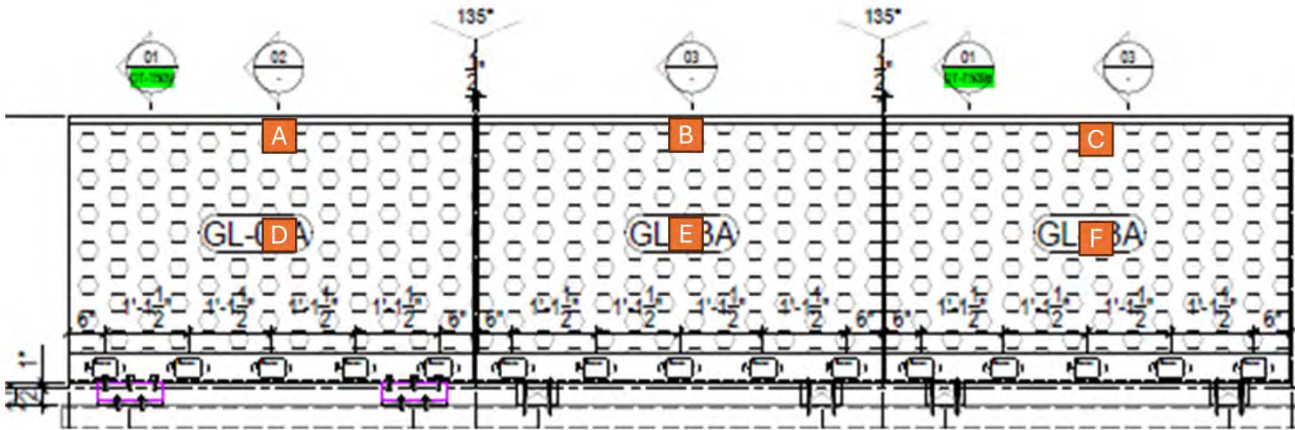
MIAMI-DADE CERTIFICATION #21-0909.01 ISO/IEC 17025:2017 AT-2584

TAS 202 Pass/Fail



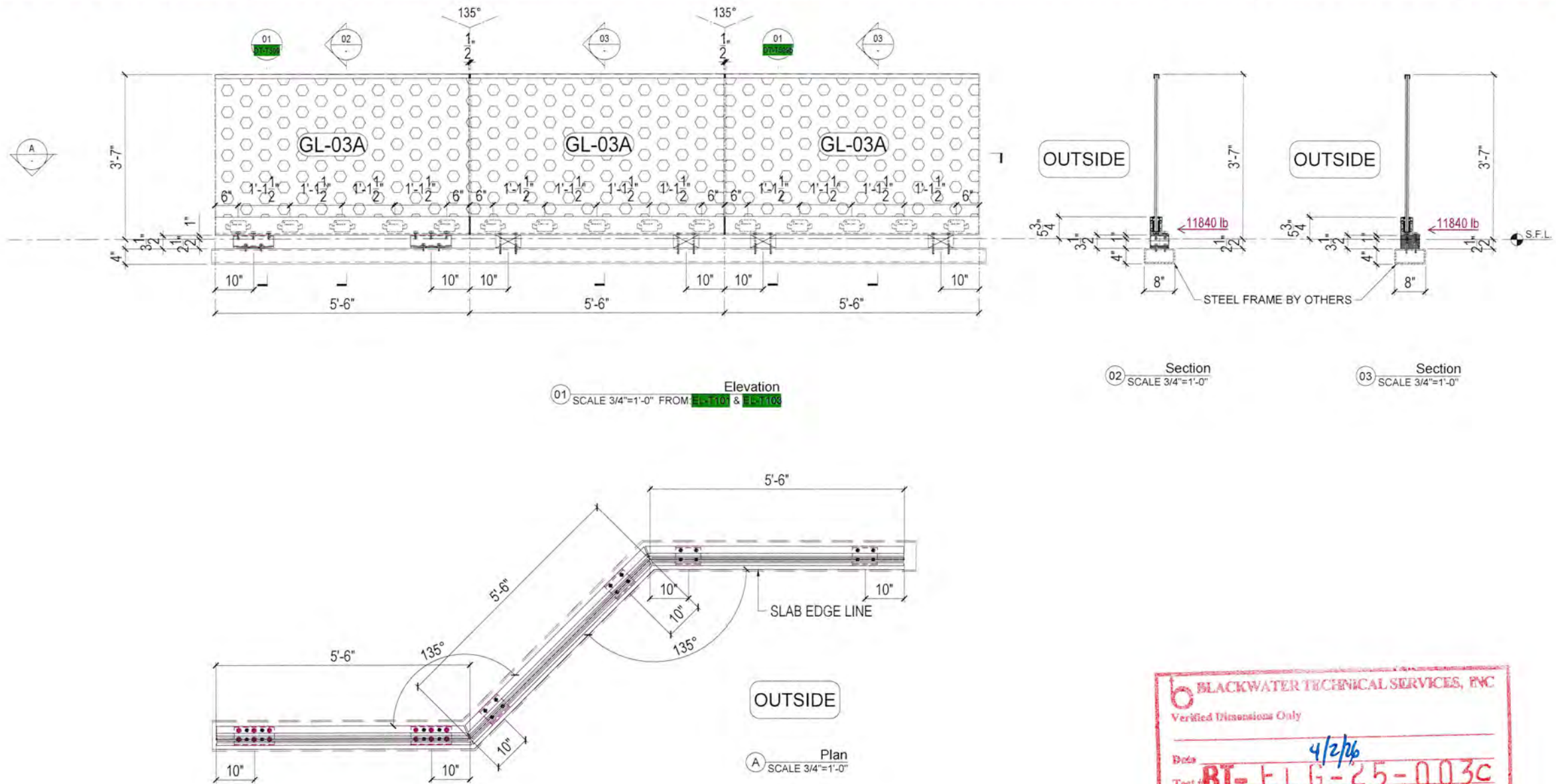
SPECIMEN #10

**X** GAUGE LOCATION



## #10 Static Design load T= 82° F

|                        |          |                 |           |     |  |
|------------------------|----------|-----------------|-----------|-----|--|
| STATIC LOAD DATA SHEET |          |                 | High      | Low |  |
|                        |          |                 | 100       | 100 |  |
| Positive Pressure      |          |                 |           |     |  |
| Load Factor            | Load psf | Load Inch Water | Pass/Fail |     |  |
| DP                     | 100      | 19.23           | PASS      |     |  |
| Negative Pressure      |          |                 |           |     |  |
| Load Factor            | Load psf | Load Inch Water | Pass/Fail |     |  |
| DP                     | 100      | 19.23           | PASS      |     |  |



LEGEND:

RAILING GLASS  
GL-03A : FT10 Clear +2.28SGP+FT10 Clear

SPECIMEN # 7  
LARGE MISSILE IMPACT  
DESIGN WIND LOAD: ±100 PSF

Job No.:

Key Plan/Elevation:



| No. | Date          | Description         |
|-----|---------------|---------------------|
| 3   | Oct. 31, 2025 | REVISED AS COMMENTS |
| 2   | Sep. 4, 2025  | REVISED AS COMMENTS |
| 1   | Apr. 9, 2025  | Issued for review   |

Revisions:

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Facade Consultant:

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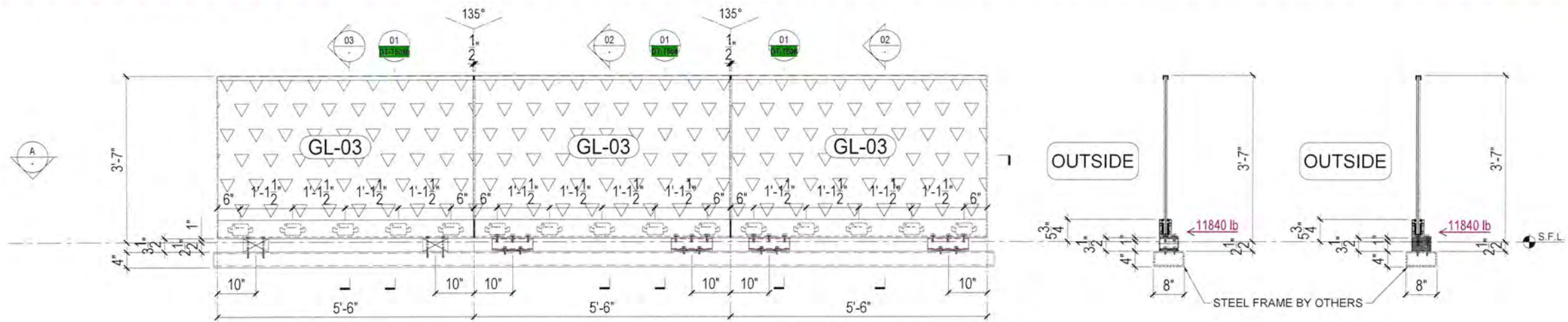
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LARGE MISSILE IMPACT  
TESTING ELEVATION

Sheet No.: PE-T307

Date: Oct. 31, 2025 Revision No.: 3

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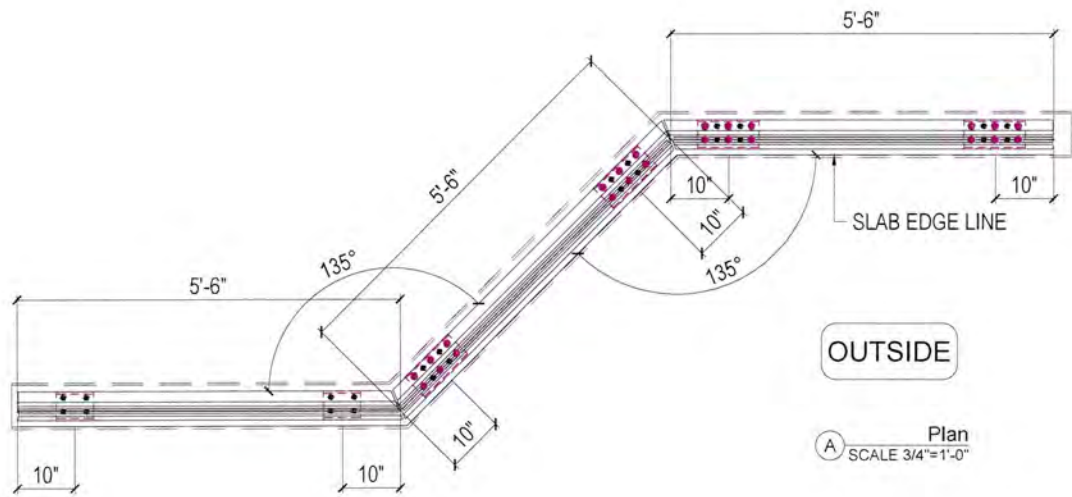
Phase: TESTING DRAWINGS



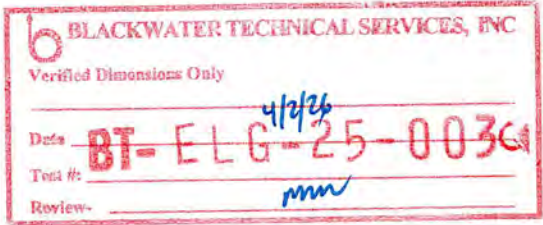
01 Elevation  
SCALE 3/4"=1'-0" FROM ELEVATION & ELEVATION

02 Section  
SCALE 3/4"=1'-0"

03 Section  
SCALE 3/4"=1'-0"



Plan  
SCALE 3/4"=1'-0"



|                            |
|----------------------------|
| SPECIMEN # 8               |
| SMALL MISSILE IMPACT       |
| DESIGN WIND LOAD: ±100 PSF |

|                                        |
|----------------------------------------|
| RAILING GLASS                          |
| GL-03 : FT10 Clear +1.52SGP+FT10 Clear |



| No. | Date          | Description         |
|-----|---------------|---------------------|
| 3   | Oct. 31, 2025 | REVISED AS COMMENTS |
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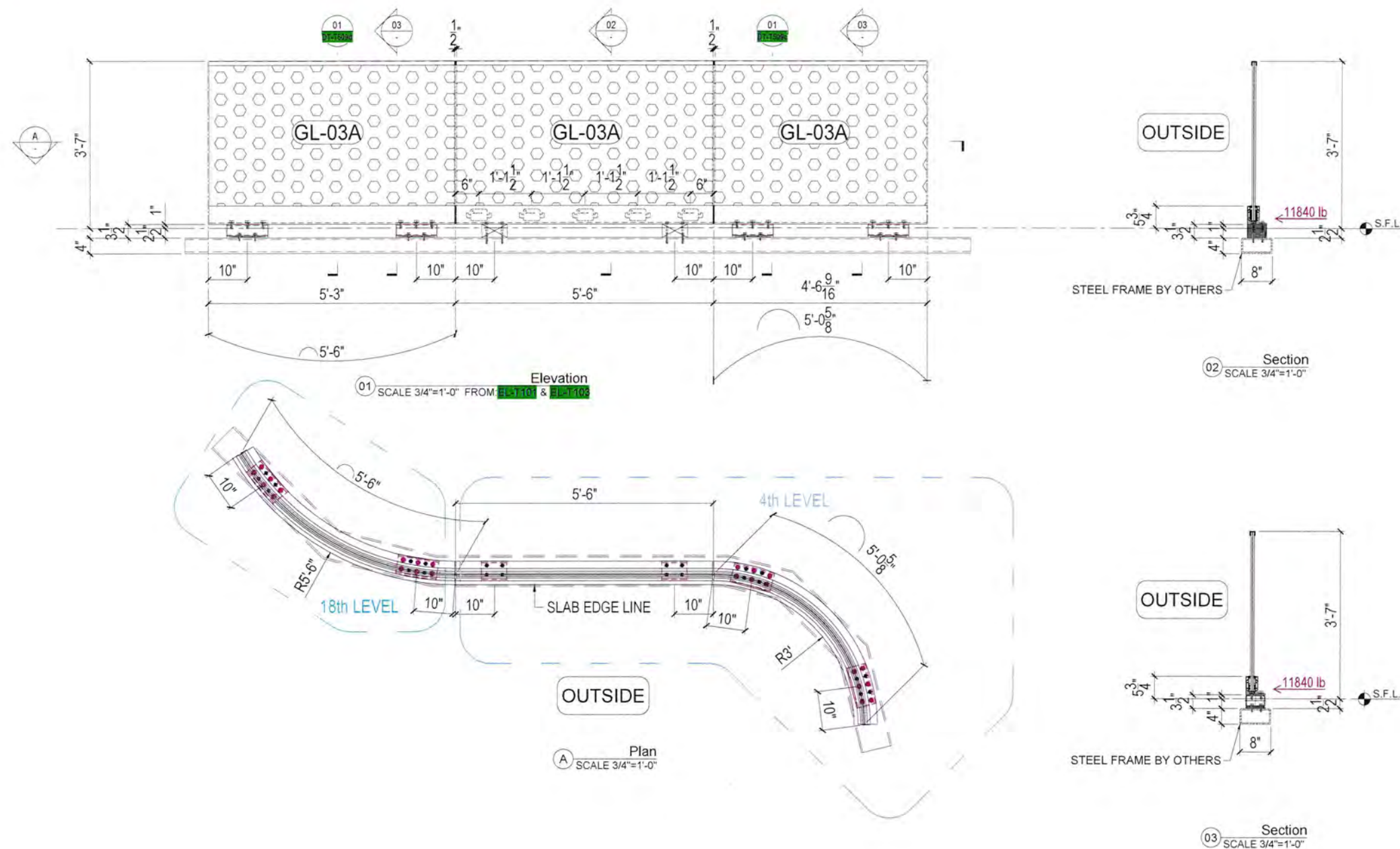
Title:  
SMALL MISSILE IMPACT  
TESTING ELEVATION

Sheet No.: PE-T308

Date: Oct. 31, 2025 Revision No.: 3

Scale: 3/4"=1'-0" Size: 22"x34"

Phase: TESTING DRAWINGS



Job No.:

Key Plan/Elevation:



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| 4   | Oct. 31, 2025 | REVISED AS COMMENTS |
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| No. | Date          | Description         |

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Title: LARGE MISSILE IMPACT TESTING ELEVATION

Sheet No.: PE-T309

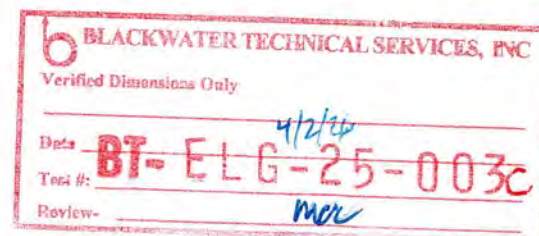
Date: Oct. 31, 2025

Revision No.: 4

Scale:  $\frac{3}{4}" = 1'-0"$

Size: 22"x34"

Phase: TESTING DRAWINGS



LEGEND:



RAILING GLASS  
(GL-03A) : FT10 Clear +2.28SGP+FT10 Clear

SPECIMEN # 9

## LARGE MISSILE IMPACT

DESIGN WIND LOAD:  $\pm 100$  PSF

|                     |                 |
|---------------------|-----------------|
| Date: Oct. 31, 2025 | Revision No.: 4 |
| Scale: 3/4"=1'-0"   | Size: 22"x34"   |

|                   |               |
|-------------------|---------------|
| Scale: 3/4"=1'-0" | Size: 22"x34" |
|-------------------|---------------|

Phase: TESTING DRAWINGS

Job No.:  
Key Plan/Elevation:



| No. | Date          | Description         |
|-----|---------------|---------------------|
| 4   | Oct. 31, 2025 | REVISED AS COMMENTS |
| 3   | Sep. 4, 2025  | REVISED AS COMMENTS |
| 2   | Apr. 9, 2025  | REVISED AS COMMENTS |
| 1   | Jul. 9, 2024  | Issued for review   |

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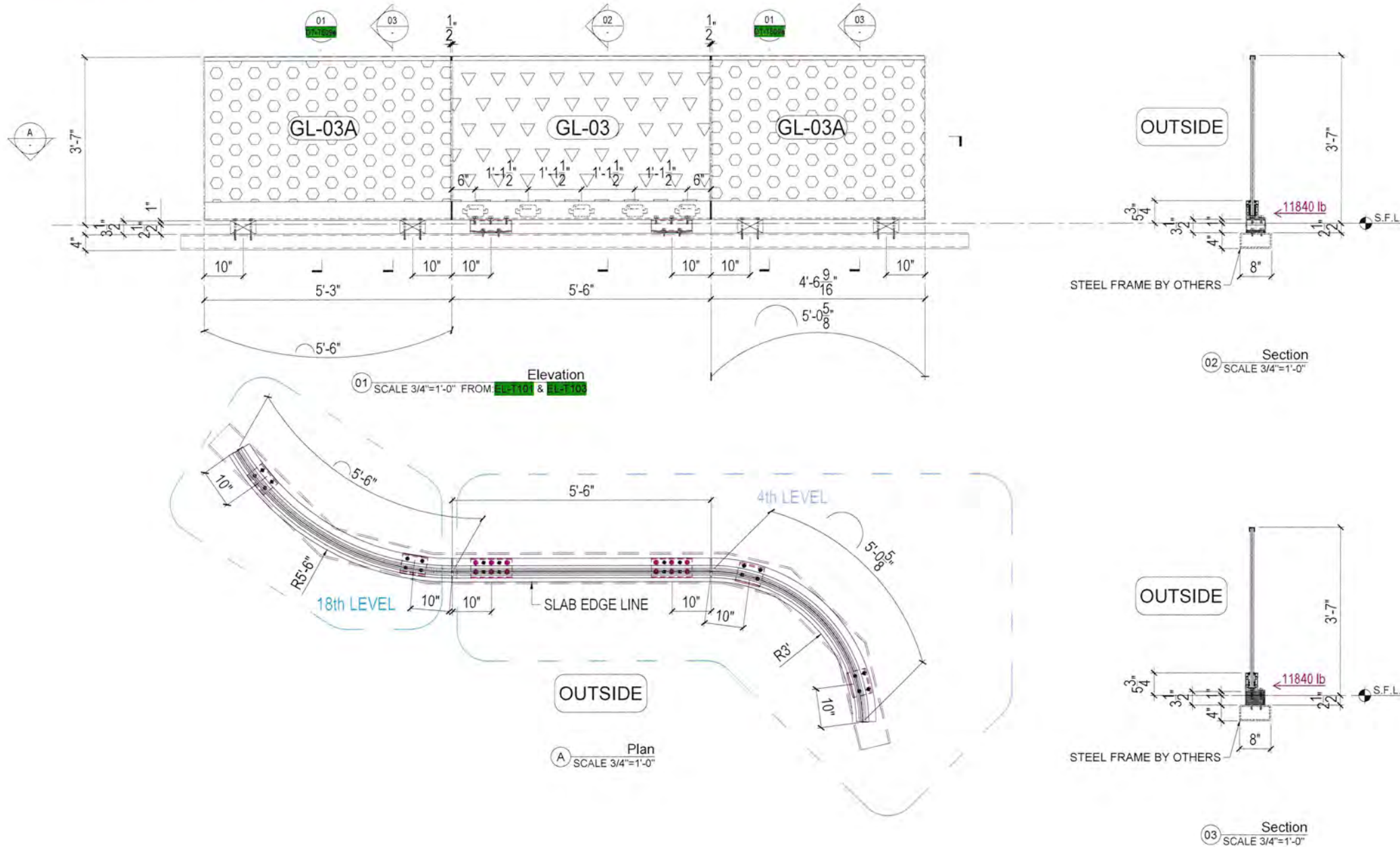
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SMALL MISSILE IMPACT  
TESTING ELEVATION

Sheet No.: PE-T310

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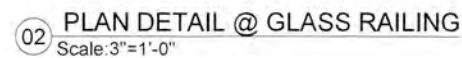
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Phase: TESTING DRAWINGS

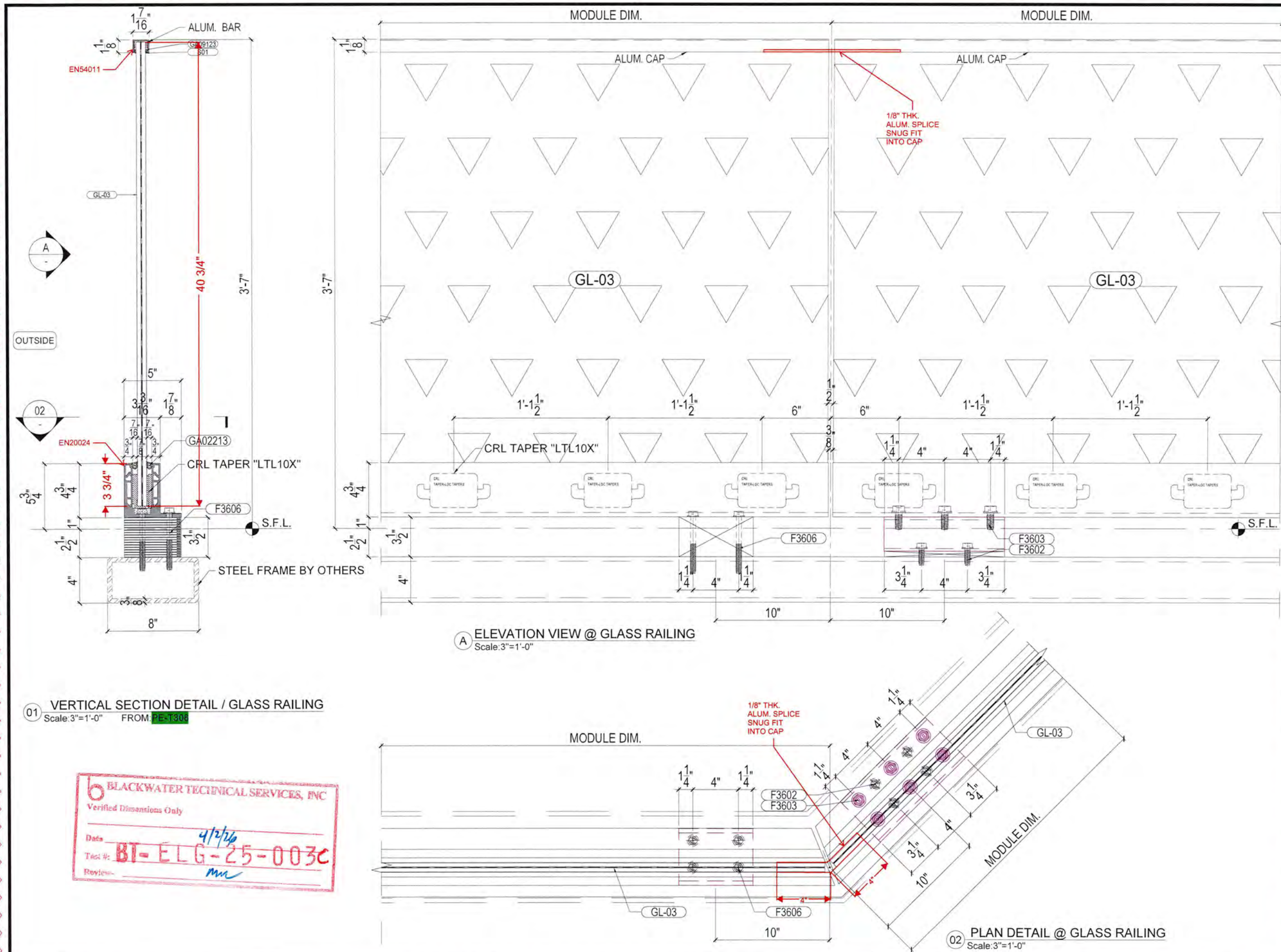


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Date: 4/2/26  
BT-ELG-25-003C  
Review: mm

| SPECIMEN # 10                                              |  |
|------------------------------------------------------------|--|
| SMALL MISSILE IMPACT                                       |  |
| DESIGN WIND LOAD: ±100 PSF                                 |  |
| RAILING GLASS<br>(GL-03) : FT10 Clear +1.52SGP+FT10 Clear  |  |
| RAILING GLASS<br>(GL-03A) : FT10 Clear +2.28SGP+FT10 Clear |  |



### Phase: TESTING DRAWINGS



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Date: 4/2/26  
Task #: BT-ELG-25-003C  
Review: mm

Job No.:

Key Plan/Elevation:



| No.        | Date | Description |
|------------|------|-------------|
| Revisions: |      |             |

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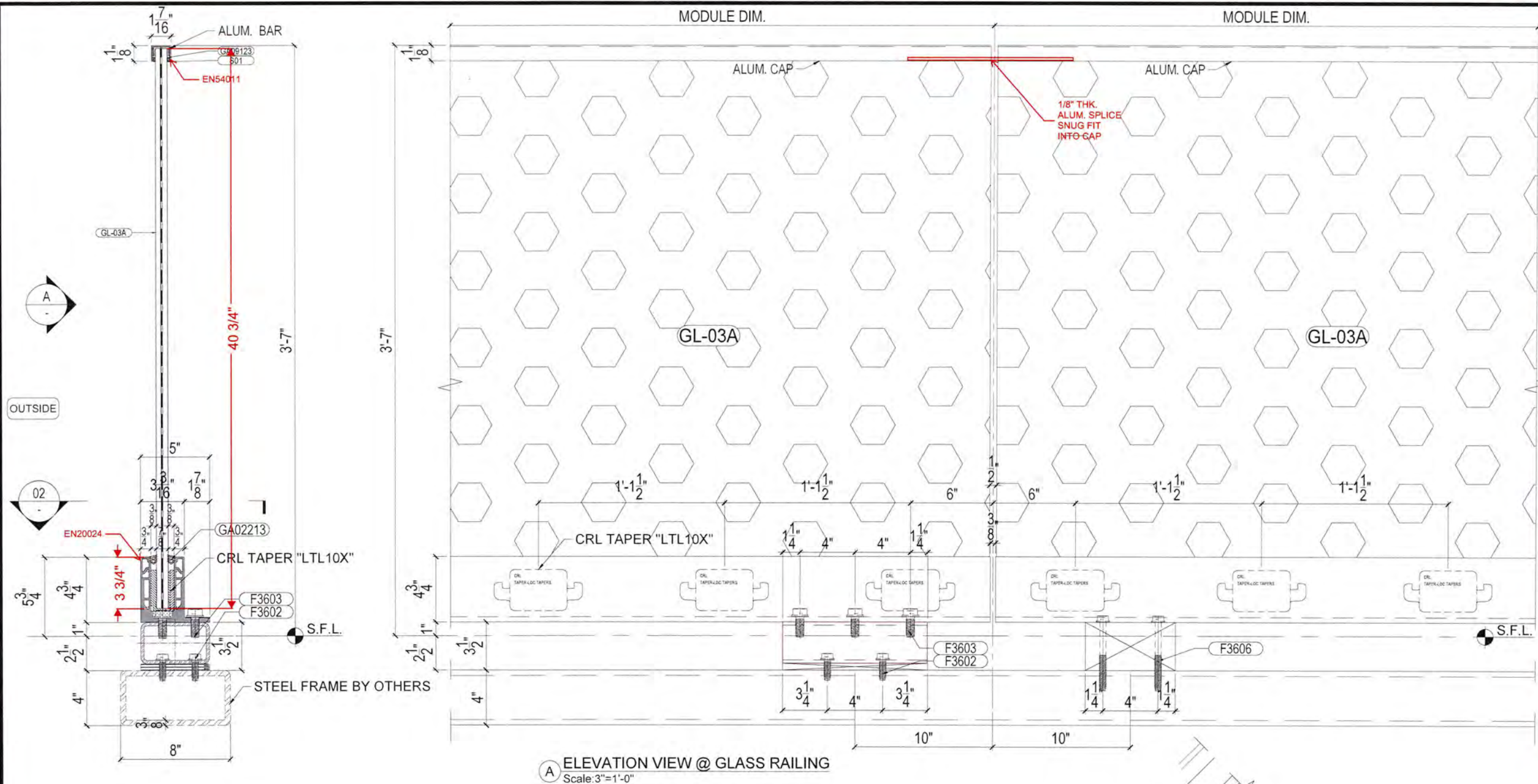
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VERTICAL SECTION DETAIL  
@ GLASS RAILING

Sheet No.: DT-T508b

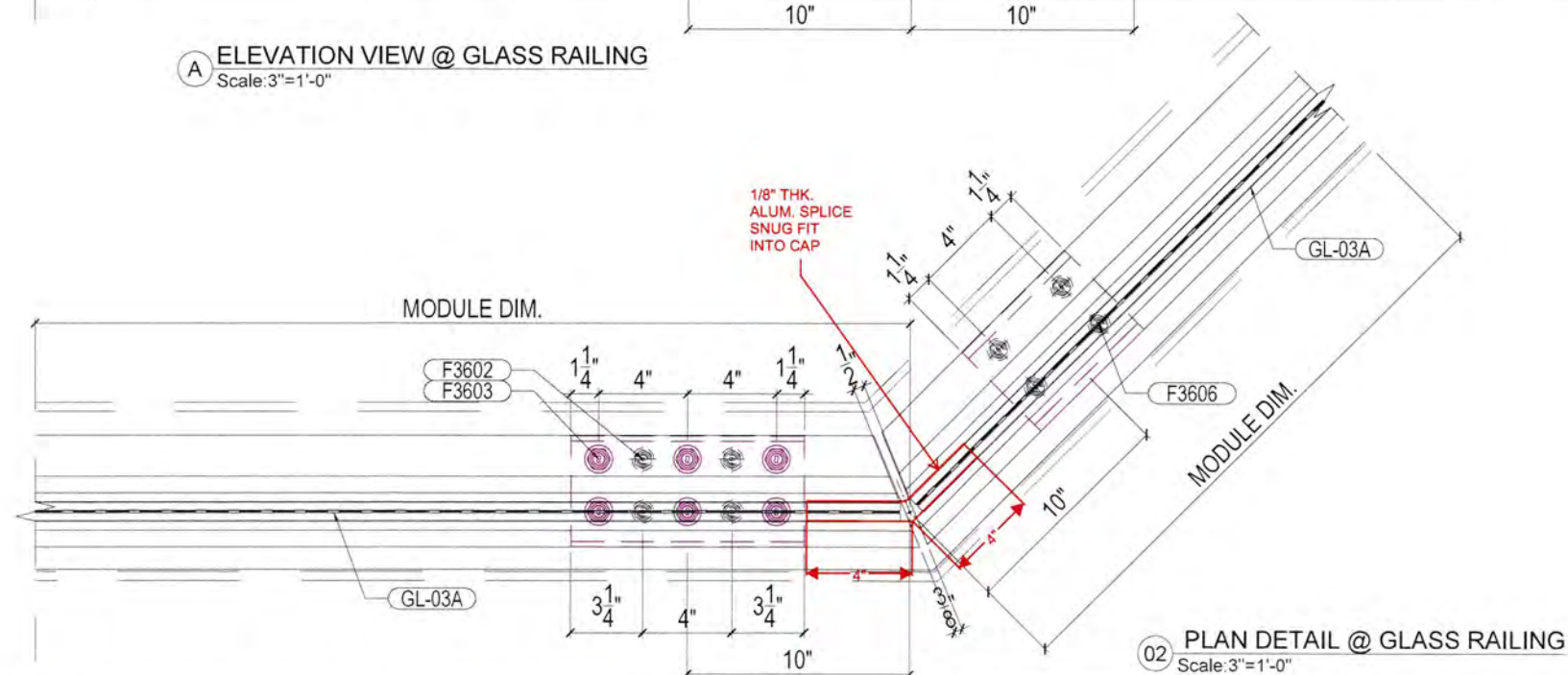
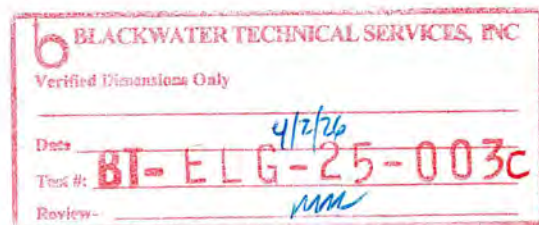
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Phase: TESTING DRAWINGS



**01 VERTICAL SECTION DETAIL / GLASS RAILING**  
Scale: 3"=1'-0" FROM: PE-T307



Job No.:

Key Plan/Elevation:



| 2   | Sep. 4, 2025 | REVISED AS COMMENTS |
|-----|--------------|---------------------|
| 1   | Apr. 9, 2025 | Issued for review   |
| No. | Date         | Description         |

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Project: Shore Club  
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Title:

VERTICAL SECTION DETAIL  
@ GLASS RAILING

Sheet No.: DT-T509

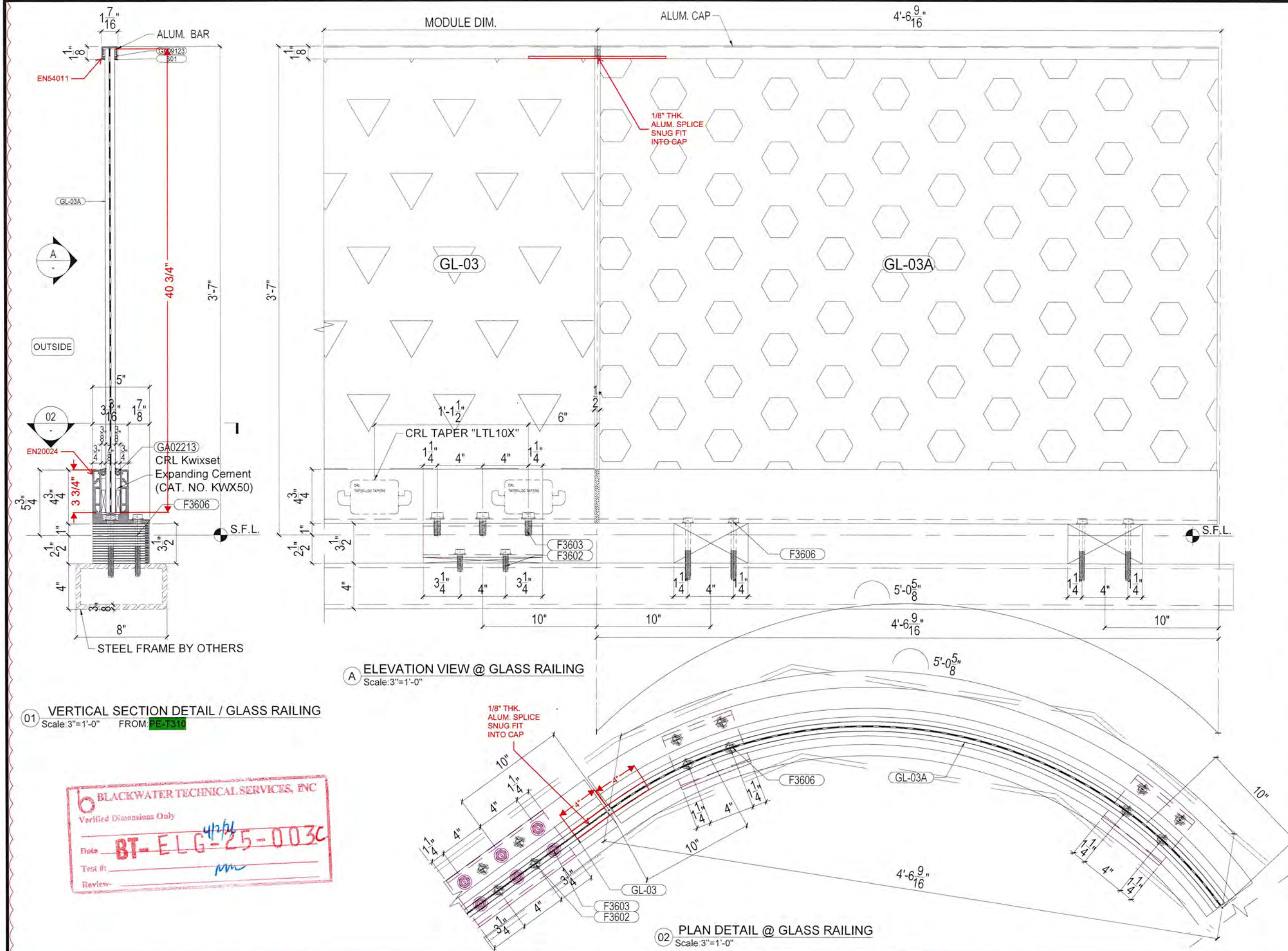
Date: Sep. 4, 2025

Revision No.: 2

Scale: 3"=1'-0"

Size: 22"x34"

Phase: TESTING DRAWINGS



Job No.:

Key Plan/Elevation:



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| 2   | Sep. 4, 2025  | REVISED AS COMMENTS |
| 1   | Apr. 9, 2025  | Issued for review   |
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Checked By:

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Title:

VERTICAL SECTION DETAIL  
@ GLASS RAILING

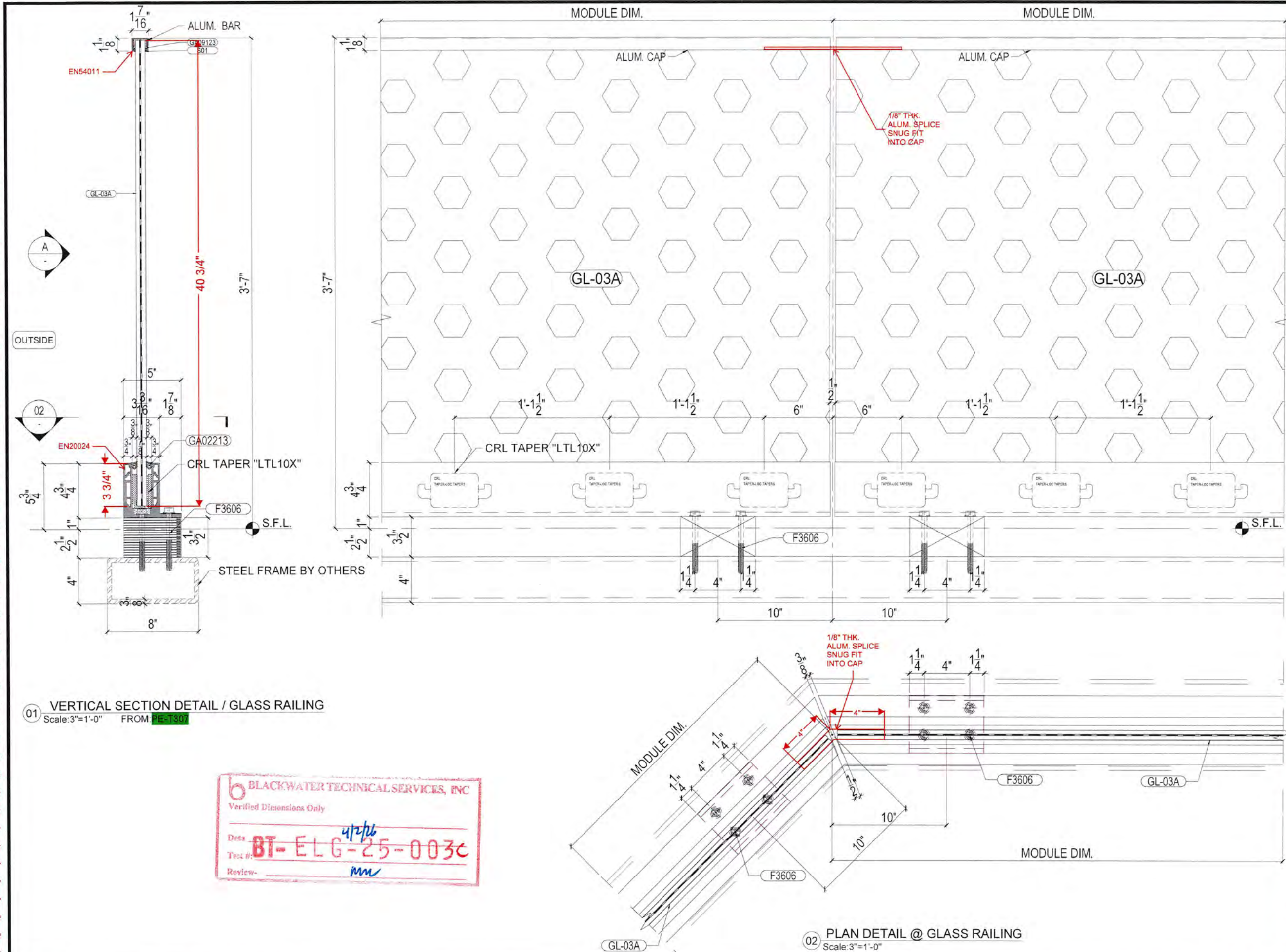
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Date: Oct. 31, 2025

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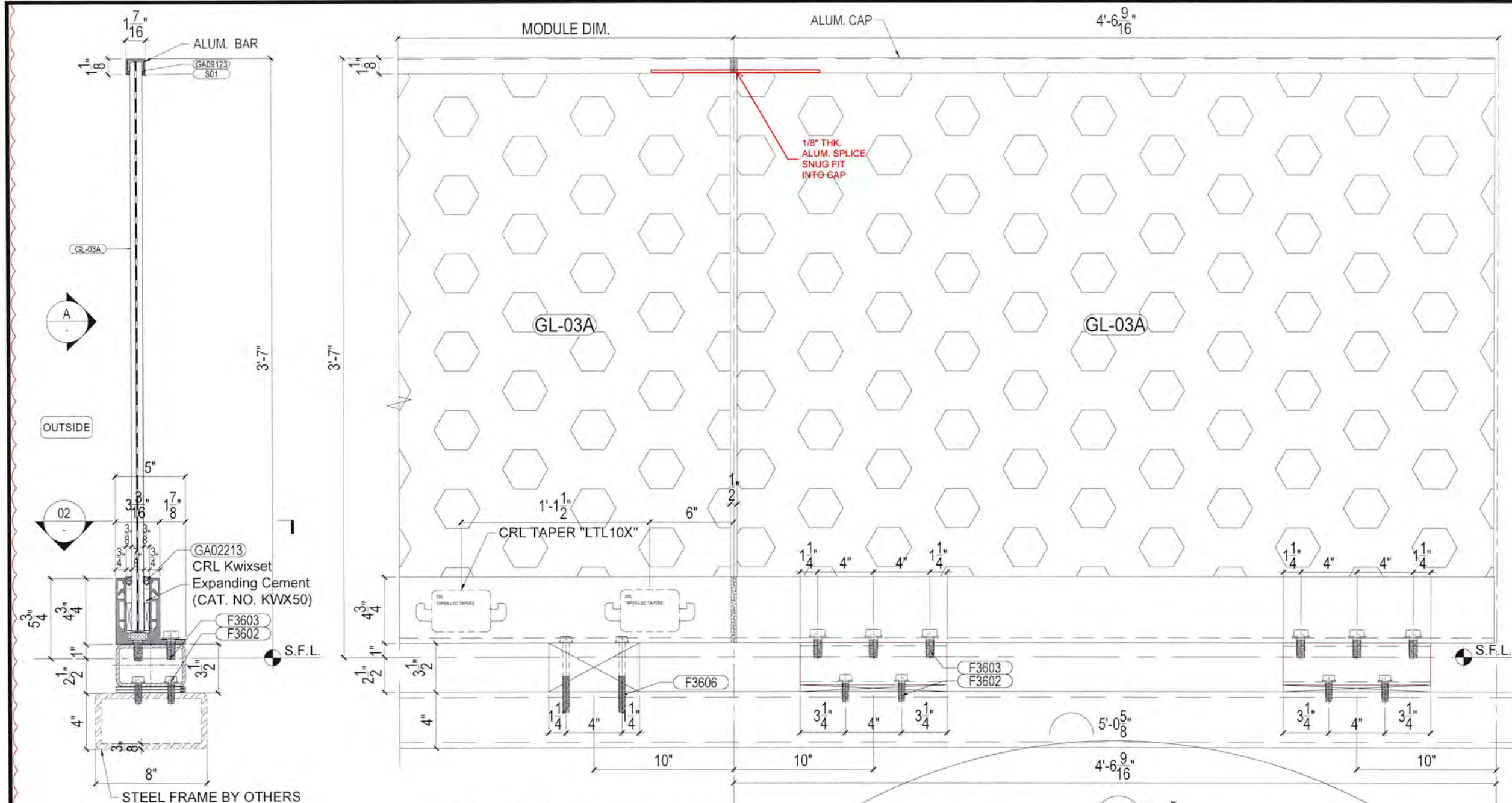
Revision No.: 3

Phase: TESTING DRAWINGS



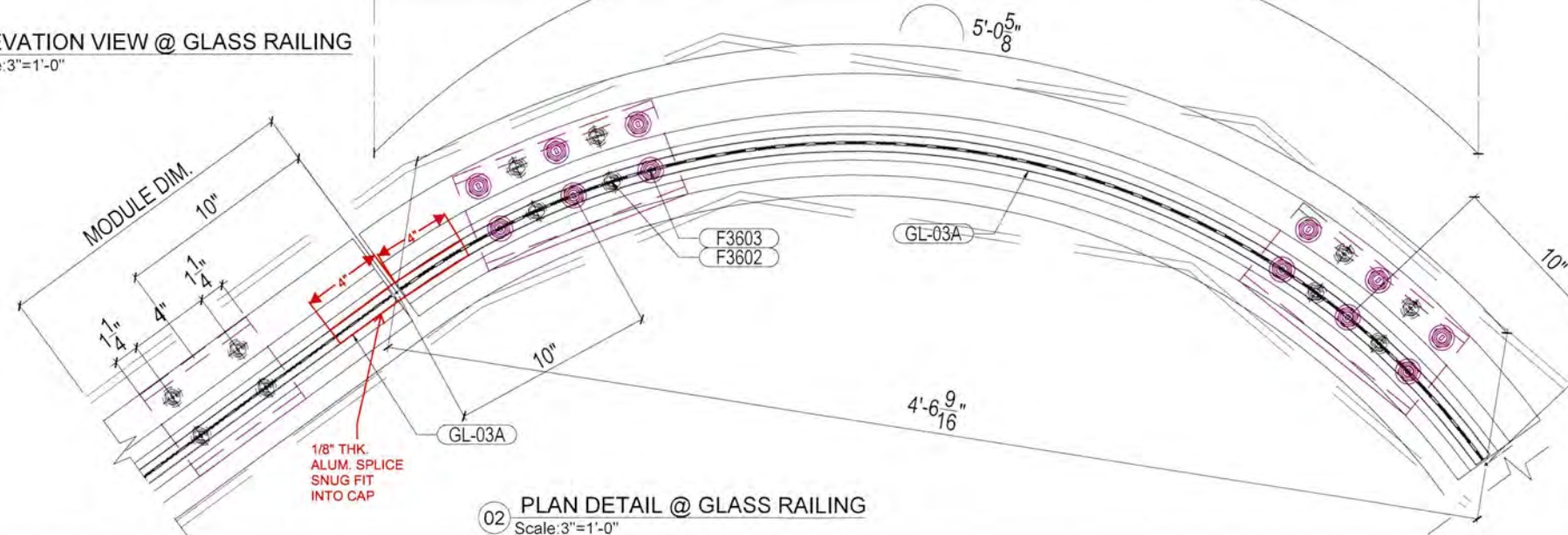
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Verified Dimensions Only  
Data: **BT-ELG-25-003C**  
Test #: **BT-ELG-25-003C**  
Review: **mm**

Job No.:  
Key Plan/Elevation:  
  
No. Date Description  
Revisions:  
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Design Team:  
Project: Shore Club  
1901 Collins Ave.  
Miami Beach, FL 33139  
Title:  
VERTICAL SECTION DETAIL  
@ GLASS RAILING  
Sheet No.: DT-T509b  
Date: Oct. 31, 2025 Revision No.: -  
Scale: 3"=1'-0" Size: 22"x34"  
Phase: TESTING DRAWINGS



A ELEVATION VIEW @ GLASS RAILING  
Scale: 3"=1'-0"

01 VERTICAL SECTION DETAIL / GLASS RAILING  
Scale: 3"=1'-0" FROM: 2-E-T309



02 PLAN DETAIL @ GLASS RAILING  
Scale: 3"=1'-0"

Job No.:

Key Plan/Elevation:



| No.        | Date | Description |
|------------|------|-------------|
| Revisions: |      |             |

Contractor:

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Robert A.M Stern Architects LLP  
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Facade Consultant:

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Design Team:

Project: Shore Club  
1901 Collins Ave.  
Miami Beach, FL 33139

Title:

VERTICAL SECTION DETAIL  
@ GLASS RAILING

Sheet No.: DT-T509c

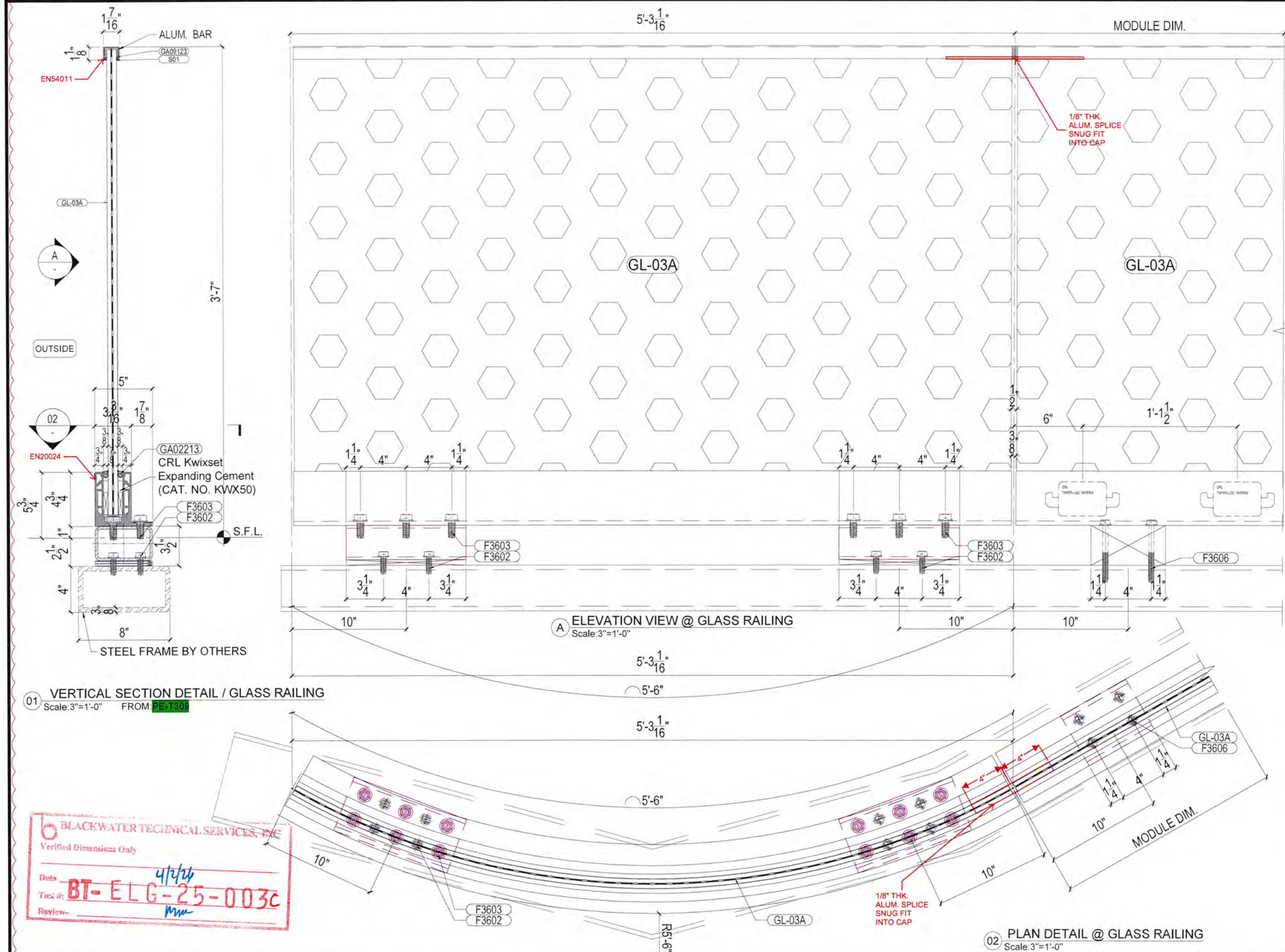
Date: Oct. 31, 2025

Revision No.: -

Scale: 3"=1'-0"

Size: 22"x34"

Phase: TESTING DRAWINGS



Job No.:

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No. Date Description

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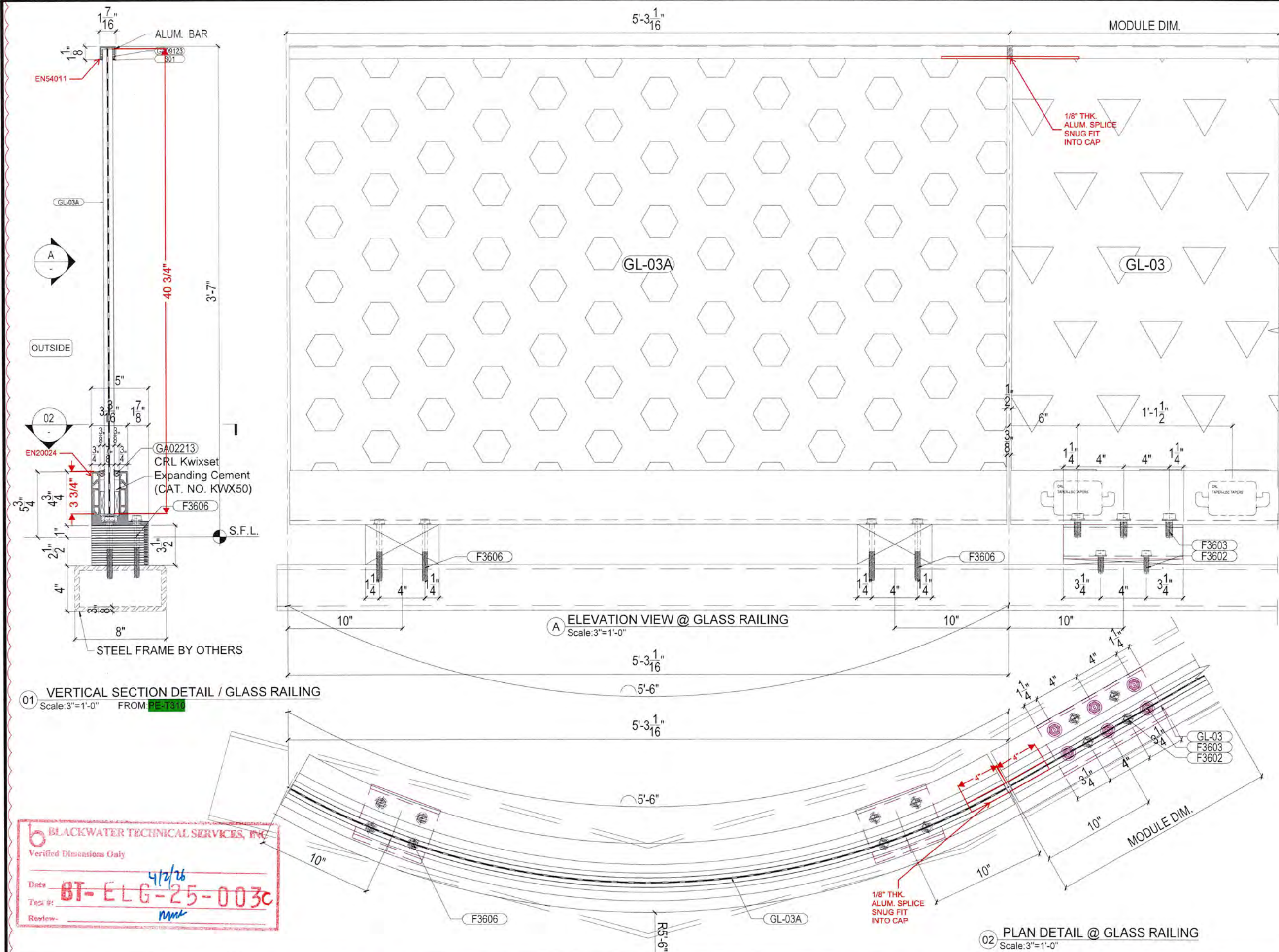
Title:  
VERTICAL SECTION DETAIL  
@ GLASS RAILING

Sheet No.: DT-T509d

Date: Oct. 31, 2025 Revision No.: -

Scale: 3"=1'-0" Size: 22"x34"

Phase: TESTING DRAWINGS



Job No.:

Key Plan/Elevation:



| No.        | Date | Description |
|------------|------|-------------|
| Revisions: |      |             |

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Design Team:

Project: Shore Club  
1901 Collins Ave.  
Miami Beach, FL 33139

Title:  
VERTICAL SECTION DETAIL  
@ GLASS RAILING

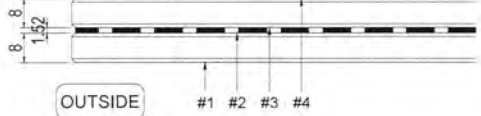
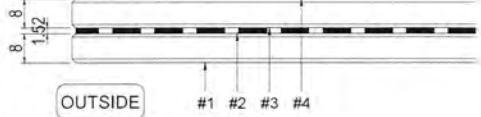
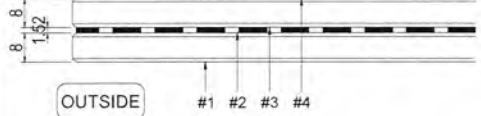
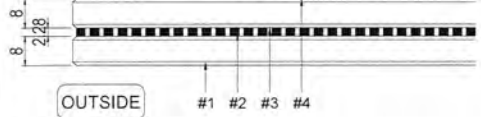
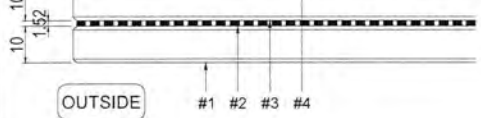
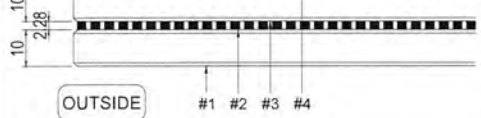
Sheet No.: DT-T509e

Date: Oct. 31, 2025      Revision No.: -

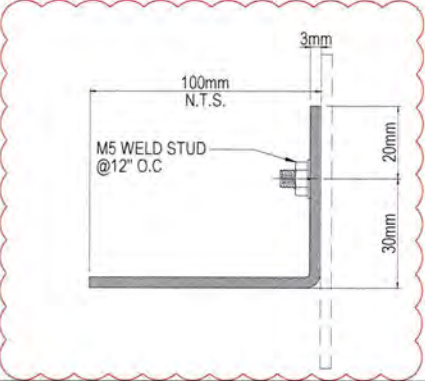
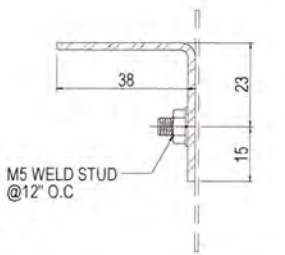
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| Scale: 3"=1'-0" | Size: 22"x34" |
|-----------------|---------------|

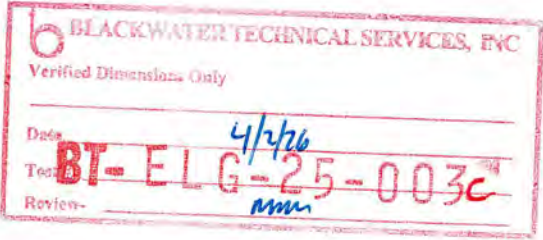
Phase: TESTING DRAWINGS

1.MATERIAL LIST OF GLASS (REFER TO THE APPROVED SAMPLE)

| LEGEND NUMBER | MATERIAL DESCRIBE                                                                              | SECTION                                                                              |
|---------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| GL-01         | GL-01<br>VISION GLASS :<br>HS8 Clear + 1.52 PVB + HS8 Clear                                    |    |
| GL-01A        | GL-01A<br>VISION GLASS :<br>FT8 Clear + 1.52 SGP + FT8 Clear                                   |    |
| GL-01B        | GL-01B<br>VISION GLASS :<br>FT8 Clear + 1.52 PVB + FT8 Clear                                   |    |
| GL-01C        | GL-01C<br>VISION GLASS :<br>HS8 Clear + 2.28 SGP + HS8 Clear                                   |    |
| GL-03         | GL-03<br>RAILING GLASS :<br>FT10 Clear + 1.52 SGP+ FT10 Clear<br>WITH POLISHED VERTICAL EDGES  |  |
| GL-03A        | GL-03A<br>RAILING GLASS :<br>FT10 Clear + 2.28 SGP+ FT10 Clear<br>WITH POLISHED VERTICAL EDGES |  |

2.MATERIAL LIST OF ALUM. PANEL

| LEGEND NUMBER | MATERIAL DESCRIPTION                                                                                                 | SECTION                                                                              |
|---------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| AP-01         | 3mm THICK ALUMINUM PANEL<br>ALLOY: 3003-H14<br>FINISH: NON-CHROMATE                                                  |   |
| AP-01a        | 3mm THICK ALUM. STIFFENER<br>FINISH: NON-CHROMATE                                                                    |   |
| SP-01         | 1mm THICK STEEL SHEET<br>FINISH: COMPLYING WITH ASTM A 653, G90(Z275),<br>ELECTRO-GALVANIZED ZINC COATING.           |   |
| SP-01a        | 2mm THICK STEEL PLATE STIFFENER<br>FINISH: COMPLYING WITH ASTM A 653, G90(Z275),<br>ELECTRO-GALVANIZED ZINC COATING. |  |



Job No.:  
Key Plan/Elevation:  


|     |              |                   |
|-----|--------------|-------------------|
| 1   | Apr. 9, 2025 | Issued for review |
| No. | Date         | Description       |

Revisions:

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Checked By:

Design Team:

Project: Shore Club  
1901 Collins Ave.  
Miami Beach, FL 33139

Title:  
MATERIAL LIST  
(GLASS & METAL SCHEDULE)

Sheet No.: MA-T101

|                    |                 |
|--------------------|-----------------|
| Date: Apr. 9, 2025 | Revision No.: 1 |
| Scale: 1'-0"=1'-0" | Size: 22"x34"   |

Phase: Testing Drawing

3.MATERIAL LIST OF GASKET AND THERMAL BREAK AND SETTING-BLOCK

| TAG               | DIAGRAM                                                                                                                                                         | SCALE | DIE NO.           | MATERIAL/COLOR/DUROMETER                   |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------|--------------------------------------------|
| GA011-<br>NEW DIE |                                                                                                                                                                 | 1:1   | GA011-<br>NEW DIE | SILICONE (BLACK)A65°±5°                    |
| GA02106           |                                                                                                                                                                 | 1:1   | GA02106           | SILICONE (BLACK)A65°±5°                    |
| GA03101           |                                                                                                                                                                 | 1:1   | GA03101           | SILICONE (BLACK)A65°±5°                    |
| GA04102           |                                                                                                                                                                 | 1:1   | GA04102           | SILICONE (BLACK)A65°±5°                    |
| GA04201           |                                                                                                                                                                 | 1:1   | GA04201           | RIGID BLACK PVC D80±5°                     |
| GA05201A          | A30±5°A65±5°                                                                                                                                                    | 1:1   | GA05201A          | EPDM FOAM (BLACK) A30±5°                   |
| GA05101           |                                                                                                                                                                 | 1:1   | GA05101           | SILICONE (BLACK)A65°±5°                    |
| GA05102           |                                                                                                                                                                 | 1:1   | GA05102           | SILICONE (BLACK)A65°±5°                    |
| GA05103           |                                                                                                                                                                 | 1:1   | GA05103           | SILICONE (BLACK)A65°±5°                    |
| GA05104           |                                                                                                                                                                 | 1:1   | GA05104           | SILICONE (BLACK)A65°±5°                    |
| GA05162           |                                                                                                                                                                 | 1:1   | GA05162           | SILICONE (BLACK)A65°±5°                    |
| GA05167           | A95±5°A65±5°                                                                                                                                                    | 1:1   | GA05167           | TPV (BLACK)A65°±5°                         |
| GA05168           |                                                                                                                                                                 | 1:1   | GA05168           | SILICONE (BLACK)A65°±5°                    |
| GA05181           |                                                                                                                                                                 | 1:1   | GA05181           | SILICONE (BLACK)A65°±5°                    |
| GA05206           | SPONGE (5107)A70±5°                                                                                                                                             | 1:1   | GA05206           | EPDM FOAM (BLACK) A70±5°                   |
| GA06113           |                                                                                                                                                                 | 1:1   | GA06113           | SILICONE (TRANSLUCENT) A65°±5°             |
| GA07149           |                                                                                                                                                                 | 1:2   | GA07149           | SILICONE (BLACK)A65°±5°                    |
| GA09123           |                                                                                                                                                                 | 1:1   | GA09123           | SILICONE (BLACK)A80°±5°                    |
| GA09127           |                                                                                                                                                                 | 1:1   | GA09127           | SILICONE (BLACK)A65°±5°                    |
| GA13101           |                                                                                                                                                                 | 1:1   | GA13101           | PA66+GF25 D80°±5°                          |
| GA12108           |                                                                                                                                                                 | 1:1   | GA12108           | PA66+25%GF D80°±5°                         |
| LTL10X            | <br>TAPER-LOC® DRY GLAZE SYSTEM<br>LTL10X TAPER-LOC®<br>Tape Set<br>For Use with LTL10X TAPER-LOC®<br>Tape Set for 2750° (21-22 mm)<br>Laminated Tempered Glass | -     | LTL10X            | HIGH STRENGTH ENGINEERING<br>GRADE POLYMER |

BLACKWATER TECHNICAL SERVICES, INC.  
Verified Dimensions Only  
Date: 4/2/24  
Test # BT-ELG-25-003C  
Review: nm

| TAG     | DIAGRAM | SCALE | DIE NO. | MATERIAL/COLOR/DUROMETER         |
|---------|---------|-------|---------|----------------------------------|
| GA01139 |         | 1:1   | GA01139 | SILICONE (BLACK)A65°±5°          |
| GA01140 |         | 1:1   | GA01140 | SILICONE (BLACK)A65°±5°          |
| GA01142 |         | 1:1   | GA01142 | SILICONE (BLACK)A65°±5°          |
| GA01144 |         | 1:1   | GA01144 | SILICONE (BLACK)A65°±5°          |
| GA01241 |         | 1:1   | GA01241 | SILICONE (BLACK)A65°±5°          |
| GA01148 |         | 1:1   | GA01148 | SILICONE (BLACK)A65°±5°          |
| GA01150 |         | 1:1   | GA01150 | SILICONE (BLACK)A65°±5°          |
| GA01240 |         | 1:1   | GA01240 | SILICONE (BLACK)A65°±5°          |
| GA01272 |         | 1:1   | GA01272 | SILICONE (BLACK)A65°±5°          |
| G01     |         | 1:1   | 15×2    | SILICONE (BLACK)A85°±5°          |
| G02     |         | 1:1   | 15×3    | SILICONE (BLACK)A85°±5°          |
| G03     |         | 1:1   | 20×4    | SILICONE (BLACK)A85°±5°          |
| G04     |         | 1:1   | 20×5    | SILICONE (BLACK)A85°±5°          |
| G05     |         | 1:1   | 20×6    | SILICONE (BLACK)A85°±5°          |
| G06     |         | 1:1   | 20×8    | SILICONE (BLACK)A85°±5°          |
| G07     |         | 1:1   | 25×8    | SILICONE (BLACK)A85°±5°          |
| G08     |         | 1:1   | 25×10   | SILICONE (BLACK)A85°±5°          |
| G09     |         | 1:1   | 30×10   | SILICONE (BLACK)A85°±5°          |
| G10     |         | 1:1   | -       | POLYURETHANE FOAM (BLOCK): A7±2° |

Job No.:  
Key Plan/Elevation:

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| 1   | Apr. 9, 2025 | Issued for review |
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Revisions:

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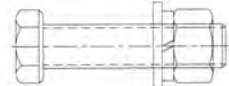
Title:  
MATERIAL LIST  
(GASKET SCHEDULE)

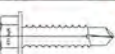
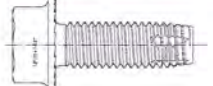
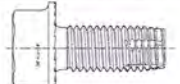
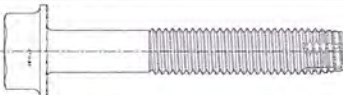
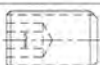
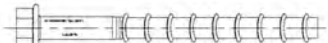
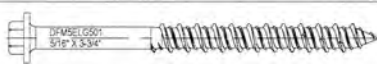
Sheet No.: MA-T102

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|--------------------|-----------------|
| Date: Apr. 9, 2025 | Revision No.: 1 |
| Scale: 1'-0"=1'-0" | Size: 22"x34"   |

Phase: Testing Drawing

4.MATERIAL LIST OF FASTENERS

| TAG   | DIAGRAM                                                                             | DESCRIPTION                                                           | GRADE    | MATERIAL/FINISH |
|-------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------|-----------------|
| F1450 |    | M10X70mm H.H. BOLT (FULL THREAD) W/ NUT                               | S.S. 316 | STAINLESS STEEL |
| F1415 |    | M6X30mm H.H. BOLT (FULL THREAD) W/ SPRING WASHER AND NUT              | S.S. 316 | STAINLESS STEEL |
| F1444 |    | M10X40mm H.H. BOLT (FULL THREAD) W/ SPRING WASHER AND NUT             | S.S. 316 | STAINLESS STEEL |
| F1446 |    | M10X50mm H.H. BOLT (FULL THREAD) W/ SPRING WASHER AND NUT             | S.S. 316 | STAINLESS STEEL |
| F1448 |    | M10X60mm H.H. BOLT (FULL THREAD) W/ SPRING WASHER AND NUT             | S.S. 316 | STAINLESS STEEL |
| F1457 |    | M12X40mm H.H. BOLT (FULL THREAD) W/ NUT                               | S.S. 316 | STAINLESS STEEL |
| F1459 |    | M12X50mm H.H. BOLT (FULL THREAD) W/ FLAT WASHER SPRING WASHER AND NUT | S.S. 316 | STAINLESS STEEL |
| F2448 |    | ST6.3x38mm H.W.H. S.T. SCREW                                          | S.S. 316 | STAINLESS STEEL |
| F2010 |   | ST4.2x19mm PH. S.T. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F2022 |  | ST4.8x19mm PH. S.T. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F2025 |  | ST4.8x32mm PH. S.T. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F3007 |  | ST4.2x13mm PH. S.D. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F3008 |  | ST4.2x16mm PH. S.D. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F3009 |  | ST4.2x19mm PH. S.D. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F3011 |  | ST4.2x25mm PH. S.D. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F3019 |  | ST4.8x16mm PH. S.D. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F3020 |  | ST4.8x19mm PH. S.D. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F3022 |  | ST4.8x25mm PH. S.D. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F3208 |  | ST4.2x16mm FH. S.D. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F3211 |  | ST4.2x25mm FH. S.D. SCREW                                             | S.S. 316 | STAINLESS STEEL |
| F3219 |  | ST4.8x16mm FH. S.D. SCREW                                             | S.S. 316 | STAINLESS STEEL |

| TAG   | DIAGRAM                                                                               | DESCRIPTION                                   | GRADE                                                             | MATERIAL/FINISH                                                     |
|-------|---------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------|
| F3220 |    | ST4.8x19mm FH. S.D. SCREW                     | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F3241 |    | ST6.3x25mm FH. S.D. SCREW                     | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F4015 |    | M6X12mm CROSS RECESSED PAN HEAD SCREW         | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F4216 |    | M6X16mm CROSS RECESSED COUNTERSUNK HEAD SCREW | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F4402 |    | M5X10mm HEXAGON LOBULAR SOCKET PAN HEAD SCREW | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F4815 |    | M6X16mm HEXAGON SOCKET COUNTERSUNK HEAD SCREW | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F4816 |    | M6X20mm HEXAGON SOCKET COUNTERSUNK HEAD SCREW | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F4828 |    | M8X20mm HEXAGON SOCKET COUNTERSUNK HEAD SCREW | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F3441 |    | ST6.3x25mm H.W.H. SD. SCREW                   | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F3443 |    | ST6.3x38mm H.W.H. SD. SCREW                   | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F3445 |    | ST6.3x50mm H.W.H. SD. SCREW                   | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F3601 |   | 5/8"-11 x 2 1/2" H.W.H. TAPFLEX BOLT          | GRADE 5:<br>MEETS ASTM 449<br>SPECIFICATIONS<br>(120KSI STRENGTH) | MATERIAL: ALLOY STEEL<br>FINISH: SILVER<br>STALGARD @<br>GB COATING |
| F3602 |  | 1/2"-13 x 1 1/2" H.W.H. TAPFLEX BOLT          | GRADE 5:<br>MEETS ASTM 449<br>SPECIFICATIONS<br>(120KSI STRENGTH) | MATERIAL: ALLOY STEEL<br>FINISH: SILVER<br>STALGARD @<br>GB COATING |
| F3603 |  | 5/8"-11 x 1 1/2" H.W.H. TAPFLEX BOLT          | GRADE 5:<br>MEETS ASTM 449<br>SPECIFICATIONS<br>(120KSI STRENGTH) | MATERIAL: ALLOY STEEL<br>FINISH: SILVER<br>STALGARD @<br>GB COATING |
| F3604 |  | 5/8"-11 x 4" H.W.H. TAPFLEX BOLT              | GRADE 5:<br>MEETS ASTM 449<br>SPECIFICATIONS<br>(120KSI STRENGTH) | MATERIAL: ALLOY STEEL<br>FINISH: SILVER<br>STALGARD @<br>GB COATING |
| F3605 |  | 3/8"-16 x 2" H.W.H. TAPFLEX BOLT              | GRADE 5:<br>MEETS ASTM 449<br>SPECIFICATIONS<br>(120KSI STRENGTH) | MATERIAL: ALLOY STEEL<br>FINISH: SILVER<br>STALGARD @<br>GB COATING |
| F4007 |  | M5X25mm CROSS RECESSED PAN HEAD SCREW         | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F4017 |  | M6X20mm CROSS RECESSED PAN HEAD SCREW         | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F5057 |  | M16x25 HEXAGON SOCKET HEAD FLATNENS SET BOLT  | S.S. 316                                                          | STAINLESS STEEL                                                     |
| F02   |  | HILTI KH-EZ 1/2"X6" CONCRETE BOLT             | -                                                                 | GALVANIZED ALLOY STEEL                                              |
| F03   |  | DEWALT 5/16" x 3-3/4" HWH ULTRACON SCREWS     | -                                                                 | MATERIAL: CARBON STEEL<br>FINISH: STALGARD COATING                  |
| F7402 |  | SCREW ANC KH-EZ 1/4" X 1-7/8"                 | -                                                                 | GALVANIZED ALLOY STEEL                                              |

Job No.:

Key Plan/Elevation:



2 Sep. 4.2025 REVISED AS COMMENTS

1 Apr. 9.2025 Issued for review

No. Date Description

Revisions:

Contractor:

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Design Team:

Project: Shore Club  
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Miami Beach, FL 33139

Title:

MATERIAL LIST  
(FASTENER SCHEDULE)

Sheet No.: MA-T103

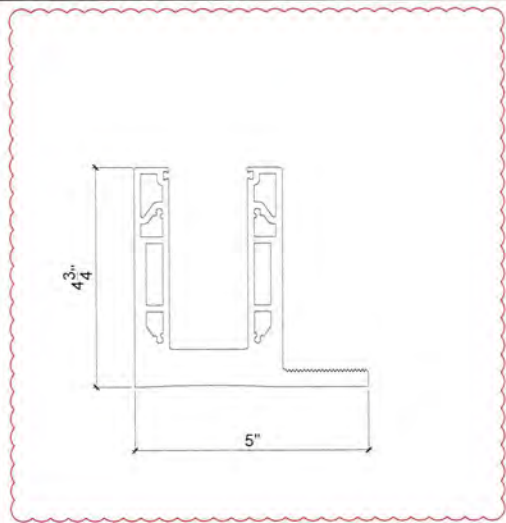
Date: Sep. 4.2025

Revision No.: 2

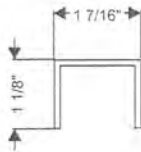
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Size: 22"x34"

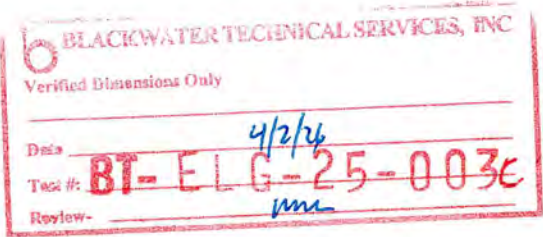
Phase: Testing Drawing



|                      |                     |
|----------------------|---------------------|
| DIE NO.: EN20024     |                     |
| MATERIAL: 6063-T6    |                     |
| FINISH: NON-CHROMATE |                     |
| PURPOSE: FIN         | LEGEND: POWDER COAT |
| COLOR: -             |                     |



|                      |                     |
|----------------------|---------------------|
| DIE NO.: EN54011     |                     |
| MATERIAL: 6063-T6    |                     |
| FINISH: NON-CHROMATE |                     |
| PURPOSE: FIN         | LEGEND: POWDER COAT |
| COLOR: -             |                     |



| No.        | Date         | Description         |
|------------|--------------|---------------------|
| 3          | Sep. 4, 2025 | REVISED AS COMMENTS |
| 2          | Apr. 9, 2025 | REVISED AS COMMENTS |
| 1          | Jul. 9, 2024 | Issued for review   |
| Revisions: |              |                     |

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MATERIAL LIST  
(ALUMINUM EXTRUSION SCHEDULE)

|                        |                 |
|------------------------|-----------------|
| Sheet No.: MA-T109     |                 |
| Date: Sep. 4, 2025     | Revision No.: 3 |
| Scale: 6"=1'-0"        | Size: 22"x34"   |
| Phase: Testing Drawing |                 |