



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION  
**NOTICE OF ACCEPTANCE (NOA)**

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
T (786) 315-2590 F (786) 315-2599  
[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

**Tecnoglass, LLC**  
3550 NW 49 Street  
Miami, FL 33142

**SCOPE:**

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

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

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

**DESCRIPTION: Series "7000" Aluminum Curtain Wall System – L.M.I.**

**APPROVAL DOCUMENT:** Drawing No. **AD12-64**, titled "Series 7000 Aluminum Curtain Wall LMI/SMI", sheets 01 through 38 of 38, dated 07/08/16, with revision #2 dated 03/30/16, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

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

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, **Barranquilla, Colombia S.A.**, series and following statement: "Miami-Dade County Product Control Approved" unless otherwise noted herein.

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

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

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

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

This NOA **revises and renews** NOA No. **15-0625.05** and consists of this page 1, evidence pages E-1, E-2, and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**



*Handwritten signature and date:*  
5/24/18

NOA No. 18-0403.07  
Expiration Date: June 06, 2023  
Approval Date: May 31, 2018  
Page 1

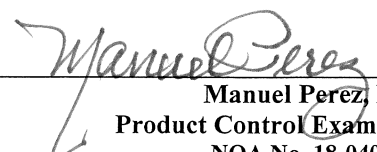
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**D. STATEMENTS**

1. Statement letter of conformance, of complying with **FBC 5<sup>th</sup> Edition (2014)**, dated June 4, 2015, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E.
2. Statement letter of no financial interest, dated 06/04/15, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E.
3. Asset purchase agreement dated 02/09/15, signed by Mr. Massimo Valentini and Mr. Andres Chamorro.
4. Letter from owners of existing NOA stating that they have sold all assets to the applicant, that they no longer manufacture the product and relinquish their rights to the current NOA No. **12-1126.04**, dated 02/09/15, signed by Mr. Massimo Valentini.
5. Laboratory compliance letter for Test Report No. **FTL-7147**, issued by Fenestration Testing Laboratory, Inc., dated 02/04/13, signed and sealed by Marlin D. Brinson, P.E. *(Submitted under NOA No. 12-1126.04)*
6. Proposal issued by Product Control, dated 7/30/12, signed by Jaime D. Gascon, P.E. *(Submitted under NOA No. 12-1126.04)*

**G. OTHERS**

1. Notice of Acceptance No. **12-1126.04**, issued to Glasswall, LLC for their Series "7000" Aluminum Curtain Wall System - L.M.I., approved on 06/06/13 and expiring on 06/06/18.

  
Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 18-0403.07  
Expiration Date: June 06, 2023  
Approval Date: May 31, 2018

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**2. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Drawing No. **AD12-64**, titled “Series 7000 Aluminum Curtain Wall LMI / SMI”, sheets 01 through 38 of 38, dated 07/08/16, with revision #2 dated 03/30/18, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E.

**B. TESTS**

1. None

**C. CALCULATIONS**

1. None.

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. Notice of Acceptance No. **17-0808.02** issued to **Kuraray America, Inc.** for their “SentryGlas® (Clear and White) Glass Interlayers” dated 12/28/17, expiring on 07/04/23.

**F. STATEMENTS**

1. Statement letter of conformance, complying with **FBC 6<sup>th</sup> Edition (2017)**, and of no financial interest, dated March 30, 2018, issued by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E.

**G. OTHERS**

1. Notice of Acceptance No. **15-0625.05**, issued to Tecnoglass, LLC, for their Series “7000” Aluminum Curtain Wall System – L.M.I., approved on 12/01/16 and expiring on 06/06/18.



**Manuel Pérez, P.E.**

**Product Control Examiner**

**NOA No. 18-0403.07**

**Expiration Date: June 06, 2023**

**Approval Date: May 31, 2018**

SERIES 7000 CURTAIN WALL (LMI / SMI)

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| 38 | BILL OF MATERIALS                                  |

MATERIALS

- A. ALUMINUM:
- 1- ALL ALUMINUM EXTRUSION SHALL BE 6063-T5, 6063-T6 AND 6061-T6 (OR EQUIVALENT) AS SHOWN IN BILL OF MATERIAL
- B. STEEL:
- 1- ALL STEEL FOR CURTAIN WALL SHALL BE ASTM A36 OR A50 AS PER BILL OF MATERIALS.  $F_y=36\text{ksi}$  OR  $F_y=50\text{ksi}$
- 2- ALL STEEL WELDS TO BE ELECTRODE E70
- C. SEALANT:
- 1- APPLY GE SSG 4600 ULTRAGLAZE OR DOW 983 TO SHOP APPLIED METAL TO METAL JOINERY (FRAME ASSEMBLY).
- 2- APPLY DOW CORNING 90 OR GE ULTRA 2700 TO EXTERIOR PERIMETER SEALANT AND FASTENER SEALANT.
- 3- THE GLAZING SEALANT SHALL BE GE SSG 4600 ULTRAGLAZE OR DOW 983.
- 4-ALL FRAME AND PANEL JOINT, INSTALLATION SCREWS AND HEADS OF ANCHOR SCREWS AT SILL TO BE SEALED WITH WHITE/ALUM COLORED SEALANT.
- D. GLASS:
- 1-  $1\frac{1}{2}$ " NOMINAL INSULATED LAMINATED GLASS COMPOSED OF :
- $\frac{1}{4}$ " THK TEMPERED GLASS (EXTERIOR)
  - $\frac{7}{16}$ " THK AIR SPACE, SPACER BY LINGEMANN GmbH
  - $\frac{5}{16}$ " THK H.S. GLASS
  - 0.090 SENTRY GLASS INTERLAYER BY KURARAY AMERICA, INC.
  - $\frac{5}{16}$ " THK H.S. GLASS
- 2- GLASS CAPACITY FOR A GIVEN AREA USE CHART ON SHEET 05
- 3- SETTING BLOCK AT  $1/4$ " POINT
- E. FASTENERS:
- 1-ALL FRAME ASSEMBLY SCREWS SHALL BE:
- A. 300 SERIES COLD-ROLLED STAINLESS STEEL  
 $F_u=100\text{ksi}$ ,  $F_y=65\text{ksi}$
- B. HALFEN T-BOLT M20X80mm GV-S GRADE 8.8 (ASTM F 568 CLASS 8.8  $3/4$ " X  $3-1/4$ ";  $F_y=96.7\text{ KSI}$ ,  $F_u=120.35\text{ KSI}$ )
- F. SHIM AT SILL TO BE LOAD BEARING SHIM.

GENERAL NOTES

CURTAIN WALL SYSTEM IS RATED FOR LARGE/SMALL MISSILE IMPACT. SHUTTERS NOT REQUIRED.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 6TH EDITION FLORIDA BUILDING CODE (2017) INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ)

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF CURRENT FLORIDA BUILDING CODE INCLUDING ADAPTED STANDARDS AS APPLICABLE.

EACH MEMBER SHALL BE CONTINUOUS UNLESS OTHERWISE SPECIFIED.

INSTRUCTIONS:

STEP #1:  
DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BUILDING HEIGHT, AND WIND ZONE USING APPLICABLE ASCE 7 STANDARDS OR WIND TUNNEL REPORTS

STEP #2:  
SEE CHART ON SHEET 5 OF 38 FOR GLASS CAPACITY OF DESIGNED GLASS AREA. AND CHOOSE SILICONE WIDTH TO MEET DESIGN LOAD.

STEP #3:  
FOR MULLION, JAMB AND CORNER MULLION SEE SECTIONS ON SHEET 6 & 7 FOR A GIVEN SPAN V.S. REINFORCEMENT AND DESIGN LOAD.

STEP #4:  
BASED ON PROJECT SUBSTRATE, MULLION SPAN, SPACING AND DESIGN LOADS, CHOOSE ANCHOR TYPE FOR HEAD, SILL AND INTERMEDIATE ANCHORS FROM SHEET 15 THRU SHEET 37

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0453.07  
Expiration Date June 6, 2022  
By [Signature]  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677  
No. 55983  
[Signature]

|                |            |
|----------------|------------|
| DATE           | 07/08/2016 |
| SCALE          | AS NOTED   |
| DRAWN          | A.R.       |
| PROJECT        | MCY15-087  |
| DRAWING NO.    | AD12-64    |
| SHEET 01 OF 38 |            |

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI

TECNOGLASS, LLC.

3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

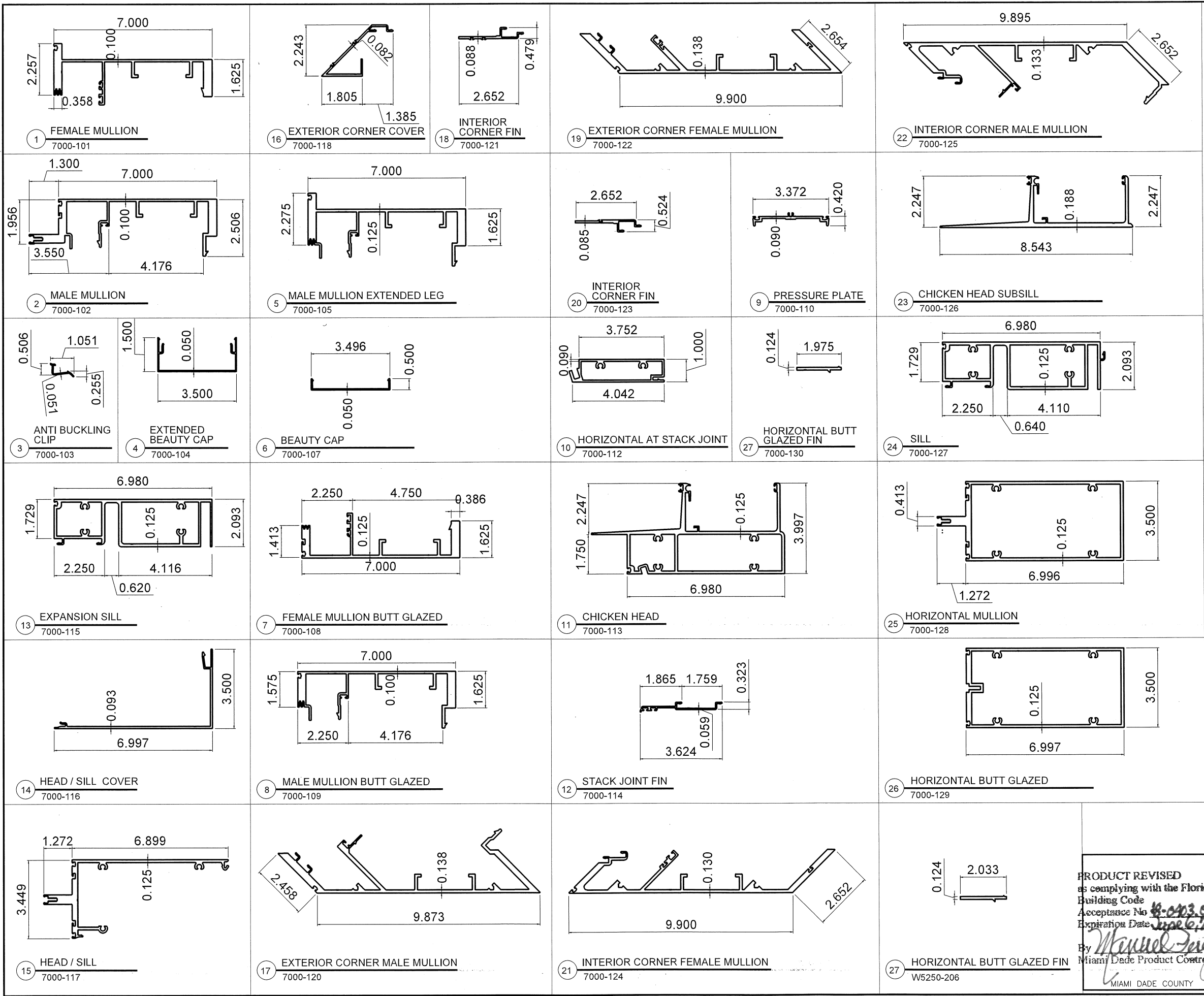
MCY ENGINEERING, INC.  
GLAZING CONSULTANTS

8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
MIAMI, FL 33183 F: 305.279.6818  
www.MCYEngineering.com MCY.Engineering@att.net

|                              |  |
|------------------------------|--|
| REVISIONS                    |  |
| NO DATE DESCRIPTION          |  |
| 1 6/4/15 UPDATE TO 2014 FBC  |  |
| 2 6/30/16 UPDATE TO 2017 FBC |  |

MAY 14 2018





PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0403-07  
Expiration Date 12/16/2018  
By *Manuel J. [Signature]*  
Miami Dade Product Control  
MIAMI DADE COUNTY

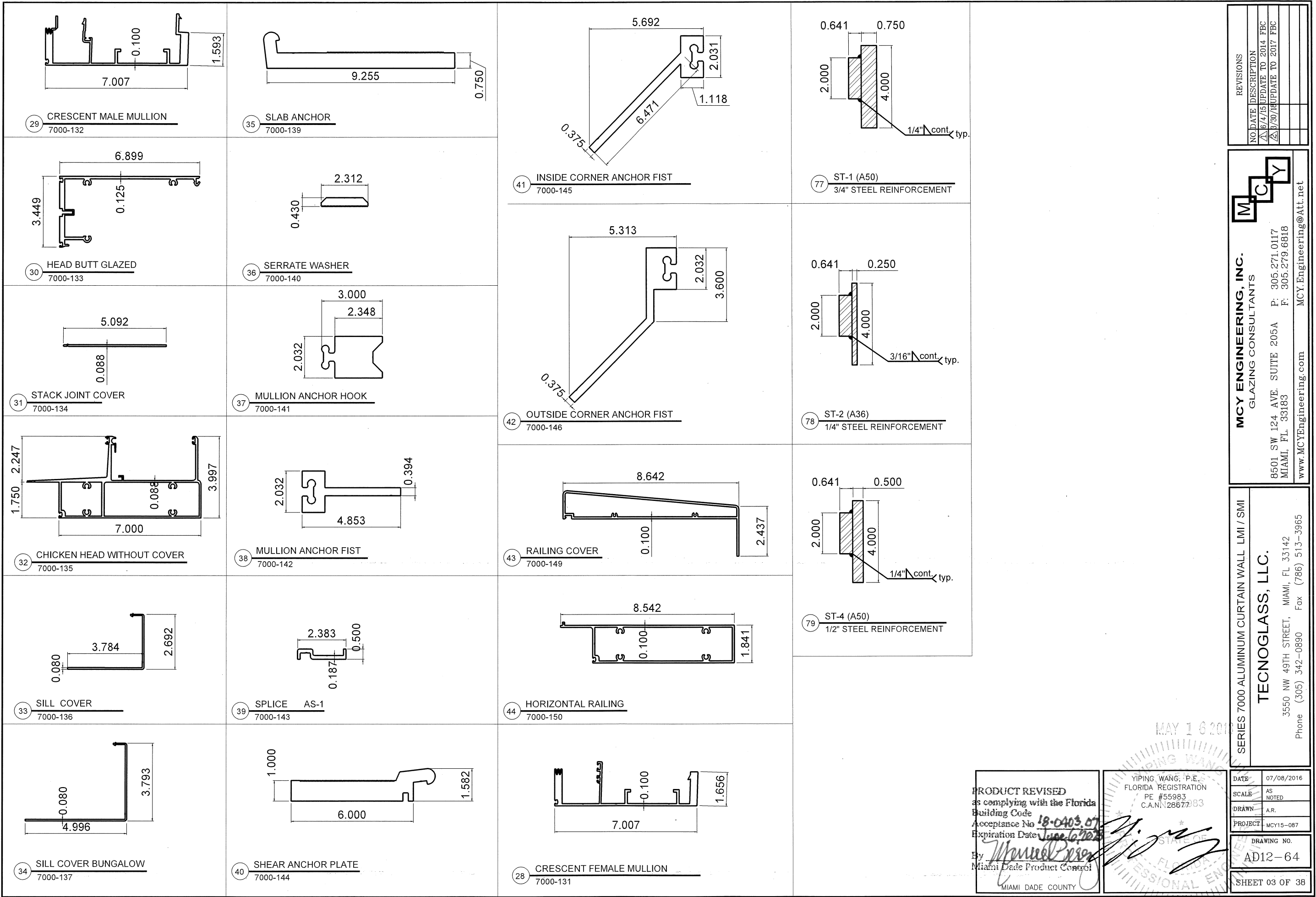
YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677  
MAY 16 2018  
Professional Engineer  
Seal

|             |            |
|-------------|------------|
| DATE        | 07/08/2016 |
| SCALE       | AS NOTED   |
| DRAWN       | A.R.       |
| PROJECT     | MCY15-087  |
| DRAWING NO. | AD12-64    |
| SHEET       | 02 OF 38   |

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
**TECNOGLASS, LLC.**  
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www.MCYEngineering.com MCYEngineering@Att.net

| REVISIONS                  |
|----------------------------|
| NO DATE DESCRIPTION        |
| 6/4/15 UPDATE TO 2014 FBC  |
| 8/30/16 UPDATE TO 2017 FBC |
|                            |
|                            |



PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0403.07  
Expiration Date June 16, 2023  
By: *Manuel Perera*  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N.N. 2867783  
MAY 16 2016  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
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Phone (305) 342-0890 Fax (786) 513-3965

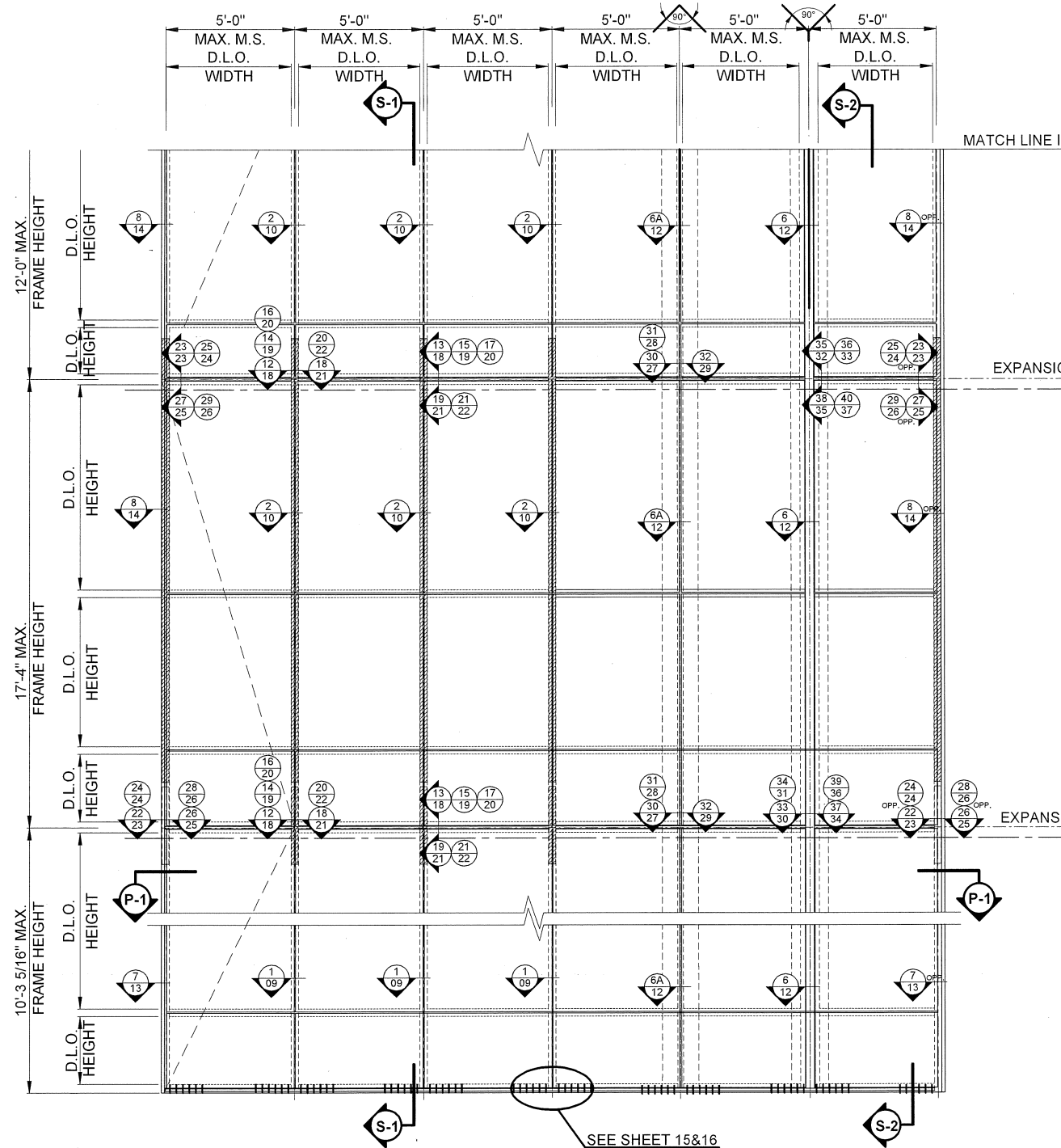
REVISIONS

| NO | DATE    | DESCRIPTION        |
|----|---------|--------------------|
| 1  | 6/4/15  | UPDATE TO 2014 FBC |
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|    |         |                    |
|    |         |                    |

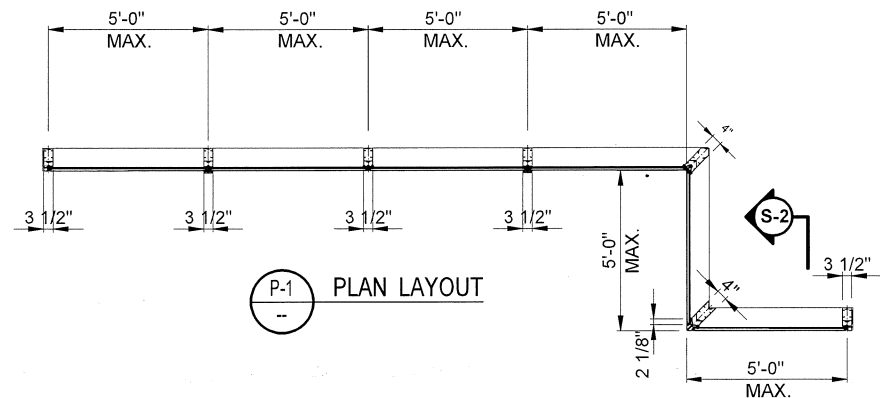
MCY

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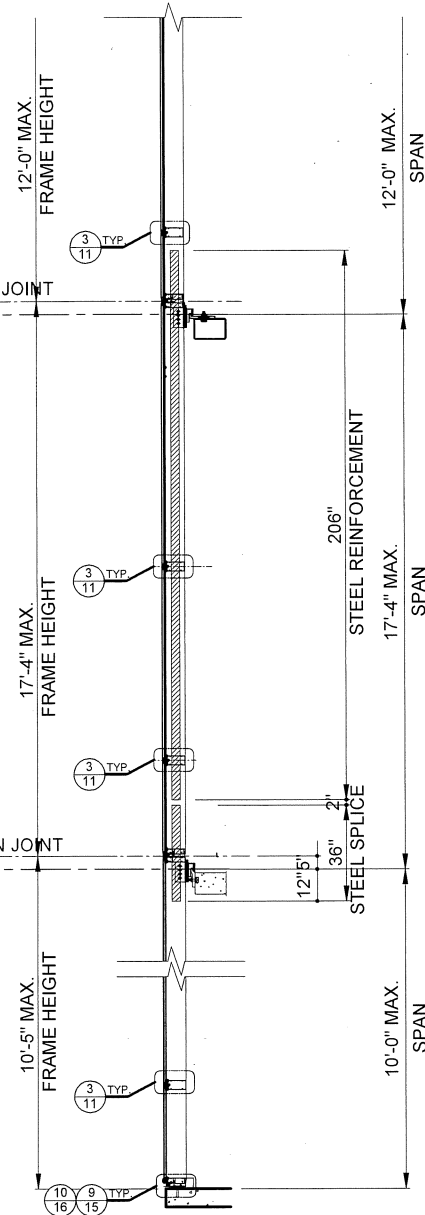
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|-------------|------------|
| DATE        | 07/08/2016 |
| SCALE       | AS NOTED   |
| DRAWN       | A.R.       |
| PROJECT     | MCY15-087  |
| DRAWING NO. | AD12-64    |
| SHEET       | 03 OF 38   |



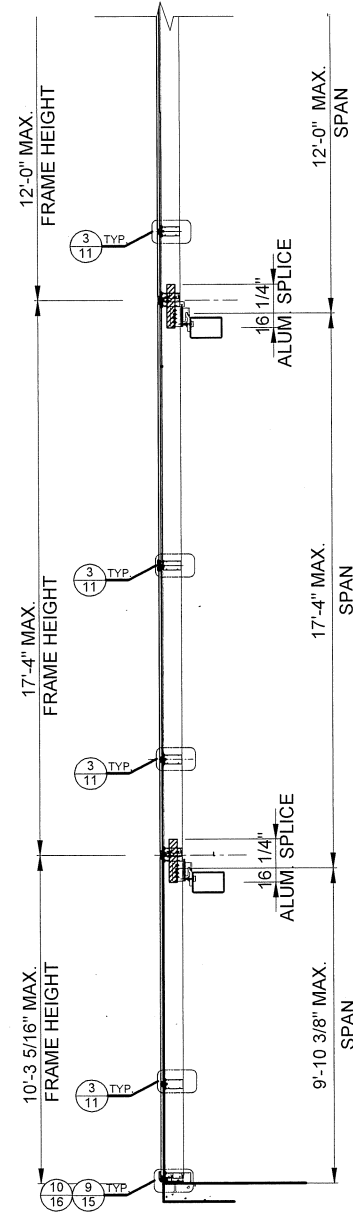
MULTIPLE SPAN ELEVATION - CURTAIN WALL TYP.  
(THREE SPAN MIN.)



P-1 PLAN LAYOUT



S-1 SECTION 1



S-2 SECTION 2

#### ABBREVIATIONS

M.S. = MULLION SPACING CENTER TO CENTER  
S.W. = SILICONE WIDTH  
G.B. = GLASS BITE  
D.L.O. = DAYLIGHT OPENING  
Pd = DESIGN LOAD (PSF)  
CL = CENTER LINE

| NO. | DATE    | DESCRIPTION        |
|-----|---------|--------------------|
| 1   | 8/4/15  | UPDATE TO 2014 FBC |
| 2   | 8/30/16 | UPDATE TO 2017 FBC |

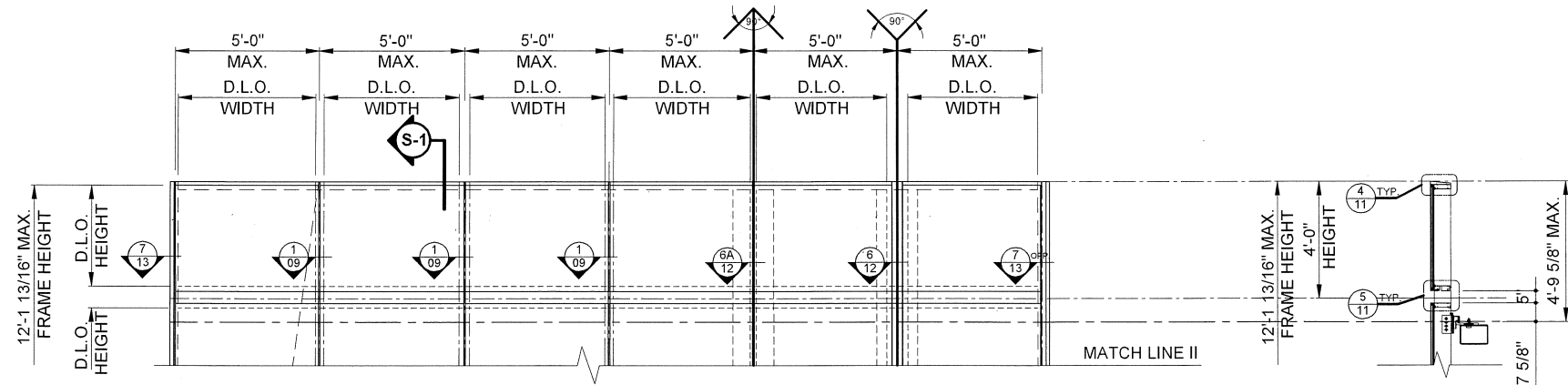
**MCY ENGINEERING, INC.**  
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**TECNOGLASS, LLC.**  
SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
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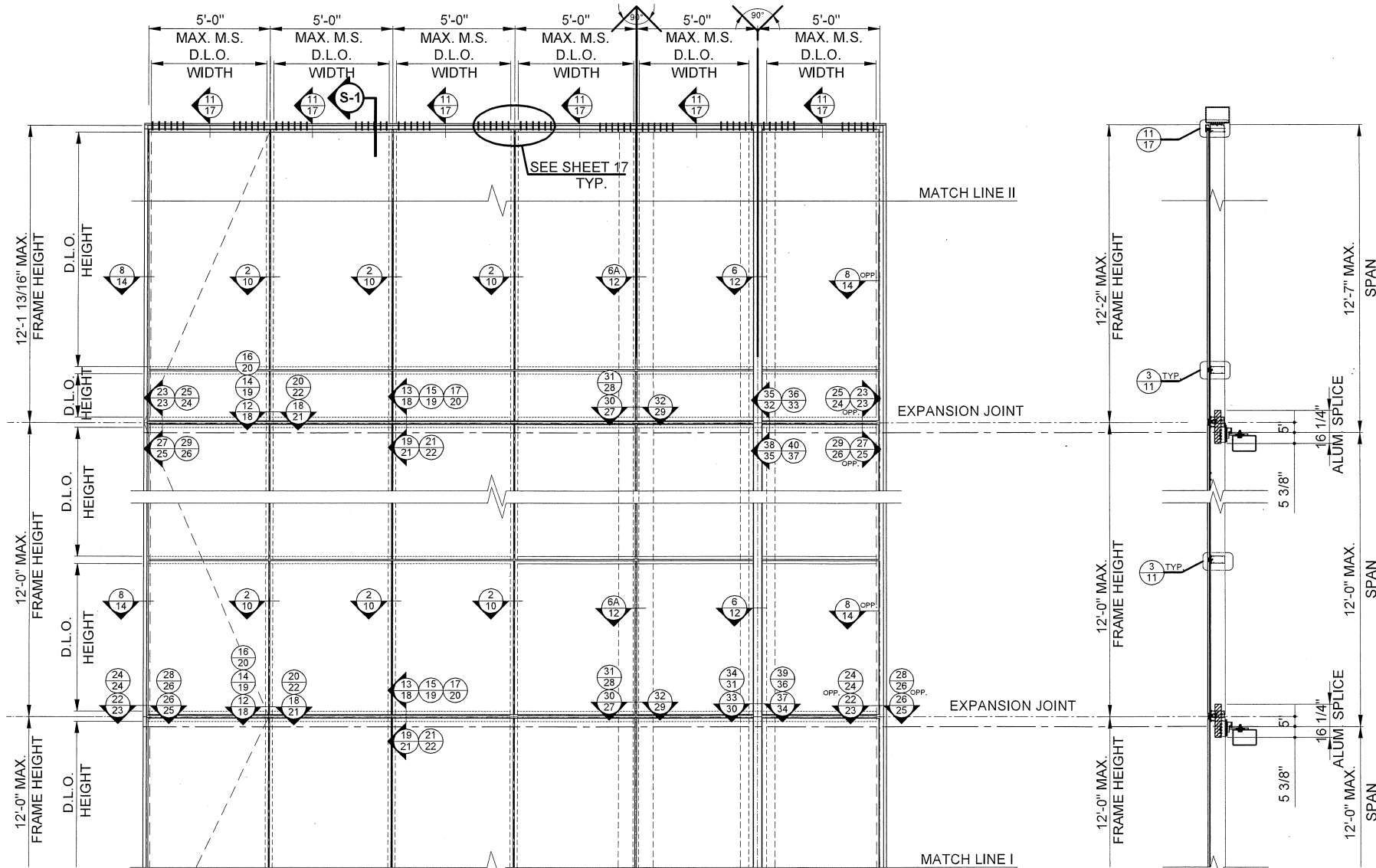
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By *Manuel Perez*  
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MIAMI DADE COUNTY

YIPING WANG, P.E.  
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PE #55983  
C.A.N. 28677 55983  
DATE 07/08/2016  
SCALE AS NOTED  
DRAWN A.R.  
PROJECT MCY15-087  
DRAWING NO. AD12-64  
SHEET 04 OF 38

MAY 16 2016



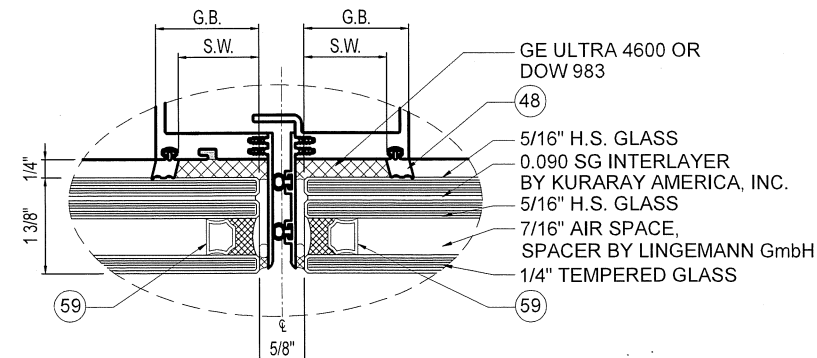
TOP CURTAIN WALL CANTILEVER OPTION



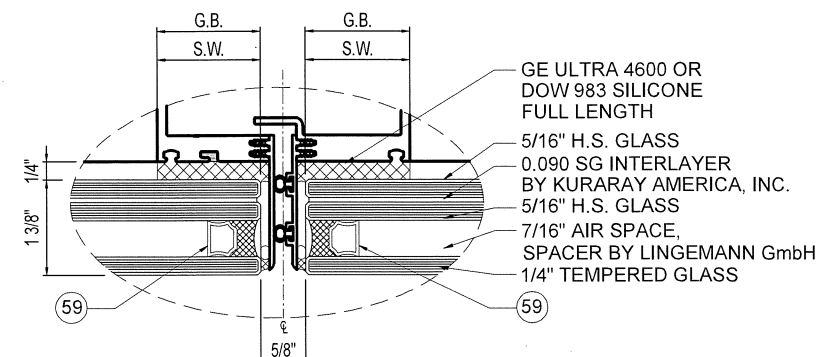
MULTIPLE SPAN ELEVATION - CURTAIN WALL

S-1 SECTION 1

GLAZING OPTIONS



GLASS TYPE A  
SILICONE WIDTH = 1 3/16"



GLASS TYPE A  
SILICONE WIDTH = 1 7/16"

| DESIGN LOAD Pd (PSF) DUE TO SILICONE |                            |          |
|--------------------------------------|----------------------------|----------|
| MULLION SPACING (M.S.)               | MIN. SILICONE WIDTH (S.W.) |          |
|                                      | 1.1875 "                   | 1.4375 " |
| 5'-0"                                | 114 PSF                    | 140 PSF  |
| 4'-6"                                | 126.7 PSF                  | 140 PSF  |
| 4'-0"                                | 140 PSF                    | 140 PSF  |

| GLASS "TYPE A" CAPACITY (PSF.) |                        |
|--------------------------------|------------------------|
| GLASS AREA (FT²)               |                        |
| 45.9                           | + 100 PSF<br>- 140 PSF |

\*\*GLASS AREA = D.L.O. WIDTH \* D.L.O. HEIGHT

GLASS CAPACITY BASED ON ASTM E 1300-09

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By *Manuel Perez*  
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MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677  
NO 55983

DATE 07/08/2016  
SCALE AS NOTED  
DRAWN A.R.  
PROJECT MCY15-087

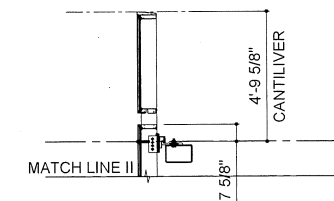
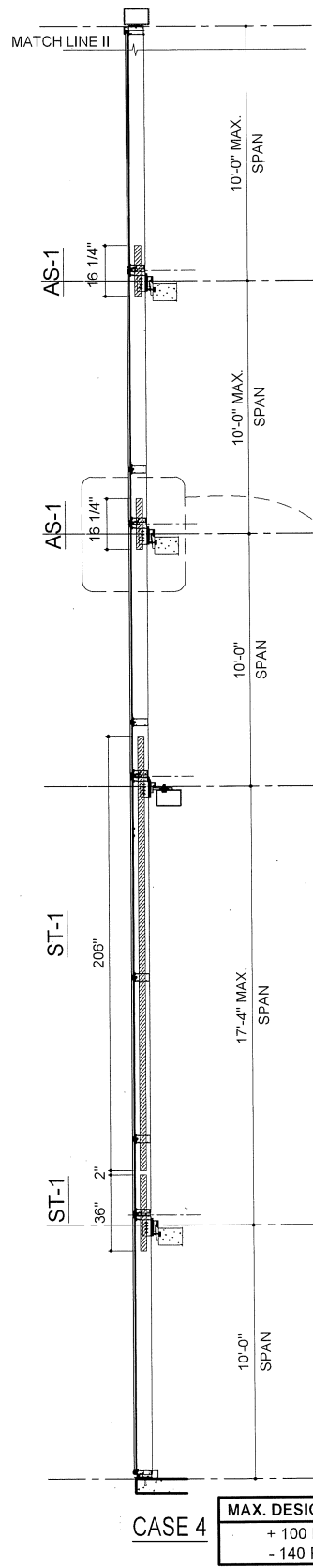
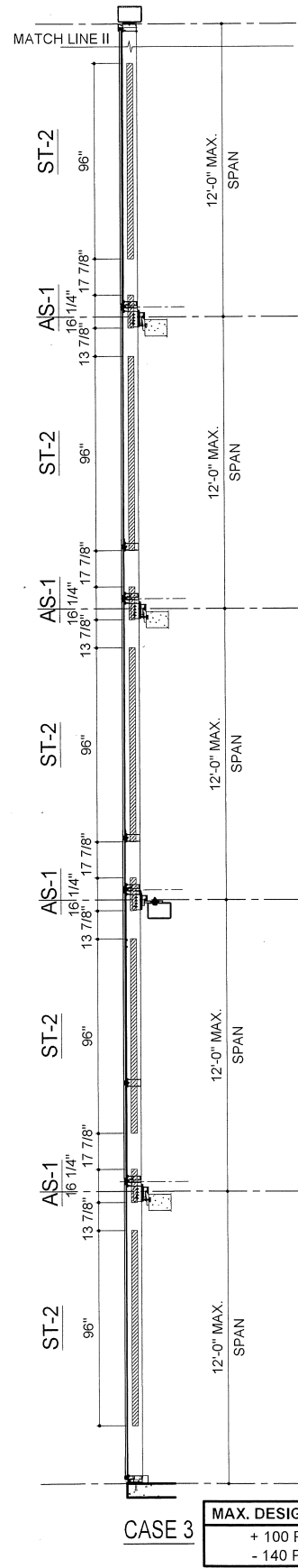
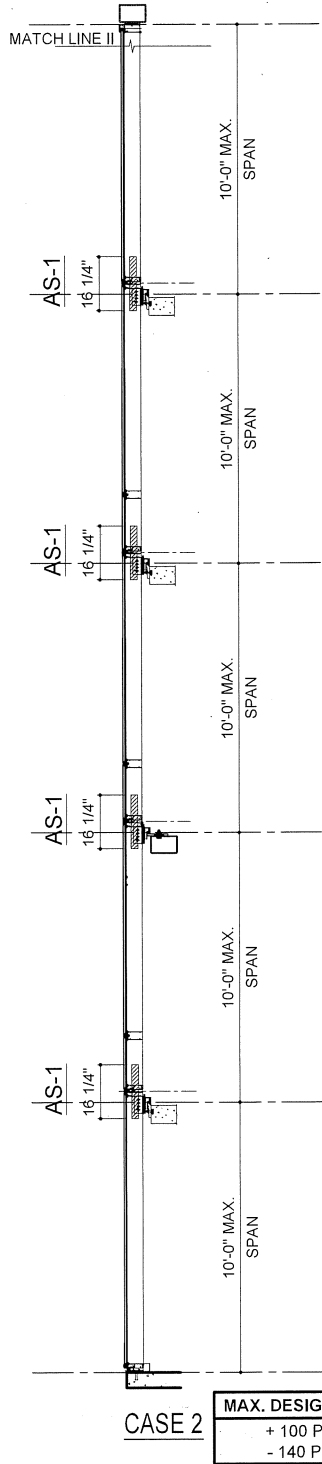
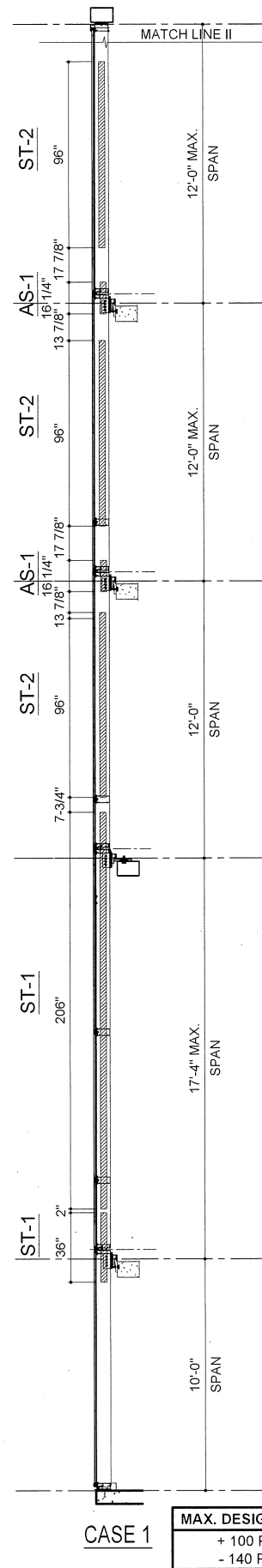
DRAWING NO.  
AD12-64  
SHEET 05 OF 38

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
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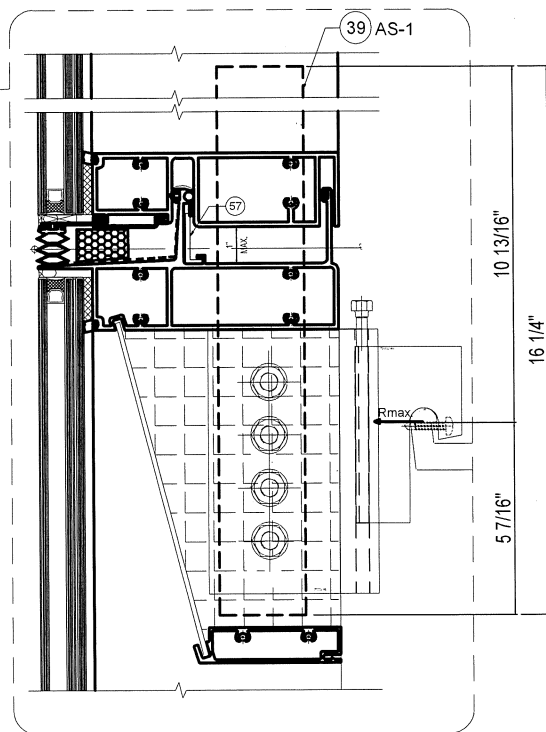
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|-----|---------|--------------------|
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| 2   | 8/30/16 | UPDATE TO 2017 FBC |

TYP. MULLION/JAMB SECTIONS W/ OR W/O REINFORCEMENT  
NOTE: REFER TO SHEET 8 FOR MULLION SECTIONS & PROPERTIES



CASE 1 THRU CASE 6  
W/ CANTILEVER

MAX. DESIGN LOAD  
+ 100 PSF  
- 140 PSF



SPLICE DETAIL TYPICAL  
AS-1

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-040301  
Expiration Date June 6, 2023  
By: [Signature]  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
**TECNOGLASS, LLC.**  
3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

DATE 07/08/2016  
SCALE AS NOTED  
DRAWN A.R.  
PROJECT MCY15-087

DRAWING NO.  
AD12-64

SHEET 06 OF 38

MCY ENGINEERING, INC.  
GLAZING CONSULTANTS

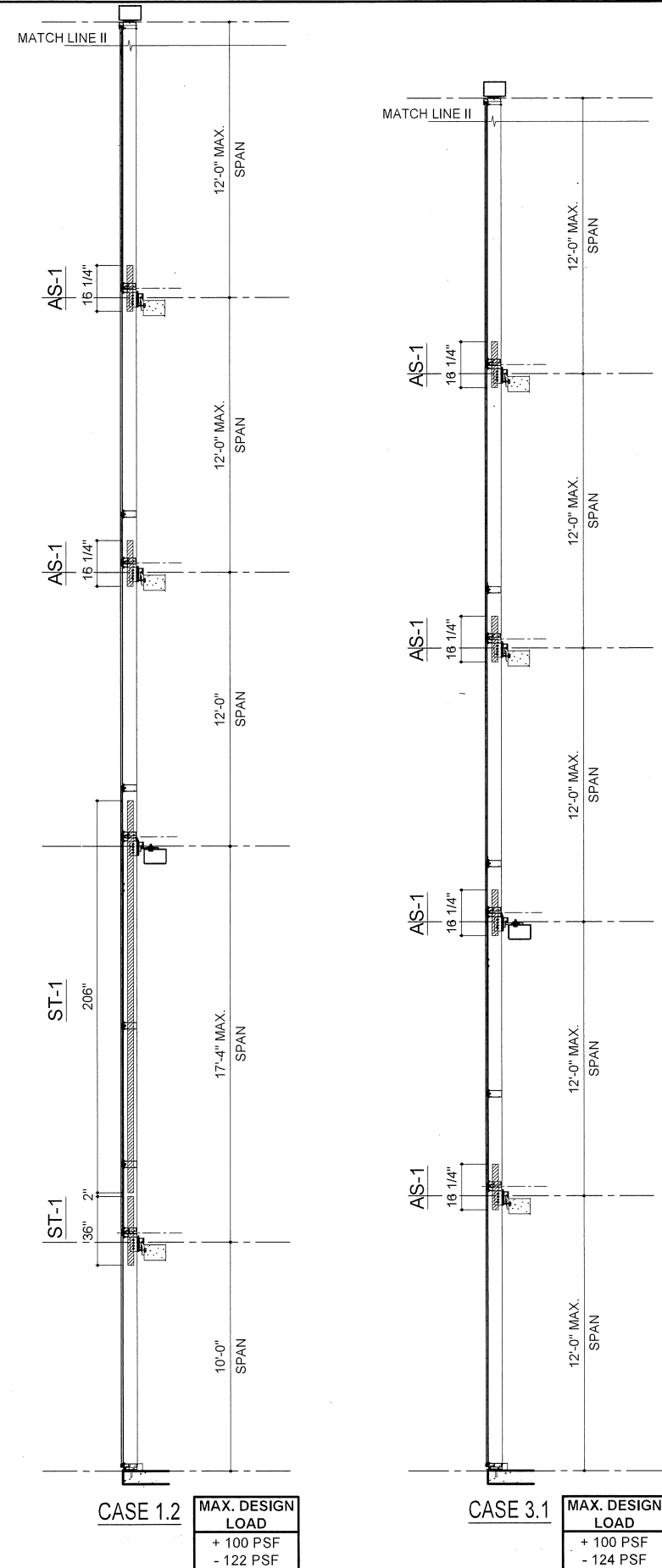
8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
MIAMI, FL 33183 F: 305.279.6818

www.MCYEngineering.com MCY.Engineering@Att.net

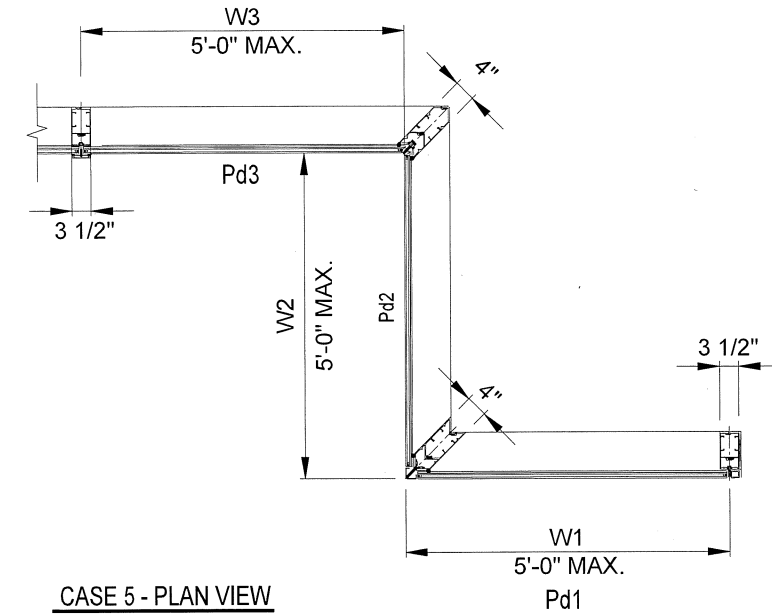
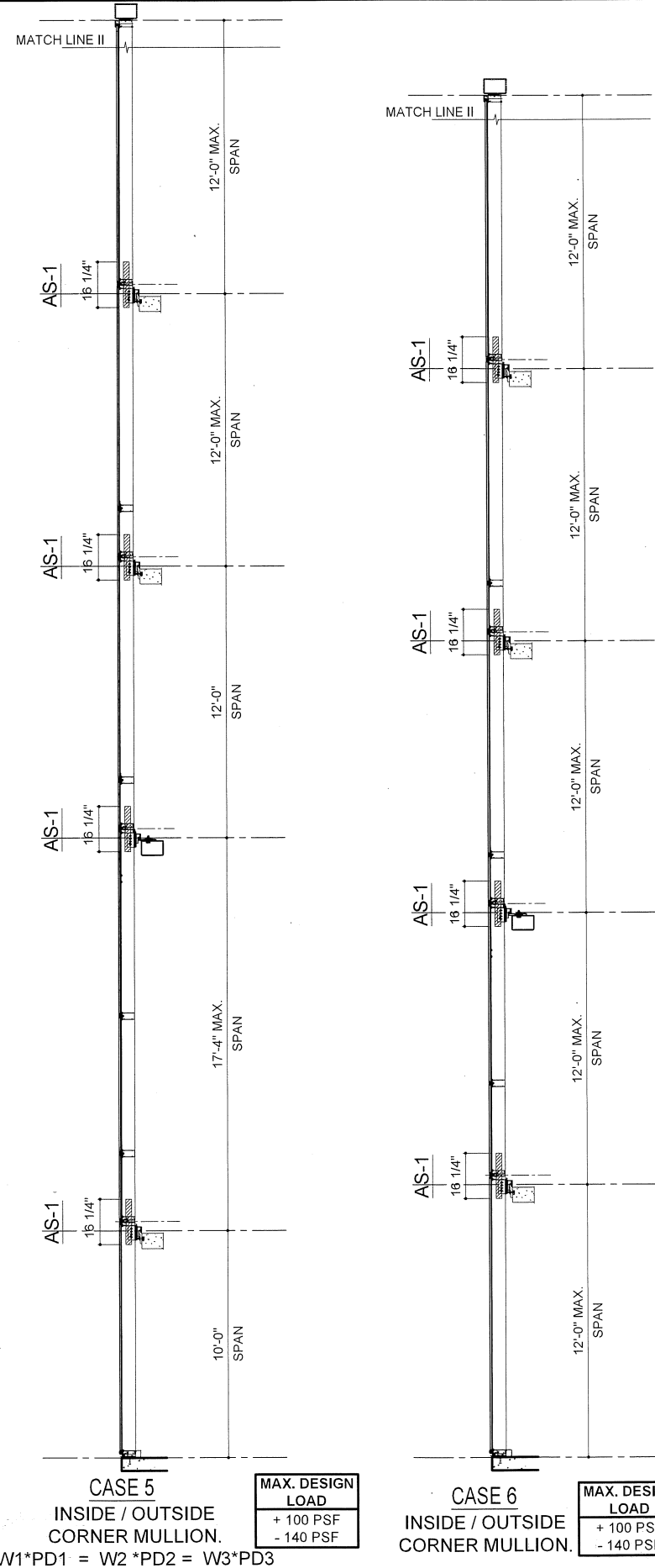
REVISIONS

| NO | DATE    | DESCRIPTION        |
|----|---------|--------------------|
| 1  | 6/4/15  | UPDATE TO 2014 FBC |
| 2  | 3/30/18 | UPDATE TO 2017 FBC |

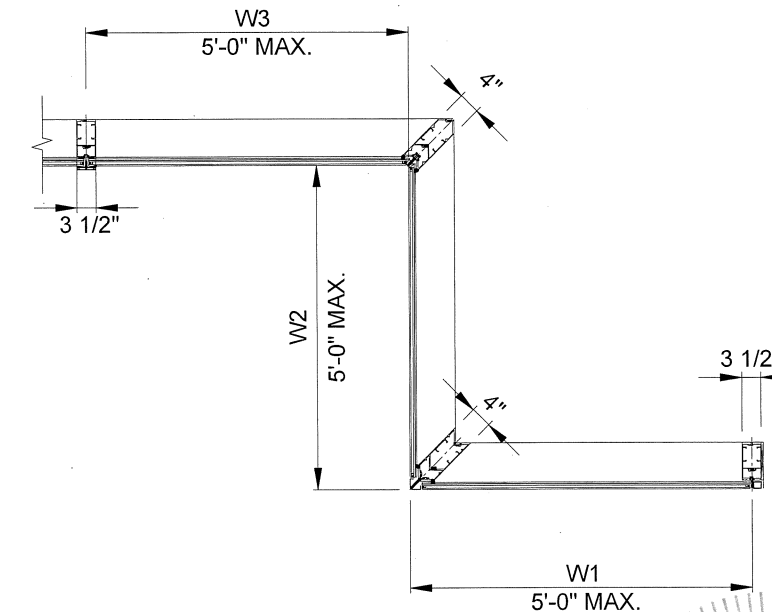
TYP. MULLION/JAMB SECTIONS W/ OR W/O REINFORCEMENT  
NOTE: REFER TO SHEET 8 FOR MULLION SECTIONS & PROPERTIES



CORNER MULLION SECTION W/ OR W/O REINFORCEMENT  
NOTE: REFER TO SHEET 8 FOR MULLION SECTIONS & PROPERTIES



NOTE:  
FOR  $W1 \cdot PD1 \neq W2 \cdot PD2 \neq W3 \cdot PD3$   
SEPARATE ENGINEERING CALCULATIONS FOR REINFORCEMENTS  
ARE REQUIRED BASED ON EACH PROJECT CONDITION



PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18040307  
Expiration Date June 1, 2023  
By Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677

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|                |            |
|----------------|------------|
| DATE           | 07/08/2016 |
| SCALE          | AS NOTED   |
| DRAWN          | A.R.       |
| PROJECT        | WCY15-087  |
| DRAWING NO.    | AD12-64    |
| SHEET 07 OF 38 |            |

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| REVISIONS | NO | DATE    | DESCRIPTION        |
|-----------|----|---------|--------------------|
|           | 1  | 8/4/15  | UPDATE TO 2014 FBC |
|           | 2  | 8/30/16 | UPDATE TO 2017 FBC |



| TYP. MULLION W/ OR W/O REINF. OPTIONS                                                                                                                                                                   |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|--|----------------------------------|----|----|--|-----------------------------------|-----------------|--------------------------------|---------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|----|----|--|-----------------|-----------------|--------------------------------|---------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|------------------------------|---------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------|-----------------|-----------------------------|---------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|--------------------------------|---------|--------|----------|--------|-----------------|------------------------------|-----------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|----|----|--|-----------------|-----------------|--------------------------------|---------|--------|----------|--------|--------|------------------------------|---------|----|
| MULLION W/O REINF.                                                                                                                                                                                      |                 |                 |  | MULLION W/ ST-1                  |    |    |  | MULLION W/ ST-2                   |                 |                                |         | MULLION W/ ST-4                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-109 + 7000-108)</td><td>33.4176</td><td>8.9666</td></tr></table> |                 |                 |  |                                  | Ix | Sx |  | in <sup>4</sup>                   | in <sup>3</sup> | ALUM.<br>(7000-109 + 7000-108) | 33.4176 | 8.9666                           | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-109 + 7000-108)</td><td>33.4176</td><td>8.9666</td></tr><tr><td>2 * ST-1</td><td>9.2210</td><td>4.3132</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>60.1585</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-109 + 7000-108) | 33.4176 | 8.9666  | 2 * ST-1                                                                                                                                                                                             | 9.2210 | 4.3132 | TOTAL<br>Ix Al + Ix St*(2.9) | 60.1585 | -- | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-109 + 7000-108)</td><td>33.4176</td><td>8.9666</td></tr><tr><td>2 * ST-2</td><td>3.7440</td><td>1.6600</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>44.2752</td><td>--</td></tr></table> |  |                 |                 |                             | Ix      | Sx      |                                                                                                                                                                                                      | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-109 + 7000-108) | 33.4176 | 8.9666 | 2 * ST-2 | 3.7440 | 1.6600          | TOTAL<br>Ix Al + Ix St*(2.9) | 44.2752                     | --      | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-109 + 7000-108)</td><td>33.4176</td><td>8.9666</td></tr><tr><td>2 * ST-4</td><td>6.5046</td><td>2.9832</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>52.2809</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-109 + 7000-108) | 33.4176 | 8.9666 | 2 * ST-4 | 6.5046 | 2.9832 | TOTAL<br>Ix Al + Ix St*(2.9) | 52.2809 | -- |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-109 + 7000-108)                                                                                                                                                                          | 33.4176         | 8.9666          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-109 + 7000-108)                                                                                                                                                                          | 33.4176         | 8.9666          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-1                                                                                                                                                                                                | 9.2210          | 4.3132          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 60.1585         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-109 + 7000-108)                                                                                                                                                                          | 33.4176         | 8.9666          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-2                                                                                                                                                                                                | 3.7440          | 1.6600          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 44.2752         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-109 + 7000-108)                                                                                                                                                                          | 33.4176         | 8.9666          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-4                                                                                                                                                                                                | 6.5046          | 2.9832          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 52.2809         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TYP. JAMB W/ OR W/O REINF. OPTIONS                                                                                                                                                                      |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| JAMB W/O REINF.                                                                                                                                                                                         |                 |                 |  | JAMB W/ ST-1                     |    |    |  | JAMB W/ ST-2                      |                 |                                |         | JAMB W/ ST-4                     |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-109 + 7000-108)</td><td>33.4176</td><td>8.9666</td></tr></table> |                 |                 |  |                                  | Ix | Sx |  | in <sup>4</sup>                   | in <sup>3</sup> | ALUM.<br>(7000-109 + 7000-108) | 33.4176 | 8.9666                           | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-109 + 7000-108)</td><td>33.4176</td><td>8.9666</td></tr><tr><td>1 * ST-1</td><td>4.6105</td><td>2.1566</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>46.7881</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-109 + 7000-108) | 33.4176 | 8.9666  | 1 * ST-1                                                                                                                                                                                             | 4.6105 | 2.1566 | TOTAL<br>Ix Al + Ix St*(2.9) | 46.7881 | -- | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-109 + 7000-108)</td><td>33.4176</td><td>8.9666</td></tr><tr><td>1 * ST-2</td><td>1.8720</td><td>0.8300</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>38.8464</td><td>--</td></tr></table> |  |                 |                 |                             | Ix      | Sx      |                                                                                                                                                                                                      | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-109 + 7000-108) | 33.4176 | 8.9666 | 1 * ST-2 | 1.8720 | 0.8300          | TOTAL<br>Ix Al + Ix St*(2.9) | 38.8464                     | --      | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-109 + 7000-108)</td><td>33.4176</td><td>8.9666</td></tr><tr><td>1 * ST-4</td><td>3.2523</td><td>1.4916</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>42.8492</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-109 + 7000-108) | 33.4176 | 8.9666 | 1 * ST-4 | 3.2523 | 1.4916 | TOTAL<br>Ix Al + Ix St*(2.9) | 42.8492 | -- |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-109 + 7000-108)                                                                                                                                                                          | 33.4176         | 8.9666          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-109 + 7000-108)                                                                                                                                                                          | 33.4176         | 8.9666          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 1 * ST-1                                                                                                                                                                                                | 4.6105          | 2.1566          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 46.7881         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-109 + 7000-108)                                                                                                                                                                          | 33.4176         | 8.9666          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 1 * ST-2                                                                                                                                                                                                | 1.8720          | 0.8300          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 38.8464         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-109 + 7000-108)                                                                                                                                                                          | 33.4176         | 8.9666          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 1 * ST-4                                                                                                                                                                                                | 3.2523          | 1.4916          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 42.8492         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| STRUCTURAL BUTT GLAZED<br>STRAIGHT MULLION                                                                                                                                                              |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-131 + 7000-109)</td><td>34.7709</td><td>9.4261</td></tr></table> |                 |                 |  |                                  | Ix | Sx |  | in <sup>4</sup>                   | in <sup>3</sup> | ALUM.<br>(7000-131 + 7000-109) | 34.7709 | 9.4261                           | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-131 + 7000-109)</td><td>34.7709</td><td>9.4261</td></tr><tr><td>2 * ST-1</td><td>9.2210</td><td>4.3132</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>61.5089</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-131 + 7000-109) | 34.7709 | 9.4261  | 2 * ST-1                                                                                                                                                                                             | 9.2210 | 4.3132 | TOTAL<br>Ix Al + Ix St*(2.9) | 61.5089 | -- | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-131 + 7000-109)</td><td>34.7709</td><td>9.4261</td></tr><tr><td>2 * ST-2</td><td>3.7440</td><td>1.6600</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>45.6285</td><td>--</td></tr></table> |  |                 |                 |                             | Ix      | Sx      |                                                                                                                                                                                                      | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-131 + 7000-109) | 34.7709 | 9.4261 | 2 * ST-2 | 3.7440 | 1.6600          | TOTAL<br>Ix Al + Ix St*(2.9) | 45.6285                     | --      | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-131 + 7000-109)</td><td>34.7709</td><td>9.4261</td></tr><tr><td>2 * ST-4</td><td>6.5046</td><td>2.9832</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>53.6342</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-131 + 7000-109) | 34.7709 | 9.4261 | 2 * ST-4 | 6.5046 | 2.9832 | TOTAL<br>Ix Al + Ix St*(2.9) | 53.6342 | -- |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-131 + 7000-109)                                                                                                                                                                          | 34.7709         | 9.4261          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-131 + 7000-109)                                                                                                                                                                          | 34.7709         | 9.4261          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-1                                                                                                                                                                                                | 9.2210          | 4.3132          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 61.5089         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-131 + 7000-109)                                                                                                                                                                          | 34.7709         | 9.4261          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-2                                                                                                                                                                                                | 3.7440          | 1.6600          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 45.6285         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-131 + 7000-109)                                                                                                                                                                          | 34.7709         | 9.4261          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-4                                                                                                                                                                                                | 6.5046          | 2.9832          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 53.6342         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| STRUCTURAL BUTT GLAZED<br>CURVED MULLION                                                                                                                                                                |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-131 + 7000-109)</td><td>34.7709</td><td>9.4261</td></tr></table> |                 |                 |  |                                  | Ix | Sx |  | in <sup>4</sup>                   | in <sup>3</sup> | ALUM.<br>(7000-131 + 7000-109) | 34.7709 | 9.4261                           | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-131 + 7000-109)</td><td>34.7709</td><td>9.4261</td></tr><tr><td>2 * ST-1</td><td>9.2210</td><td>4.3132</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>61.5089</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-131 + 7000-109) | 34.7709 | 9.4261  | 2 * ST-1                                                                                                                                                                                             | 9.2210 | 4.3132 | TOTAL<br>Ix Al + Ix St*(2.9) | 61.5089 | -- | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-131 + 7000-109)</td><td>34.7709</td><td>9.4261</td></tr><tr><td>2 * ST-2</td><td>3.7440</td><td>1.6600</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>45.6285</td><td>--</td></tr></table> |  |                 |                 |                             | Ix      | Sx      |                                                                                                                                                                                                      | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-131 + 7000-109) | 34.7709 | 9.4261 | 2 * ST-2 | 3.7440 | 1.6600          | TOTAL<br>Ix Al + Ix St*(2.9) | 45.6285                     | --      | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-131 + 7000-109)</td><td>34.7709</td><td>9.4261</td></tr><tr><td>2 * ST-4</td><td>6.5046</td><td>2.9832</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>53.6342</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-131 + 7000-109) | 34.7709 | 9.4261 | 2 * ST-4 | 6.5046 | 2.9832 | TOTAL<br>Ix Al + Ix St*(2.9) | 53.6342 | -- |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-131 + 7000-109)                                                                                                                                                                          | 34.7709         | 9.4261          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-131 + 7000-109)                                                                                                                                                                          | 34.7709         | 9.4261          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-1                                                                                                                                                                                                | 9.2210          | 4.3132          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 61.5089         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-131 + 7000-109)                                                                                                                                                                          | 34.7709         | 9.4261          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-2                                                                                                                                                                                                | 3.7440          | 1.6600          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 45.6285         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-131 + 7000-109)                                                                                                                                                                          | 34.7709         | 9.4261          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-4                                                                                                                                                                                                | 6.5046          | 2.9832          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 53.6342         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| STRUCTURAL CAPPED GLAZED<br>STRAIGHT MULLION                                                                                                                                                            |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-108 + 7000-102)</td><td>40.5240</td><td>9.3870</td></tr></table> |                 |                 |  |                                  | Ix | Sx |  | in <sup>4</sup>                   | in <sup>3</sup> | ALUM.<br>(7000-108 + 7000-102) | 40.5240 | 9.3870                           | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-102 + 7000-108)</td><td>40.5240</td><td>9.3870</td></tr><tr><td>2 * ST-1</td><td>9.2210</td><td>4.3132</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>67.2620</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-102 + 7000-108) | 40.5240 | 9.3870  | 2 * ST-1                                                                                                                                                                                             | 9.2210 | 4.3132 | TOTAL<br>Ix Al + Ix St*(2.9) | 67.2620 | -- | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-102 + 7000-108)</td><td>40.5240</td><td>9.3870</td></tr><tr><td>2 * ST-2</td><td>3.7440</td><td>1.6600</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>51.3816</td><td>--</td></tr></table> |  |                 |                 |                             | Ix      | Sx      |                                                                                                                                                                                                      | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-102 + 7000-108) | 40.5240 | 9.3870 | 2 * ST-2 | 3.7440 | 1.6600          | TOTAL<br>Ix Al + Ix St*(2.9) | 51.3816                     | --      | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-102 + 7000-108)</td><td>40.5240</td><td>9.3870</td></tr><tr><td>2 * ST-4</td><td>6.5046</td><td>2.9832</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>59.3873</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-102 + 7000-108) | 40.5240 | 9.3870 | 2 * ST-4 | 6.5046 | 2.9832 | TOTAL<br>Ix Al + Ix St*(2.9) | 59.3873 | -- |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-108 + 7000-102)                                                                                                                                                                          | 40.5240         | 9.3870          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-102 + 7000-108)                                                                                                                                                                          | 40.5240         | 9.3870          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-1                                                                                                                                                                                                | 9.2210          | 4.3132          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 67.2620         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-102 + 7000-108)                                                                                                                                                                          | 40.5240         | 9.3870          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-2                                                                                                                                                                                                | 3.7440          | 1.6600          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 51.3816         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-102 + 7000-108)                                                                                                                                                                          | 40.5240         | 9.3870          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-4                                                                                                                                                                                                | 6.5046          | 2.9832          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 59.3873         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| STRUCTURAL CAPPED GLAZED<br>STRAIGHT JAMB                                                                                                                                                               |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-108 + 7000-102)</td><td>40.5240</td><td>9.3870</td></tr></table> |                 |                 |  |                                  | Ix | Sx |  | in <sup>4</sup>                   | in <sup>3</sup> | ALUM.<br>(7000-108 + 7000-102) | 40.5240 | 9.3870                           | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-102 + 7000-108)</td><td>40.5240</td><td>9.3870</td></tr><tr><td>2 * ST-1</td><td>9.2210</td><td>4.3132</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>67.2620</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-102 + 7000-108) | 40.5240 | 9.3870  | 2 * ST-1                                                                                                                                                                                             | 9.2210 | 4.3132 | TOTAL<br>Ix Al + Ix St*(2.9) | 67.2620 | -- | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-102 + 7000-108)</td><td>40.5240</td><td>9.3870</td></tr><tr><td>2 * ST-2</td><td>3.7440</td><td>1.6600</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>51.3816</td><td>--</td></tr></table> |  |                 |                 |                             | Ix      | Sx      |                                                                                                                                                                                                      | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-102 + 7000-108) | 40.5240 | 9.3870 | 2 * ST-2 | 3.7440 | 1.6600          | TOTAL<br>Ix Al + Ix St*(2.9) | 51.3816                     | --      | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM.<br/>(7000-102 + 7000-108)</td><td>40.5240</td><td>9.3870</td></tr><tr><td>2 * ST-4</td><td>6.5046</td><td>2.9832</td></tr><tr><td>TOTAL<br/>Ix Al + Ix St*(2.9)</td><td>59.3873</td><td>--</td></tr></table> |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM.<br>(7000-102 + 7000-108) | 40.5240 | 9.3870 | 2 * ST-4 | 6.5046 | 2.9832 | TOTAL<br>Ix Al + Ix St*(2.9) | 59.3873 | -- |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-108 + 7000-102)                                                                                                                                                                          | 40.5240         | 9.3870          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-102 + 7000-108)                                                                                                                                                                          | 40.5240         | 9.3870          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-1                                                                                                                                                                                                | 9.2210          | 4.3132          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 67.2620         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-102 + 7000-108)                                                                                                                                                                          | 40.5240         | 9.3870          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-2                                                                                                                                                                                                | 3.7440          | 1.6600          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 51.3816         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM.<br>(7000-102 + 7000-108)                                                                                                                                                                          | 40.5240         | 9.3870          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 2 * ST-4                                                                                                                                                                                                | 6.5046          | 2.9832          |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| TOTAL<br>Ix Al + Ix St*(2.9)                                                                                                                                                                            | 59.3873         | --              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| 90° INSIDE OR OUTSIDE CORNER MULLION OPTIONS                                                                                                                                                            |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| OUTSIDE CORNER MULLION W/O REINF.                                                                                                                                                                       |                 |                 |  | INSIDE CORNER MULLION W/O REINF. |    |    |  | OUTSIDE CORNER MULLION W/O REINF. |                 |                                |         | INSIDE CORNER MULLION W/O REINF. |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM. (7000-120 + 7000-122)</td><td>98.2386</td><td>16.7443</td></tr></table>    |                 |                 |  |                                  | Ix | Sx |  | in <sup>4</sup>                   | in <sup>3</sup> | ALUM. (7000-120 + 7000-122)    | 98.2386 | 16.7443                          | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM. (7000-124 + 7000-125)</td><td>90.4431</td><td>14.0658</td></tr></table>                                                                                                                                      |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM. (7000-124 + 7000-125)    | 90.4431 | 14.0658 | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM. (7000-120 + 7000-122)</td><td>98.2386</td><td>16.7443</td></tr></table> |        |        |                              |         | Ix | Sx                                                                                                                                                                                                                                                                                                                                        |  | in <sup>4</sup> | in <sup>3</sup> | ALUM. (7000-120 + 7000-122) | 98.2386 | 16.7443 | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM. (7000-120 + 7000-122)</td><td>98.2386</td><td>16.7443</td></tr></table> |                 |                 |                                |         | Ix     | Sx       |        | in <sup>4</sup> | in <sup>3</sup>              | ALUM. (7000-120 + 7000-122) | 98.2386 | 16.7443                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM. (7000-120 + 7000-122)                                                                                                                                                                             | 98.2386         | 16.7443         |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM. (7000-124 + 7000-125)                                                                                                                                                                             | 90.4431         | 14.0658         |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM. (7000-120 + 7000-122)                                                                                                                                                                             | 98.2386         | 16.7443         |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM. (7000-120 + 7000-122)                                                                                                                                                                             | 98.2386         | 16.7443         |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| REINFORCEMENT OPTIONS                                                                                                                                                                                   |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         |                 |                 |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM. (7000-120 + 7000-122)</td><td>98.2386</td><td>16.7443</td></tr></table>    |                 |                 |  |                                  | Ix | Sx |  | in <sup>4</sup>                   | in <sup>3</sup> | ALUM. (7000-120 + 7000-122)    | 98.2386 | 16.7443                          | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM. (7000-124 + 7000-125)</td><td>90.4431</td><td>14.0658</td></tr></table>                                                                                                                                      |  |  |  |  | Ix | Sx |  | in <sup>4</sup> | in <sup>3</sup> | ALUM. (7000-124 + 7000-125)    | 90.4431 | 14.0658 | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM. (7000-120 + 7000-122)</td><td>98.2386</td><td>16.7443</td></tr></table> |        |        |                              |         | Ix | Sx                                                                                                                                                                                                                                                                                                                                        |  | in <sup>4</sup> | in <sup>3</sup> | ALUM. (7000-120 + 7000-122) | 98.2386 | 16.7443 | <table><tr><th></th><th>Ix</th><th>Sx</th></tr><tr><th></th><th>in<sup>4</sup></th><th>in<sup>3</sup></th></tr><tr><td>ALUM. (7000-120 + 7000-122)</td><td>98.2386</td><td>16.7443</td></tr></table> |                 |                 |                                |         | Ix     | Sx       |        | in <sup>4</sup> | in <sup>3</sup>              | ALUM. (7000-120 + 7000-122) | 98.2386 | 16.7443                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM. (7000-120 + 7000-122)                                                                                                                                                                             | 98.2386         | 16.7443         |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM. (7000-124 + 7000-125)                                                                                                                                                                             | 90.4431         | 14.0658         |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM. (7000-120 + 7000-122)                                                                                                                                                                             | 98.2386         | 16.7443         |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | Ix              | Sx              |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
|                                                                                                                                                                                                         | in <sup>4</sup> | in <sup>3</sup> |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |
| ALUM. (7000-120 + 7000-122)                                                                                                                                                                             | 98.2386         | 16.7443         |  |                                  |    |    |  |                                   |                 |                                |         |                                  |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |         |                                                                                                                                                                                                      |        |        |                              |         |    |                                                                                                                                                                                                                                                                                                                                           |  |                 |                 |                             |         |         |                                                                                                                                                                                                      |                 |                 |                                |         |        |          |        |                 |                              |                             |         |                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |    |    |  |                 |                 |                                |         |        |          |        |        |                              |         |    |

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0703.01  
Expiration Date June 6, 2023

By *Manuel J. ...*  
Miami Dade Product Control

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677

NO DATE DESCRIPTION  
A 6/4/15 UPDATE TO 2014 FBC  
A 3/30/18 UPDATE TO 2017 FBC

REVISIONS

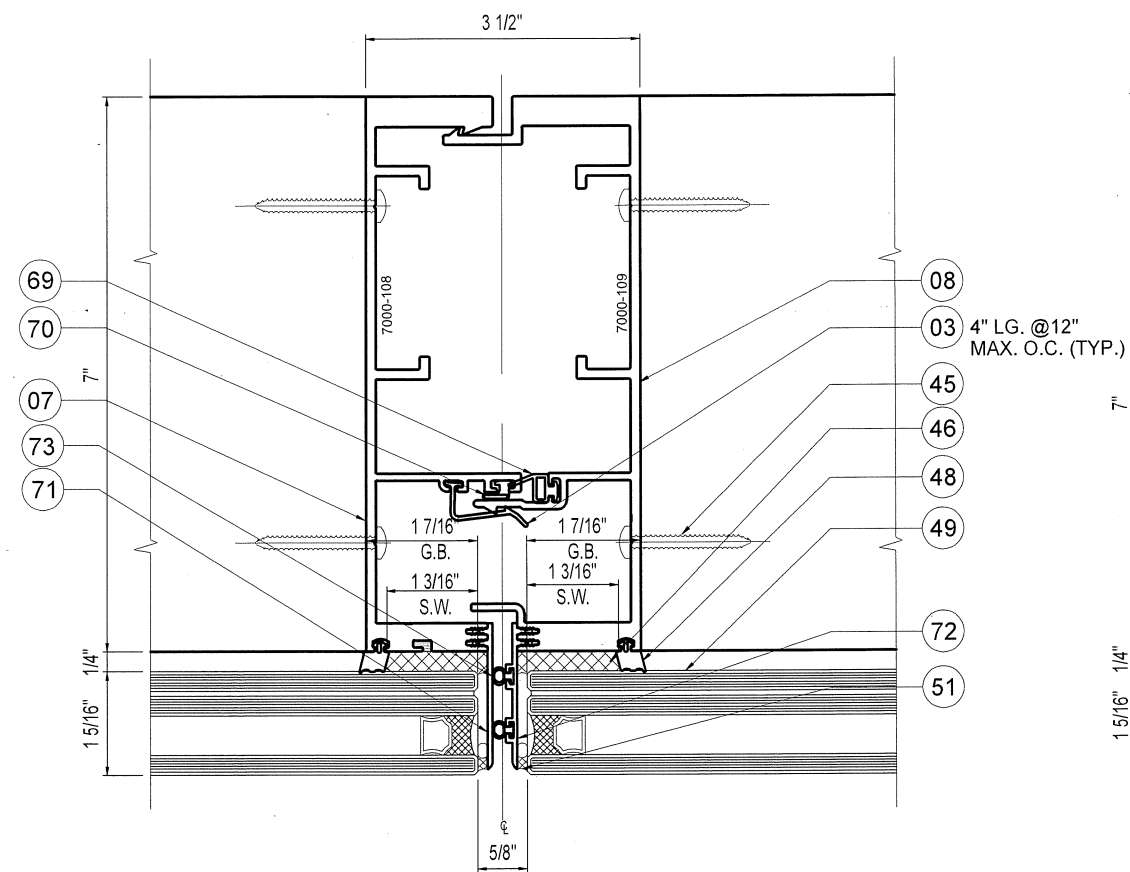
MCY

MCY ENGINEERING, INC.  
GLAZING CONSULTANTS  
8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
MIAMI, FL 33183 F: 305.279.6818  
www.MCYEngineering.com MCYEngineering@att.net

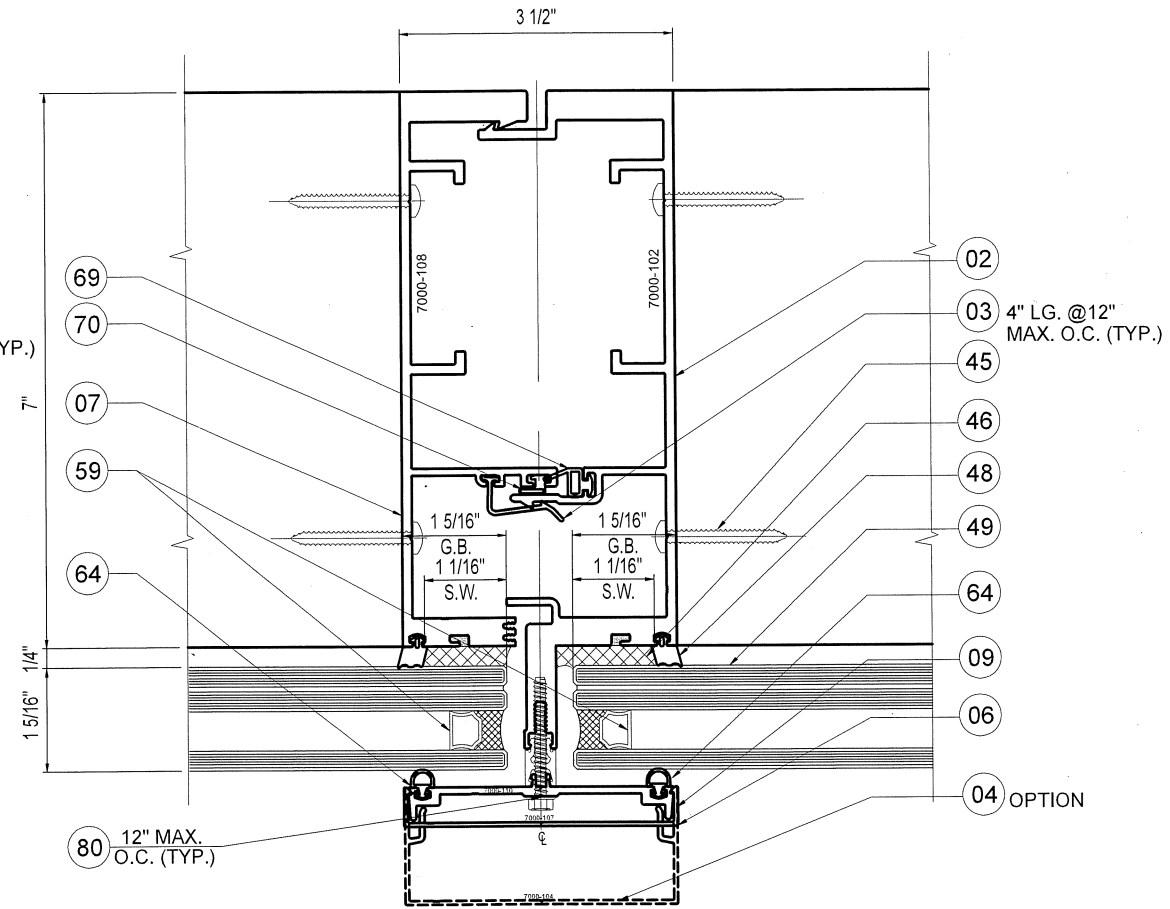
SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
TECNOGLASS, LLC.  
3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

DATE 07/08/2016  
SCALE AS NOTED  
DRAWN A.R.  
PROJECT MCY15-087  
DRAWING NO. AD12-64  
SHEET 08 OF 38

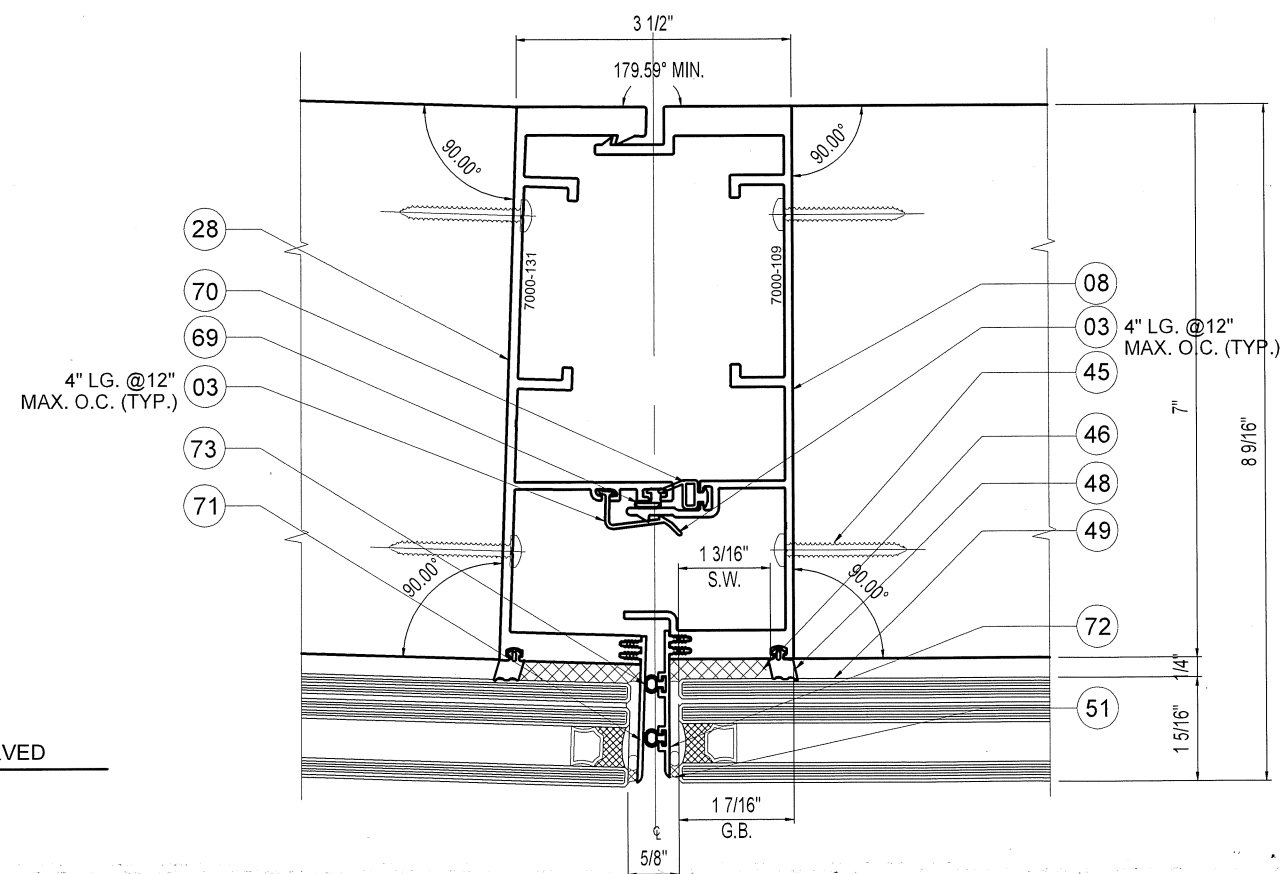
MAY 16 2019



1 TYP. MULLION BUTT GLAZED  
09 OPTION 1



1 TYP. MULLION CAPTURED  
09 OPTION 2



1 TYP. MULLION CURVED  
09 OPTION 3

| REVISIONS |                            |
|-----------|----------------------------|
| NO        | DATE DESCRIPTION           |
| 1         | 6/4/15 UPDATE TO 2014 FBC  |
| 2         | 3/30/18 UPDATE TO 2017 FBC |
|           |                            |
|           |                            |
|           |                            |

**MCY ENGINEERING, INC.**  
CLAZING CONSULTANTS

## GLAZING CONSULTANTS

8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
MIAMI, FL. 33183 F: 305.279.6818

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3550 NW 49TH STREET, MIAMI, FL 33142  
e (305) 342-0890 Fax (786) 513-3

Phone (305) 342-0890 Fax (786) 513-3963

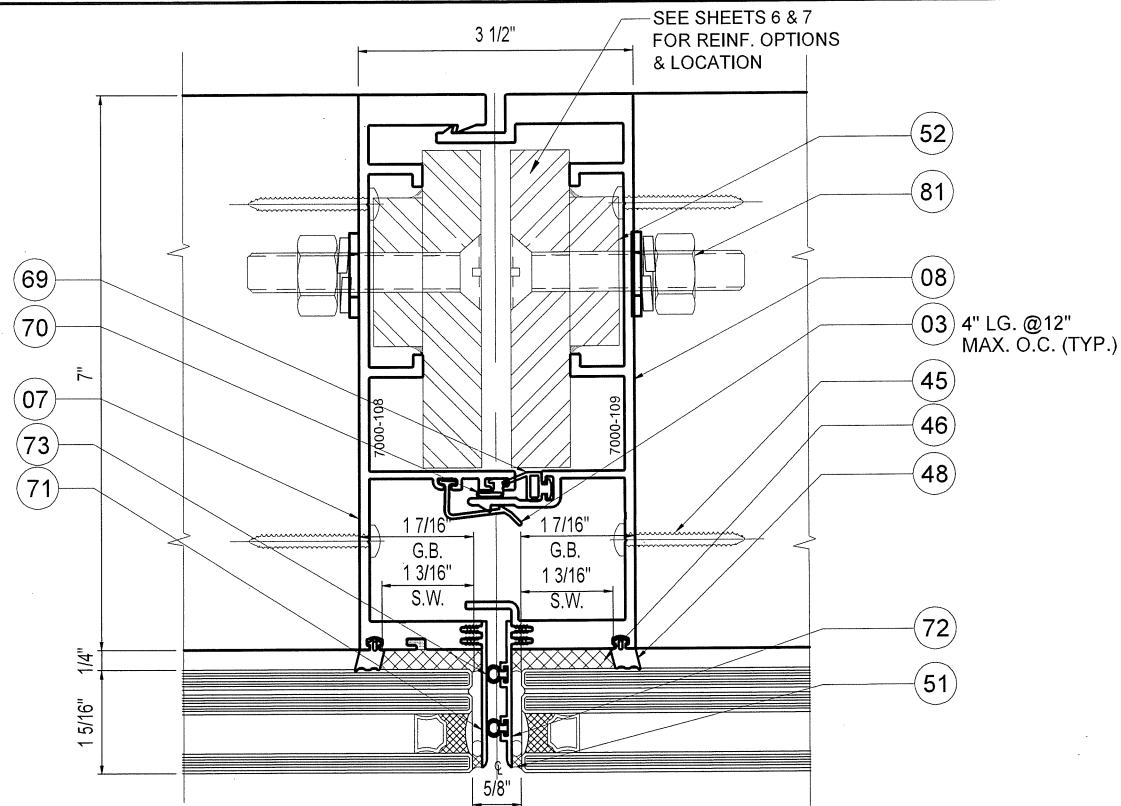
PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0403 on  
Expiration Date June 6, 2018  
By Manuel Tiroz  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677

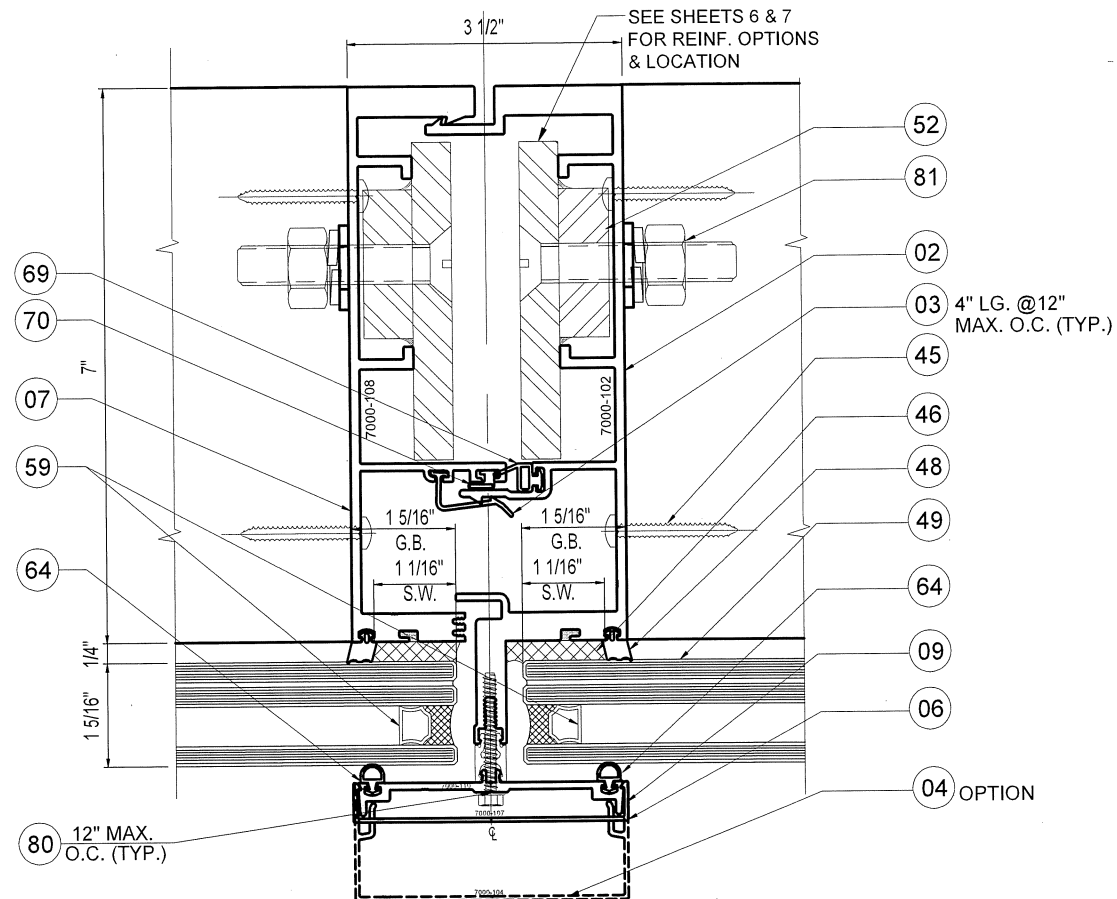
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| DATE           | 07/08/2016 |
| SCALE          | AS NOTED   |
| DRAWN          | A.R.       |
| PROJECT        | MCY15-087  |
| DRAWING NO.    |            |
| AD12-64        |            |
| SHEET 09 OF 38 |            |

NAVH 13 042

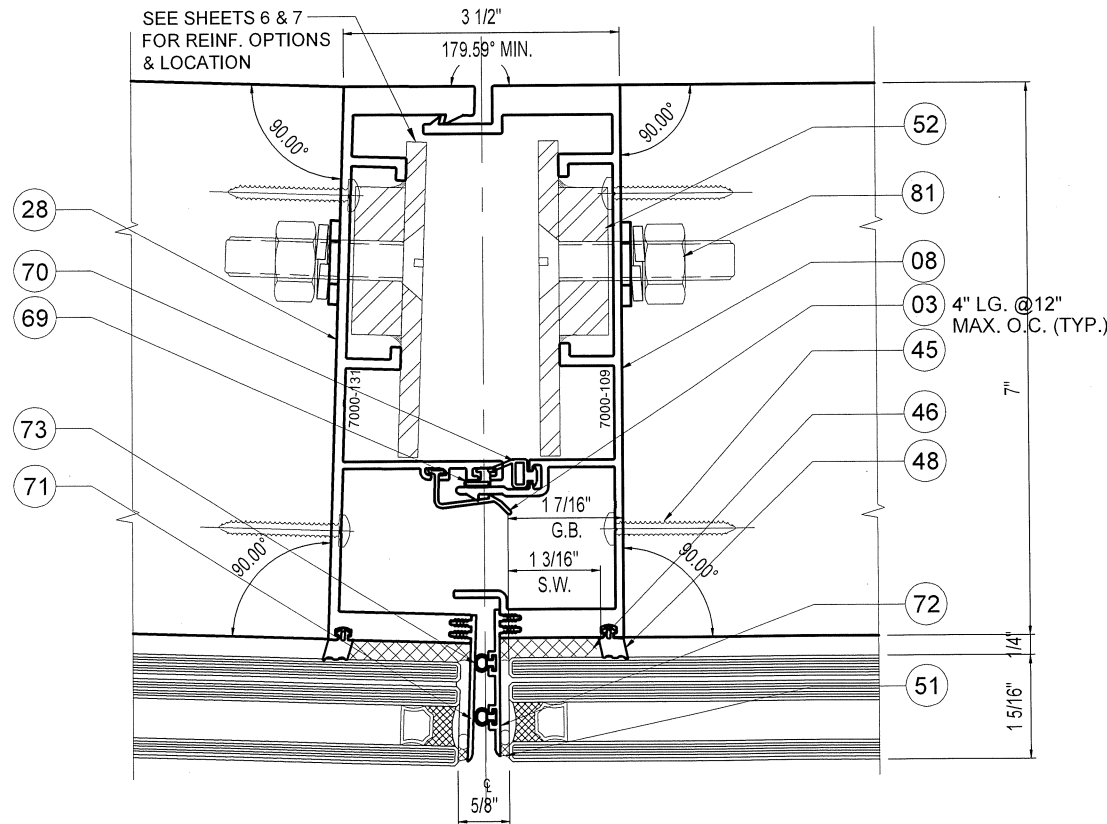




2 TYP. MULLION BUTT GLAZED W/ REINF.  
10 OPTION 1



2 TYP. MULLION CAPTURED W/ REINF.  
10 OPTION 2



2 TYP. MULLION CURVED W/ REINF.  
10 OPTION 3

**NOTE:**  
REFER TO SHEETS 6 & 7 FOR TYP.  
MULLION SPANS V.S. REINFORCEMENT  
AND MAX. DESIGN LOAD.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0403.07  
Expiration Date June 6, 2023  
By *Manuel Perez*  
Miami/Dade Product Control  
MIAMI DADE COUNTY

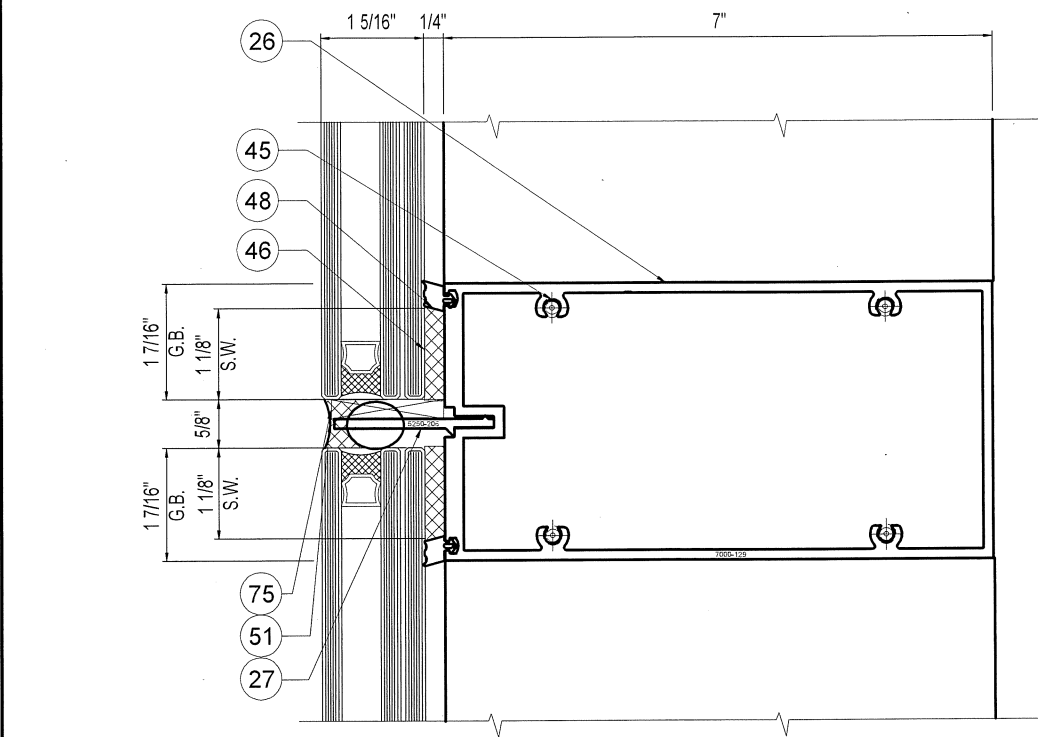
YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677

| REVISIONS | NO. | DATE       | DESCRIPTION |
|-----------|-----|------------|-------------|
|           | 1   | 07/08/2016 | AS NOTED    |
|           | 2   | 07/08/2016 | AS NOTED    |
|           | 3   | 07/08/2016 | AS NOTED    |
|           | 4   | 07/08/2016 | AS NOTED    |
|           | 5   | 07/08/2016 | AS NOTED    |
|           | 6   | 07/08/2016 | AS NOTED    |
|           | 7   | 07/08/2016 | AS NOTED    |
|           | 8   | 07/08/2016 | AS NOTED    |
|           | 9   | 07/08/2016 | AS NOTED    |
|           | 10  | 07/08/2016 | AS NOTED    |

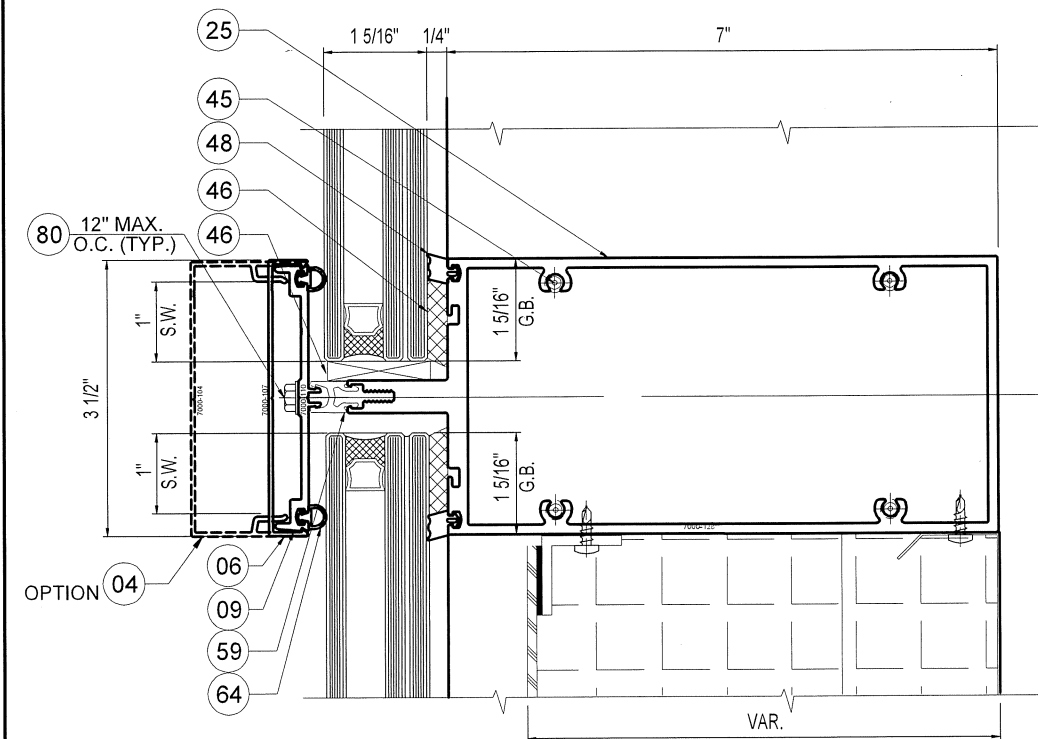
**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
8501 SW 124 AVE. SUITE 205A  
MIAMI, FL 33183  
P: 305.271.0117  
F: 305.279.6818  
www.MCYEngineering.com  
MCY.Engineering@Att.net

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
**TECNOGLASS, LLC.**  
3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

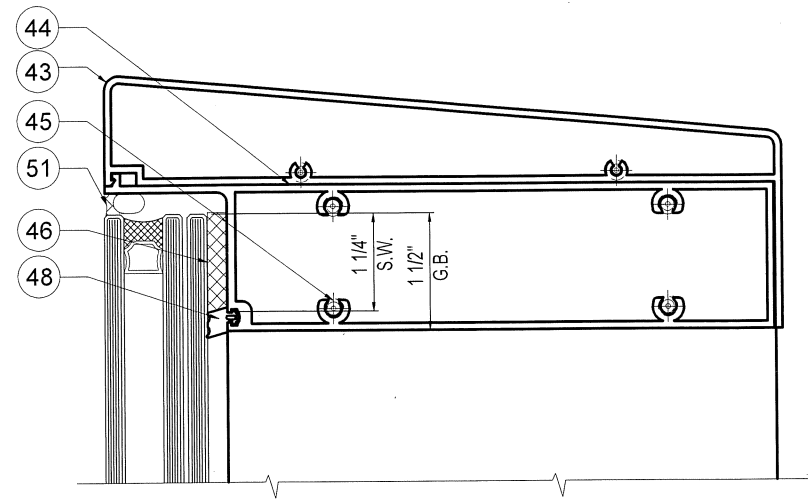
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| DATE        | 07/08/2016 |
| SCALE       | AS NOTED   |
| DRAWN       | A.R.       |
| PROJECT     | MCY15-087  |
| DRAWING NO. | AD12-64    |
| SHEET       | 10 OF 38   |



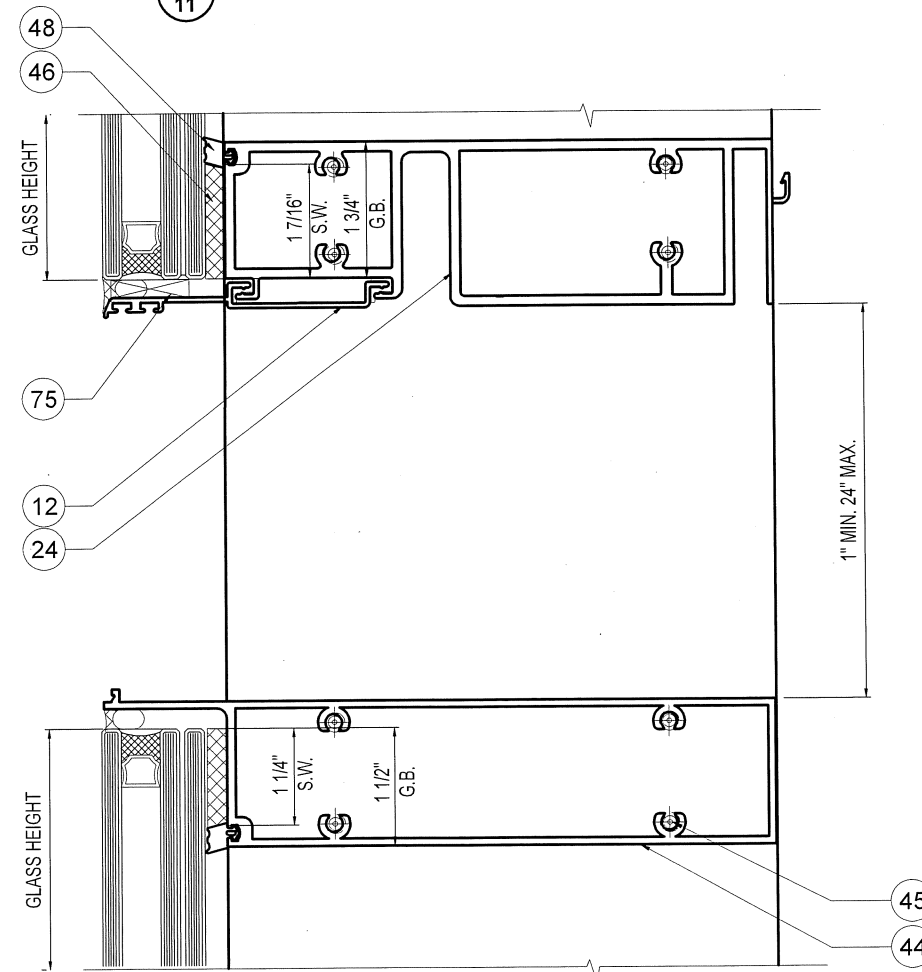
3 HORIZONTAL BUTT GLAZED  
11 OPTION 1



3 HORIZONTAL CAPTURED  
11 OPTION 2



4 PARAPET HEAD  
11



5 CANTILEVER HORIZONTAL  
11

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-040307  
Expiration Date June 6, 2018  
By *Manuel Perez*  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983983  
C.A.N. 28677  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER

|             |            |
|-------------|------------|
| DATE        | 07/08/2016 |
| SCALE       | AS NOTED   |
| DRAWN       | A.R.       |
| PROJECT     | MCY15-087  |
| DRAWING NO. | AD12-64    |
| SHEET       | 11 OF 38   |

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
**TECNOGLASS, LLC.**  
3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

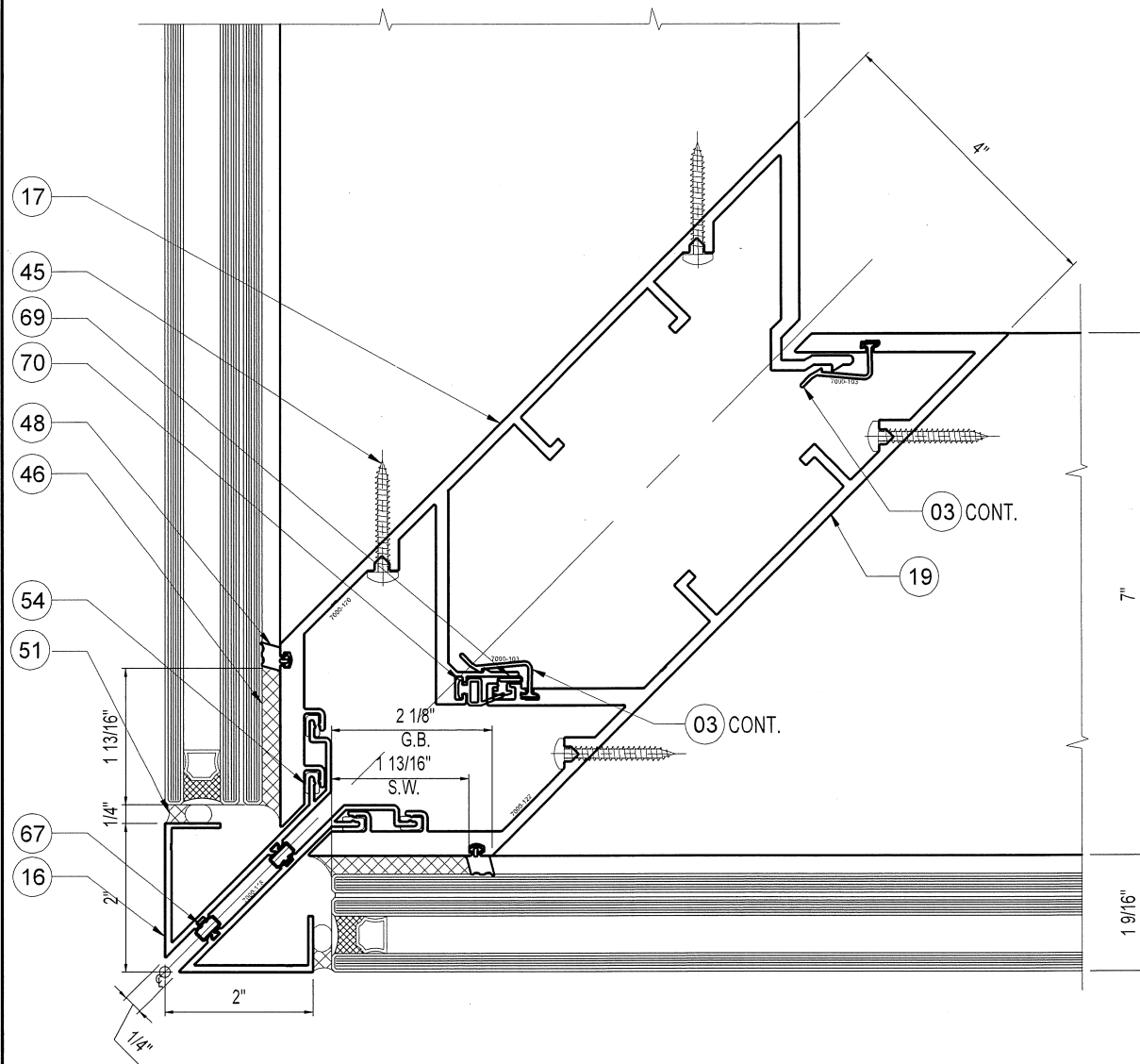
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8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
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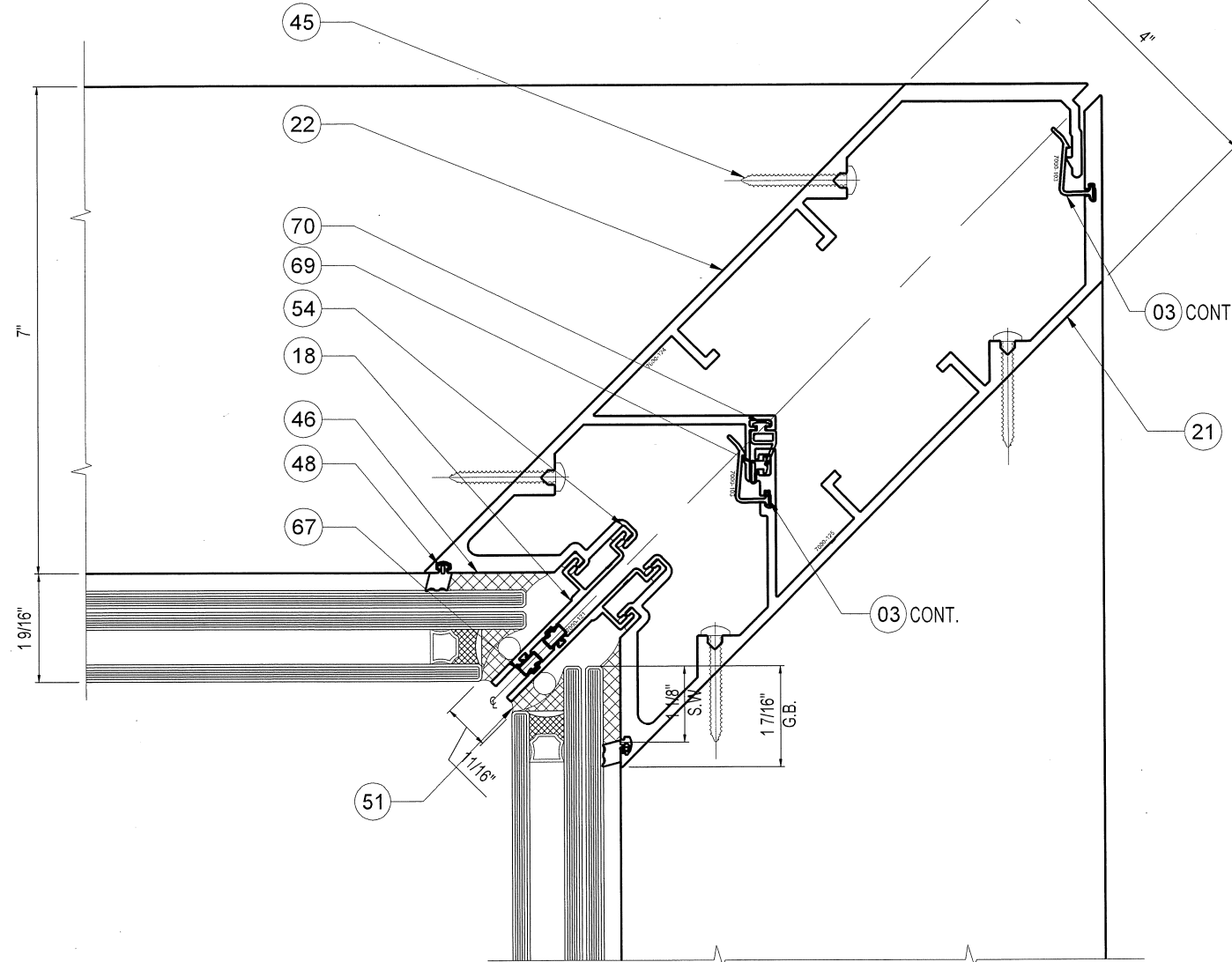
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| REVISIONS | NO | DATE    | DESCRIPTION        |
|-----------|----|---------|--------------------|
|           | 1  | 6/4/15  | UPDATE TO 2014 FBC |
|           | 2  | 9/30/18 | UPDATE TO 2017 FBC |

MAY 1 2018



**6**  
**12** OUTSIDE CORNER MULLION



**6A**  
**12** INSIDE CORNER MULLION

**NOTE:**  
REFER TO SHEETS 6 & 7 FOR TYP.  
CORNER MULLION SPANS, REINF.  
AND DESIGN LOAD REQUIRED

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0403.01  
Expiration Date 12/16/2018  
By *Manuel Perez*  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677383

DATE 07/08/2016  
SCALE AS NOTED  
DRAWN A.R.  
PROJECT MCY15-087

DRAWING NO.  
AD12-64

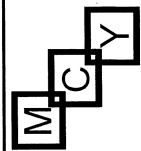
SHEET 12 OF 38

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
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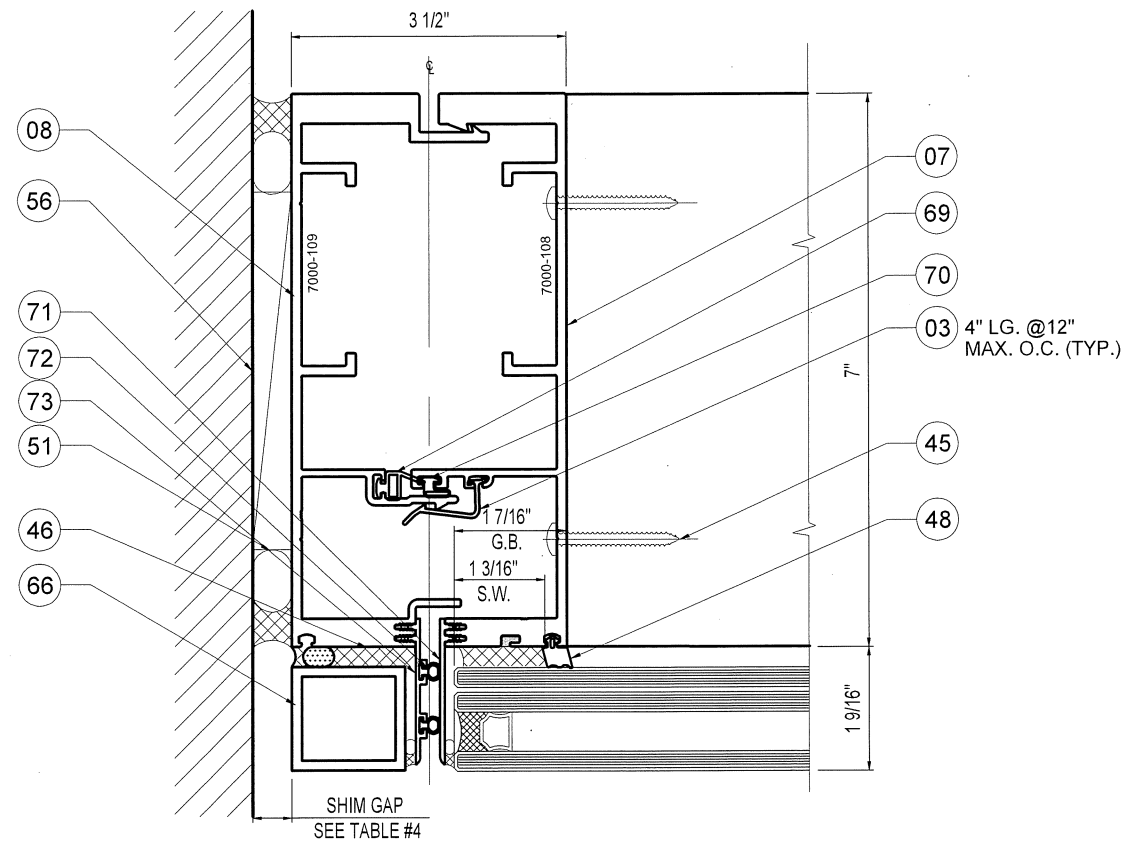
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| REVISIONS |                            |
|-----------|----------------------------|
| NO        | DATE DESCRIPTION           |
| 1         | 6/4/15 UPDATE TO 2014 FBC  |
| 2         | 8/30/16 UPDATE TO 2017 FBC |
|           |                            |
|           |                            |

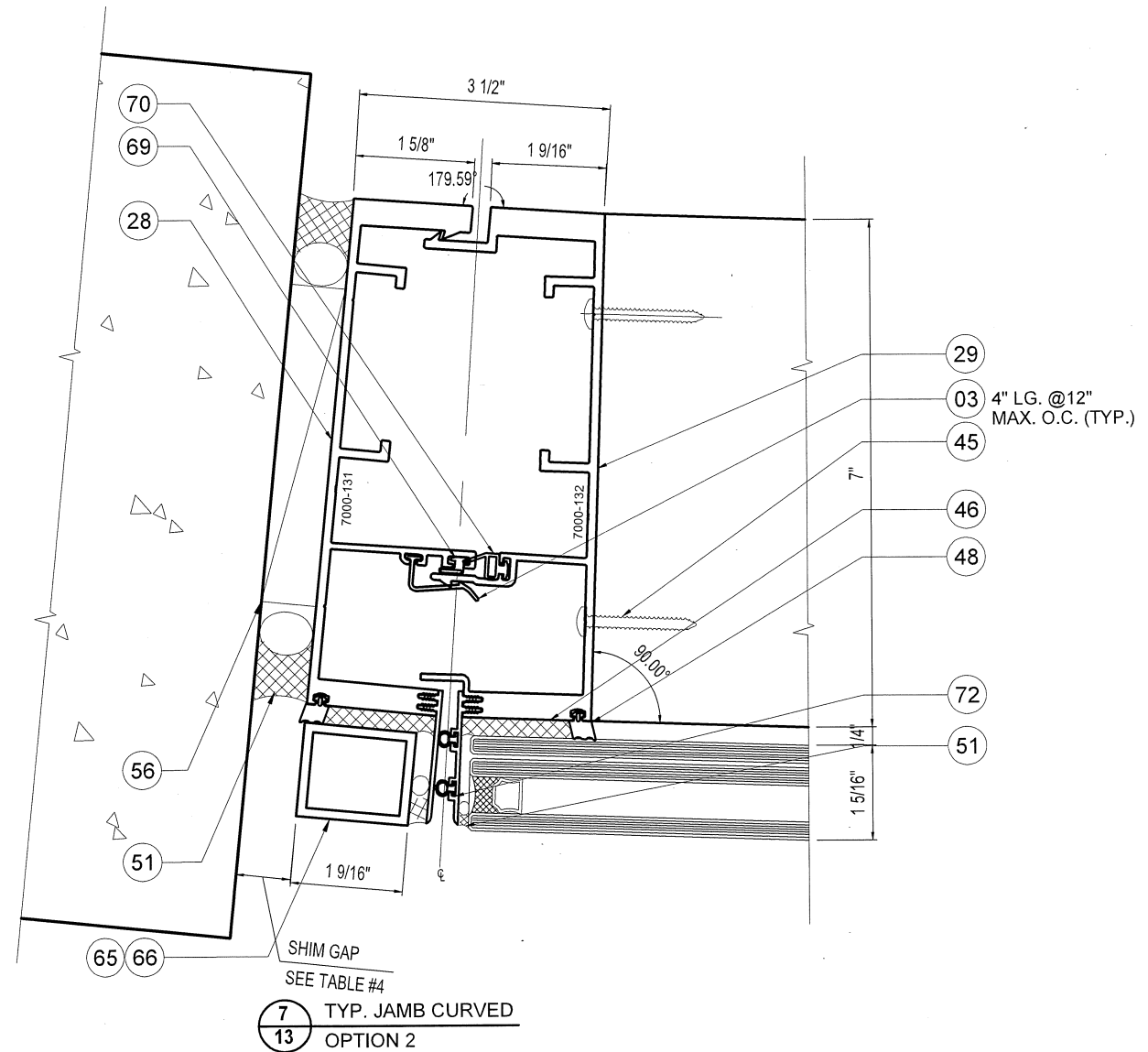


7 TYP. JAMB BUTT GLAZED  
13 OPTION 1

TABLE #4: MIN/MAX SHIM GAP

| JAMB SPAN* | MIN. GAP | MAX. GAP |
|------------|----------|----------|
| ≤ 120"     | 0.38"    | 0.75"    |
| 132"       | 0.42"    | 0.75"    |
| 144"       | 0.46"    | 0.75"    |
| 156"       | 0.5"     | 0.75"    |
| 168"       | 0.54"    | 0.75"    |
| 180"       | 0.58"    | 0.75"    |
| 192"       | 0.62"    | 0.75"    |
| 204"       | 0.65"    | 0.75"    |
| 208"       | 0.67"    | 0.75"    |

\*JAMB SPAN: - ANCHOR C<sub>L</sub> TO C<sub>L</sub>



7 TYP. JAMB CURVED  
13 OPTION 2

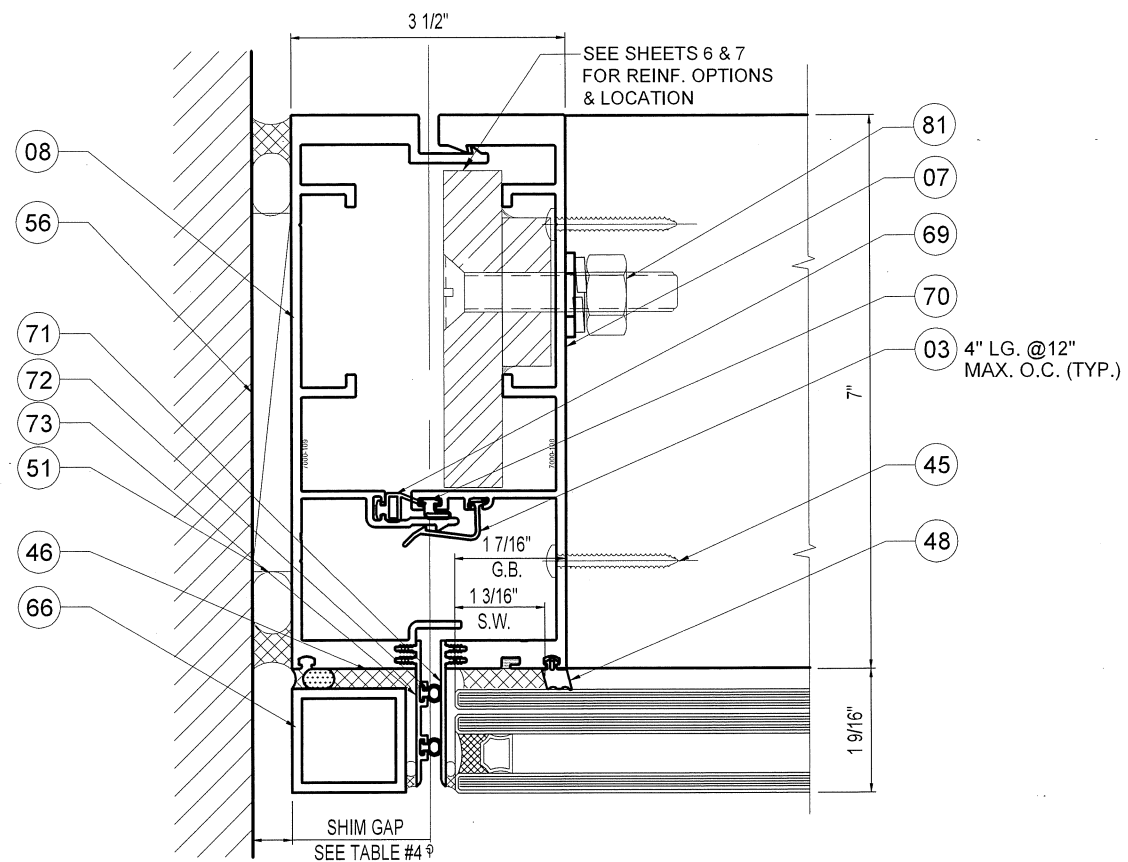
PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0403-07  
Expiration Date June 6, 2018  
By *Manuel Perez*  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677  
DATE 07/08/2016  
SCALE AS NOTED  
DRAWN A.R.  
PROJECT MCY15-087  
DRAWING NO. AD12-64  
SHEET 13 OF 38

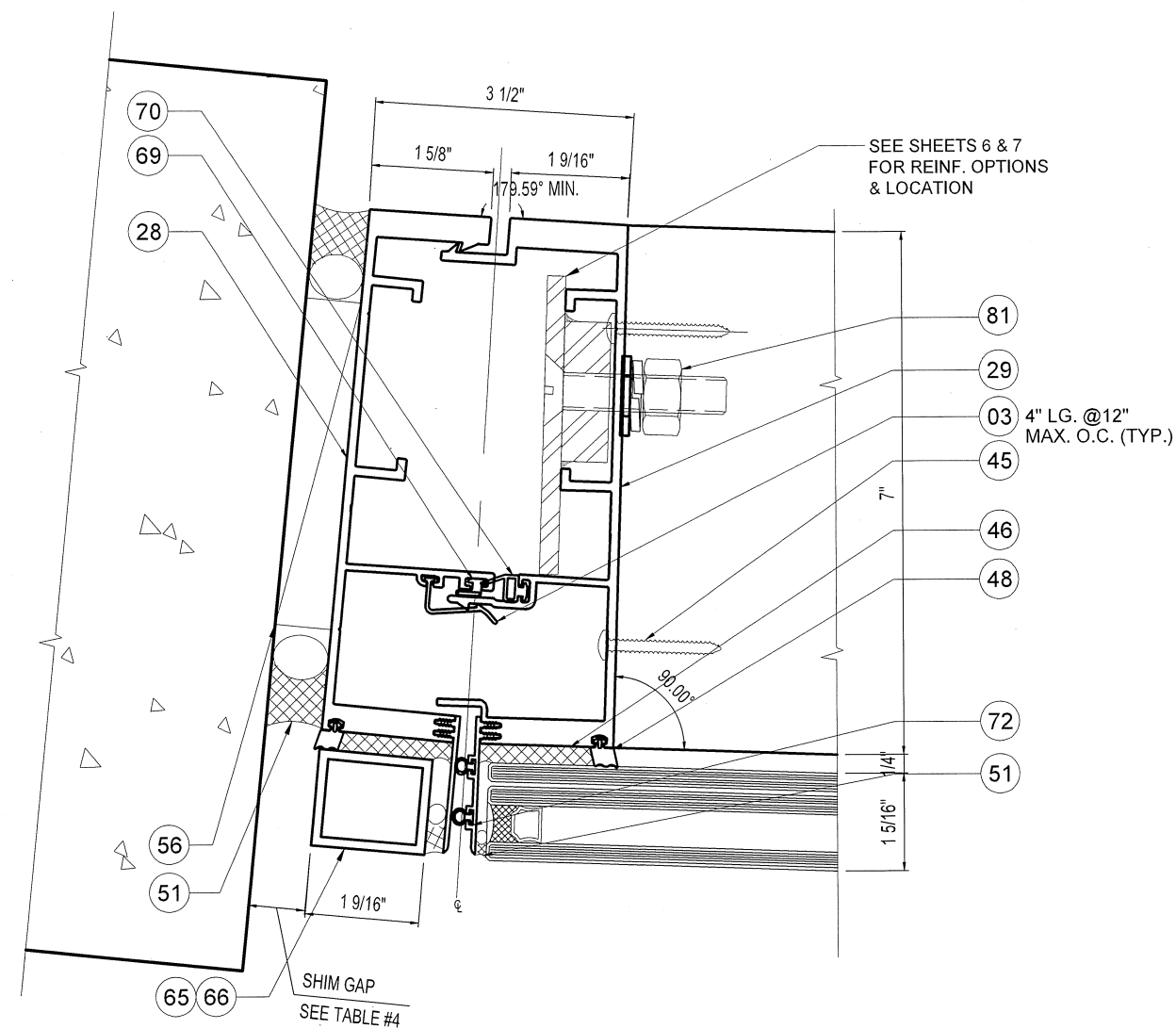
| NO. | DATE    | DESCRIPTION        |
|-----|---------|--------------------|
| 1   | 6/4/15  | UPDATE TO 2014 FBC |
| 2   | 3/30/18 | UPDATE TO 2017 FBC |

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SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
**TECNOGLASS, LLC.**  
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Phone (305) 342-0890 Fax (786) 513-3965



8 TYP. JAMB BUTT GLAZED W/ REINF.  
14 OPTION 1



8 TYP. JAMB CURVED W/ REINF.  
14 OPTION 2

**NOTE:**  
REFER TO SHEETS 6 & 7 FOR TYP.  
JAMB SPANS, REINFORCEMENT  
AND DESIGN LOAD REQUIRED

TABLE #4: MIN/MAX SHIM GAP

| JAMB SPAN* | MIN. GAP | MAX. GAP |
|------------|----------|----------|
| ≤ 120"     | 0.38"    | 0.75"    |
| 132"       | 0.42"    | 0.75"    |
| 144"       | 0.46"    | 0.75"    |
| 156"       | 0.5"     | 0.75"    |
| 168"       | 0.54"    | 0.75"    |
| 180"       | 0.58"    | 0.75"    |
| 192"       | 0.62"    | 0.75"    |
| 204"       | 0.65"    | 0.75"    |
| 208"       | 0.67"    | 0.75"    |

\*JAMB SPAN: - ANCHOR  $\phi$  TO  $\phi$

PRODUCT REVISED  
as complying with the Florida  
Building Code 18-0403.07  
Acceptance No. 18-0403.07  
Expiration Date June 6, 2018  
By *Manuel*  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983-5983  
C.A.N. 28677

DATE 07/08/2016  
SCALE AS NOTED  
DRAWN A.R.  
PROJECT MCY15-087

DRAWING NO.  
AD12-64

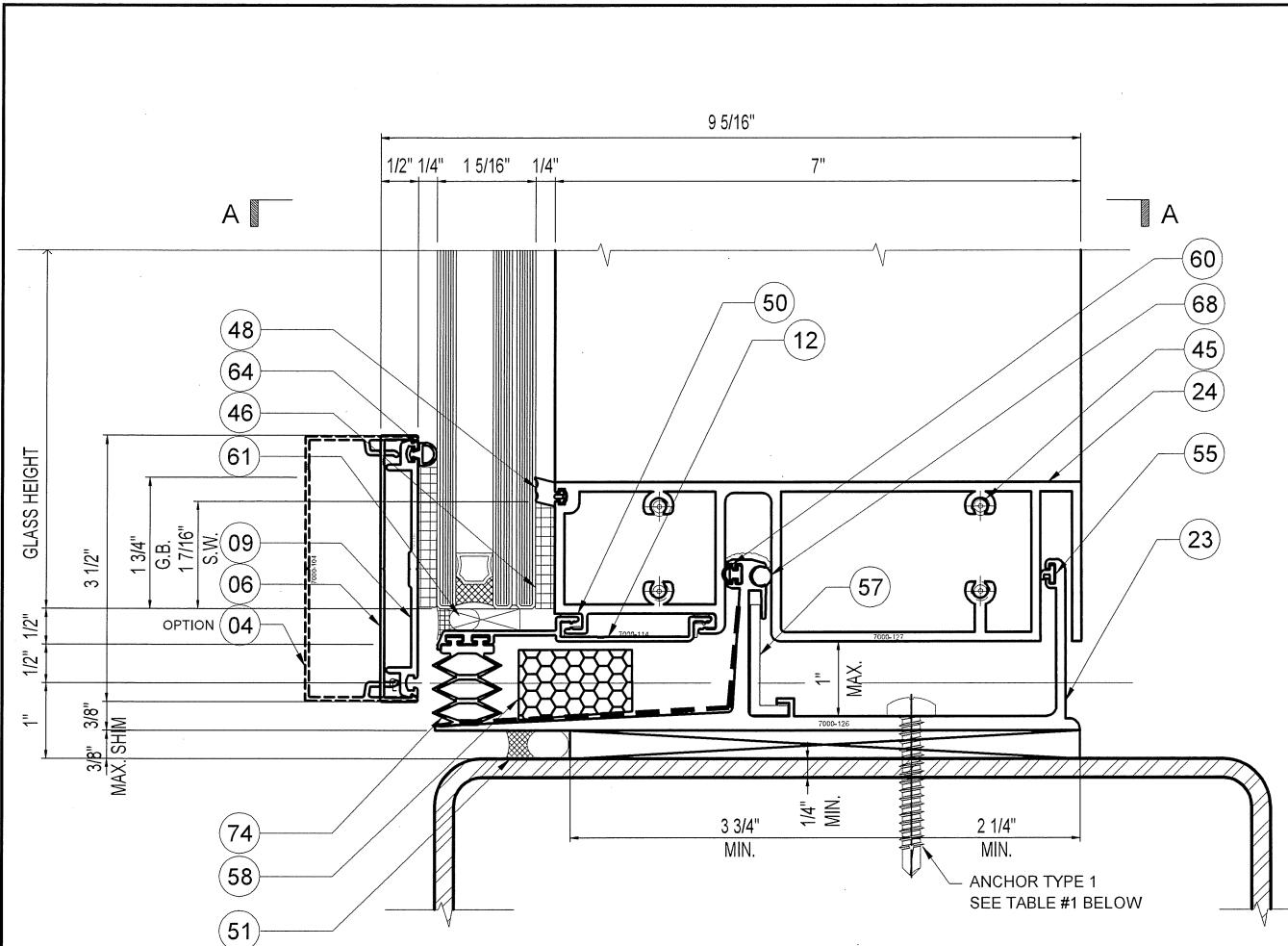
SHEET 14 OF 38

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
**TECNOGLASS, LLC.**  
3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

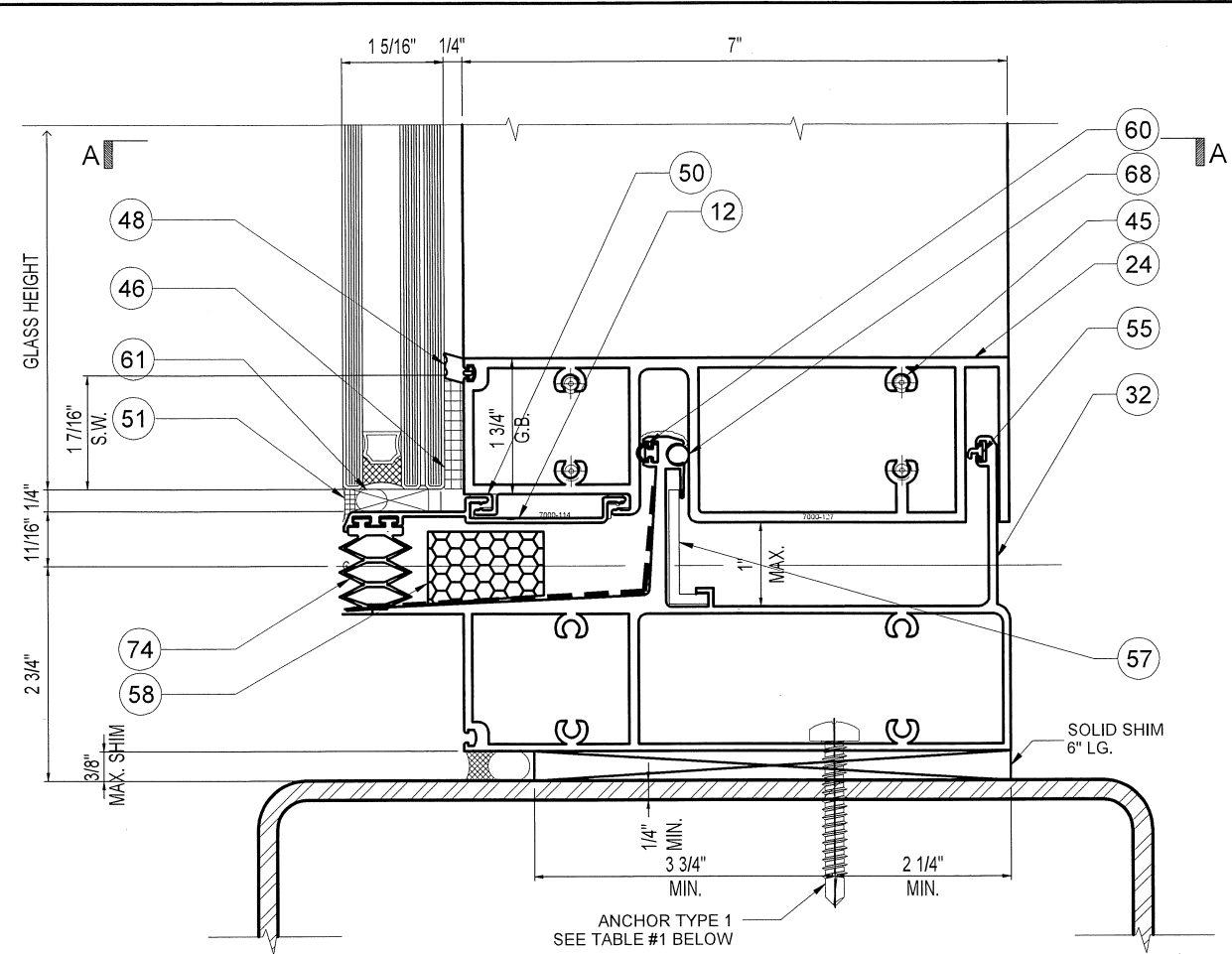
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MIAMI, FL 33183 F: 305.279.6818  
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| REVISIONS | NO | DATE    | DESCRIPTION        |
|-----------|----|---------|--------------------|
|           | 1  | 6/4/15  | UPDATE TO 2014 FBC |
|           | 2  | 3/30/16 | UPDATE TO 2017 FBC |

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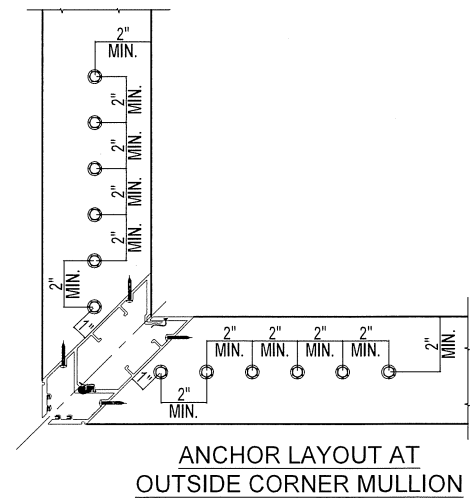


9 SILL DETAIL OPTION A  
15 STEEL SUBSTRATE

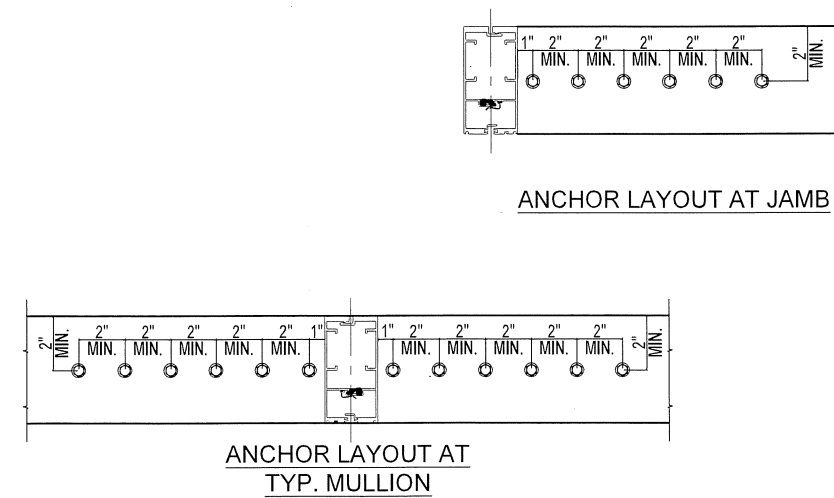


9 SILL DETAIL OPTION B  
15 STEEL SUBSTRATE

|      | SPAN | MAX. DESIGN LOAD (PSF) |      |      |      |      |
|------|------|------------------------|------|------|------|------|
|      |      | MULLION SPACING (M.S.) |      |      |      |      |
|      | (in) | (in)                   | (in) | (in) | (in) | (in) |
| AO#1 | 120  | 140                    | 140  | 140  | 140  | 140  |
|      | 126  | 140                    | 140  | 140  | 140  | 140  |
|      | 132  | 140                    | 140  | 140  | 140  | 140  |
|      | 138  | 140                    | 140  | 140  | 140  | 140  |
|      | 144  | 140                    | 140  | 140  | 140  | 140  |
| AO#2 | 120  | 140                    | 140  | 140  | 140  | 140  |
|      | 126  | 140                    | 140  | 140  | 140  | 133  |
|      | 132  | 140                    | 140  | 140  | 140  | 127  |
|      | 138  | 140                    | 140  | 140  | 135  | 122  |
|      | 144  | 140                    | 140  | 140  | 130  | 117  |
| AO#3 | 120  | 140                    | 140  | 140  | 124  | 112  |
|      | 126  | 140                    | 140  | 133  | 119  | 107  |
|      | 132  | 140                    | 140  | 127  | 113  | 102  |
|      | 138  | 140                    | 139  | 122  | 108  | 97   |
|      | 144  | 140                    | 133  | 117  | 104  | 93   |



SECTION A-A



ANCHOR TYPE 1 :5/16" SELF DRILLING SCREWS  
(GRADE 5 Fu=120ksi Fy=92ksi)  
INTO METAL STRUCTURES

STEEL : 1/4" MIN. THICKNESS (Fy = 36 ksi MIN.)  
(STEEL IN CONTACT WITH ALUMINUM  
TO BE PLATED OR PAINTED)

TABLE #1: NO. OF ANCHOR TYPE 1-SILL ANCHOR.

| ANCHOR OPTIONS<br>(Rmax. LBS) | OPTION A                            | OPTION B                            |
|-------------------------------|-------------------------------------|-------------------------------------|
|                               | NO. OF ANCHORS<br>@EA.SIDE OF MULL. | NO. OF ANCHORS<br>@EA.SIDE OF MULL. |
|                               | ANCHOR TYPE 1                       | ANCHOR TYPE 1                       |
| AO#1 (4200)                   | 6                                   | 6                                   |
| AO#2 (3500)                   | 5                                   | 5                                   |
| AO#3 (2800)                   | 4                                   | 4                                   |

FOR AO#1, AO#2 & AO#3 ANCHOR CAPACITY VS. SPAN  
AND MULLION SPACING SEE CHART ON THE LEFT.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0403.07  
Expiration Date June 6, 2023

By *Manuel*  
Miami Dade Product Control

MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N.02867733

*Y. Wang*

REVISIONS

| NO | DATE    | DESCRIPTION        |
|----|---------|--------------------|
| 1  | 8/4/15  | UPDATE TO 2014 FBC |
| 2  | 8/30/17 | UPDATE TO 2017 FBC |

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SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI

**TECNOGLASS, LLC.**

3550 NW 49TH STREET, MIAMI, FL 33142  
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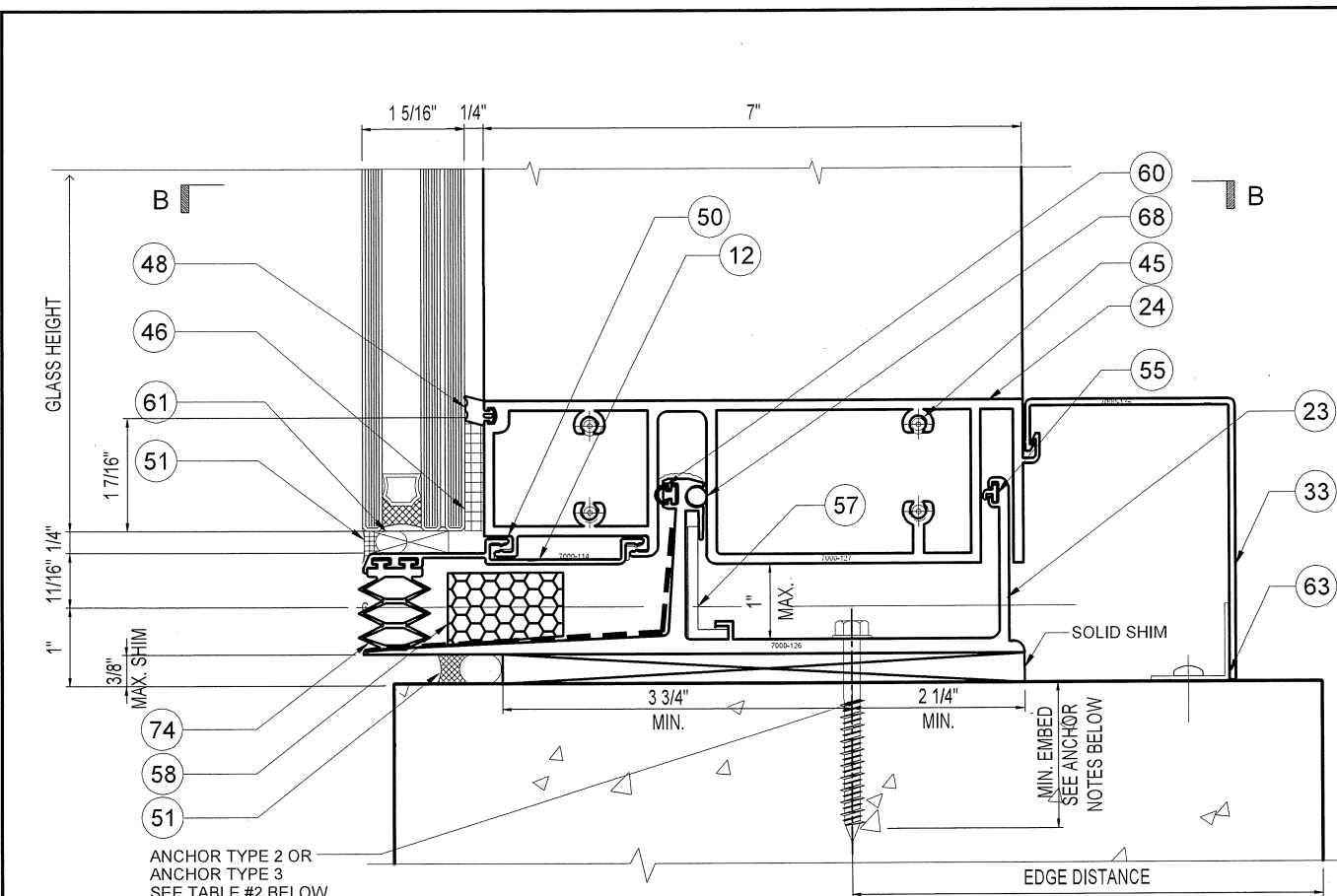
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| DATE    | 07/08/2016 |
| SCALE   | AS NOTED   |
| DRAWN   | A.R.       |
| PROJECT | MCY15-087  |

DRAWING NO.  
**AD12-64**

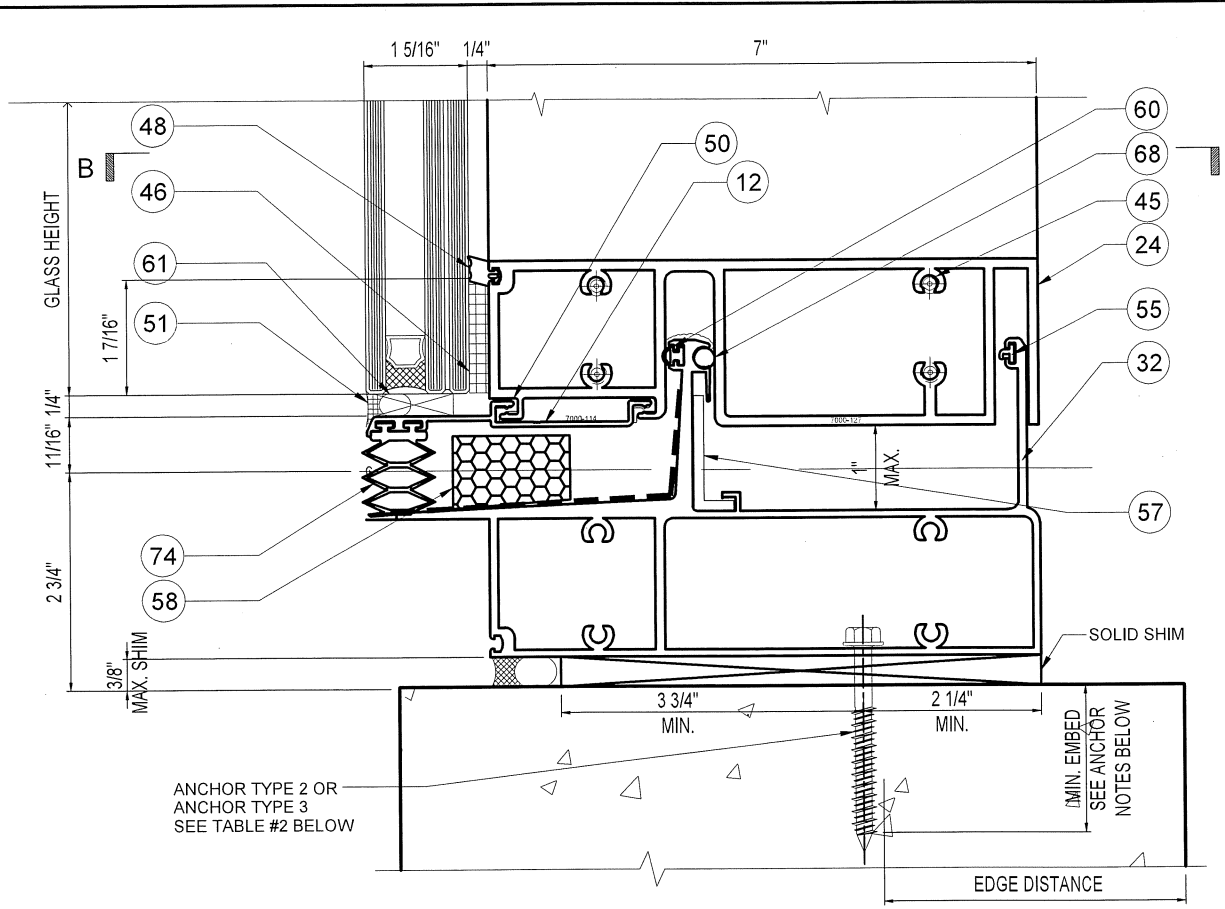
SHEET 15 OF 38

MAY 1 3 2013



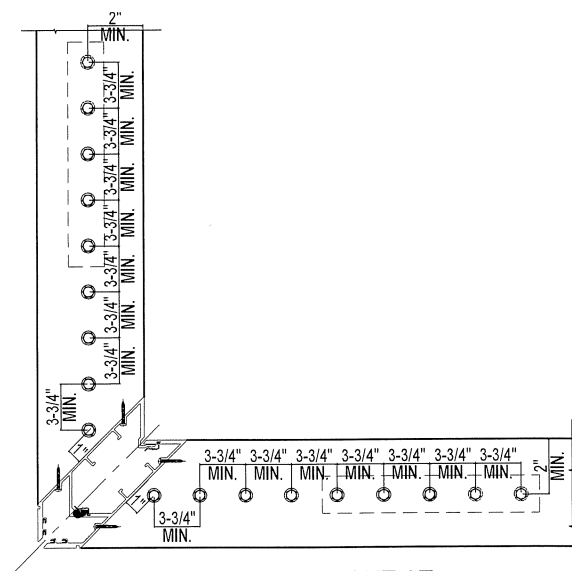


10 SILL DETAIL OPTION C  
16 CONCRETE SUBSTRATE



10 SILL DETAIL OPTION D  
16 CONC. SUBSTRATE

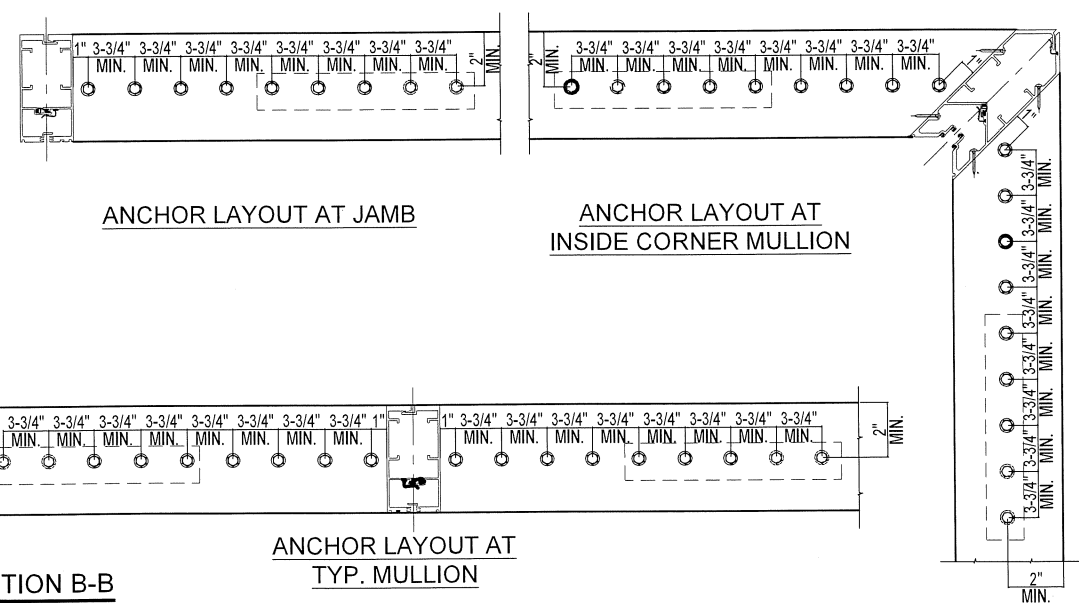
|      |              | MAX. DESIGN LOAD (PSF) |            |            |            |            |
|------|--------------|------------------------|------------|------------|------------|------------|
|      |              | MULLION SPACING (M.S.) |            |            |            |            |
|      | SPAN<br>(in) | 36<br>(in)             | 42<br>(in) | 48<br>(in) | 54<br>(in) | 60<br>(in) |
| AO#1 | 120          | 140                    | 140        | 140        | 140        | 140        |
|      | 126          | 140                    | 140        | 140        | 140        | 140        |
|      | 132          | 140                    | 140        | 140        | 140        | 140        |
|      | 138          | 140                    | 140        | 140        | 140        | 140        |
|      | 144          | 140                    | 140        | 140        | 140        | 140        |
| AO#2 | 120          | 140                    | 140        | 140        | 140        | 140        |
|      | 126          | 140                    | 140        | 140        | 140        | 133        |
|      | 132          | 140                    | 140        | 140        | 140        | 127        |
|      | 138          | 140                    | 140        | 140        | 135        | 122        |
|      | 144          | 140                    | 140        | 140        | 130        | 117        |
| AO#3 | 120          | 140                    | 140        | 140        | 124        | 112        |
|      | 126          | 140                    | 140        | 133        | 119        | 107        |
|      | 132          | 140                    | 140        | 127        | 113        | 102        |
|      | 138          | 140                    | 139        | 122        | 108        | 97         |
|      | 144          | 140                    | 133        | 117        | 104        | 93         |
| AO#4 | 120          | 140                    | 131        | 115        | 102        | 92         |
|      | 126          | 140                    | 125        | 110        | 97         | 88         |
|      | 132          | 139                    | 119        | 105        | 93         | 84         |
|      | 138          | 133                    | 114        | 100        | 89         | 80         |
|      | 144          | 128                    | 110        | 96         | 85         | 77         |



ANCHOR LAYOUT AT  
OUTSIDE CORNER MULLION

ANCHOR TYPE 2: 5/16" DIA. ULTRACON BY ELCO  
(Fu=177ksi Fy=155ksi)  
DIRECTLY INTO CONCRETE fc' = 3515 psi MIN.  
1-3/4" MIN. EMBED INTO CONCRETE  
2-3/16" MIN EDGE DISTANCE

ANCHOR TYPE 3: 3/8" DIA. WEDGE BOLT BY POWER  
(Fu=100ksi Fy=65ksi)  
DIRECTLY INTO CONCRETE fc'=4000psi MIN.  
1-3/4" MIN. EMBED INTO CONCRETE  
3" MIN EDGE DISTANCE



ANCHOR LAYOUT AT JAMB

ANCHOR LAYOUT AT  
INSIDE CORNER MULLION

SECTION B-B

ANCHOR LAYOUT AT  
TYP. MULLION

TABLE #2: NO. OF ANCHORS TYPE 2 OR 3 - SILL ANCHOR.

| ANCHOR OPTIONS<br>(Rmax. LBS) | OPTION C                         |               | OPTION D                         |               |
|-------------------------------|----------------------------------|---------------|----------------------------------|---------------|
|                               | NO. OF ANCHORS @EA.SIDE OF MULL. |               | NO. OF ANCHORS @EA.SIDE OF MULL. |               |
|                               | ANCHOR TYPE 2                    | ANCHOR TYPE 3 | ANCHOR TYPE 2                    | ANCHOR TYPE 3 |
| AO#1 (4200)                   | 7                                | 7             | 9                                | 8             |
| AO#2 (3500)                   | 6                                | 5             | 8                                | 6             |
| AO#3 (2800)                   | 5                                | 4             | 6                                | 5             |
| AO#4 (2300)                   | 4                                | 4             | 5                                | 4             |

FOR AO#1, AO#2, AO#3 & AO#4 ANCHOR CAPACITY VS. SPAN AND MULLION SPACING SEE CHART ON THE LEFT.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0463.57  
Expiration Date June 6, 2023  
By *Manuel...*  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677  
No 55983  
STATE OF FLORIDA

REVISIONS

| NO | DATE    | DESCRIPTION        |
|----|---------|--------------------|
| 1  | NO DATE | DESCRIPTION        |
| 2  | 6/4/15  | UPDATE TO 2014 FBC |
| 3  | 6/30/16 | UPDATE TO 2017 FBC |

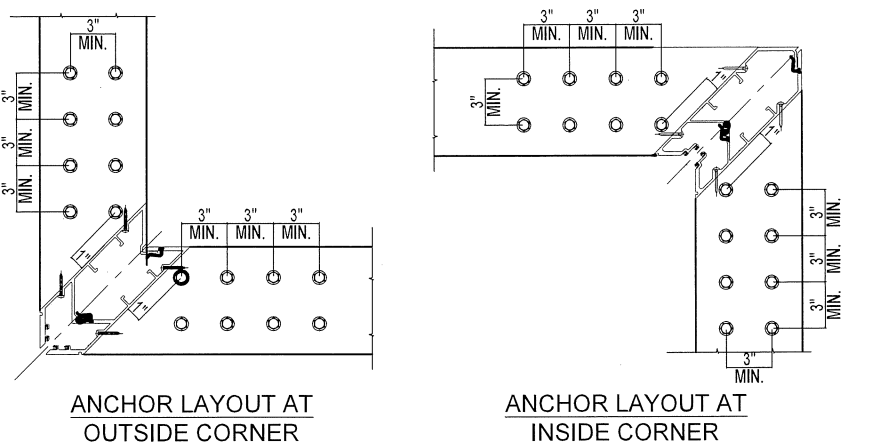
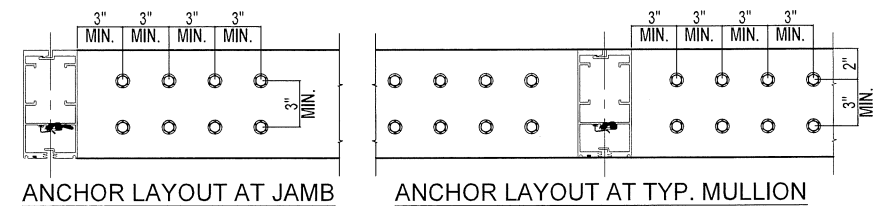
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 MIAMI, FL. 33183  
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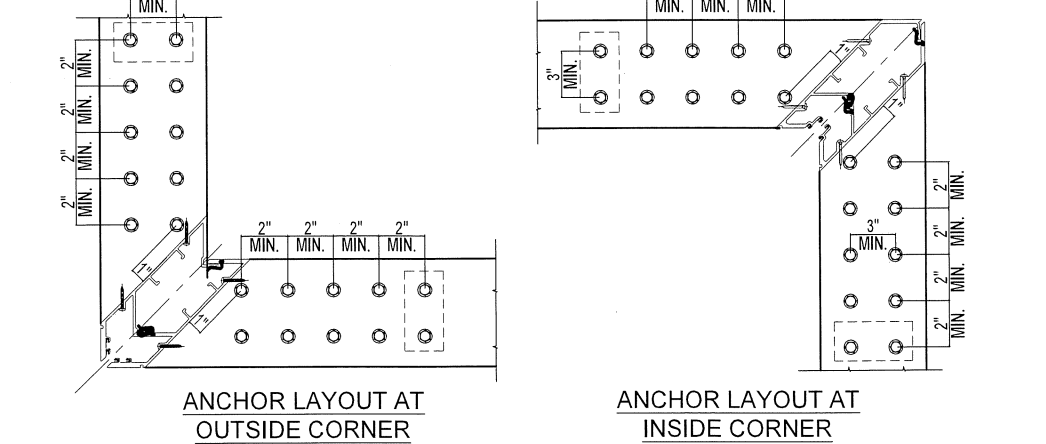
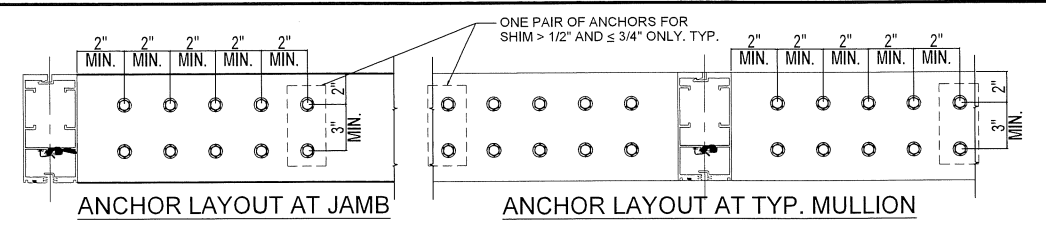
SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
**TECNOGLASS, LLC.**  
 3550 NW 49TH STREET, MIAMI, FL 33142  
 Phone (305) 342-0890 Fax (786) 513-3965

|             |            |
|-------------|------------|
| DATE        | 07/08/2016 |
| SCALE       | AS NOTED   |
| DRAWN       | A.R.       |
| PROJECT     | MCY15-087  |
| DRAWING NO. | AD12-64    |
| SHEET       | 16 OF 38   |

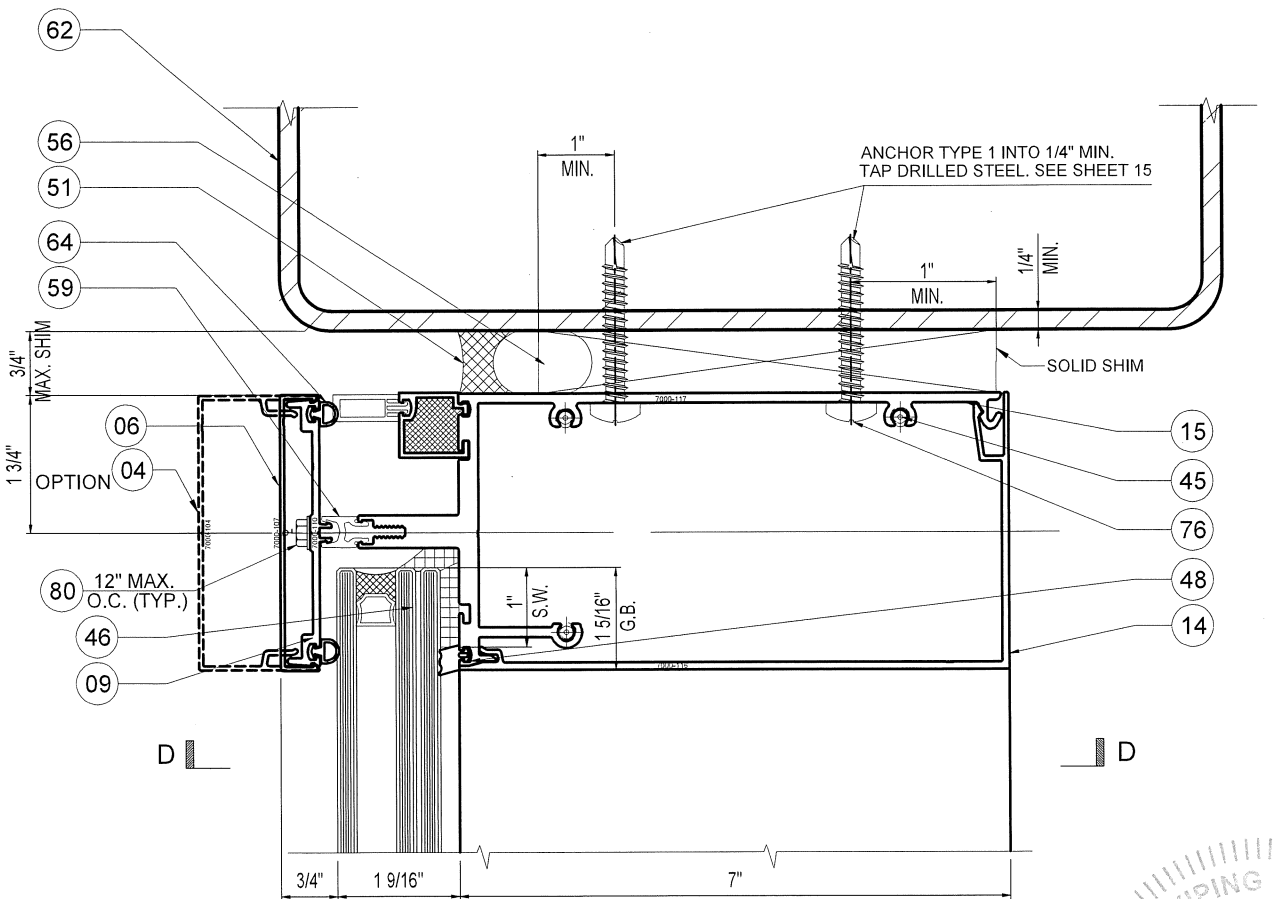
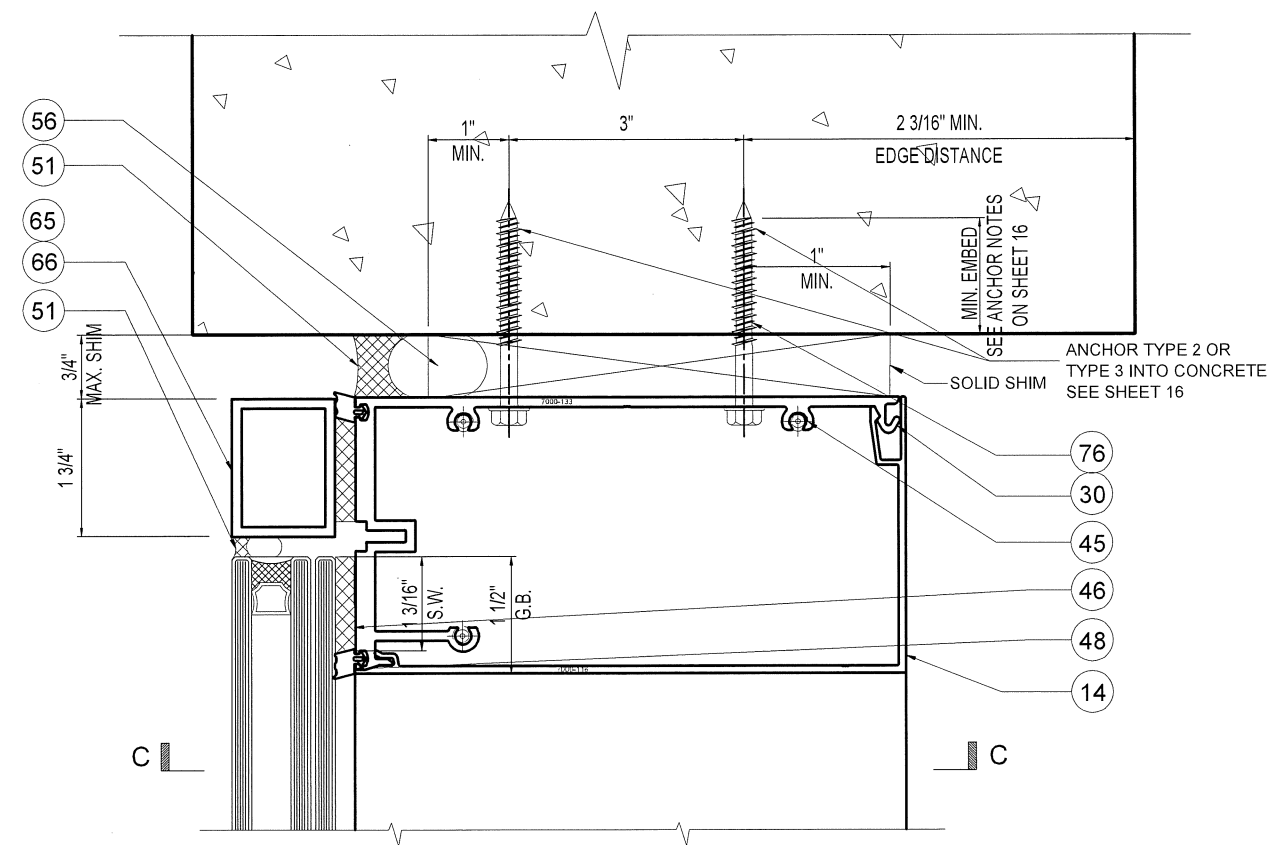




SECTION C-C



SECTION D-D



**NOTE:**  
BOTH BUTT GLAZED AND CAPTURED HEAD OPTIONS CAN BE ANCHORED INTO CONCRETE OR STEEL

PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No. 18-0403.07  
Expiration Date June 16, 2023  
By *Manuel Soria*  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677 55983  
DATE 07/08/2016  
SCALE AS NOTED  
DRAWN A.R.  
PROJECT MCY15-087  
DRAWING NO. AD12-64  
SHEET 17 OF 38

REVISIONS

| NO | DATE    | DESCRIPTION        |
|----|---------|--------------------|
| 1  | 8/4/15  | UPDATE TO 2014 FBC |
| 2  | 8/30/16 | UPDATE TO 2017 FBC |

**MCY ENGINEERING, INC.**  
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SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI

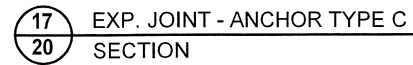
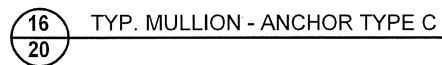
**TECNOGLASS, LLC.**

3550 NW 49TH STREET, MIAMI, FL 33142

Phone (305) 342-0890 Fax (786) 513-3965







PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0403.0  
Expiration Date June 6, 20  
By *Manuel Perez*  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677

|         |             |
|---------|-------------|
| DATE    | 07/08/2016  |
| SCALE   | AS<br>NOTED |
| DRAWN   | A.R.        |
| PROJECT | MCY15-087   |

DRAWING NO.  
AD12-64

SHEET 20 OF 38

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS



8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
MIAMI, FL 33183 F: 305.279.6818

www.MCYEngineering.com

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI

**TECNOGLASS, LLC.**

3550 NW 49TH STREET, MIAMI, FL 33142

3330 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

|      |            |
|------|------------|
| DATE | 07/08/2016 |
|------|------------|

|       |          |
|-------|----------|
| SCALE | AS NOTED |
|-------|----------|

|                                                                                             |      |
|---------------------------------------------------------------------------------------------|------|
| DRAWN  | A.R. |
|---------------------------------------------------------------------------------------------|------|

|         |           |
|---------|-----------|
| PROJECT | MCY15-087 |
|---------|-----------|

DRAWING NO.

AD12-64

SHEET 20 OF 38

MAY 13 2018

**NOTE:**  
CONCRETE AND REINFORCEMENT  
TO BE VERIFIED BY PROJECT E.O.R.

±1/2" MAX.

18" MIN.

5" MIN.

5" MIN.

5" MIN.

(4) BOLTS  
@ 5" O.C. MIN.

3 5/8"

83

39 OR 77 OR 78 OR 79  
REFER TO SHEETS 6 & 7  
FOR REINFORCEMENT  
TYPE, LENGHT & LOCATION

81  
(4) 1/2" DIA. S.S. BOLTS  
W/ WASHERS & NUTS

REFER TO SHEETS 9 & 10  
FOR TYPICAL MULLION  
EXTRUSION OPTIONS

7"

59

64

1 5/16" 1/4"

1 5/16" G.B.  
1 1/16" S.W.

1 5/16" G.B.  
1 1/16" S.W.

64

09

06

04 OPTION

Diagram illustrating the Anchor Channel & Rebar Layout. The layout shows a vertical anchor channel with a width of 18" and a horizontal rebar layout with a total width of 10 3/8". The vertical channel has a depth of 2 1/8". The horizontal rebar layout has a depth of 2 1/8". The rebar is labeled (2) #4 BENT REBAR. The diagram also shows a 2" dimension for the rebar spacing and a 15 5/8" dimension for the channel width.

Diagram illustrating a 4x4 grid structure. The grid is divided into four quadrants. The top-left quadrant is labeled R3. The top-right quadrant is labeled R3. The bottom-left quadrant is labeled R3. The bottom-right quadrant is labeled R3. The grid is further divided into four subgrids. The top-left subgrid is labeled 37. The top-right subgrid is labeled 38. The bottom-left subgrid is labeled 40. The bottom-right subgrid is labeled 83. A black dot is located in the top-left subgrid. A white dot is located in the top-right subgrid.

MIN.

S.S. BOLTS  
S & NUTS

"

(4) M20 GRADE 8.8  
HALFEN TEE BOLT  
AT 5" O.C. MIN.

36

4" MIN.

EDGE DISTANCE

(4) 2" X 1 1/2" X 1/4"  
STEEL ANGLE  
1 1/2" L.G. A36

3/4" MIN. EMBED

3/16" X 2" typ.

1/8" X 2" typ.

HALFEN CHANNEL  
5542 HM 18" LONG W/  
(4) # 4 REBAR  
HOT DIP GALVANIZED  
FINISH BY OTHERS

CONCRETE BY OTHERS

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
MIAMI, FL 33183 F: 305.279.6818

[www.MCYEngineering.com](http://www.MCYEngineering.com) [MCY.Engineering@Att.net](mailto:MCY.Engineering@Att.net)

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI

**TECNOGLASS, LLC.**

3550 NW 49TH STREET, MIAMI, FL 33142

Phone (305) 342-0890 Fax (786) 513-3965

|         |            |
|---------|------------|
| DATE    | 07/08/2016 |
| SCALE   | AS NOTED   |
| DRAWN   | A.R.       |
| PROJECT | MCY15-087  |

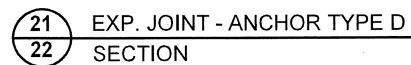
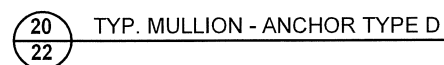
  

|             |
|-------------|
| DRAWING NO. |
| AD12-64     |

|                |
|----------------|
| SHEET 21 OF 38 |
|----------------|

MAY 16 2013



YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
★ C.A.N. 28677

|         |            |
|---------|------------|
| DATE    | 07/08/2016 |
| SCALE   | AS NOTED   |
| DRAWN   | A.R.       |
| PROJECT | MCY15-087  |

DRAWING NO.  
AD12-64

SHEET 22 OF 3

**SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI**

---

**TECNOGLASS, LLC.**

3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS



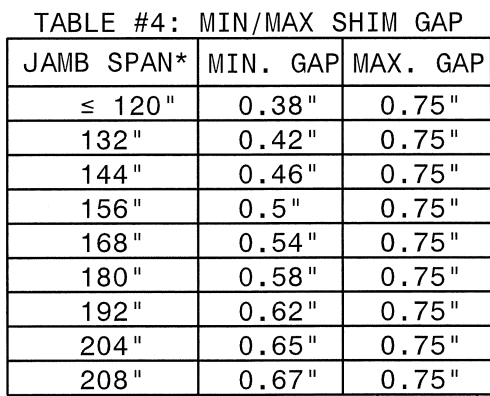
| REVISIONS |                            |
|-----------|----------------------------|
| NO.       | DATE, DESCRIPTION          |
| 1         | 6/4/15 UPDATE TO 2014 FBC  |
| 2         | 3/30/16 UPDATE TO 2017 FBC |
|           |                            |
|           |                            |
|           |                            |

8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
MIAMI, FL 33183 F: 305.279.6818  
MCVEEngineering.com MCVEEngineering.com

3330 NW 43RD STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

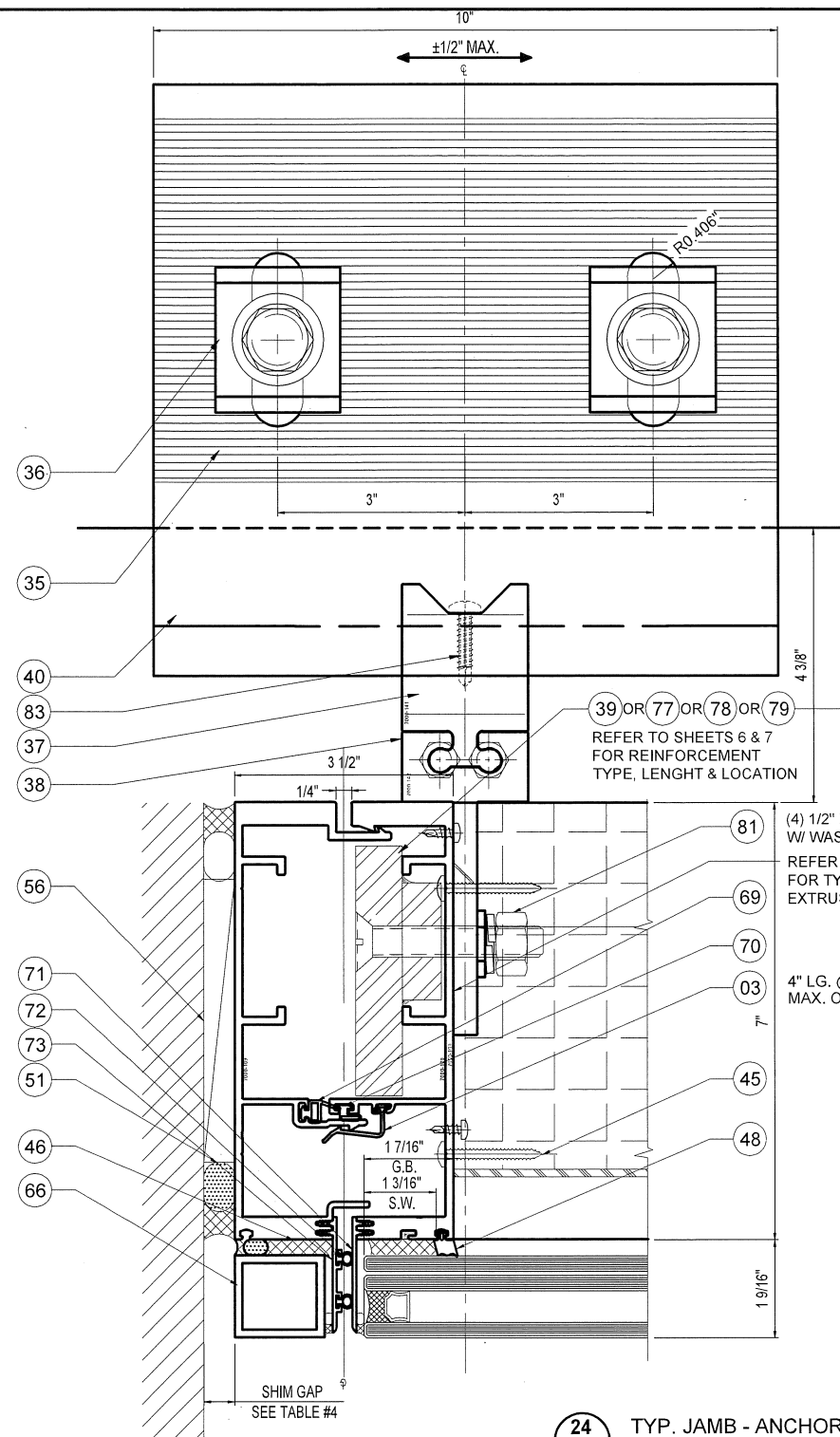
MCY Engineering@Att.net





|                |            |
|----------------|------------|
| DATE           | 07/08/2016 |
| SCALE          | AS NOTED   |
| DRAWN          | A.R.       |
| PROJECT        | MCY15-087  |
| DRAWING NO.    |            |
| AD12-64        |            |
| SHEET 23 OF 38 |            |



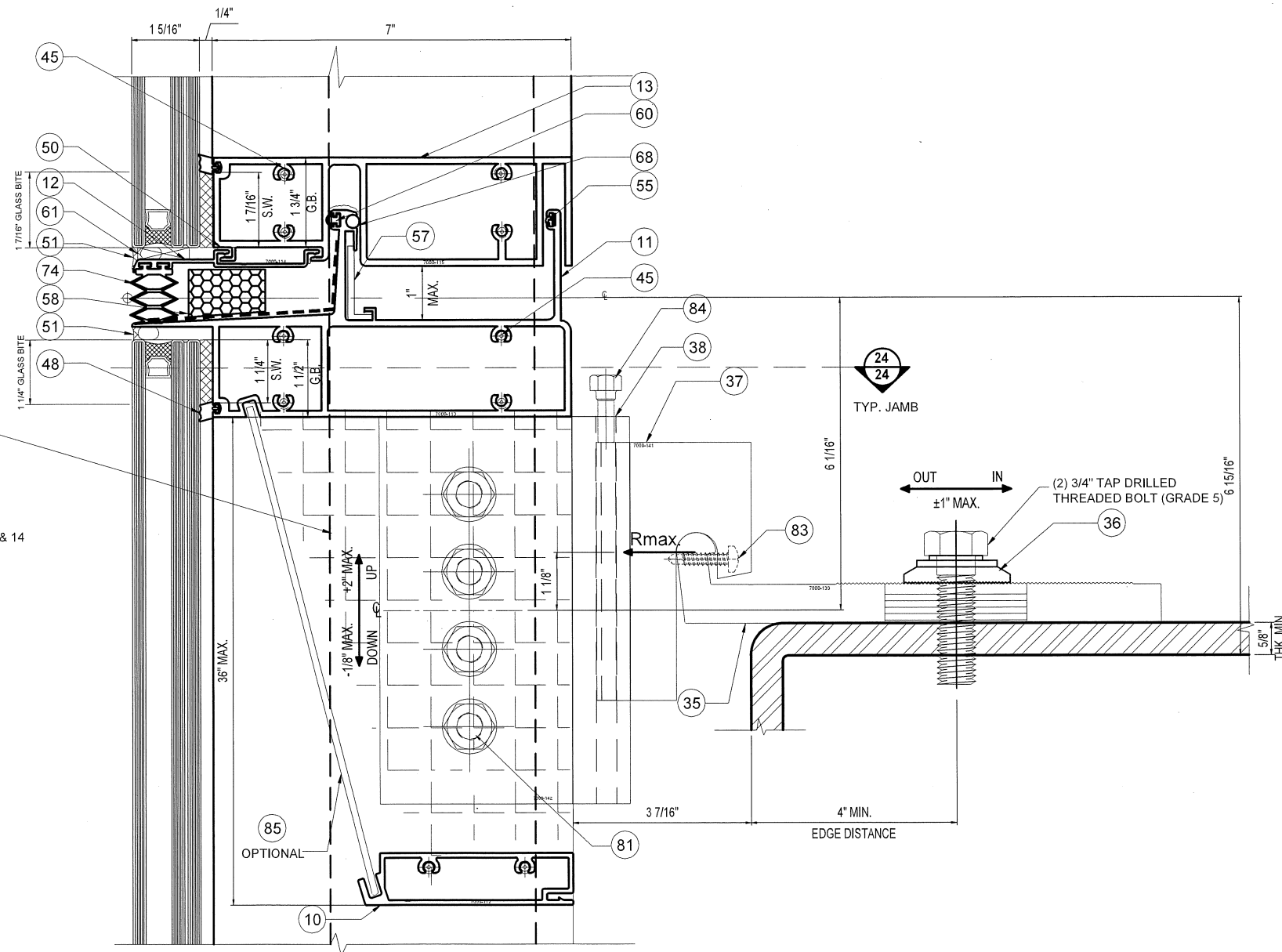


24 TYP. JAMB - ANCHOR TYPE B1

TABLE #4: MIN/MAX SHIM GAP

| JAMB SPAN* | MIN. GAP | MAX. GAP |
|------------|----------|----------|
| ≤ 120"     | 0.38"    | 0.75"    |
| 132"       | 0.42"    | 0.75"    |
| 144"       | 0.46"    | 0.75"    |
| 156"       | 0.5"     | 0.75"    |
| 168"       | 0.54"    | 0.75"    |
| 180"       | 0.58"    | 0.75"    |
| 192"       | 0.62"    | 0.75"    |
| 204"       | 0.65"    | 0.75"    |
| 208"       | 0.67"    | 0.75"    |

\*JAMB SPAN: - ANCHOR C TO C



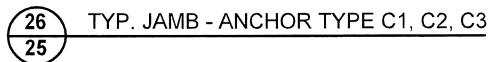
25 JAMB EXP. JOINT - ANCHOR TYPE B1  
24 SECTION

|                                                                                                                                                                                          |  |                                                                                                                                                              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>MCY ENGINEERING, INC.</b><br>GLAZING CONSULTANTS<br>8501 SW 124 AVE. SUITE 205A P: 305.271.0117<br>MIAMI, FL. 33183 F: 305.279.6818<br>www.MCYEngineering.com MCY.Engineering@Att.net |  | <b>TECNOGLASS, LLC.</b><br>3550 NW 49TH STREET, MIAMI, FL 33142<br>Phone (305) 342-0890 Fax (786) 513-3965                                                   |  |
| REVISIONS<br>NO. DATE DESCRIPTION<br>A 6/4/16 UPDATE TO 2014 FBC<br>B 8/30/16 UPDATE TO 2017 FBC                                                                                         |  | SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI<br>DATE 07/08/2016<br>SCALE AS NOTED<br>DRAWN A.R.<br>PROJECT MCY15-087<br>DRAWING NO. AD12-64<br>SHEET 24 OF 38 |  |

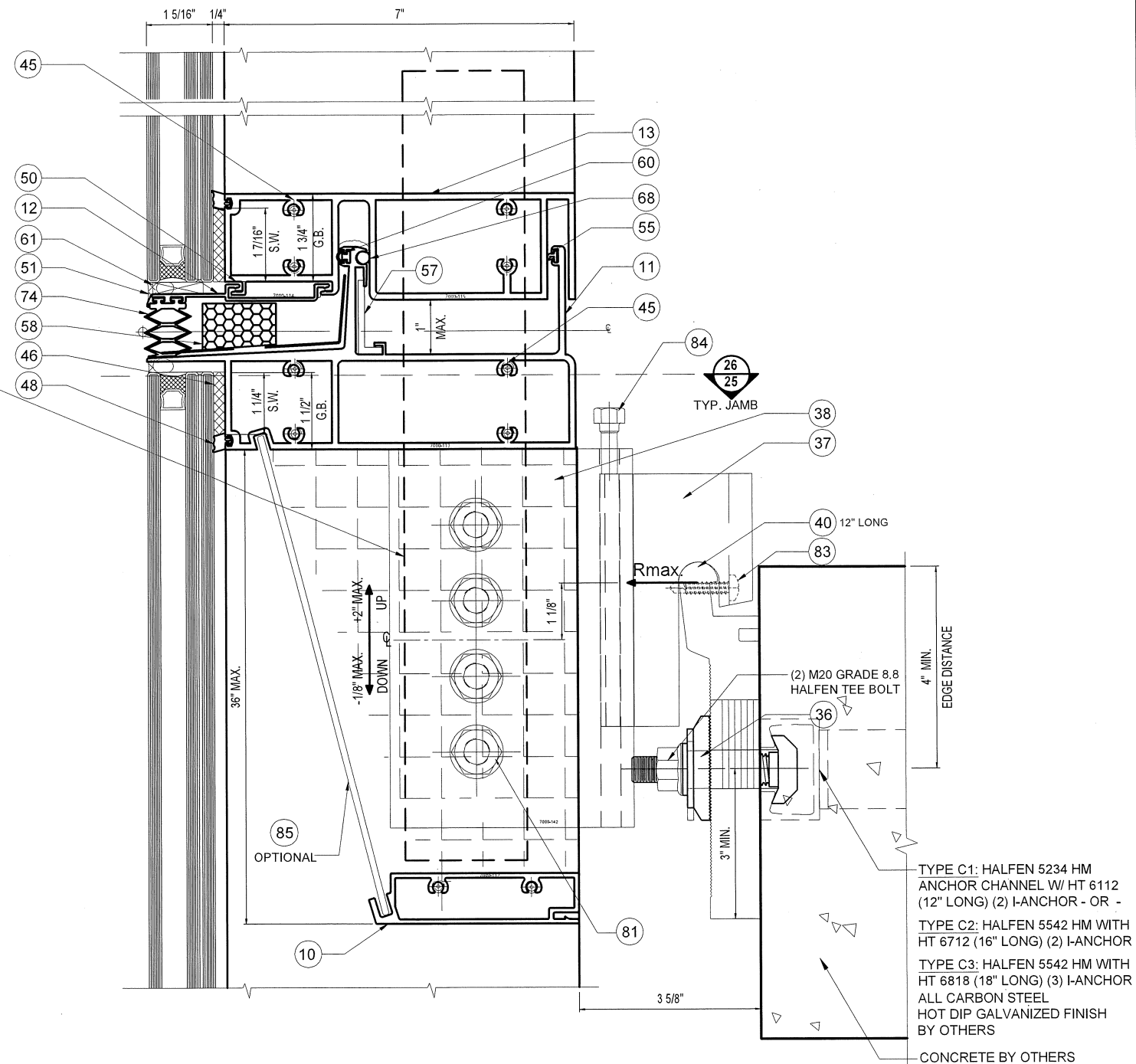
PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No. 18-0403.07  
 Expiration Date June 6, 2018  
 By *Manuel*  
 Miami Dade Product Control  
 MIAMI DADE COUNTY

YIPING WANG, P.E.  
 FLORIDA REGISTRATION  
 PE #55983  
 C.A.N. 28677  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

MAY 10 2018



|         | MAX. DESIGN LOAD (PSF) |                        |      |      |      |      |
|---------|------------------------|------------------------|------|------|------|------|
|         | SPAN                   | MULLION SPACING (M.S.) |      |      |      |      |
|         |                        | 36                     | 42   | 48   | 54   | 60   |
|         | (in)                   | (in)                   | (in) | (in) | (in) | (in) |
| TYPE C1 | 120                    | 140                    | 140  | 140  | 140  | 140  |
|         | 126                    | 140                    | 140  | 140  | 140  | 139  |
|         | 132                    | 140                    | 140  | 140  | 140  | 133  |
|         | 138                    | 140                    | 140  | 140  | 140  | 127  |
|         | 144                    | 140                    | 140  | 140  | 135  | 122  |
| TYPE C2 | 120                    | 140                    | 140  | 140  | 140  | 140  |
|         | 126                    | 140                    | 140  | 140  | 140  | 140  |
|         | 132                    | 140                    | 140  | 140  | 140  | 140  |
|         | 138                    | 140                    | 140  | 140  | 140  | 140  |
|         | 144                    | 140                    | 140  | 140  | 140  | 136  |
| TYPE C3 | 120                    | 140                    | 140  | 140  | 140  | 140  |
|         | 126                    | 140                    | 140  | 140  | 140  | 140  |
|         | 132                    | 140                    | 140  | 140  | 140  | 140  |
|         | 138                    | 140                    | 140  | 140  | 140  | 140  |
|         | 144                    | 140                    | 140  | 140  | 140  | 140  |



27 JAMB EXP. JOINT - ANCHOR TYPE C1, C2, C3  
25 SECTION

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-04030  
Expiration Date June 6, 20  
By Manuel Perez  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
★ PE #55983  
C.A.N. 28677

|         |             |
|---------|-------------|
| DATE    | 07/08/2016  |
| SCALE   | AS<br>NOTED |
| DRAWN   | A.R.        |
| PROJECT | MCY15-087   |

DRAWING NO.  
AD12-64

SHEET 25 OF 38

| NO | DATE    | DESCRIPTION    |
|----|---------|----------------|
| 1  | 6/4/15  | UPDATE TO 2015 |
| 2  | 3/30/18 | UPDATE TO 2018 |
|    |         |                |
|    |         |                |
|    |         |                |

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
MIAMI, FL 33183 F: 305.279.6818

www.MCYEngineering.com MCY.Engineering@Att.net

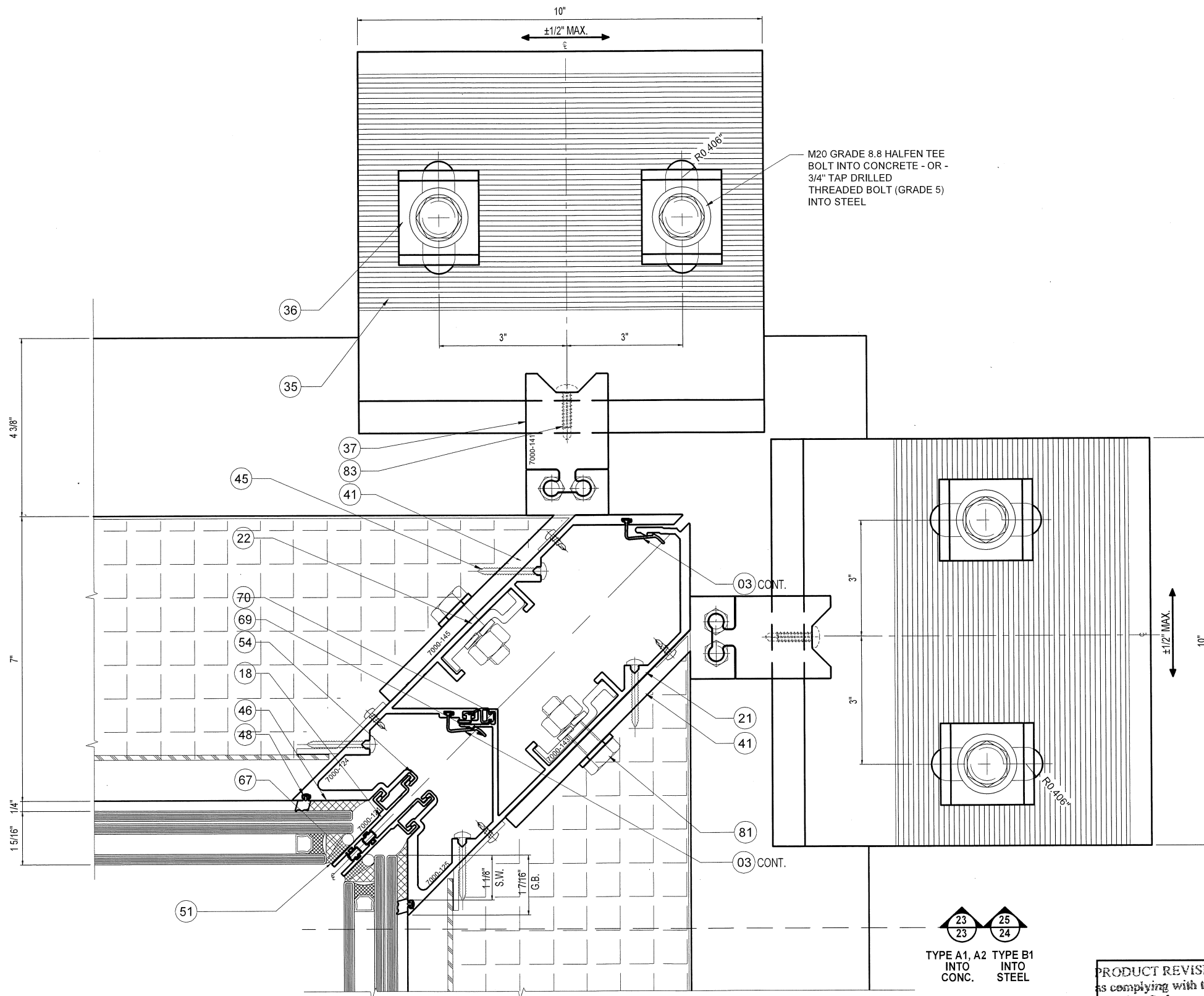
SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI

TECNOGLASS, LLC.

33550 NW 49TH STREET, MIAMI, FL 33142

Phone (305) 342-0890 Fax (786) 513-3965





PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-D403.6  
Expiration Date June 6, 2018  
By Marcus Lopez  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677

|         |            |
|---------|------------|
| DATE    | 07/08/2016 |
| SCALE   | AS NOTED   |
| DRAWN   | A.R.       |
| PROJECT | MCY15-087  |

DRAWING NO.  
AD12-64

SHEET 27 OF 3

**TECNOGLASS, LLC.**  
3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 347-0890 Fax (786) 513-3965

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS



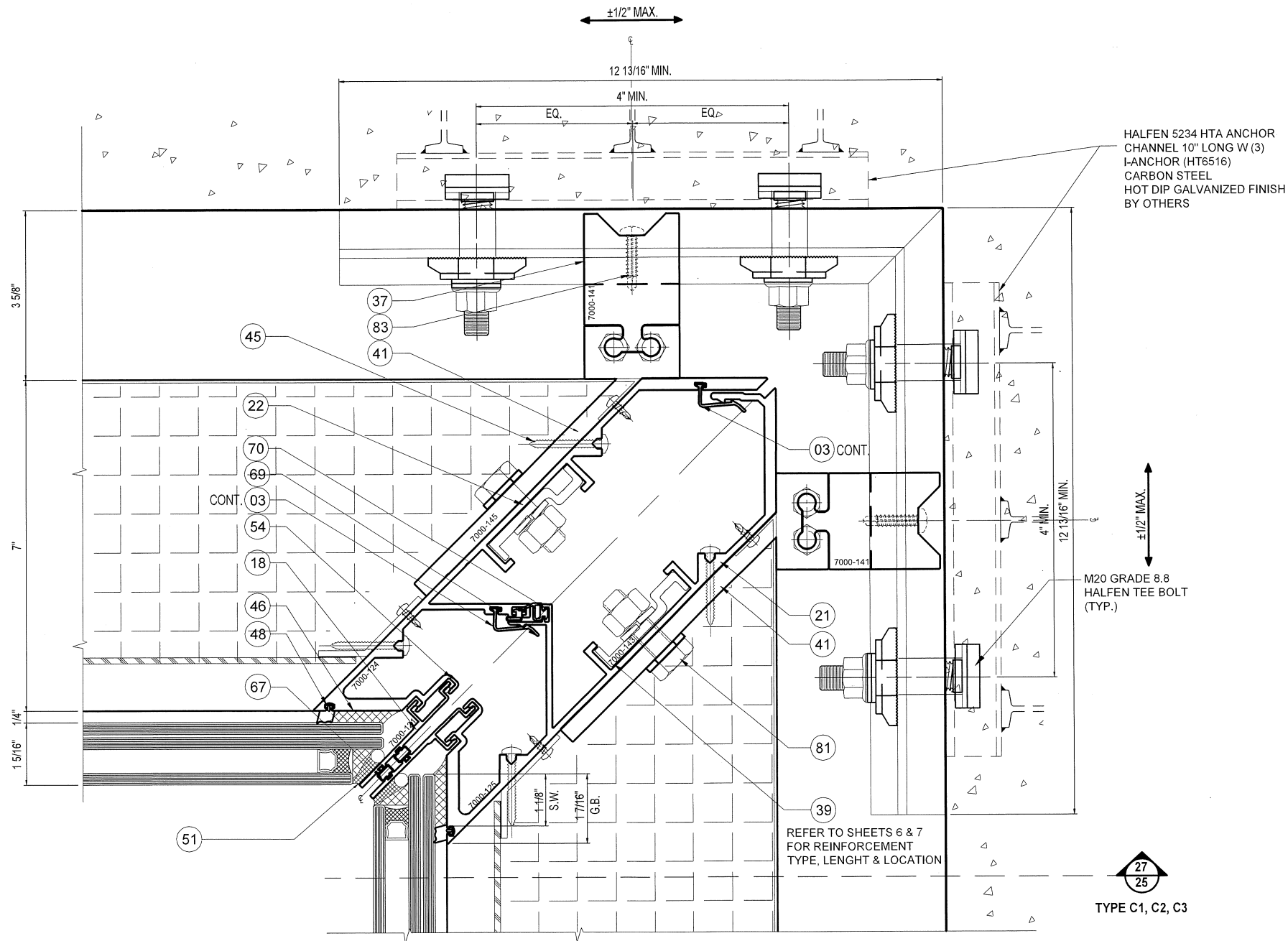
**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
8501 SW 124 AVE, SUITE 205A P: 305.271.0117  
MIAMI, FL 33183 F: 305.279.6818  
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| REVISIONS |                  |
|-----------|------------------|
| NO.       | DATE DESCRIPTION |

MAY 13 2013

31  
28

INSIDE CORNER MULL. - ANCHOR TYPE C1, C2, C3



PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 18-0403.07  
Expiration Date June 16, 2013  
By Manuel Perez  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983, 55933  
C.A.N. 28677  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

|             |            |
|-------------|------------|
| DATE        | 07/08/2016 |
| SCALE       | AS NOTED   |
| DRAWN       | A.R.       |
| PROJECT     | MCY15-087  |
| DRAWING NO. | AD12-64    |
| SHEET       | 28 OF 38   |

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI

**TECNOGLASS, LLC.**

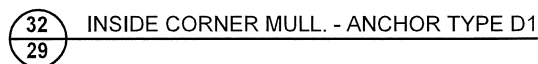
3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

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MIAMI, FL. 33183 F: 305.279.6818  
www.MCYEngineering.com MCY.Engineering@Att.net

| REVISIONS |                            |
|-----------|----------------------------|
| NO        | DATE DESCRIPTION           |
| 1         | 6/4/15 UPDATE TO 2014 FBC  |
| 2         | 6/30/16 UPDATE TO 2017 FBC |
|           |                            |
|           |                            |

MAY 1 9 2013



YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
O.A.N. 28677

|         |            |
|---------|------------|
| DATE    | 07/08/2016 |
| SCALE   | AS NOTED   |
| DRAWN   | A.R.       |
| PROJECT | MCY15-087  |

|             |
|-------------|
| DRAWING NO. |
| AD12-64     |

|                |
|----------------|
| SHEET 29 OF 38 |
|----------------|

| REVISIONS |                            |
|-----------|----------------------------|
| NO        | DATE DESCRIPTION           |
| 1         | 6/4/15 UPDATE TO 2014 FBC  |
| 2         | 3/30/18 UPDATE TO 2017 FBC |
|           |                            |
|           |                            |
|           |                            |

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
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[www.MCYEngineering.com](http://www.MCYEngineering.com) [MCY.Engineering@Att.net](mailto:MCY.Engineering@Att.net)

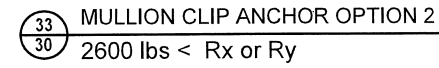
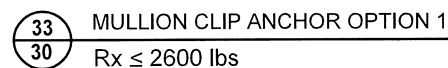
SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI

**TECNOGLASS, LLC.**

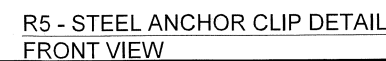
3550 NW 49TH STREET, MIAMI, FL 33142

Phone (305) 342-0890 Fax (786) 513-3965





| MULLION CLIP ANCHOR OPTION |                        |                        |      |      |      |      |
|----------------------------|------------------------|------------------------|------|------|------|------|
|                            | MAX. DESIGN LOAD (PSF) |                        |      |      |      |      |
|                            | SPAN                   | MULLION SPACING (M.S.) |      |      |      |      |
|                            |                        | 36                     | 42   | 48   | 54   | 60   |
|                            | (in)                   | (in)                   | (in) | (in) | (in) | (in) |
| OPTION 1                   | 120                    | 140                    | 129  | 113  | 100  | 90   |
|                            | 126                    | 140                    | 123  | 108  | 96   | 86   |
|                            | 132                    | 137                    | 117  | 103  | 91   | 82   |
|                            | 138                    | 131                    | 112  | 98   | 87   | 79   |
|                            | 144                    | 126                    | 108  | 94   | 84   | 75   |
| OPTION 2                   | 120                    | 140                    | 140  | 140  | 140  | 140  |
|                            | 126                    | 140                    | 140  | 140  | 140  | 140  |
|                            | 132                    | 140                    | 140  | 140  | 140  | 140  |
|                            | 138                    | 140                    | 140  | 140  | 140  | 140  |
|                            | 144                    | 140                    | 140  | 140  | 140  | 140  |



MIAMI DADE COUNTY

No 55983

\_\_\_\_\_

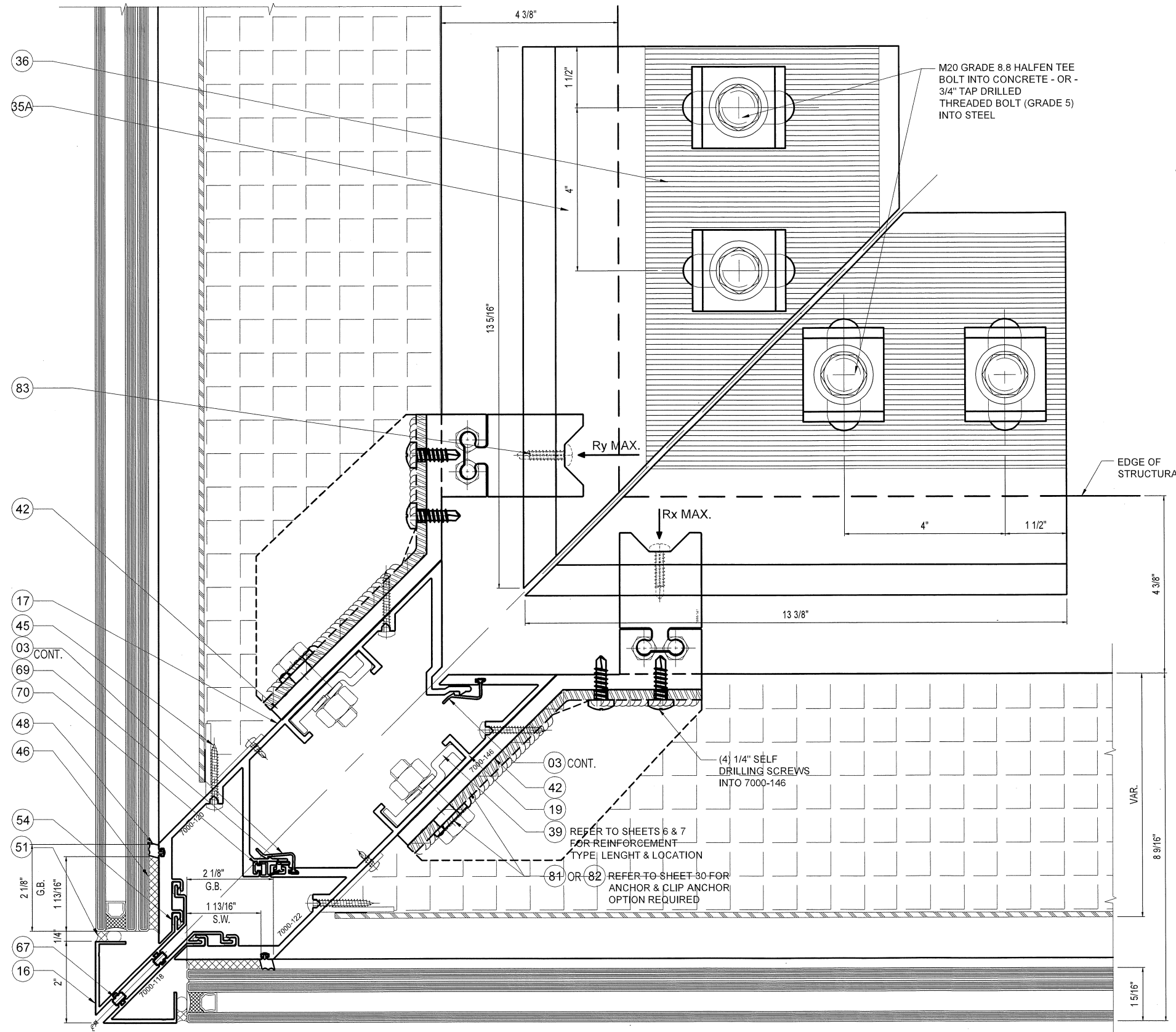
SHEET 30 OF 38

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7/3/2019

4870





M20 GRADE 8.8 HALFEN TEE BOLT INTO CONCRETE - OR - 3/4\" TAP DRILLED THREADED BOLT (GRADE 5) INTO STEEL

35 32 TYPE E 36 33 TYPE F

34 31 OUTSIDE CORNER MULL. ANCHOR TYPE E OR F

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 18-0403.07  
Expiration Date June 6, 2018  
By Manuel Perez  
Miami Dade Product Control

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677  
NO 55983

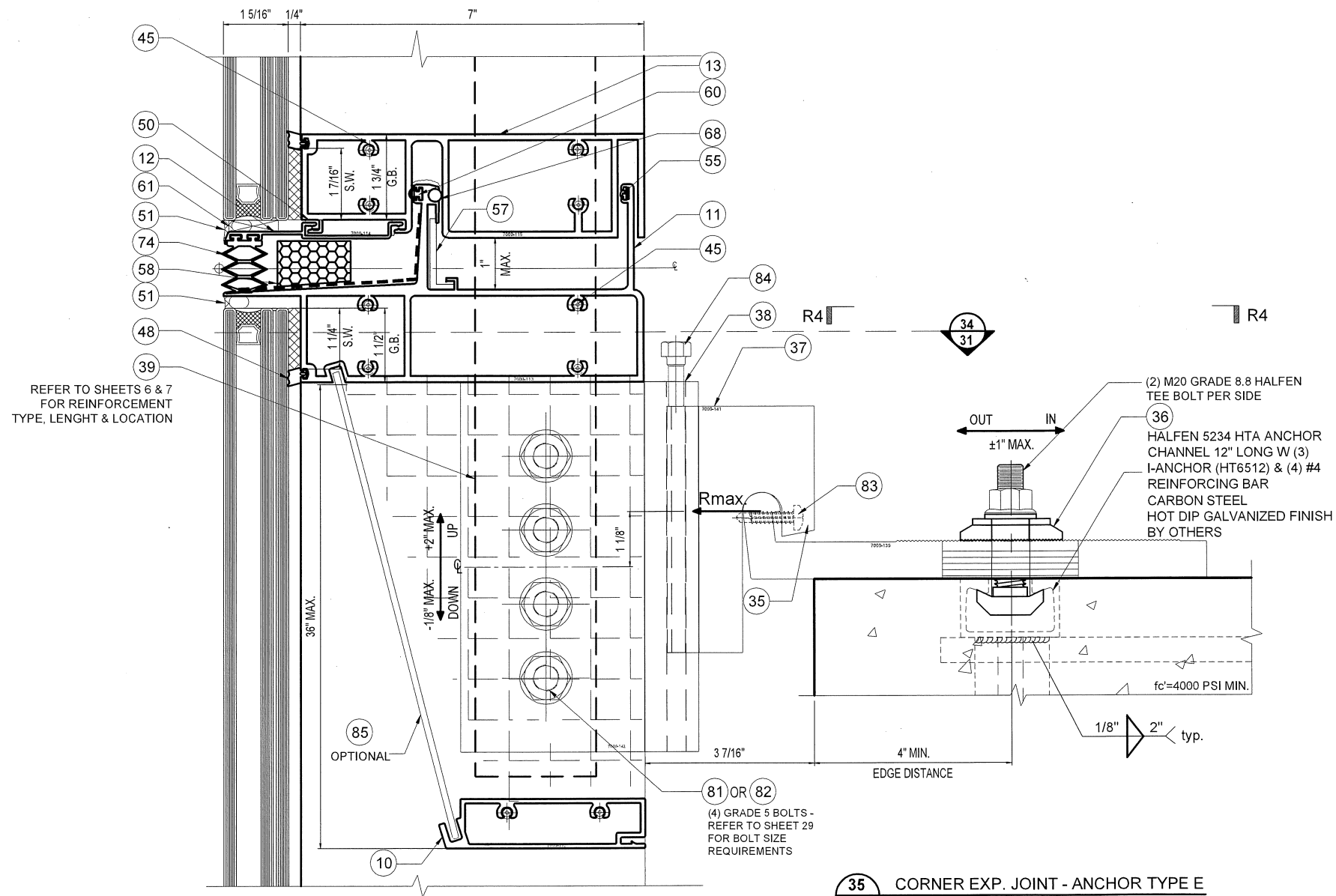
|             |            |
|-------------|------------|
| DATE        | 07/08/2016 |
| SCALE       | AS NOTED   |
| DRAWN       | A.R.       |
| PROJECT     | MCY15-087  |
| DRAWING NO. | AD12-64    |
| SHEET       | 31 OF 38   |

| REVISIONS | NO | DATE    | DESCRIPTION        |
|-----------|----|---------|--------------------|
|           | 1  | 8/4/15  | UPDATE TO 2014 FBC |
|           | 2  | 3/30/16 | UPDATE TO 2017 FBC |

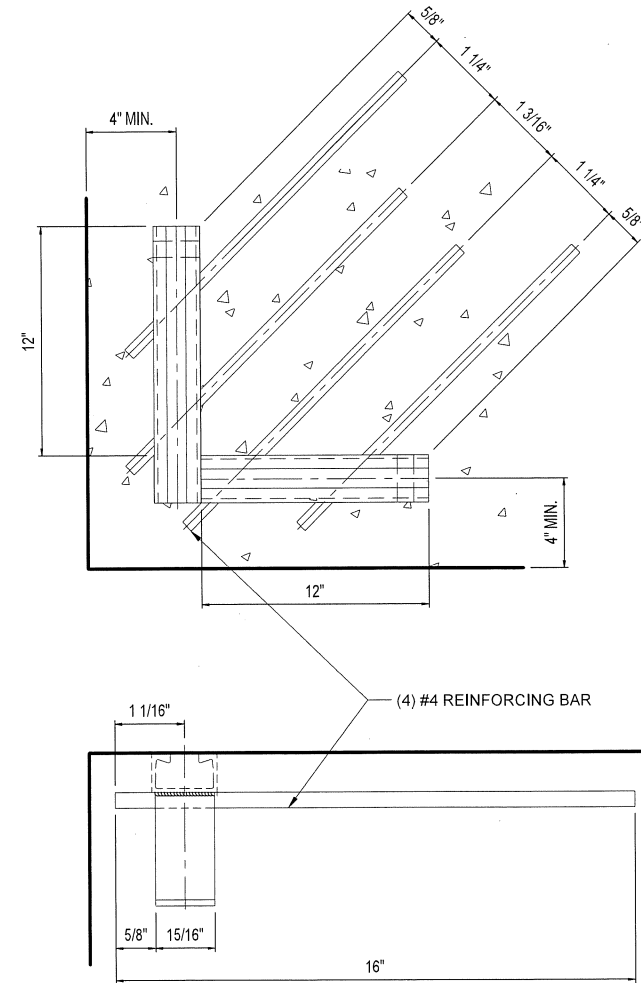
**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
MIAMI, FL 33183 F: 305.279.6818  
www.MCYEngineering.com MCY.Engineering@Att.net

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
**TECNOGLASS, LLC.**  
3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

MAY 1 9 2018



**35**  
**32** CORNER EXP. JOINT - ANCHOR TYPE E  
SECTION



**R4** ANCHOR TYPE E

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 18-0403.07  
Expiration Date June 6, 2018  
By *Manuel Perez*  
Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983 55983  
C.A.N. 28677  
Professional Engineer  
Stamp

|             |            |
|-------------|------------|
| DATE        | 07/08/2016 |
| SCALE       | AS NOTED   |
| DRAWN       | A.R.       |
| PROJECT     | MCY15-087  |
| DRAWING NO. | AD12-64    |
| SHEET       | 32 OF 38   |

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
**TECNOGLASS, LLC.**  
3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

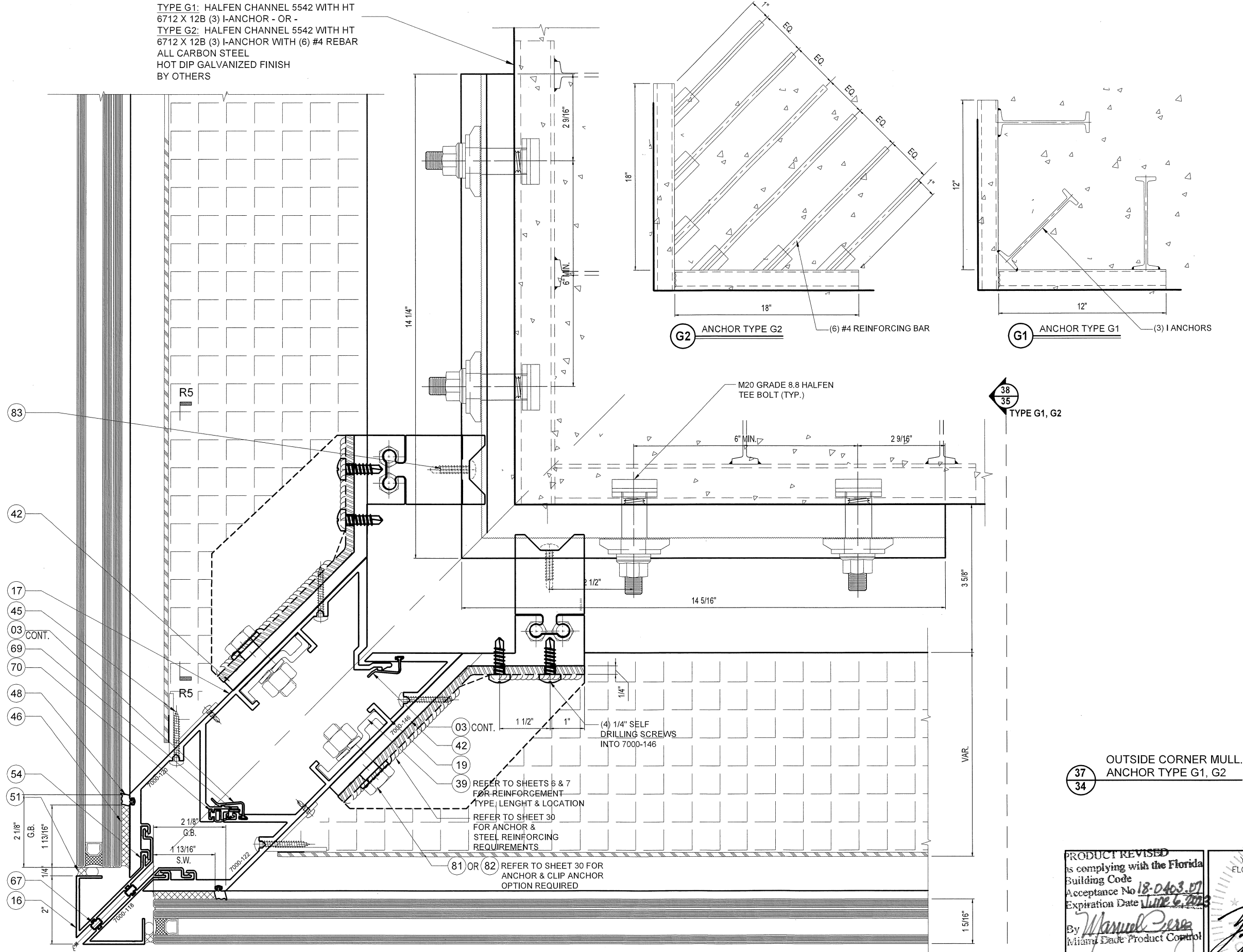
**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
8501 SW 124 AVE. SUITE 205A P: 305.271.0117  
MIAMI, FL 33183 F: 305.279.6818  
www.MCYEngineering.com MCY.Engineering@Att.net

| REVISIONS | NO | DATE    | DESCRIPTION        |
|-----------|----|---------|--------------------|
|           | 1  | 6/4/15  | UPDATE TO 2014 FBC |
|           | 2  | 9/30/16 | UPDATE TO 2017 FBC |

MAY 1 9 2018



TYPE G1: HALFEN CHANNEL 5542 WITH HT  
6712 X 12B (3) I-ANCHOR - OR -  
TYPE G2: HALFEN CHANNEL 5542 WITH HT  
6712 X 12B (3) I-ANCHOR WITH (6) #4 REBAR  
ALL CARBON STEEL  
HOT DIP GALVANIZED FINISH  
BY OTHERS



G2 ANCHOR TYPE G2

(6) #4 REINFORCING BAR

G1 ANCHOR TYPE G1

(3) I ANCHORS

38  
35  
TYPE G1, G2

37  
34  
OUTSIDE CORNER MULL.  
ANCHOR TYPE G1, G2

PRODUCT REVISED  
is complying with the Florida  
Building Code  
Acceptance No. 18-0403-07  
Expiration Date June 6, 2018  
By *Manuel Perez*  
Miami Dade Product Control  
MIAMI DADE COUNTY

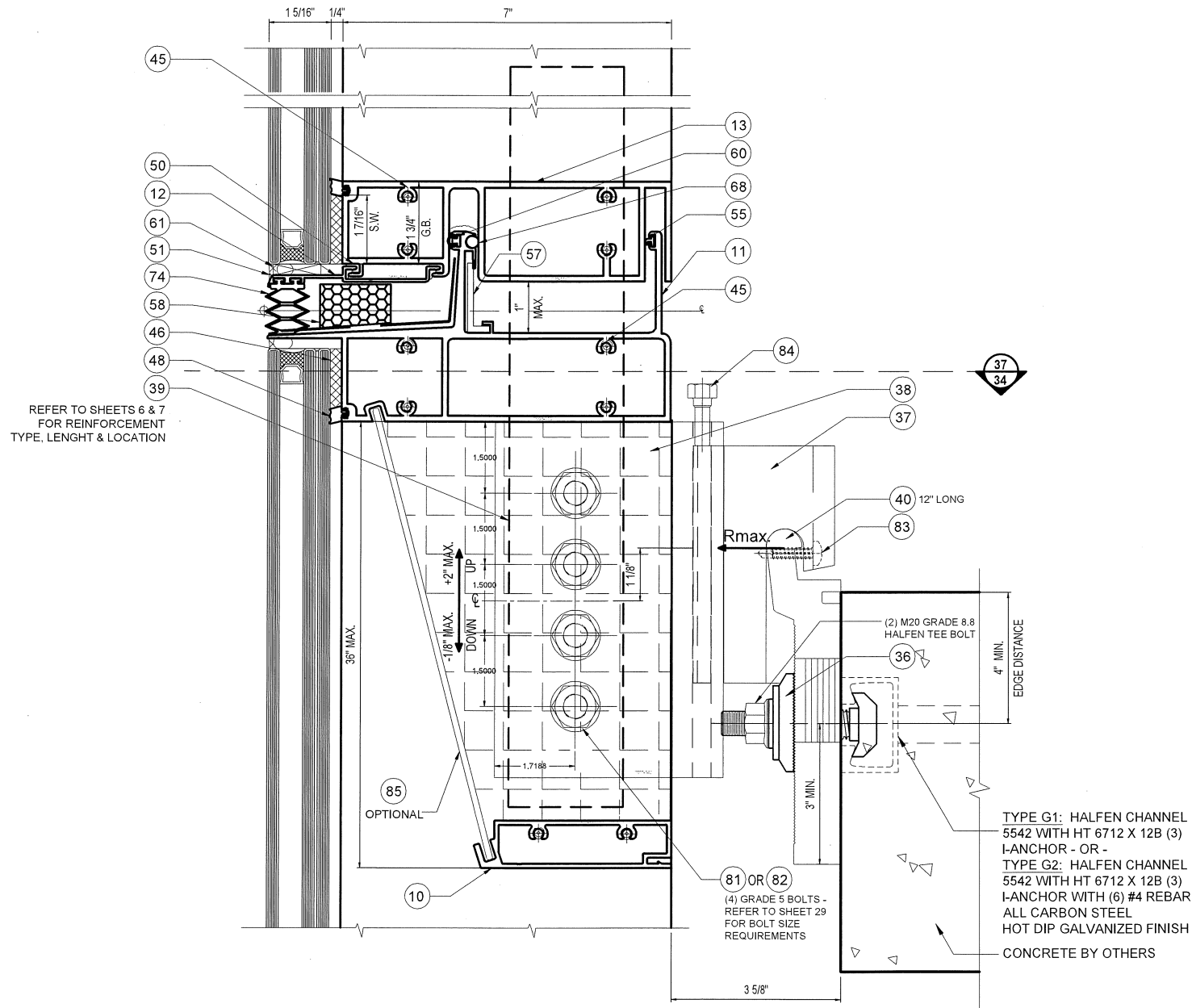
YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677  
NO 55983  
*Yip*  
FLORIDA  
PROFESSIONAL ENGINEER

SERIES 7000 ALUMINUM CURTAIN WALL LMI / SMI  
TECNOGLASS, LLC.  
3550 NW 49TH STREET, MIAMI, FL 33142  
Phone (305) 342-0890 Fax (786) 513-3965

MCY ENGINEERING, INC.  
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|             |            |
|-------------|------------|
| DATE        | 07/08/2016 |
| SCALE       | AS NOTED   |
| DRAWN       | A.R.       |
| PROJECT     | WCY15-087  |
| DRAWING NO. | AD12-64    |
| SHEET       | 34 OF 38   |

MAY 10 2018



38 CORNER EXP. JOINT - ANCHOR TYPE G1, G2  
35 SECTION

|         | SPAN | MAX. DESIGN LOAD (PSF) |            |            |            |            |
|---------|------|------------------------|------------|------------|------------|------------|
|         |      | MULLION SPACING (M.S.) |            |            |            |            |
|         | (in) | 36<br>(in)             | 42<br>(in) | 48<br>(in) | 54<br>(in) | 60<br>(in) |
| TYPE G1 | 120  | 140                    | 140        | 140        | 124        | 112        |
|         | 126  | 140                    | 140        | 133        | 119        | 107        |
|         | 132  | 140                    | 140        | 127        | 113        | 102        |
|         | 138  | 140                    | 139        | 122        | 108        | 97         |
|         | 144  | 140                    | 133        | 117        | 104        | 93         |
| TYPE G2 | 120  | 140                    | 140        | 140        | 140        | 140        |
|         | 126  | 140                    | 140        | 140        | 140        | 140        |
|         | 132  | 140                    | 140        | 140        | 140        | 140        |
|         | 138  | 140                    | 140        | 140        | 140        | 140        |
|         | 144  | 140                    | 140        | 140        | 140        | 140        |

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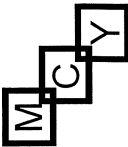
YIPING WANG, P.E.  
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C.A.N. 286775983  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER

DATE 07/08/2016  
SCALE AS NOTED  
DRAWN A.R.  
PROJECT MCY15-087  
DRAWING NO.  
AD12-64  
SHEET 35 OF 38

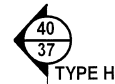
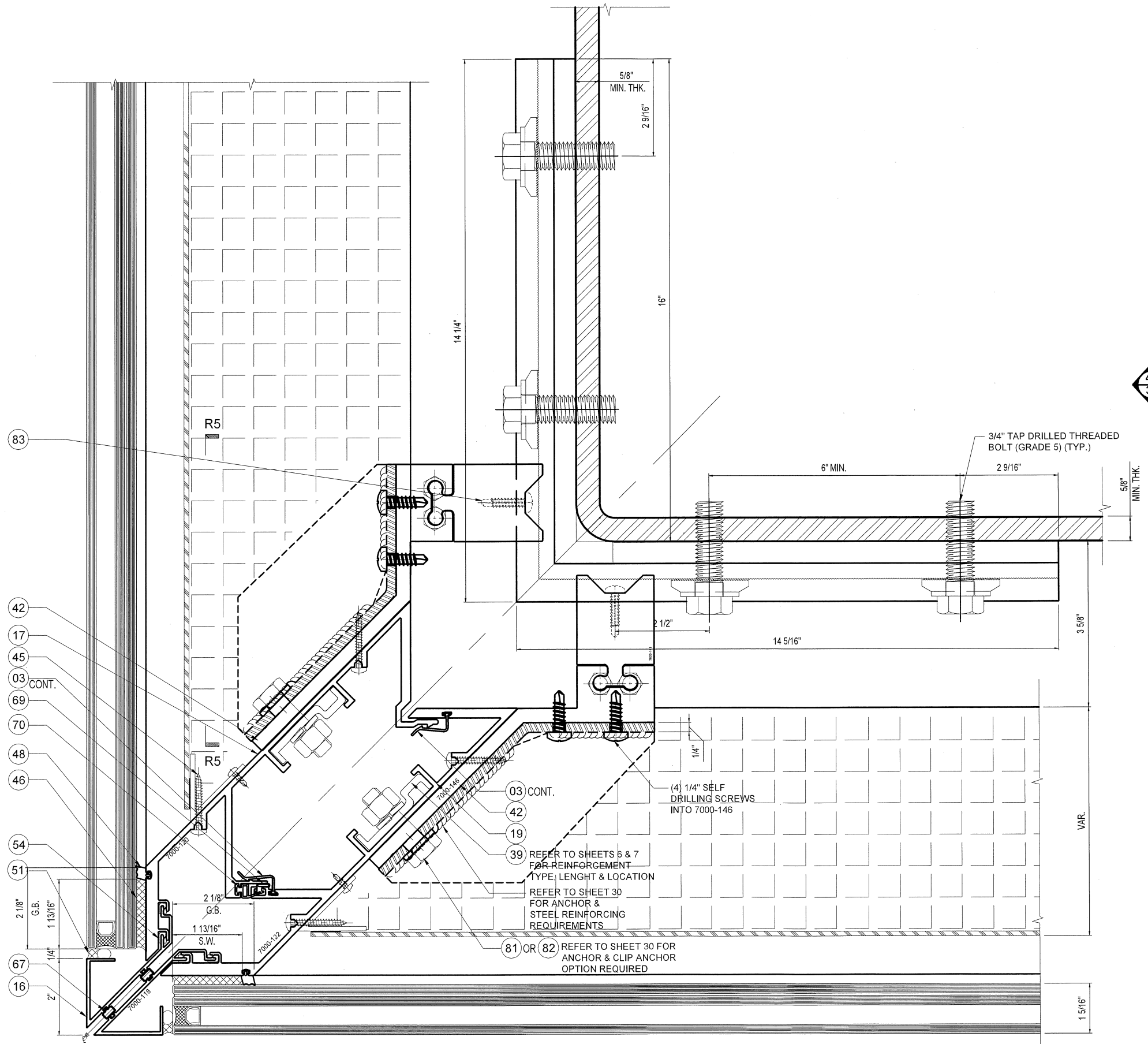
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| NO | DATE    | DESCRIPTION        |
|----|---------|--------------------|
| 1  | 8/4/15  | UPDATE TO 2014 FBC |
| 2  | 8/30/16 | UPDATE TO 2017 FBC |
| 3  |         |                    |
| 4  |         |                    |



MAY 13 2013



39  
36

OUTSIDE CORNER MULL.  
ANCHOR TYPE H

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Miami Dade Product Control  
MIAMI DADE COUNTY

YIPING WANG, P.E.  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. 28677  
55983  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

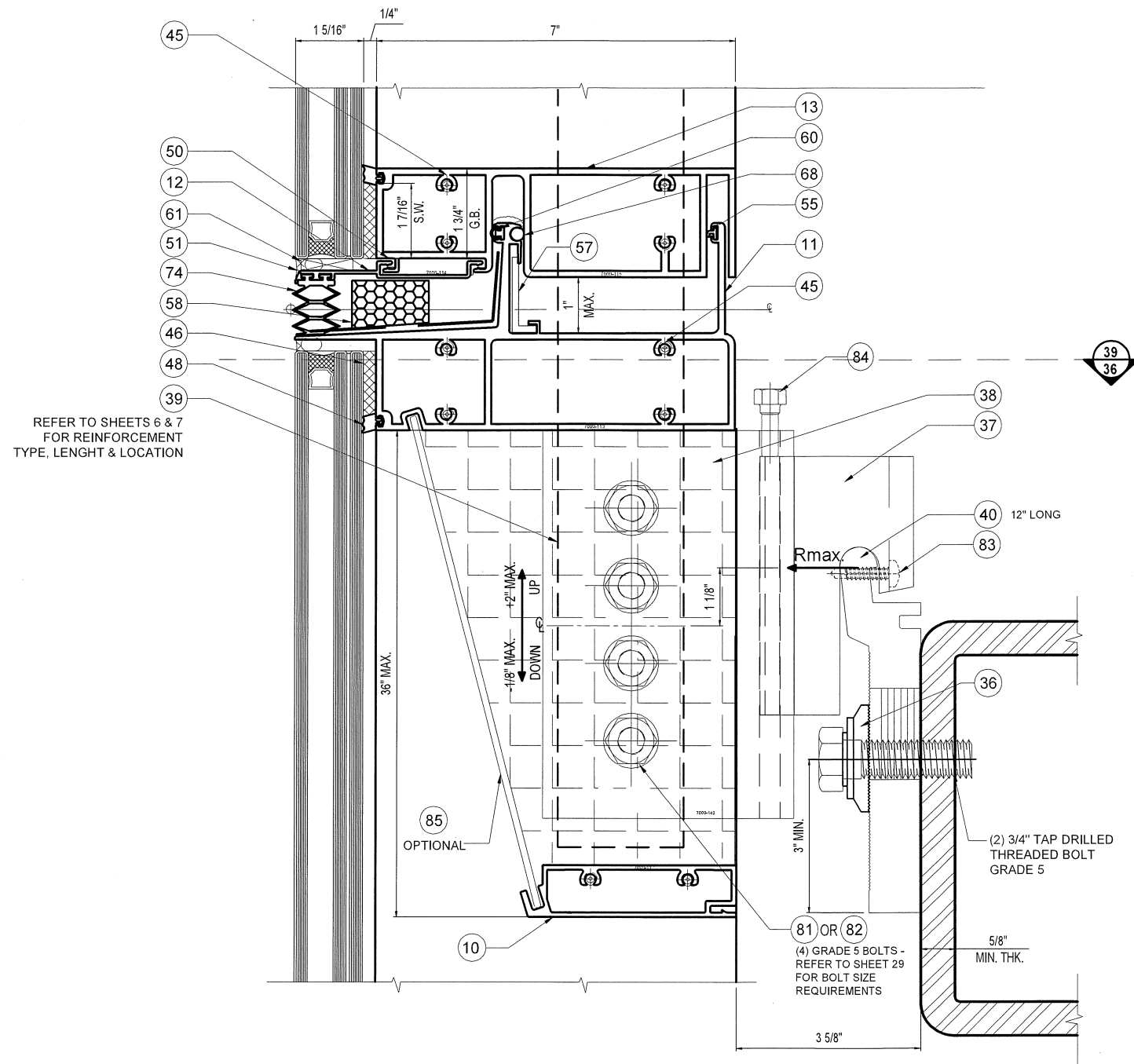
DATE 07/08/2016  
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DRAWN A.R.  
PROJECT MCY15-087  
DRAWING NO.  
AD12-64  
SHEET 36 OF 38

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| NO. | DATE    | DESCRIPTION        |
|-----|---------|--------------------|
| 37  | 6/4/15  | UPDATE TO 2014 FBC |
| 38  | 3/30/16 | UPDATE TO 2017 FBC |
| 39  |         |                    |





40 CORNER EXP. JOINT - ANCHOR TYPE H  
37 SECTION

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Miami Dade Product Control

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DATE 07/08/2016  
SCALE AS NOTED  
DRAWN AR  
PROJECT MCY15-087  
DRAWING NO.  
AD12-64  
SHEET 37 OF 38

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MAY 16 2018



| ITEM # | DESCRIPTION                                          | MATERIAL        | GLASSWALL PARTS # | MANUF. / REMARKS                                    | ITEM # | DESCRIPTION                               | MATERIAL        | GLASSWALL PARTS # | MANUF. / REMARKS                                       |
|--------|------------------------------------------------------|-----------------|-------------------|-----------------------------------------------------|--------|-------------------------------------------|-----------------|-------------------|--------------------------------------------------------|
| 01     | FEMALE MULLION EXTENDED LEG                          | 6063-T6         | 7000-101          |                                                     | 56     | 5/8" +/- 1/8" SHIM                        | -               | -                 |                                                        |
| 02     | MALE MULLION                                         | 6063-T6         | 7000-102          |                                                     | 57     | 1 7/16" X 1/2" X 1/8" THK. ANGLE          | ALUM.           | -                 |                                                        |
| 03     | ANTI-BUCKLING CLIP                                   | 6063-T6         | 7000-103          | 4" LG. @ 12" O.C. MAX. TYP. CONT. AT CORNER MULLION | 58     | SPONGE BUFFER                             | -               | -                 |                                                        |
| 04     | EXTENDED BEAUTY CAP                                  | 6063-T6         | 7000-104          |                                                     | 59     | 7/16" CW SPACER                           | ALUM.           | W5250-301         | LINGEMANN GmbH                                         |
| 05     | MALE MULLION EXTENDED LEG                            | 6063-T6         | 7000-105          |                                                     | 60     | STACK JOINT FRONT GASKET                  | -               | 065-011           |                                                        |
| 06     | BEAUTY CAP                                           | 6063-T6         | 7000-107          |                                                     | 61     | 1" x 1/4" SETTING BLOCK                   | -               | -                 |                                                        |
| 07     | FEMALE MULLION BUTT GLAZED                           | 6063-T6         | 7000-108          |                                                     | 62     | 8" X 12" X 1/2" THK. TUBE                 | A36 STEEL       | -                 |                                                        |
| 08     | MALE MULLION BUTT GLAZED                             | 6063-T6         | 7000-109          |                                                     | 63     | 1" X 1" X 1/16" THK. ANGLE                | ALUM.           | -                 |                                                        |
| 09     | PRESSURE PLATE                                       | 6063-T6         | 7000-110          |                                                     | 64     | GASKET .25" PUSH IN                       | SILICONE        | WW7000-NE003      |                                                        |
| 10     | HORIZONTAL AT STACK JOINT                            | 6063-T6         | 7000-112          |                                                     | 65     | 1 5/8" X 3 1/4" X 1/8" THK. TUBE          | ALUMINUM        | -                 |                                                        |
| 11     | CHICKEN HEAD                                         | 6063-T6         | 7000-113          |                                                     | 66     | TUBE                                      | ALUMINUM        | -                 |                                                        |
| 12     | STACK JOINT FIN                                      | 6063-T6         | 7000-114          | CONT.                                               | 67     | MULL EXTERIOR VERT JOINT FILLER           | -               | 065-015           |                                                        |
| 13     | EXPANSION SILL                                       | 6063-T6         | 7000-115          |                                                     | 68     | CHICKEN HEAD SPACER                       | -               | 065-008           | 4" LG. @ 12" O.C. MAX. TYP. AT EACH FRAME SILL ADAPTOR |
| 14     | HEAD SILL COVER                                      | 6063-T6         | 7000-116          |                                                     | 69     | MULLION AIR BARRIER                       | EPDM            | 065-009           |                                                        |
| 15     | HEAD/SILL                                            | 6063-T6         | 7000-117          |                                                     | 70     | MULLION INTERIOR VERTICAL AIR SEAL        | EPDM            | 065-019           |                                                        |
| 16     | EXTERIOR CORNER COVER                                | 6063-T6         | 7000-118          |                                                     | 71     | PVC PART SOLID                            | PVC             | WW7000-NE006      | DUROMETER 60/70 + 5 SHORE A                            |
| 17     | EXTERIOR CORNER MALE MULLION                         | 6063-T6         | 7000-120          |                                                     | 72     | PVC PART                                  | PVC             | WW7000-NE005      | DUROMETER 60/70 + 5 SHORE A                            |
| 18     | INTERIOR CORNER FIN                                  | 6063-T6         | 7000-121          |                                                     | 73     | BULB GASKET 3/8" SLIDE                    |                 | WW7000-NE007      | DUROMETER 60/70 + 5 SHORE A                            |
| 19     | EXTERIOR CORNER FEMALE MULLION                       | 6063-T6         | 7000-122          |                                                     | 74     | EXPANSION JOINT GASKET                    |                 | WW7000-NE001      | DUROMETER 60/70 + 5 SHORE A                            |
| 20     | INTERIOR CORNER FIN                                  | 6063-T6         | 7000-123          |                                                     | 75     | 1 7/8" x 1/4" SETTING BLOCK               | EPDM            |                   |                                                        |
| 21     | INTERIOR CORNER FEMALE MULLION                       | 6063-T6         | 7000-124          |                                                     | 76     | 5/16-12 SELF TAPPING SCREW SAE GRADE 5    |                 |                   | SCREWS SPACED 3 .75" O.C.                              |
| 22     | INTERIOR CORNER MALE MULLION                         | 6063-T6         | 7000-125          |                                                     | 77     | ST-1: 3/4" THK. REINFORCEMENT             | A50 STEEL       |                   | Fy = 50 ksi                                            |
| 23     | CHICKEN HEAD SUB-SILL                                | 6063-T6         | 7000-126          |                                                     | 78     | ST-2: 1/4" THK. REINFORCEMENT             | A36 STEEL       |                   | Fy = 36 ksi                                            |
| 24     | SILL                                                 | 6063-T6         | 7000-127          |                                                     | 79     | ST-4: 1/2" THK. REINFORCEMENT             | A50 STEEL       |                   | Fy = 50 ksi                                            |
| 25     | HORIZONTAL MULLION                                   | 6063-T6         | 7000-128          |                                                     | 80     | #12 X 1" PHILLIPS PAN HEAD SMS            | STAINLESS STEEL |                   |                                                        |
| 26     | HORIZONTAL BUTT GLAZED                               | 6063-T6         | 7000-129          |                                                     | 81     | 1/2 - 13 SAE GRADE 5 ( F.H. OR HEXAGONAL) | STEEL           |                   | Fy = 92 ksi Fu = 120 ksi                               |
| 27     | HORIZONTAL BUTT GLAZED FIN                           | 6063-T6         | 7000-130          | 6" LG. (2) AT EA. PANEL AT 1/4 POINT                | 82     | 5/8 - 11 SAE GRADE 5 ( F.H. OR HEXAGONAL) | STEEL           |                   | Fy = 92 ksi Fu = 120 ksi                               |
| 28     | CRESCENT FEMALE MULLION                              | 6063-T6         | 7000-131          |                                                     | 83     | 1/4" X 3/4" LG. SMS                       | STAINLESS STEEL |                   | Fy = 65 ksi Fu = 100 ksi                               |
| 29     | CRESCENT MALE MULLION                                | 6063-T6         | 7000-132          |                                                     | 84     | 7/16 - 14 X 1" LG. SAE GRADE 5            | STEEL           |                   | Fy = 92 ksi Fu = 120 ksi                               |
| 30     | HEAD BUTT GLAZED                                     | 6063-T6         | 7000-133          |                                                     | 85     | ALUMINUM PANEL - 18 GA MIN.               | 3003-H14        |                   |                                                        |
| 31     | STACK JOINT COVER                                    | 6063-T6         | 7000-134          |                                                     |        |                                           |                 |                   |                                                        |
| 32     | CHICKEN HEAD WITHOUT COVER                           | 6063-T6         | 7000-135          |                                                     |        |                                           |                 |                   |                                                        |
| 33     | SILL COVER                                           | 6063-T6         | 7000-136          |                                                     |        |                                           |                 |                   |                                                        |
| 34     | SILL COVER BUNGALOW                                  | 6063-T6         | 7000-137          |                                                     |        |                                           |                 |                   |                                                        |
| 35     | SLAB ANCHOR                                          | 6061-T6         | 7000-139          |                                                     |        |                                           |                 |                   |                                                        |
| 35A    | CORNER SLAB ANCHOR                                   | 6061-T6         | 7000-139A         |                                                     |        |                                           |                 |                   |                                                        |
| 36     | SERRATE WASHER                                       | 6061-T6         | 7000-140          |                                                     |        |                                           |                 |                   |                                                        |
| 37     | MULLION ANCHOR HOOK                                  | 6061-T6         | 7000-141          |                                                     |        |                                           |                 |                   |                                                        |
| 38     | MULLION ANCHOR FIST                                  | 6061-T6         | 7000-142          |                                                     |        |                                           |                 |                   |                                                        |
| 39     | ALUMINUM SPLICE - AS-1                               | 6061-T6         | 7000-143          |                                                     |        |                                           |                 |                   |                                                        |
| 40     | SHEAR ANCHOR PLATE                                   | 6061-T6         | 7000-144          |                                                     |        |                                           |                 |                   |                                                        |
| 41     | INSIDE CORNER ANCHOR FIST                            | 6061-T6         | 7000-145          |                                                     |        |                                           |                 |                   |                                                        |
| 42     | OUTSIDE CORNER ANCHOR FIST                           | 6061-T6         | 7000-146          |                                                     |        |                                           |                 |                   |                                                        |
| 43     | RAILING COVER                                        | 6063-T6         | 7000-149          |                                                     |        |                                           |                 |                   |                                                        |
| 44     | HORIZONTAL RAILING                                   | 6063-T6         | 7000-150          |                                                     |        |                                           |                 |                   |                                                        |
| 45     | # 14 X 11/2" LG. PH. SMS. 18-8 CW SERIES ASSY. SCREW | STAINLESS STEEL | -                 |                                                     |        |                                           |                 |                   |                                                        |
| 46     | STRUCTURAL SILICONE                                  | SILICONE        | GE SSG 4600       | SEE CHART SHEET 07                                  |        |                                           |                 |                   |                                                        |
| 47     | TWO PART STRUCTURAL SILICONE                         | SILICONE        | -                 |                                                     |        |                                           |                 |                   |                                                        |
| 48     | EXTERIOR PRESSURE GASKET                             | EPDM            | W5250-NS02        | DUROMETER 70 ± 5 SHORE A                            |        |                                           |                 |                   |                                                        |
| 49     | 1 5/16" INSULATED LAMINATED GLASS                    | GLASS           | -                 |                                                     |        |                                           |                 |                   |                                                        |
| 50     | EXP. JT. GLASS SHELF ISOLATOR                        | RIGID VINYL     | 065-012           |                                                     |        |                                           |                 |                   |                                                        |
| 51     | CONT. SILICONE SEALANT AND BACKER-ROD                | SILICONE        | -                 |                                                     |        |                                           |                 |                   |                                                        |
| 54     | THERMAL ISOLATOR                                     | RIGID VINYL     | 065-018           |                                                     |        |                                           |                 |                   |                                                        |
| 55     | MULLION SEAL GASKET                                  | EPDM            | W5250-NE01        |                                                     |        |                                           |                 |                   |                                                        |

REVISIONS

|                              |  |
|------------------------------|--|
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