

CONTINENTAL GLASS SYSTEMS, LLC.
SERIES 3900 WINDOW WALL W/VO REINFORCEMENT
LARGE AND SMALL MISSILE IMPACT (LMI/SMI)

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 5TH EDITION FLORIDA BUILDING CODE (2014) INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- WINDOWS RATED FOR LARGE MISSILE IMPACT. IMPACT SHUTTERS ARE NOT REQUIRED.
- THESE WINDOWS ARE APPROVED FOR AIR AND WATER INFILTRATION.
- 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 THE 5TH EDITION FLORIDA BUILDING CODE (2014) SECTION AS APPLICABLE.
- METAL STRUCTURES NOT BY CONTINENTAL GLASS SYSTEMS, LLC. DESIGNED TO SUPPORT THE LOADS IMPOSED BY THIS GLAZING SYSTEM AND TO TRANSFER SUCH LOADS TO THE BUILDING MAIN STRUCTURE.
- ULTIMATE LOAD OBTAINED FROM ASCE 7-10, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT.
THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.

-SEALANTS:

ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER GLAZING BEAD TO FRAME INSTALLATION FASTENERS SEALED WITH SILICONE SEALANT.

FRAME PERIMETER SEALANT TO BE DOW CORNING DC790.

-TYPICAL ANCHORS: (SEE ELEVATIONS FOR SPACING)

- TYPE 'A' -- 5/16" DIA. ULTRACON BY 'ELCO' (Fu 177 KSI, Fy=155 KSI)
DIRECTLY INTO CONCRETE OR MASONRY
1-3/4" MIN. EMBED INTO CONCRETE.
- TYPE 'B' -- 5/16" DIA. SELF DRILLING SCREWS (GRADE 5 CRS)
INTO MIAMI-DADE COUNTY APPROVED MULLIONS (1/8" THK. MIN.)
INTO METAL STRUCTURES
STEEL: 1/8" THK. MIN. (6063-T5 MIN.)
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)
- TYPE 'C' -- #14 SMS OR SELF DRILLING SCREWS (GRADE 5 CRS)
INTO MIAMI-DADE COUNTY APPROVED MULLIONS
(1/8" THK. MIN.) INTO METAL STRUCTURE.

TYPICAL EDGE DISTANCE

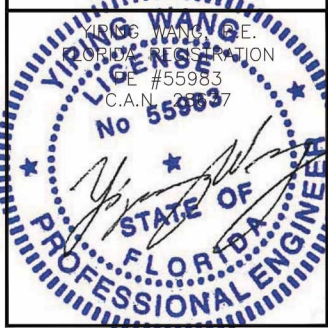
- INTO CONCRETE = 2-1/2" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1: DETERMINE ALLOWABLE DESIGN LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-10 STANDARD.
- STEP 2: SEE CHARTS ON SHEET G1 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE. THE GLASS CAPACITY SHOULD BE GREATER THAN OR EQUAL TO THE ALLOWABLE DESIGN LOAD DETERMINED BY STEP 1.
- STEP 3: CHECK MULLION AND JAMB CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS M1. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4: THE LOWEST VALUE RESULTING FROM STEPS 2 AND 3 SHALL APPLY TO ENTIRE SYSTEM.

LIMITATIONS OF USE	
A-	THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.
B-	CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
C-	THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
D-	SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D.
E-	THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

SERIES 3900 WW	
FL #18312.1	
	

REVISIONS	
NO.	DATE

MCY

ENGINEERING, INC.

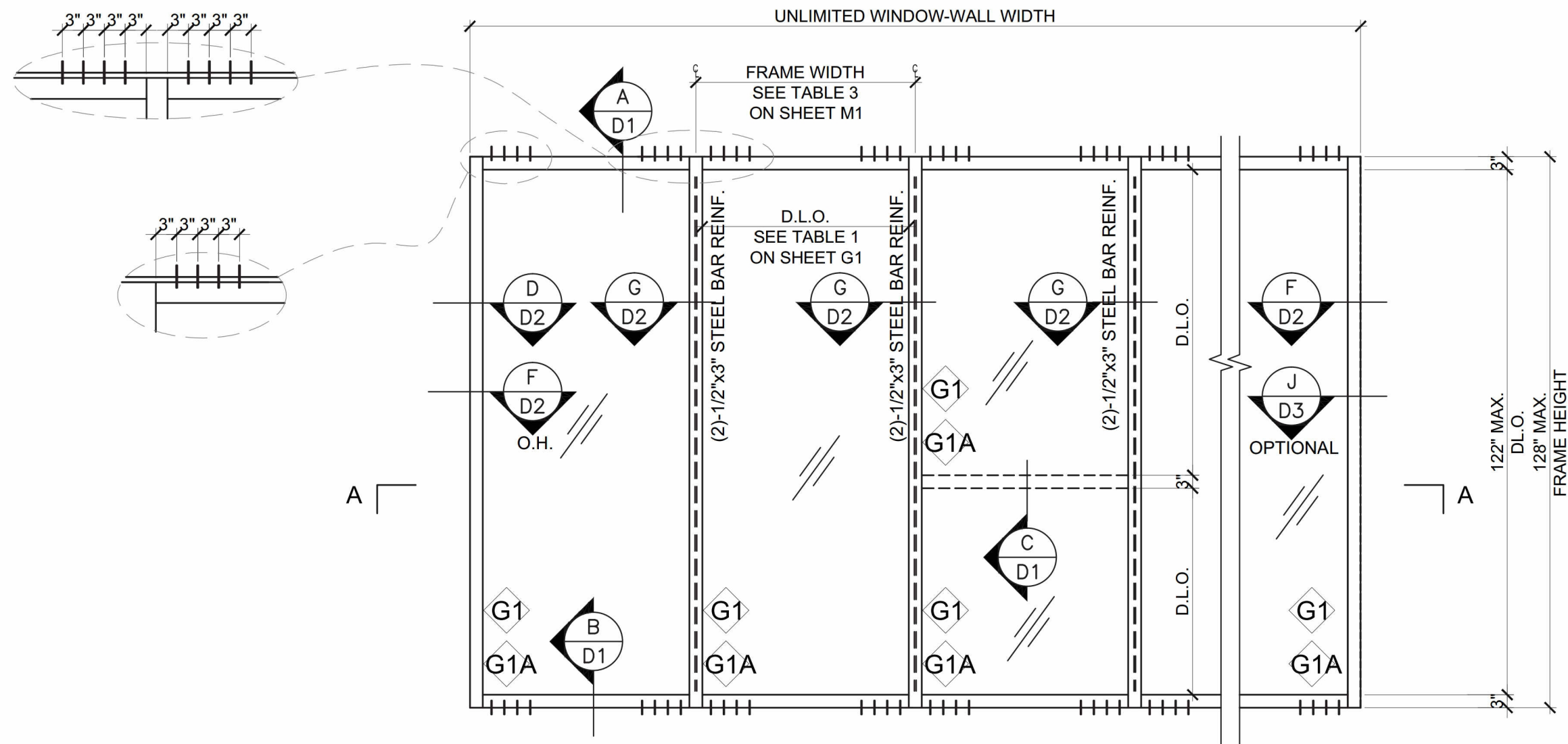
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SERIES 3900 WINDOW WALL W/VO REINFORCEMENT - LMI

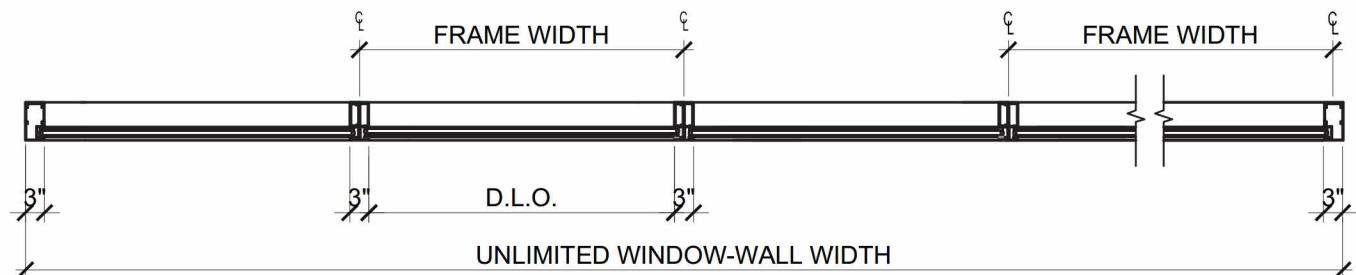
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325 WEST 74 PLACE HIALEAH, FL 33014
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COVER	
DATE	08/21/15
SCALE	AS SHOWN
DRAWN	T.G.
PROJECT	15-100
DRAWING NO. AD15-57	
1 OF 11	



MAX ALLOWABLE
DESIGN LOAD
(REFER TO TABLES 1, 2, 3 & 4)
+ 141.0 PSF
- 141.0 PSF

TYPICAL EXTERIOR ELEVATION
REINFORCED



SECTION A-A

SERIES 3900 WW

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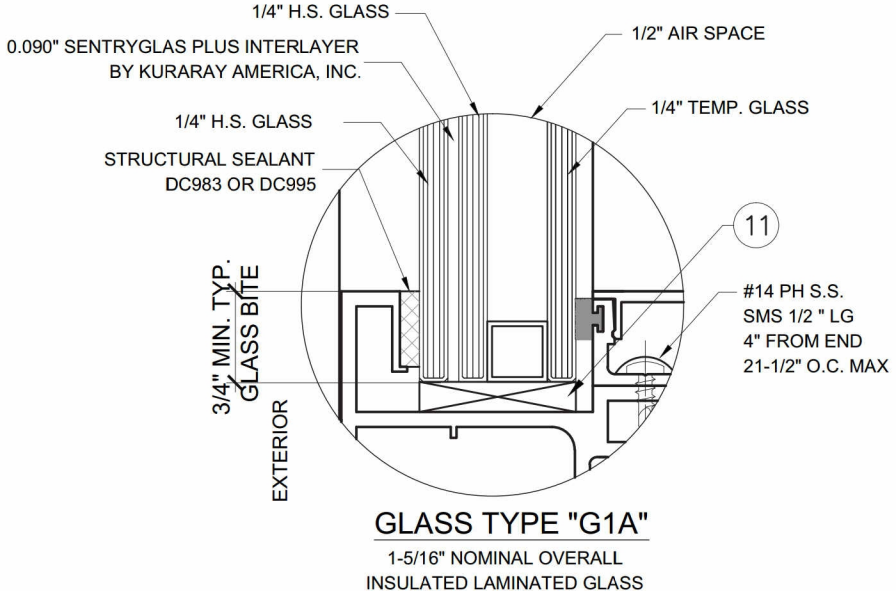
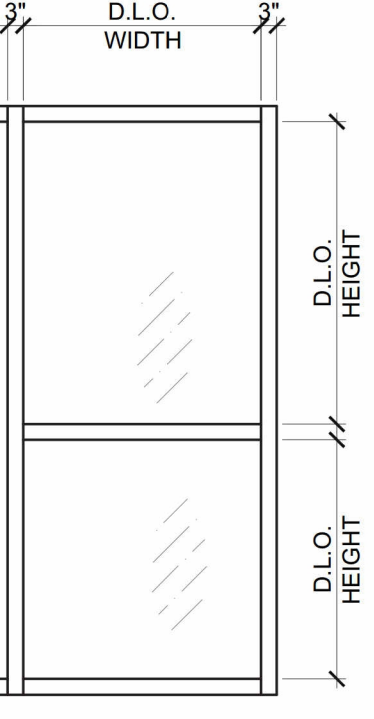
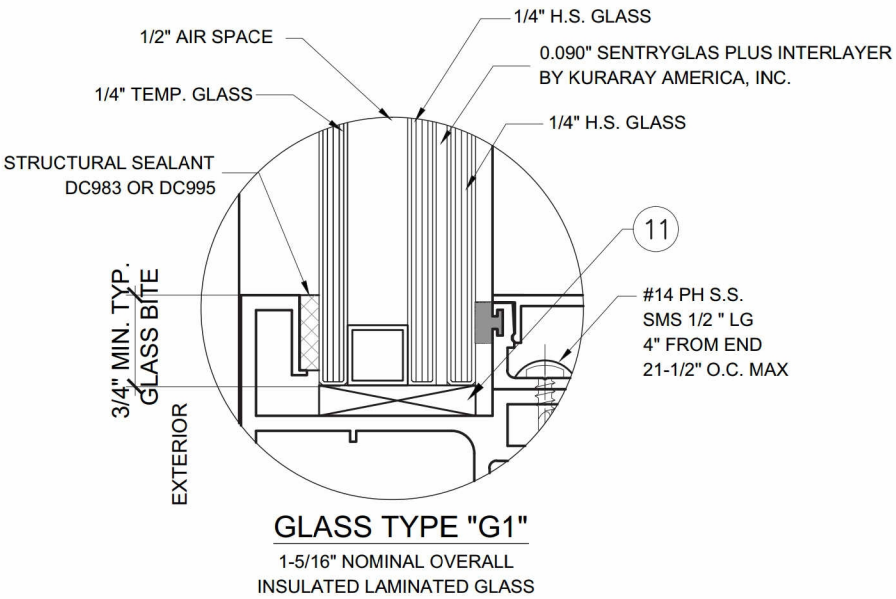
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E2	
DATE	08/21/15
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DRAWN	T.G.
PROJECT	15-100
DRAWING NO. AD15-57	
3 OF 11	

TABLE 1:

GLASS CAPACITY		
D.L.O. WIDTH	D.L.O. HEIGHT	TYPE G1&G1A
(IN.)	(IN.)	(PSF)
45	78	141
51		141
57		141
63		141
69		141
45	84	141
51		141
57		141
63		141
69		141
45	90	141
51		141
57		141
63		141
69		141
45	96	141
51		141
57		141
60		141
63		141
45	102	141
51		141
54		141
57		141
60		141
45	108	141
48		141
51		141
54		140
57		141
42	114	141
45		141
48		141
51		141
54		141
42	120	141
45		141
48		141
51		141
54		141
42	122	141
45		141
48		141
51		141
54		141

NOTE:
GLASS COMPLIES WITH ASTM
E1300-09 (3 SEC. GUSTS).



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YIPING WANG
FLORIDA REGISTERED PROFESSIONAL ENGINEER
No 55983

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G1

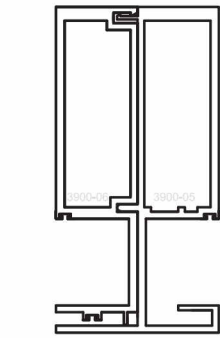
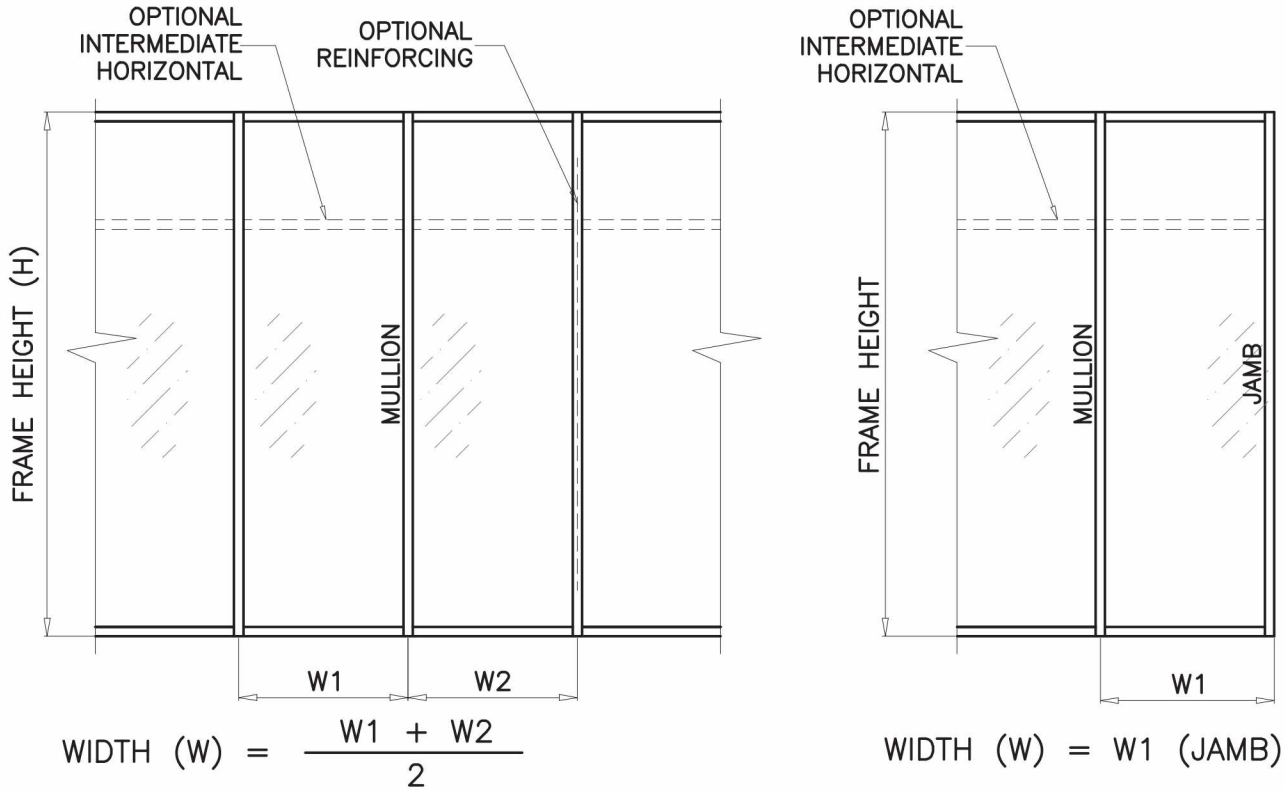
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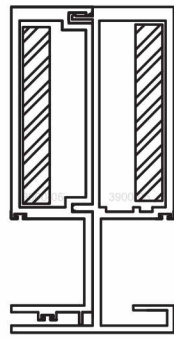
TABLE 2:

SINGLE SPAN MULLION LOAD CAPACITY – PSF						
MULLION TYPE		M1, M1A		J1	M2, M2A	
WINDOW PANEL		W/O HORIZ.	W/HORIZ.	W/O OR W/HORIZ.	W/O HORIZ.	W/HORIZ.
WIDTH W(IN)	HEIGHT H(IN)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
48	84	126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
60		126.0	126.0	141.0	141.0	141.0
66		126.0	126.0	141.0	141.0	141.0
72		126.0	126.0	141.0	141.0	141.0
48	90	126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
60		126.0	126.0	141.0	141.0	141.0
66		126.0	126.0	141.0	141.0	141.0
72		–	–	141.0	141.0	141.0
48	96	126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
60		126.0	126.0	141.0	141.0	141.0
66		–	–	141.0	141.0	141.0
48	102	126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
60		126.0	126.0	141.0	141.0	141.0
63		–	–	141.0	141.0	141.0
48	108	126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
57		126.0	126.0	141.0	141.0	141.0
60		–	–	141.0	141.0	141.0
48	114	126.0	126.0	141.0	141.0	141.0
51		126.0	126.0	141.0	141.0	141.0
54		126.0	126.0	141.0	141.0	141.0
57		–	–	141.0	141.0	141.0
45	120	126.0	126.0	141.0	141.0	141.0
48		126.0	126.0	141.0	141.0	141.0
51		126.0	124.4	141.0	141.0	141.0
54		–	–	141.0	141.0	141.0
45	126	–	–	141.0	141.0	141.0
48		–	–	141.0	141.0	141.0
51		–	–	141.0	141.0	141.0
45	128	–	–	141.0	141.0	141.0
48		–	–	141.0	141.0	141.0
51		–	–	141.0	141.0	140.0

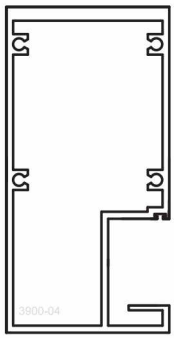
J1	Ix IN^4	Sx IN^3
3900–04	14.328	4.384
M1	Ix IN^4	Sx IN^3
3900–06	7.258	2.255
3900–05	10.582	3.510
TOTAL	17.840	5.542
M2	Ix IN^4	Sx IN^3
3900–06	7.258	2.255
3900–05	10.582	3.510
(2)ST–1	6.525	–
TOTAL	24.365	IN ALUM.
M1A	Ix IN^4	Sx IN^3
3900–24	12.645	3.042
3900–25	8.548	2.229
TOTAL	21.193	5.271
M2A	Ix IN^4	Sx IN^3
3900–24	12.645	3.042
3900–25	8.548	2.229
(2)ST–1	6.525	–
TOTAL	27.718	IN ALUM.



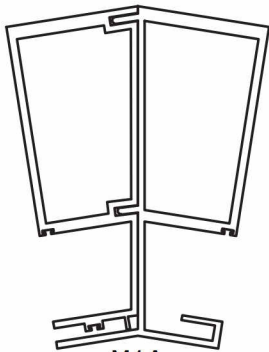
M1
MULLION
W/O REINFORCING



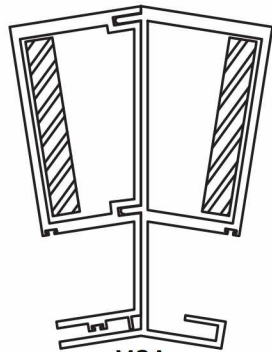
M2
MULLION W/(2) 1/2" X 3"
STEEL REINFORCING



J1
JAMB
W/O REINFORCING

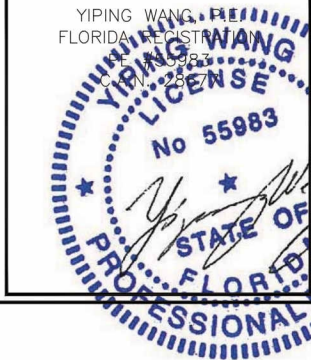


M1A
MULLION
W/O REINFORCING



M2A
MULLION W/(2) 1/2" X 3"
STEEL REINFORCING

SERIES 3900 WW
FL #18312.1



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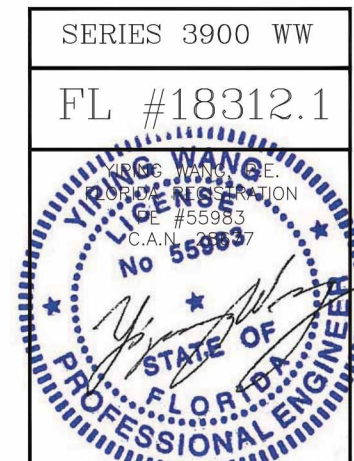
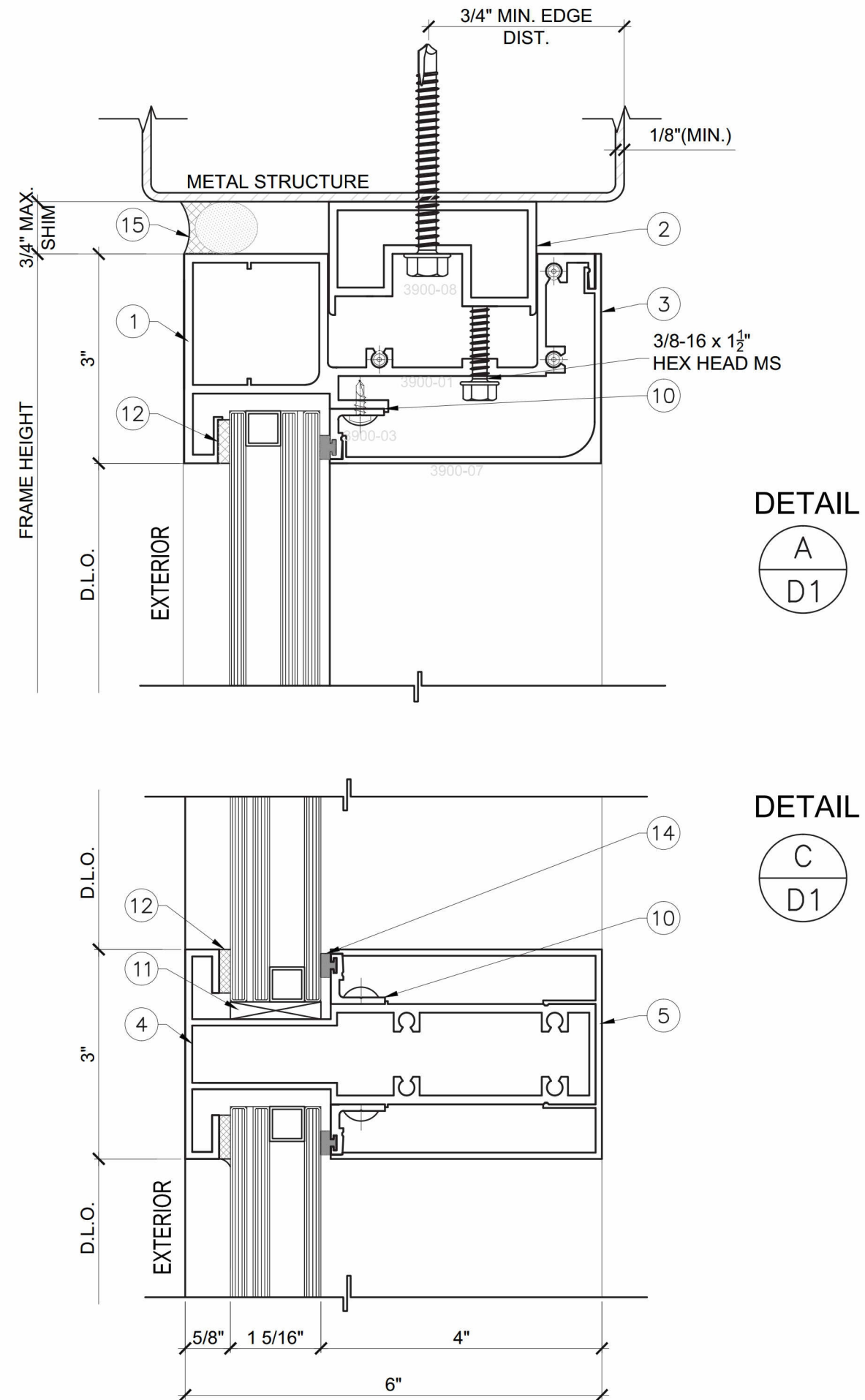
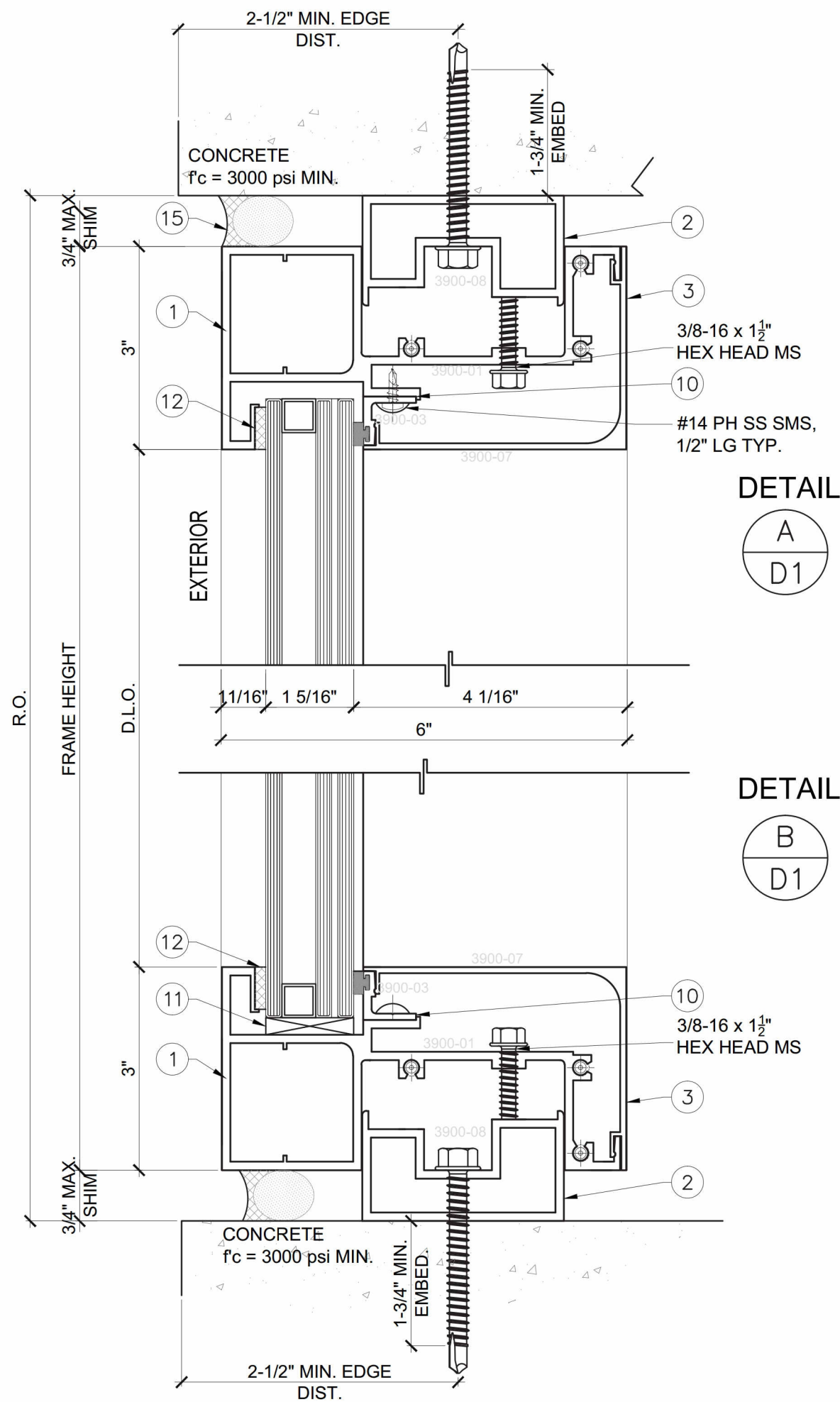
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M1

DATE	08/21/15
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OF 11



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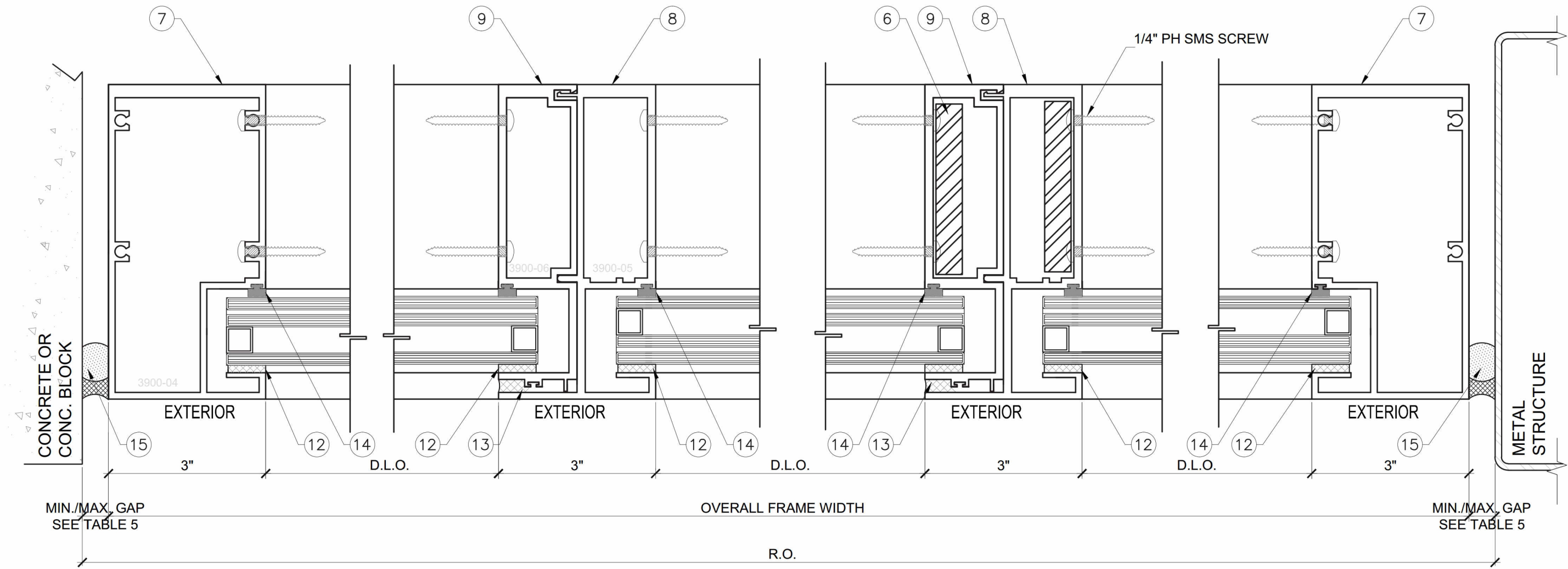
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D1	
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DETAIL D
D2

DETAIL E
D2

DETAIL G
D2

DETAIL F
D2

TABLE 5:

MAX. FRAME HEIGHT	JAMB GAP	
	MIN.	MAX.
90"	5/16"	1-1/2"
96"	5/16"	1-1/2"
102"	3/8"	1-1/2"
108"	3/8"	1-1/2"
114"	3/8"	1-1/2"
120"	1/2"	1-1/2"
126"	1/2"	1-1/2"
128"	1/2"	1-1/2"

SERIES 3900 WW

FL #18312.1

YIPING WANG
REGISTERED PROFESSIONAL ENGINEER
No 55983
STATE OF FLORIDA

REVISIONS	
NO.	DESCRIPTION

MCY ENGINEERING, INC.

GLAZING CONSULTANTS

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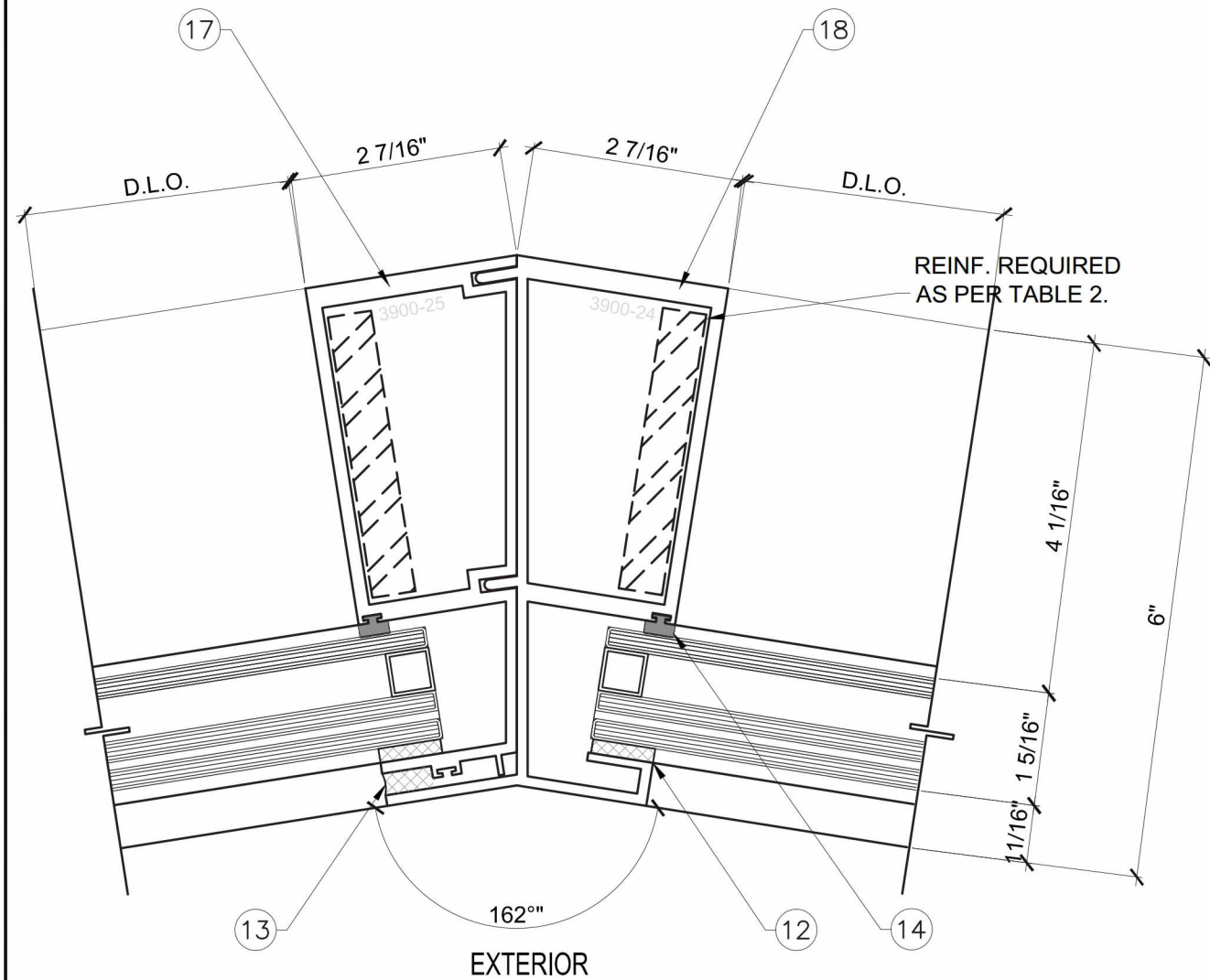
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YIPING WANG

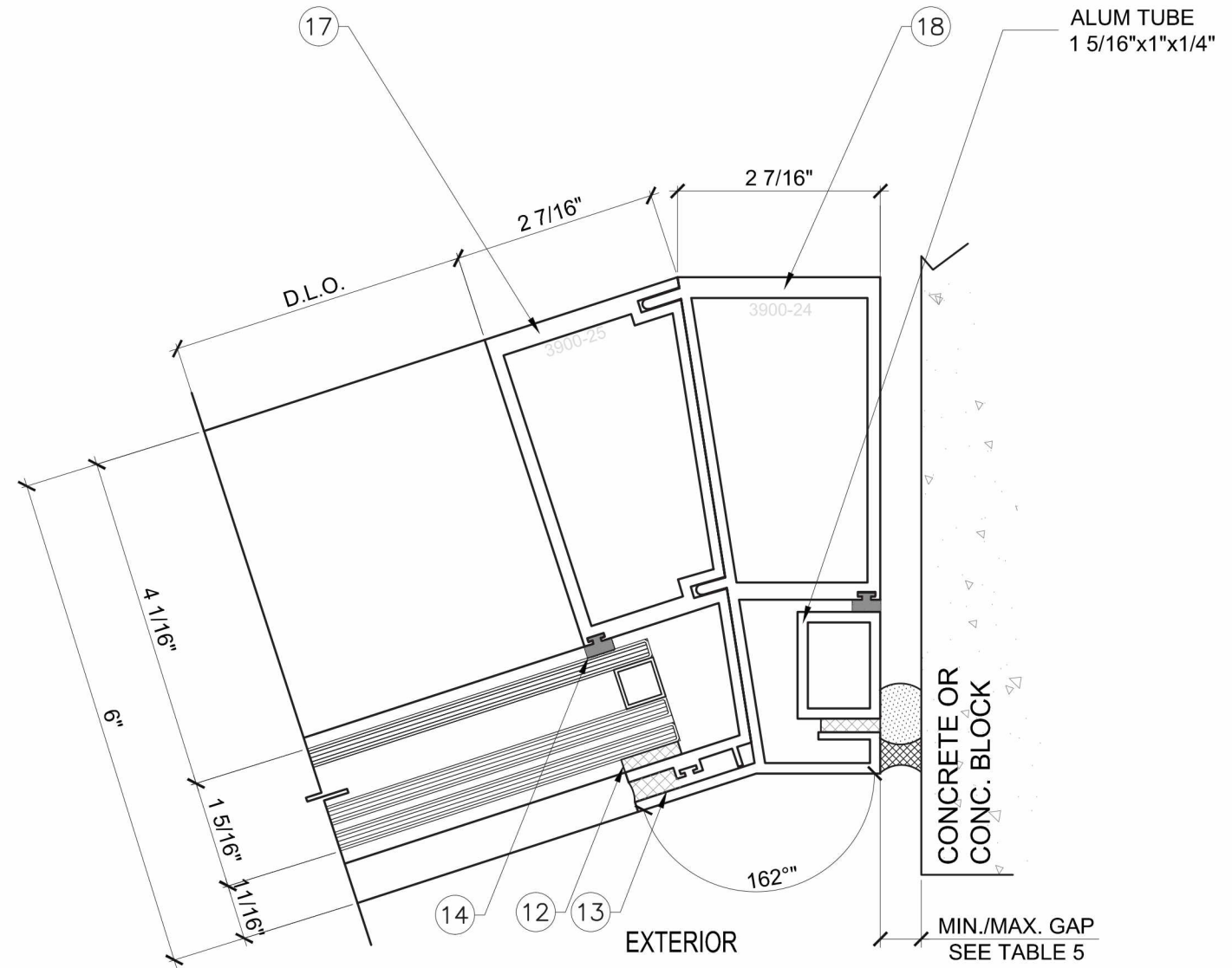
REGISTERED PROFESSIONAL ENGINEER

No 55983

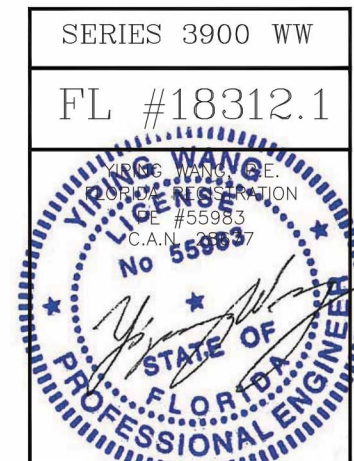
STATE OF FLORIDA



DETAIL H
D3



DETAIL J
D3



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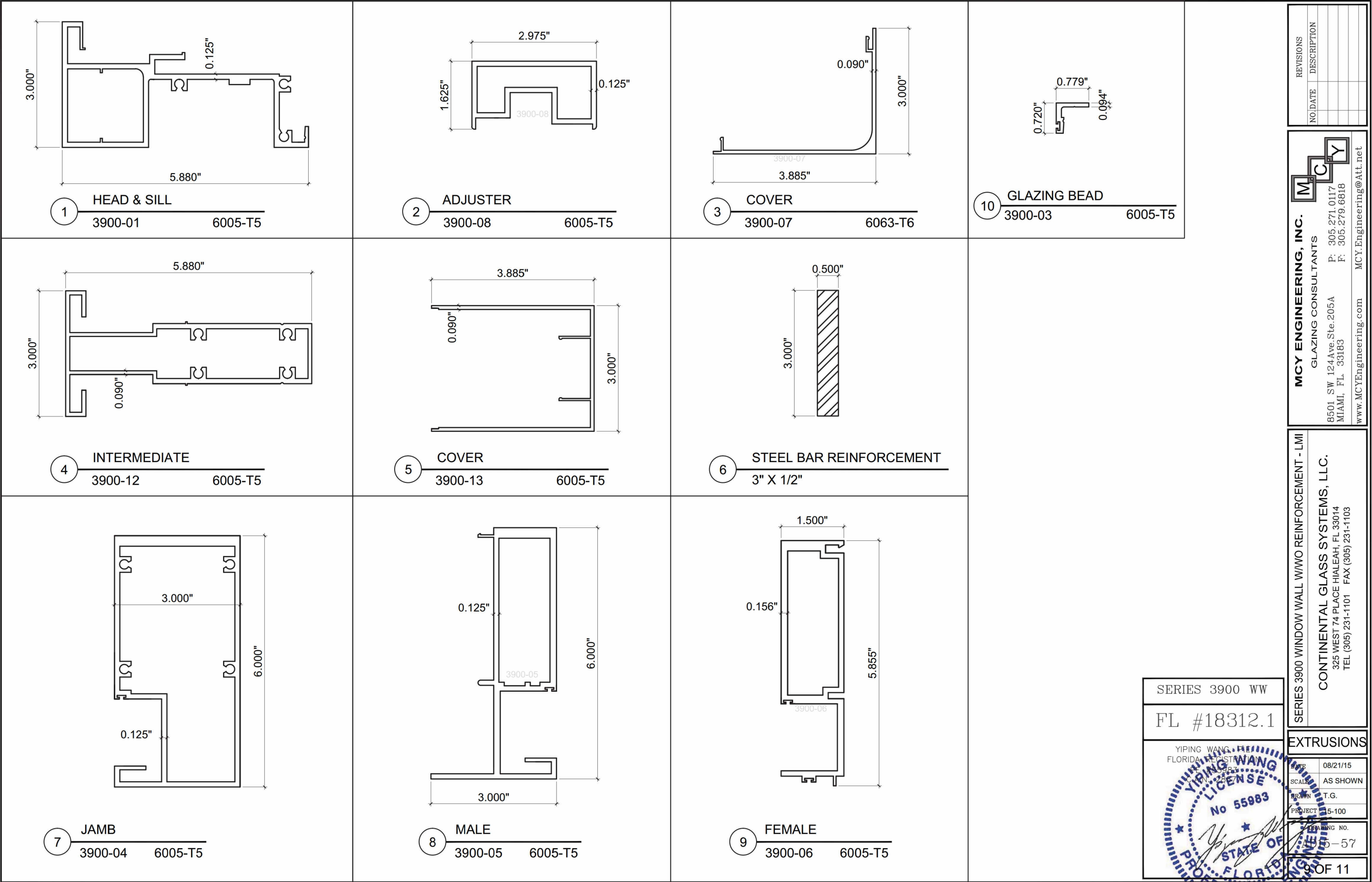
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D3	
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SERIES 3900 WW

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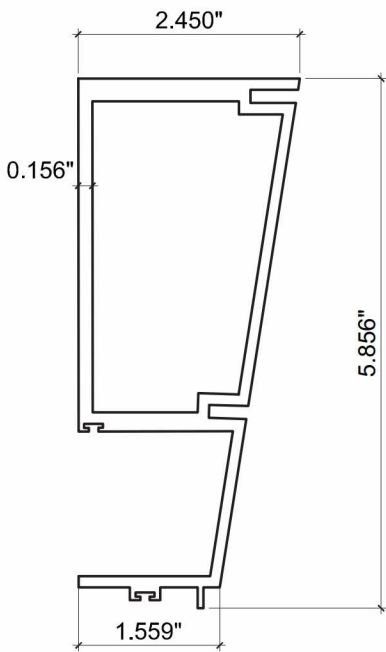
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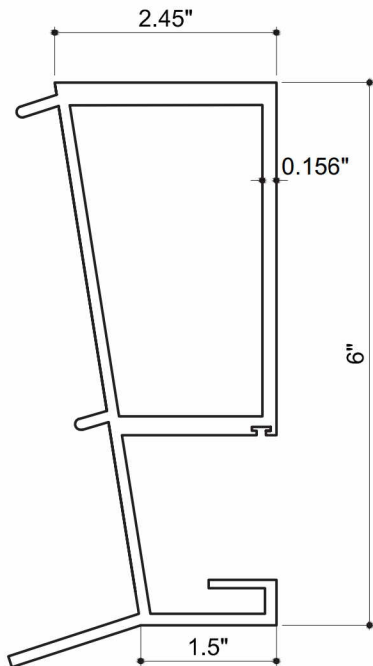
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EXTRUSIONS	
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BILL OF MATERIALS				
ITEM #	PROFILE	DESCRIPTION	MATERIAL	MANUFACTURER/REMARKS
1	3900-01	HEAD/SILL	ALUM. 6005-T5	-
2	3900-08	ADJUSTER	ALUM. 6005-T5	-
3	3900-07	COVER	ALUM. 6063-T6	-
4	3900-12	INTERMEDIATE	ALUM. 6005-T5	-
5	3900-13	COVER	ALUM. 6063-T6	-
6	-	1/2" X 3" STEEL BAR REINFORCEMENT	STEEL	A36 MIN.
7	3900-04	JAMB	ALUM. 6005-T5	-
8	3900-05	MALE	ALUM. 6005-T5	-
9	3900-06	FEMALE	ALUM. 6005-T5	-
10	3900-03	GLAZING BEAD	ALUM. 6005-T5	-
11	-	1/4 " X 3/4 " X 4 " SETTING BLOCK	SILICONE	-
12	-	DOW CORNING STRUCTURAL SEALANT DC983 OR DC795	SILICONE	DOW CORNING
13	-	DOW CORNING DC795 CONT. PERIMETER SEALANT	SILICONE	DOW CORNING
14	-	GASKET	POLYPROPYLENE / SANTOPRENE	ULTRA FAB
15	-	DOW CORNING DC790 CONT. PERIMETER SEALANT AND BACKER ROD	SILICONE	DOW CORNING
16	-	1/2" X 5" STEEL BAR REINFORCEMENT	STEEL	A36 MIN.
17	3900-25	FEMALE MULLION	ALUM. 6005-T5	-
18	3900-24	MALE MULLION	ALUM. 6005-T5	-



17 FEMALE MULLION
3900-25 6005-T5



18 MALE MULLION
3900-24 6005-T5

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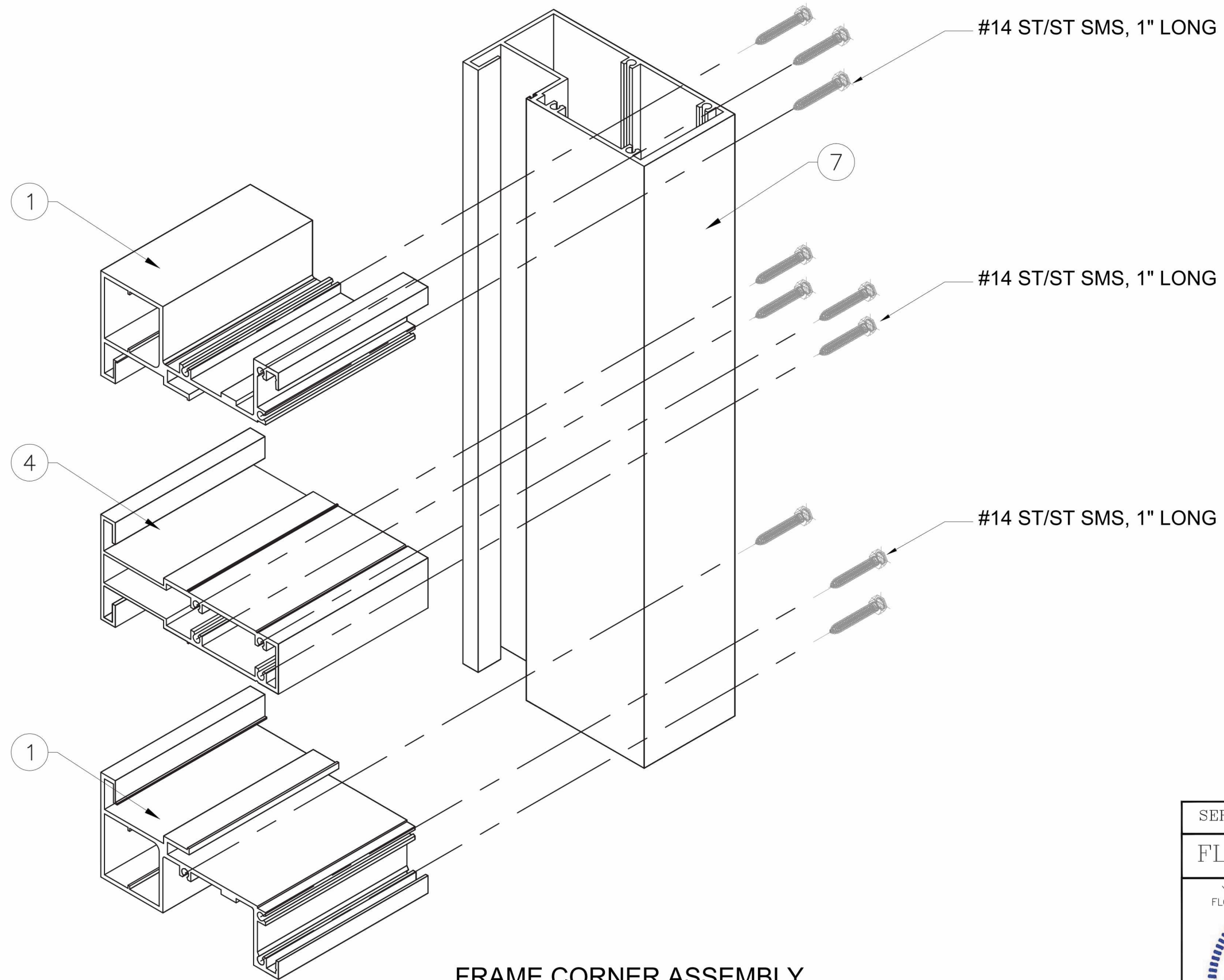
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DRAWN T.G.
PROJECT 15-100
DRAWING NO. 15-57
10 OF 11



FRAME CORNER ASSEMBLY
TOP AND BOTTOM

SERIES 3900 WW

FL #18312.1

YIPING WANG
FLORIDA REGISTERED PROFESSIONAL ENGINEER
No 55983

ISO

DATE	08/21/15
SCALE	AS SHOWN
DRAWN	T.G.
PROJECT	15-100
DRAWING NO.	15-57

SERIES 3900 WINDOW WALL W/WO REINFORCEMENT - LMI

CONTINENTAL GLASS SYSTEMS, LLC.
325 WEST 74 PLACE HIALEAH, FL 33014
TEL (305) 231-1101 FAX (305) 231-1103

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REVISIONS	
NO.	DATE