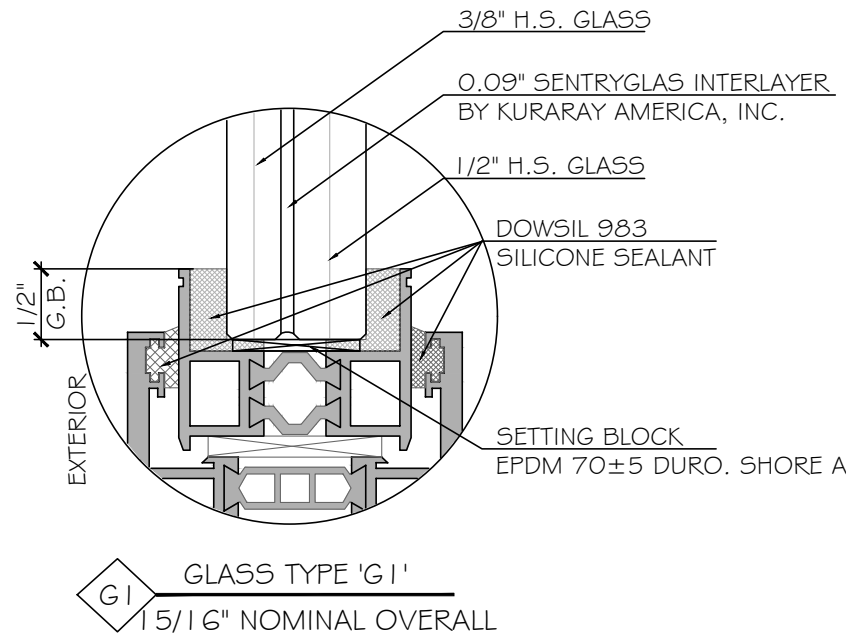


# KELLER MINIMAL WINDOWS S.A. SH LFI SLIDING GLASS DOOR LARGE MISSILE IMPACT (LMI)



**NOTE:**  
GLASS COMPLIES WITH ASTM E 1300-09 (3 SEC. GUSTS).

**GENERAL NOTES:**

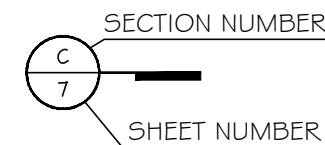
- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 8TH EDITION FLORIDA BUILDING CODE 2023. INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ). WINDOWS RATED FOR LARGE MISSILE IMPACT. IMPACT SHUTTERS ARE NOT REQUIRED.
- THESE WINDOWS ARE APPROVED FOR AIR AND WATER INFILTRATION.
- 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 FLORIDA BUILDING CODE 2023 SECTION AS APPLICABLE.
- MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE LABELING TO COMPLY WITH SECTION 1709.9.2.
- METAL STRUCTURES NOT BY OTHERS TO BE 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 7-22, 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.
- MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE LABELING TO COMPLY WITH SECTION 1709.9.2.
- **SEALANTS:**  
ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER GLAZING BEAD TO FRAME INSTALLATION FASTENERS SEALED WITH SILICON SEALANT.

USE CHARTS AS FOLLOWS.

- STEP 1:** DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-16 STANDARD OR WIND TUNNEL REPORTS.
- STEP 2:** SEE SHEET E1 & E2 FOR APPROVED TYPICAL ELEVATION & CONFIGURATION.
- STEP 3:** ANCHOR TYPE SEE SHEET A1. ANCHOR LAYOUT SEE SHEET E1 & E2.
- STEP 4:** THE LOWEST VALUE RESULTING FROM STEPS 2 & 3 THAT EXCEED THE DESIGN WIND PRESSURES DETERMINED THRU STEP 1 SHALL APPLY TO ENTIRE SYSTEM.

**ABBREVIATIONS AND SYMBOLS**

- D.L.O. - DAYLITE OPENING
- F.H. - FRAME HEIGHT
- F.W. - FRAME WIDTH
- W/ - WITH
- W/O - WITHOUT
- O.C. - ON CENTER
- G.B. - GLASS BITE



**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.

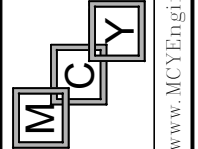
FLORIDA APPROVAL:

**FL46854**

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

SH-LFI SLIDING GLASS DOOR - LARGE MISSILE IMPACT

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38-40 ROUTE DE WILVERDANGE  
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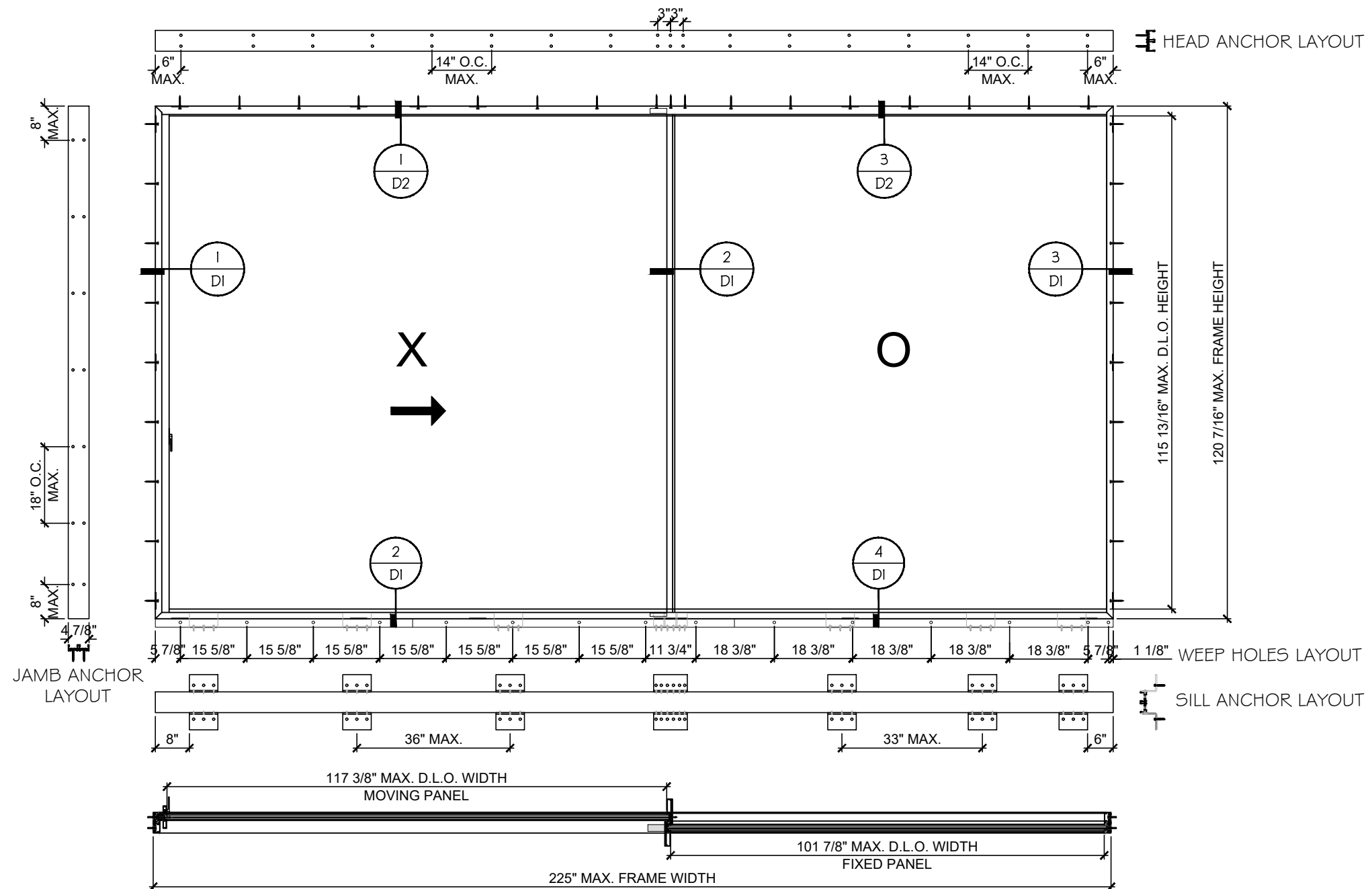
Rev. No.	Date	Drawn By	Description
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**COVER**

Sheet No.  
**1 OF 11**



TYPICAL EXTERIOR ELEVATION  
XO / OX

DESIGN LOADS - PSF  
+60 / -80

NOTE: FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC.

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**E1**

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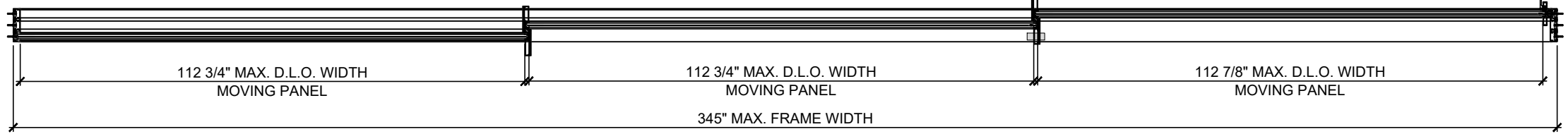
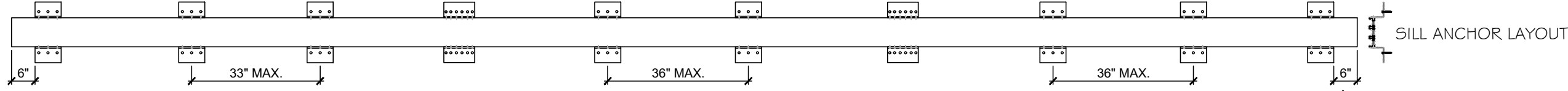
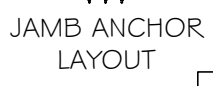
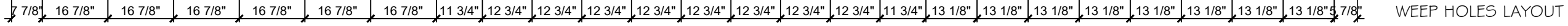
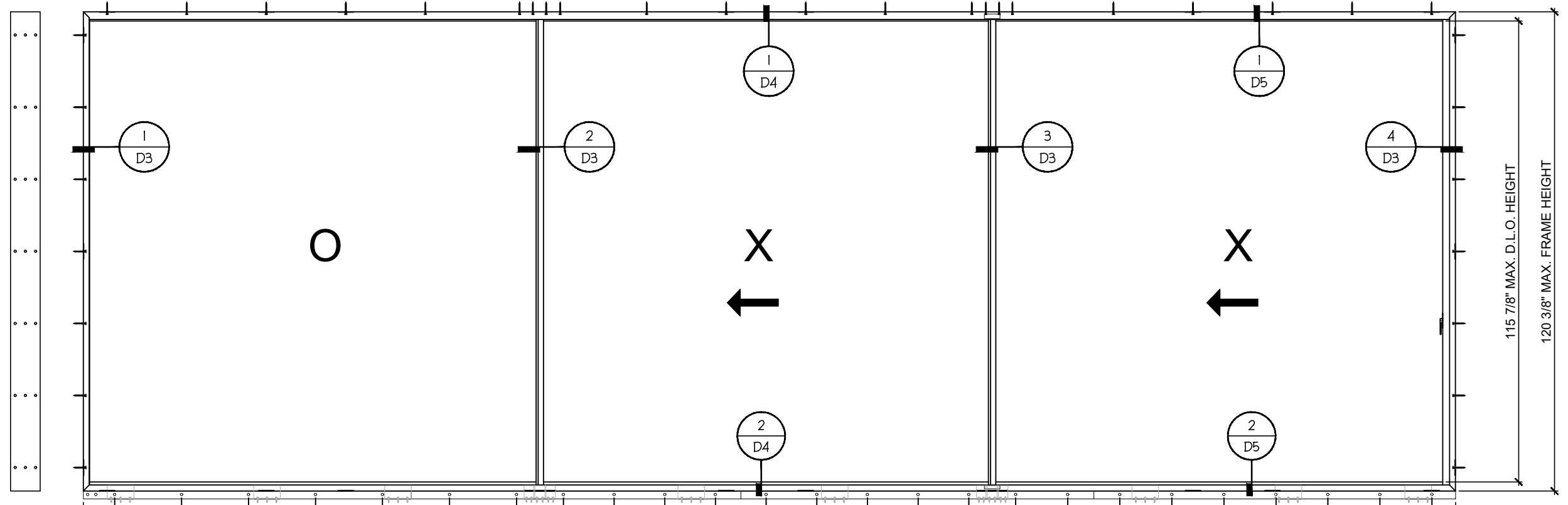
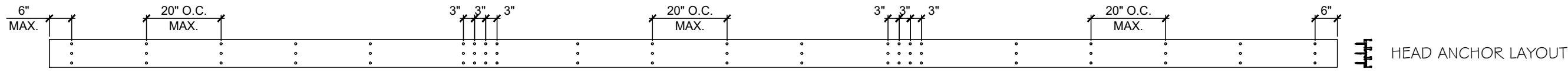
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**E2**

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**3 OF 11**

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TYPICAL EXTERIOR ELEVATION  
OXX

DESIGN LOADS - PSF  
+60 / -80

NOTE: FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC.

TYPICAL ANCHORS

ANCHOR TYPE 'A' - 5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177KSI, Fy=155KSI)  
 INTO 2BY WOOD BUCKS OR WOOD WOOD STRUCTURE (HEAD/JAMB/SILL)  
 WITH 1 1/2" MIN. PENETRATION.

OR THROUGH 1X WOOD BUCKS INTO CONCRETE OR BLOCK  
 1 3/4" MIN. EMBEDMENT INTO CONCRETE  
 1 3/4" MIN. EMBEDMENT INTO BLOCK

DIRECTLY INTO CONCRETE OR BLOCKS  
 1 3/4" MIN. EMBEDMENT INTO CONCRETE  
 1 3/4" MIN. EMBEDMENT INTO BLOCK

ANCHOR TYPE 'B' - 5/16" DIA. TEKS OR SELF-DRILLING SCREWS (GRADE 5 CRS)  
 INTO FBC APPROVED MULLIONS OR METAL STRUCTURES (HEAD/JAMB)  
 (3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE.

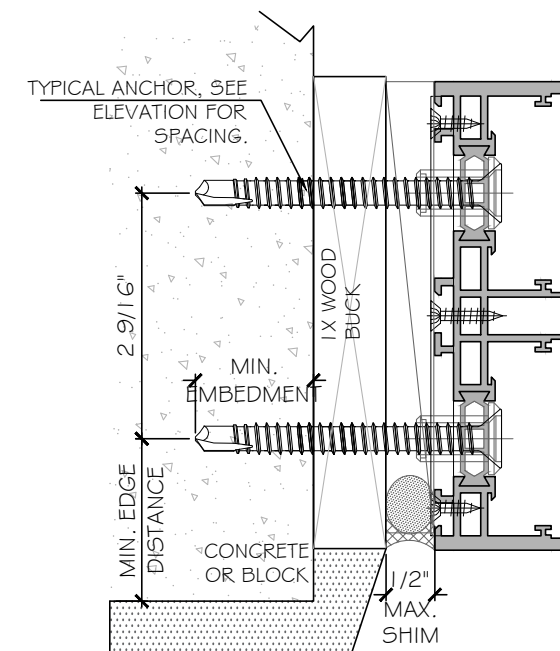
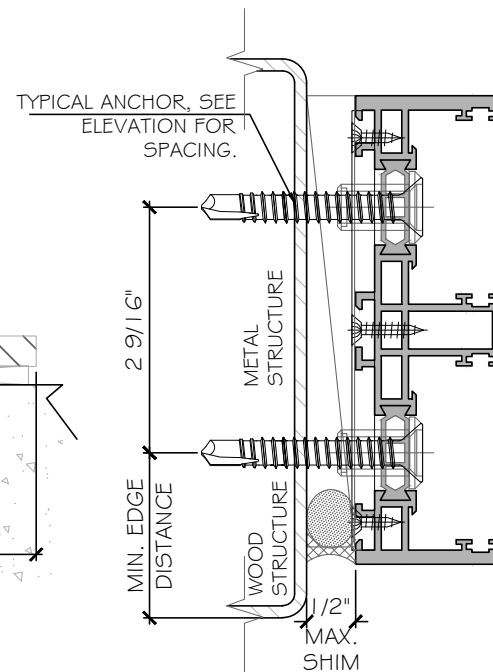
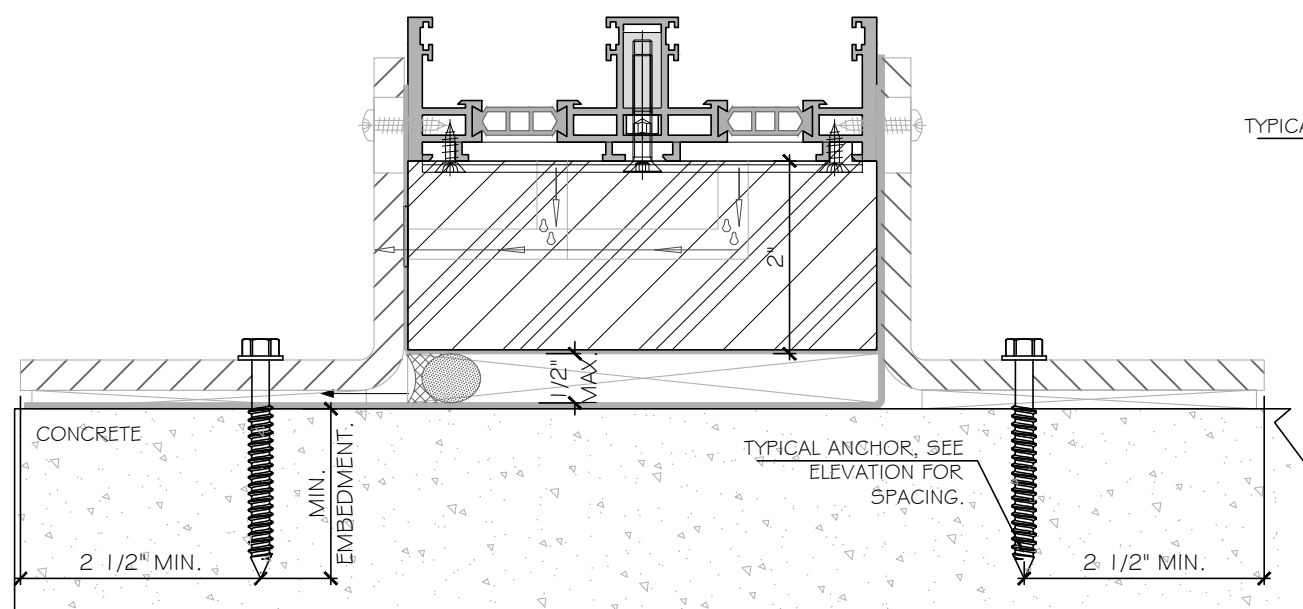
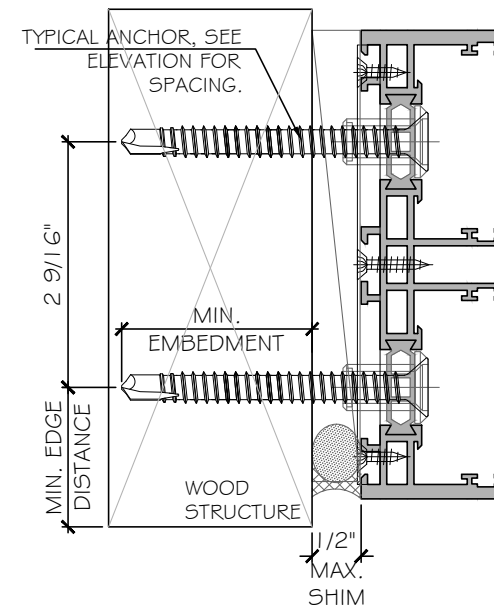
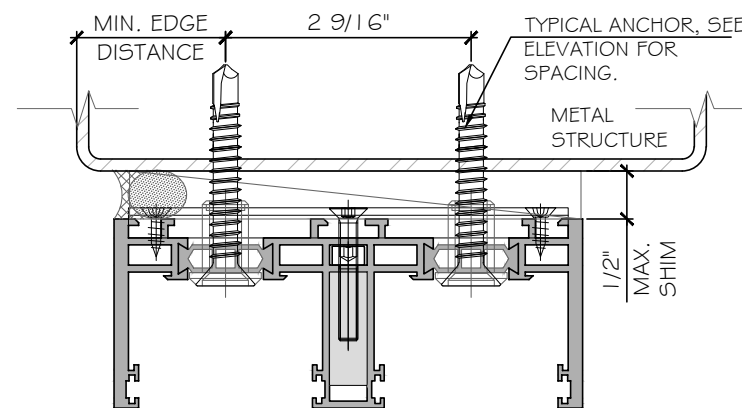
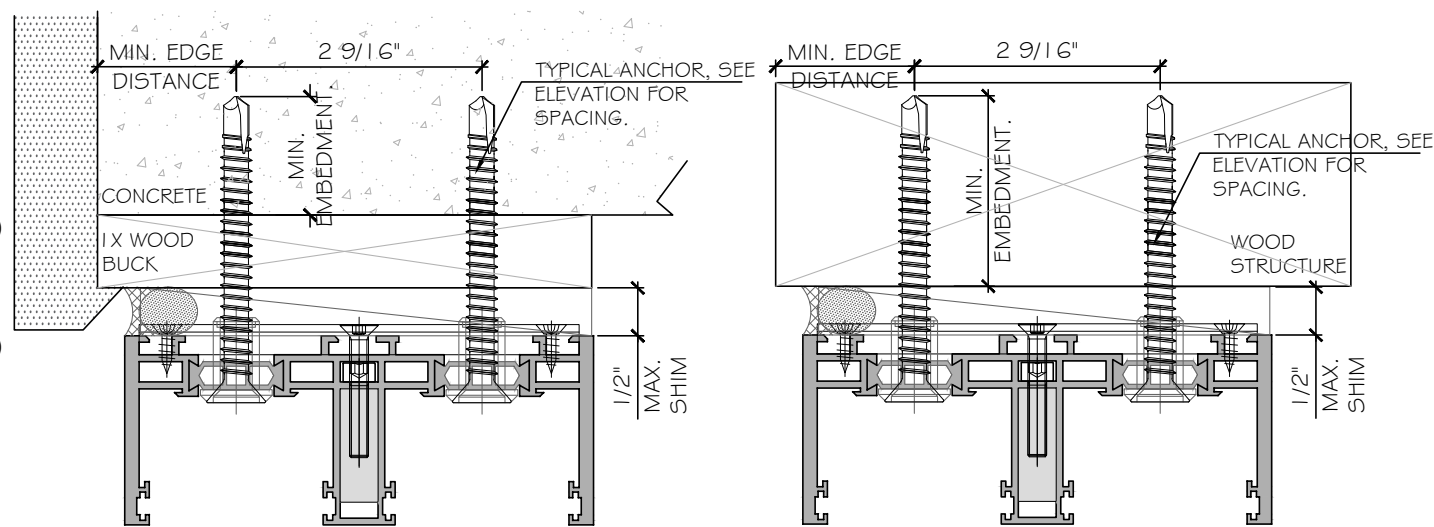
TYPICAL EDGE DISTANCE

INTO CONCRETE OR GROUT FILLED BLOCKS = 2-1/2" MIN.  
 INTO METAL STRUCTURE = 3/4" MIN.  
 INTO WOOD STRUCTURE = 1 1/4".  
 INTO HOLLOW BLOCK = 3 1/8"

SUBSTRATE

WOOD SG=0.55 MIN.  
 CONCRETE f'c=3 ksi MIN.  
 C-90 HOLLOW/FILLED BLOCK AT JAMB f'm=2 ksi MIN.  
 ALUMINUM: 1/8" MIN. THK. (6063-T5, MIN.)  
 STEEL: 1/8" THK. MIN. ASTM A653 GRADE 33 (Fy=33 ksi) MIN.  
 STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED.

NOTE:  
 METAL/ WOOD STRUCTURE BY OTHERS MUST BE DESIGNED AND  
 ANCHORED PROPERLY TO SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM  
 AND TRANSFER THEM TO THE BUILDING STRUCTURE.



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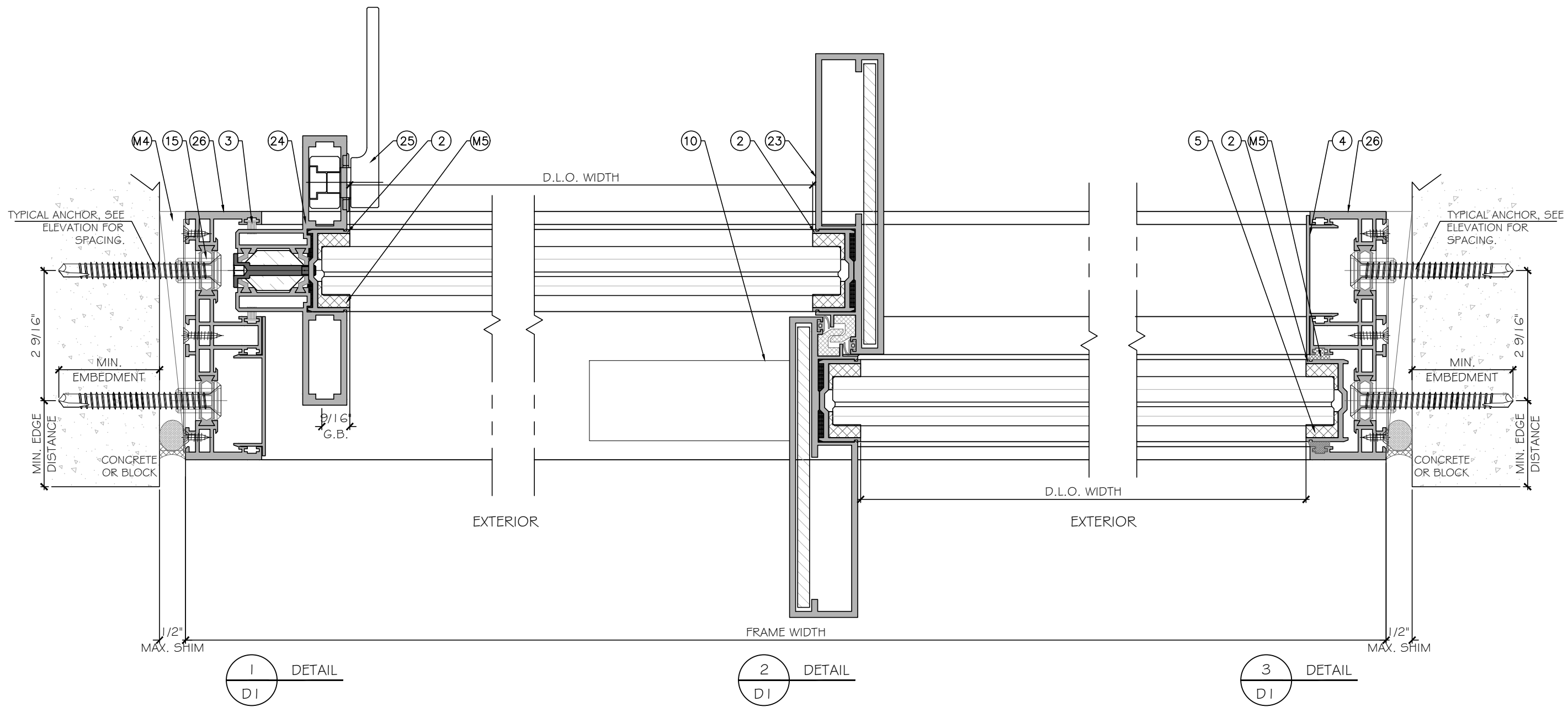
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**A1**

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**4 OF 11**



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D1  
DETAIL

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D1  
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D1  
DETAIL

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Email: werner.jager@keller-minimal-windows.com

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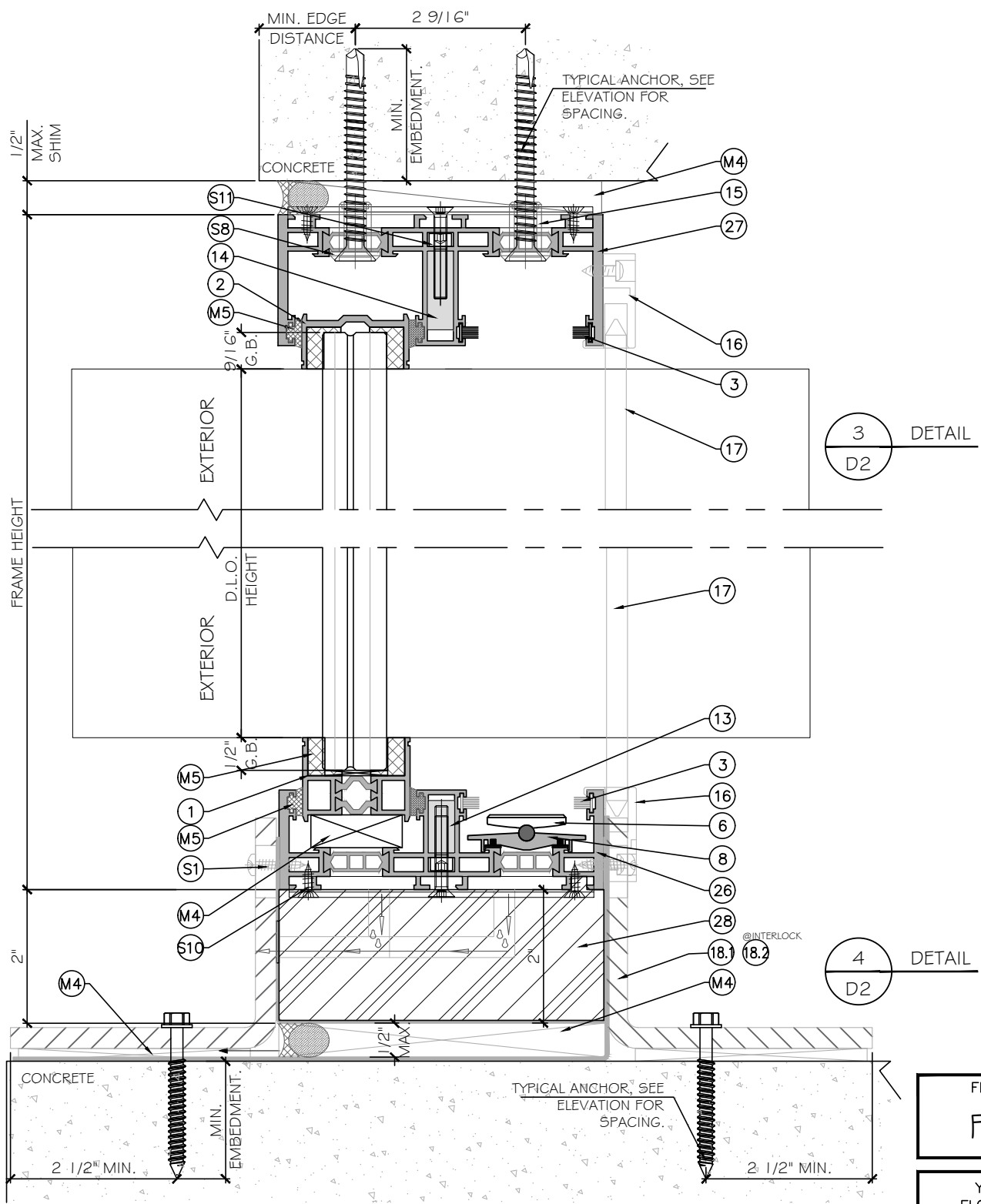
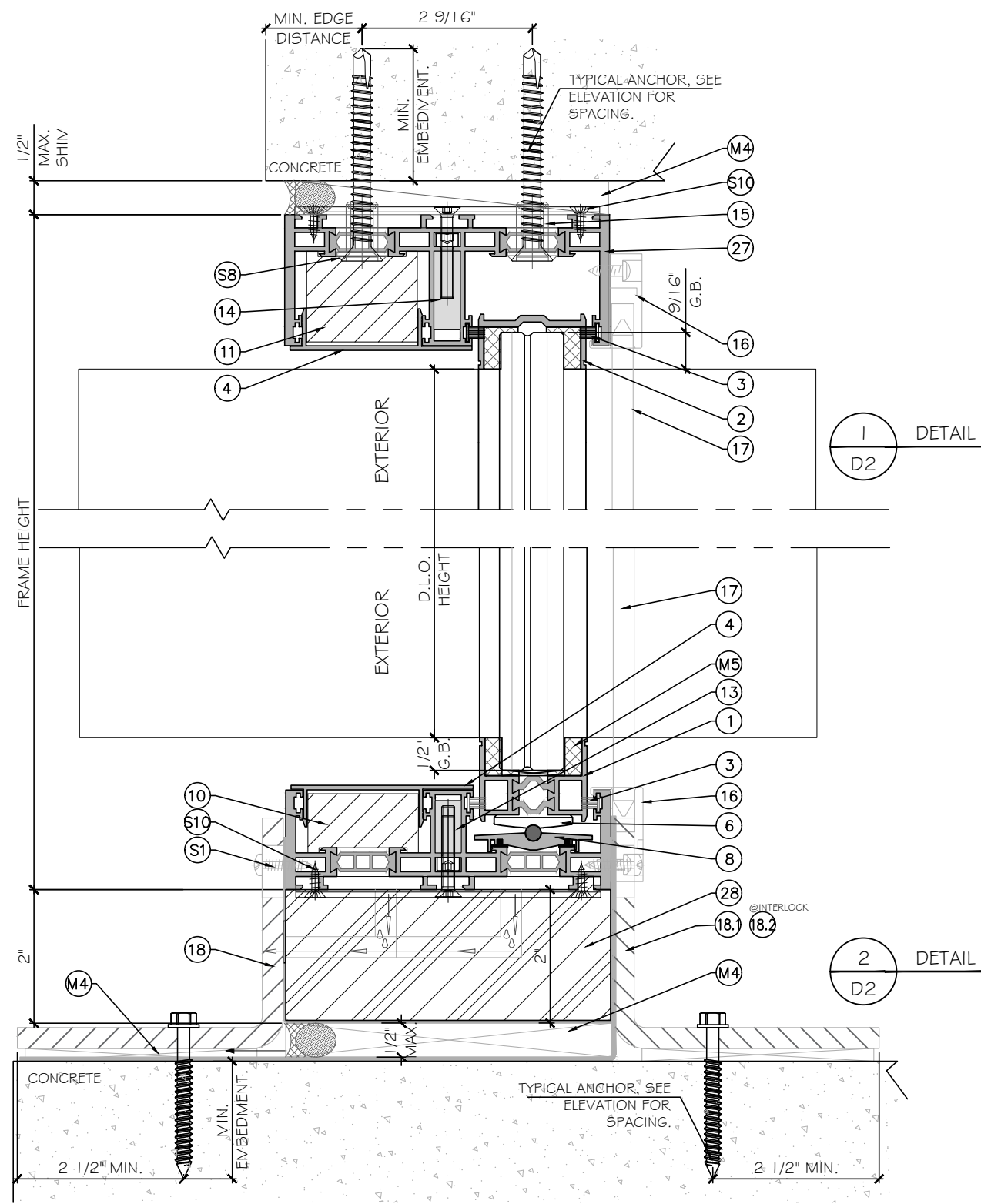
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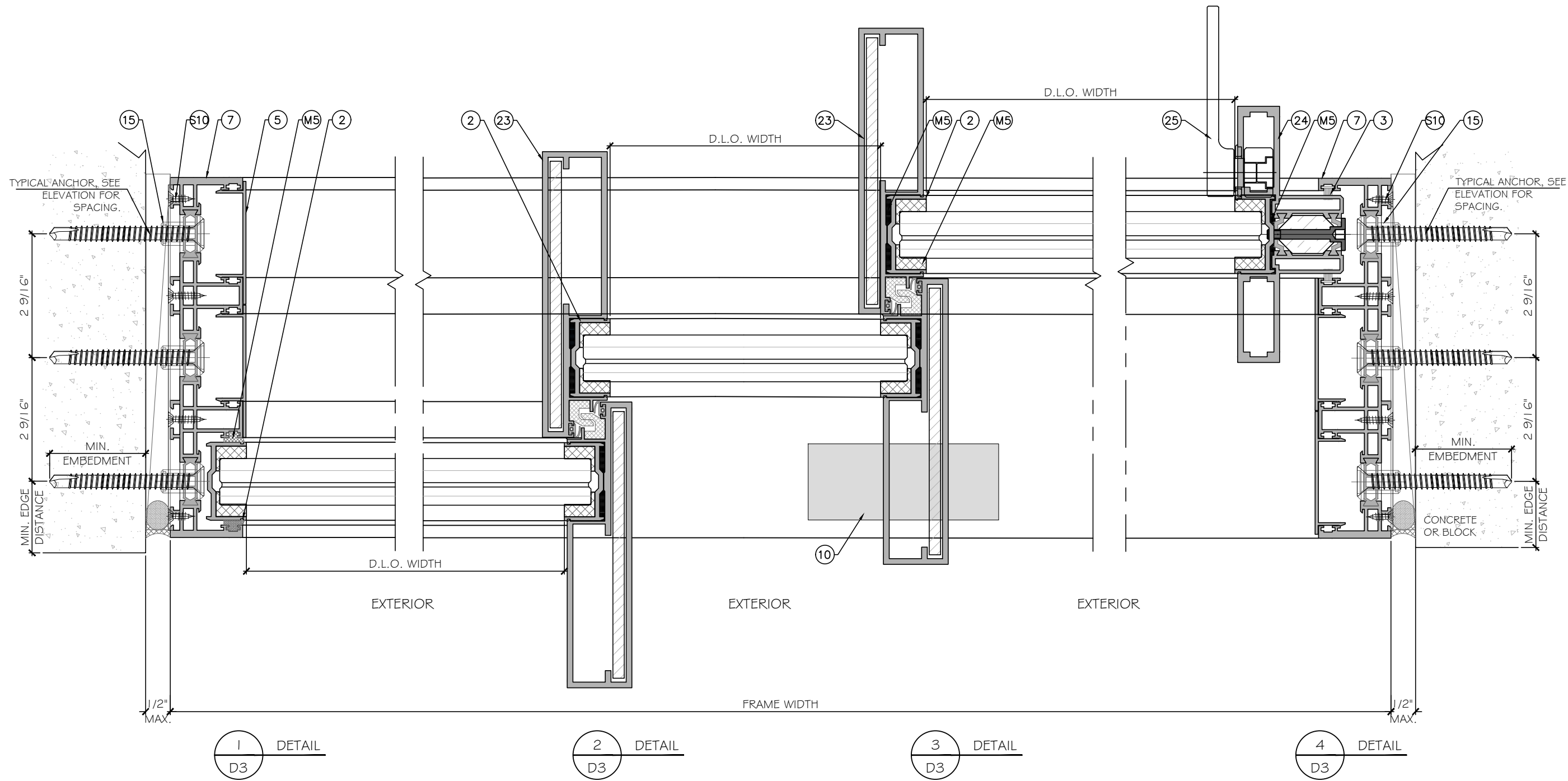
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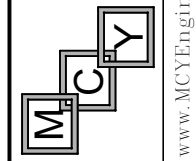
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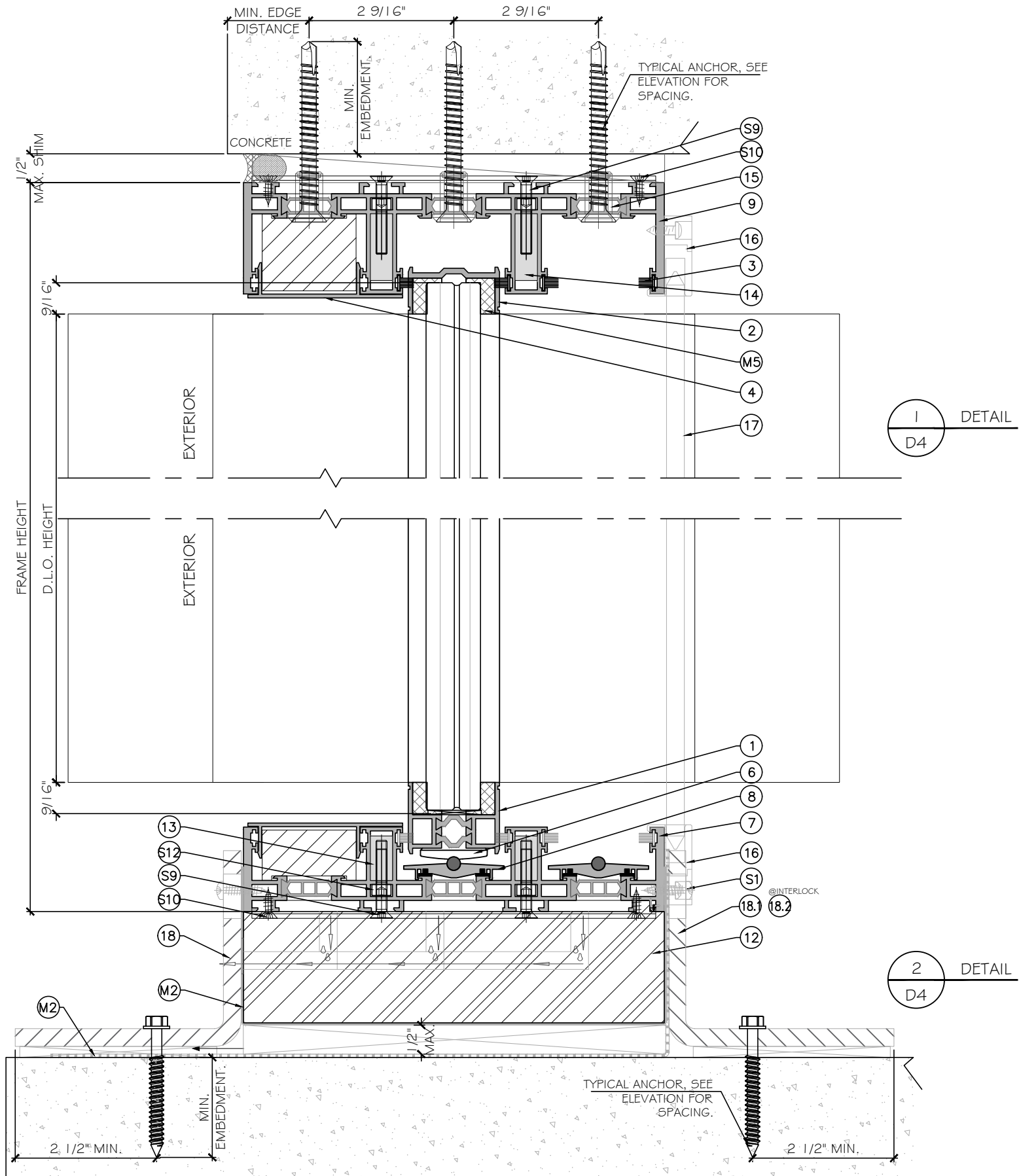
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**7 OF 11**



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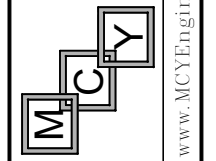
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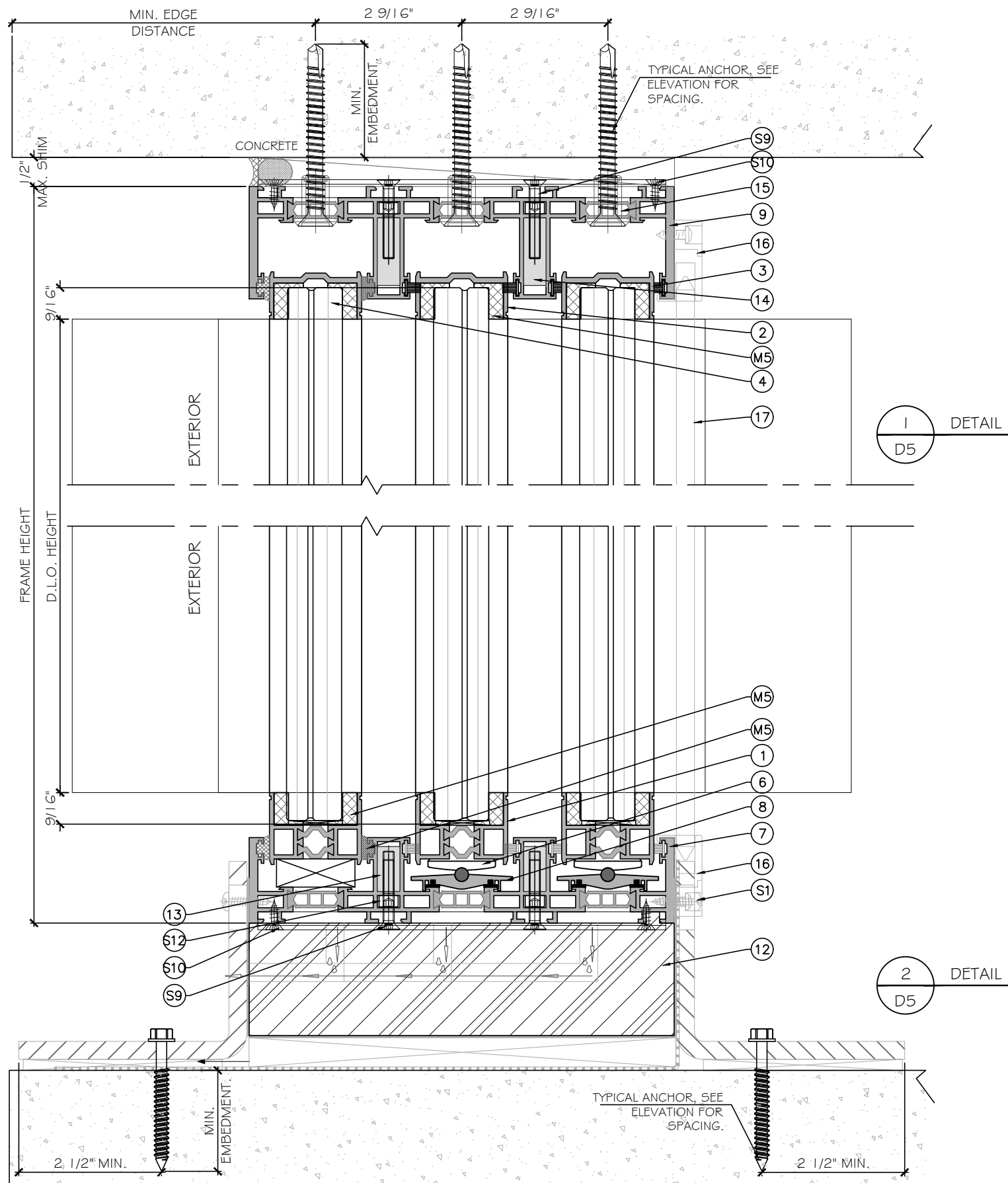
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1  
D5  
DETAIL

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DETAIL

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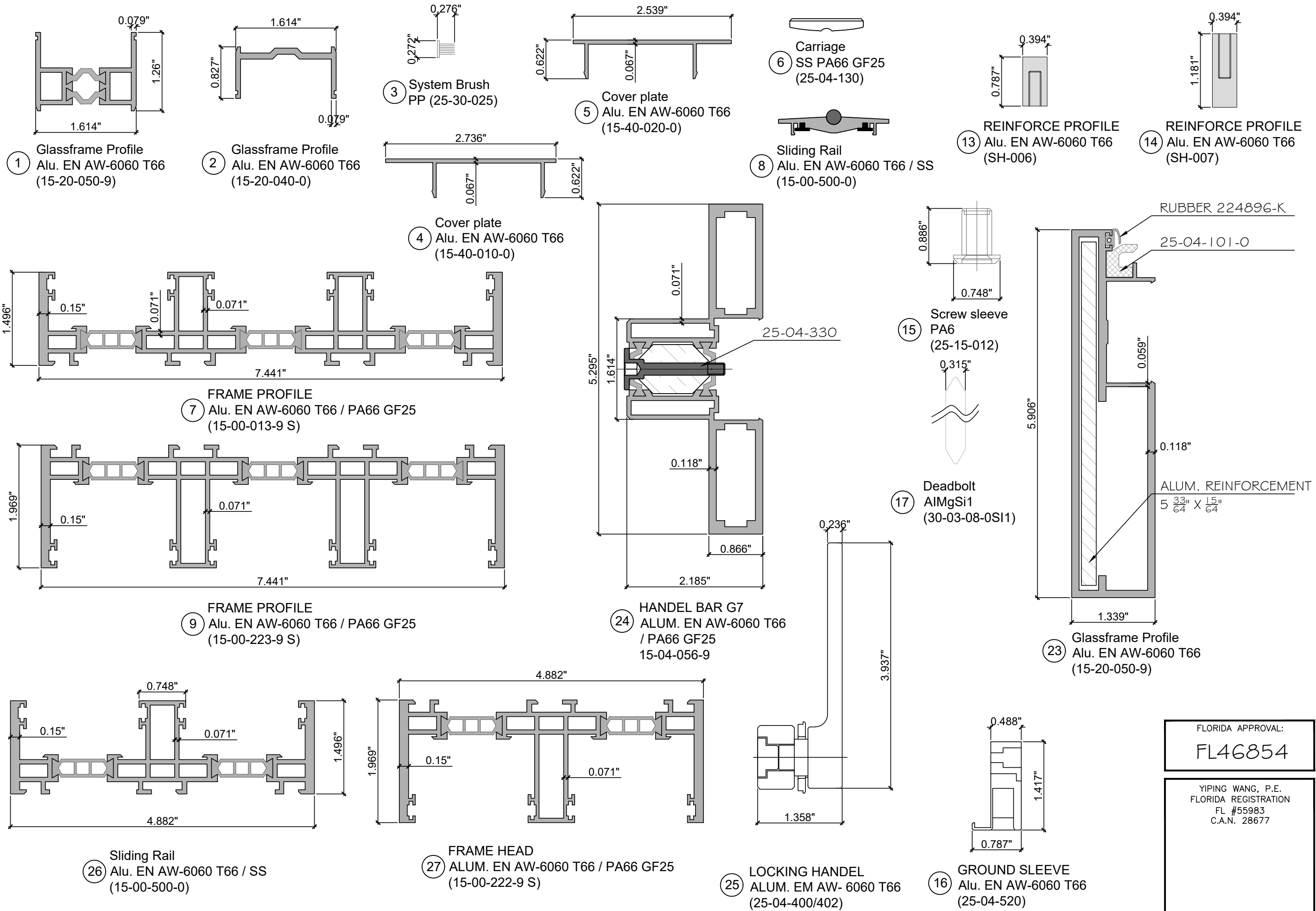
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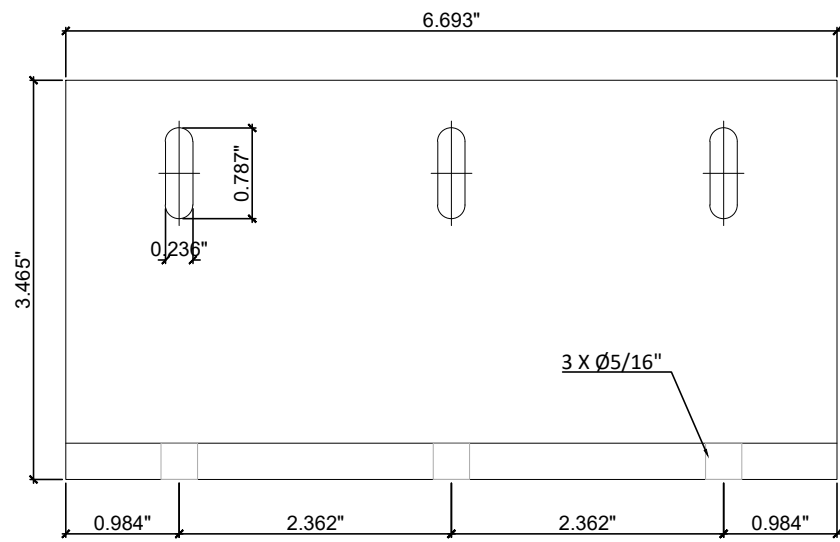


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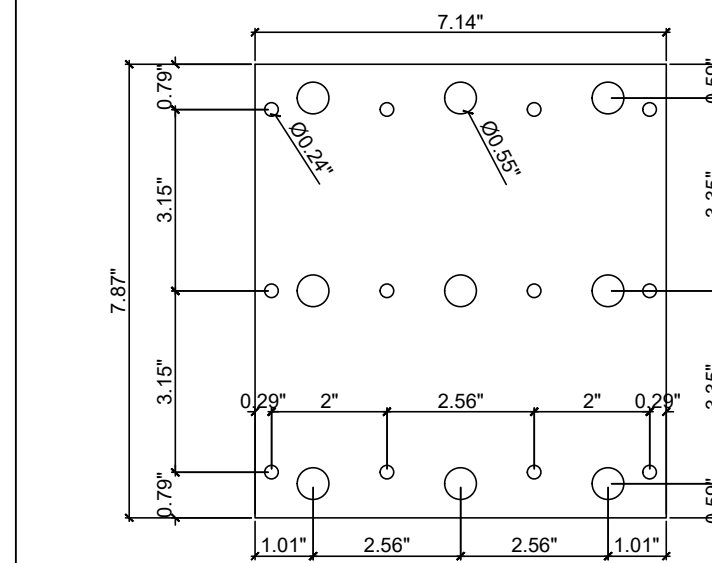
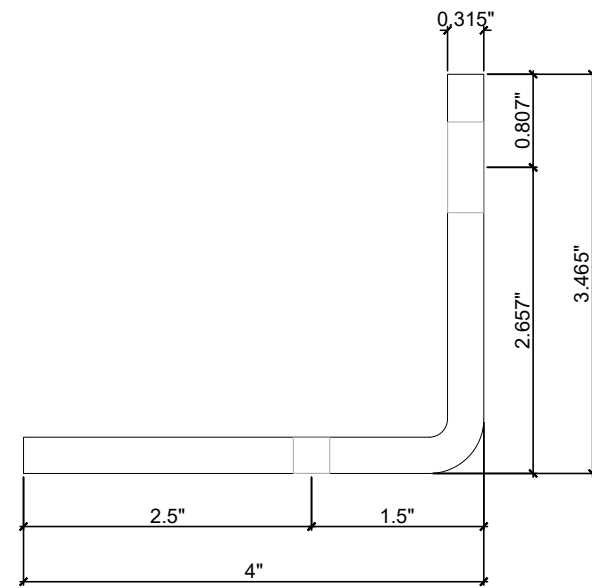
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<b>10 OF 11</b>	

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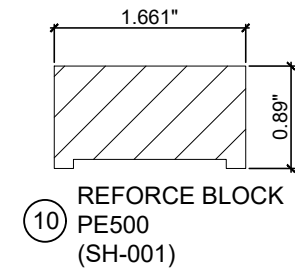
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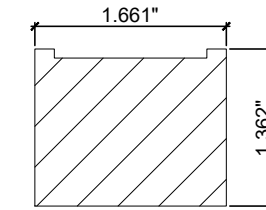
(18.1) Reinforcement Socket  
Steel 0.315" S355JR  
(SH-008)



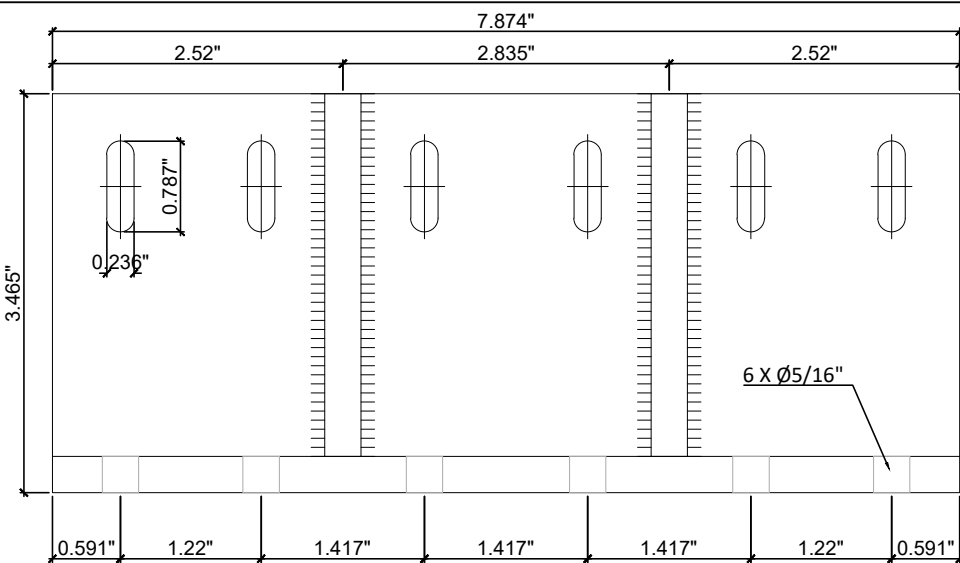
(21.1) Reinforcement Top  
Alu. EN AW-6060 T66  
5/16" thick  
2:1 (SH-011)



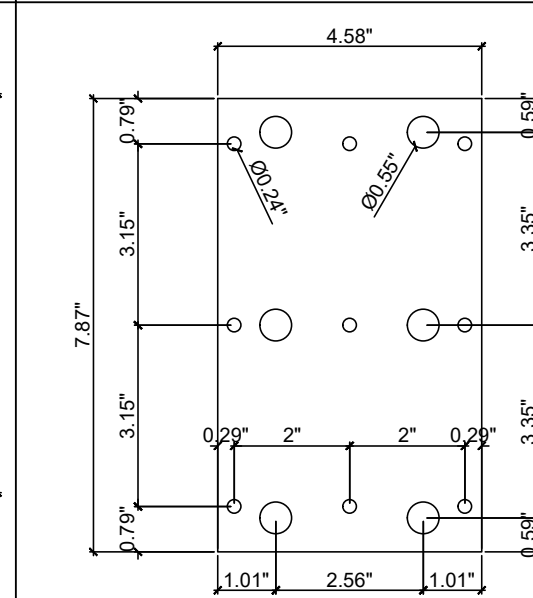
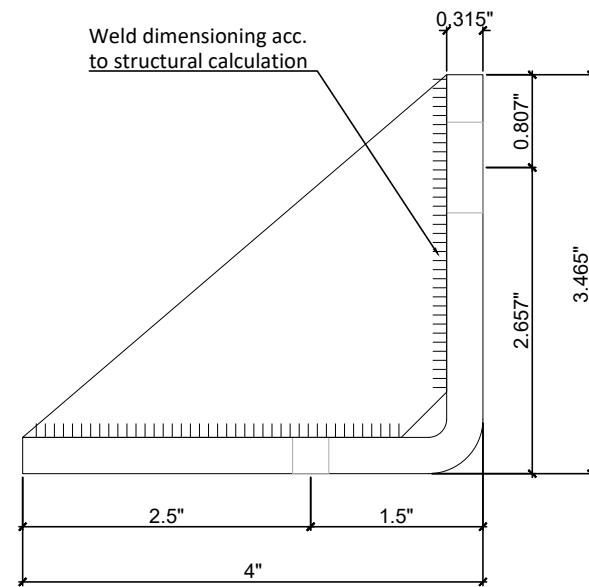
(10) REFORCE BLOCK  
PE500  
(SH-001)



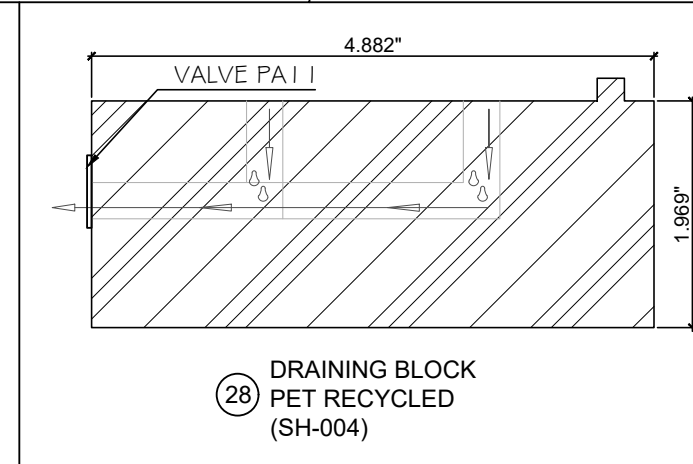
(11) REFORCE BLOCK  
PE500  
(SH-002)



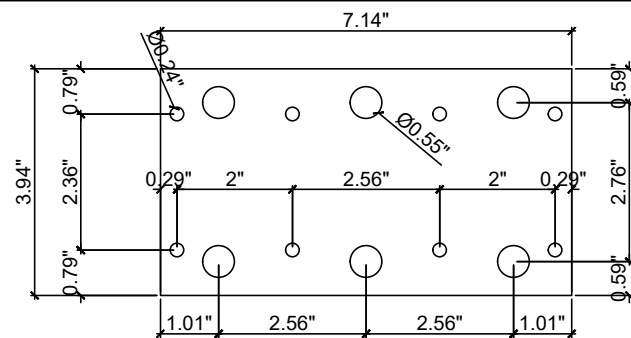
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Steel 0.315" S355JR  
(SH-008)



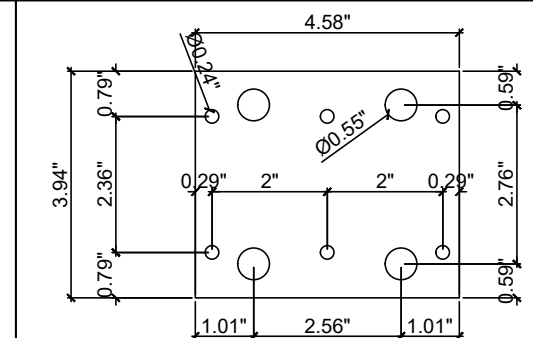
(21.2) Reinforcement Top  
Alu. EN AW-6060 T66  
5/16" thick  
2:1 (SH-011)



(28) DRAINING BLOCK  
PET RECYCLED  
(SH-004)



(22.1) Reinforcement Top  
Alu. EN AW-6060 T66  
15/64" thick  
2:1 (SH-012)



(22.2) Reinforcement Top  
Alu. EN AW-6060 T66  
15/64" thick  
2:1 (SH-012)

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**11 OF 11**