

C.T. WINDOWS INC

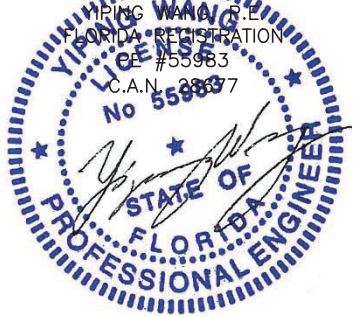
9195 Boggy Creek Road Suite #1
Orlando, Florida 32824
(407) 857-9237
http://www.ctwindowsinc.com/

PRODUCT:
SERIES 3 IR
HYBRID CURTAINWALL
(LARGE AND SMALL
MISSILE IMPACT)
(FOR NON HVHZ)

REVN	DATE/REMARKS
R3	UPDATE FBC 2023

ENGINEER:

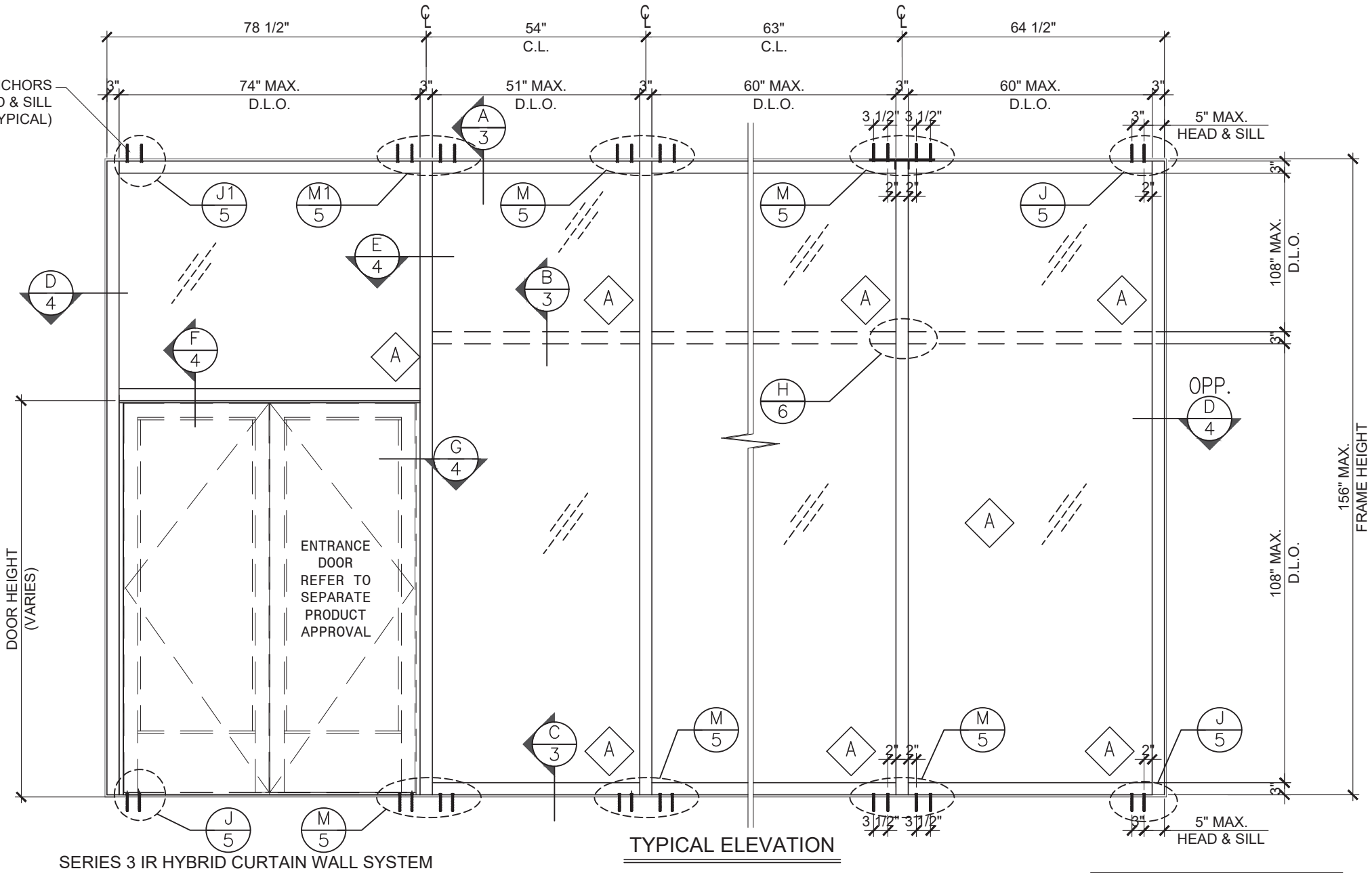
MCY ENGINEERING, INC.
GLAZING CONSULTANT
12871 Miramar Pkwy Ste. 301
Miramar, FL 33027
P: 305-271-0117
Email: www.MCYEngineering.com
mcy@mcyengineering.com

STAMP:

November 16th, 2023

FLORIDA PRODUCT APPROVAL:

FL #17589

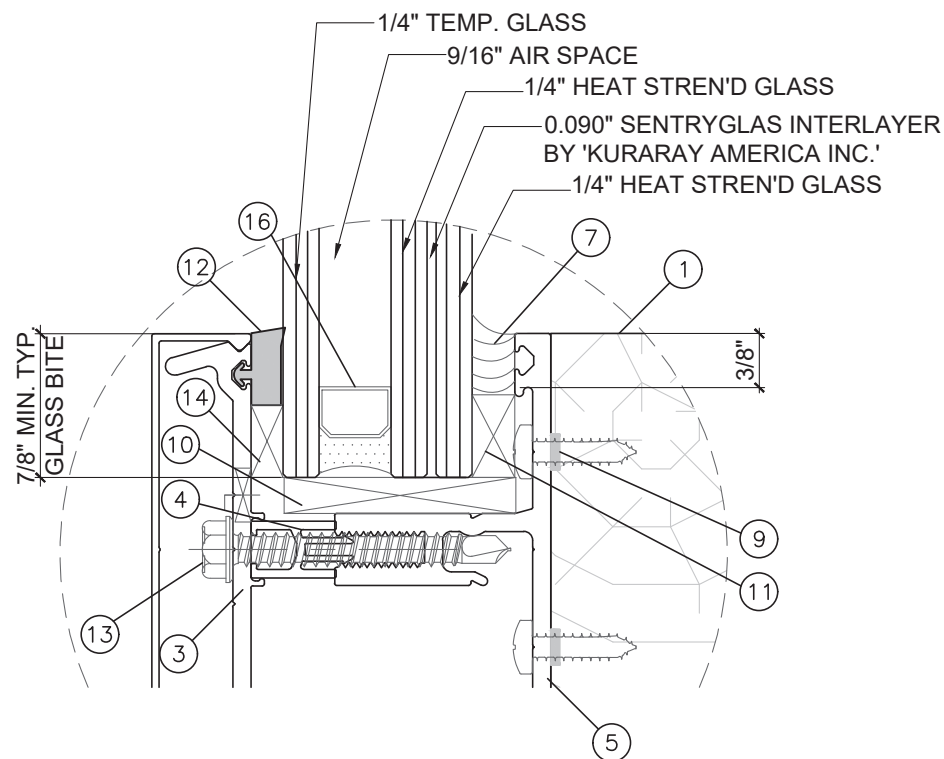
DRAWN: James	DRAWING No:
DATE: 11.15.2023	1 OF 7
DWG: AD15-24	



- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 8TH EDITION (2023)
- SERIES 3 IR CURTAIN WALL SYSTEM IS RATED FOR LARGE AND SMALL MISSILE IMPACT. NOT INCLUDING IN HVHZ. SHUTTERS ARE NOT REQUIRED FOR NON HVHZ.
 - 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.
 - THIS SYSTEM MAY BE USED IN CONJUNCTION WITH A FLORIDA/MIAMI DADE COUNTY APPROVED ENTRANCE DOORS.
 - WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE MAIN STRUCTURE.
 - 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.
 - A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.
 - MATERIALS INCLUDING BUT NOT LIMITED TO STEEL / METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 8TH EDITION 2023.
 - CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.
 - 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.

DESIGN LOADS
(FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC)
+80.0 PSF
-80.0 PSF

- 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.



GLASS TYPE 'A'
1-5/16" NOMINAL OVERALL

MAX. GLASS AREA = 44 SQFT.

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

TYPICAL ANCHORS: SEE ELEVATION FOR SPACING

±80 PSF MAX.	TYPE A	3/8" POWER WEDGE BOLT (AT MULLION DETAIL (M) (M1) AT JAMB DETAIL (J) (J1)) • THRU 1BY BUCKS INTO CONCRETE 3-1/2" MIN. EMBED INTO CONC. • THRU 2BY WOOD BUCKS OR WOOD STRUCTURE 1-1/2" MIN. EMBED
	TYPE A1	3/8" POWER WEDGE BOLT (AT MULLION DETAIL (M) & AT JAMB DETAIL (J) ONLY) • DIRECTLY INTO CONC. 3-1/2" MIN. EMBED.
	TYPE B	1/2" POWER WEDGE BOLT (AT DOOR JAMB (M1) & DOOR JAMB MULLION (J1) ONLY) • DIRECTLY INTO CONC. 3-1/2" MIN. EMBED
	TYPE C	5/16" SMS OR SELF DRILLING SCREW (fu=120 KSI, fy=92 KSI) • INTO METAL STRUCTURES • INTO MIAMI-DADE COUNTY APPROVED MULLION 1/8" THK. (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)
±40 PSF MAX.	TYPE D	1/4" ULTRACON+ BY 'DEWALT' (fu=164 KSI, fy=148 KSI) • THRU 1BY BUCKS INTO CONC. 1-3/4" MIN. EMBED INTO CONC. • THRU 2BY WOOD BUCKS OR WOOD STRUCTURE 1-1/2" MIN. EMBED
	TYPE D1	1/4" ULTRACON+ BY 'DEWALT' (fu=164 KSI, fy=148 KSI) • DIRECTLY INTO CONC. 1-3/4" MIN. EMBED.
	TYPE E	1/4" SELF DRILLING SCREW (fu=120 KSI, fy=92 KSI) • INTO METAL STRUCTURES • INTO MIAMI-DADE COUNTY APPROVED MULLION 1/8" THK. (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

STEEL : 1/8" THK. MIN. (fy=36 KSI MIN.)

ALUMINUM: 1/8" THK. MIN. (6063-T6 MIN.)

CONCRETE

f'c= 3,000 PSI MIN.

WOOD

S.G. ≥ 0.55

ANCHOR EDGE DISTANCES

INTO CONCRETE = 3" MIN. (ANCHOR TYPE A1 AND TYPE B)

= 2 1/2" MIN. (ANCHOR TYPE D AND D1)

INTO WOOD STRUCTURE = 2" MIN.

INTO METAL STRUCTURE = 3/4" MIN.

SEALANT:

ALL CORNERS SEALED WITH ADHESIVE.

THE EXTERIOR PERIMETER OF THE WINDOW SEALED WITH SILICONE

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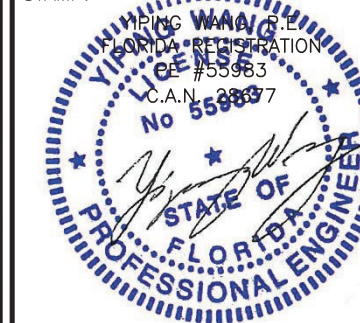
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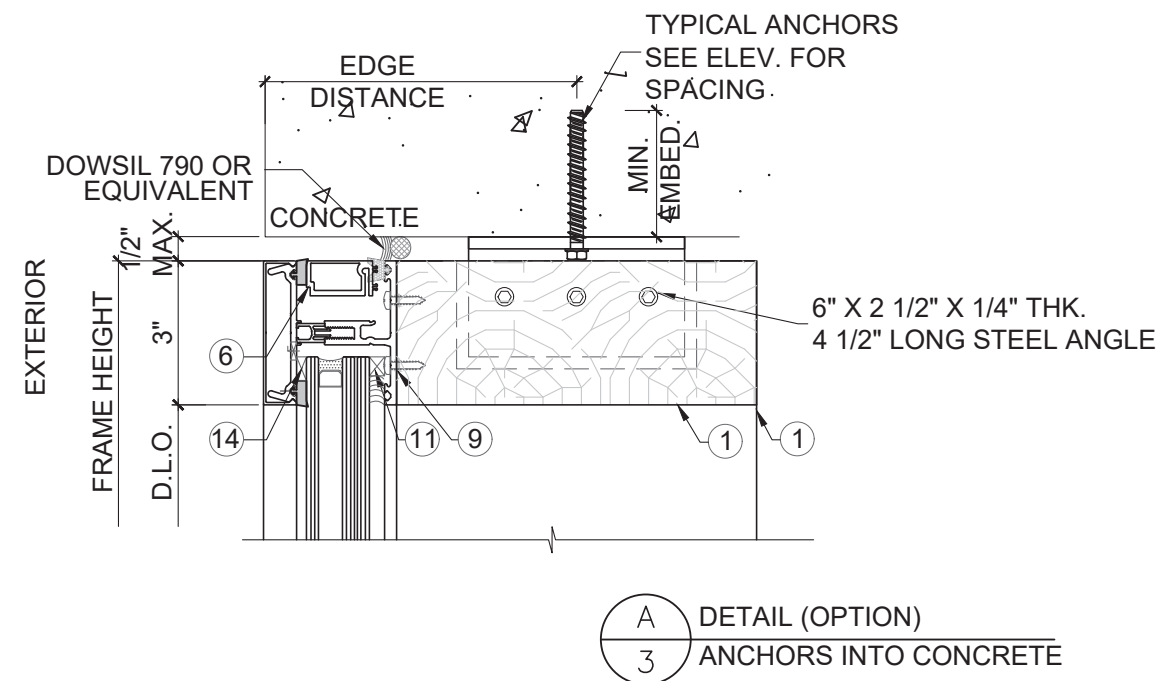
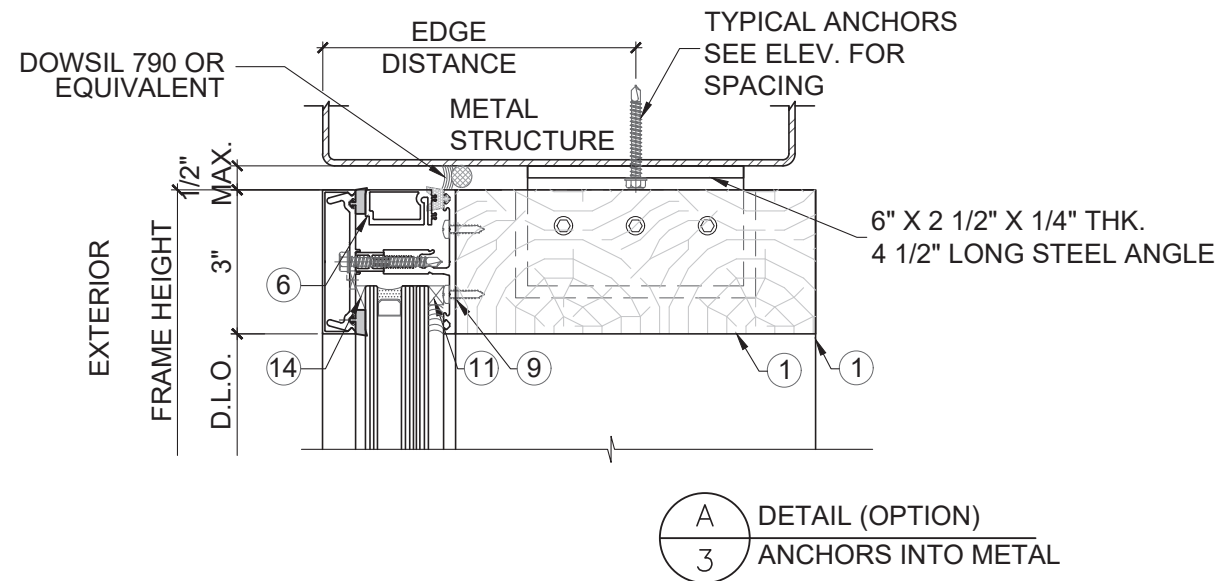
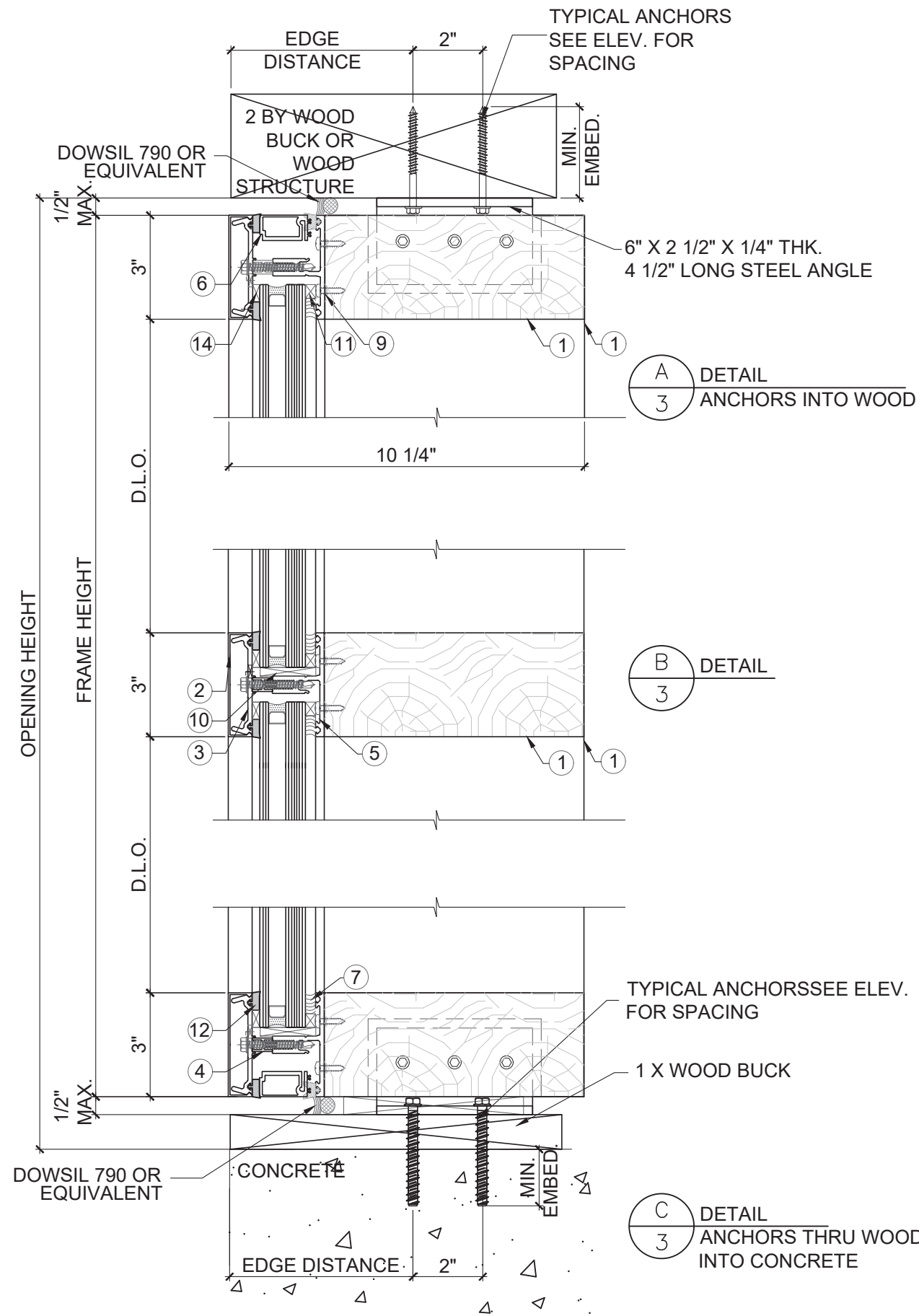
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EXTERIOR



WOOD BUCKS AND METAL STRUCTURE NOT BY CTWINDOWS
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.

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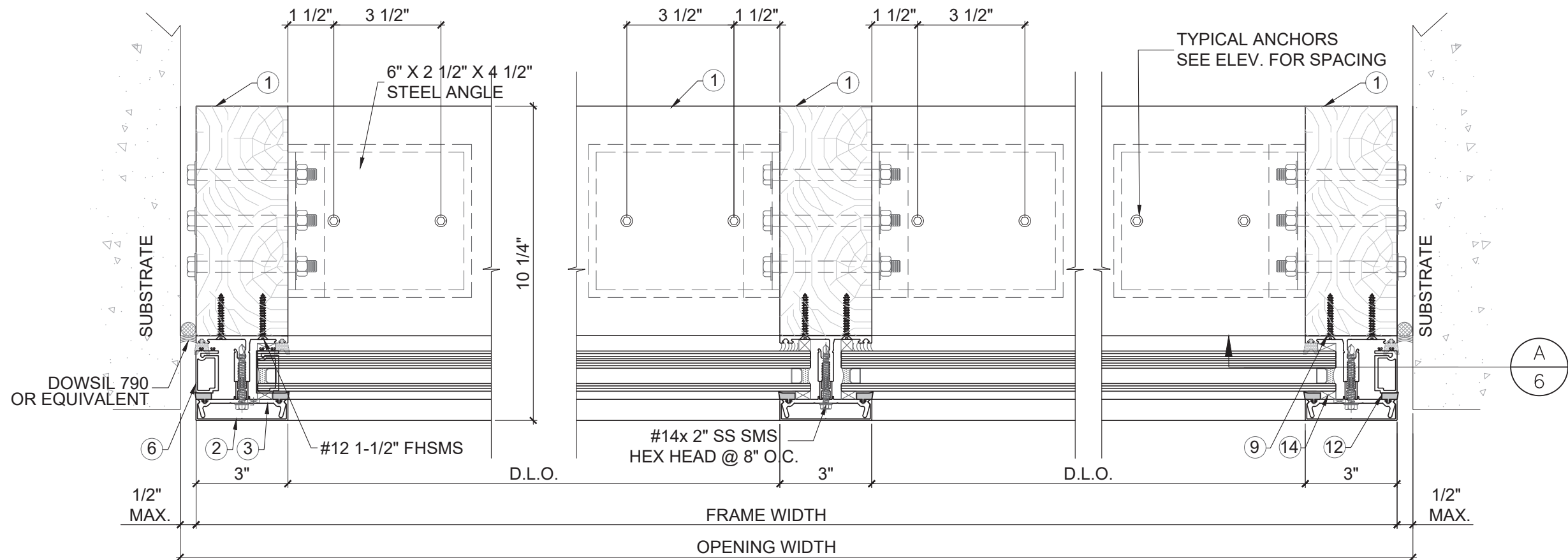
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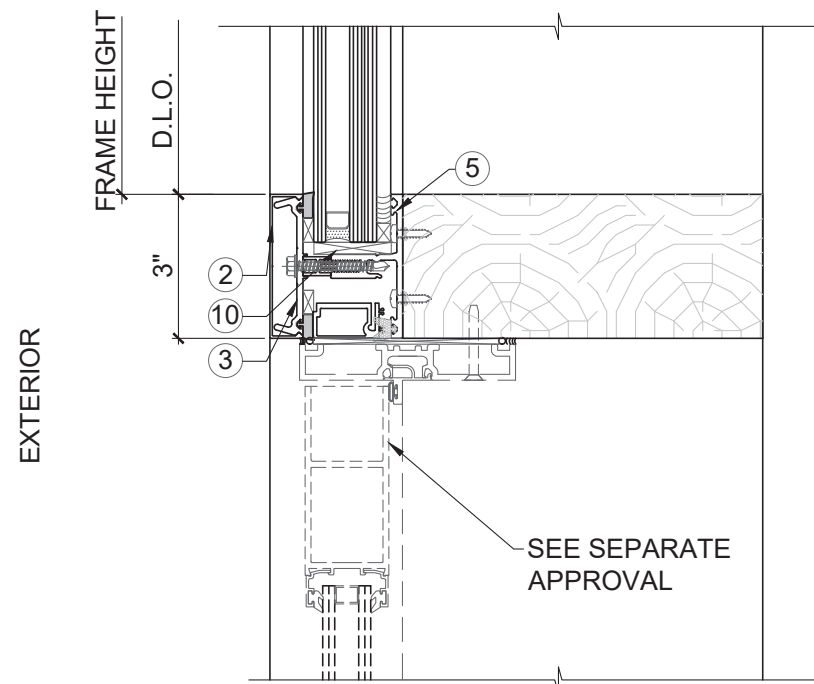


D
4
DETAIL

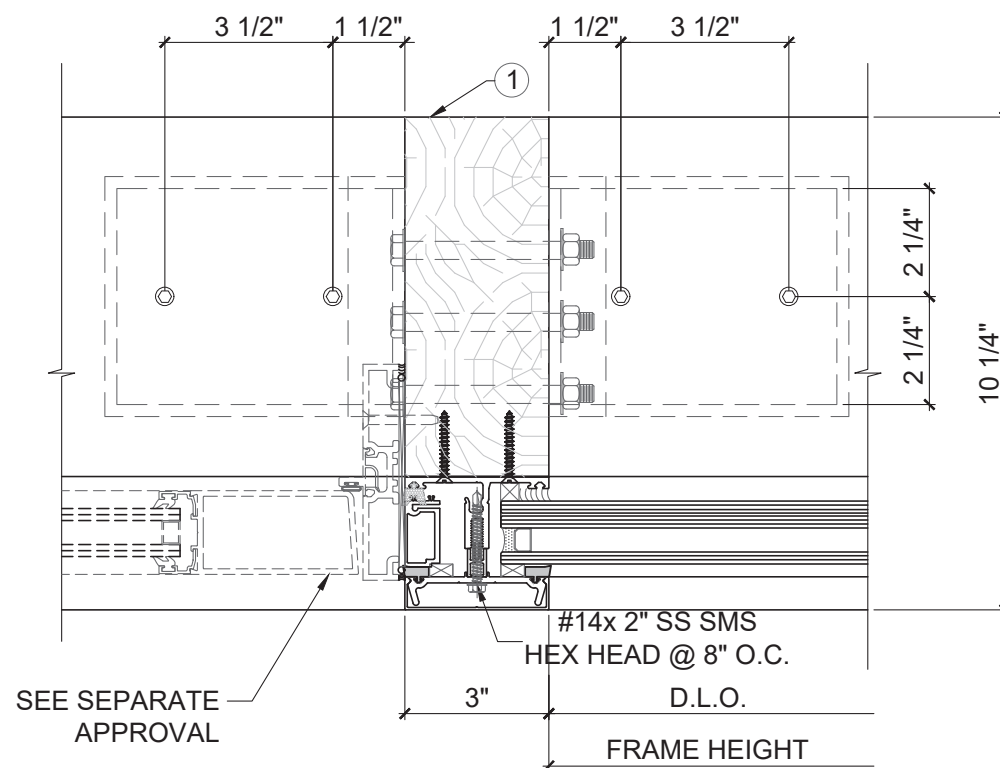
EXTERIOR

E
4
DETAIL

D
4
DETAIL



F
4
DETAIL



G
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DETAIL

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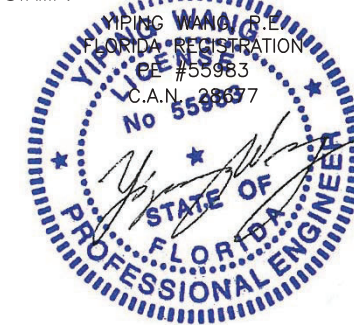
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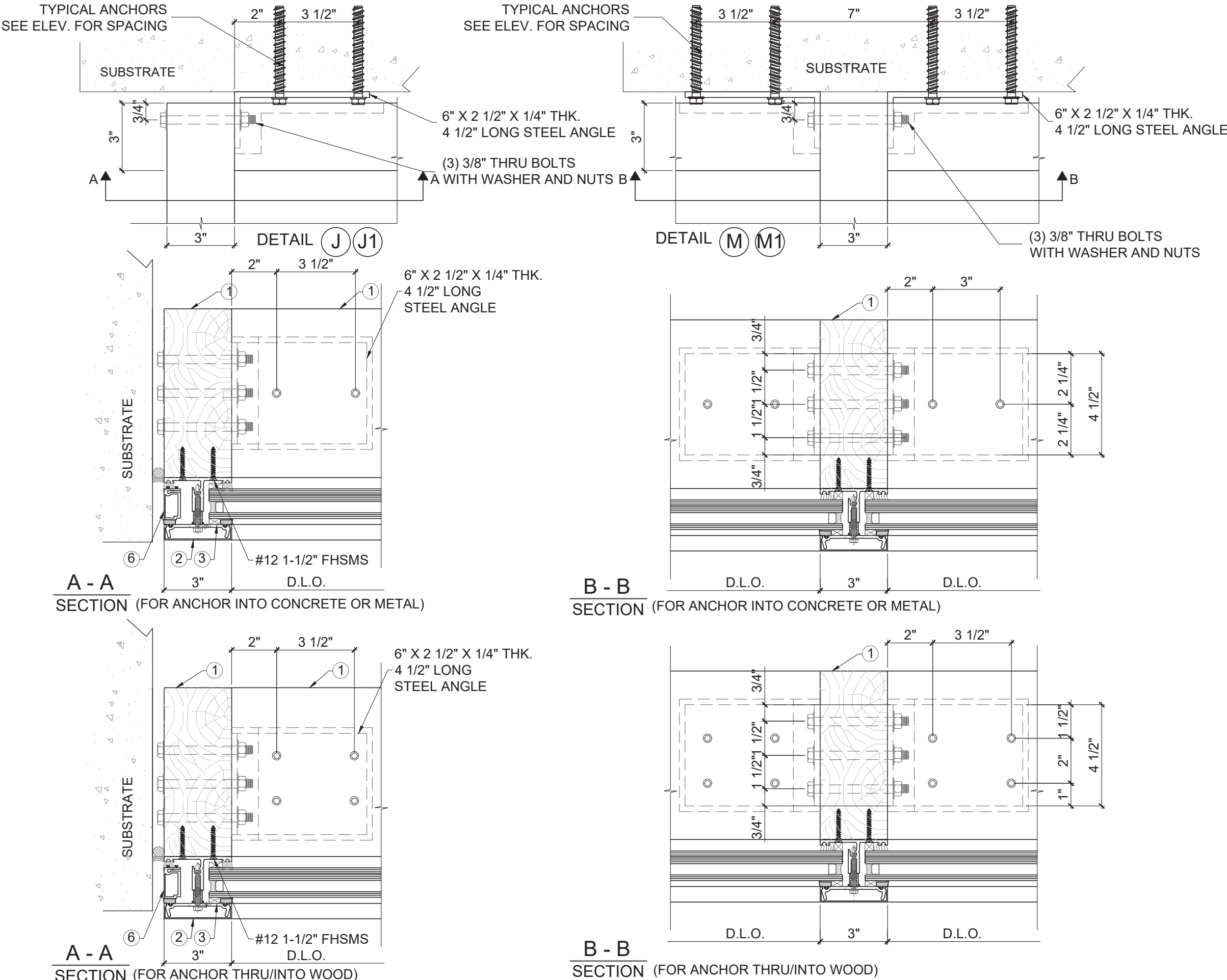
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STAMP:
YIPING WANG, P.E.
FLORIDA REGISTRATION
CE #55983
C.A.N. 22877
No 55983
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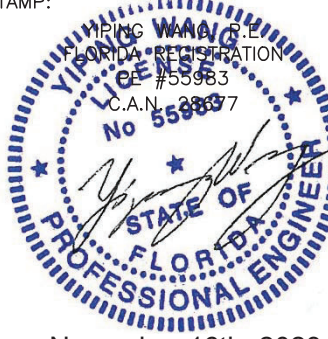
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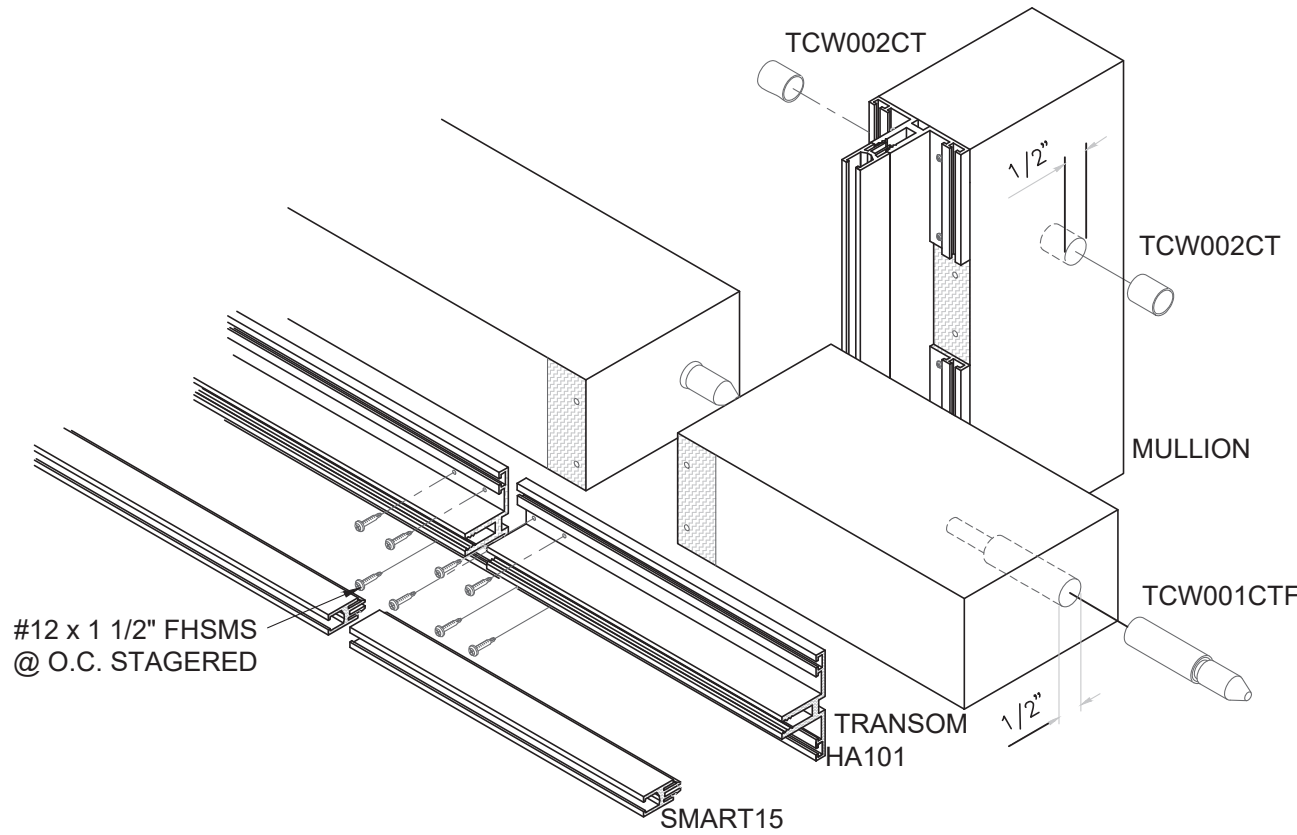
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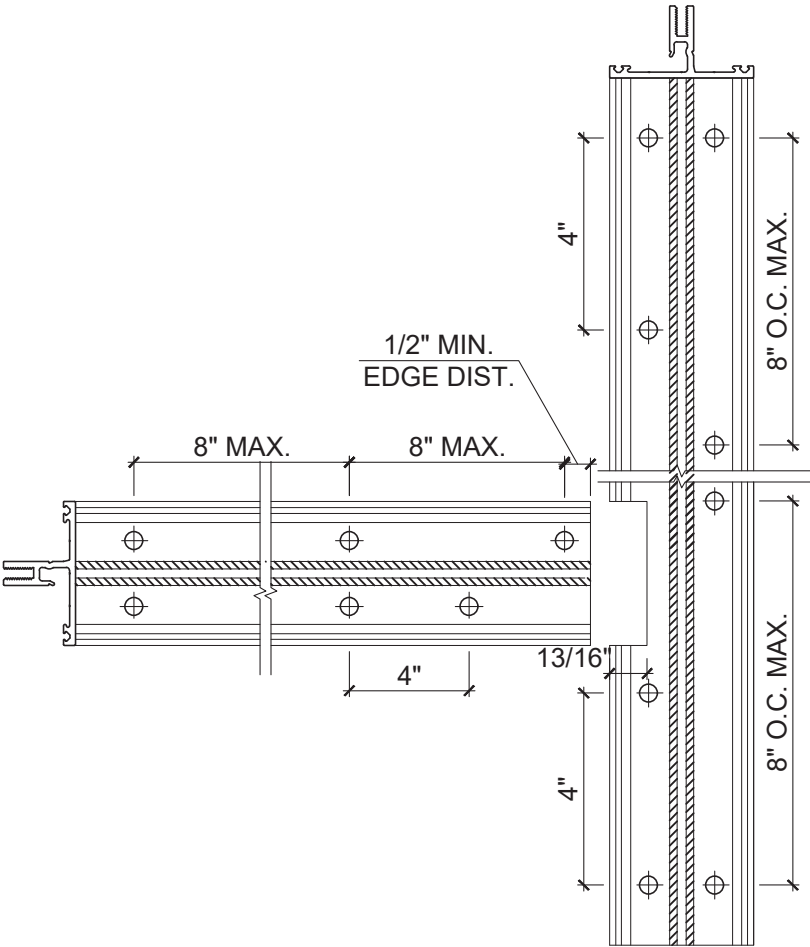
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H
6
DETAIL
HORIZONTAL TO
VERTICAL CONNECTION



A
6
SECTION

1 CTW3750 WOOD MULLION
DOUGLASS-FIR LAM.
E= 1 800 KSI
Fbx=2400 PSI (MIN.), Fby= 1 450 PSI (MIN.)
Fv=265 psi

2 CTW332
6063-T6 ALUM

3 CTW330
6063-T6 ALUM

4 SMRTB15

5 CTW334
6063-T6 ALUM

6 SMP002 POCKET FILLER
6063-T6 ALUM

7 SILCONE SEALANT
DC995

8 NORTON TAPE
@SSG MULLION

9 BUTYL TAPE
1/4"x1/16"

10 EPDM SETTING BLOCK

11 FOAM TAPE

12 CTWB115 GASKET

13 HEX HEAD ST/ST.
#14 X 2" HH SCREW

14 FOAM TAPE

15 STEEL PIN
TCW001CTF

BILL OF MATERIALS					
ITEM	PART NO.	MATERIAL	QTY.	DESCRIPTION	MANUFACTURER / SUPPLIER / REMARKS
1	CTW3750	WOOD	AS REQD.	HEAD/SILL, MALE JAMB	DOUGLASS-FIR LAM.
2	CTW332	6063-T6 ALUM.	AS REQD.	FACE CAP	BONNELL ALUMINUM EXTRUSION COMPANY
3	CTW330	6063-T6 ALUM.	AS REQD.	PRESSURE PLATE	BONNELL ALUMINUM EXTRUSION COMPANY
4	SMRTB15	-	AS REQD.	THERMAL BREAK	-
5	CTW334	6063-T6 ALUM.	AS REQD.	CURTAIN WALL NOSING	BONNELL ALUMINUM EXTRUSION COMPANY
6	SMP002	6063-T6 ALUM.	AS REQD.	POCKET CLOSER	BONNELL ALUMINUM EXTRUSION COMPANY
7	DC995	SILICONE	AS REQD.	SILICONE SEALANT	DOW CORNING
8	-	-	AS REQD.	TAPE	NORTON
9	-	RUBBER	AS REQD.	BUTYL TAPE	-
10	-	EPDM	AS REQD.	SETTING BLOCK	REED RUBBER PRODUCTS, DUROMETER +/- 60 SHORE A
11	-	-	AS REQD.	FOAM TAPE	-
12	CTWB115	EPDM	AS REQD.	EXTERIOR GLAZING GASKET	REED RUBBER PRODUCTS, DUROMETER +/- 60 SHORE A
13	AS REQ.	ST/ST	AS REQD.	#14 X 2" HH SS AT 8" O.C. MAX.	Fy=65 KSI MIN. Fu=100 KSI MIN.
14	-	-	AS REQD.	FOAM TAPE	-
15	TCW001CTF	-	AS REQD.	STEEL PIN	-
16	-	ALUMINUM	AS REQD.	ALUMINUM SPACER	VARIES

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