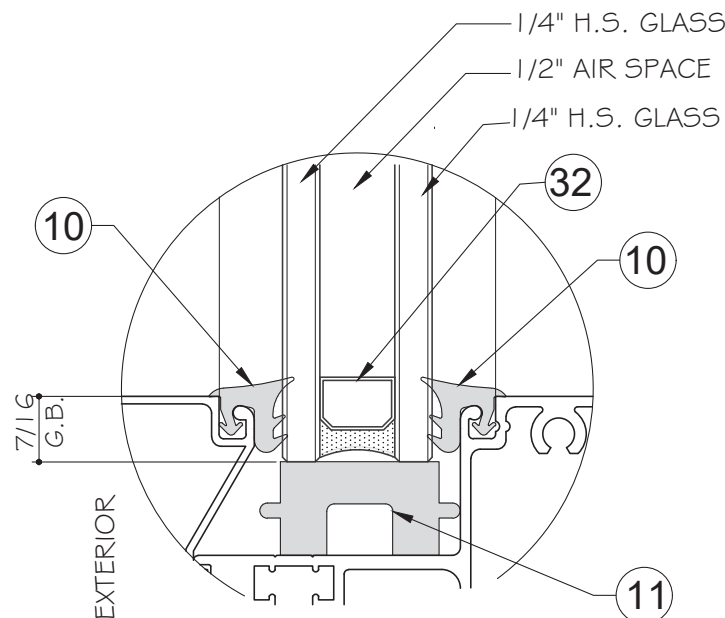
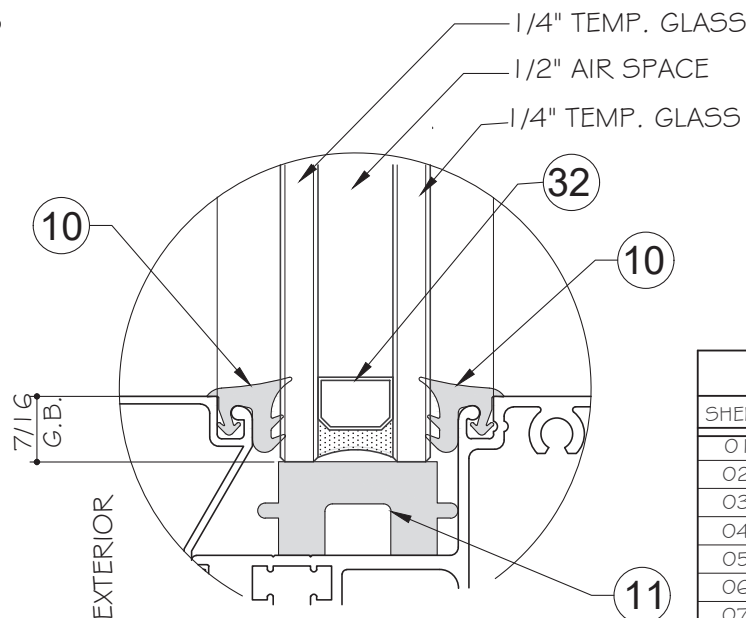


SERIES CG 451 STOREFRONT SYSTEM NON IMPACT



GLASS TYPE "A"

MAX. GLASS SIZE APPROVED:
D.L.O. WIDTH x D.L.O. HEIGHT ≤ 29.55 FT²



GLASS TYPE "B"

MAX. GLASS SIZE APPROVED:
D.L.O. WIDTH x D.L.O. HEIGHT ≤ 29.55 FT²

D.L.O. WIDTH (in)	D.L.O. HEIGHT (in)	GLASS AREA (ft ²)	PD ALLOW (psf)
46.25	92.5	29.7	80
54	78	29.25	80
36	116	29.0	80

DRAWINGS INDEX				
SHEET	TITLE	CONTENT	REV.	DATE
01	COVER	GENERAL NOTES AND INSTRUCTIONS	1	08-14-23
02	E1	WINDOW ELEVATION	1	08-14-23
03	M1	MULLION CAPACITY CHART	1	08-14-23
04	M2	DJM CAPACITY	1	08-14-23
05	D1	WINDOW DETAILS	1	08-14-23
06	D2	WINDOW DETAILS	1	08-14-23
07	D3	WINDOW DETAILS	1	08-14-23
08	D4	WINDOW DETAILS	1	08-14-23
09	A1	WINDOW DETAILS	1	08-14-23
10	A2	ANCHOR OPTIONS	1	08-14-23
11	PARTS	PARTS	1	08-14-23
12	BOM	PARTS	1	08-14-23
13	ISO	BILL OF MATERIALS	1	08-14-23

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

GENERAL NOTES:

WINDOW WALL SYSTEM IS NON IMPACT SYSTEM TO BE USED OUTSIDE OF HVHZ.
THIS SYSTEM MAY BE USED IN CONJUNCTION WITH FLORIDA STATE APPROVED ENTRANCE
DOORS.

- CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.
- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 7TH EDITION (2020)/ 8TH EDITION (2023) NOT INCLUDING HIGH VELOCITY HURRICANE ZONE (NON-HVHZ).
- ULTIMATE LOAD OBTAINED FROM ASCE 7-16 / 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.
- WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE 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 7TH EDITION (2020) /8TH EDITION (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.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BUILDING HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-16 / ASCE 7-22 STANDARD.
- STEP 2: SEE SHEET 1 FOR GLASS OPTIONS AND MAX. D.L.O. AREA ALLOWED.
- STEP 3: SEE TYPICAL ELEVATION ON SHEET 2. CHECK MULLION AND JAMB CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEET 3. MULLION OR JAMB SUPPORT XX DOOR SEE SHEET 3.1 FOR CAPACITY. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4: SEE ANCHOR OPTIONS ON SHEET 7. NUMBER OF ANCHOR REQUIRED AND CAPACITY SEE CHART ON SHEET 8.
- STEP 5: THE LOWEST VALUE RESULTING FROM STEPS 2, 3, & 4 SHALL APPLY TO ENTIRE SYSTEM.
- STEP 6: HIGHLIGHT OPTION USED AND TABLE VALUES USED IN A SPECIFIC APPLICATION WHEN USING THIS FA TO APPLY FOR A PERMIT.

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

GA - GLASS AREA



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.

THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



http://www.trulite.com

403 WESTPARK COURT, SUITE 201
PEACHTREE CITY, GA 30269
p. 800-432-8132

PRODUCT:

Series CG451

ALUMINUM
STOREFRONT
WALL



REV#	DATE/REMARKS
REV 1	UPDATE TO FBC 2023

ENGINEER:



MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 Miramar Pkwy. Ste. 301
Miramar, FL 33027
P: 786.360.2786
mcy@mcyengineering.com
www.MCYEngineering.com

STAMP:



August 14th, 2023

FLORIDA APPROVAL:

FL #17962.2

SHEET TITLE:

COVER

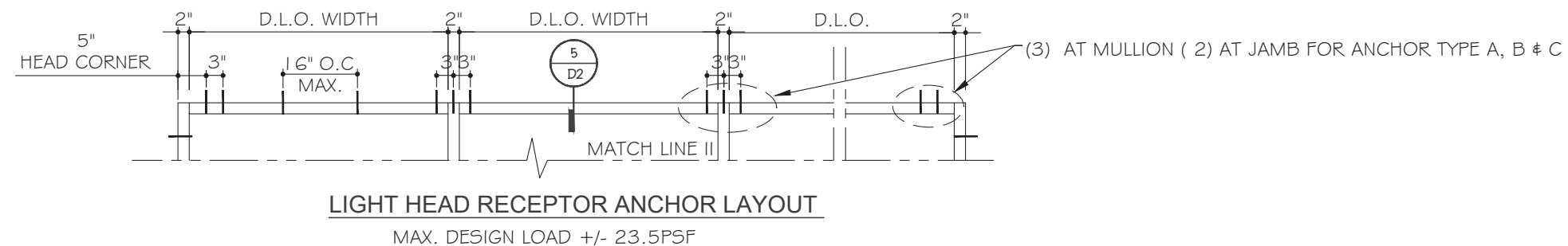
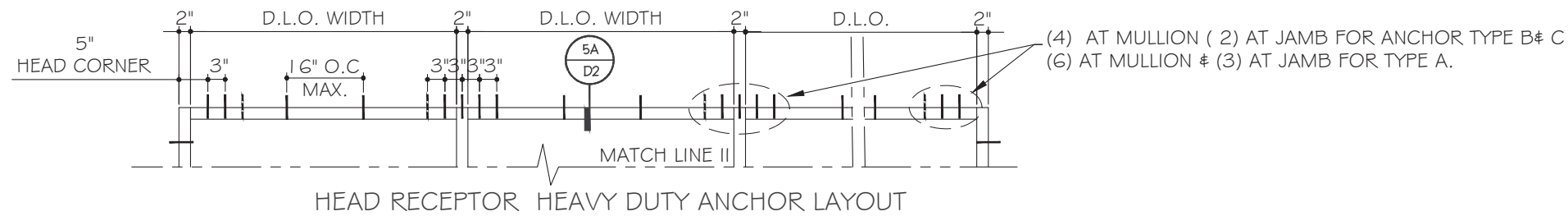
DRAWN: James

DATE: 08/14/23

DWG: - AD20-30

DRAWING No:

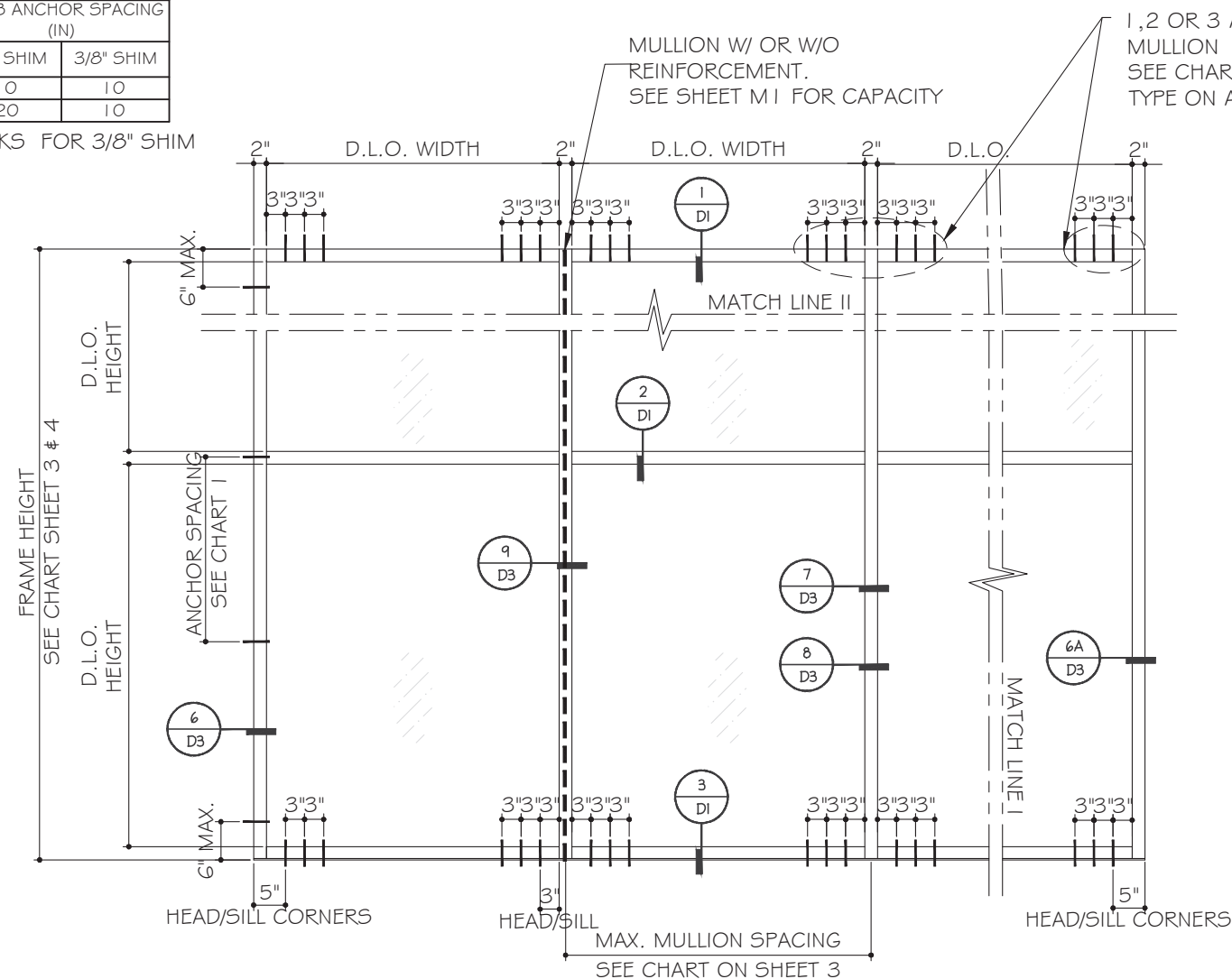
1 OF 14



CHART# 1:

ANCHOR TYPE	JAMB ANCHOR SPACING (IN)	
	1/4" SHIM	3/8" SHIM
A/B1	10	10
B/C*	20	10

*USE 1/4" TEKS FOR 3/8" SHIM



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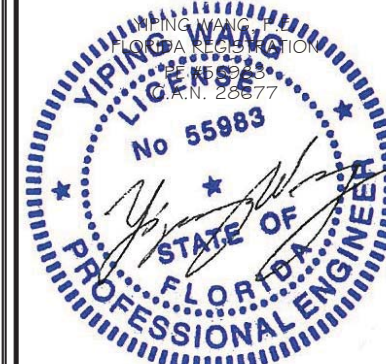
ENGINEER:



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STAMP:



August 14th, 2023

FLORIDA APPROVAL:

FL #17962.2

SHEET TITLE:

E1

DRAWN: James

DRAWING No:

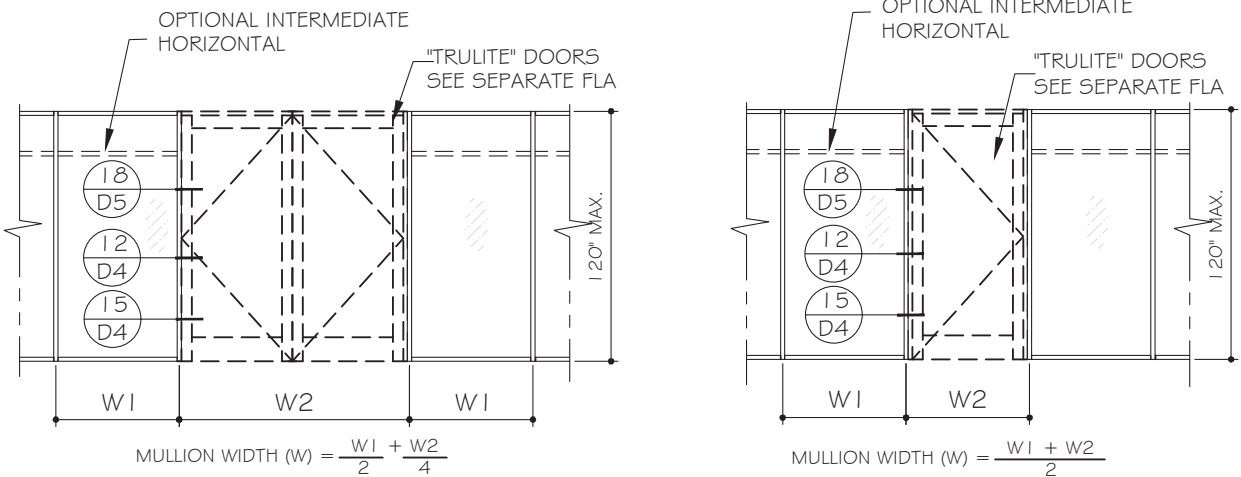
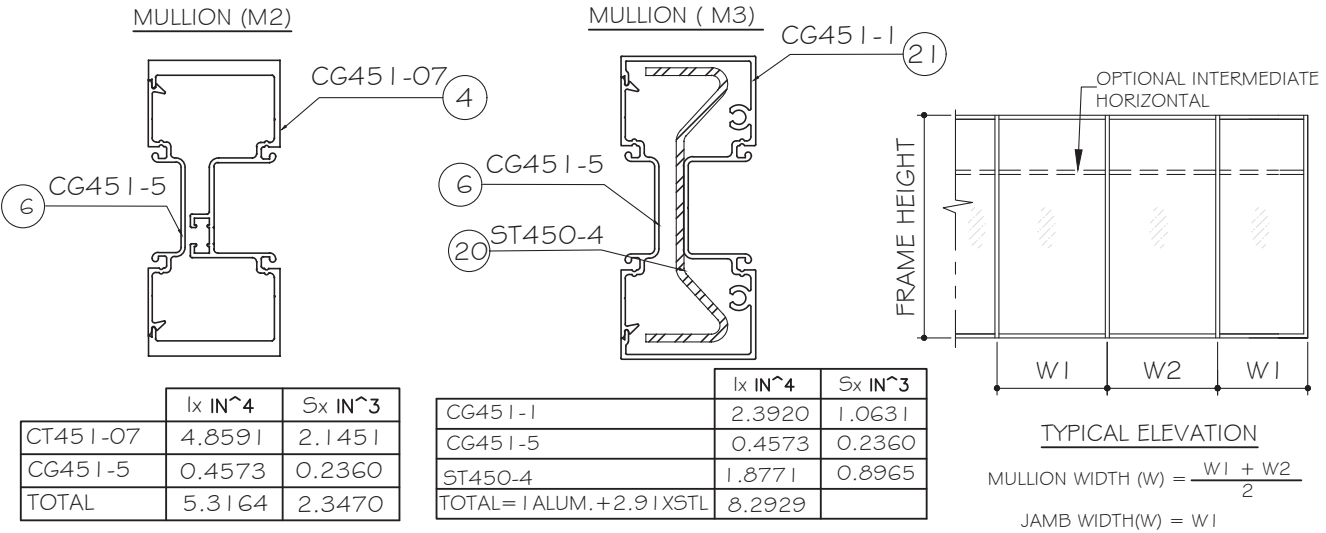
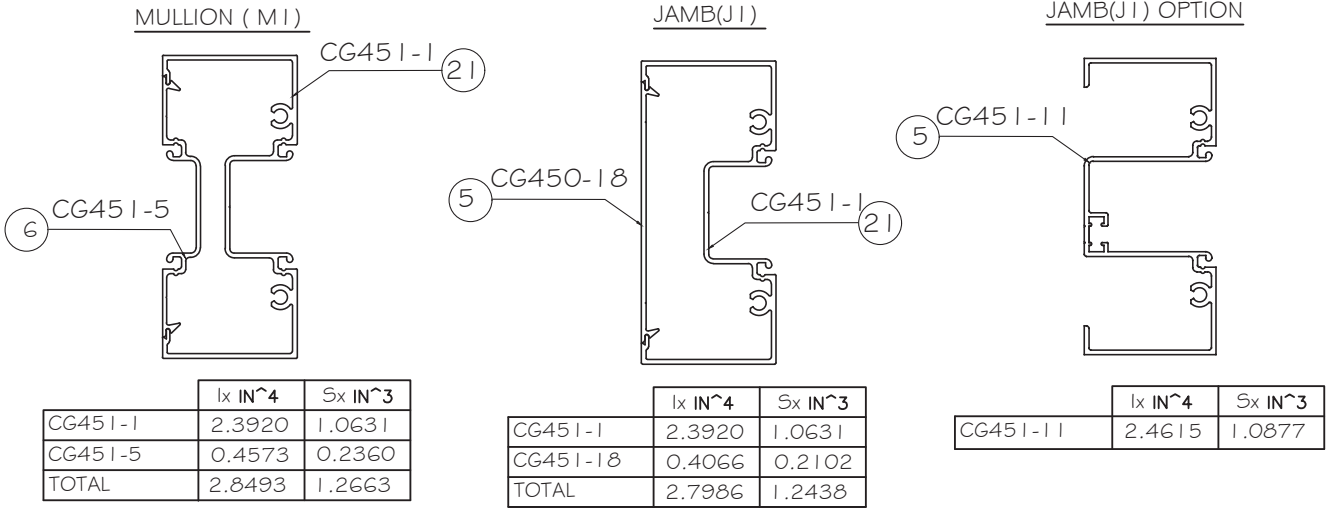
DATE: 08/14/23

2 OF 14

DWG: - AD20-30

MULLION LOAD CAPACITY					
WITH OR WITHOUT INTERMEDIATE HORIZONTAL					
WINDOW PANEL		(M1)	(M2)	(M3)	(J1)
WIDTH (W)	HEIGHT	EXT(+) INT(-)	EXT(+) INT(-)	EXT(+) INT(-)	EXT(+) INT(-)
IN	IN	PSF	PSF	PSF	PSF
30	60	80	80	80	80
36		75	80	80	80
42		64	80	80	80
48		56	80	80	80
54		50	80	80	80
60		45	72	80	72
30	66	80	80	80	80
36		67	80	80	80
42		58	80	80	80
48		51	80	80	80
54		45	73	80	73
60		41	65	80	65
30	72	75	80	80	80
36		62	80	80	80
42		53	80	80	80
48		47	75	80	75
54		41	67	80	67
60		37	60	80	60
30	78	67	80	80	80
36		57	80	80	80
42		49	79	80	79
48		43	69	80	69
54		38	62	80	62
60		34	55	74	55
30	84	64	80	80	80
36		53	80	80	80
42		46	73	80	69
48		40	64	80	64
54		36	57	76	57
60		32	51	69	51
30	90	60	80	80	80
36		50	80	80	80
42		43	69	80	69
48		37	60	80	60
54		33	53	71	53
60		30	37	64	37

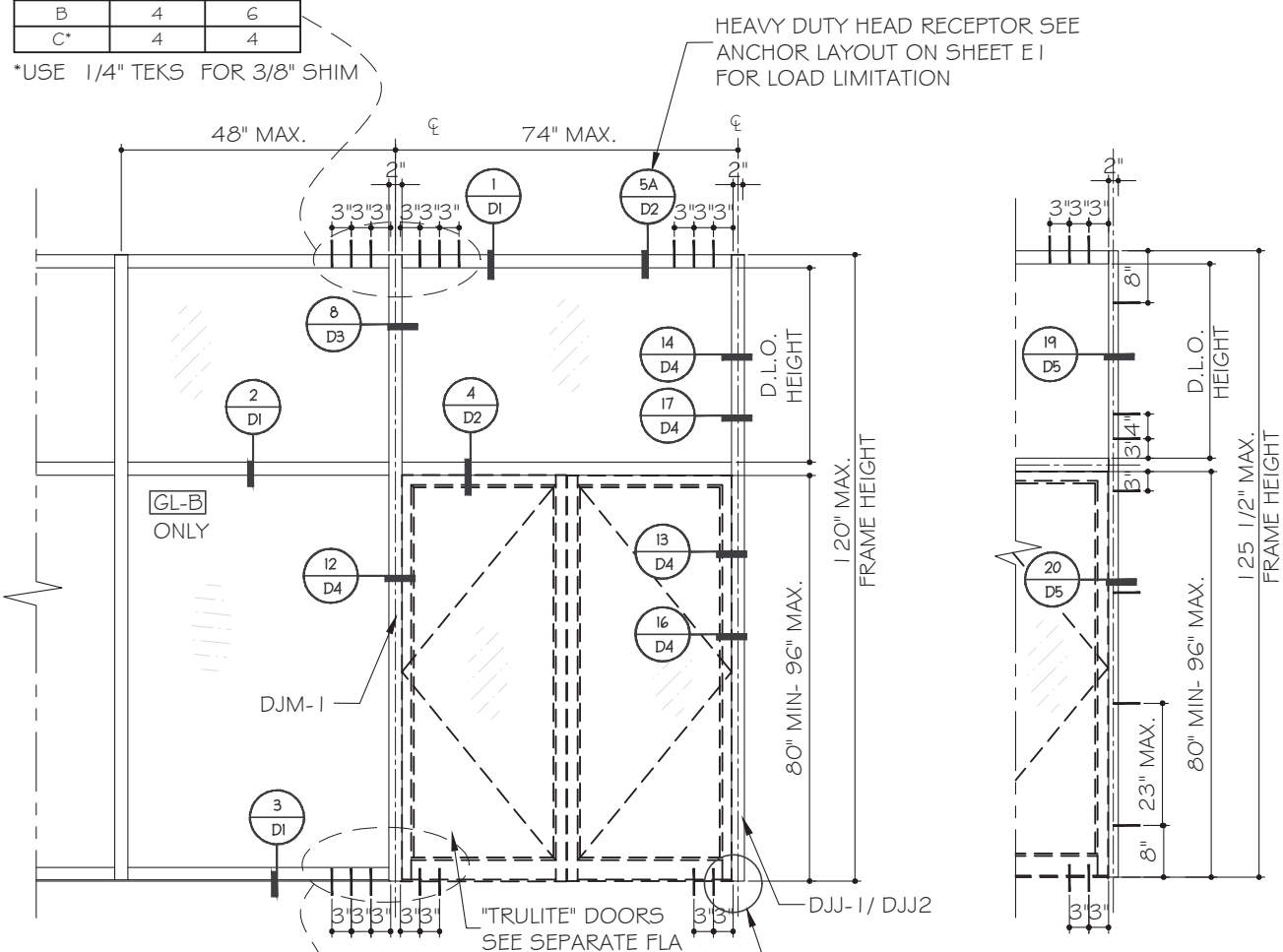
MULLION LOAD CAPACITY					
WITH OR WITHOUT INTERMEDIATE HORIZONTAL					
WINDOW PANEL		(M1)	(M2)	(M3)	(J1)
WIDTH (W)	HEIGHT	EXT(+) INT(-)	EXT(+) INT(-)	EXT(+) INT(-)	EXT(+) INT(-)
IN	IN	PSF	PSF	PSF	PSF
30	96	56	80	80	80
36		47	75	80	75
42		40	64	80	64
48		35	56	75	56
54		31	50	67	50
60		28	35	60	35
30	102	50	80	80	80
36		41	71	80	71
42		35	61	78	61
48		31	53	68	53
54		28	37	60	37
30	108	44	80	80	80
36		40	67	80	66
42		32	57	69	57
48		28	50	61	50
54		25	35	54	39
30	114	40	72	80	68
36		33	60	73	56
42		28	51	62	48
48		25	37	54	37
30	120	35	65	79	58
36		29	54	66	48
42		25	46	56	41
48		22	35	49	35
30	126	-	56	71	50
36		-	46	59	42
42		-	36	51	36
48		-	32	45	31
30	132	-	48	65	44
36		-	40	54	36
42		-	33	46	31
48		-	29	41	27
30	138	-	42	59	38
36		-	35	50	32
42		-	30	42	27
48		-	26	37	24
30	144	-	37	55	34
36		-	31	46	28
42		-	27	39	24
48		-	23	34	21



CHART#2:

ANCHOR TYPE	NO OF ANCHOR AT DJM ENDS	
	1/4" SHIM	3/8" SHIM
A	6	6
B	4	6
C*	4	4

*USE 1/4" TEKS FOR 3/8" SHIM



CHART#3:

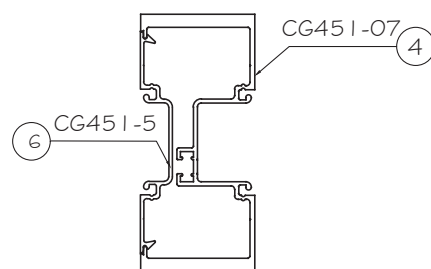
ANCHOR TYPE	NO OF ANCHOR AT DJM ENDS	
	1/4" SHIM	3/8" SHIM
B	4	5

TYPICAL ELEVATIONS

SEE DETAIL FOR DJM CONNECTION WITH DOOR SILL ON SHEET ISO

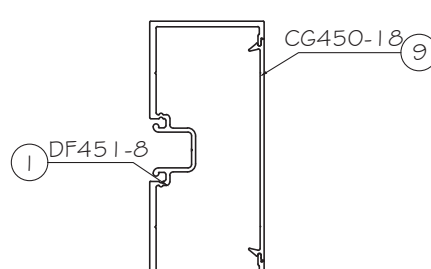
ANCHORED OPTION
MAX DESIGN LOADS: 40PSF

DJM-1
DOOR JAMB MULLION (DET. 1 2/D4)
MAX. DESIGN LOAD ALLOW: +/- 35PSF



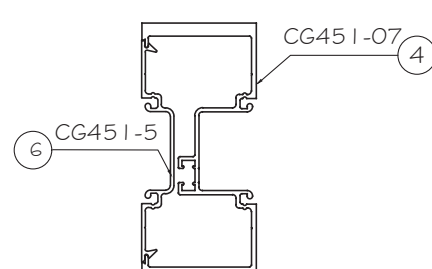
	Ix IN ⁴	Sx IN ³
CT451-07	4.8591	2.1451
CG451-5	0.4573	0.2360
TOTAL	5.3164	2.3470

DJJ-1
DOOR JAMB JAMB (DET. 1 3/D4)
MAX. DESIGN LOAD ALLOW: +/- 35 PSF



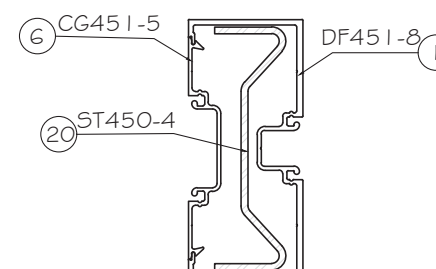
	Ix IN ⁴	Sx IN ³
DF451-8	2.7918	1.2404
CG451-18	0.4066	0.2102
TOTAL	3.1374	1.3940

DJJ-2
DOOR JAMB JAMB (DET. 1 6/D4)
MAX. DESIGN LOAD ALLOW: +/- 34.8 PSF



	Ix IN ⁴	Sx IN ³
CT451-07	4.8591	2.1451
CG451-5	0.4573	0.2360
TOTAL	5.3164	2.3470

DJM-2
DOOR JAMB JAMB (DET. 1 1/D3)
MAX. DESIGN LOAD ALLOW: +/- 40 PSF



	Ix IN ⁴	Sx IN ³
CG451-1	2.7818	1.2404
CG451-5	0.4573	0.2360
ST450-4	1.8771	0.8965
TOTAL= 1 ALUM. + 2.91 X STL	8.2929	

STEP 3: DOOR JAMB MULLION CAPACITY

Trulite
GLASS & ALUMINUM SOLUTIONS™

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PRODUCT:

Series CG451

ALUMINUM
STOREFRONT
WALL

Resistor
PRODUCT SERIES

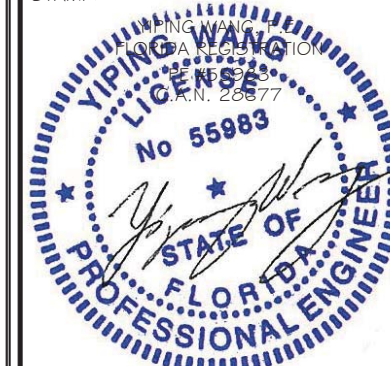
REV#	DATE/REMARKS
REV. 1	UPDATE TO FBC 2023

ENGINEER:

MCY ENGINEERING, INC.
GLAZING CONSULTANT

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P: 786.360.2786
mcy@mcyengineering.com
www.MCYEngineering.com

STAMP:



August 14th, 2023

FLORIDA APPROVAL:

FL #17962.2

SHEET TITLE:

M2

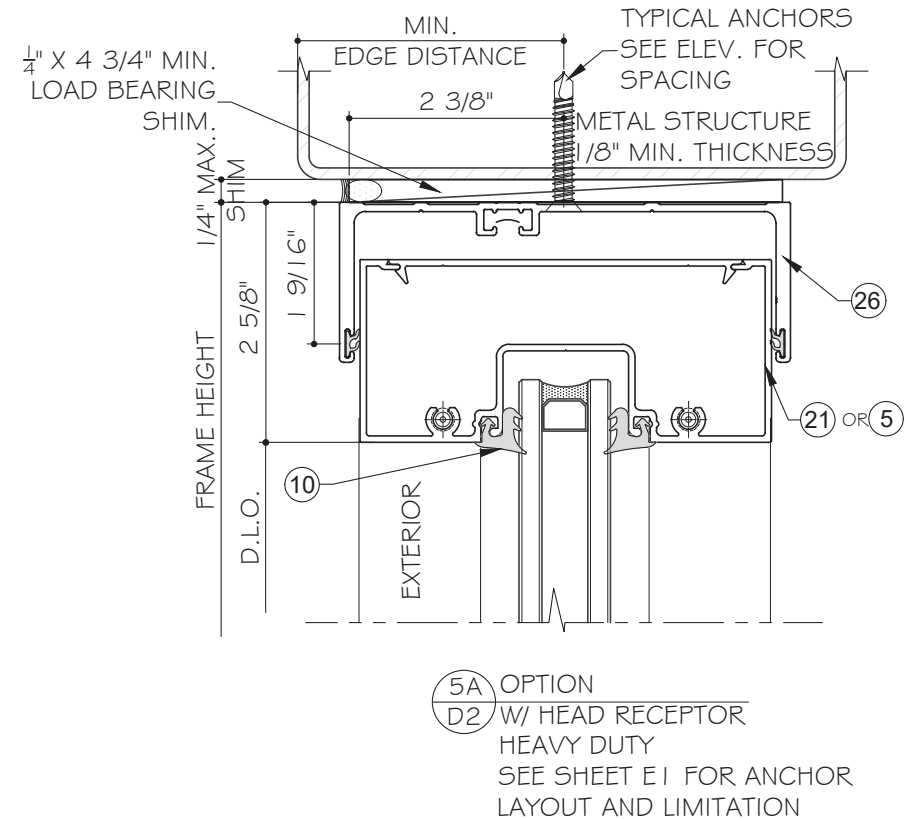
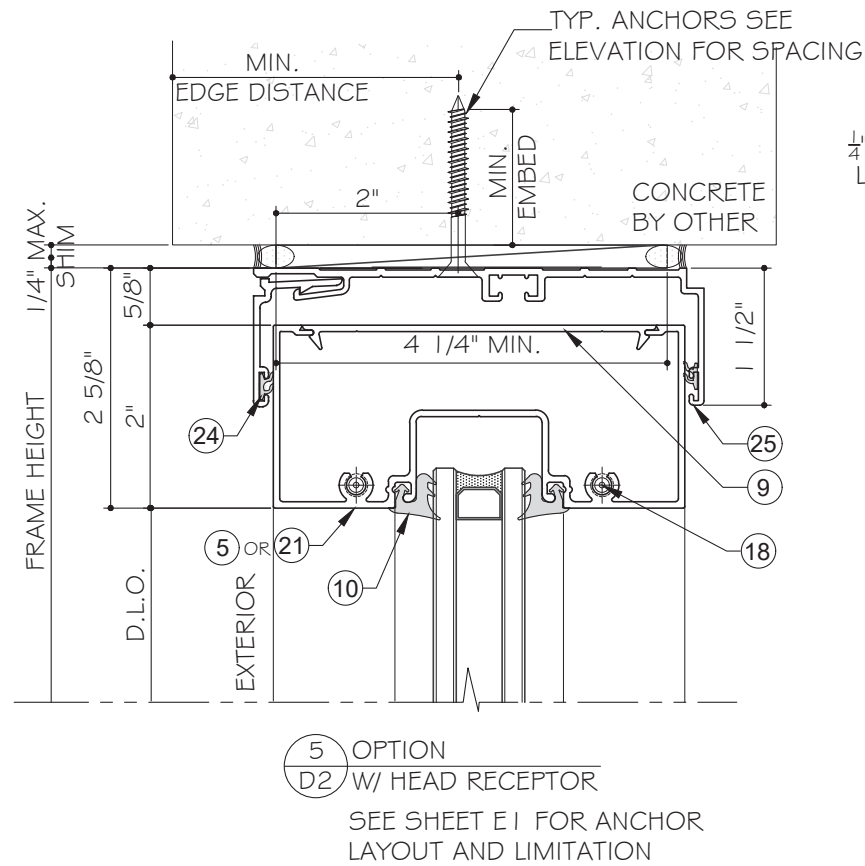
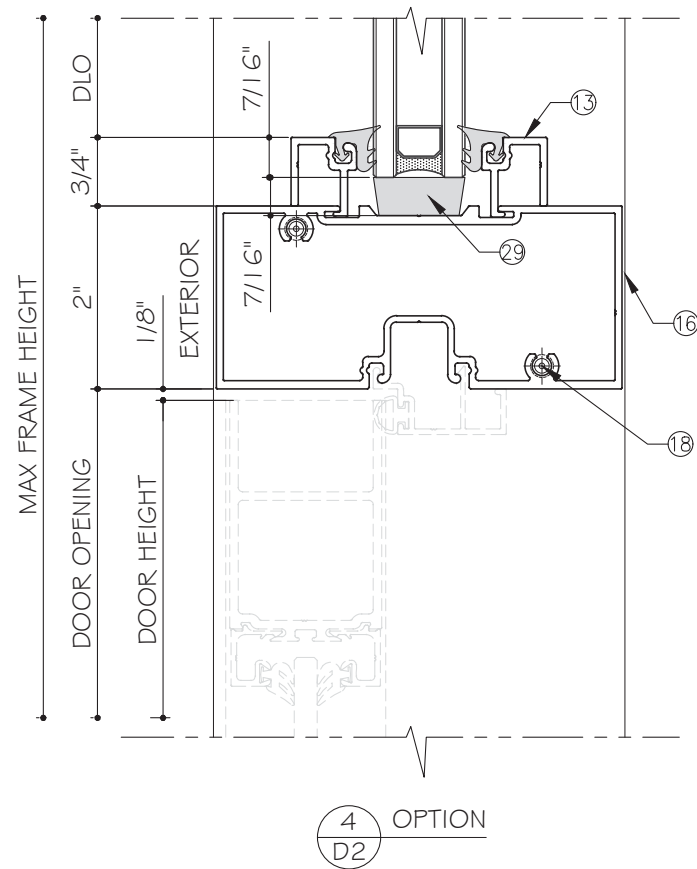
DRAWN: James

DATE: 08/14/23

DWG: - AD20-30

DRAWING No:

4 OF 14



PRODUCT:

Series CG451

ALUMINUM
STOREFRONT
WALL

Resistor
PRODUCT SERIES

REV#	DATE/REMARKS
REV. I	UPDATE TO FBC 2023

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FLORIDA APPROVAL:

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SHEET TITLE:

D2

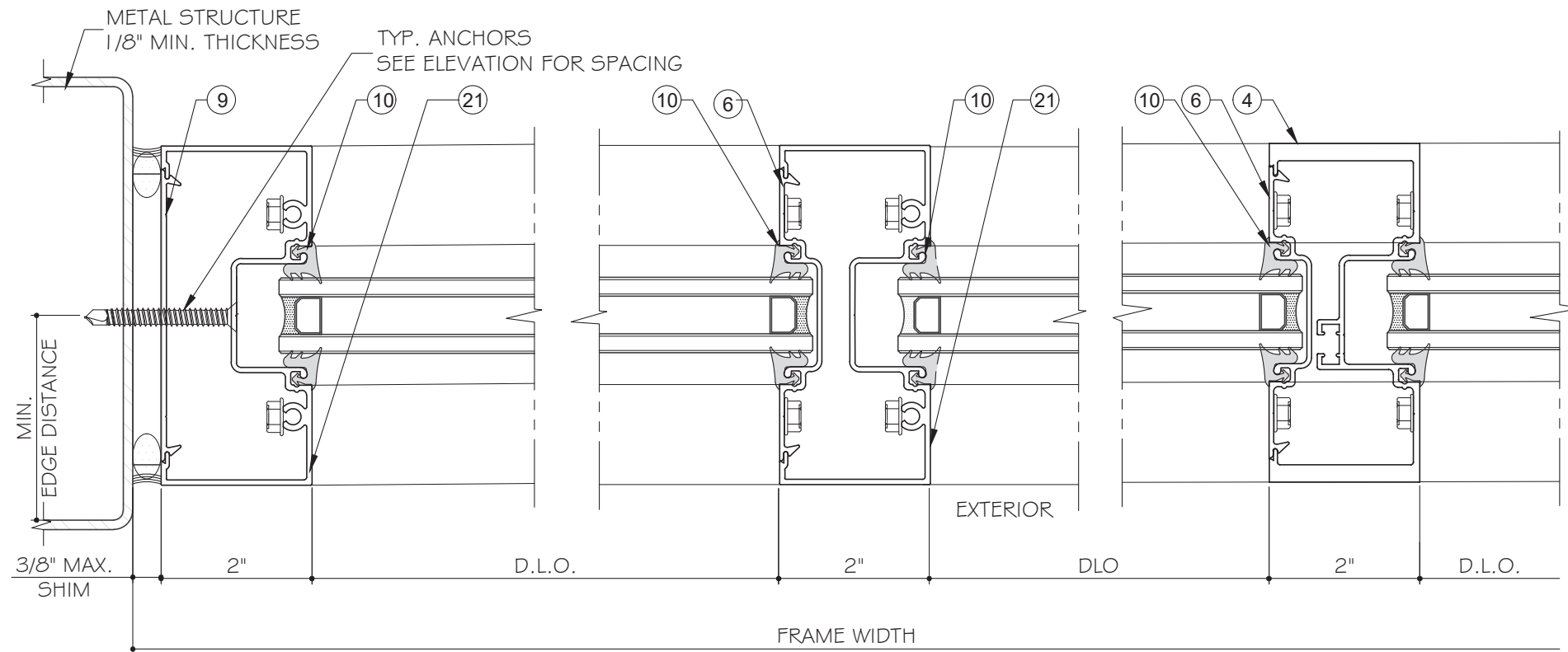
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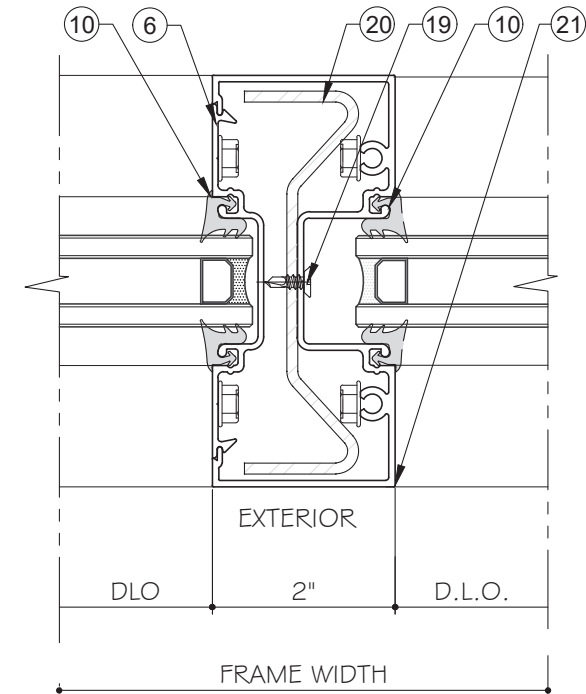
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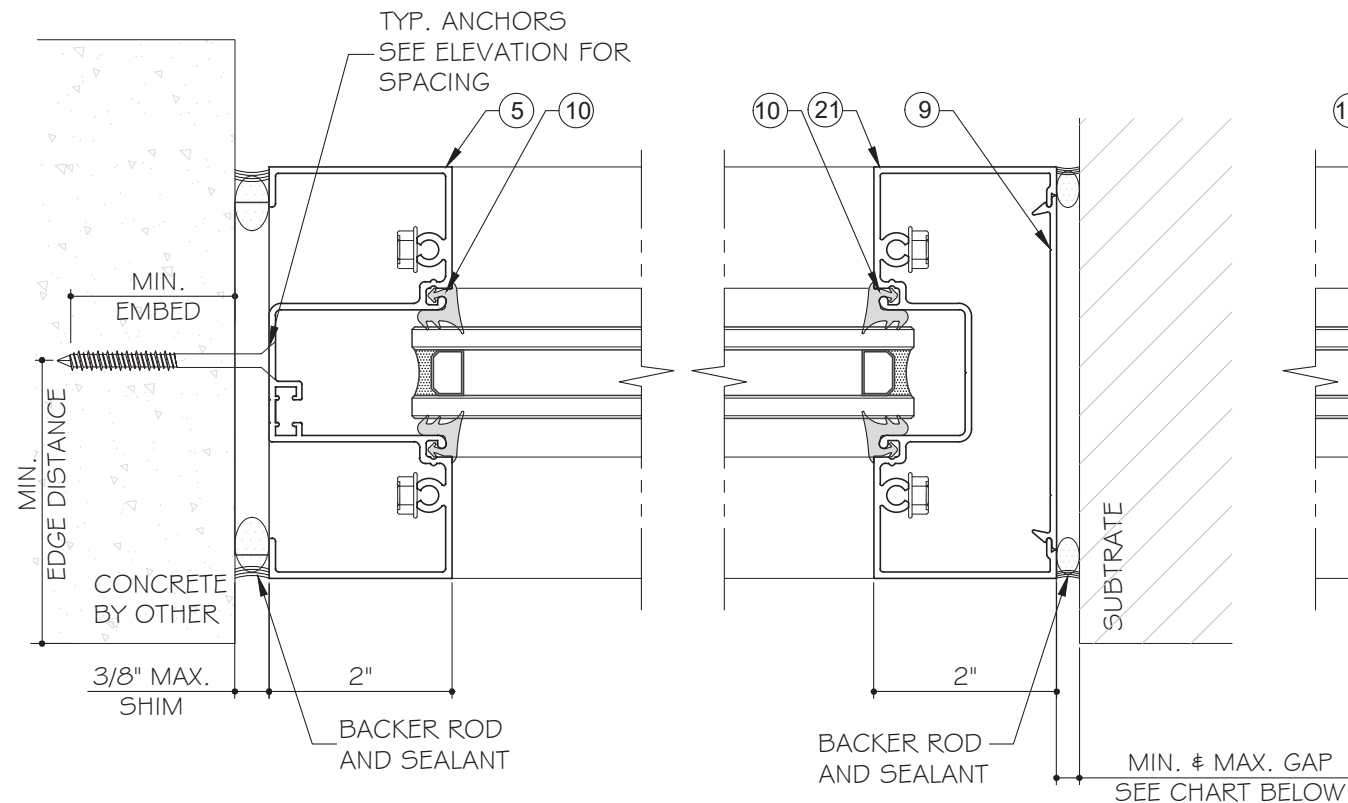
6
D3
DETAIL

7
D3
OPTION

8
D3
DETAIL

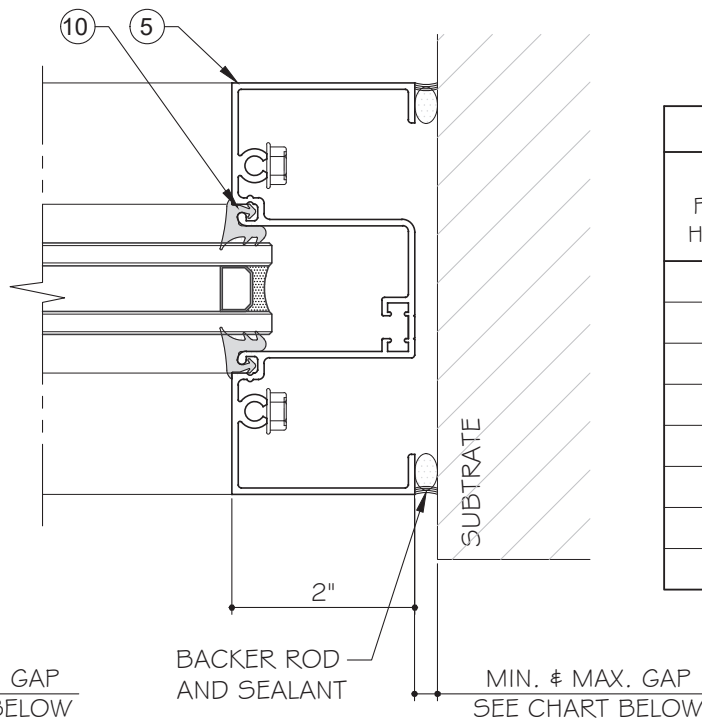


9
D3
DETAIL



6
D3
OPTION

6A
D3
DETAIL



6A
D3
OPTION

MAX. FRAME HEIGHT.	MIN. OR MAX. GAP AT F.S. JAMB			
	SILICONE GAP (DC 790)		DC 795 OR EQ.	
	MIN.	MAX.	MIN.	MAX.
60"	3/16"	1 1/8"	3/8"	1 1/8"
72"	1/4"	1 1/8"	3/8"	1 1/8"
84"	1/4"	1 1/8"	1/2"	1 1/8"
96"	3/8"	1 1/8"	1/2"	1 1/8"
108"	3/8"	1 1/8"	5/8"	1 1/8"
120"	1/2"	1 1/8"	5/8"	1 1/8"
132"	5/8"	1 1/8"	3/4"	1 1/8"
144"	3/4"	1 1/8"	3/4"	1 1/8"

PRODUCT:

Series CG451
ALUMINUM
STOREFRONT
WALL

Resistor
PRODUCT SERIES

REV#	DATE/REMARKS
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ENGINEER:



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STAMP:



August 14th, 2023

FLORIDA APPROVAL:

FL #17962.2

SHEET TITLE:

D3

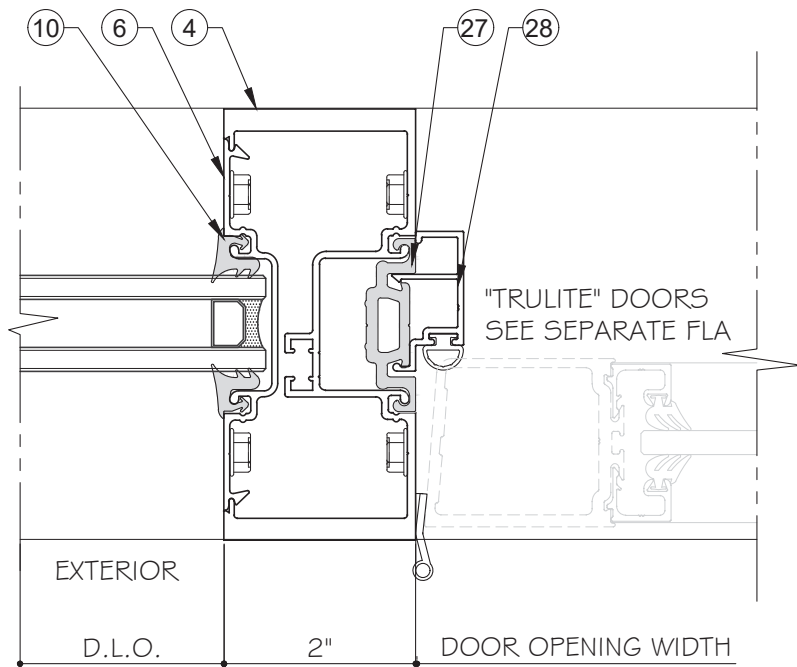
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DRAWING No:

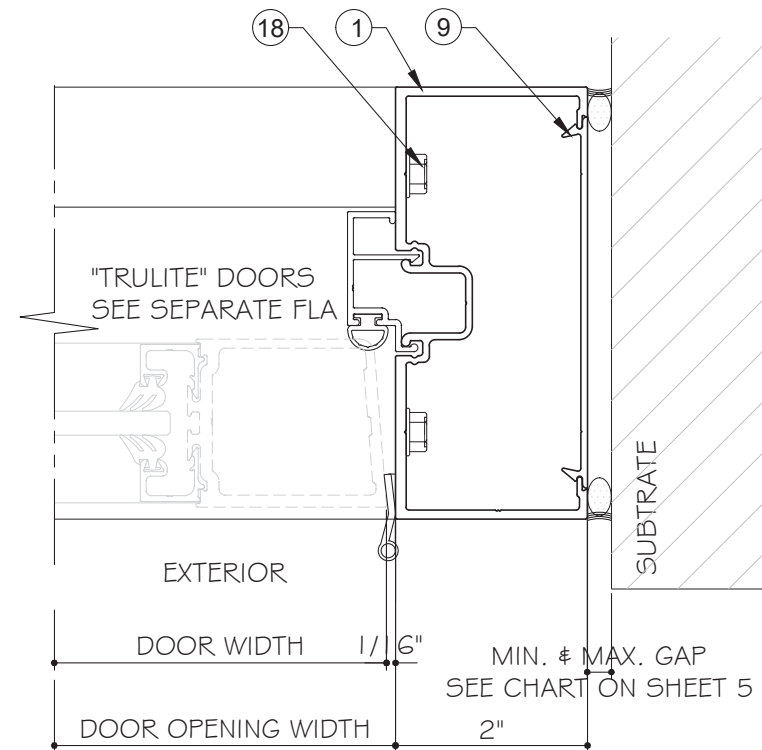
DATE: 08/14/23

7 OF 14

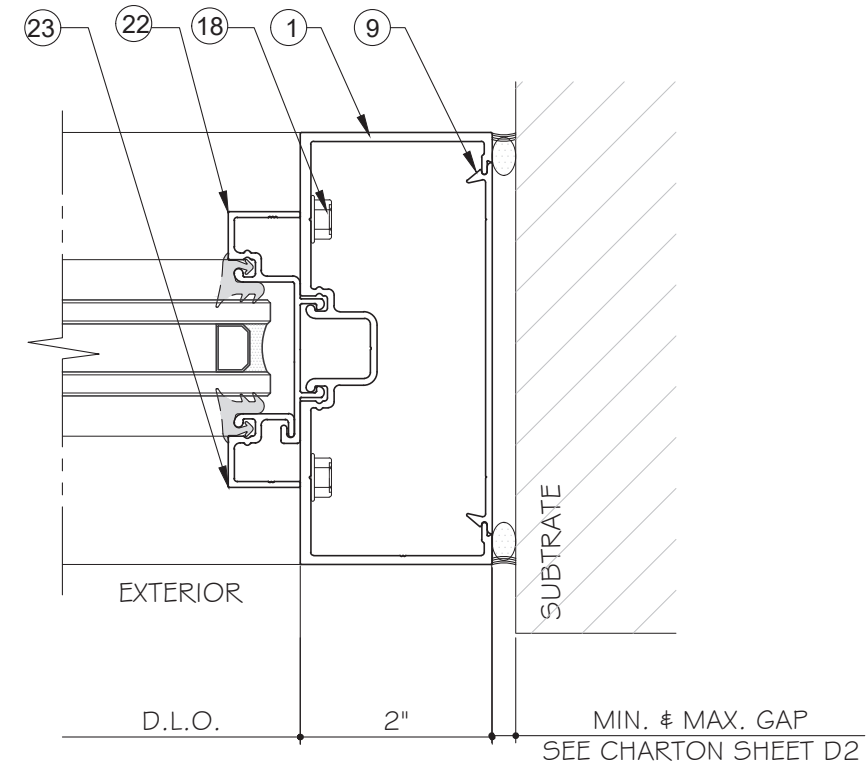
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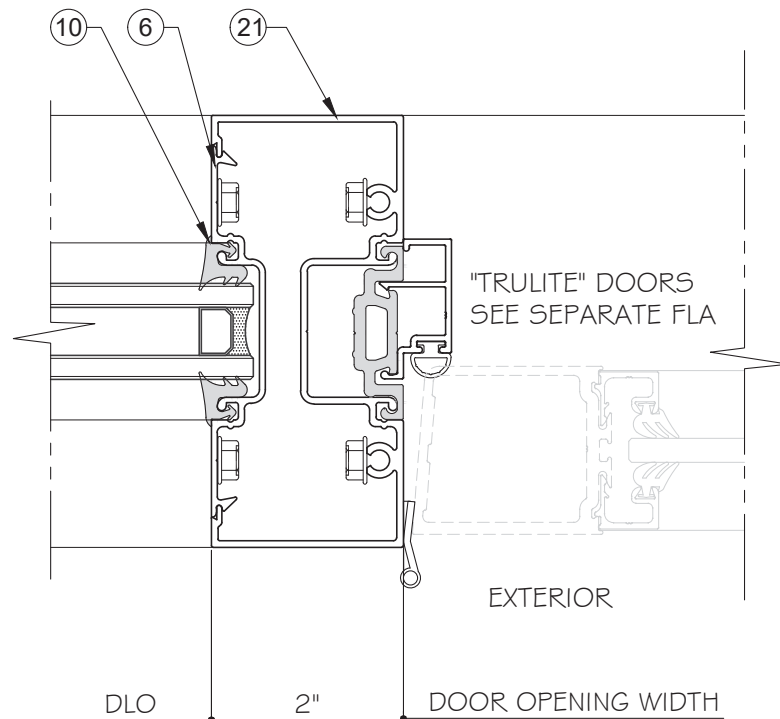
12 OPTION
D4



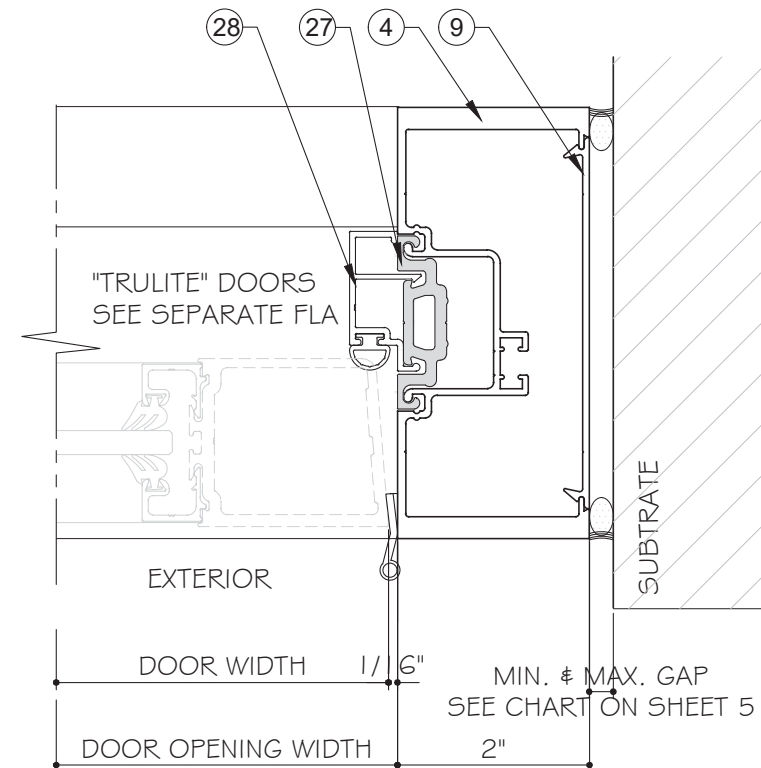
13 DETAIL
D4



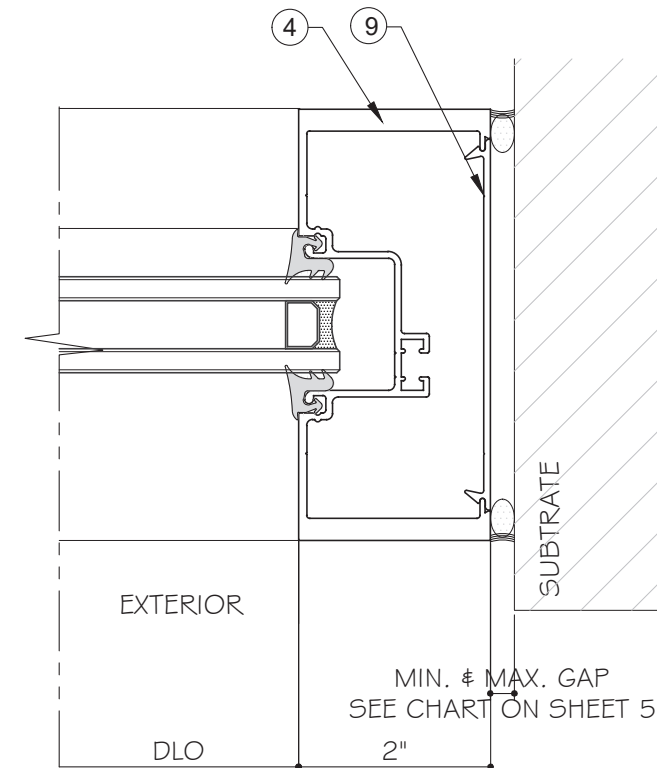
14 DETAIL
D4



15 DETAIL
D4



16 DETAIL
D4



17 DETAIL
D4

PRODUCT:

Series CG451

ALUMINUM
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FLORIDA APPROVAL:

FL #17962.2

SHEET TITLE:

D4

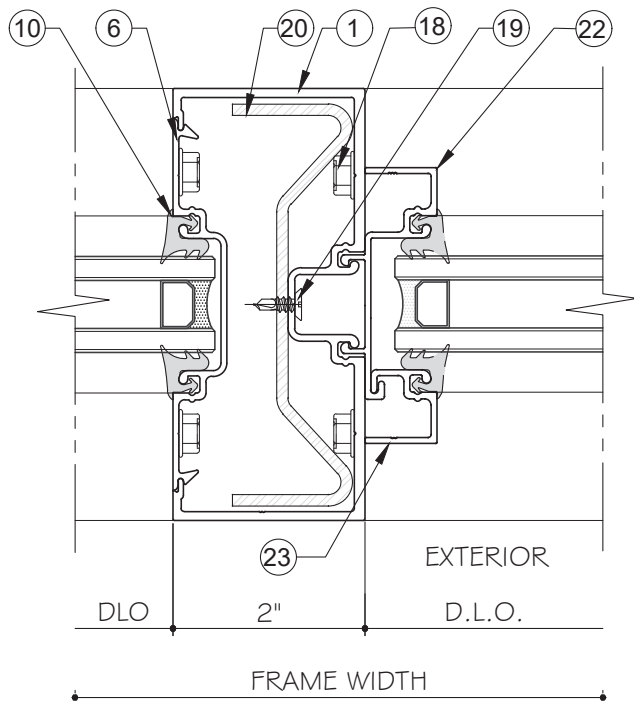
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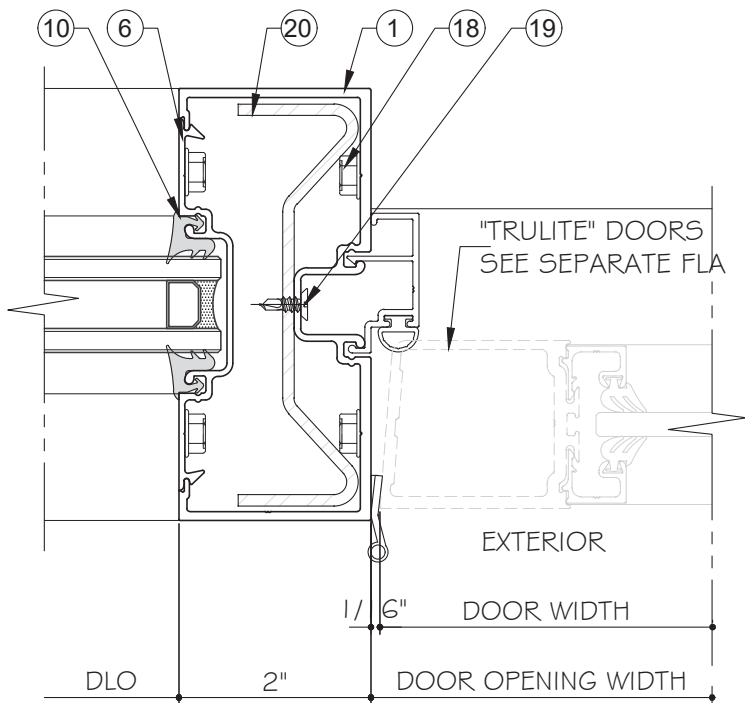
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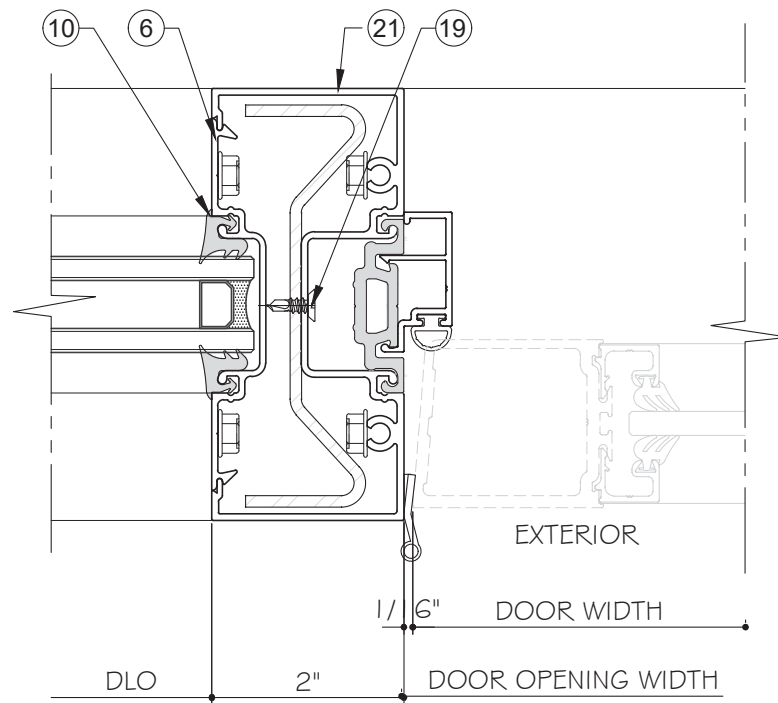
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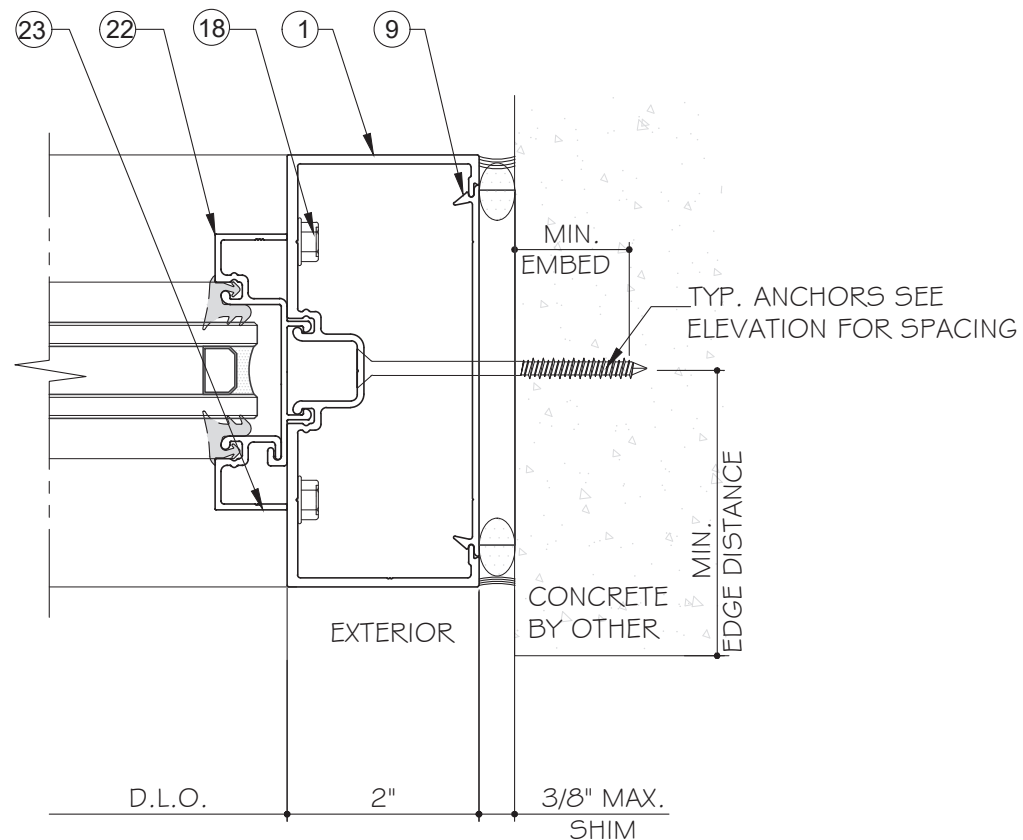
10
D5
DETAIL



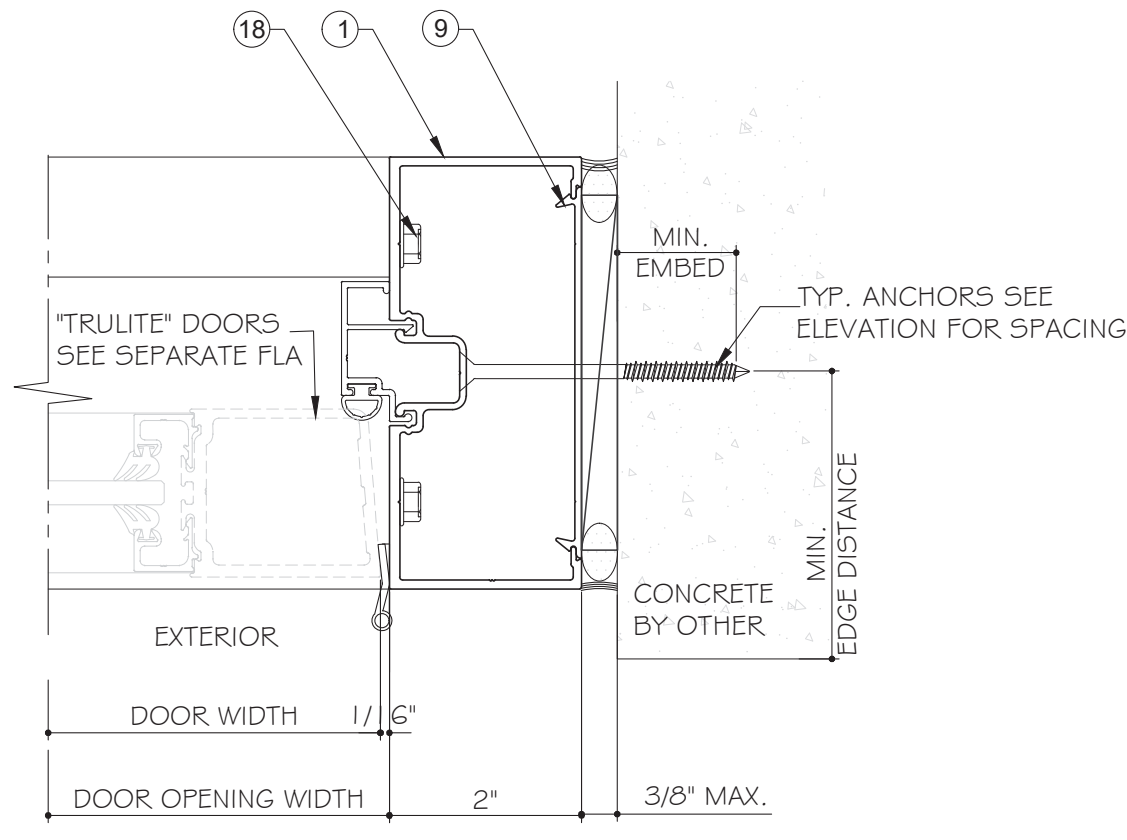
11
D5
DETAIL



18
D5
DETAIL



19
D5
DETAIL



20
D5
DETAIL



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PRODUCT:

Series CG451

ALUMINUM
STOREFRONT
WALL



REVN	DATE/REMARKS
REV. I	UPDATE TO FBC 2023

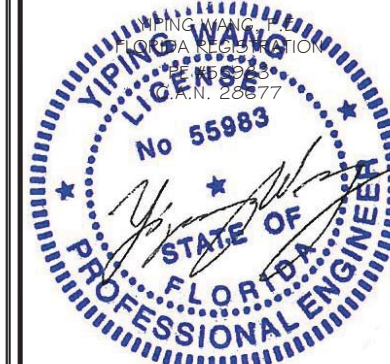
ENGINEER:



MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 Miramar Pkwy. Ste. 301
Miramar, FL 33027
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mcy@mcyengineering.com
www.MCYEngineering.com

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August 14th, 2023

FLORIDA APPROVAL:

FL #17962.2

SHEET TITLE:

D5

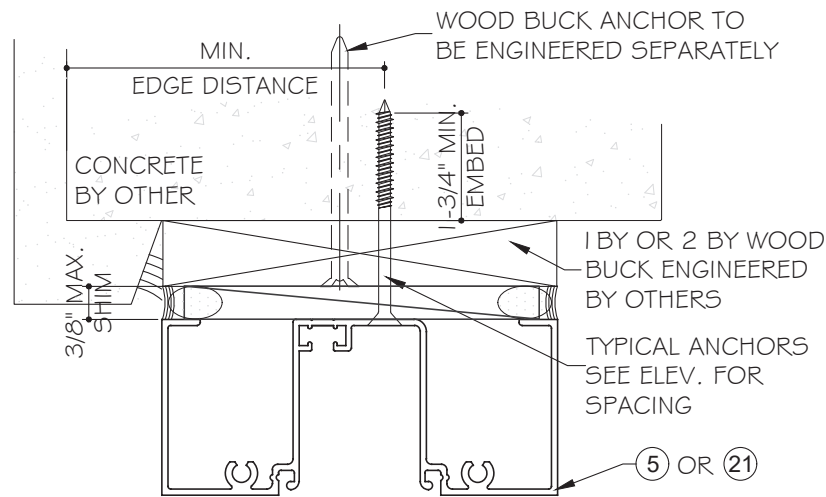
DRAWN: James

DRAWING No:

DATE: 08/14/23

9 OF 14

DWG: - AD20-30



WOOD BUCKS NOT BY TRULITE. MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS:

SEE ELEVATIONS FOR SPACING

TYPE 'A' 1/4" DIA. TAPCON BY 'ITW' ($F_u = 120$ KSI, $F_y = 92$ KSI) OR 1/4" DIA. ULTRACON+ BY 'DEWALT' ($F_u = 164$ KSI, $F_y = 148$ KSI)

INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD.

THRU 1 OR 2 WOOD BUCKS INTO CONCRETE.
1-3/4" MIN. EMBED INTO CONCRETE.

TYPE 'B' 1/4" DIA. TAPCON BY 'ITW' ($F_u = 120$ KSI, $F_y = 92$ KSI) OR 1/4" DIA. ULTRACON+ BY 'DEWALT' ($F_u = 164$ KSI, $F_y = 148$ KSI)

DIRECTLY INTO CONC.
1-3/4" MIN. EMBED INTO CONC.

TYPE 'B1' 1/4" DIA. TAPCON BY 'ITW' ($F_u = 120$ KSI, $F_y = 92$ KSI) (JAMB ONLY)

DIRECTLY INTO MEDIUM WEIGHT CMU BLOCK
1-1/4" MIN. EMBED INTO MEDIUM WEIGHT CMU BLOCK OR

1/4" DIA. ULTRACON+ BY 'DEWALT' ($F_u = 164$ KSI, $F_y = 148$ KSI)

1-1/4" MIN. EMBED INTO HOLLOW BOCK
1-3/4" MIN. EMBED INTO GROUT FILLED BLOCK

TYPE 'C' 1/4" SMS $F_u = 74$ KSI, $F_y = 57$ KSI)- 1/4" MAX SHIM
1/4" TEKS SELF DRILLING SCREW ($F_u = 120$ KSI, $F_y = 90$ KSI) UP TO 3/8" SHIM

INTO APPROVED MULLIONS
(1/8" THK. MIN.) INTO METAL STRUCTURE.

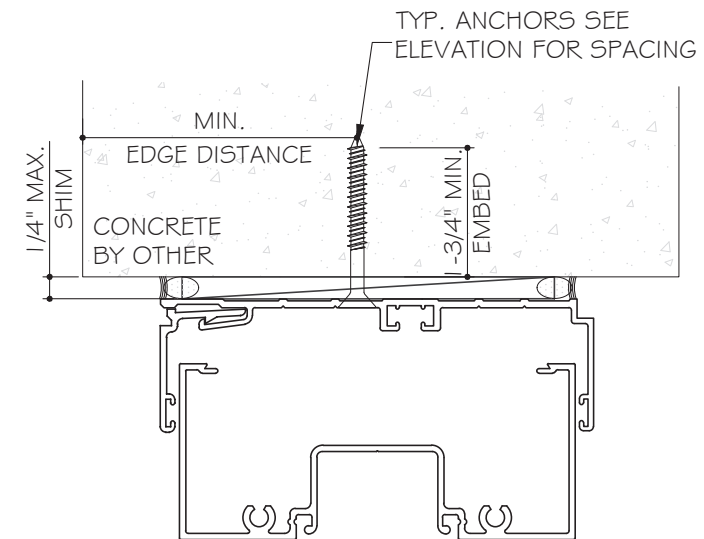
STEEL : 12 GA. MIN. ($F_y = 36$ KSI MIN.)
ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCE

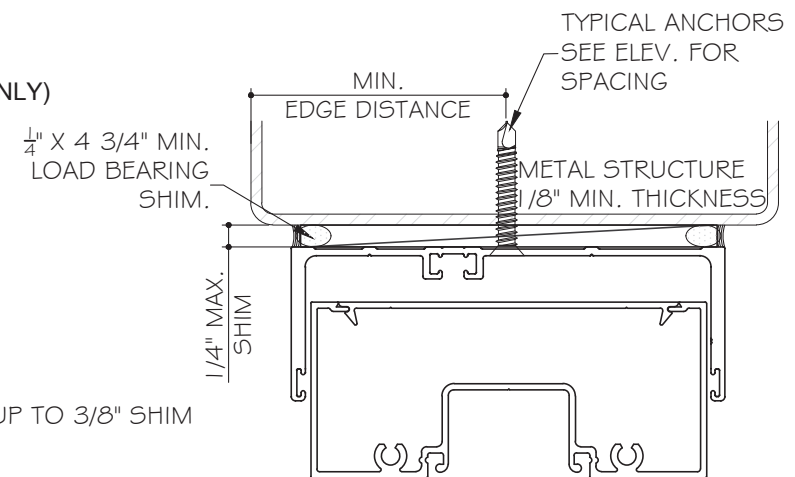
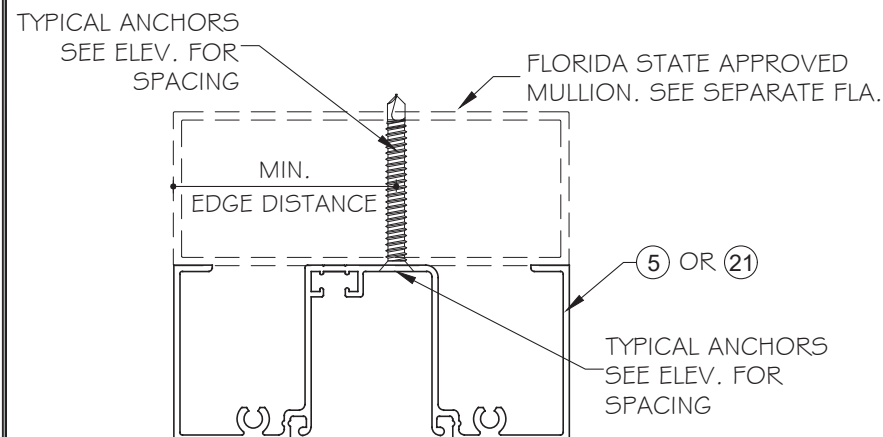
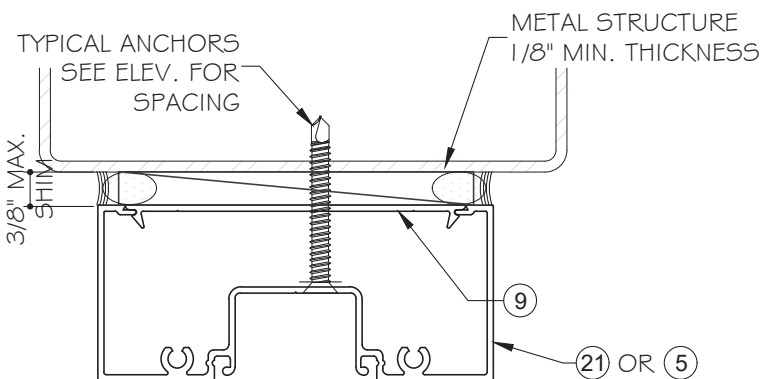
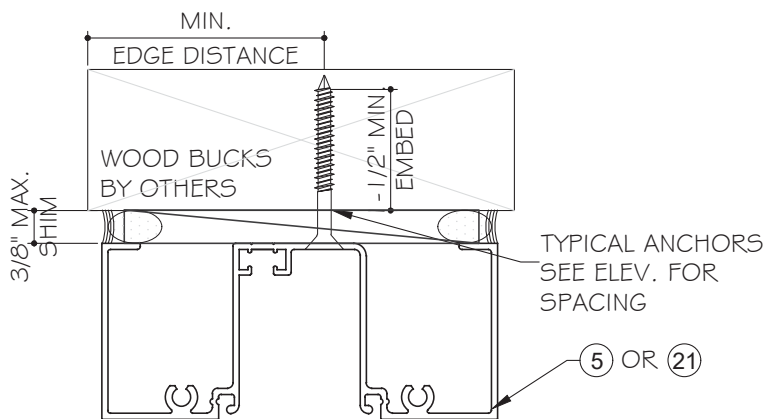
- INTO CONCRETE AND MASONRY = 2-1/2" MIN.
- INTO WOOD STRUCTURE = 1" MIN.
- INTO METAL STRUCTURE = 3/4" MIN.

WOOD SG = 0.55 MIN.
CONCRETE $f_c = 3000$ PSI MIN.
C-90 HOLLOW/FILLED BLOCK $f_m = 2000$ PSI MIN.,
NORMAL STRENGTH CMU (AT JAMB ONLY)

FRAME CORNERS SEALED WITH DOWSIL 1199 OR BUTYL TAPE.



DESIGN LOAD LIMITED TO
+/-23.5 psf



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PRODUCT:

Series CG451

ALUMINUM
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Resistor
PRODUCT SERIES

REV#	DATE/REMARKS
REV. I	UPDATE TO FBC 2023

ENGINEER:

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GLAZING CONSULTANT

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August 14th, 2023

FLORIDA APPROVAL:

FL #17962.2

SHEET TITLE:

A1

DRAWN: James

DATE: 08/14/23

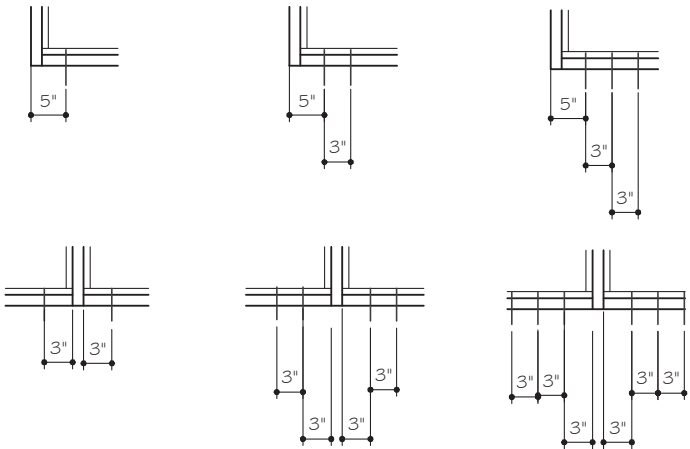
DWG: - AD20-30

DRAWING No:

10 OF 14

DESIGN LOAD CAPACITY (PSF)										
MULLION WIDTH (in)	FRAME HEIGHT (in)	ANCHPR TYPES					CAPACITIES (LBS)			
		A1/B1	A2/B2	A3/B3	C1*	C2*	B1	B2	C1	C2
		3/8" MAX SHIM					1/4"MAX. SHIM			
36	60	52.5	80.0	80.0	68.0	80.0	80.0	80.0	80.0	80.0
42		45.0	80.0	94.0	58.3	80.0	70.6	80.0	80.0	80.0
48		39.4	78.8	80.0	51.0	80.0	61.8	80.0	70.0	80.0
54		35.0	70.0	94.0	45.3	80.0	54.9	80.0	62.2	80.0
60		31.5	63.0	94.0	40.8	80.0	49.4	80.0	56.0	80.0
30	66	57.3	80.0	94.0	74.2	80.0	80.0	80.0	80.0	80.0
36		47.8	80.0	94.0	61.8	80.0	74.9	80.0	80.0	80.0
42		40.9	80.0	94.0	53.0	80.0	64.2	80.0	72.7	80.0
48		35.8	71.6	94.0	46.4	80.0	56.2	80.0	63.6	80.0
54		31.8	63.7	94.0	41.2	80.0	49.9	80.0	56.6	80.0
60		28.7	57.3	86.0	37.1	74.2	44.9	80.0	50.9	80.0
30	72	52.5	80.0	94.0	68.0	80.0	80.0	80.0	80.0	80.0
36		43.8	80.0	94.0	56.7	80.0	68.7	80.0	77.8	80.0
42		37.5	75.0	94.0	48.6	80.0	58.9	80.0	66.7	80.0
48		32.8	65.7	94.0	42.5	80.0	51.5	80.0	58.3	80.0
54		29.2	58.4	87.6	37.8	75.6	45.8	80.0	51.9	80.0
60		26.3	52.5	78.8	34.0	68.0	41.2	80.0	46.7	80.0
30	78	48.5	80.0	94.0	62.8	80.0	76.1	80.0	80.0	80.0
36		40.4	80.0	94.0	52.3	80.0	63.4	80.0	71.8	80.0
42		34.6	69.3	94.0	44.8	80.0	54.3	80.0	61.5	80.0
48		30.3	60.6	90.9	39.2	78.5	47.5	80.0	53.8	80.0
54		26.9	53.9	80.8	34.9	69.7	42.3	80.0	47.9	80.0
60		24.2	48.5	72.7	31.4	62.8	38.0	76.1	43.1	80.0
30	84	45.0	80.0	94.0	58.3	80.0	70.6	80.0	80.0	80.0
36		37.5	75.0	94.0	48.6	80.0	58.9	80.0	66.7	80.0
42		32.2	64.3	94.0	41.6	80.0	50.4	80.0	57.1	80.0
48		28.1	56.3	84.4	36.4	72.9	44.1	80.0	50.0	80.0
54		25.0	50.0	75.0	32.4	64.8	39.2	78.5	44.4	80.0
60		22.5	45.0	67.5	29.1	58.3	35.3	70.6	40.0	80.0
30	90	42.0	80.0	94.0	54.4	80.0	65.9	80.0	74.7	80.0
36		35.0	70.0	94.0	210.1	80.0	54.9	80.0	62.2	80.0
42		30.0	60.0	90.1	38.9	77.7	47.1	80.0	53.3	80.0
48		26.3	52.5	78.8	34.0	68.0	41.2	80.0	46.7	80.0
54		23.3	46.7	70.0	30.2	60.4	36.6	73.2	41.5	80.0
60		21.0	42.0	63.0	27.2	54.4	33.0	65.9	37.3	74.7
36	102	30.9	61.8	80.0	40.0	80.0	48.5	80.0	54.9	80.0
42		26.5	53.0	79.5	34.3	68.6	41.5	80.0	47.1	80.0
48		23.2	46.4	69.5	30.0	60.0	36.4	72.7	41.2	80.0
54		20.6	41.2	61.8	26.7	53.3	32.3	64.6	36.6	73.2
60		18.5	37.1	55.6	24.0	48.0	29.1	58.2	32.9	65.9

DESIGN LOAD CAPACITY (PSF)										
MULLION WIDTH (in)	FRAME HEIGHT (in)	ANCHPR TYPES					CAPACITIES (LBS)			
		A1/B1	A2/B2	A3/B3	C1*	C2*	B1	B2	C1	C2
		3/8" MAX SHIM					1/4"MAX. SHIM			
30	108	35.0	70.0	94.0	45.3	80.0	54.9	80.0	62.2	80.0
36		29.2	58.4	87.6	37.8	75.6	45.8	80.0	51.9	80.0
42		25.0	50.0	75.0	32.4	64.8	39.2	78.5	44.4	80.0
48		21.9	43.8	65.7	28.3	56.7	34.3	68.7	38.9	77.8
54			38.9	58.4	25.2	50.4	30.5	61.0	34.6	69.1
60			35.0	52.5	22.7	45.3	27.5	54.9	31.1	62.2
30	114	33.2	66.4	94.0	42.9	80.0	52.0	80.0	58.9	80.0
36		27.6	55.3	82.9	35.8	71.6	43.4	80.0	49.1	80.0
42		23.7	47.4	71.1	30.7	61.4	37.2	74.3	42.1	80.0
48		20.7	41.5	62.2	26.8	53.7	32.5	65.1	36.8	73.7
54			36.9	55.3	23.9	47.7	28.9	57.8	32.7	65.5
60			33.2	49.8	21.5	42.9	26.0	52.0	29.5	58.9
30	120	31.5	63.0	94.0	40.8	80.0	49.4	80.0	56.0	80.0
36		26.3	52.5	78.8	34.0	68.0	41.2	80.0	46.7	80.0
42		22.5	45.0	67.5	29.1	58.3	35.3	70.6	40.0	80.0
48			39.4	59.1	25.5	51.0	30.9	61.8	35.0	70.0
54			35.0	52.5	22.7	45.3	27.5	54.9	31.1	62.2
60			31.5	47.3	20.4	40.8	24.7	49.4	28.0	56.0
30	126	30.0	60.0	90.1	38.9	77.7	47.1	80.0	53.3	80.0
36		25.0	50.0	75.0	32.4	64.8	39.2	78.5	44.4	80.0
42		21.4	42.9	64.3	27.8	55.5	33.6	67.3	38.1	76.2
48			37.5	56.3	24.3	48.6	29.4	58.9	33.3	66.7
60			30.0	45.0	20.0	35.0	25.0	40.0	30.0	45.0
30	132	28.7	57.3	86.0	37.1	74.2	44.9	80.0	50.9	80.0
36		23.9	47.8	71.6	30.9	61.8	37.5	74.9	42.4	80.0
42		20.5	40.9	61.4	26.5	53.0	32.1	64.2	36.4	72.7
48			35.8	53.7	23.2	46.4	28.1	56.2	31.8	63.6
60			28.7	45.0	20.0	35.0	25.0	40.0	30.0	45.0
30	138	27.4	54.8	82.2	35.5	71.0	43.0	80.0	48.7	80.0
36		22.8	45.7	68.5	29.6	59.1	35.8	71.7	40.6	80.0
42			39.2	58.7	25.3	50.7	30.7	61.4	34.8	69.6
48			34.3	51.4	22.2	44.3	26.9	53.7	30.4	60.9
60			26.3	42.0	20.0	35.0	25.0	40.0	30.0	45.0
30	144	26.3	52.5	78.8	34.0	68.0	41.2	80.0	46.7	80.0
36		21.9	43.8	65.7	28.3	56.7	34.3	68.7	38.9	77.8
42			37.5	56.3	24.3	48.6	29.4	58.9	33.3	66.7
48			32.8	49.3	21.3	42.5	25.8	51.5	29.2	58.3
60			26.3	42.0	20.0	35.0	25.0	40.0	30.0	45.0



A1, B1, C1 A2, B2, C2 A3, B3

ANCHORS TYPES: SEE SHEET 9 FOR DESCRIPTION
A1 = (1) ANCHORS TYPE 'A' AT JAMB OR EACH SIDE OF MULLION
A2 = (2) ANCHORS TYPE 'A' AT JAMB OR EACH SIDE OF MULLION
A3 = (3) ANCHORS TYPE 'A' AT JAMB OR EACH SIDE OF MULLION
AA1 = (1) ANCHORS TYPE 'A' AT JAMB OR EACH SIDE OF MULLION
AA2 = (2) ANCHORS TYPE 'A' AT JAMB OR EACH SIDE OF MULLION
AA3 = (3) ANCHORS TYPE 'A' AT JAMB OR EACH SIDE OF MULLION
B1 = (1) ANCHORS TYPE 'B' AT JAMB OR EACH SIDE OF MULLION
B2 = (2) ANCHORS TYPE 'B' AT JAMB OR EACH SIDE OF MULLION
C1 = (1) ANCHORS TYPE 'C' AT JAMB OR EACH SIDE OF MULLION
C2 = (2) ANCHORS TYPE 'C' AT JAMB OR EACH SIDE OF MULLION
D1 = (1) ANCHORS TYPE 'C' AT JAMB OR EACH SIDE OF MULLION
D2 = (2) ANCHORS TYPE 'C' AT JAMB OR EACH SIDE OF MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

* 1/4"TEKS (GRADE 5) ONLY FOR 3/8" SHIM



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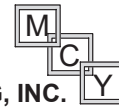
Series CG451

ALUMINUM
STOREFRONT
WALL

**Resistor**
PRODUCT SERIES

REV N	DATE/REMARKS
REV I	UPDATE TO FBC 2023

ENGINEER:



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GLAZING CONSULTANT

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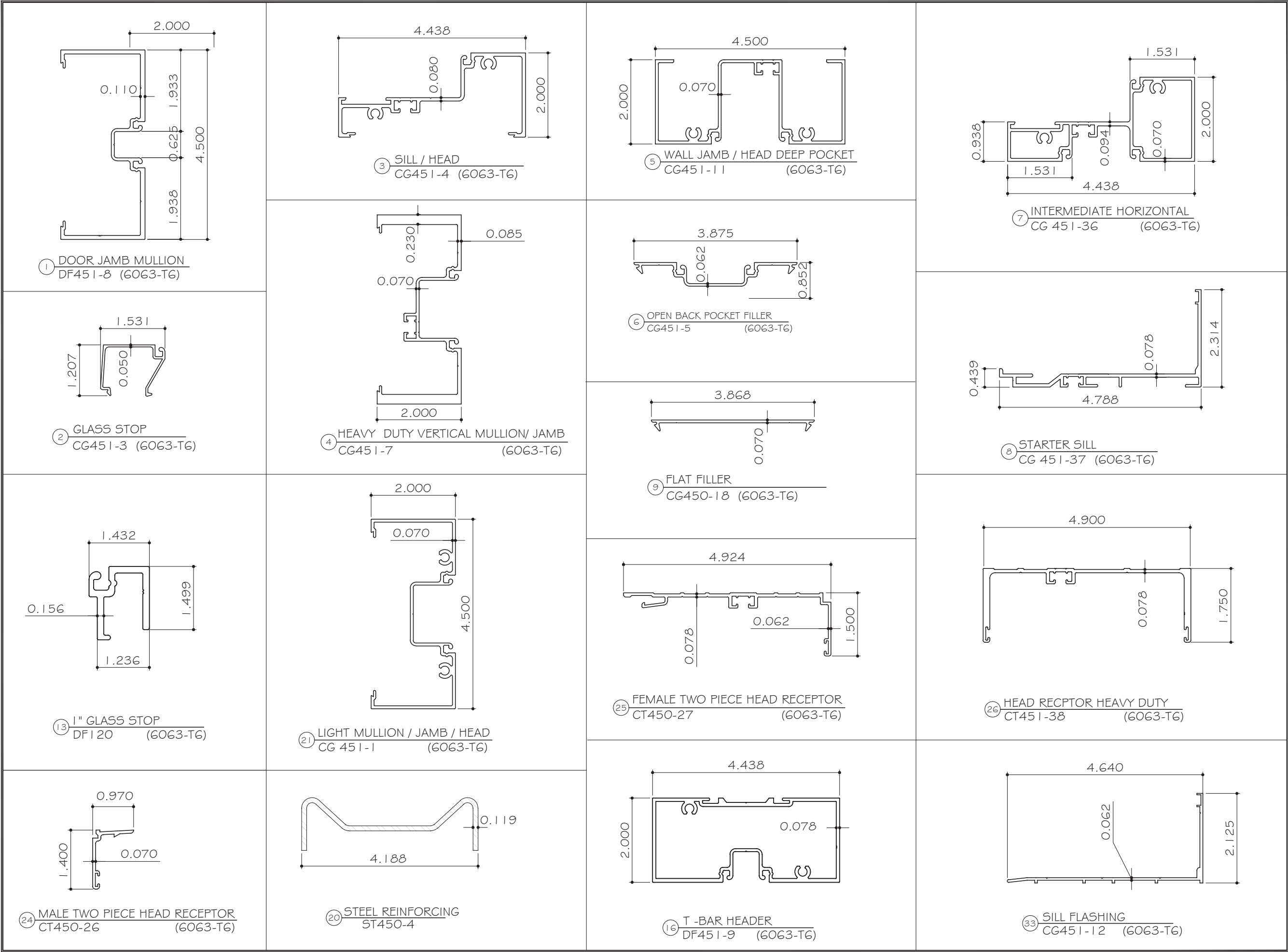
FLORIDA APPROVAL:

FL #17962.2

SHEET TITLE:

A2

DRAWN: James	DRAWING No:
DATE: 08/14/23	11 OF 14
DWG: - AD20-30	





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 **Resistor**
PRODUCT SERIES

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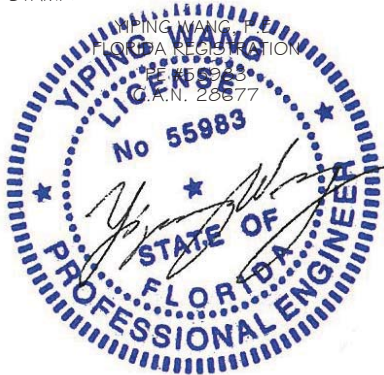
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FLORIDA APPROVAL:

FL #17962.2

SHEET TITLE:

PARTS

DRAWN: James	DRAWING No:
DATE: 08/14/23	12 OF 14
DWG: - AD20-30	

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	DF451-8	AS REQD.	DOOR JAMB MULLION	6063-T6 ALUM	BONNEL
2	CG451-3	AS REQD.	GLASS STOP	6063-T6 ALUM	BONNEL
3	CG 451-4	AS REQD.	SILL / HEAD	6063-T6 ALUM	BONNEL
4	CG451-7	AS REQD.	HEAVY DUTY VERTICAL MULLION	6063-T6 ALUM	BONNEL
5	CG451-11	AS REQD.	WALL JAMB / HEAD DEEP POCKET	6063-T6 ALUM	BONNEL
6	CG451-5	AS REQD.	OPEN BACK POCKET FILLER	6063-T6 ALUM	BONNEL
7	CG 451-36	AS REQD.	INTERMEDIATE HORIZONTAL	6063-T6 ALUM	BONNEL
8	CG451-37	AS REQD.	STARTER SILL	6063-T6 ALUM	BONNEL
9	CG450-18	AS REQD.	FLAT FILLER	6063-T6 ALUM	BONNEL
10	RG-1	AS REQD.	WEDGE-IN GASKET (4" LONG)	EPDM, DURO 70 ±5 SHORE A	TREMCO / GRP
11	RSB-3	AS REQD.	SETTING BLOCK (4" LONG) @ 1/8" POINT	EPDM, DURO 85 ±5 SHORE A	TREMCO / GRP
12	WD-451	AS REQD.	WATER DEFLECTOR	ABS PLASTIC	UNITED PLASTIC
13	DF120	AS REQD.	1" GLASS STOP	6063-T6 ALUM	BONNEL
14	ED-450-1	2/ LITE	END DAM	ABS PLASTIC	UNITED PLASTIC
15	795	AS REQD.	SILICONE - PERIMETER	SILICONE	DOW
16	DF451-9	AS REQD.	T- BAR HEADER	6063-T6 ALUM	BONNEL
17	FAS10-1	AS REQD.	#10-16X3/4" FHP #2 SD	STEEL	VARIES
18	FAS14-2	AS REQD.	1/4" - 14X1" HWH-F MS	ZINC COATED STEEL	ALLOY FASTENER
19	FAS8-6	AS REQD.	#8-32 X 3/8" TYPE "F"	STEEL	VARIES
20	ST450-4	AS REQD.	REINFORCEMENT	STEEL	VARIES
21	CG 451-1	AS REQD.	LIGHT MULLION / JAMB / HEAD	6063-T6 ALUM	BONNEL
22	DF118	AS REQD.	GLASS TOP	6063-T6 ALUM	BONNEL
23	DF119	AS REQD.	GLASS TOP	6063-T6 ALUM	BONNEL
24	CG450-26	AS REQD.	MALE TWO PIECE HEAD RECEPTOR	6063-T6 ALUM	BONNEL
25	CT451-27	AS REQD.	FEMALE TWO PIECE HEAD RECEPTOR	6063-T6 ALUM	BONNEL
26	CT451-38	AS REQD.	ONE PIECE HEAD RECEPTOR HEAVY DUTY	6063-T6 ALUM	BONNEL
27	DA101	AS REQD.	RIGID PVC JAMB FILLER	PVC	IMPERIAL PLASTIC
28	4510	AS REQD.	DOOR STOP	6063-T6 ALUM	BONNEL
29	RSB-19	AS REQD.	TRANSOM SETTING BLOCK @ 1/8" POINT	EPDM, DURO 85 ±5 SHORE A	TREMCO / GRP
30	GT-1	AS REQD.	JOIN SEALANT TAPE	BUTIL	SCHNEE-MOOREHEAD
31	RSB-4	AS REQD.	INSIDE GLAZED SETTING BLOCK (4" LONG) @ 1/8" POINT.	EPDM, DURO 85 ±5 SHORE A	TREMCO / GRP
32	-	AS REQD.	SPACER	ALUMINUM	HELIMA HELVETION INT. / VARIES.
33	CG451-12	AS REQD.	SILL FLASHING	6063-T6 ALUM	BONNEL



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Series CG451

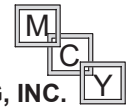
ALUMINUM
STOREFRONT
WALL



PRODUCT SERIES

REVN	DATE/REMARKS
REV 1	UPDATE TO FBC 2023

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www.MCYEngineering.com

STAMP:



August 14th, 2023

FLORIDA APPROVAL:

FL #17962.2

SHEET TITLE:

BOM

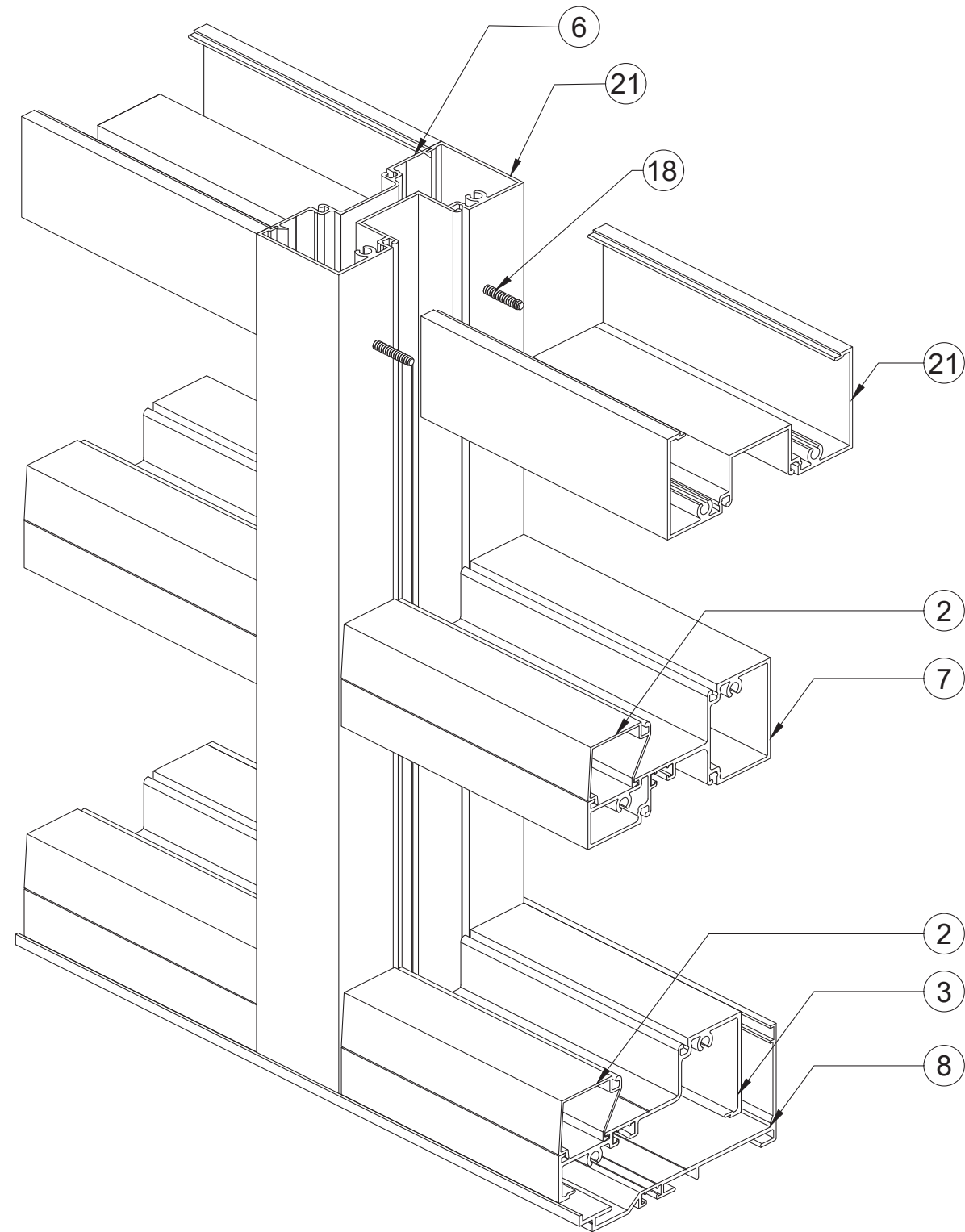
DRAWN: James

DATE: 08/14/23

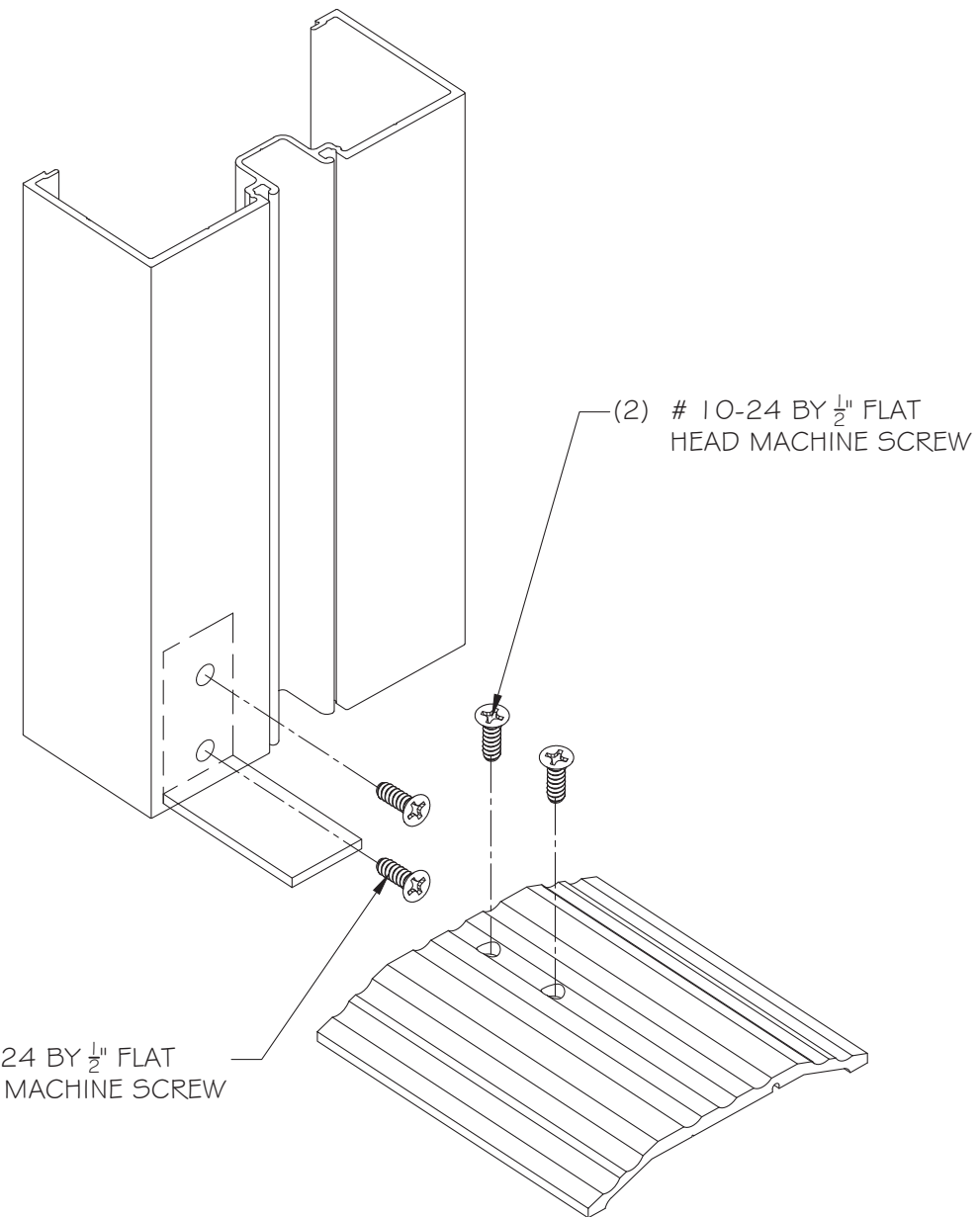
DWG: - AD20-30

DRAWING No:

13 OF 14



FRAME CORNERS ISOMETRIC



DJJ OR DJM CONECTION WITH DOOR SILL

PRODUCT:

Series CG451

ALUMINUM
STOREFRONT
WALL

Resistor
PRODUCT SERIES

REV#	DATE/REMARKS
REV. I	UPDATE TO FBC 2023

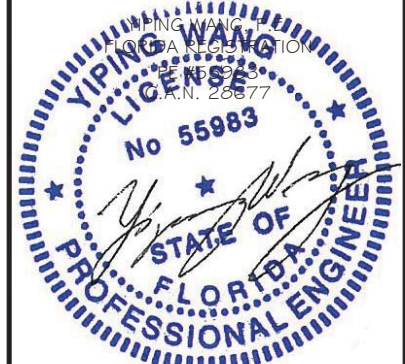
ENGINEER:



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14 OF 14