

THESE DOORS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

**SERIES ENV 330
ALUMINUM OUTSWING ENTRANCE DOOR**

SINGLE (X) AND DOUBLE (XX) LEAF DOORS CAPACITY SEE SHEET 2.
TRIPLE (XXX) LEAF DOORS CAPACITY SEE SHEET 3.
QUADRUPLE (XXXX) LEAF DOORS CAPACITY SEE SHEET 4.

DOORS NOT APPROVED FOR INSTALLATION WHERE WATER INFILTRATION RESISTANCE IS REQUIRED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON - METALLIC AND NON-COMPRESSIBLE.

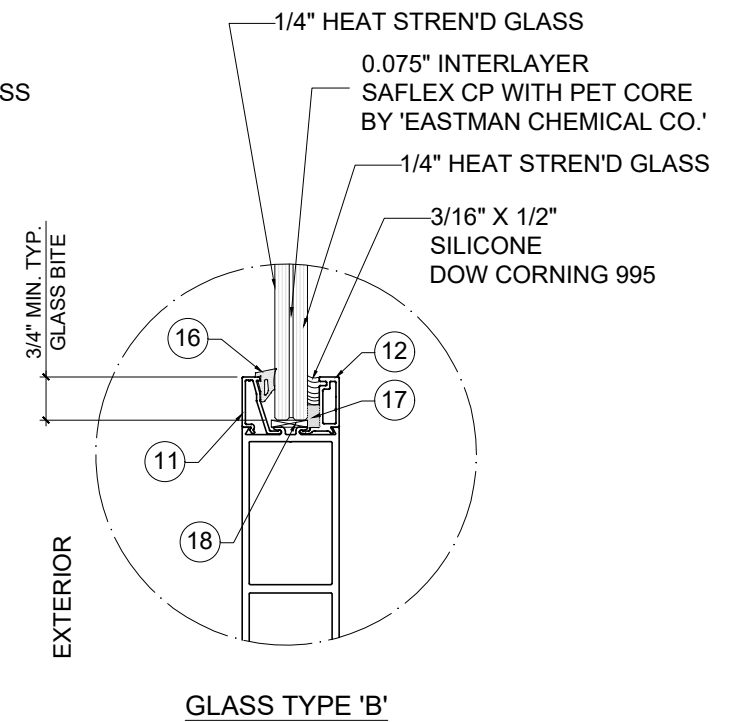
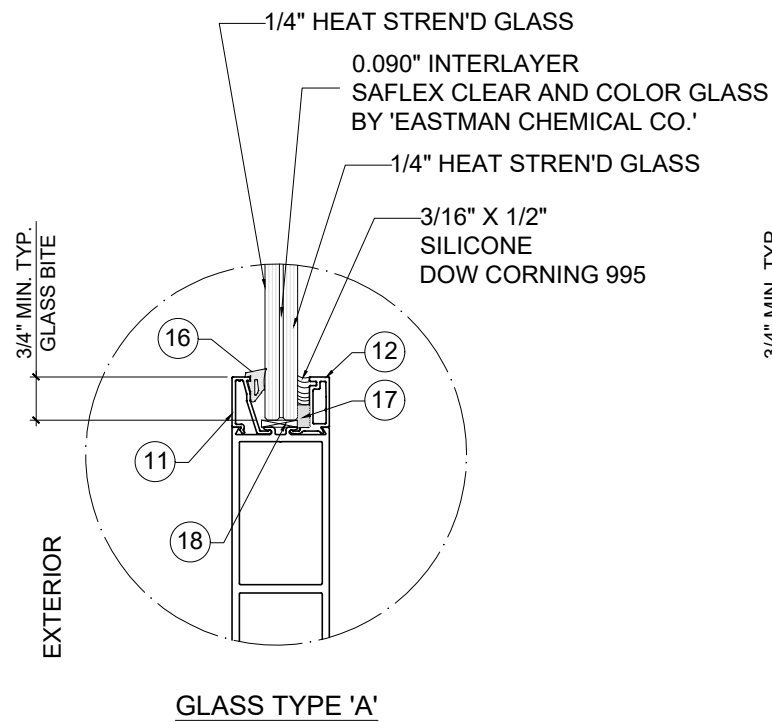
MATERIALS INCLUDING BUT NOT LIMITED TO STEEL / METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

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.

SEALANT
ALL DOOR STOP, HINGES, DRIP CAP, FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER OF GLAZING BEAD TO FRAME SEALED WITH SILICONE SEALANT.

NOTE:
GLASS CAPACITIES ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05 - DEC - 219



GLAZING OPTIONS

- A - 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.
- B - THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- C - 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. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LETTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
- D - THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

FLORIDA APPROVAL:
FL#22257.1

YIPING WANG
YIPING WANG, P.E.
FLORIDA REGISTRATION
No. 55983
C.A.N. 28677

December 30th, 2020

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PKWY. STE. 301 P. 305.271.0117
MIRAMAR, FL 33027
www.MCYEngineering.com
mcy@mcyengineering.com

SERIES ENV 330 ALUMINUM OUTSWING DOOR(L.M.I.)
ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL 33166
TEL:(305)752-4411 FAX:(305)406-3877

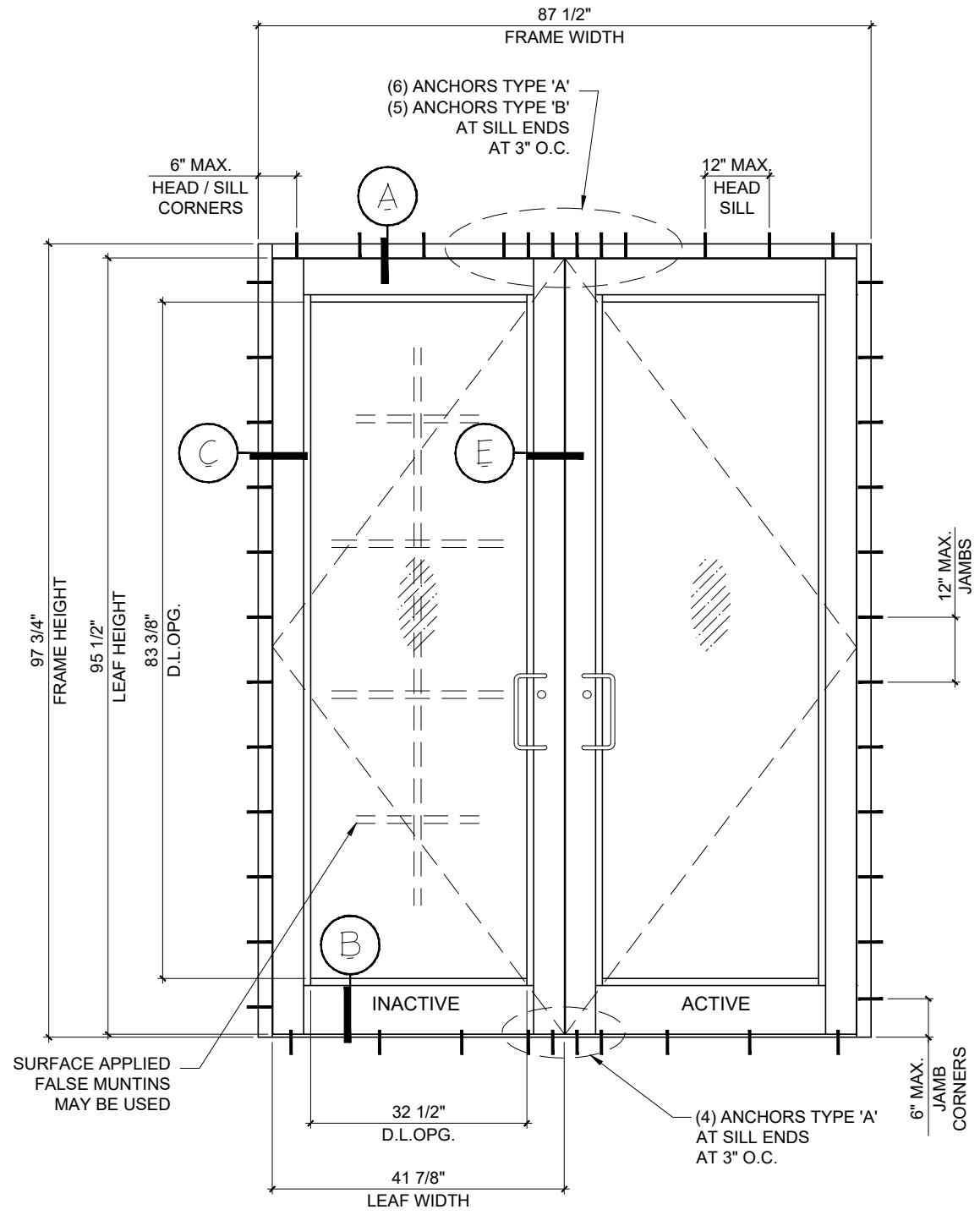
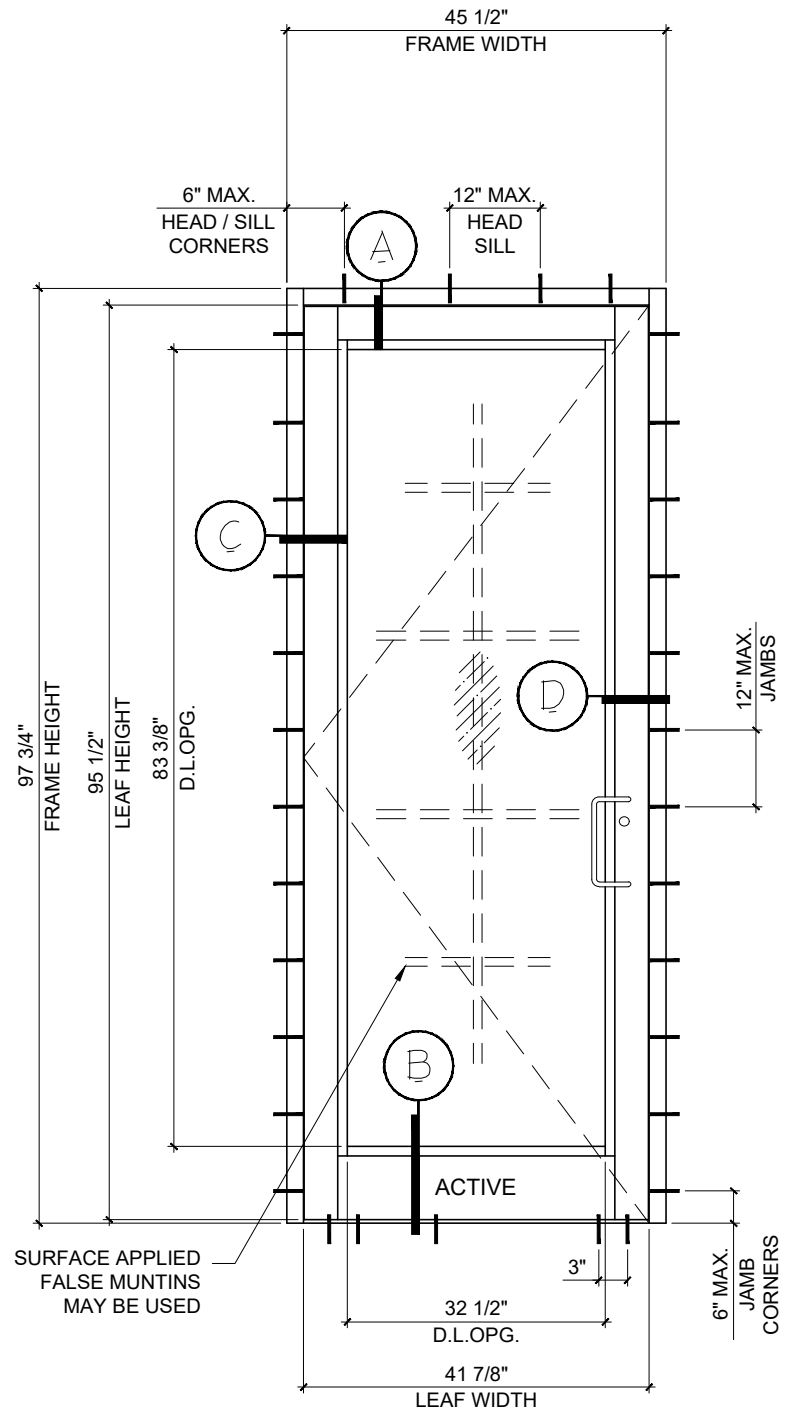
Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 12/30/2020 Scale:

DRAWING NO. **AD20-45**

COVER

1 OF 10



TYPICAL ELEVATIONS

SINGLE (X) DOOR LOAD CAPACITY - PSF					
DOOR DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'	
FRAME WIDTH	FRAME HEIGHT	EXT. (+)	EXT. (-)	EXT. (+)	EXT. (-)
45-1/2"	97-3/4"	60.0	60.0	90.0	90.0

FOR GEAR HINGES LIMIT MAX. DESIGN LOADS TO ±60.0 PSF

DOUBLE (XX) DOOR LOAD CAPACITY - PSF					
DOOR DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'	
FRAME WIDTH	FRAME HEIGHT	EXT. (+)	EXT. (-)	EXT. (+)	EXT. (-)
87-1/2"	97-3/4"	60.0	60.0	90.0	90.0

FOR GEAR HINGES LIMIT MAX. DESIGN LOADS TO ±60.0 PSF

GLASS D.L.O. FORMULAE: (DOOR)
 D.L.O. WIDTH = DOOR WIDTH - 13.00" (X DOORS)
 = (FRAME WIDTH - 22.50") / 2 (XX DOORS)
 D.L.O. HEIGHT = FRAME HEIGHT - 14.375"
 DOOR LEAF HEIGHT = FRAME HEIGHT - 2.250"

FLORIDA APPROVAL:
 FL#22257.1
 YIPING WANG
 FLORIDA REGISTRATION
 No. 55983
 C.A.N. 28677
 December 30th, 2020

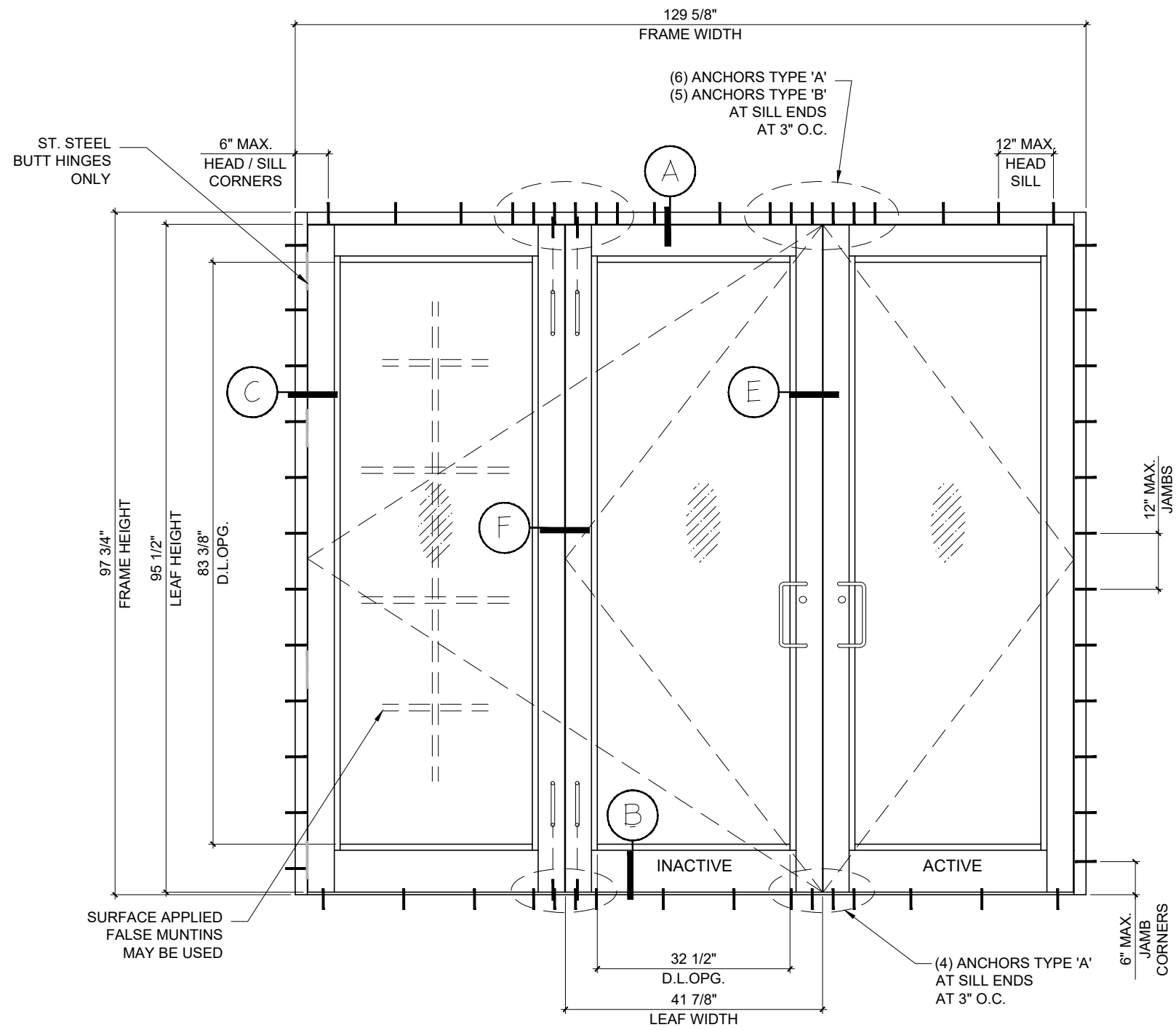
Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 12/30/2020 Scale: _____

DRAWING NO. **AD20-45**

E1

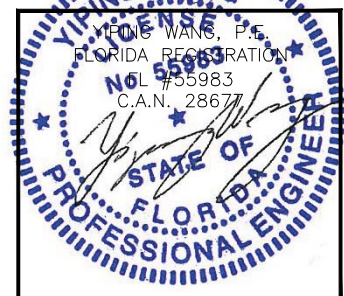
2 OF 10



TYPICAL ELEVATIONS

TRIPLE (XXX) DOOR LOAD CAPACITY - PSF					
DOOR DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'	
FRAME WIDTH	FRAME HEIGHT	EXT. (+)	EXT. (-)	EXT. (+)	EXT. (-)
129-5/8"	97-3/4"	60.0	60.0	90.0	90.0

FLORIDA APPROVAL:
 FL#22257.1
 YIPING WANG



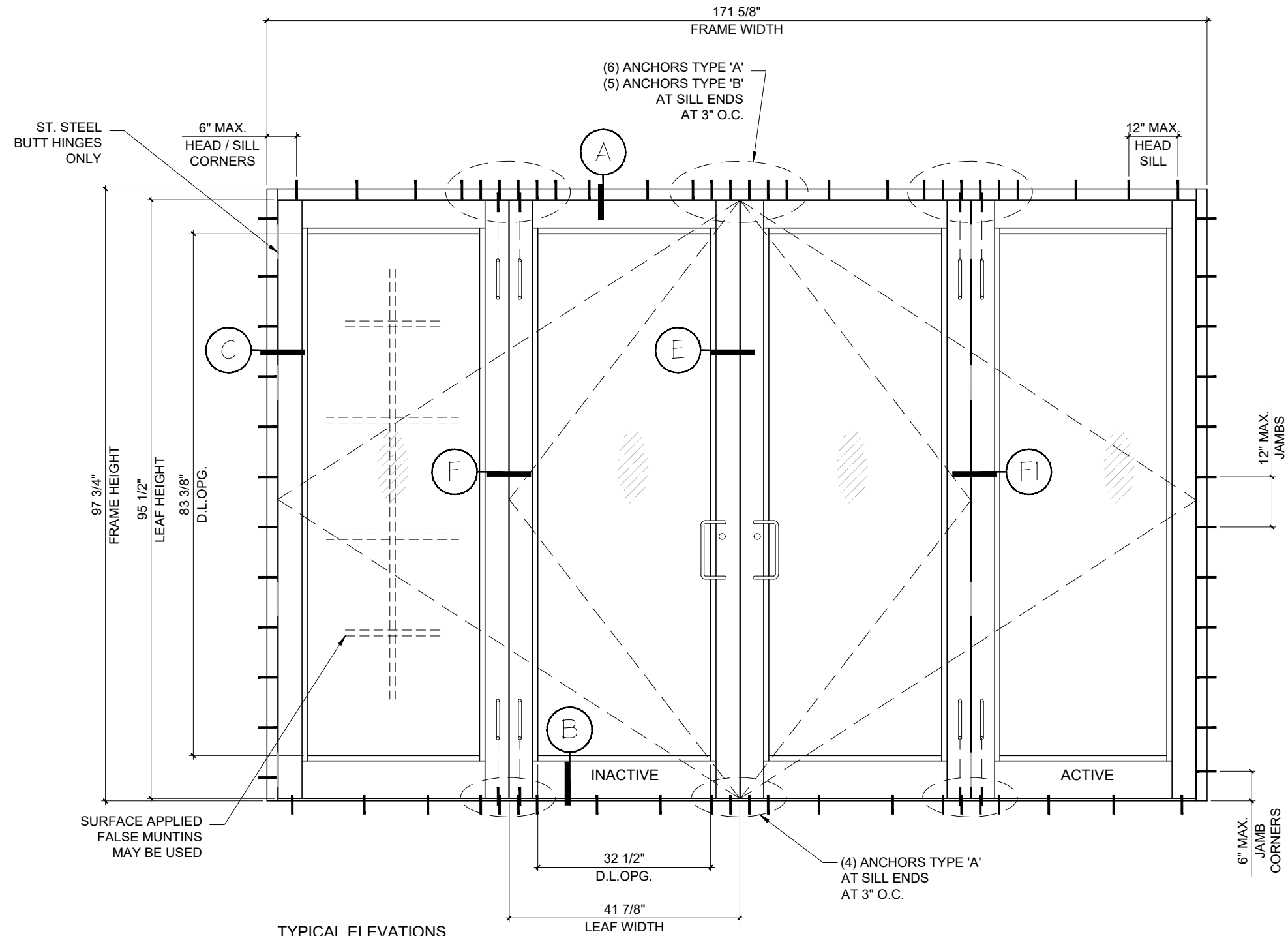
December 30th, 2020

MCY ENGINEERING, INC.
 GLAZING CONSULTANTS
 12781 MIRAMAR PKWY. STE. 301 P: 305.271.0117
 MIRAMAR, FL 33027
 www.MCYEngineering.com
 mcy@mcyengineering.com

SERIES ENV 330 ALUMINUM OUTSWING DOOR(L.M.I.)
ENVIRALUM INDUSTRIES INC.
 5110 N.W. 72 AVENUE BLDG.C
 MIAMI, FL 33166
 TEL:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

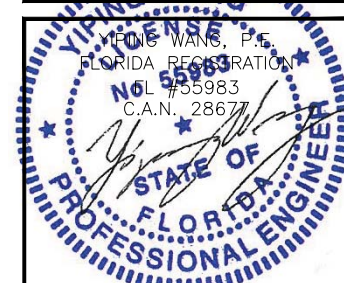
Drawn Date 12/30/2020	Scale
DRAWING NO. AD20-45	
E2	
3 OF 10	



TYPICAL ELEVATIONS

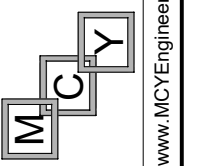
QUADRUPLE (XXXX) DOOR LOAD CAPACITY - PSF					
DOOR DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'	
FRAME WIDTH	FRAME HEIGHT	EXT. (+)	EXT. (-)	EXT. (+)	EXT. (-)
171-5/8"	97-3/4"	60.0	60.0	90.0	90.0

FLORIDA APPROVAL:
 FL#22257.1



December 30th, 2020

MCY ENGINEERING, INC.
 GLAZING CONSULTANTS
 12781 MIRAMAR PKWY. STE. 301 P: 305.271.0117
 MIRAMAR, FL 33027



SERIES ENV 330 ALUMINUM OUTSWING DOOR(L.M.I.)
ENVIRALUM INDUSTRIES INC.
 5110 N.W. 72 AVENUE BLDG.C
 MIAMI, FL 33166
 TEL:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

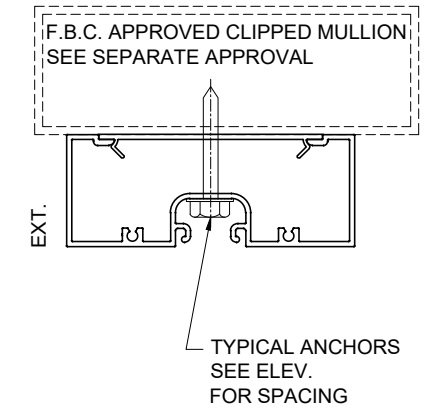
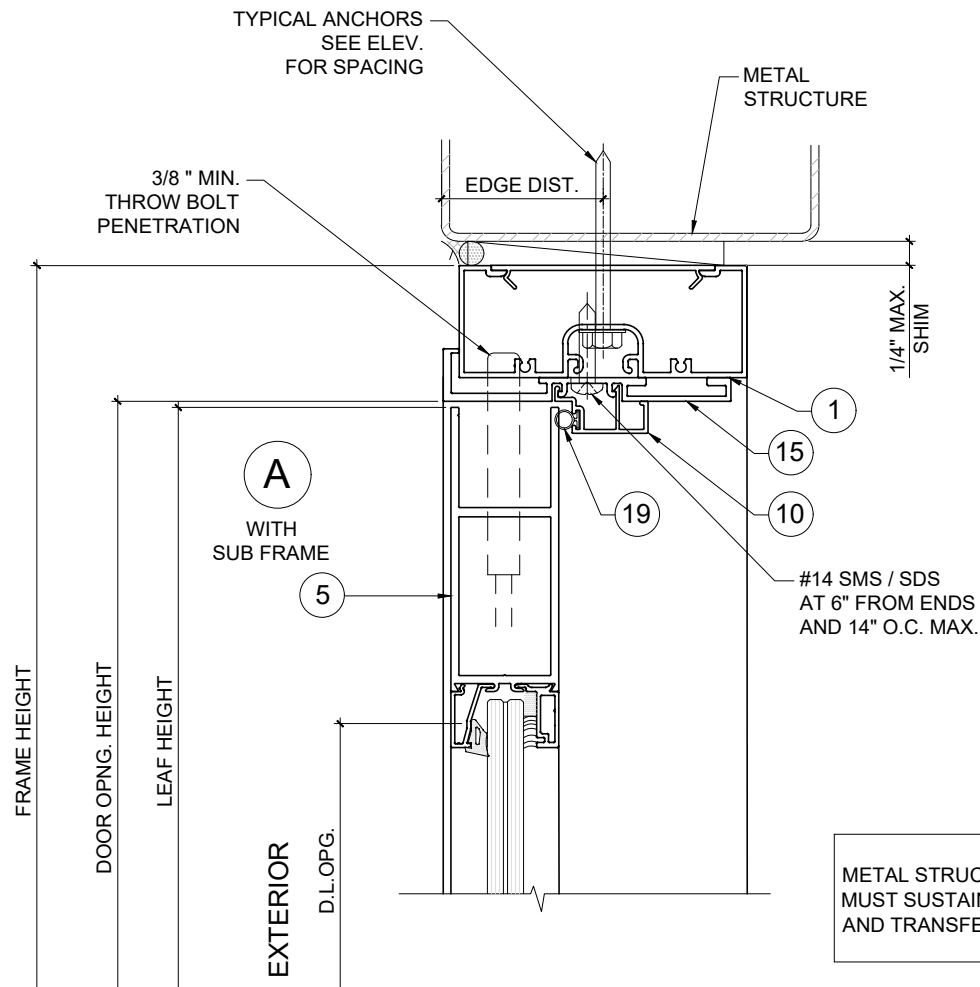
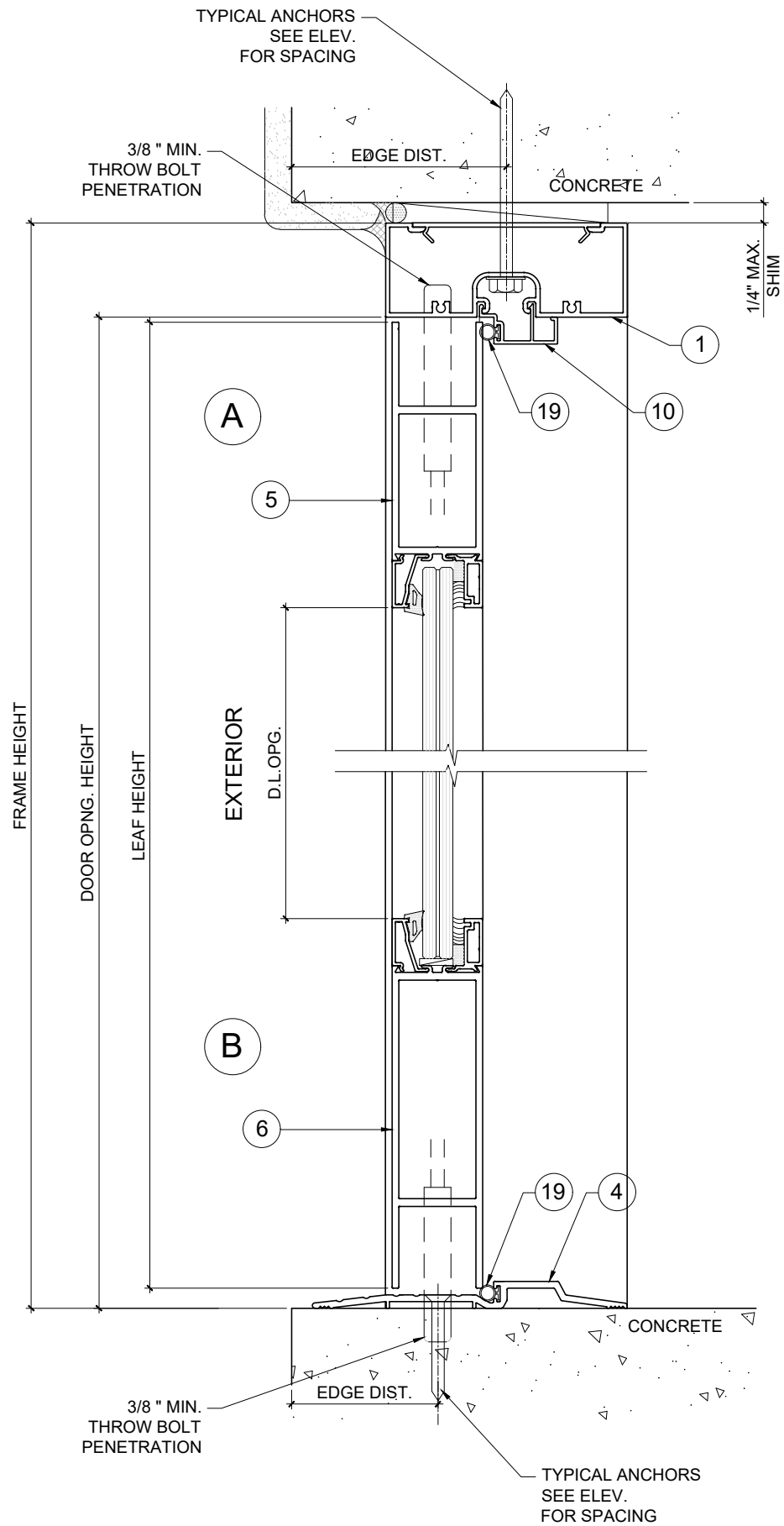
Drawn Date: 12/30/2020 Scale:

DRAWING NO.
AD20-45

E3

4 OF 10

www.MCYEngineering.com
 mcy@mcyengineering.com



METAL STRUCTURE NOT BY 'ENVIRALUM' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

- TYPICAL ANCHORS:** SEE ELEV. FOR SPACING
- TYPE 'A'-** **1/4" DIA ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI) DIRECTLY INTO CONCRETE OR MASONRY
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD / SILL / JAMBS)
 1-1/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)
- TYPE 'B'-** **#14 SMS OR SELF DRILLING SCREWS** (GRADE 2 CRS) INTO F.B.C. APPROVED MULLIONS
 OR INTO METAL STRUCTURES (HEAD / JAMBS)
 ALUMINUM: 1/8" MIN. THK. (6063-T5 MIN.)
 STEEL: 1/8" MIN. THK. (Fy=36 KSI)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)
- TYPICAL EDGE DISTANCE**
 INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO METAL STRUCTURE = 3/4" MIN.

CONCRETE AT HEAD, SILL AND JAMBS f_c = 3000 PSI MIN.
 C-90 GROUT FILLED BLOCK AT JAMBS f_m = 2000 PSI MIN.

FLORIDA APPROVAL:
FL#22257.1
YIPING WANG
 YIPING WANG, P.E.
 FLORIDA REGISTRATION
 No. 55983
 C.A.N. 28677
 December 30th, 2020

MCY ENGINEERING, INC.
 GLAZING CONSULTANTS
 12781 MIRAMAR PKWY. STE. 301 P. 305.271.0117
 MIRAMAR, FL 33027
 www.MCYEngineering.com
 mcy@mcyengineering.com

SERIES ENV 330 ALUMINUM OUTSWINGING DOOR(L.M.I.)
ENVIRALUM INDUSTRIES INC.
 5110 N.W. 72 AVENUE BLDG.C
 MIAMI, FL 33166
 TEL:(305)752-4411 FAX:(305)406-3877

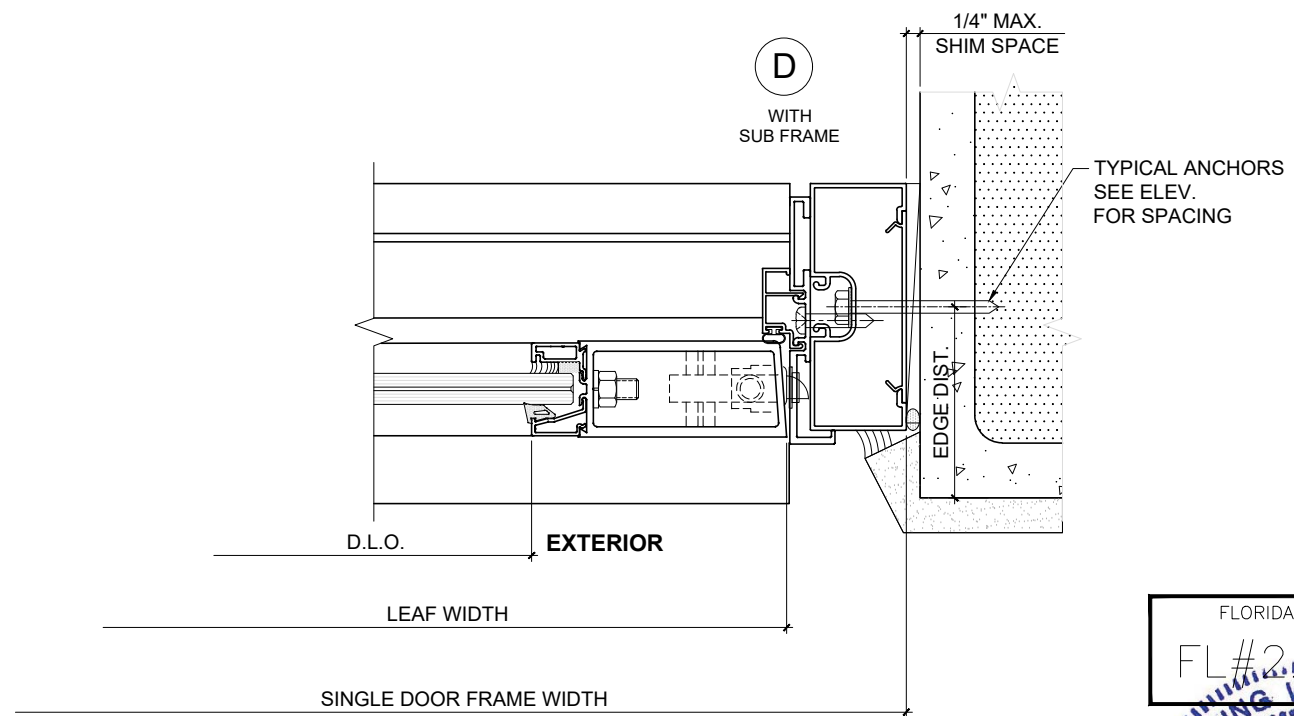
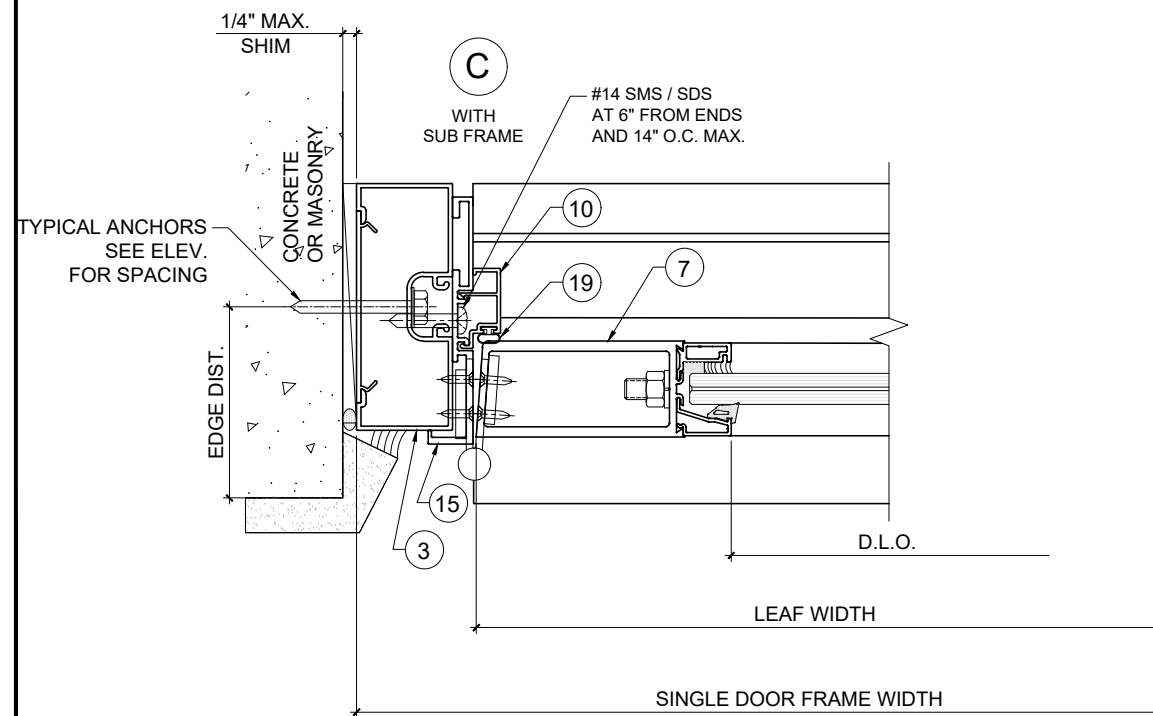
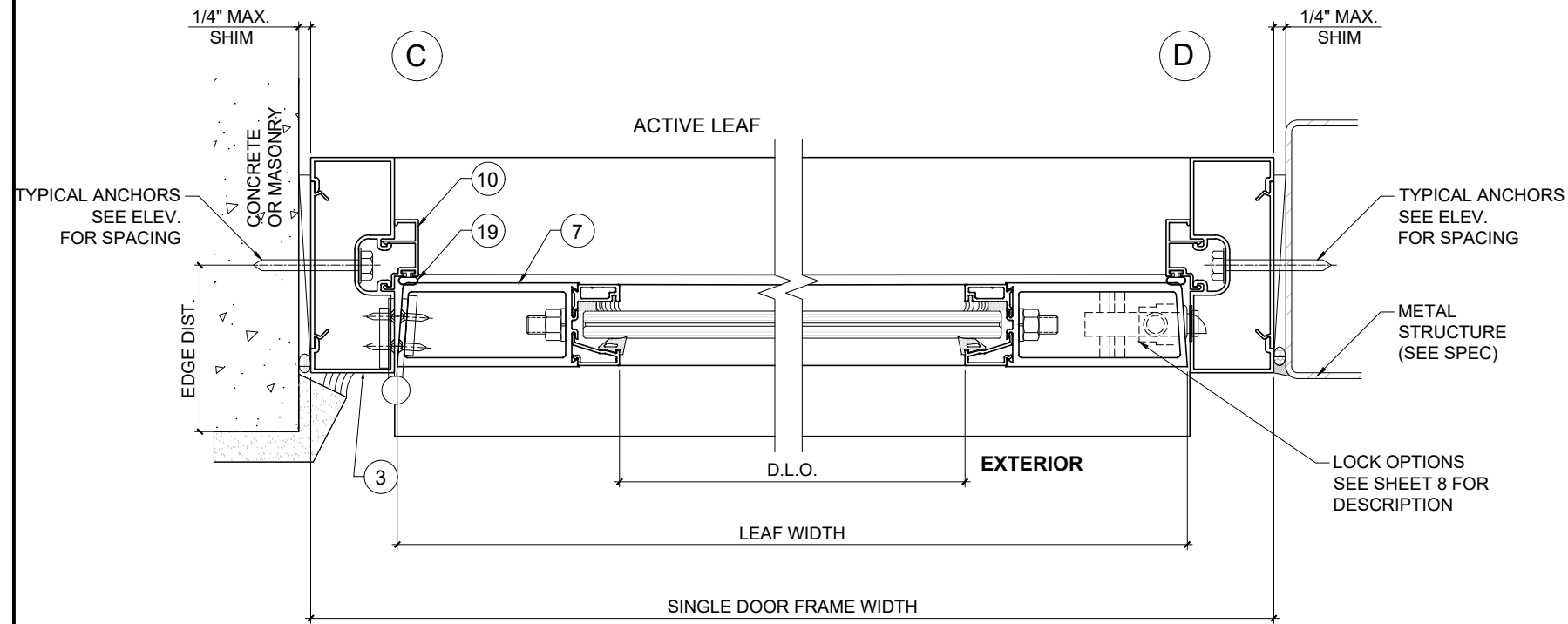
Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 12/30/2020 Scale: _____

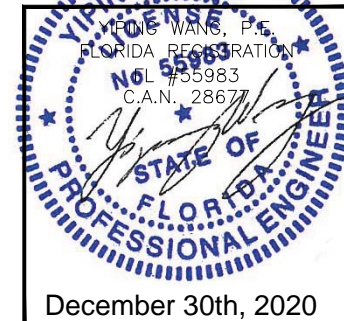
DRAWING NO. **AD20-45**

D1

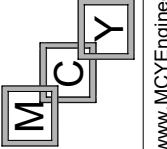
5 OF 10



FLORIDA APPROVAL:
 FL#22257.1



MCY ENGINEERING, INC.
 GLAZING CONSULTANTS
 12781 MIRAMAR PKWY. STE. 301 P. 305.271.0117
 MIRAMAR, FL 33027



www.MCYEngineering.com
 mcy@mcyengineering.com

SERIES ENV 330 ALUMINUM OUTSWING DOOR(L.M.I.)
ENVIRALUM INDUSTRIES INC.
 5110 N.W. 72 AVENUE BLDG.C
 MIAMI, FL 33166
 TEL:(305)752-4411 FAX:(305)406-3877

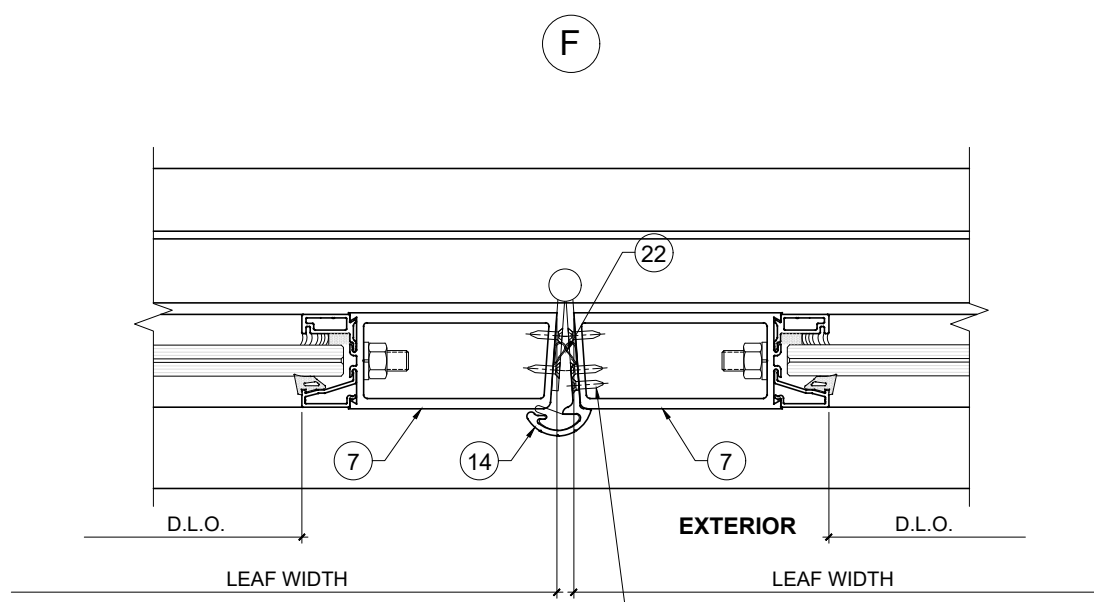
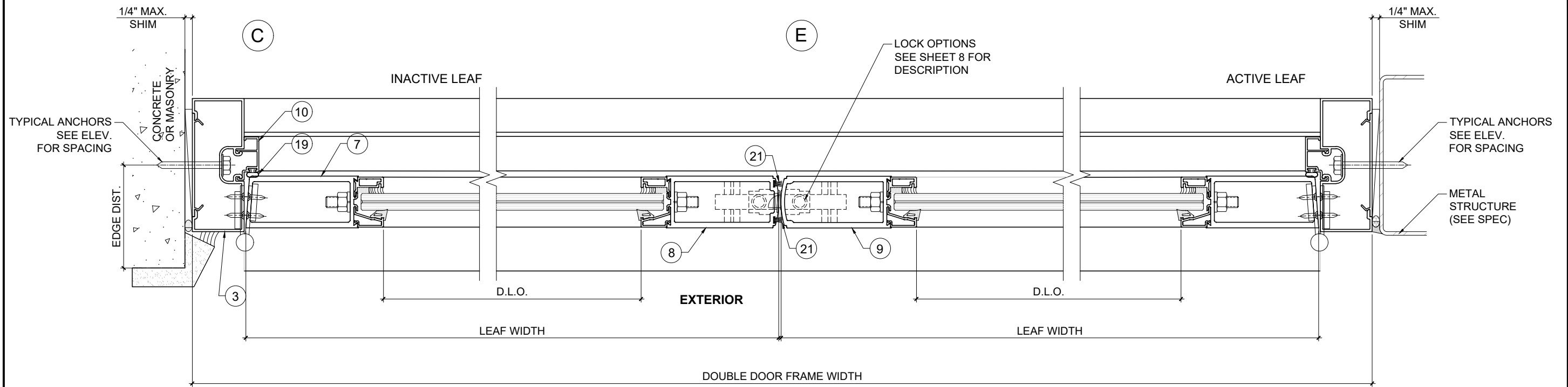
Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 12/30/2020
 Scale:

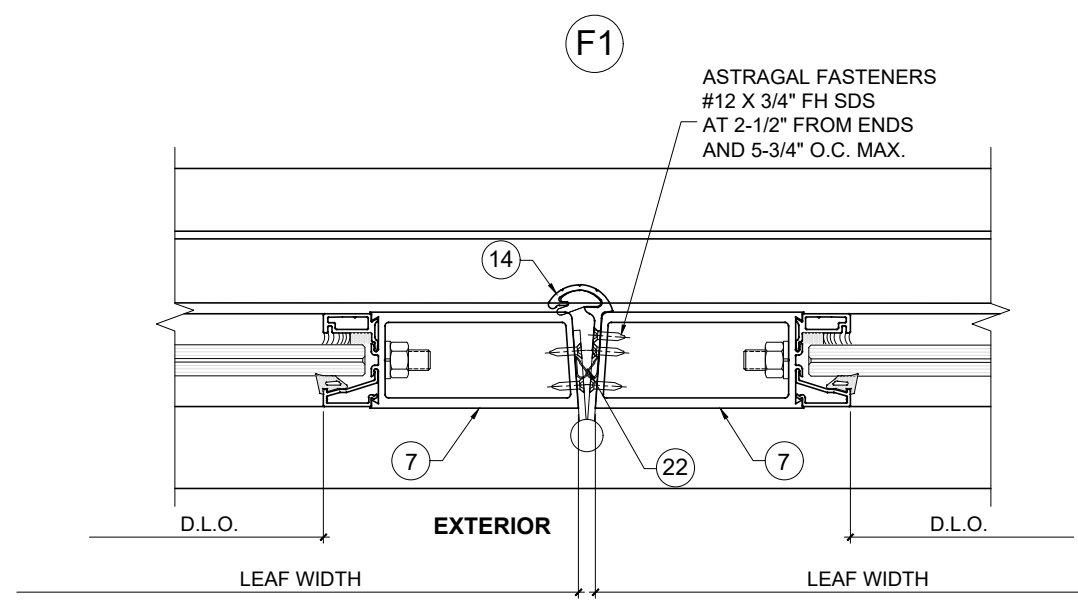
DRAWING NO.
AD20-45

D2

6 OF 10



ASTRAGAL FASTENERS
#12 X 3/4" FH SDS
AT 2-1/2" FROM ENDS
AND 5-3/4" O.C. MAX.



ASTRAGAL FASTENERS
#12 X 3/4" FH SDS
AT 2-1/2" FROM ENDS
AND 5-3/4" O.C. MAX.

FLORIDA APPROVAL:
FL#22257.1

YIPING WANG
YIPING WANG, P.E.
FLORIDA REGISTRATION
No. 55983
C.A.N. 28677
December 30th, 2020

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PKWY. STE. 301 P. 305.271.0117
MIRAMAR, FL 33027
www.MCYEngineering.com
mcy@mcyengineering.com

SERIES ENV 330 ALUMINUM OUTSWING DOOR(L.M.I.)
ENVIRALUM INDUSTRIES INC.
5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL 33166
TEL:(305)752-4411 FAX:(305)406-3877

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 12/30/2020 Scale:

DRAWING NO. AD20-45

D3

7 OF 10

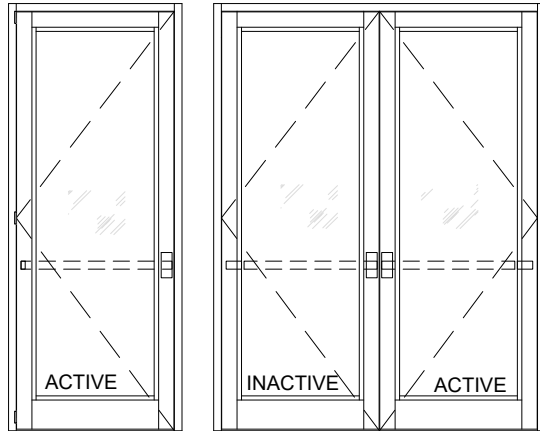
LOCK OPTIONS:

LOCK OPTION #1

PANIC EXIT DEVICE

ACTIVE & INACTIVE LEAF:

CONCEALED VERTICAL ROD PANIC EXIT DEVICE # 5770 BY 'REGENT HARDWARE' LOCATED AT 40" FROM SILL AT EACH LEAF. FASTENED WITH:
 (1) #10 X 3/8" FH SELF DRILLING SCREW AT ONE END AND
 (2) #10 X 1/2" FH SELF DRILLING SCREWS AT OTHER END



LOCK OPTIONS #2

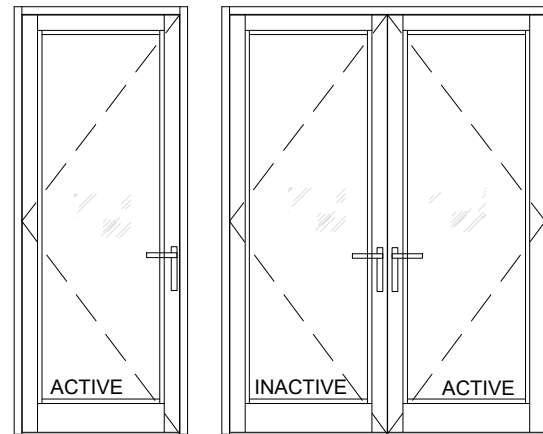
STD.3 POINT LOCK

ACTIVE LEAF:

THREE POINT LOCK SYSTEM SERIES 2222 BY 'REGENT HARDWARE' KEY OPERATED FROM EXTERIOR AND THUMB TURN ON INTERIOR WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE LOCATED AT 34" FROM BOTTOM OF LEAF

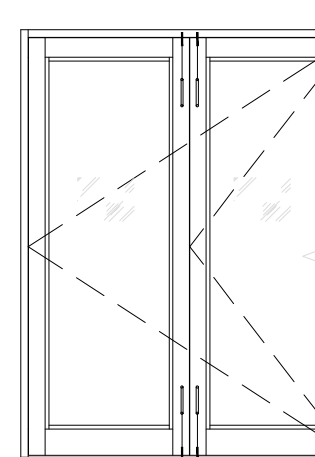
INACTIVE LEAF:

MANUALLY OPERATED TWO POINT LOCK SYSTEM BY 'REGENT HARDWARE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE FASTENED WITH
 (2) #8-32 X 1/4" PH MACHINE SCREWS



FLUSH BOLTS AT TRIPLE OR QUADRUPLE DOOR HINGE STILES:

MANUALLY OPERATED FLUSH EXTENSION BOLT SYSTEM REGENT #2509 WITH 3/8" DIA. BOLT. A SPRING LOADED LEVER MECHANISM ON FACE OF DOOR AT 12" FROM EACH END

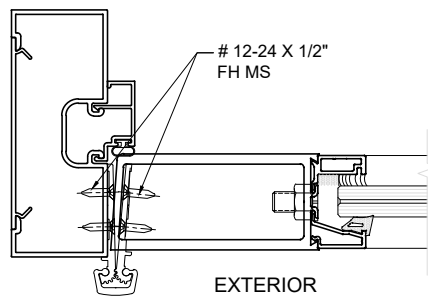


HINGES:

HINGE OPTION #1

MAX. DESIGN LOAD = 60 PSF

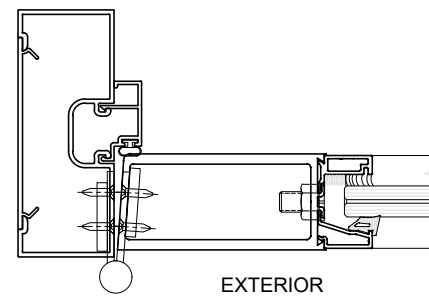
CONTINUOUS GEAR ALUMINUM HINGE
 HAGER 780-111 OR
 PEMKO CFM OR
 SELECT SL11
 FASTENED TO FRAME JAMB AND TO JAMB STILE WITH (22) #12-24 X 1/2" FH MS



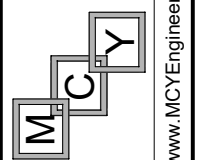
HINGE OPTION #2

MAX. DESIGN LOAD = 90 PSF

4" X 4-1/2" X .130" THK. ST. STEEL KNUCKLE HINGE
 SERIES 4001 BY 'REGENT HARDWARE' OR
 SERIES FBB 191 BY 'STANLEY SECURITY SOLUTIONS' OR
 SERIES TA2314 / TA2717 BY 'MCKINNEY ASSA ABLOY'
 4 PER LEAF
 TOP / BOTTOM HINGES AT 7-1/4" FROM EACH END AND 27" O.C.
 FASTENED TO
 FRAME JAMB WITH (4) 12-24 X 1/2" FH MS
 DOOR STILE WITH (4) 12-24 X 1/2" FH MS



MCY ENGINEERING, INC.
 GLAZING CONSULTANTS
 12781 MIRAMAR PKWY. STE. 301 P: 305.271.0117
 MIRAMAR, FL 33027
 www.MCYEngineering.com
 mcy@mcyengineering.com



SERIES ENV 330 ALUMINUM OUTSWING DOOR(L.M.I.)
ENVIRALUM INDUSTRIES INC.
 5110 N.W. 72 AVENUE BLDG.C
 MIAMI, FL 33166
 TEL:(305)752-4411 FAX:(305)406-3877

FLORIDA APPROVAL:
 FL#22257.1
 YIPING WANG, P.E.
 FLORIDA REGISTRATION
 No. 55983
 C.A.N. 28677
 December 30th, 2020

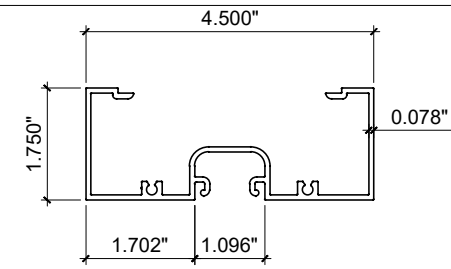
Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 12/30/2020 Scale: _____

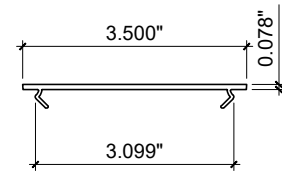
DRAWING NO. AD20-45

CONFIGURATION

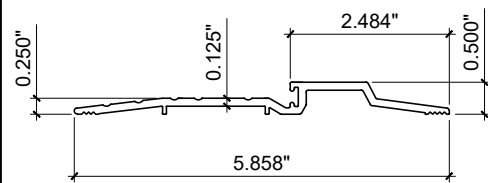
8 OF 10



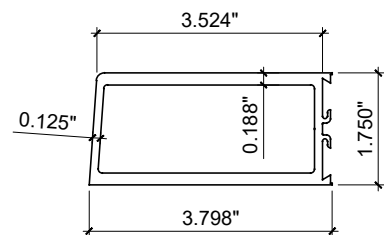
1 FRAME HEAD



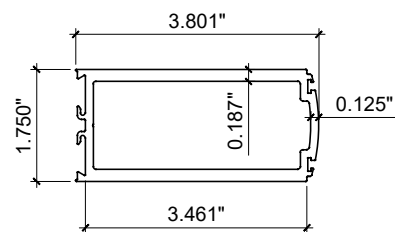
2 FLAT FILLER



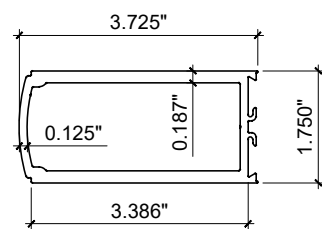
4 FRAME SILL



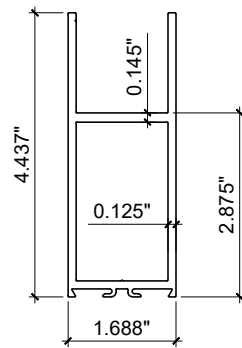
7 JAMB STILE



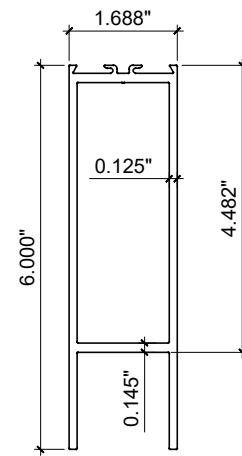
8 LOCK STILE (INACTIVE)



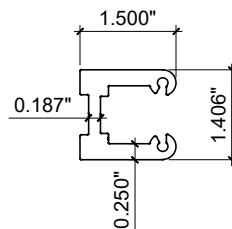
9 LOCK STILE (ACTIVE)



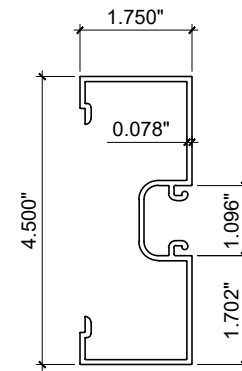
5 TOP RAIL



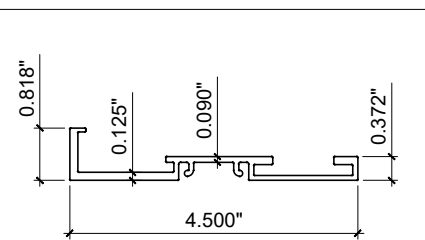
6 BOTTOM RAIL



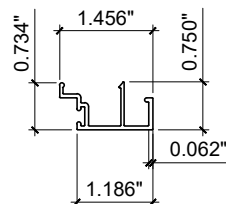
13 CORNER BLOCK



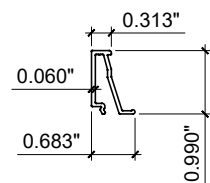
3 FRAME JAMB



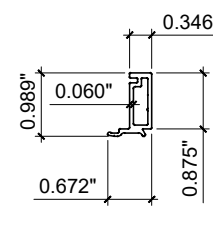
15 SUB FRAME ADAPTER



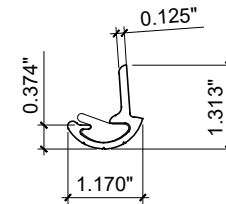
10 DOOR STOP



11 EXT. GLASS STOP



12 INT. GLASS STOP



14 ASTRAGAL

ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ENV-4502	1	FRAME HEAD	6063-T5	-
2	ENV-4506-3	1	FLAT FILLER, 3" LONG AT ANCHOR LOCATION	6063-T5	-
2A	ENV-4506	1	FLAT FILLER FULL LENGTH	6063-T5	-
3	ENV-4501	2	FRAMEJAMB	6063-T5	-
4	ENV-45017	1	THRESHOLD	6063-T6	-
5	ENV-331	1/ LEAF	TOP RAIL	6063-T6	-
6	ENV-332	1/ LEAF	BOTTOM RAIL	6063-T6	-
7	ENV-333	AS REQD.	JAMB STILE	6063-T6	-
8	ENV-335	AS REQD.	LOCK STILE (INACTIVE LEAF)	6063-T6	-
9	ENV-334	AS REQD.	LOCK STILE (ACTIVE LEAF)	6063-T6	-
10	ENV-45011	3	DOOR STOP	6063-T5	-
11	ENV-336	4/ LEAF	EXTERIOR GLASS STOP	6063-T6	-
12	ENV-337	4/ LEAF	INTERIOR GLASS STOP	6063-T6	-
13	ENV-338	1/ CORNER	CORNER BLOCK	6063-T6	-
14	352-R	1.000	ASTRAGAL STILE	6063-T5	PEMKO
15	ENV-339	AS REQD.	SUB FRAME ADAPTER	6063-T6	-
16	TR-18916E	AS REQD.	EXTERIOR GLAZING GASKET	EPDM	TREMCO, DUROMETER 70±5 SHORE A
17	V210814	AS REOD.	INTERIOR THERMOBOND TAPE	-	CR LAURANCE
18	TR03405	2/ LITE	SETTING BLOCKS, AT 1/4 POINTS	EPDM	TREMCO, DUROMETER 80±5 SHORE A
19	E205	AS REQD.	FRAME W'STRIPPING (.375 x .270 T-SLOT BULB SEAL)	-	ULTRAFAB
20	W73431NK	AS REQD.	MTG. STILE INTERIOR W'STRIPPING (TRI FIN PILE)	POLYPROPYLENE	ULTRAFAB
21	W23431NK	AS REQD.	MTG. STILE EXTERIOR W'STRIPPING (CLEARFIN PILE)	POLYPROPYLENE	ULTRAFAB
22	PK55	AS REQD.	ASTRAGAL STILE W'STRIPPING	-	PEMKO
28	#12 x 1-1/4"	AS REQD.	ASSEMBLY FASTENERS	ST. STEEL	PH SMS

FLORIDA APPROVAL:
FL#22257.1
YIPING WANG
YIPING WANG, P.E.
FLORIDA REGISTRATION
No. 55983
C.A.N. 28677
December 30th, 2020

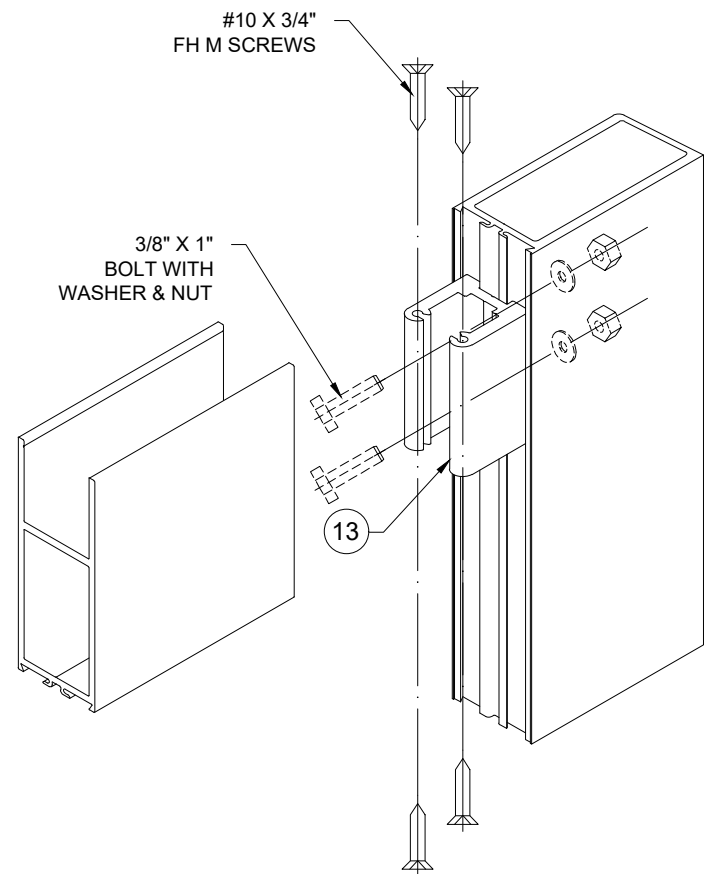
Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 12/30/2020 Scale:

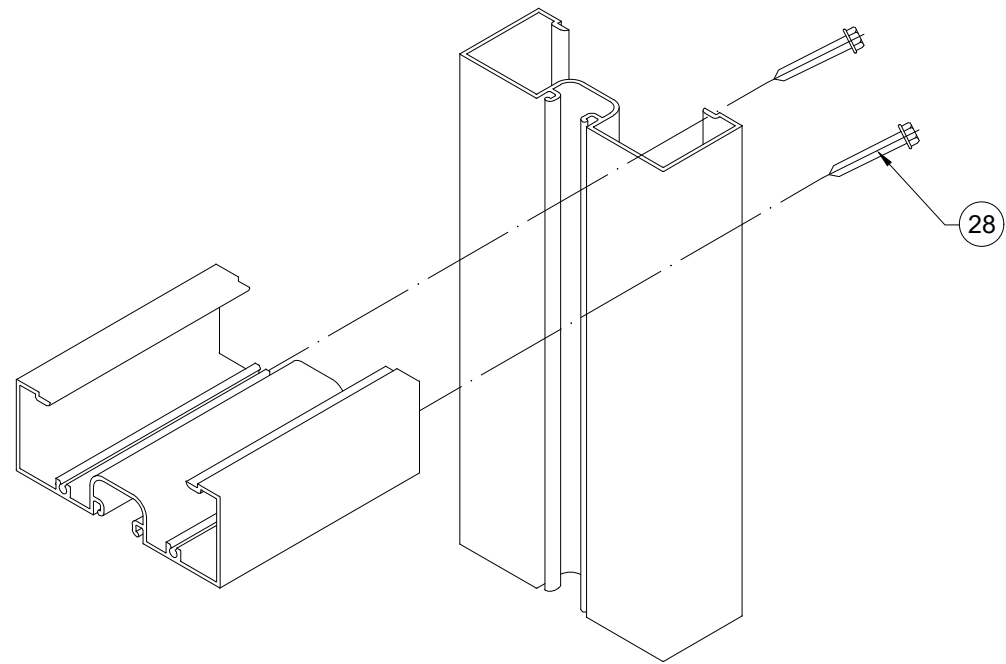
DRAWING NO. AD20-45

MATERIAL

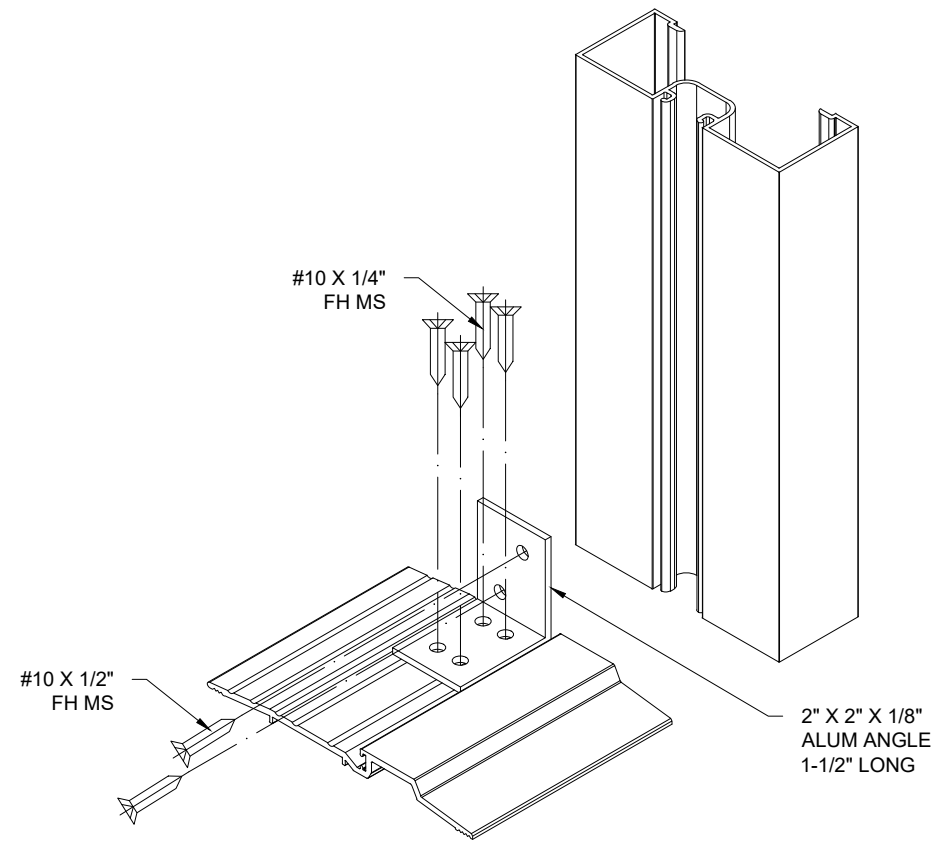
9 OF 10



LEAF TOP/ BOTTOM CORNERS



FRAME TOP CORNER



FRAME SILL CORNER

FLORIDA APPROVAL:
FL#22257.1



December 30th, 2020

SERIES ENV 330 ALUMINUM OUTSWING DOOR(L.M.I.)

ENVIRALUM INDUSTRIES INC.

5110 N.W. 72 AVENUE BLDG.C
MIAMI, FL 33166

TEL:(305)752-4411 FAX:(305)406-3877

MCY ENGINEERING, INC.
GLAZING CONSULTANTS

12781 MIRAMAR PKWY. STE. 301 P: 305.271.0117
MIRAMAR, FL 33027

www.MCYEngineering.com

mcy@mcyengineering.com

Rev. No.	Date	Drawn By	Description
1	12/30/20	James	FBC 2020 UPDATE

Drawn Date: 12/30/2020

DRAWING NO. AD20-45

ASSEMBLE

10 OF 10