

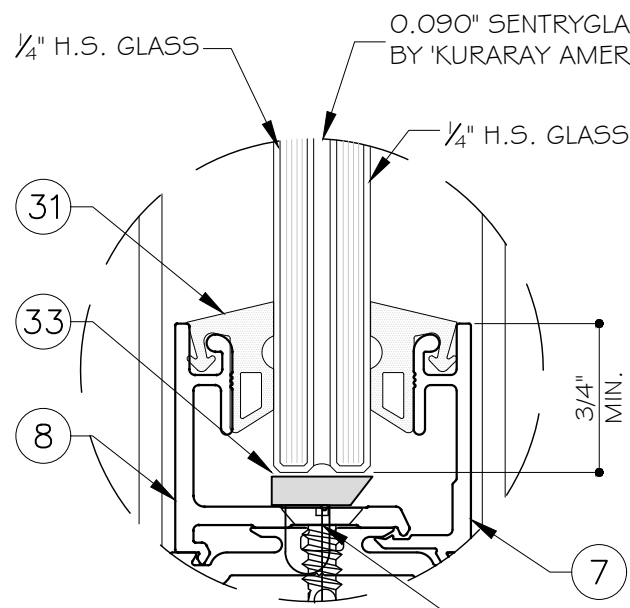
TRULITE GLASS & ALUMINUM SOLUTIONS

SERIES 35 1X OUTSWING OVERSIZED ENTRANCE DOOR WITH SIDELITE & TRANSOM



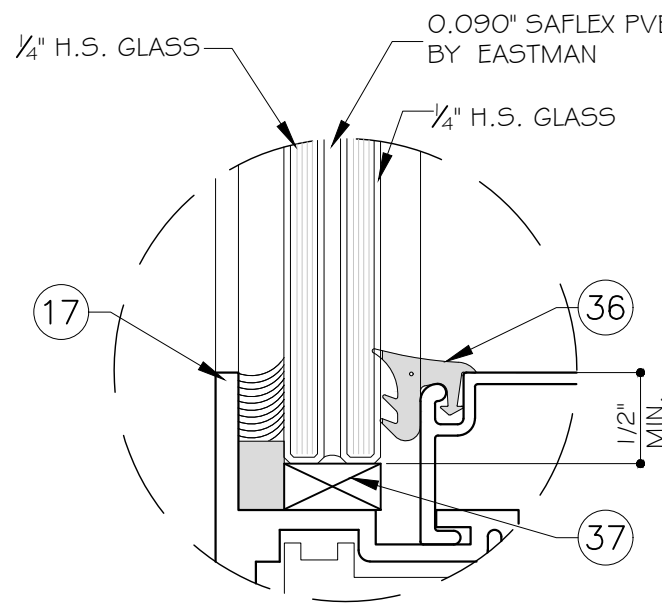
http://www.trulite.com

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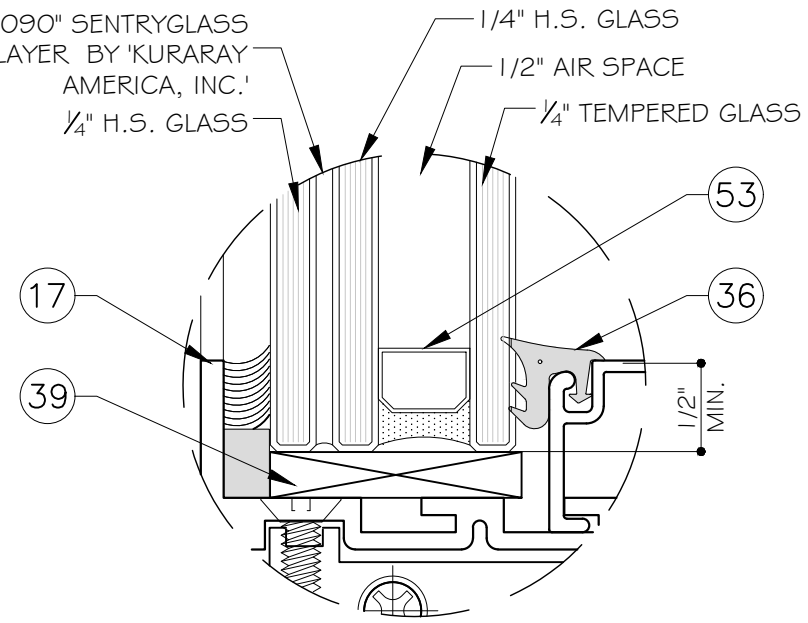
GLASS TYPE G1

9/16" NOMINAL OVERALL
MAX. D.L.O. AREA=28.31 FT²



GLASS TYPE G2

9/16" NOMINAL OVERALL
MAX. D.L.O. AREA=13.26 FT²



GLASS TYPE G3

1-5/16" NOMINAL OVERALL
MAX. D.L.O. AREA=46.31 FT²

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF 2018 INTERNATIONAL RESIDENTIAL CODE AND 2018 INTERNATIONAL BUILDING CODE WITH TEXAS REVISIONS EFFECTIVE SEPTEMBER 1, 2020. INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ)
- DOORS ARE RATED FOR LARGE MISSILE IMPACT. SHUTTERS OR EXTERNAL PROTECTION DEVICES ARE NOT REQUIRED.
- ULTIMATE DESIGN LOAD OBTAINED FROM ASCE 7-16, MULTIPLY BY 0.6, SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THE DOCUMENT.
- DOORS NOT APPROVED FOR INSTALLATION WHERE WATER INFILTRATION IS REQUIRED.
- 1X OR 2X WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE, TO BE REVIEWED BY BUILDING OFFICIAL.
- 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 2018 INTERNATIONAL RESIDENTIAL CODE AND 2018 INTERNATIONAL BUILDING CODE SECTION AS APPLICABLE
- ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

- HARDWARE**
 - ADAMS RITE SERIES 3 POINT LOCK HARDWARE AT ACTIVE PANEL AND ADAMS RITE SERIES 2 POINT LOCK HARDWARE AT INACTIVE PANEL.
 - AHT 8000 CVR 2 POINT LOCK HARDWARE WITH PANIC DEVICE AT ACTIVE/INACTIVE PANEL
 - STANDARD NRP BUTT HINGE 4-1/2" X 4" HAGER A793-32D.

INSTRUCTIONS
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.
- STEP 2:** SELECT GLASS TYPE G1 TO G3 AS SHOWN ON CO1 AND ELEVATIONS.
- STEP 3:** SELECT SINGLE OR DOUBLE DOOR FROM SHEET E01 OR SINGLE OR DOUBLE DOOR WITH TRANSOM FROM SHEET E02.
- STEP 4:** SEE CHART ON E02 FOR TRANSOM OPTION AND CAPACITY.
- STEP 5:** SEE CHARTS ON SHEETS E03 TO E12 FOR DOOR JAMB MULLION CAPACITIES.
- STEP 6:** SELECT ANCHOR TYPES TO BE USED ON E01 TO E04, ANCHOR TYPES SEE SHEET D05.
- STEP 7:** THE LOWEST VALUE RESULTING FROM STEPS 2, 3, 4, 5 & 6 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 TEXAS 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.

PRODUCT:
351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022


ENGINEER:



MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 MIRAMAR PARKWAY #301
MIRAMAR FL33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:
C01

PRODUCT CONTROL APPROVAL:

DRAWN: James
DATE: 01.28.2022
DWG: TA18-03

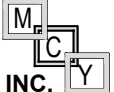
1 OF 23

PRODUCT:

351X SERIES OUTSWING OVERSIZED ENTRANCE DOORS (LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:



MCY ENGINEERING, INC.
GLAZING CONSULTANT
12781 MIRAMAR PARKWAY #301
MIRAMAR FL33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:

E01

PRODUCT CONTROL APPROVAL:

DRAWN: James

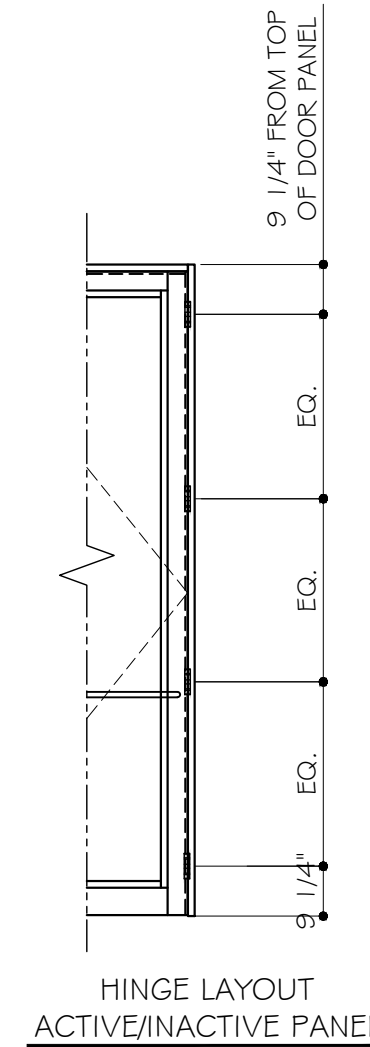
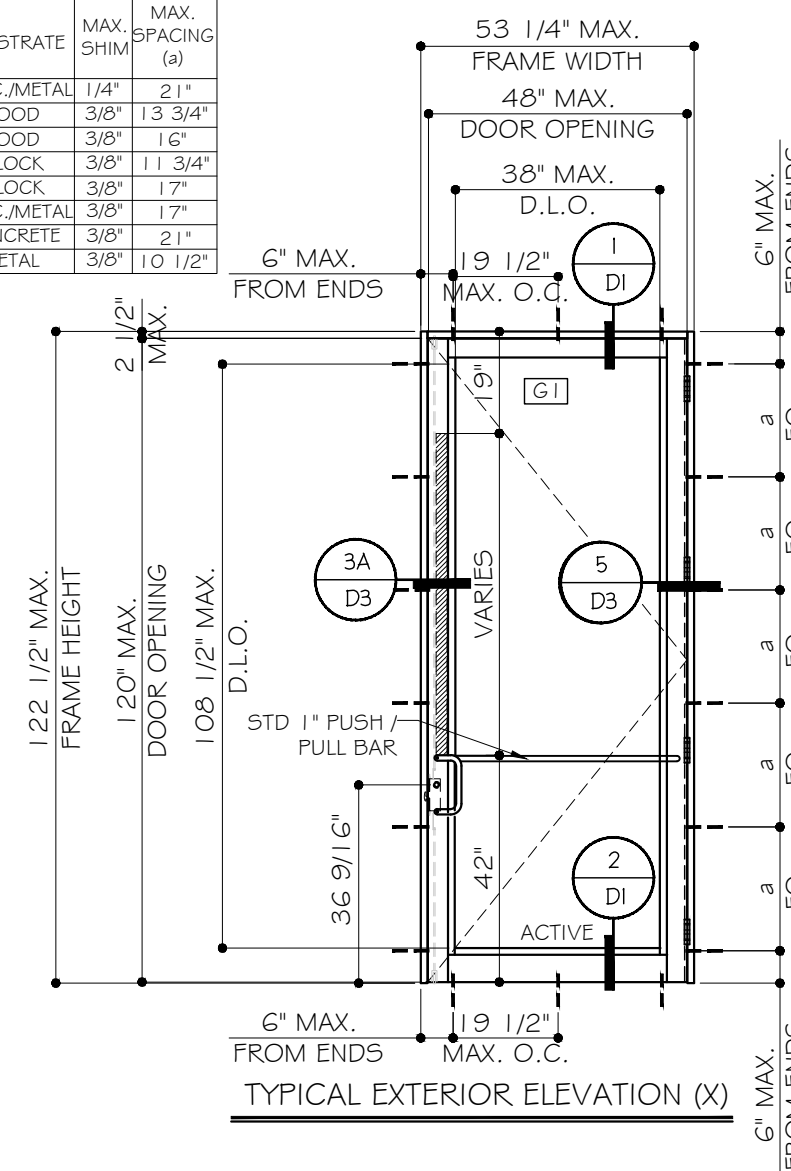
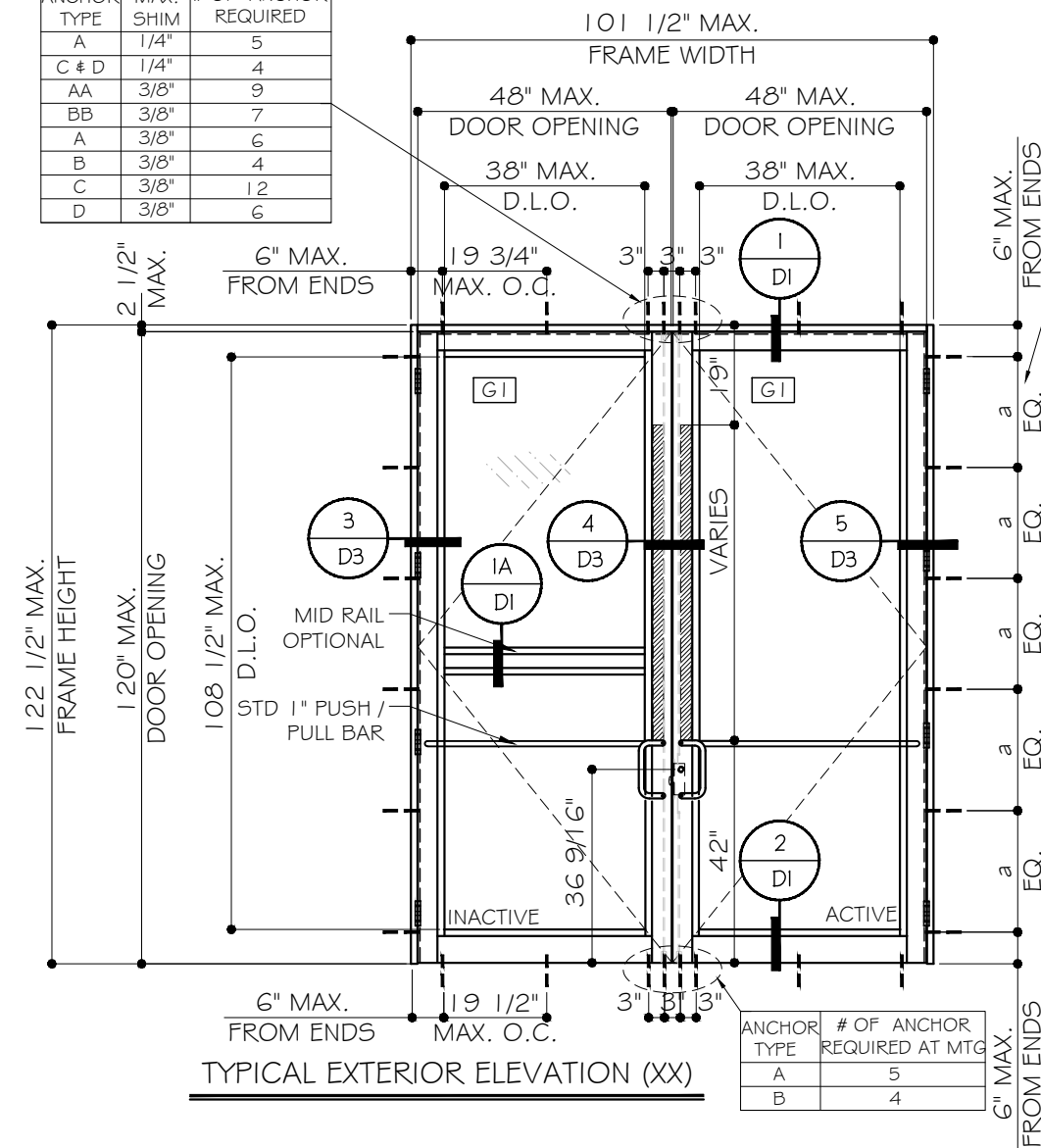
DATE: 01.28.2022

DWG: TA18-03

2 OF 23

*ANCHOR TYPE	MAX. SHIM	# OF ANCHOR REQUIRED
A	1/4"	5
C & D	1/4"	4
AA	3/8"	9
BB	3/8"	7
A	3/8"	6
B	3/8"	4
C	3/8"	12
D	3/8"	6

JAMB ANCHOR SPACING			
*ANCHOR TYPE	SUBSTRATE	MAX. SHIM	MAX. SPACING (a)
A,B,C,D	CONC./METAL	1/4"	21"
AA	WOOD	3/8"	13 3/4"
BB	WOOD	3/8"	16"
A	BLOCK	3/8"	11 3/4"
B	BLOCK	3/8"	17"
A / D	CONC./METAL	3/8"	17"
B	CONCRETE	3/8"	21"
C	METAL	3/8"	10 1/2"



DESIGN LOADS (FOR SIZES SHOWN ABOVE OR SMALLER) AS PERMITTED BY FBC	
+85.0	PSF
-85.0	PSF

* FOR ANCHOR TYPES, REFER TO SHEET A I .

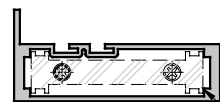
TRANSOM MULLION CAPACITY - PSF FOR O/XX DOOR

FRAME DIMENSION		WITHOUT REINFORCEMENT		WITH REINFORCEMENT	
FRAME HEIGHT (IN)	DOOR WIDTH (IN)	PSF +	PSF -	PSF +	PSF -
108	72	65.0	85.0	65.0	85.0
	78	65.0	85.0	65.0	85.0
	84	65.0	85.0	65.0	85.0
	90	65.0	74.8	65.0	85.0
114	72	65.0	85.0	65.0	85.0
	78	65.0	85.0	65.0	85.0
	84	65.0	81.3	65.0	85.0
	90	65.0	70.9	65.0	85.0
120	72	65.0	85.0	65.0	85.0
	78	65.0	85.0	65.0	85.0
	84	65.0	77.3	65.0	85.0
	90	65.0	67.3	65.0	85.0
126	72	65.0	85.0	65.0	85.0
	78	65.0	85.0	65.0	85.0
	84	65.0	73.6	65.0	85.0
	90	64.1	64.1	65.0	84.5
132	72	65.0	85.0	65.0	85.0
	78	65.0	81.5	65.0	85.0
	84	65.0	70.3	65.0	85.0
	90	61.2	61.2	65.0	80.7
138	72	65.0	85.0	65.0	85.0
	78	65.0	77.9	65.0	85.0
	84	65.0	67.2	65.0	85.0
	90	58.5	58.5	65.0	77.2
144	72	65.0	85.0	65.0	85.0
	78	65.0	74.4	65.0	85.0
	84	64.0	64.4	65.0	83.6
	90	56.1	56.1	65.0	74.0
144	96	49.3	49.3	65.0	65.0

NOTE: REINFORCING NOT REQUIRED FOR SINGLE DOOR WITH TRANSOM.



TRANSOM W/O REINF.



TRANSOM W/ REINF.

TRANSOM MULLION END ANCHOR FOR O/XX DOOR

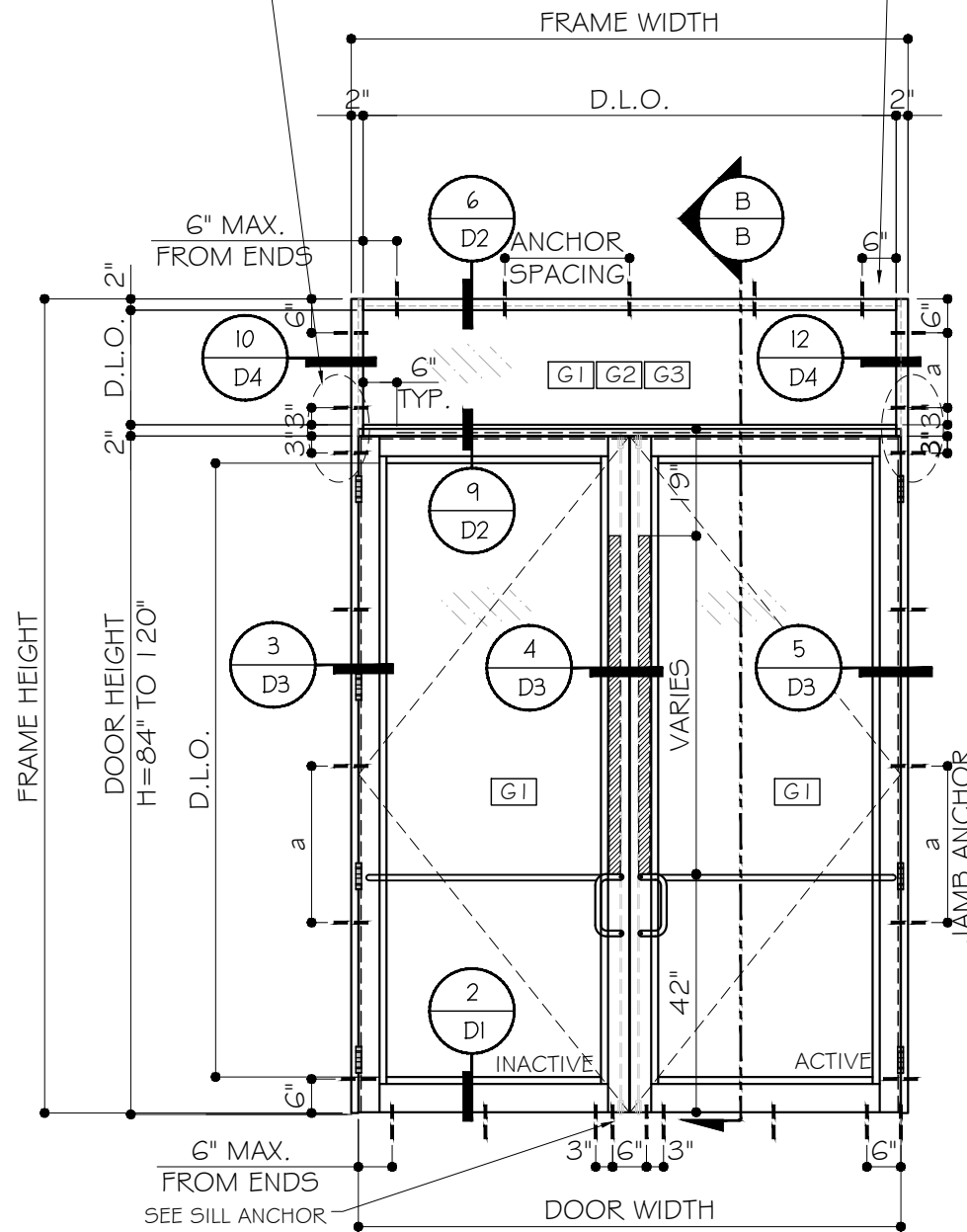
*ANCHOR TYPE	SUBSTRATE	MAX. SHIM	# OF ANCHORS REQ.
A,B,C,D	CONC./METAL	1/4"	5
AA	WOOD	3/8"	7
BB	WOOD	3/8"	6
A	BLOCK	3/8"	8
B	BLOCK	3/8"	6
A/D	CONC./METAL	3/8"	6
B	CONCRETE	3/8"	4
C	METAL	3/8"	9

TRANSOM HEAD ANCHOR SPACING FOR O/XX AND O/X DOOR

*ANCHOR TYPE	SUBSTRATE	MAX. SHIM	MAX. SPACING (a)
A	CONC.	1/4"	17.5"
B	CONC.	1/4"	22"
C,D	METAL	1/4"	25.5"
AA	WOOD	3/8"	11"
BB	WOOD	3/8"	13"
A	CONC.	3/8"	13"
B	CONC.	3/8"	20.5"
D	METAL	3/8"	13"

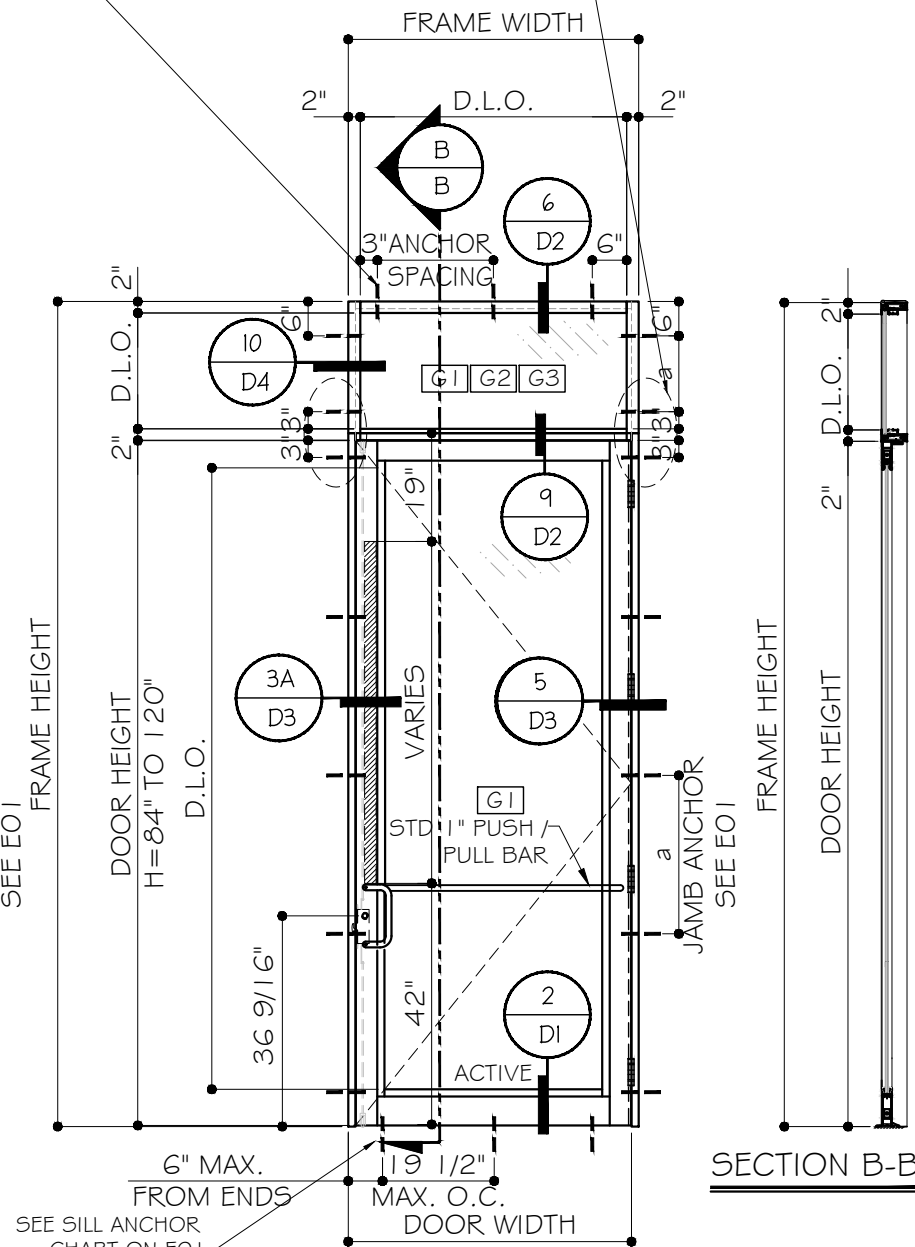
TRANSOM MULLION END ANCHOR FOR O/X DOOR

*ANCHOR TYPE	SUBSTRATE	MAX. SHIM	# OF ANCHORS REQ.
C	METAL	1/4"	2
AA, BB	WOOD	3/8"	2
A, B, D	CONC./METAL	3/8"	2
C	METAL	3/8"	3



TYPICAL EXTERIOR ELEVATION (O/XX) WITH TRANSOM

SEE CHART FOR TRANSOM MULLION CAPACITY



TYPICAL EXTERIOR ELEVATION (O/X) WITH TRANSOM

DESIGN LOADS (O/X DOOR)
(FOR SIZES SHOWN ABOVE OR SMALLER)
AS PERMITTED BY FBC

+65.0 PSF
-85.0 PSF

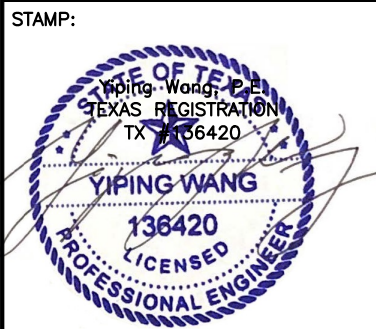


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PRODUCT:
**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:
MCY ENGINEERING, INC.
GLAZING CONSULTANT
12781 MIRAMAR PARKWAY #301
MIRAMAR FL 33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com



January 28th, 2022

SHEET TITLE:
E02

PRODUCT CONTROL APPROVAL:

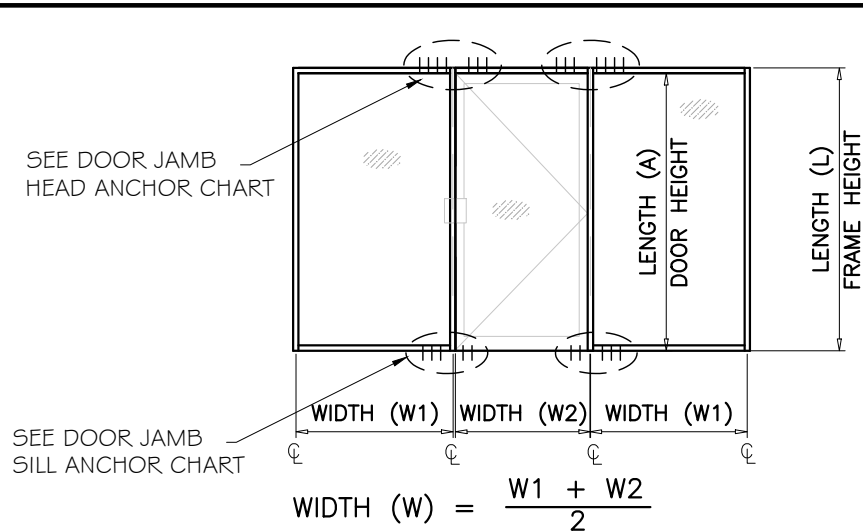
DRAWN: James
DATE: 01.28.2022
DWG: TA18-03
3 OF 23

* FOR ANCHOR TYPES, REFER TO SHEET A1.

MULLION CAPACITY - PSF

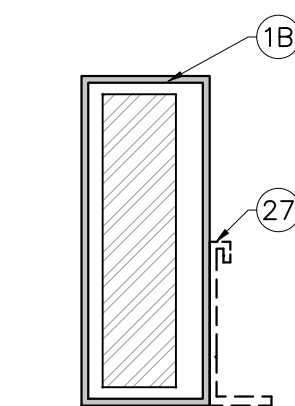
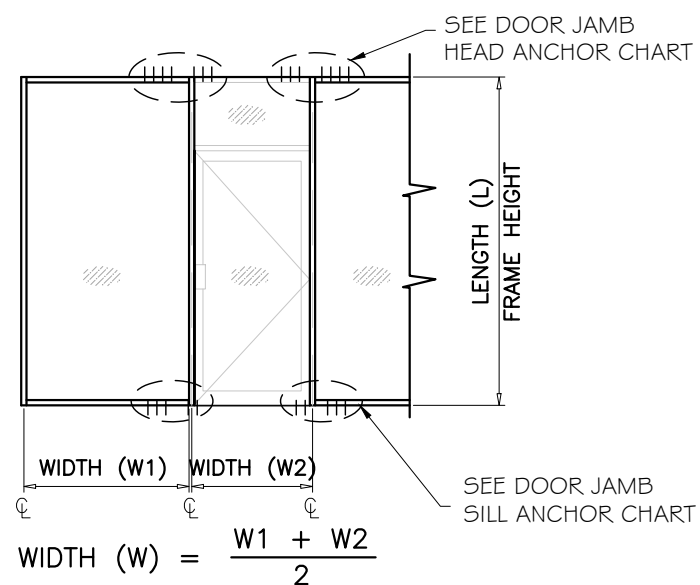
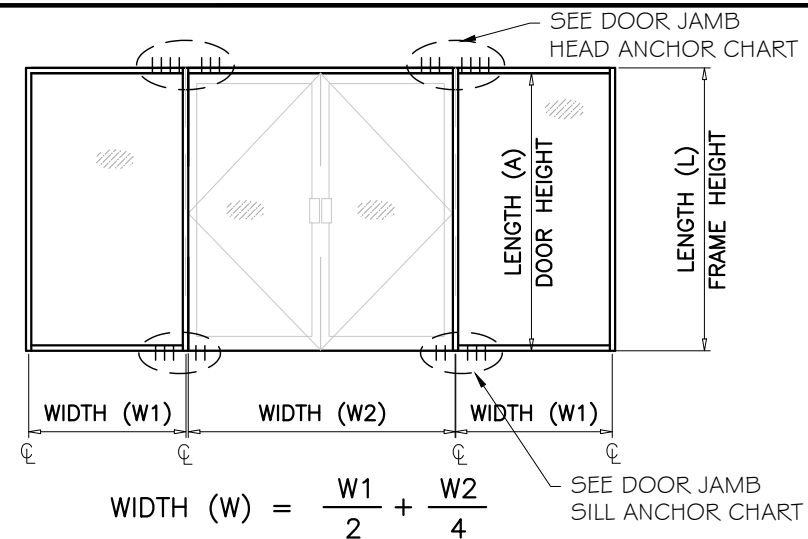
NOMINAL DIMENSIONS		DESIGN LOAD	
FRAME HEIGHT (L) (IN)	WIDTH (W) (IN)	PSF +	PSF -
108	42	65.0	85.0
	48	65.0	85.0
	54	65.0	85.0
	60	65.0	78.0
114	42	65.0	85.0
	48	65.0	85.0
	60	65.0	73.9
120	42	65.0	85.0
	48	65.0	85.0
	60	65.0	70.2
126	42	65.0	85.0
	48	65.0	83.6
	60	65.0	74.3
132	42	65.0	85.0
	48	65.0	79.8
	60	65.0	70.9
138	42	65.0	85.0
	60	65.0	67.8
144	42	65.0	83.6
	48	65.0	73.1
	60	65.0	65.0

NOTE: CAPACITY FOR BOTH MULLION OPTION.

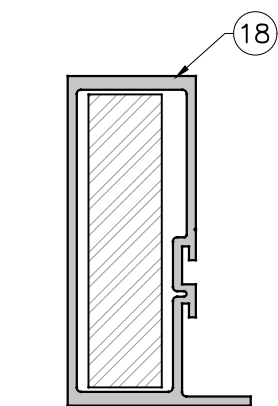


X or XX DOOR JAMB END ANCHOR AT HEAD			
ANCHOR TYPE	SUBSTRATE	MAX. SHIM	# OF ANCHORS REQ.
A	CONC.	1/4"	6
B	CONC.	1/4"	5
C / D	METAL	1/4"	4
AA	WOOD	3/8"	9
BB	WOOD	3/8"	8
B	CONC.	3/8"	5
A / D	CONC./METAL	3/8"	8

X or XX DOOR JAMB END ANCHOR AT SILL				
ANCHOR TYPE	SUBSTRATE	MAX. SHIM	# OF ANCHORS DOOR SILL	# OF ANCHORS SIDELITE
A	CONC.	1/4"	2	3
B	CONC.	1/4"	2	3
A	CONC.	3/8"	3	4
B	CONC.	3/8"	2	3



	Ix IN^4	Sx IN^3
ALUMINUM	2.8249	1.260
STEEL	5.3333	2.666
TOTAL	18.2918	-
Ix ALUM + STL X 2.9		



	Ix IN^4	Sx IN^3
ALUMINUM	4.7474	1.9932
STEEL	5.3333	2.666
TOTAL	20.2141	-
Ix ALUM + STL X 2.9		



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PRODUCT:

**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

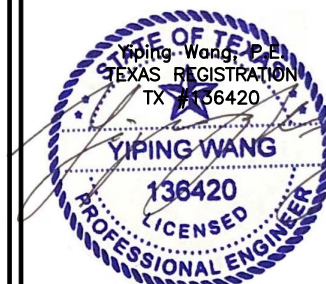
REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:

MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 MIRAMAR PARKWAY #301
MIRAMAR FL33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:

E03

PRODUCT CONTROL APPROVAL:

DRAWN: James

DATE: 01.28.2022

DWG: TA18-03

4 OF 23

PRODUCT:

351X SERIES OUTSWING OVERSIZED ENTRANCE DOORS

(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:

MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 MIRAMAR PARKWAY #301
MIRAMAR FL 33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:

E04

PRODUCT CONTROL APPROVAL:

DRAWN: James

DATE: 01.28.2022

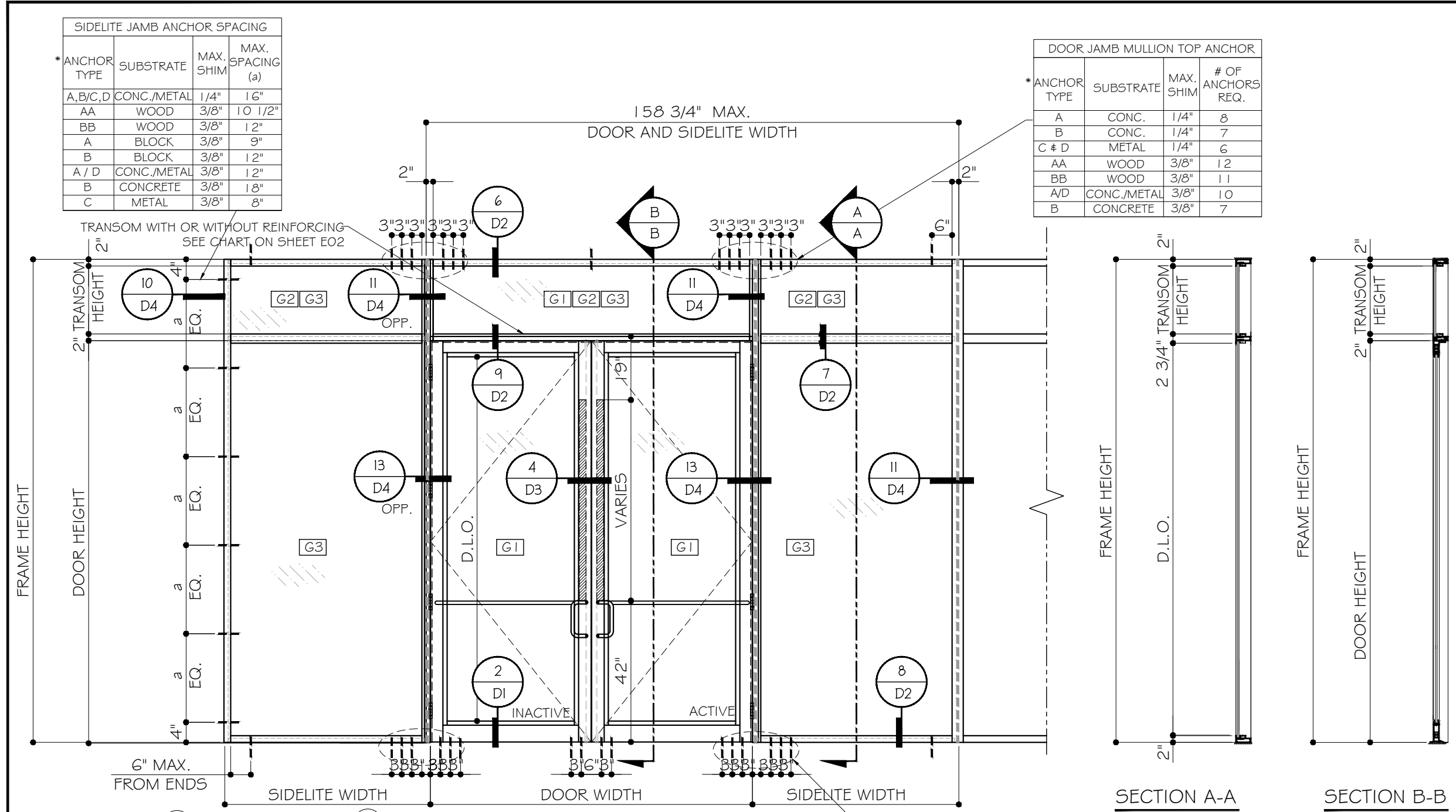
DWG: TA18-03

5 OF 23

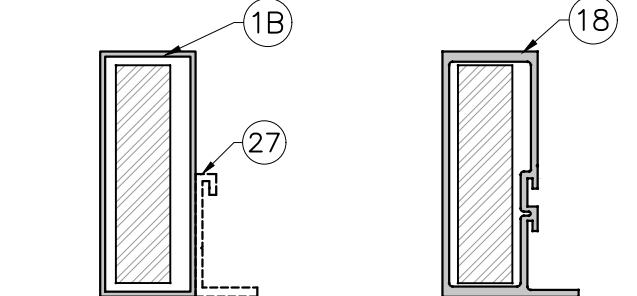
*ANCHOR TYPE	SUBSTRATE	MAX. SHIM	MAX. SPACING (a)
A, B/C, D	CONC./METAL	1/4"	16"
AA	WOOD	3/8"	10 1/2"
BB	WOOD	3/8"	12"
A	BLOCK	3/8"	9"
B	BLOCK	3/8"	12"
A / D	CONC./METAL	3/8"	12"
B	CONCRETE	3/8"	18"
C	METAL	3/8"	8"

*ANCHOR TYPE	SUBSTRATE	MAX. SHIM	# OF ANCHORS REQ.
A	CONC.	1/4"	8
B	CONC.	1/4"	7
C & D	METAL	1/4"	6
AA	WOOD	3/8"	12
BB	WOOD	3/8"	11
A/D	CONC./METAL	3/8"	10
B	CONCRETE	3/8"	7

ANCHOR TYPE	SUBSTRATE	MAX. SHIM	# OF ANCHORS DOOR SILL	# OF ANCHORS SIDELITE
A	CONC.	1/4"	3	3
B	CONC.	1/4"	2	3
A	CONC.	3/8"	3	4
B	CONC.	3/8"	2	3



TYPICAL EXTERIOR ELEVATION W/ SIDELITE
SEE DOOR JAMB MULLION OPTION AND CAPACITY ON SHEETS 5 THRU 12.



	1x IN ⁴	5x IN ³
ALUMINUM	2.8249	1.260
STEEL	5.3333	2.666
TOTAL	18.2918	-
1x ALUM + STL X 2.9	-	-

	1x IN ⁴	5x IN ³
ALUMINUM	4.7474	1.9932
STEEL	5.3333	2.666
TOTAL	20.2141	-
1x ALUM + STL X 2.9	-	-

* FOR ANCHOR TYPES, REFER TO SHEET A.1.

PRODUCT:

**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

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STAMP:



January 28th, 2022

SHEET TITLE:

E05

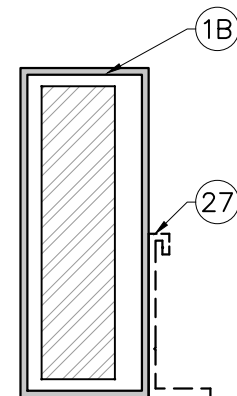
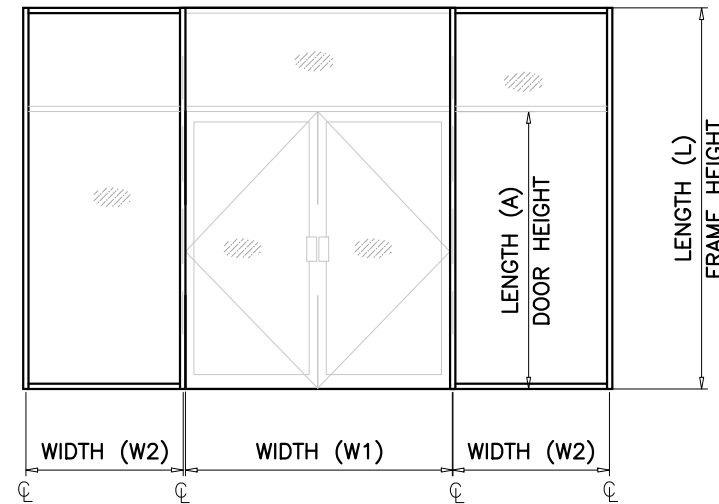
PRODUCT CONTROL APPROVAL:

DRAWN: James
DATE: 01.28.2022
DWG: TA18-03

6 OF 23

DOOR JAMB MULLION CAPACITY - PSF FOR 84" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
108	84	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
		60	65.0	85.0	
		84	42	65.0	85.0
			48	65.0	85.0
	54		65.0	85.0	
	96	84	42	65.0	82.0
			48	65.0	82.0
			54	65.0	82.0
		96	42	65.0	81.0
			48	65.0	81.0
54			65.0	81.0	

DOOR JAMB MULLION CAPACITY - PSF FOR 84" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
126	84	72	42	65.0	85.0
			48	65.0	82.0
			54	65.0	77.0
		60	65.0	73.0	
		84	42	65.0	80.0
			48	65.0	75.0
	54		65.0	71.0	
	96	84	42	65.0	74.0
			48	65.0	70.0
			54	65.0	66.0
		96	42	65.0	63.0
			48	65.0	63.0
54			65.0	63.0	



#10220 W/ (1) ST35 1X REINFORCEMENT

	Ix IN^4	Sx IN^3
ALUMINUM	2.8249	1.260
STEEL	5.3333	2.666
TOTAL	18.2918	-
1x ALUM + STL X 2.9		

132	84	72	42	65.0	82.0
			48	65.0	77.0
			54	65.0	73.0
		60	65.0	69.0	
		84	42	65.0	75.0
			48	65.0	71.0
	54		65.0	67.0	
	96	84	42	65.0	68.0
			48	65.0	65.0
			54	63.0	63.0
		96	42	65.0	64.0
			48	65.0	64.0
54			64.0	64.0	

114	84	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
		60	65.0	82.0	
		84	42	65.0	85.0
			48	65.0	85.0
	54		65.0	81.0	
	96	84	42	65.0	84.0
			48	65.0	80.0
			54	65.0	76.0
		96	42	65.0	72.0
			48	65.0	72.0
54			65.0	72.0	

120	84	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	82.0
		60	65.0	77.0	
		84	42	65.0	85.0
			48	65.0	80.0
	54		65.0	76.0	
	96	84	42	65.0	76.0
			48	65.0	72.0
			54	65.0	72.0
		96	42	65.0	79.0
			48	65.0	75.0
54			65.0	71.0	

138	84	72	42	65.0	74.0
			48	65.0	70.0
			54	65.0	67.0
		60	63.0	63.0	
		84	42	65.0	67.0
			48	64.0	64.0
	54		61.0	61.0	
	96	84	42	65.0	68.0
			48	65.0	65.0
			54	63.0	63.0
		96	42	65.0	60.0
			48	60.0	60.0
54			60.0	60.0	

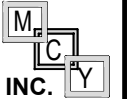
144	84	72	42	65.0	66.0
			48	63.0	63.0
			54	60.0	60.0
		60	57.0	57.0	
		84	42	60.0	60.0
			48	57.0	57.0
	54		55.0	55.0	
	96	84	42	60.0	60.0
			48	57.0	57.0
			54	55.0	55.0
		96	42	55.0	55.0
			48	52.0	52.0
54			50.0	50.0	

PRODUCT:

**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:



MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 MIRAMAR PARKWAY #301
MIRAMAR FL33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:

E06

PRODUCT CONTROL APPROVAL:

DRAWN: James

DATE: 01.28.2022

DWG: TA18-03

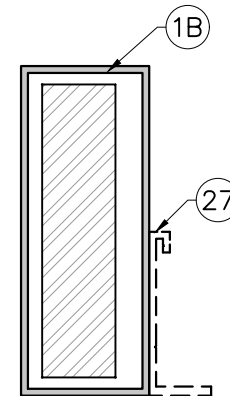
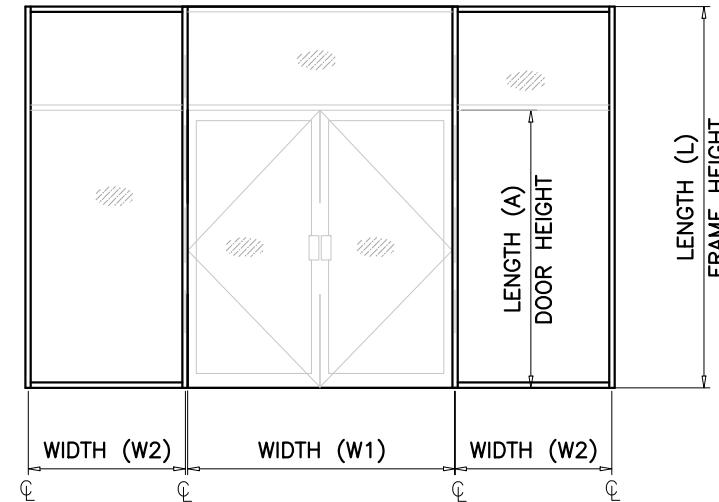
7 OF 23

DOOR JAMB MULLION CAPACITY - PSF
FOR 90" DOOR HEIGHT

NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L)	DOOR HEIGHT (A)	DOOR WIDTH (W1)	SIDELITE WIDTH (W2)	PSF +	PSF -
(IN)	(IN)	(IN)	(IN)		
114	90	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	84.0
		84	42	65.0	85.0
			48	65.0	85.0
			54	65.0	83.0
			60	65.0	78.0
		96	42	65.0	85.0
			48	65.0	82.0
			54	65.0	77.0
			60	65.0	73.0
120	90	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	83.0
			60	65.0	78.0
		84	42	65.0	85.0
			48	65.0	82.0
			54	65.0	77.0
			60	65.0	73.0
		96	42	65.0	81.0
			48	65.0	76.0
			54	65.0	72.0
			60	65.0	69.0
126	90	72	42	65.0	85.0
			48	65.0	83.0
			54	65.0	78.0
			60	65.0	74.0
		84	42	65.0	82.0
			48	65.0	77.0
			54	65.0	73.0
			60	65.0	69.0
		96	42	65.0	76.0
			48	65.0	71.0
			54	65.0	68.0
			60	64.0	64.0

DOOR JAMB MULLION CAPACITY - PSF
FOR 90" DOOR HEIGHT

NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L)	DOOR HEIGHT (A)	DOOR WIDTH (W1)	SIDELITE WIDTH (W2)	PSF +	PSF -
(IN)	(IN)	(IN)	(IN)		
132	90	72	42	65.0	84.0
			48	65.0	78.0
			54	65.0	74.0
			60	65.0	70.0
		84	42	65.0	77.0
			48	65.0	72.0
			54	65.0	68.0
			60	65.0	65.0
		96	42	65.0	71.0
			48	65.0	67.0
			54	64.0	64.0
			60	61.0	61.0
138	90	72	42	65.0	76.0
			48	65.0	72.0
			54	65.0	69.0
			60	65.0	65.0
		84	42	65.0	69.0
			48	65.0	66.0
			54	63.0	63.0
			60	60.0	60.0
		96	42	63.0	63.0
			48	61.0	61.0
			54	58.0	58.0
			60	56.0	56.0
144	90	72	42	65.0	69.0
			48	65.0	65.0
			54	62.0	62.0
			60	59.0	59.0
		84	42	62.0	62.0
			48	59.0	59.0
			54	56.0	56.0
			60	54.0	54.0
		96	42	57.0	57.0
			48	54.0	54.0
			54	52.0	52.0
			60	50.0	50.0



#10220 W/ (1) ST35 IX
REINFORCEMENT

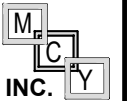
	Ix IN^4	Sx IN^3
ALUMINUM	2.8249	1.260
STEEL	5.3333	2.666
TOTAL	18.2918	-
1x ALUM + STL X 2.9		

PRODUCT:

**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:



MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 MIRAMAR PARKWAY #301
MIRAMAR FL33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:

E07

PRODUCT CONTROL APPROVAL:

DRAWN: James
DATE: 01.28.2022
DWG: TA18-03

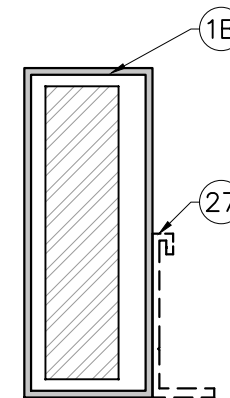
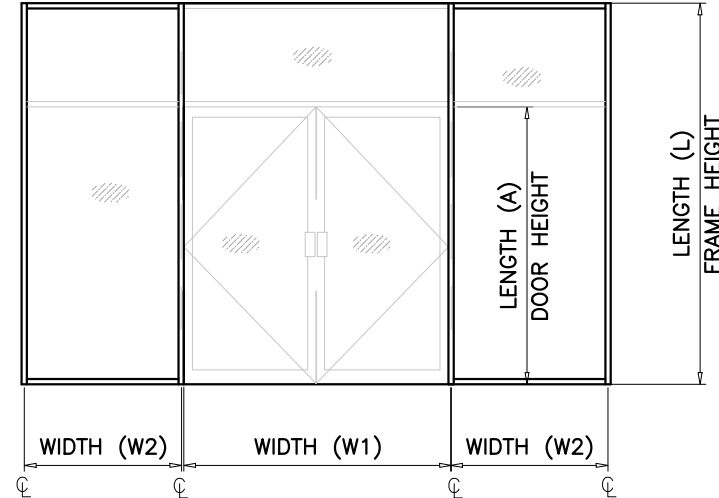
8 OF 23

DOOR JAMB MULLION CAPACITY - PSF
FOR 96" DOOR HEIGHT

NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
120	96	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	80.0
		84	42	65.0	85.0
			48	65.0	84.0
	54		65.0	79.0	
	60		65.0	75.0	
	96	96	42	65.0	82.0
			48	65.0	78.0
			54	65.0	74.0
			60	65.0	70.0
72		42	65.0	85.0	
		48	65.0	85.0	

DOOR JAMB MULLION CAPACITY - PSF
FOR 96" DOOR HEIGHT

NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
138	96	72	42	65.0	79.0
			48	65.0	75.0
			54	65.0	71.0
			60	65.0	67.0
		84	42	65.0	72.0
			48	65.0	68.0
	54		65.0	65.0	
	60		62.0	62.0	
	96	96	42	65.0	66.0
			48	63.0	63.0
			54	60.0	60.0
			60	57.0	57.0
72		42	65.0	71.0	
		48	65.0	67.0	



#10220 W/ (1) ST35 1X REINFORCEMENT


	Ix IN^4	Sx IN^3
ALUMINUM	2.8249	1.260
STEEL	5.3333	2.666
TOTAL	18.2918	-
1x ALUM + STL X 2.9		

PRODUCT:

**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER: 
MCY ENGINEERING, INC.
 GLAZING CONSULTANT
 12781 MIRAMAR PARKWAY #301
 MIRAMAR FL33027
 P: 305-271-0117
 Email: MCY@mcyengineering.com
 www.MCYEngineering.com

STAMP:

 YIPING WANG
 136420
 LICENSED PROFESSIONAL ENGINEER

January 28th, 2022

SHEET TITLE:
E08

PRODUCT CONTROL APPROVAL:

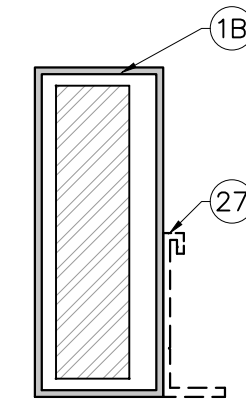
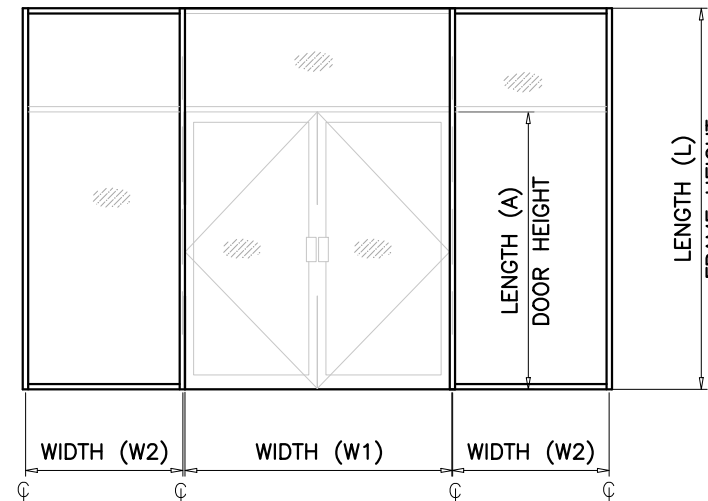
DRAWN: James
 DATE: 01.28.2022
 DWG: TA18-03

DOOR JAMB MULLION CAPACITY - PSF FOR 120" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L)	DOOR HEIGHT (A)	DOOR WIDTH (W1)	SIDELITE WIDTH (W2)	PSF	PSF
(IN)	(IN)	(IN)	(IN)	+	-
144	120	72	42	65.0	81.0
			48	65.0	76.0
			54	65.0	71.0
			60	65.0	67.0
		84	42	65.0	74.0
			48	65.0	70.0
			54	65.0	67.0
			60	63.0	63.0
		96	42	65.0	67.0
			48	64.0	64.0
			54	62.0	62.0
			60	59.0	59.0

DOOR JAMB MULLION CAPACITY - PSF FOR 114" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L)	DOOR HEIGHT (A)	DOOR WIDTH (W1)	SIDELITE WIDTH (W2)	PSF	PSF
(IN)	(IN)	(IN)	(IN)	+	-
138	114	72	42	65.0	85.0
			48	65.0	79.0
			54	65.0	74.0
			60	65.0	70.0
		84	42	65.0	77.0
			48	65.0	73.0
			54	65.0	69.0
			60	65.0	65.0
		96	42	65.0	70.0
			48	65.0	67.0
			54	64.0	64.0
			60	61.0	61.0
144	114	72	42	65.0	79.0
			48	65.0	74.0
			54	65.0	70.0
			60	65.0	66.0
		84	42	65.0	72.0
			48	65.0	68.0
			54	64.0	64.0
			60	61.0	61.0
		96	42	65.0	66.0
			48	63.0	63.0
			54	60.0	60.0
			60	57.0	57.0

DOOR JAMB MULLION CAPACITY - PSF FOR 108" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L)	DOOR HEIGHT (A)	DOOR WIDTH (W1)	SIDELITE WIDTH (W2)	PSF	PSF
(IN)	(IN)	(IN)	(IN)	+	-
132	108	72	42	65.0	85.0
			48	65.0	83.0
			54	65.0	77.0
			60	65.0	73.0
		84	42	65.0	81.0
			48	65.0	77.0
			54	65.0	72.0
			60	65.0	68.0
		96	42	65.0	74.0
			48	65.0	71.0
			54	65.0	68.0
			60	64.0	64.0
138	108	72	42	65.0	83.0
			48	65.0	78.0
			54	65.0	73.0
			60	65.0	69.0
		84	42	65.0	77.0
			48	65.0	72.0
			54	65.0	68.0
			60	64.0	64.0
		96	42	65.0	71.0
			48	65.0	67.0
			54	64.0	64.0
			60	60.0	60.0
144	108	72	42	65.0	76.0
			48	65.0	71.0
			54	65.0	68.0
			60	64.0	64.0
		84	42	65.0	69.0
			48	65.0	66.0
			54	62.0	62.0
			60	59.0	59.0
		96	42	64.0	64.0
			48	61.0	61.0
			54	58.0	58.0
			60	55.0	55.0

DOOR JAMB MULLION CAPACITY - PSF FOR 102" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L)	DOOR HEIGHT (A)	DOOR WIDTH (W1)	SIDELITE WIDTH (W2)	PSF	PSF
(IN)	(IN)	(IN)	(IN)	+	-
126	102	72	42	65.0	85.0
			48	65.0	81.0
			54	65.0	77.0
			60	65.0	73.0
		84	42	65.0	85.0
			48	65.0	80.0
			54	65.0	75.0
			60	65.0	71.0
		96	42	65.0	78.0
			48	65.0	74.0
			54	65.0	70.0
			60	65.0	67.0
132	102	72	42	65.0	85.0
			48	65.0	81.0
			54	65.0	76.0
			60	65.0	72.0
		84	42	65.0	80.0
			48	65.0	75.0
			54	65.0	71.0
			60	65.0	67.0
		96	42	65.0	74.0
			48	65.0	70.0
			54	65.0	66.0
			60	63.0	63.0
138	102	72	42	65.0	82.0
			48	65.0	77.0
			54	65.0	72.0
			60	65.0	68.0
		84	42	65.0	75.0
			48	65.0	71.0
			54	65.0	67.0
			60	63.0	63.0
		96	42	65.0	69.0
			48	65.0	65.0
			54	62.0	62.0
			60	59.0	59.0
144	102	72	42	65.0	73.0
			48	65.0	69.0
			54	65.0	66.0
			60	62.0	62.0
		84	42	65.0	67.0
			48	63.0	63.0
			54	60.0	60.0
			60	57.0	57.0
		96	42	61.0	61.0
			48	58.0	58.0
			54	56.0	56.0
			60	53.0	53.0



#10220 W/ (1) ST35 1X REINFORCEMENT

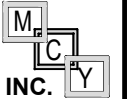
	Ix IN^4	Sx IN^3
ALUMINUM	2.8249	1.260
STEEL	5.3333	2.666
TOTAL	18.2918	-
Ix ALUM + STL X 2.9		

PRODUCT:

**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:



MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 MIRAMAR PARKWAY #301
MIRAMAR FL33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:

E09

PRODUCT CONTROL APPROVAL:

DRAWN: James

DATE: 01.28.2022

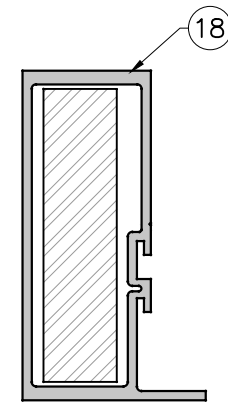
DWG: TA18-03

10 OF 23

DOOR JAMB MULLION CAPACITY - PSF FOR 84" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
108	84	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	85.0
		84	42	65.0	85.0
			48	65.0	85.0
	96	84	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	85.0
		96	42	65.0	85.0
			48	65.0	85.0

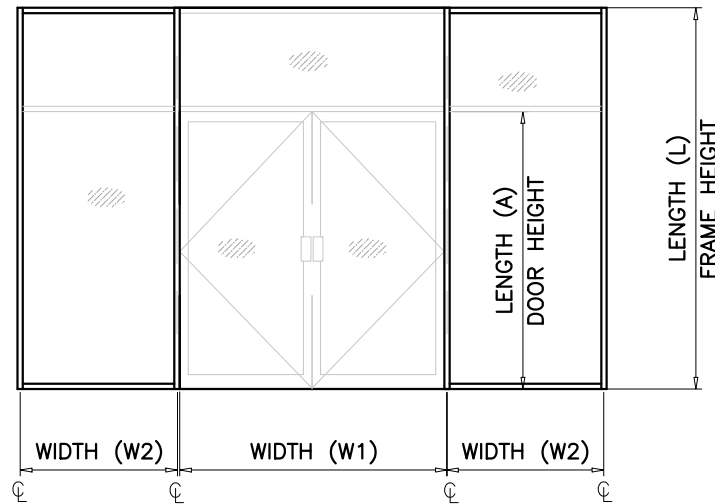
DOOR JAMB MULLION CAPACITY - PSF FOR 84" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
126	84	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	84.0
			60	65.0	79.0
		84	42	65.0	85.0
			48	65.0	82.0
	96	84	42	65.0	78.0
			48	65.0	74.0
			54	65.0	74.0
			60	65.0	69.0
		96	42	65.0	81.0
			48	65.0	76.0

DOOR JAMB MULLION CAPACITY - PSF FOR 84" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
144	84	72	42	65.0	73.0
			48	65.0	69.0
			54	65.0	66.0
			60	63.0	63.0
		84	42	65.0	66.0
			48	63.0	63.0
	96	84	42	63.0	60.0
			48	60.0	60.0
			54	60.0	57.0
			60	57.0	57.0
		96	42	60.0	60.0
			48	57.0	57.0



#3306 W/ (1) ST35 1X
REINFORCEMENT

	Ix IN^4	Sx IN^3
ALUMINUM	4.7474	1.9932
STEEL	5.3333	2.666
TOTAL	20.2141	-
Ix ALUM + STL X 2.9		



114	84	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	85.0
		84	42	65.0	85.0
			48	65.0	85.0
	96	84	42	65.0	85.0
			48	65.0	85.0
			54	65.0	83.0
			60	65.0	78.0
		96	42	65.0	85.0
			48	65.0	83.0

132	84	72	42	65.0	85.0
			48	65.0	84.0
			54	65.0	79.0
			60	65.0	75.0
		84	42	65.0	82.0
			48	65.0	78.0
	96	84	42	65.0	73.0
			48	65.0	73.0
			54	65.0	70.0
			60	65.0	70.0
		96	42	65.0	75.0
			48	65.0	71.0

120	84	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	84.0
		84	42	65.0	85.0
			48	65.0	85.0
	96	84	42	65.0	83.0
			48	65.0	83.0
			54	65.0	78.0
			60	65.0	78.0
		96	42	65.0	85.0
			48	65.0	81.0

138	84	72	42	65.0	81.0
			48	65.0	76.0
			54	65.0	73.0
			60	65.0	69.0
		84	42	65.0	73.0
			48	65.0	70.0
	96	84	42	65.0	66.0
			48	65.0	66.0
			54	64.0	64.0
			60	64.0	64.0
		96	42	65.0	67.0
			48	64.0	64.0

DOOR JAMB MULLION CAPACITY - PSF FOR 90" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
114	90	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	85.0
		84	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	85.0
		96	42	65.0	85.0
			48	65.0	85.0
			54	65.0	84.0
			60	65.0	80.0

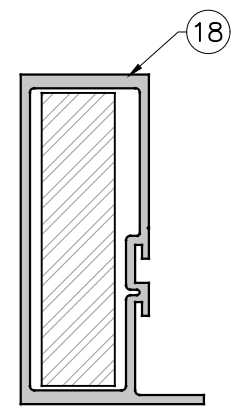
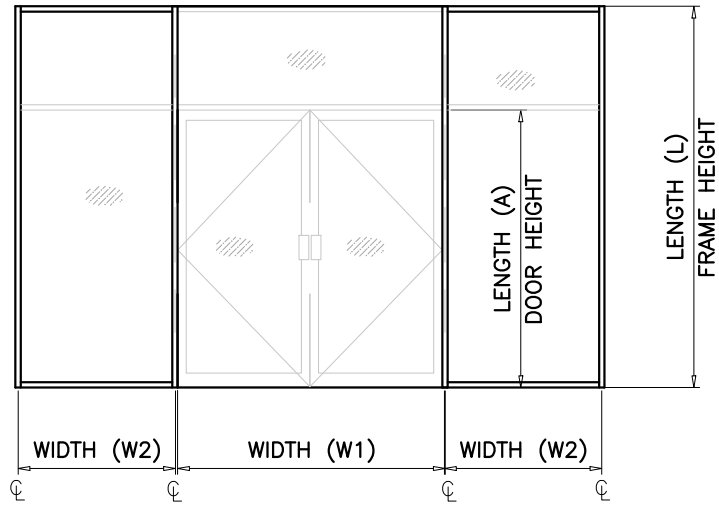
DOOR JAMB MULLION CAPACITY - PSF FOR 90" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
132	90	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	81.0
			60	65.0	76.0
		84	42	65.0	84.0
			48	65.0	79.0
			54	65.0	75.0
			60	65.0	71.0
		96	42	65.0	78.0
			48	65.0	73.0
			54	65.0	70.0
			60	65.0	66.0

120	90	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	85.0
		84	42	65.0	85.0
			48	65.0	85.0
			54	65.0	84.0
			60	65.0	80.0
		96	42	65.0	85.0
			48	65.0	83.0
			54	65.0	79.0
			60	65.0	75.0

138	90	72	42	65.0	83.0
			48	65.0	79.0
			54	65.0	75.0
			60	65.0	71.0
		84	42	65.0	76.0
			48	65.0	72.0
			54	65.0	69.0
			60	65.0	66.0
		96	42	65.0	69.0
			48	65.0	66.0
			54	63.0	63.0
			60	61.0	61.0

126	90	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	81.0
		84	42	65.0	85.0
			48	65.0	84.0
			54	65.0	79.0
			60	65.0	75.0
		96	42	65.0	83.0
			48	65.0	78.0
			54	65.0	74.0
			60	65.0	70.0

144	90	72	42	65.0	75.0
			48	65.0	71.0
			54	65.0	68.0
			60	64.0	64.0
		84	42	65.0	68.0
			48	65.0	65.0
			54	62.0	62.0
			60	59.0	59.0
		96	42	62.0	62.0
			48	59.0	59.0
			54	57.0	57.0
			60	55.0	55.0



#3306 W/ (1) ST35 1X REINFORCEMENT

	Ix IN^4	Sx IN^3
ALUMINUM	4.7474	1.9932
STEEL	5.3333	2.666
TOTAL	20.2141	-
1x ALUM + STL X 2.9		

Trulite
GLASS & ALUMINUM SOLUTIONS™
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PEACHTREE CITY, GA 30269
p. 800-432-8132 | f. 954-724-2083

PRODUCT:
**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:
MCY ENGINEERING, INC.
GLAZING CONSULTANT
12781 MIRAMAR PARKWAY #301
MIRAMAR FL33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:

YIPING WANG
136420
LICENSED
PROFESSIONAL ENGINEER

January 28th, 2022

SHEET TITLE:
E10

PRODUCT CONTROL APPROVAL:


DRAWN: James
DATE: 01.28.2022
DWG: TA18-03

PRODUCT:

**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER: 
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MIRAMAR FL33027
P: 305-271-0117
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www.MCYEngineering.com

STAMP:


January 28th, 2022

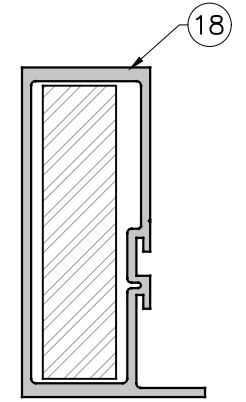
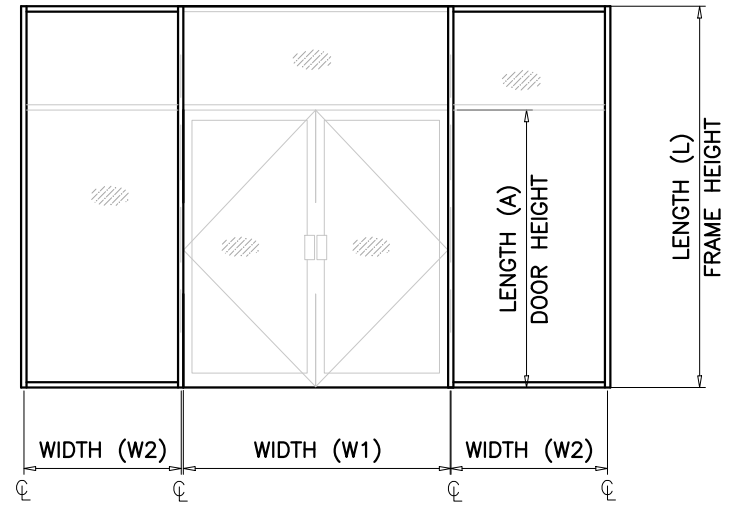
SHEET TITLE:
E11

PRODUCT CONTROL APPROVAL:

DRAWN: James
DATE: 01.28.2022
DWG: TA18-03

DOOR JAMB MULLION CAPACITY - PSF FOR 96" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
120	96	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	85.0
		84	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	81.0
		96	42	65.0	85.0
			48	65.0	85.0
			54	65.0	81.0
			60	65.0	76.0
126	96	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	85.0
			60	65.0	82.0
		84	42	65.0	85.0
			48	65.0	85.0
			54	65.0	81.0
			60	65.0	76.0
		96	42	65.0	84.0
			48	65.0	80.0
			54	65.0	75.0
			60	65.0	72.0
132	96	72	42	65.0	85.0
			48	65.0	85.0
			54	65.0	82.0
			60	65.0	77.0
		84	42	65.0	85.0
			48	65.0	81.0
			54	65.0	76.0
			60	65.0	72.0
		96	42	65.0	79.0
			48	65.0	75.0
			54	65.0	71.0
			60	65.0	67.0

DOOR JAMB MULLION CAPACITY - PSF FOR 96" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L) (IN)	DOOR HEIGHT (A) (IN)	DOOR WIDTH (W1) (IN)	SIDELITE WIDTH (W2) (IN)	PSF +	PSF -
144	96	72	42	65.0	85.0
			48	65.0	82.0
			54	65.0	77.0
			60	65.0	73.0
		84	42	65.0	79.0
			48	65.0	75.0
			54	65.0	71.0
			60	65.0	68.0
		96	42	65.0	72.0
			48	65.0	69.0
			54	65.0	66.0
			60	63.0	63.0
144	96	72	42	65.0	77.0
			48	65.0	73.0
			54	65.0	70.0
			60	65.0	66.0
		84	42	65.0	70.0
			48	65.0	67.0
			54	64.0	64.0
			60	61.0	61.0
		96	42	64.0	64.0
			48	61.0	61.0
			54	59.0	59.0
			60	56.0	56.0



#3306 W/ (1) ST351X REINFORCEMENT


	Ix IN^4	Sx IN^3
ALUMINUM	4.7474	1.9932
STEEL	5.3333	2.666
TOTAL	20.2141	-
1x ALUM + STL X 2.9		

PRODUCT:

**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

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MIRAMAR FL33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:

#3306 W/ (1) ST35 1X REINFORCEMENT

January 28th, 2022

SHEET TITLE:
E12

PRODUCT CONTROL APPROVAL:

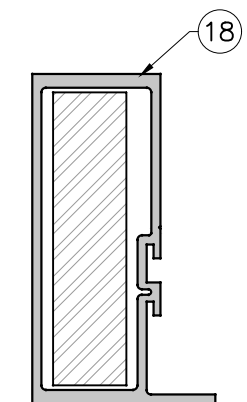
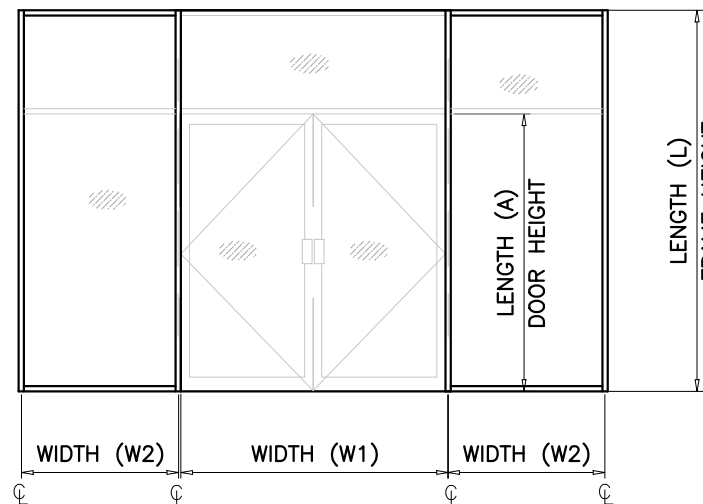
DRAWN: James
DATE: 01.28.2022
DWG: TA18-03

DOOR JAMB MULLION CAPACITY - PSF FOR 120" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L)	DOOR HEIGHT (A)	DOOR WIDTH (W1)	SIDELITE WIDTH (W2)	PSF +	PSF -
(IN)	(IN)	(IN)	(IN)		
144	120	72	42	65.0	85.0
			48	65.0	83.0
			54	65.0	78.0
			60	65.0	73.0
		84	42	65.0	80.0
			48	65.0	76.0
	96	84	42	65.0	80.0
			48	65.0	76.0
			54	65.0	73.0
			60	65.0	69.0
		96	42	65.0	74.0
			48	65.0	70.0

DOOR JAMB MULLION CAPACITY - PSF FOR 114" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L)	DOOR HEIGHT (A)	DOOR WIDTH (W1)	SIDELITE WIDTH (W2)	PSF +	PSF -
(IN)	(IN)	(IN)	(IN)		
138	114	72	42	65.0	85.0
			48	65.0	81.0
			54	65.0	76.0
			60	65.0	71.0
		84	42	65.0	84.0
			48	65.0	80.0
	96	84	42	65.0	80.0
			48	65.0	76.0
			54	65.0	71.0
			60	65.0	67.0
		96	42	65.0	77.0
			48	65.0	74.0

DOOR JAMB MULLION CAPACITY - PSF FOR 108" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L)	DOOR HEIGHT (A)	DOOR WIDTH (W1)	SIDELITE WIDTH (W2)	PSF +	PSF -
(IN)	(IN)	(IN)	(IN)		
132	108	72	42	65.0	85.0
			48	65.0	81.0
			54	65.0	76.0
			60	65.0	71.0
		84	42	65.0	84.0
			48	65.0	79.0
	96	84	42	65.0	79.0
			48	65.0	75.0
			54	65.0	70.0
			60	65.0	66.0
		96	42	65.0	81.0
			48	65.0	77.0

DOOR JAMB MULLION CAPACITY - PSF FOR 102" DOOR HEIGHT					
NOMINAL DIMENSIONS				DESIGN LOAD	
FRAME HEIGHT (L)	DOOR HEIGHT (A)	DOOR WIDTH (W1)	SIDELITE WIDTH (W2)	PSF +	PSF -
(IN)	(IN)	(IN)	(IN)		
126	102	72	42	65.0	85.0
			48	65.0	81.0
			54	65.0	77.0
			60	65.0	73.0
		84	42	65.0	85.0
			48	65.0	82.0
	96	84	42	65.0	81.0
			48	65.0	77.0
			54	65.0	73.0
			60	65.0	69.0
		96	42	65.0	85.0
			48	65.0	82.0



	Ix IN ⁴	Sx IN ³
ALUMINUM	4.7474	1.9932
STEEL	5.3333	2.666
TOTAL	20.2141	-
1x ALUM + STL X 2.9		

PRODUCT:

351X SERIES OUTSWING OVERSIZED ENTRANCE DOORS (LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:



MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 MIRAMAR PARKWAY #301
MIRAMAR FL33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:

D2

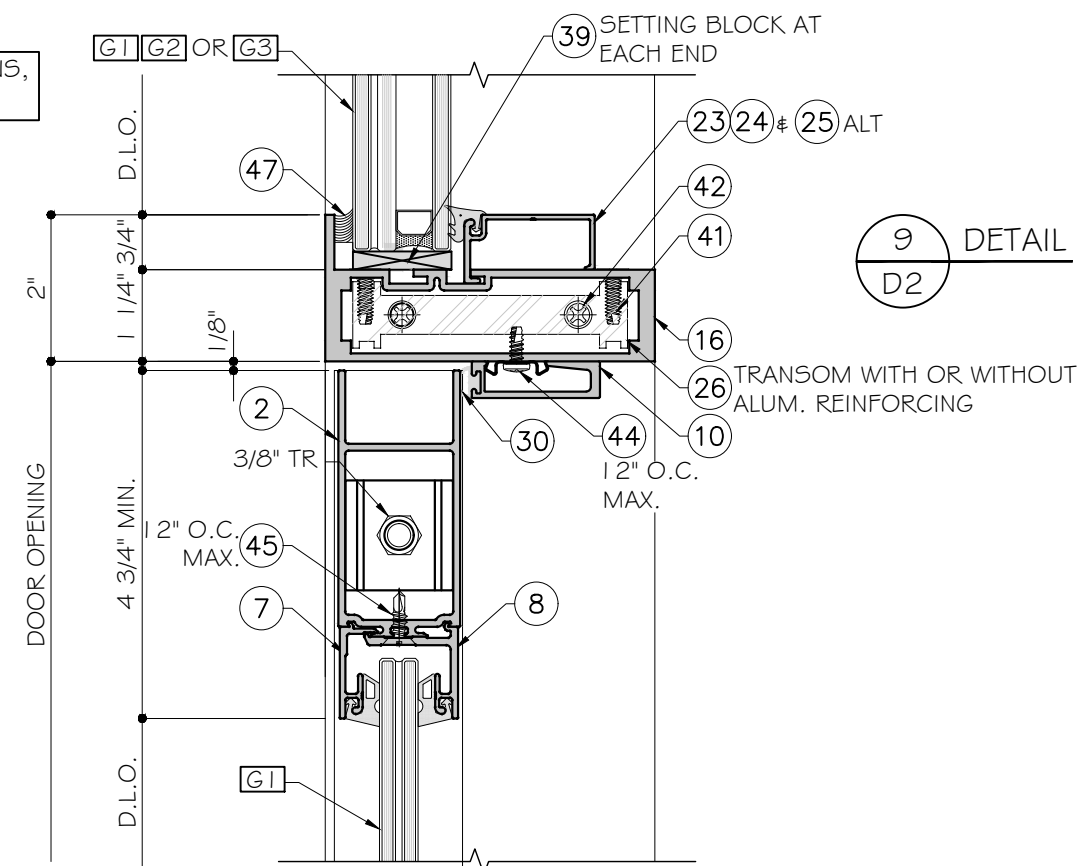
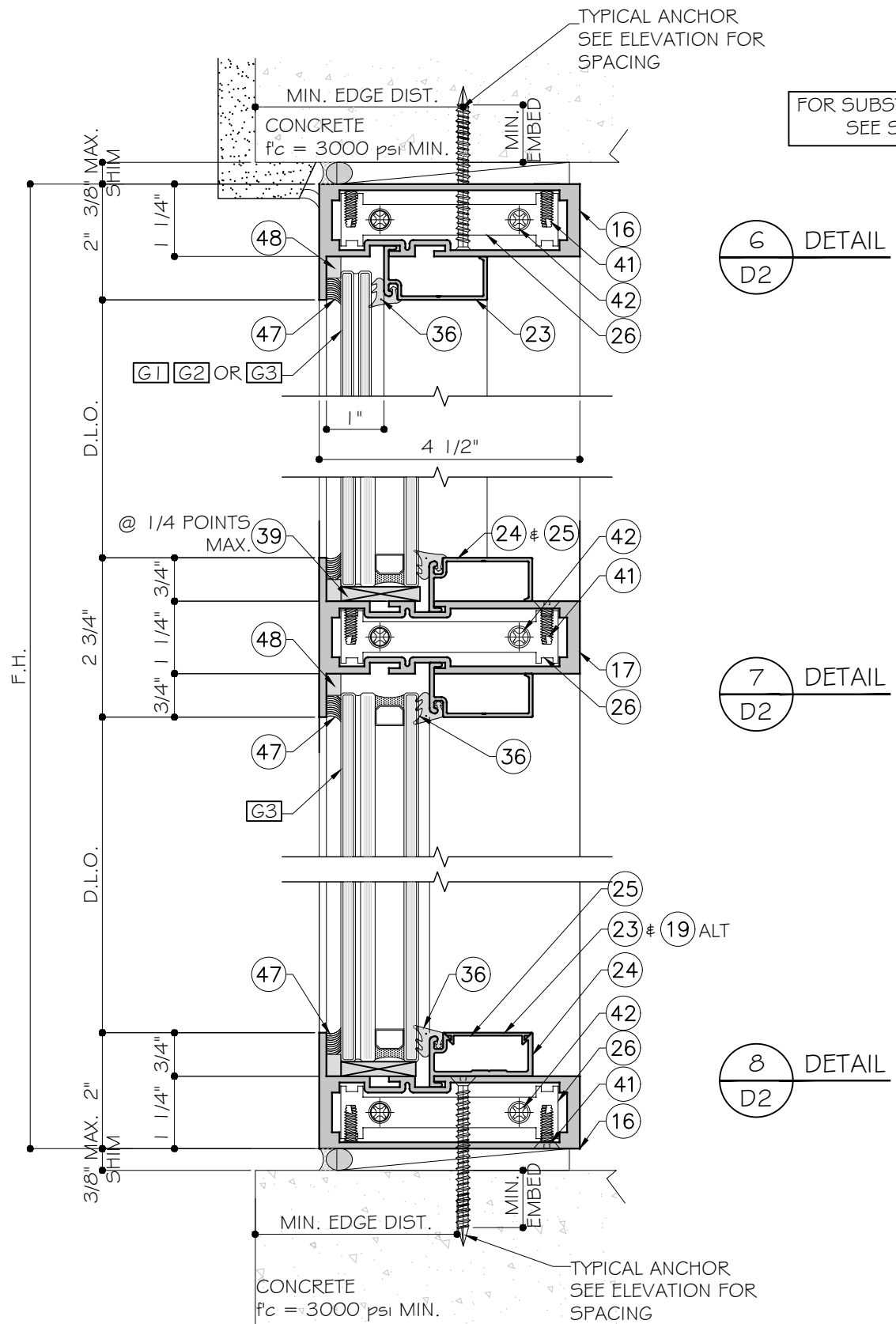
PRODUCT CONTROL APPROVAL:

DRAWN: James

DATE: 01.28.2022

DWG: TA18-03

15 OF 23



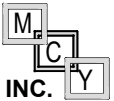
FOR SUBSTRATE OPTIONS,
SEE SHEET D05.

PRODUCT:

351X SERIES OUTSWING OVERSIZED ENTRANCE DOORS (LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:



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Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:

D3

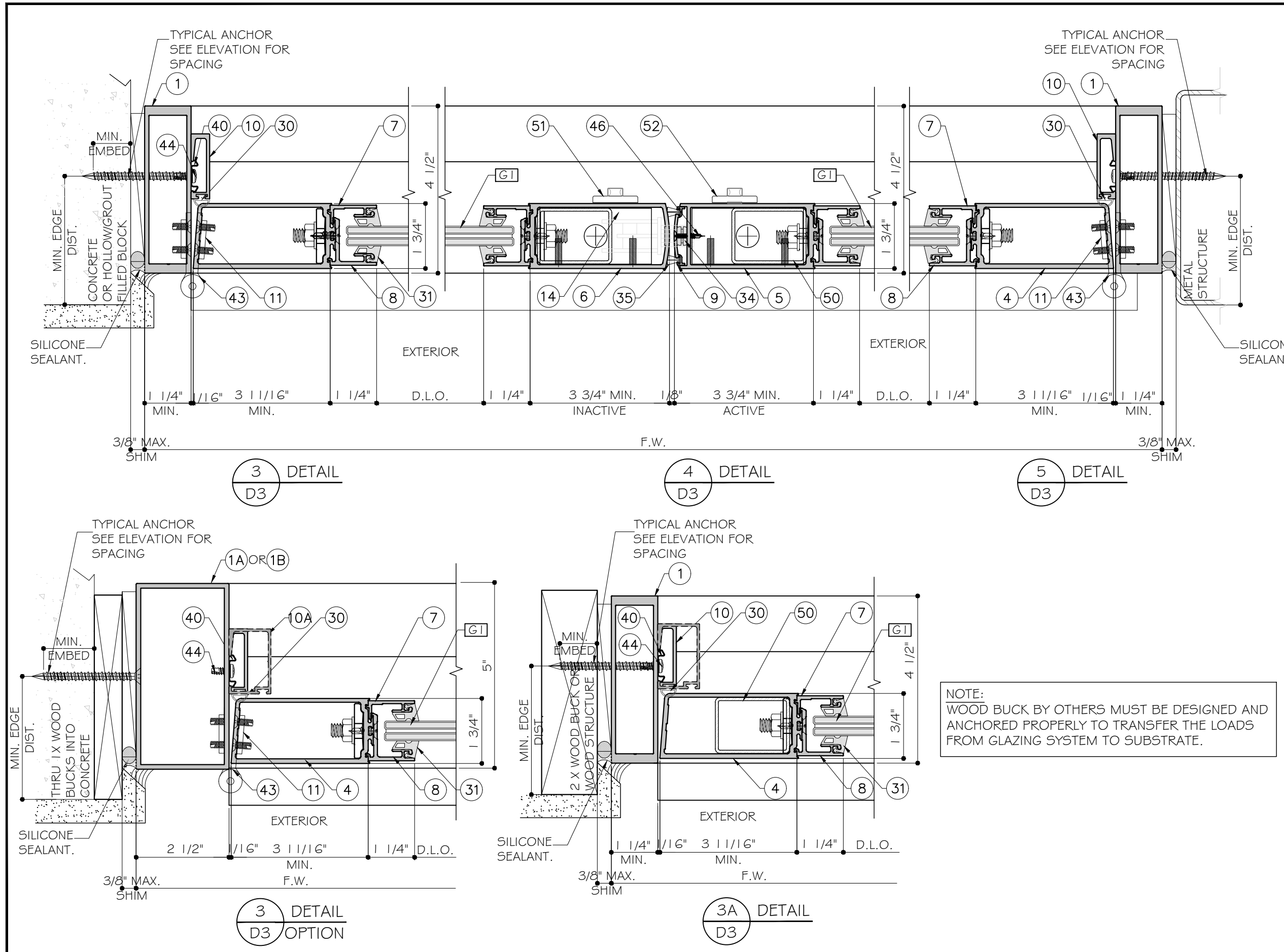
PRODUCT CONTROL APPROVAL:

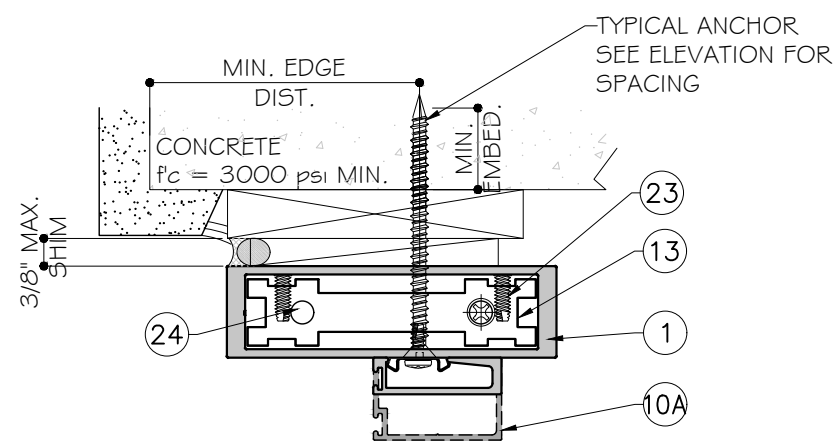
DRAWN: James

DATE: 01.28.2022

DWG: TA18-03

16 OF 23





TYPICAL ANCHORS:
SEE ELEVATIONS FOR SPACING

TYPE 'AA' - 1/4" ITW TAPCON ($F_u = 120 \text{ ksi}$, $F_y = 92 \text{ ksi}$) INTO 2BY WOOD BUCKS OR WOOD STRUCTURE WITH 1 1/2" MIN. PENETRATION INTO WOOD OR THRU 1 BY WOOD BUCKS
1-3/4" MIN. EMBED INTO CONCRETE
1-1/4" MIN. EMBED INTO HOLLOW BLOCK (JAMB ONLY)

TYPE 'A' - 1/4" ITW TAPCON ($F_u = 120 \text{ ksi}$, $F_y = 92 \text{ ksi}$) WITH 1 3/4" EMBED INTO CONCRETE OR 1-1/4" MIN. EMBED INTO MASONRY (JAMB ONLY)

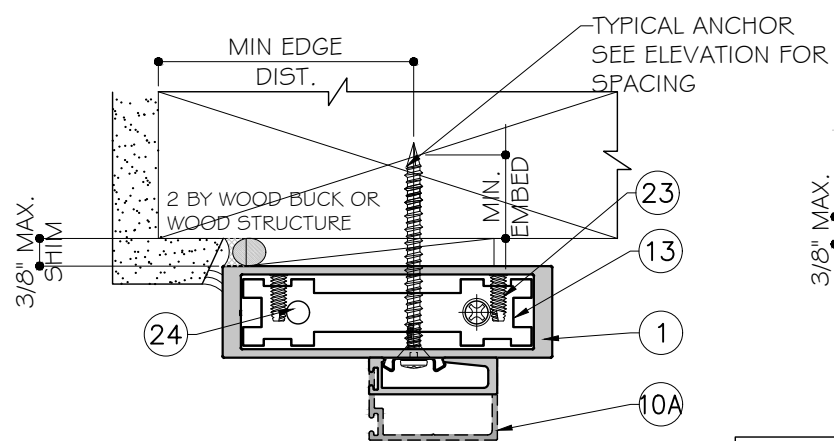
TYPE 'BB' - 1/4" DEWALT ULTRACON+ ($F_u = 164 \text{ ksi}$, $F_y = 148 \text{ ksi}$) INTO 2BY WOOD BUCKS OR WOOD STRUCTURE WITH 1 1/2" MIN. PENETRATION INTO WOOD OR THRU 1 BY WOOD BUCKS
1-3/4" MIN. EMBED INTO CONCRETE
1-3/4" MIN. EMBED INTO GROUT FILLED BLOCK (JAMB ONLY)
1-1/4" EMBED INTO HOLLOW BLOCK (JAMB ONLY)

TYPE 'B' - 1/4" DEWALT ULTRACON+ ($F_u = 164 \text{ ksi}$, $F_y = 148 \text{ ksi}$) WITH 1 3/4" EMBED INTO CONCRETE
1-3/4" MIN. EMBED INTO CONCRETE
1-3/4" MIN. EMBED INTO GROUT FILLED BLOCK
1-1/4" EMBED INTO HOLLOW BLOCK (JAMB ONLY)

TYPE 'C' - #14 SMS (GRADE 2) INTO:
1/8" THK METAL STRUCTURE
ALUM. 1/8" THK. (G063-T5 MIN.)
STEEL: 12 GA MIN. THK.

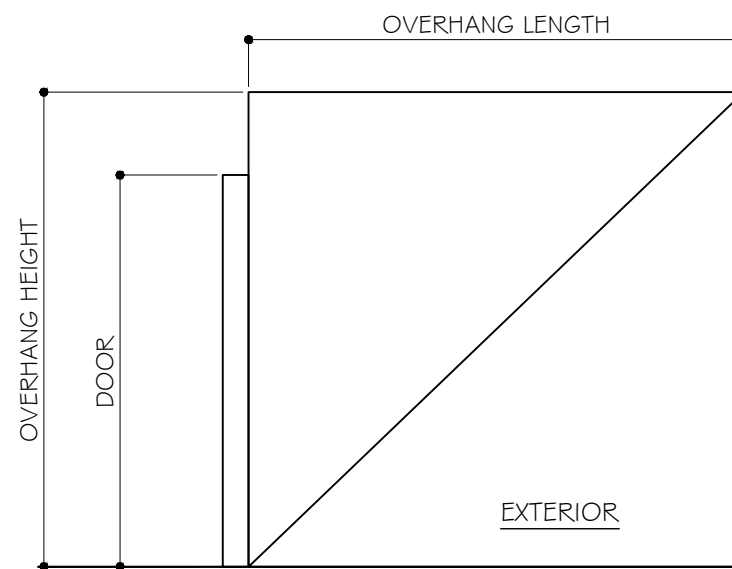
TYPE 'D' - #14 TEKS (GRADE 5, SELF DRILLING SCREW) INTO:
1/8" THK METAL STRUCTURE
ALUM. 1/8" THK. (G063-T5 MIN.)
STEEL: 12 GA MIN. THK.

MIN. EDGE DISTANCE:
INTO WOOD = 1"
INTO CONCRETE/BLOCK = 2 1/2"
INTO METAL = 3/4"



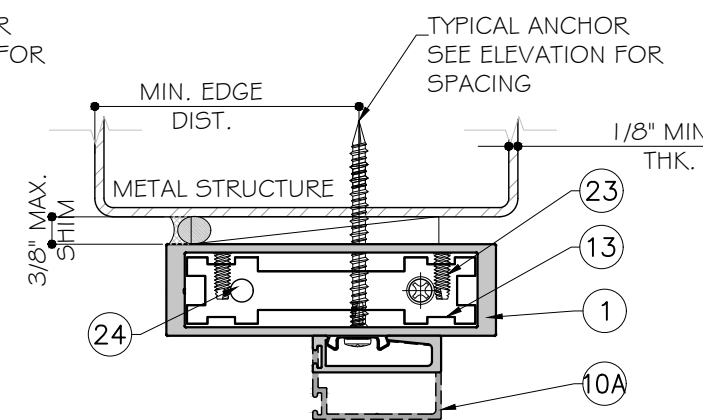
SUBSTRATE:

CONCRETE AT HEAD/SILL/JAMB: $f'_c = 3 \text{ KSI MIN.}$
C-90 HOLLOW/GROUT FILLED BLOCK AT JAMB ONLY: $f'_m = 2 \text{ KSI MIN.}$
WOOD AT HEAD/JAMB: $SG = 0.55$
STEEL: 1/8" MIN. THK., A36 MIN. (HEAD/JAMB)



$$\text{OH RATIO} = \frac{\text{OVERHANG LENGTH}}{\text{OVERHANG HEIGHT}} \geq 1$$

NOTE:
UNITS NOT APPROVED FOR WATER INFILTRATION MUST BE INSTALLED AT LOCATIONS PROTECTED BY AN OVERHANG MEETING CRITERIA AS PER ILLUSTRATION ABOVE OR IN NON-HABITABLE AREAS WHERE WATER INFILTRATION IS ACCEPTABLE.



NOTE:
WOOD BUCK BY OTHERS MUST BE DESIGNED AND ANCHORED PROPERLY TO TRANSFER THE LOADS FROM GLAZING SYSTEM TO SUBSTRATE.



http://www.trulite.com

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PEACHTREE CITY, GA 30269
p. 800-432-8132 | f. 954-724-2083

PRODUCT:

**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

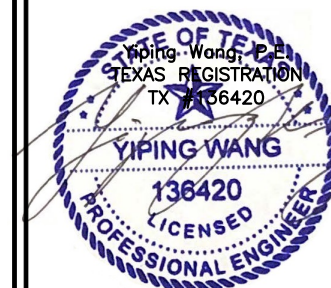
ENGINEER:



MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 MIRAMAR PARKWAY #301
MIRAMAR FL33027
P: 305-271-0117
Email: MCY@mcyengineering.com
www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:

A1

PRODUCT CONTROL APPROVAL:

DRAWN: James

DATE: 01.28.2022

DWG: TA18-03

18 OF 23

LOCKS:

LOCK OPTION 1 (ACTIVE/INACTIVE PANEL): AHT 8000 CVR TWO POINT LOCK SYSTEM WITH STRIKE PLATES AND ACTIVATING SURFACE MOUNT METALLIC INTERIOR PANIC DEVICE AND REGENT KEY OPERATOR ON THE EXTERIOR

LOCK OPTION 2:

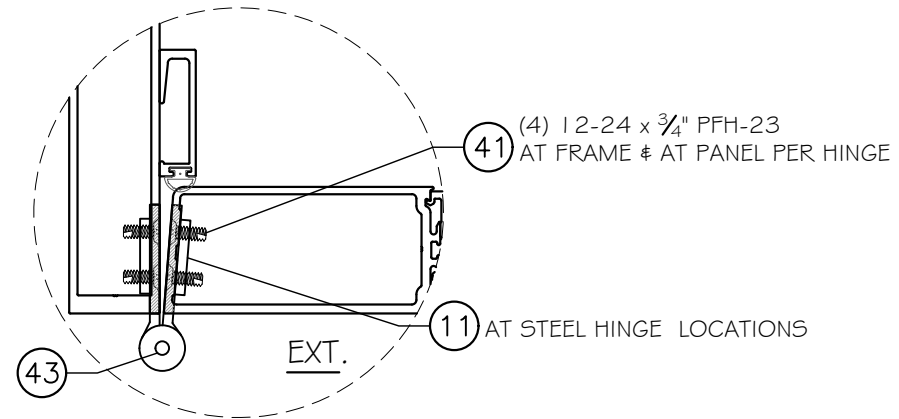
INACTIVE PANEL: ADAMS RITE MS1880 OR ILCO 1880 CONCEALED TWO POINT LOCK SYSTEM WITH VERTICAL RODS AND THUMB TURN (INTERIOR).

ACTIVE PANEL: ADAMS RITE MS1850 OR ILCO 185 WITH AR4016 OR ILCO 4016 TOP ROD AND AR4015 OR ILCO 4015 BOTTOM RODS CONCEALED THREE POINT LOCK SYSTEM, EIGHT PLY HOOK LOCK, KEY OPERATOR ON THE EXTERIOR AND THUMB TURN ON THE INTERIOR

HINGES: REFER TO DETAILS (H1)

HINGE OPTION: (43) H1:(3) 4 1/2" BUTT HINGES (26298)
9 1/4" FROM TOP & BOTTOM, CENTERED

NOTE: HINGES SHOWN ARE IMAGE ONLY.



(H1) HINGE OPTION : (26298)
4- 1/2" STEEL BUTT HINGE
(SEE ELEVATION FOR LOCATION)



<http://www.trulite.com>

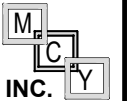
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PRODUCT:

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www.MCYEngineering.com

STAMP:



January 28th, 2022

SHEET TITLE:

A1

PRODUCT CONTROL APPROVAL:

DRAWN: James
DATE: 01.28.2022
DWG: TA18-03

19 OF 23

PRODUCT:

351X SERIES OUTSWING OVERSIZED ENTRANCE DOORS (LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
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ENGINEER:

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January 28th, 2022

SHEET TITLE:

PARTS

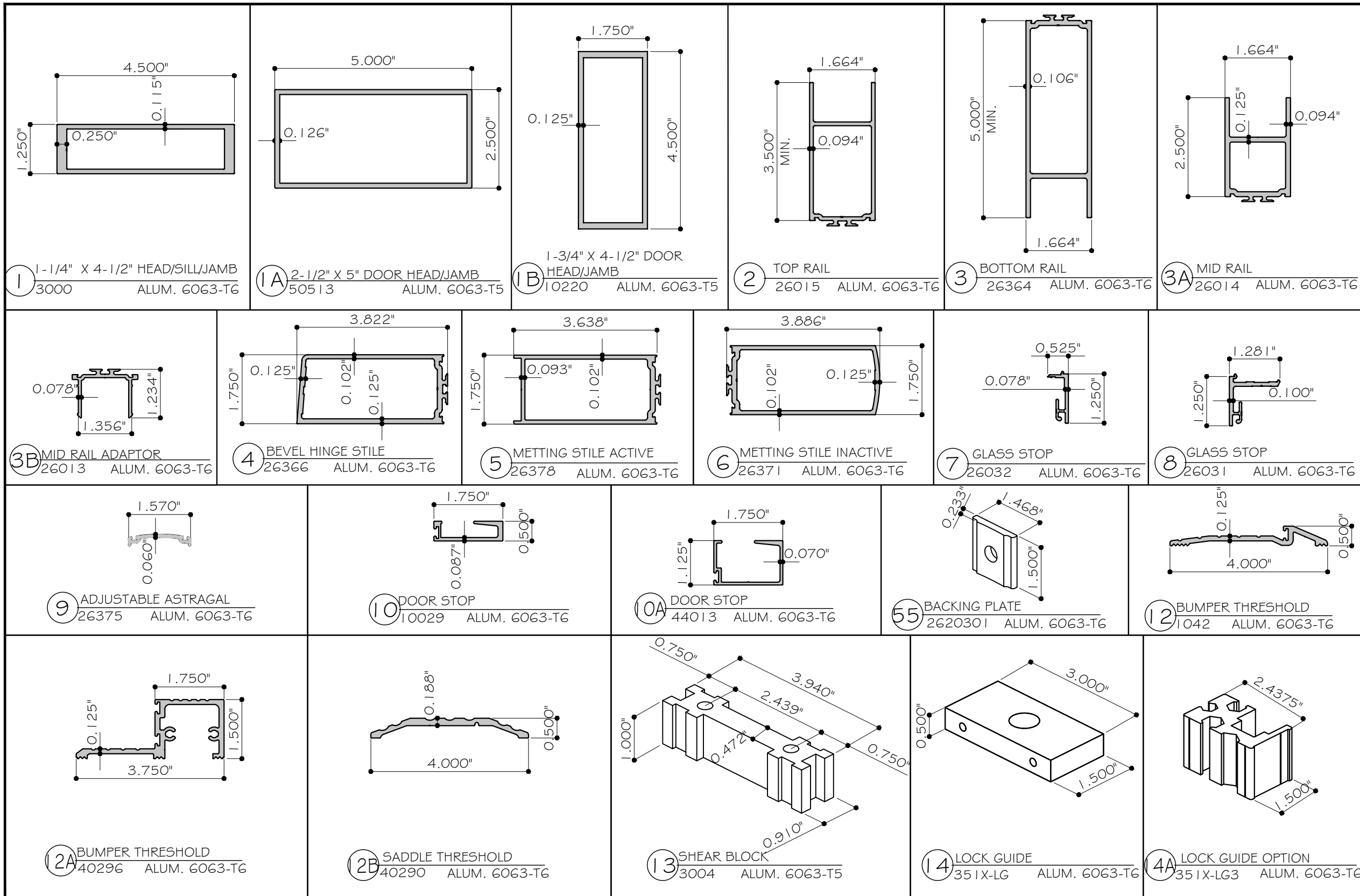
PRODUCT CONTROL APPROVAL:

DRAWN: James

DATE: 01.28.2022

DWG: TA18-03

20 OF 23



1 1-1/4" X 4-1/2" HEAD/SILL/JAMB
3000 ALUM. 6063-T6

1A 2-1/2" X 5" DOOR HEAD/JAMB
50513 ALUM. 6063-T5

1B 1-3/4" X 4-1/2" DOOR
HEAD/JAMB
10220 ALUM. 6063-T5

2 TOP RAIL
26015 ALUM. 6063-T6

3 BOTTOM RAIL
26364 ALUM. 6063-T6

3A MID RAIL
26014 ALUM. 6063-T6

3B MID RAIL ADAPTOR
26013 ALUM. 6063-T6

4 BEVEL HINGE STILE
26366 ALUM. 6063-T6

5 METTING STILE ACTIVE
26378 ALUM. 6063-T6

6 METTING STILE INACTIVE
26371 ALUM. 6063-T6

7 GLASS STOP
26032 ALUM. 6063-T6

8 GLASS STOP
26031 ALUM. 6063-T6

9 ADJUSTABLE ASTRAGAL
26375 ALUM. 6063-T6

10 DOOR STOP
10029 ALUM. 6063-T6

10A DOOR STOP
44013 ALUM. 6063-T6

55 BACKING PLATE
2620301 ALUM. 6063-T6

12 BUMPER THRESHOLD
1042 ALUM. 6063-T6

12A BUMPER THRESHOLD
40296 ALUM. 6063-T6

12B SADDLE THRESHOLD
40290 ALUM. 6063-T6

13 SHEAR BLOCK
3004 ALUM. 6063-T5

14 LOCK GUIDE
351X-LG ALUM. 6063-T6

14A LOCK GUIDE OPTION
351X-LG3 ALUM. 6063-T6

PRODUCT:

**351X SERIES
OUTSWING
OVERSIZED
ENTRANCE DOORS**
(LARGE MISSILE IMPACT)

REVN	DATE/REMARKS
02	01.28.2022

ENGINEER:

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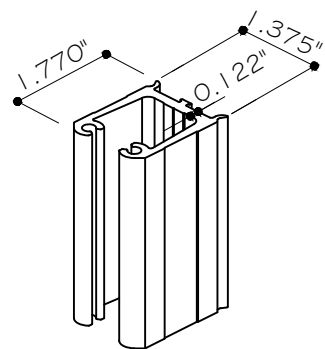
PARTS

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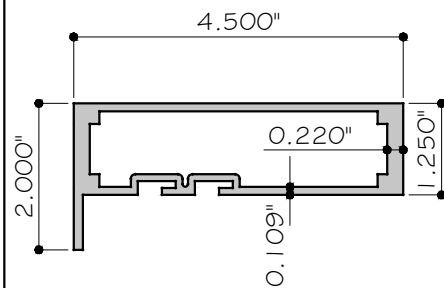
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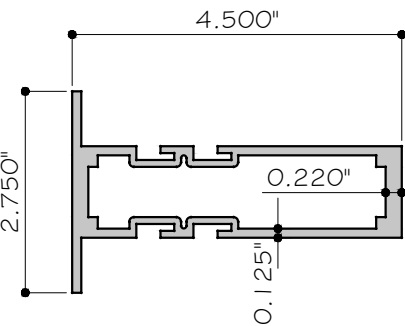
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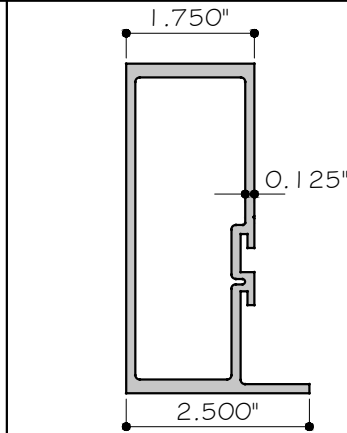
15 SHEAR CLIP
26069 ALUM. 6063-T6



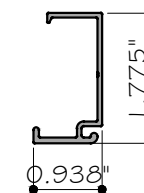
16 2" X 4-1/2" HEAD/SILL
3101 ALUM. 6063-T6



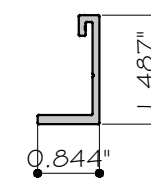
17 2-3/4" X 4-1/2" HORIZONTAL
3102 ALUM. 6063-T6



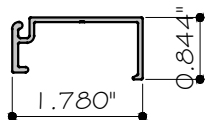
18 2" X 4-1/2" JAMB
3306 ALUM. 6063-T6



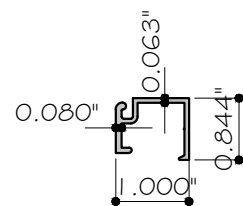
19 GLASS STOP
3103 ALUM. 6063-T6



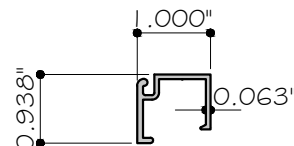
20 GLASS STOP (SASH)
3008 ALUM. 6063-T6



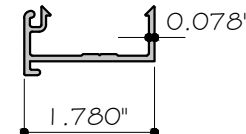
21 GLASS STOP (SASH)
3109 ALUM. 6063-T6



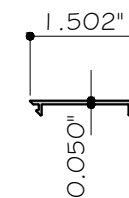
22 GLASS STOP (SASH)
3009 ALUM. 6063-T6



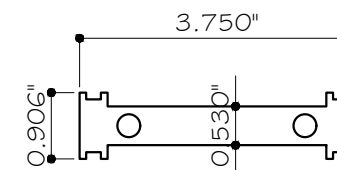
23 GLASS STOP (OPTION)
3003 ALUM. 6063-T6



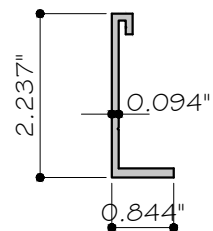
24 GLASS STOP (OPTION)
3304 ALUM. 6063-T6



25 GLASS STOP (OPTION)
3303 ALUM. 6063-T6



26 SHEAR BLOCK
3104 ALUM. 6063-T6



27 GLASS STOP (SASH)
3108 ALUM. 6063-T6

BILL OF MATERIAL

NO.	PART NUMBERS	DESCRIPTION	MATERIAL	MANUFACTURER/REMARKS
1	3000	1-1/4" x 4-1/2" DOOR HEAD/JAMB	ALUM. 6063-T6	BONNELL
1A	50513	2-1/2" X 5" DOOR HEAD/JAMB	ALUM. 6063-T5	BONNELL
1B	10220	1-3/4" X 4-1/2" DOOR HEAD/JAMB	ALUM. 6063-T5	BONNELL
2	26015	3-1/2" MIN. TOP RAIL	ALUM. 6063-T6	BONNELL
3	26364	5" MIN. BOTTOM RAIL	ALUM. 6063-T6	BONNELL
3A	26014	MID RAIL	ALUM. 6063-T6	BONNELL
3B	26013	MID RAIL ADAPTOR	ALUM. 6063-T6	BONNELL
4	26366	BEVEL HINGE STILE	ALUM. 6063-T6	BONNELL
5	26378	MEETING STILE - ACTIVE	ALUM. 6063-T6	BONNELL
6	26371	MEETING STILE - INACTIVE	ALUM. 6063-T6	BONNELL
7	26032	GLASS STOP	ALUM. 6063-T6	BONNELL
8	26031	GLASS STOP	ALUM. 6063-T6	BONNELL
9	26375	ADJUSTABLE ASTRAGAL	ALUM. 6063-T6	BONNELL
10	10029	DOOR STOP (1046A)	ALUM. 6063-T6	BONNELL
10A	44013	OPTIONAL DOOR STOP FOR CONCEALED OVERHEAD CLOSER	ALUM. 6063-T6	BONNELL
11	26139	HINGE BACKING PLATE	STEEL	EVANS, INSIDE EACH PANEL HINGE STILE @ EACH HINGE LOCATION
12	1042	4" BUMPER THRESHOLD - ADA	ALUM. 6063-T6	BONNELL
12A	40296	1 1/2" X 3 3/4" BUMPER THRESHOLD	ALUM. 6063-T6	BONNELL
13	3004	SHEAR BLOCK	ALUM. 6063-T5	BONNELL
14	351X-LG	LOCK GUIDE	ALUM. 6063-T6	BONNELL
14A	351X-LG3	LOCK GUIDE (OPTION)	ALUM. 6063-T6	BONNELL
15	26069	SHEAR CLIP	ALUM. 6063-T6	BONNELL
16	3101	HEAD/SILL/JAMB	ALUM. 6063-T6	BONNELL
17	3102	INT. HORIZONTAL	ALUM. 6063-T6	BONNELL
18	3306	DOOR JAMB MULLION	ALUM. 6063-T6	BONNELL
19	3103	GLASS STOP	ALUM. 6063-T6	BONNELL
20	3008	GLASS STOP SASH	ALUM. 6063-T6	BONNELL
21	3109	TRANSOM GLASS STOP	ALUM. 6063-T6	BONNELL
22	3009	TRANSOM GLASS STOP	ALUM. 6063-T6	BONNELL
23	3003	TRANSOM GLASS STOP OPTION	ALUM. 6063-T6	BONNELL
24	3304	TRANSOM GLASS STOP	ALUM. 6063-T6	BONNELL
25	3303	TRANSOM GLASS STOP COVER	ALUM. 6063-T6	BONNELL
26	3104	SHEAR BLOCK	ALUM. 6063-T6	BONNELL
27	3108	GLASS STOP	ALUM. 6063-T6	BONNELL
30	RG-5	DOOR STOP GASKET	EPDM(DUROMETER 65 SHORE A)	TREMCO/GRP
31	RG-15	DOOR GASKET	EPDM(DUROMETER 70 SHORE A)	TREMCO/GRP
32	24120	GASKET FOR 1042 BUMPER THRESHOLD	EPDM(DUROMETER 60 SHORE A)	TREMCO/GRP
33	SPACER2	PVC SETTING BLOCK FOR 9/16" GLASS	PVC PLASTIC	M#M PLASTICS
34	23301	RUBBER GROMMET AT ASTRAGAL	NITRILE	RUBBERGROMMET.COM
35	24110	BRUSH PILE AT DOOR MEETING STILE	YARN	AMESBURY GROUP
36	RG-1	TRANSOM/SIDELIGHT GASKET	EPDM(DUROMETER 70 SHORE A)	TREMCO/GRP
37	H62D	EPDM SETTING BLOCK FOR 9/16" GLASS	EPDM(DUROMETER 85 ±5 SHORE A)	TREMCO/GRP
38	H62C	EPDM SETTING BLOCK FOR 9/16" GLASS	EPDM(DUROMETER 85 ±5 SHORE A)	TREMCO/GRP
39	H62F	EPDM SETTING BLOCK FOR 1-5/16" GLASS	EPDM(DUROMETER 85 ±5 SHORE A)	TREMCO/GRP
40	23501	SPRING CLIP	STEEL	EVANS
41	23163	#12-24 X 3/4" PFH-23	ZINC COATED STEEL	ALLOY FASTENER
42	23233	FRAME SCREWS 1/4"-20 X 1 1/2" LG. PPH-23	ZINC COATED STEEL	ALLOY FASTENER
43	26298	4 1/2" LG. SURFACE MOUNT BUTT HINGES	STEEL	HAGER
44	23097	SCREW AT SPRING CLIP, #10-24 X 1/2" PPH @ 12" O.C.	STEEL	VARIES
45	23079	SCREW AT DOOR ADAPTOR, #10-24 X 3/4" UC-PFH23 @ 12" O.C.	STEEL	VARIES
46	23302	SCREW AT ASTRAGAL PLATE, #6 X 3/4" UC-PFH TEK	STEEL	VARIES
47	DOWSIL 795	DOWSIL 795 SILICONE	SILICONE	DOW CORNING
48	V2108	1/4" X 3/8" GLAZING TAPE	FOAM	ST. GOBAIN
50	ST351-1	1-1/2" X 2" X 14 GA. STEEL TUBE REINF.	STEEL	VARIES, INSIDE EACH PANEL LOCK STILE LOCATED @ 42" FROM BOTTOM
51	H1880	2 POINT LOCK SYSTEM HARDWARE	STEEL	ADAMS RITE, AT INACTIVE PANEL @ 36 9/16" FROM BOTTOM
52	FZ4588	3 POINT LOCK SYSTEM HARDWARE	STEEL	ADAMS RITE, AT ACTIVE PANEL @ 36 9/16" FROM BOTTOM
53	-	GLASS SPACER	ALUM.	ALLMETAL, INC.
54	ST351X	1" X 4" STEEL BAR REINFORCEMENT	A36	VARIES
55	262030	BACKING PLATE	ALUM. 6063-T6	BONNELL



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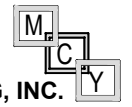
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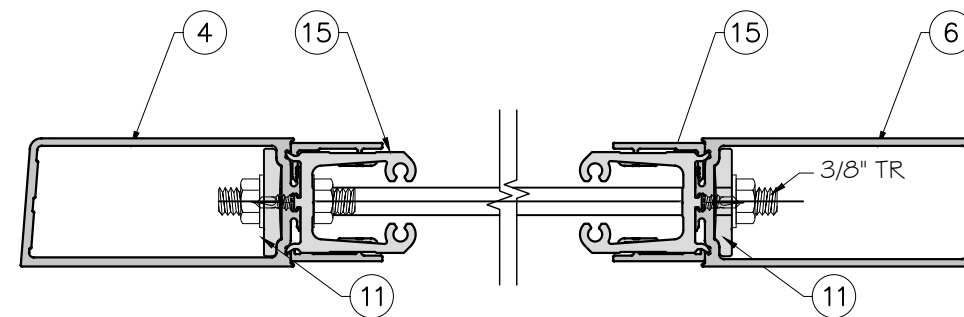
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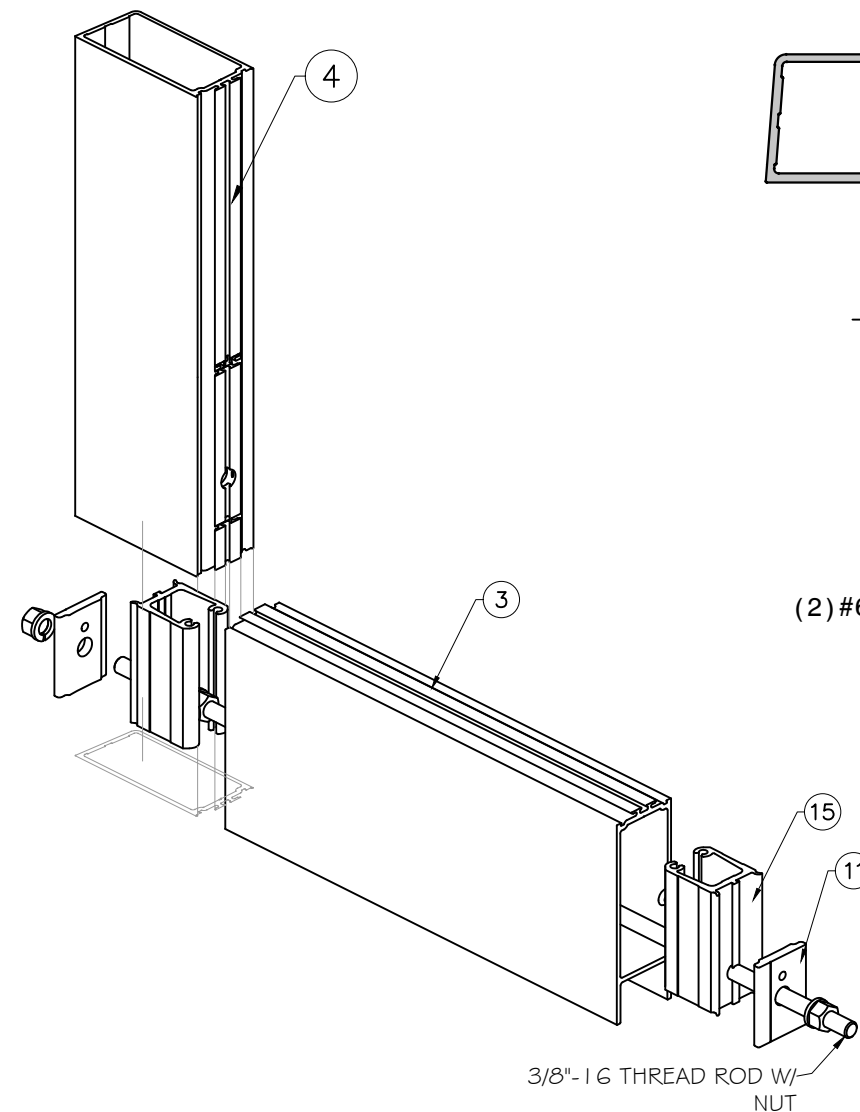
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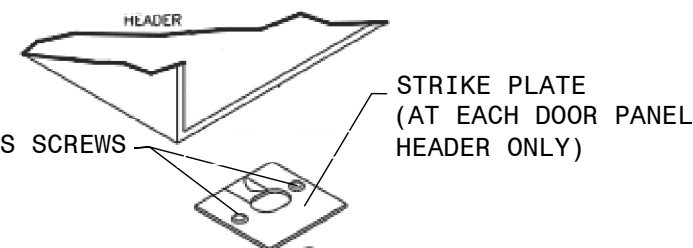
23 OF 23



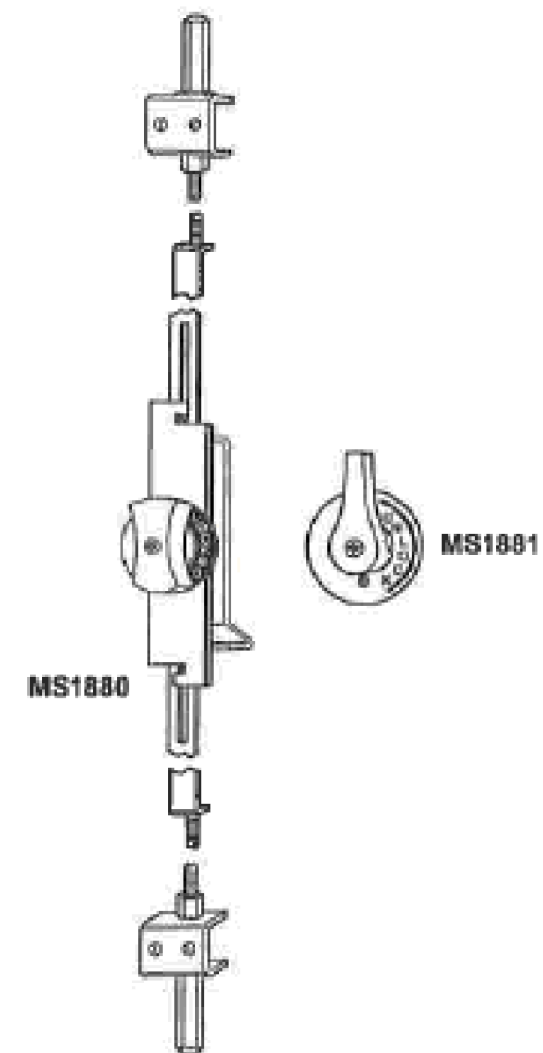
SHEAR CLIP SETUP USING 26069 (AGA-2486)



SHEAR CLIP SETUP ISOMETRIC



STRIKES (AHT 8000)
LOCK OPTION 1



MS 1880 AND MS 1881 TWO-POINT FLUSHBOLT
LOCK OPTION 2