

KAWNEER COMPANY, INC.

TRIFAB 451/451T STOREFRONT SYSTEM (IMPACT)



555 GUTHRIDGE CT
NORCROSS, GA 30092
PH: (770) 840-6431

TITLE: TRIFAB 451/451T STOREFRONT SYSTEM (IMPACT)

INSTALLATION & GENERAL NOTES

PREPARED BY: BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
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FAX: (954) 744-4738
WEB: www.buildingdrops.com

INSTALLATION NOTES:

1. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
2. THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
3. INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH OF THE DEPICTED LOCATION IN THE ANCHOR LAYOUT DETAIL (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
4. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM STACK TO BE 3/8 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
5. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
6. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
7. FOR HOLLOW BLOCK AND GROUT FILLED BLOCK, DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.
8. FOR MASONRY OR CONCRETE OPENINGS, A 1X WOOD BUCK MAY BE USED (OPTIONAL) AS LONG AS THE MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS ARE STILL MET WITHIN THE CORRESPONDING HOST SUBSTRATE. SEE GENERAL NOTE #3 ON SHEET 1 FOR MORE INFORMATION.
9. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.
10. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
 - A. WOOD - MINIMUM SPECIFIC GRAVITY OF 0.42.
 - B. CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.
 - C. MASONRY - STRENGTH CONFORMANCE TO ASTM C-90, WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
 - D. STEEL - MINIMUM YIELD STRENGTH OF 36 KSI. MINIMUM 12 GA. WALL THICKNESS.
 - E. ALUMINUM - MINIMUM 1/8 INCH THICK 6063-T5 ALUMINUM.

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE 2018 IBC & IRC AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
 - AAMA 501-15
 - ASTM E283-04(12)
 - ASTM E330-14
 - ASTM E331-00(09)
 - ASTM E1886-13a
 - ASTM E1996-14a
2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, 2X FRAMING AND METAL STUD FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
3. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
4. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.
5. APPROVED IMPACT PROTECTIVE SYSTEM **IS NOT REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE ON WIND ZONE 3 OR LESS.
6. APPROVED IMPACT PROTECTIVE SYSTEM **IS REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE ON WIND ZONE 4.
7. DOOR FRAME MATERIAL: ALUMINUM 6063-T6
8. ALL STRUCTURAL MATERIALS & DISSIMILAR METALS SHALL BE PROTECTED, TREATED, PAINTED, COATED, AND/OR ISOLATED AS REQUIRED IN THE APPLICABLE SECTIONS OF THE 2018 INTERNATIONAL BUILDING CODE AND REFERENCED DESIGN SPECIFICATIONS.
9. GLASS MEET THE REQUIREMENTS OF ASTM E 1300 GLASS CHARTS. SEE SHEET 5 FOR GLAZING DETAILS.

TABLE OF CONTENTS	
SHEET	SHEET DESCRIPTION
1	INSTALLATION & GENERAL NOTES
2	ELEVATIONS
3	ANCHOR DETAILS
4	ELEVATIONS AND ANCHOR LAYOUT
5	GLAZING DETAILS
6	VERTICAL SECTIONS
7	HORIZONTAL SECTIONS
8	MULLION OPTIONS
9	MULLION DESIGN PRESSURE TABLE
10	MULLION OPTIONS AND DESIGN PRESSURE TABLE
11	COMPONENTS
12	BILL OF MATERIALS & COMPONENTS

INSTRUCTIONS:

- STEP 1:** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2:** SEE CHARTS ON SHEET 5 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE
- STEP 3:** CHECK MULLION CAPACITY FOR A GIVEN SPACING, HEIGHT WITH SINGLE SPAN, AND CORNER UNITS ON SHEET 9-10
- STEP 4:** THE LOWEST VALUE RESULTING FROM STEP 2 AND 3 SHALL APPLY TO ENTIRE SYSTEM

REMARKS	BY	DATE

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TBPE FIRM No. 13734

DATE: **02.11.21**

DWG. BY: **ER** CHK. BY: **HFN**

SCALE: **NTS**

DWG. #: **KAW016**

SHEET:

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STOREFRONT SYSTEM
(IMPACT)
ELEVATIONS

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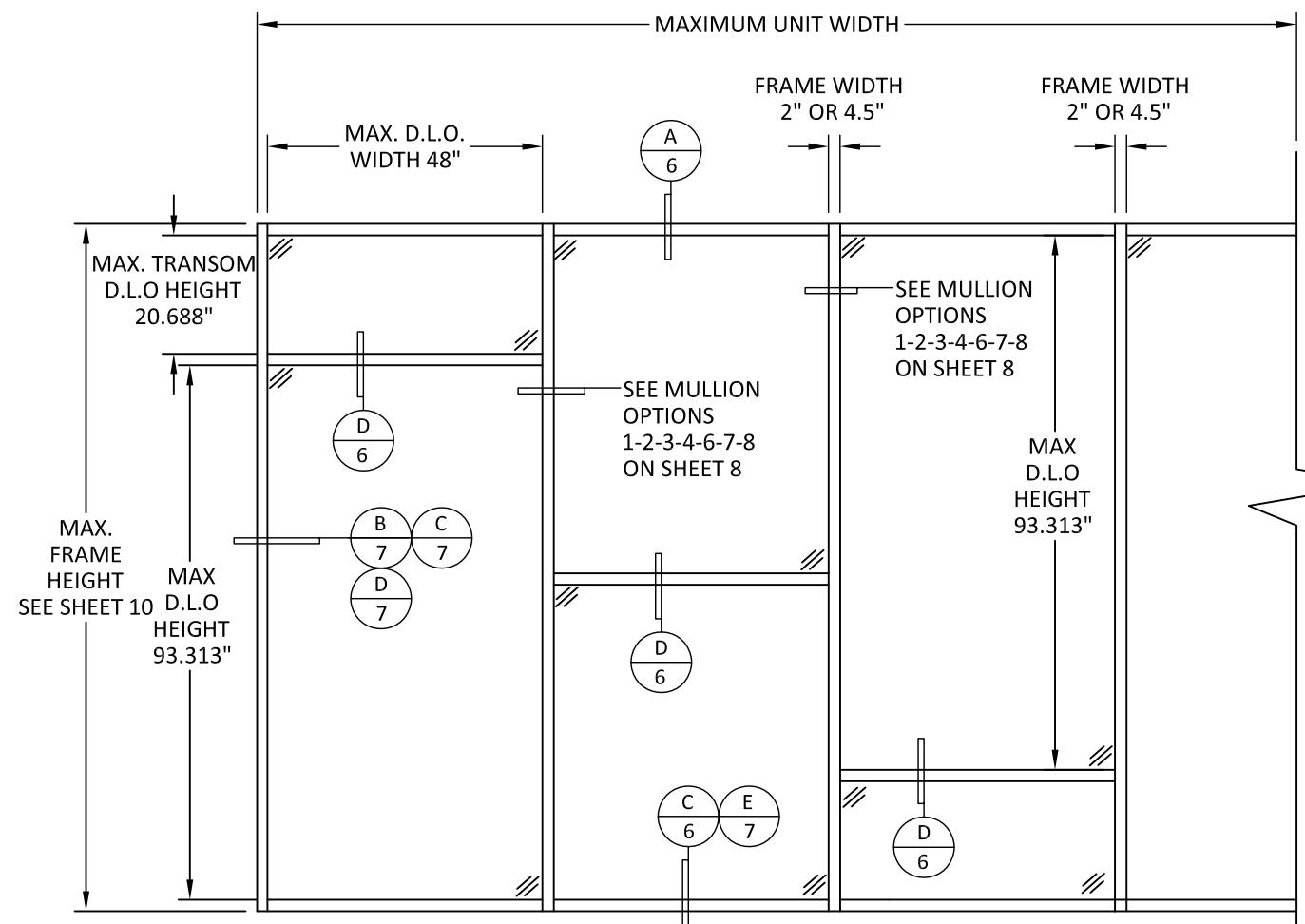
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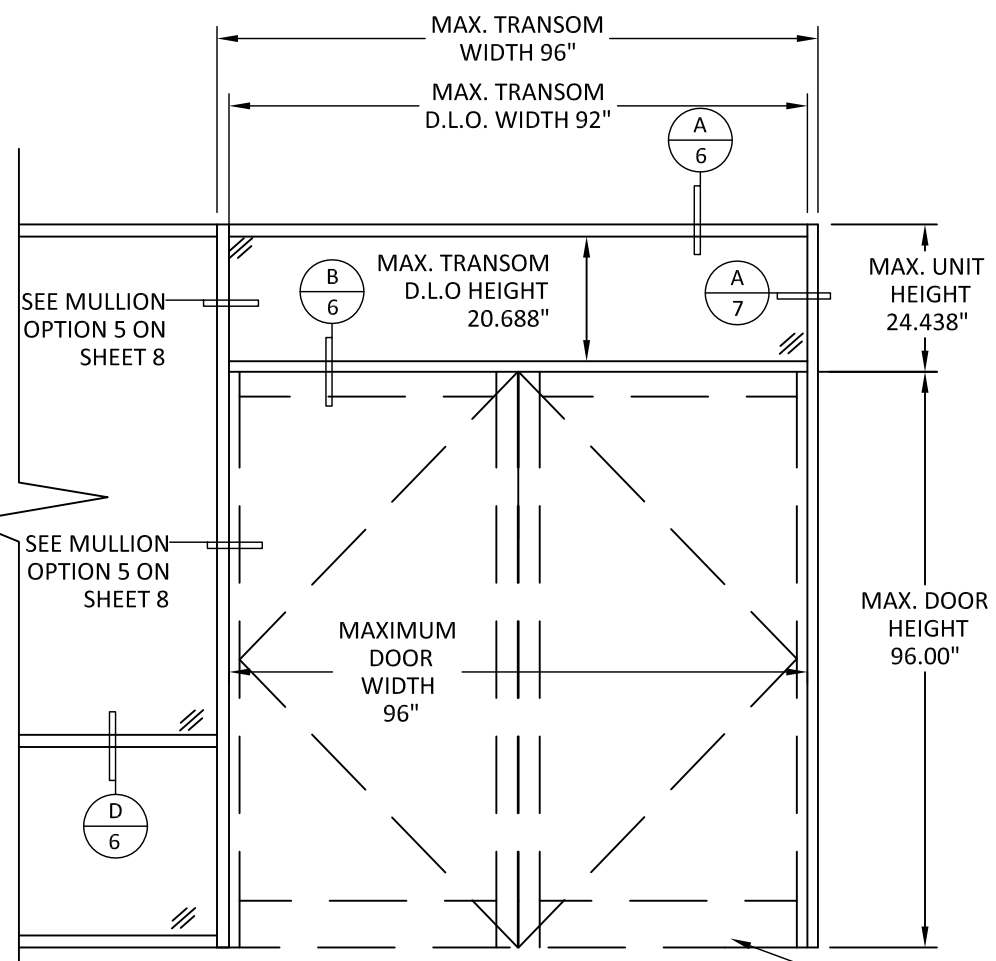


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SHEET:	2



ELEVATION A



ELEVATION B

SEE SEPARATE DOOR APPROVAL FOR DOOR RATING

NOTE:
1. SEE SEPARATE DOOR APPROVAL FOR DOOR RATING & DETAILS.
2. LOWER DESIGN PRESSURE FROM STOREFRONT OR DOOR APPROVAL WILL APPLY TO ENTIRE SYSTEM

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TITLE: TRIFAB 451/451T
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ANCHOR LAYOUT

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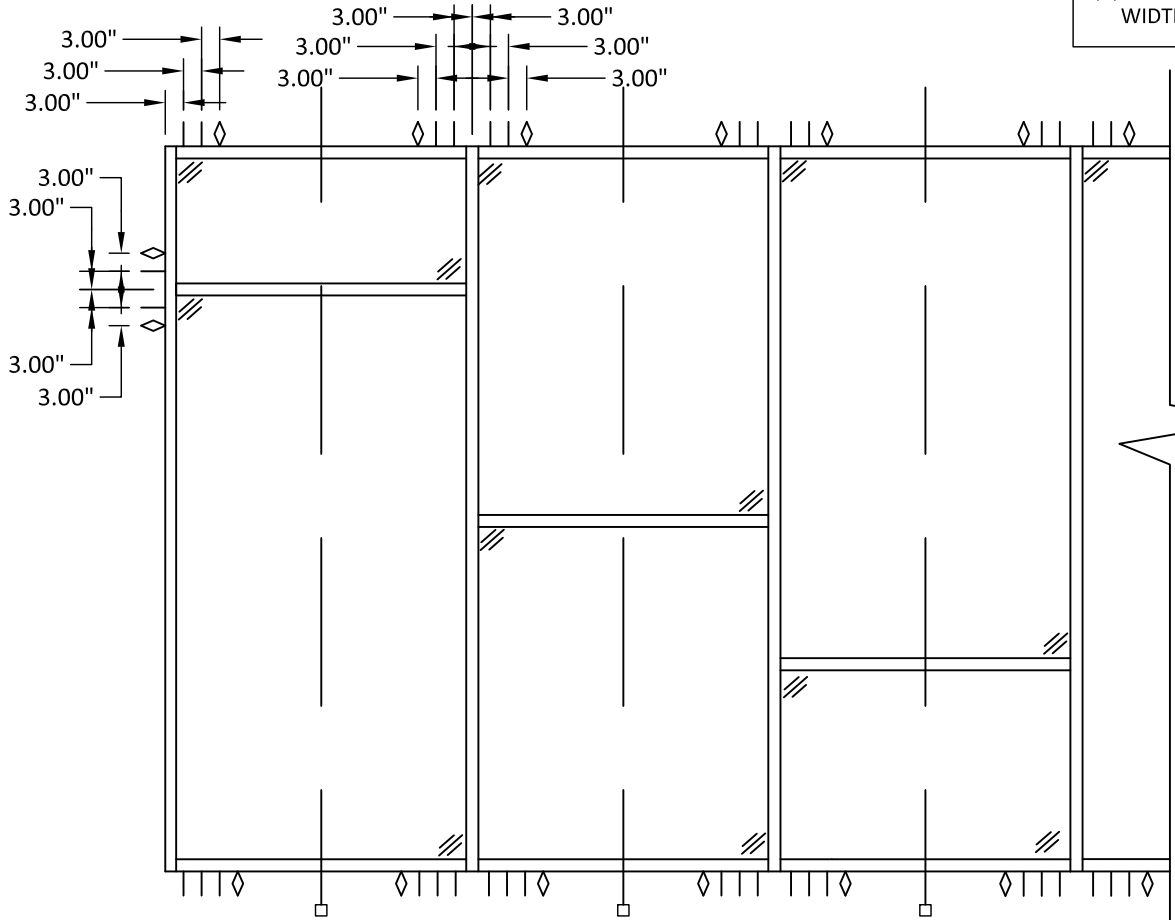
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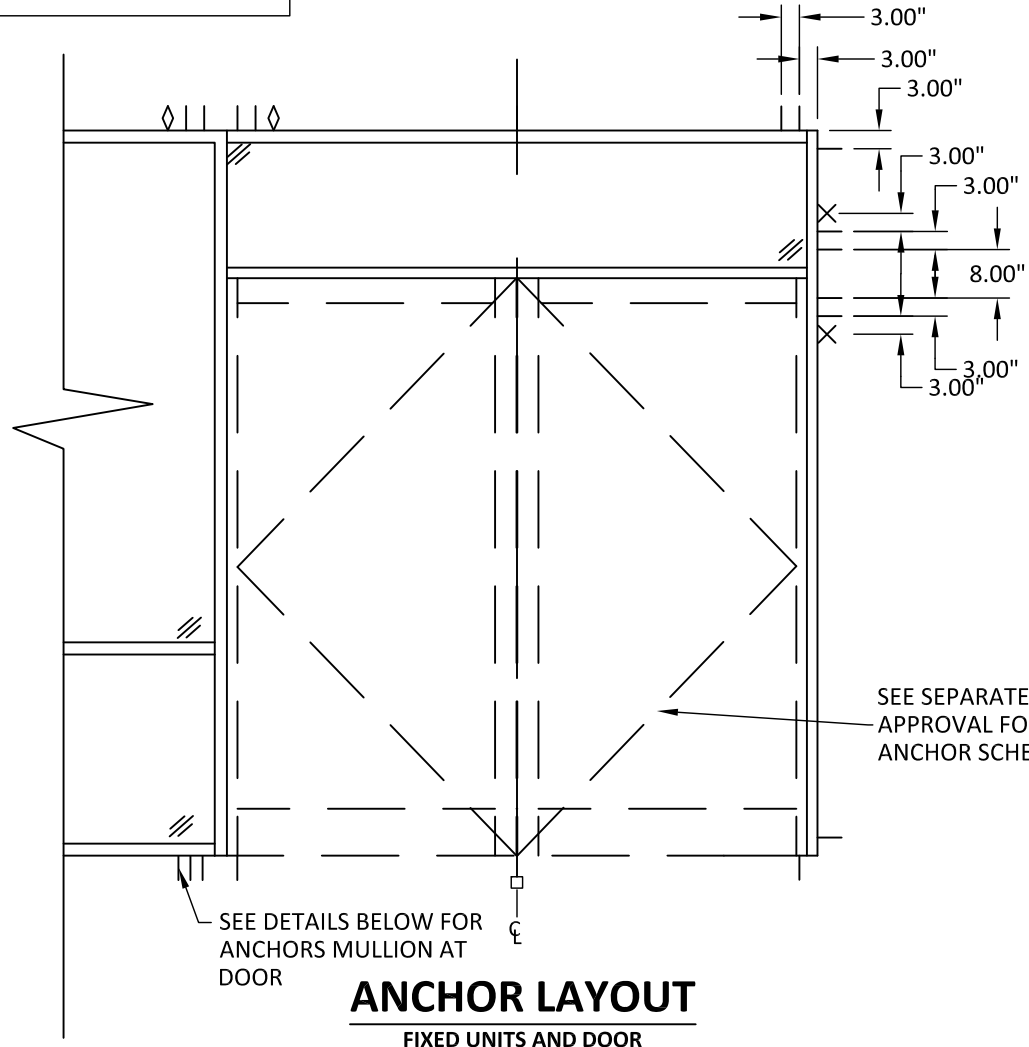
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UNITS WITHOUT INTERMEDIATED MEMBER DON'T REQUIRED ANCHORS AT JAMBS
◇ = EXTRA ANCHOR AT MULLION TO BE USED ON UNITS HIGHER THAN 87" OR HORIZONTAL MULLION WIDER THAN 36"
X = EXTRA ANCHOR AT DOOR ONLY NEEDED FOR DOOR WIDTH GREATER 74".



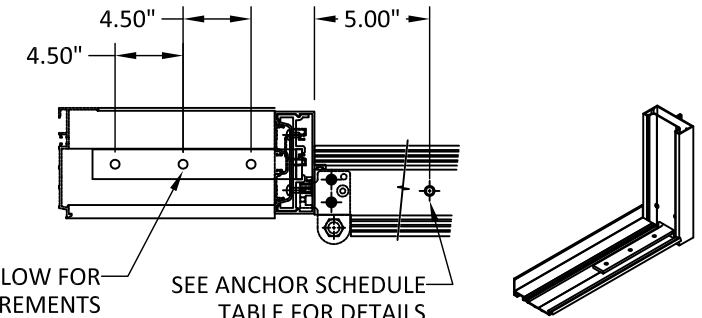
ANCHOR LAYOUT
FIXED WINDOW



ANCHOR LAYOUT
FIXED UNITS AND DOOR

SEE SEPARATE DOOR APPROVAL FOR DOOR ANCHOR SCHEDULE

SEE DETAILS BELOW FOR ANCHORS MULLION AT DOOR



SEE TABLE BELOW FOR ANCHOR REQUIREMENTS AT DOOR MULLION

SEE ANCHOR SCHEDULE TABLE FOR DETAILS APPROVED ANCHOR

ANCHOR SCHEDULE				
ANCHOR DESCRIPTION	SUBSTRATE REQUIREMENTS	MIN. EMBEDMENT	MIN. EDGE DISTANCE	NOTES
#14 WOOD SCREW	MIN. S.G.= 0.42 WOOD	1-1/2"	1"	-
1/4" CONCRETE SCREW	CONCRETE F'C=3000 PSI MIN.	1-1/4"	2-1/2"	ELCO ULTRACONS, ITW RED-HEADS, HILTI KWIK-CON II.
1/4" CONCRETE SCREW	C-90 HOLLOW/FILLED BLOCK AT JAMBS F'M=2000 PSI MIN.	1-3/4"	2-1/2"	ELCO ULTRACONS, ITW RED-HEADS, HILTI KWIK-CON II.
1/4" DIA. SELF-DRILLING SCREWS (GRADE 5)	STEEL: 12 GA. MIN., Fy=36KSI MIN. ALUM: 1/8" MIN, 6063-T5 MIN	3 THREADS PENETRATION BEYOND METAL STRUCTURE	3/4"	STEEL IN CONTACT WITH ALUM. TO BE PLATED OR PAINTED

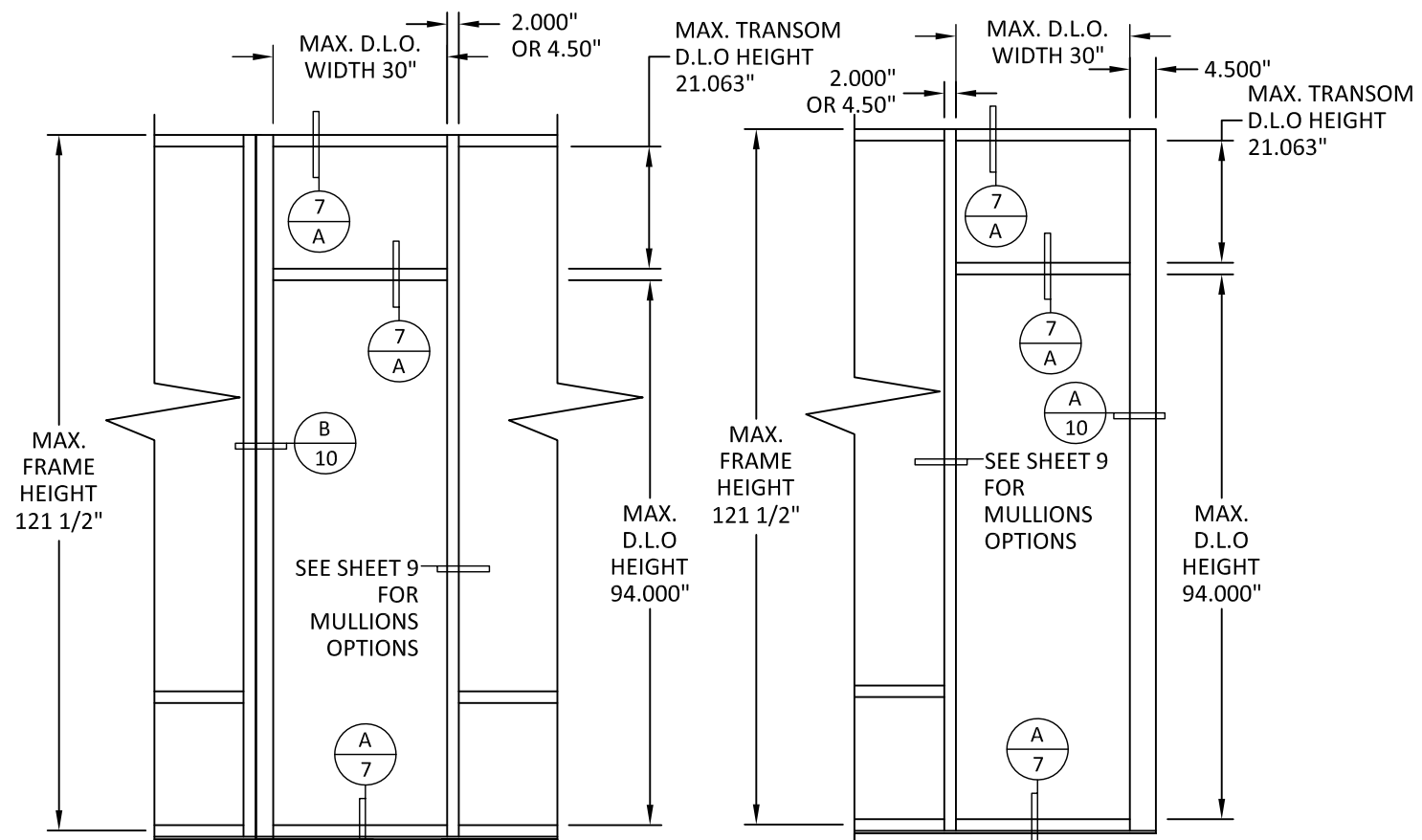
MULLION AT DOOR ANCHOR SCHEDULE				
ANCHOR DESCRIPTION	SUBSTRATE REQUIREMENTS	MIN. EMBEDMENT	MIN. SPACING	NOTES
3/8" CONCRETE SCREW	CONCRETE F'C=3000 PSI MIN.	2 1/4"	4 1/2"	SIMPSON POWER-BOLTS, ITW TRUBOLT WEDGE, HILTI KWIK-CON 3.

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ELEVATIONS & ANCHOR LAYOUT

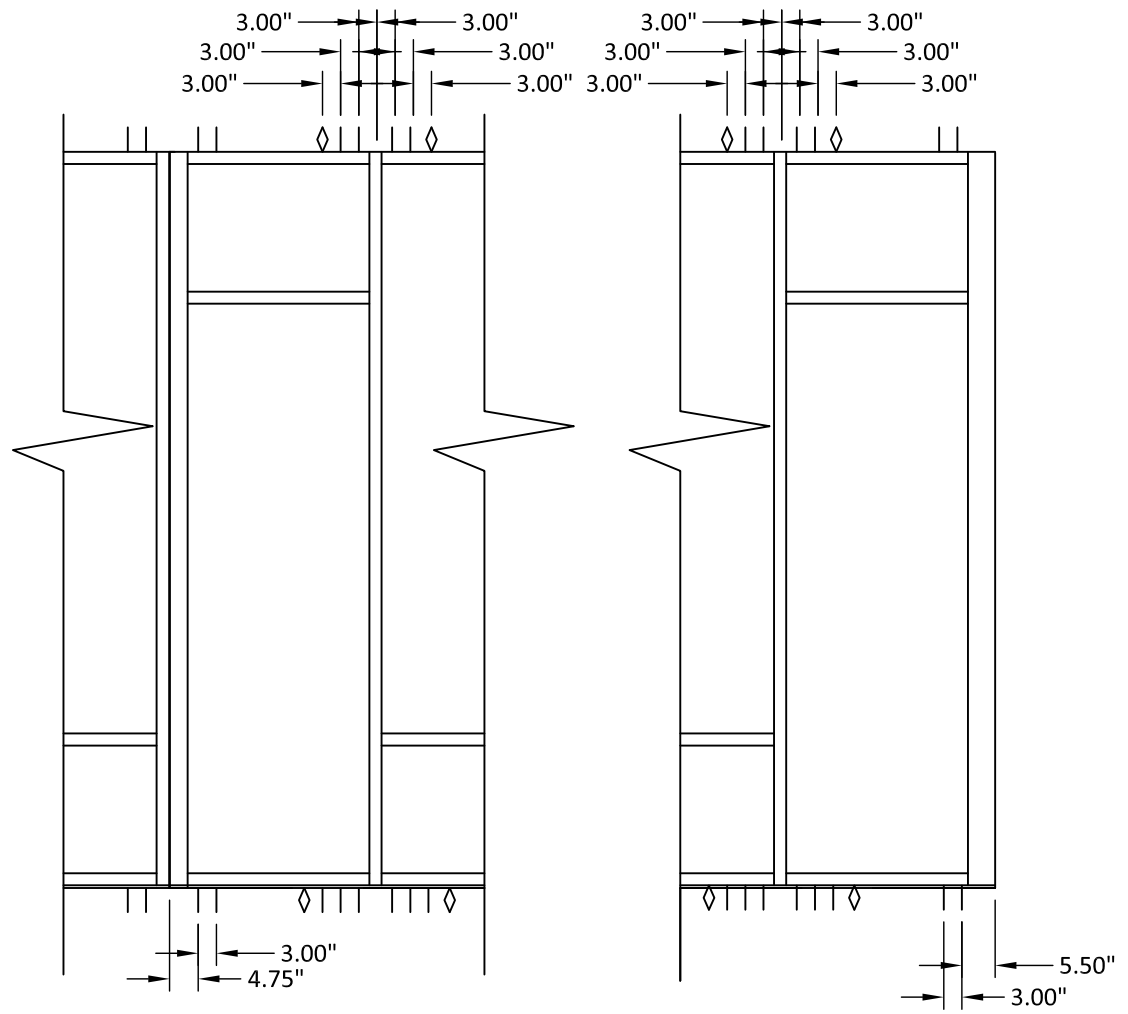
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ELEVATION
135 DEGREE MULLION

ELEVATION B
90 DEGREE MULLION

◇ = EXTRA ANCHOR AT MULLION TO BE USED ON UNITS HIGHER THAN 87" OR HORIZONTAL MULLION SMALLER THAN 36"



ANCHOR LAYOUT
135 DEGREE MULLION

ANCHOR LAYOUT
90 DEGREE MULLION

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TITLE: TRIFAB 451/451T
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GLAZING DETAILS

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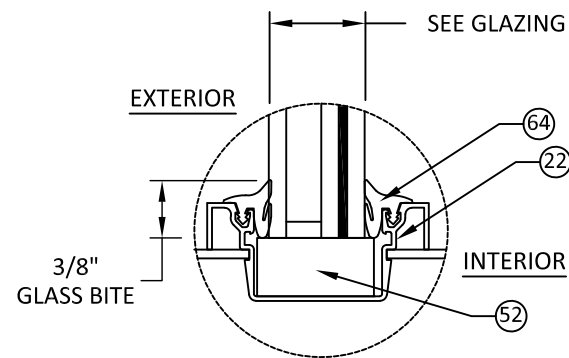
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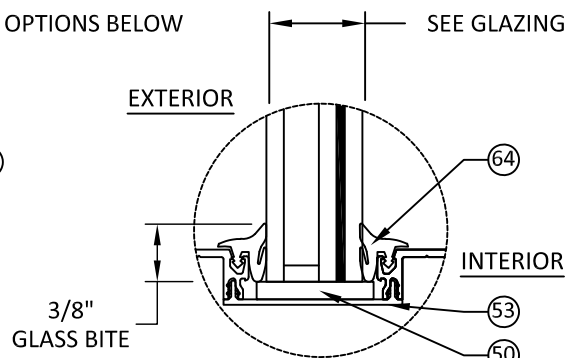
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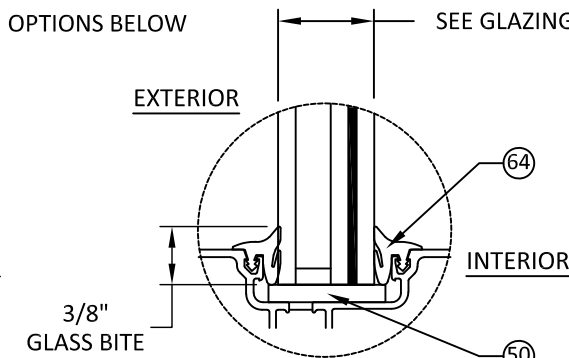
GLASS LOAD CAPACITY (PSF)		
NOMINAL DIMS.		GLASS OPTION 1 & 2
D.L.O. WIDTH 'a' (in.)	D.L.O. HEIGHT 'b' (in.)	EXT. (+) INT. (-)
36	117.3125	45.0
30		45.0
24		45.0
42	105.3125	45.0
36		45.0
30		45.0
24	93.3125	45.0
48		45.0
42		45.0
36	81.3125	45.0
30		45.0
24		45.0
54	69.3125	40.0
48		45.0
42		45.0
36	69.3125	45.0
30		45.0
24		45.0
60	69.3125	36.0
54		40.0
48		45.0
42	69.3125	45.0
36		45.0
30		45.0
24	69.3125	45.0
30		45.0
24		45.0



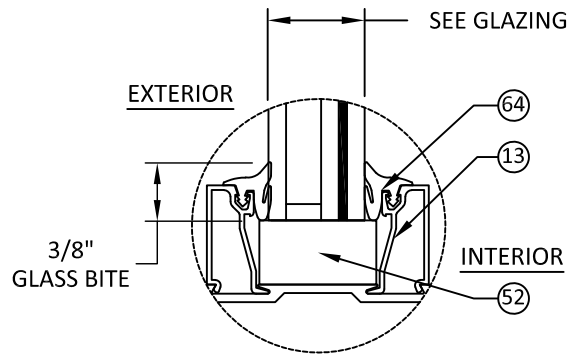
GLAZING DETAIL A



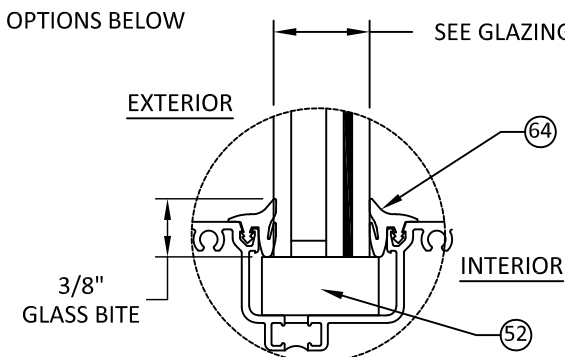
GLAZING DETAIL B



GLAZING DETAIL C



GLAZING DETAIL D



GLAZING DETAIL E

- GLAZING OPTIONS:**
- | | |
|---|---|
| <p>1. 1-1/32- IG LAMINATED GLASS CONSISTING OF:
3/16" HEAT STRENGTHENED
3/8" AIR SPACE
3/16" HEAT STRENGTHENED
0.090" SGP INTERLAYER BY KURARAY
3/16" HEAT STRENGTHENED</p> | <p>2. 1-1/32- IG LAMINATED GLASS CONSISTING OF:
3/16" HEAT STRENGTHENED
3/8" AIR SPACE
3/16" HEAT STRENGTHENED
0.060" SGP INTERLAYER BY KURARAY
3/16" HEAT STRENGTHENED</p> |
|---|---|

- GLAZING NOTES:**
- GLASS TYPE AND THICKNESS SHALL COMPLY WITH ASTM E1300 REQUIREMENTS AS WELL AS APPLICABLE SAFETY GLAZING REQUIREMENTS PER THE 2018 IBC, IRC. THICKNESS, TEMPER, AND SAFETY GLAZING REQUIREMENTS SHALL BE REVIEWED ON A SITE SPECIFIC BASIS.

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VERTICAL SECTIONS

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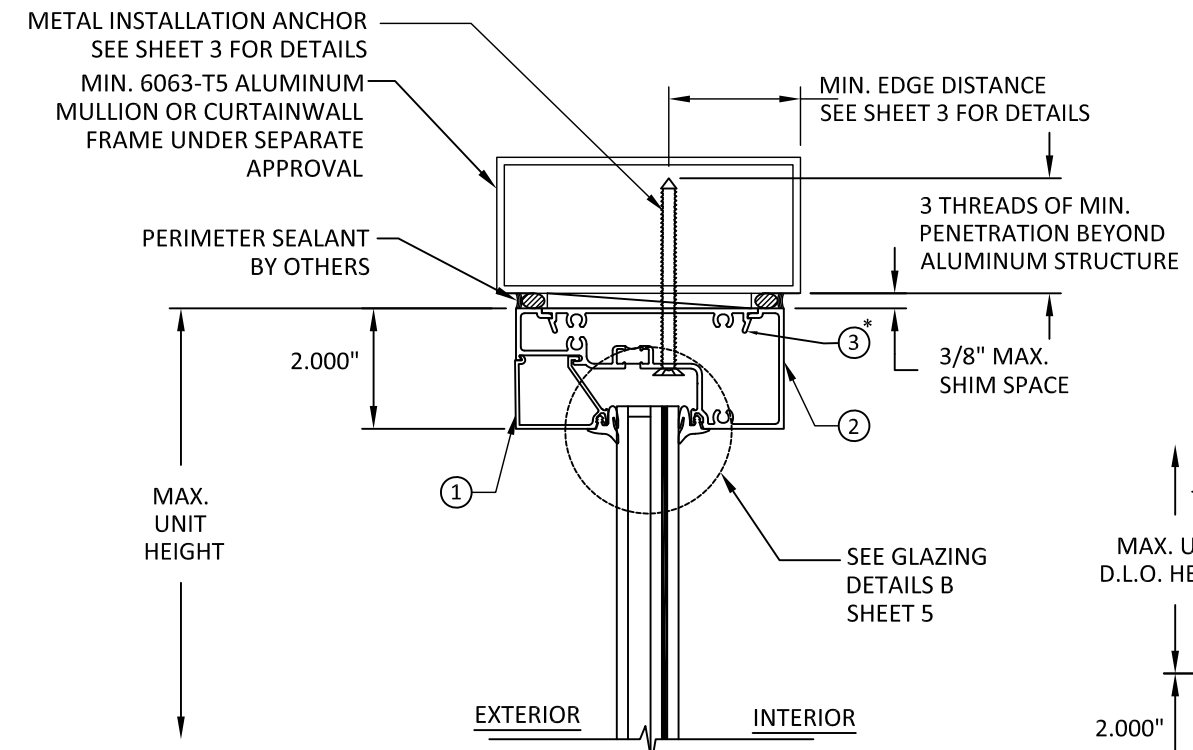
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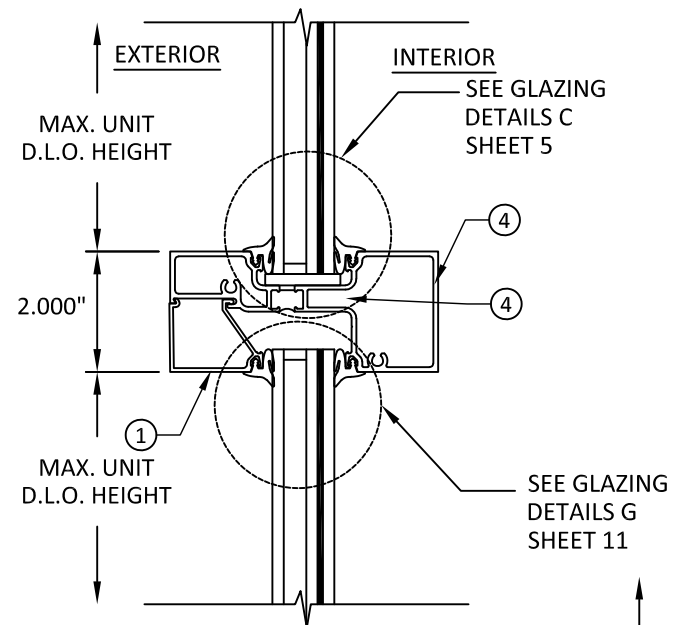


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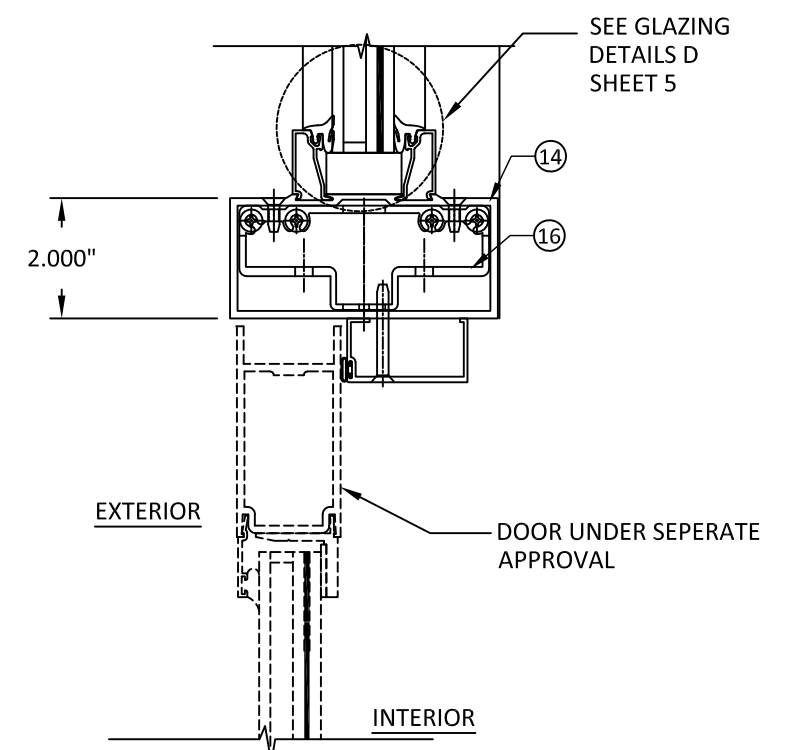
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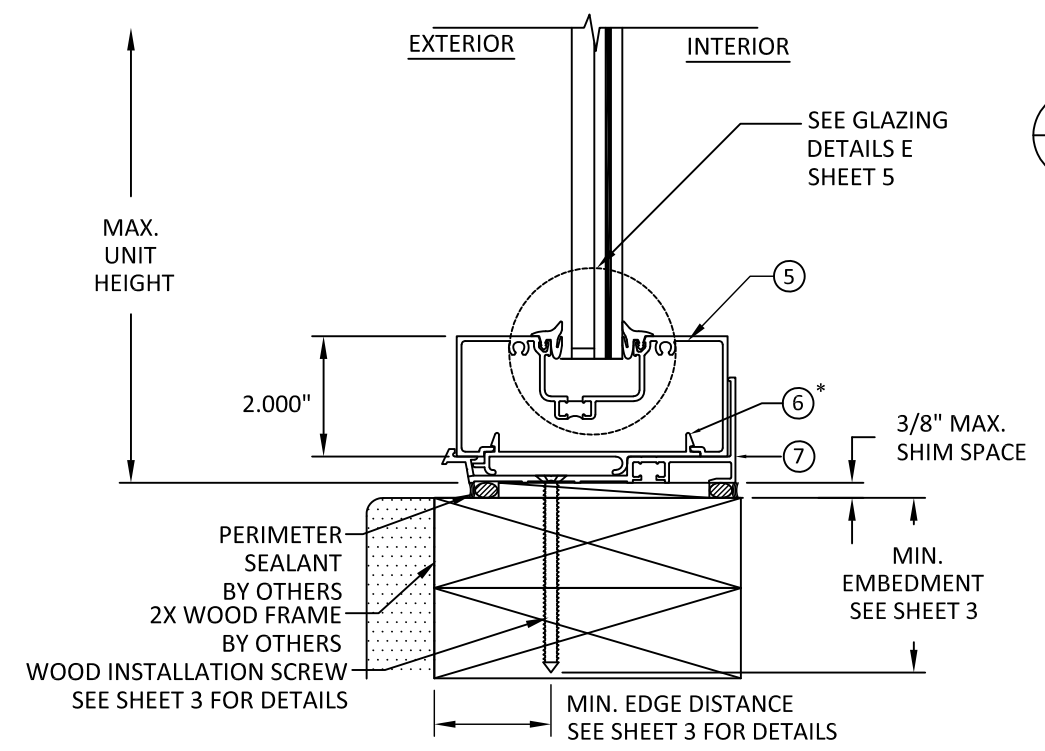
A
6
VERTICAL SECTION
HEAD-EXISTING METAL STRUCTURE
FIXED UNIT



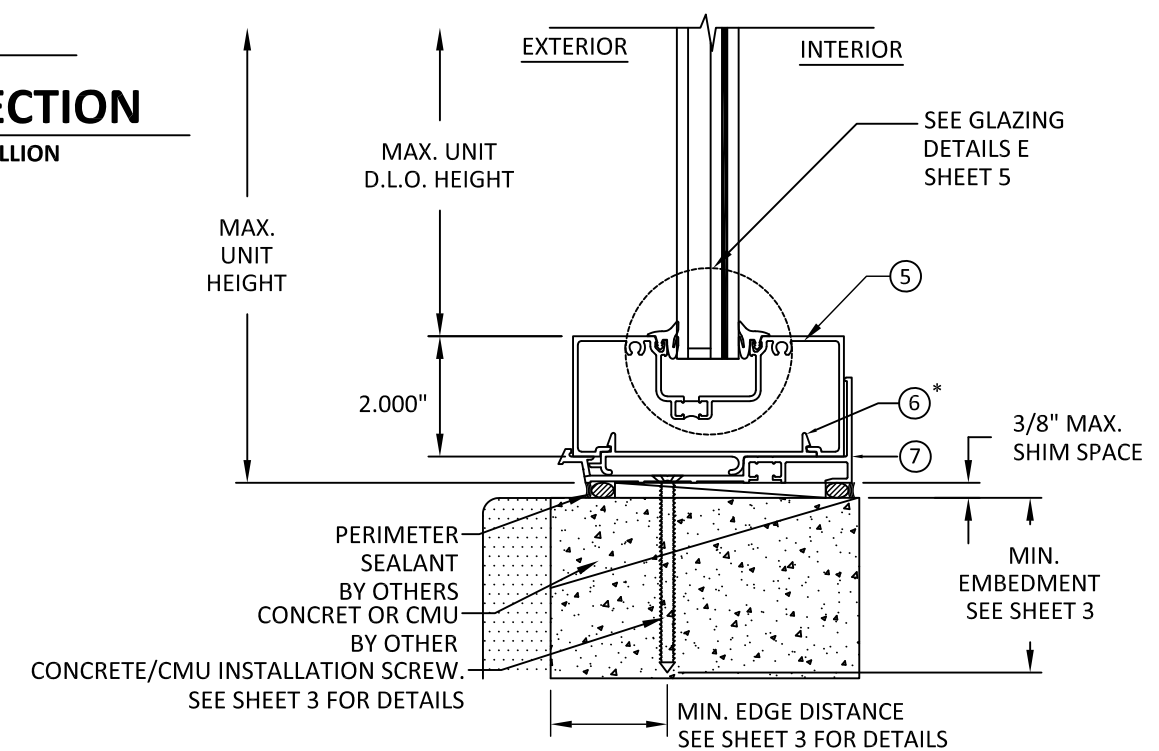
D
6
VERTICAL SECTION
HORIZONTAL MULLION



B
6
VERTICAL SECTION
DOOR TO TRANSOM



C
6
VERTICAL SECTION
SILL-2X WOOD FRAME
FIXED UNIT



E
6
VERTICAL SECTION
SILL-CONCRETE OR CMU
FIXED UNIT

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HORIZONTAL SECTIONS

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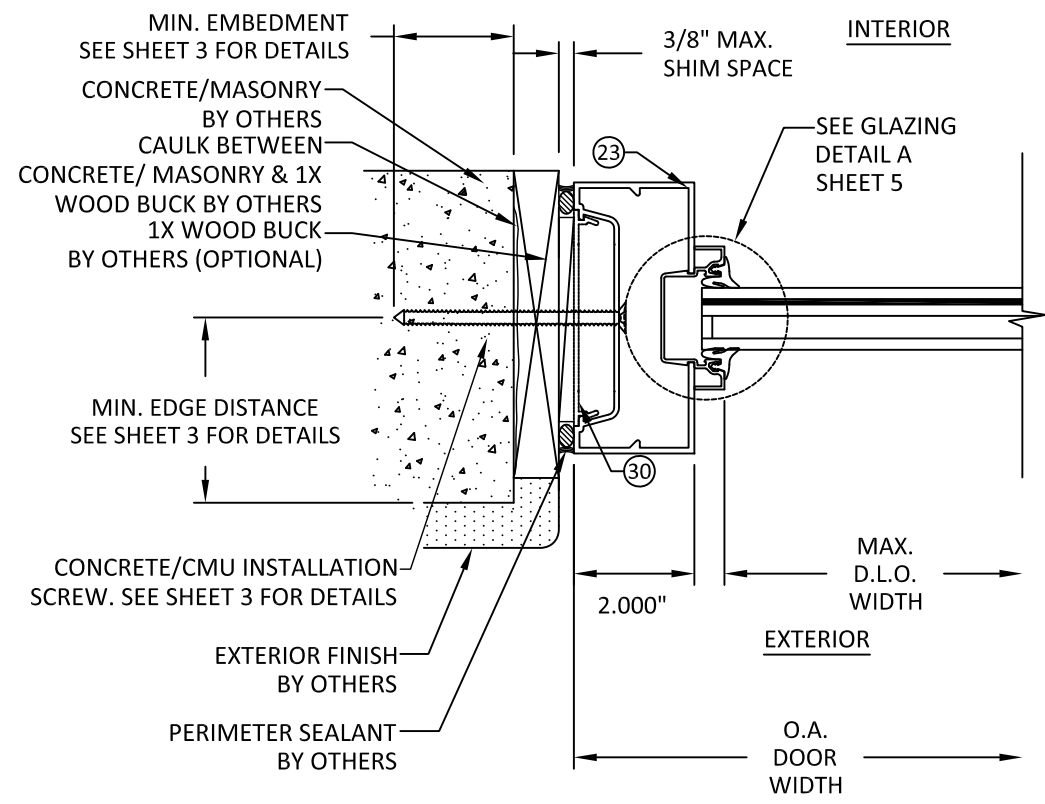
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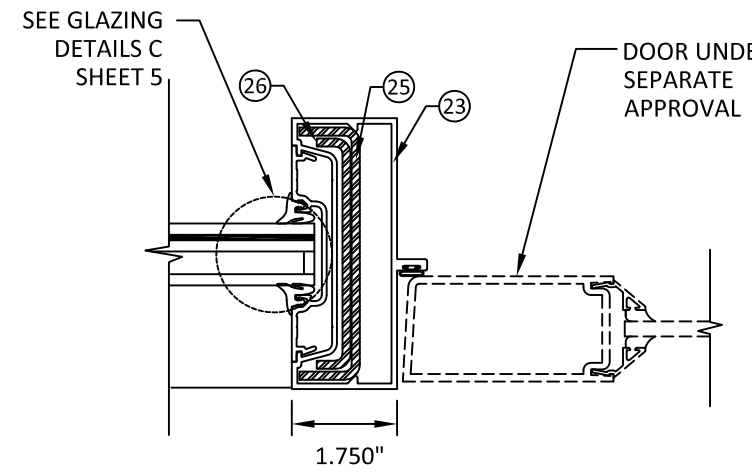


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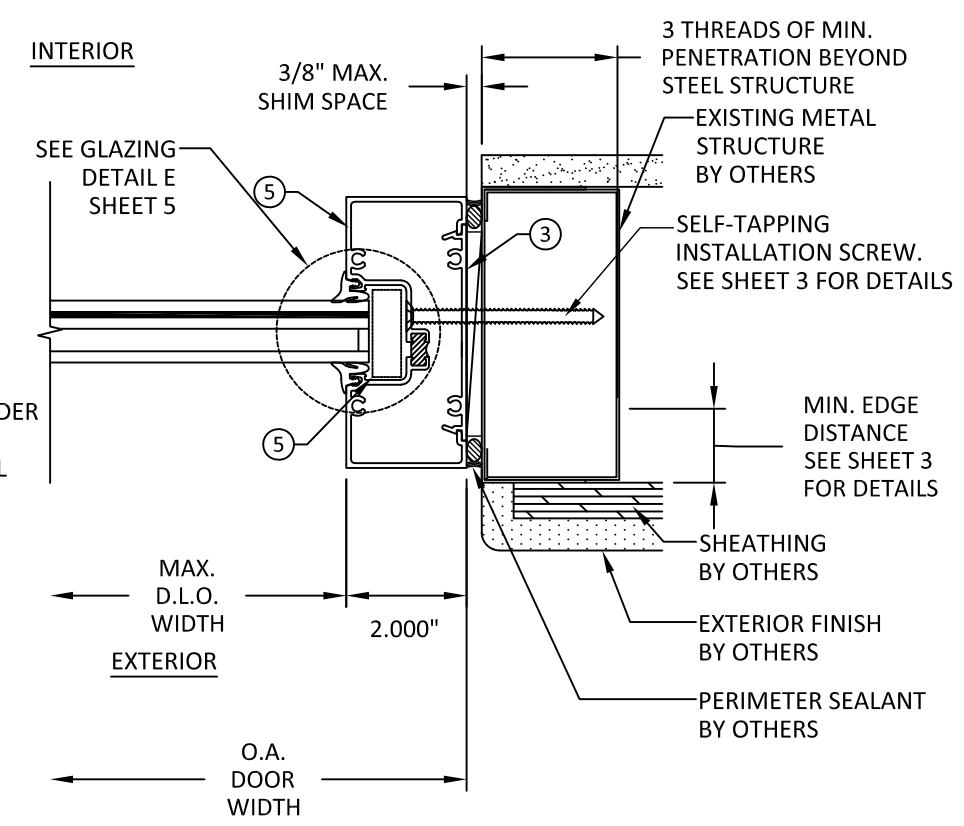
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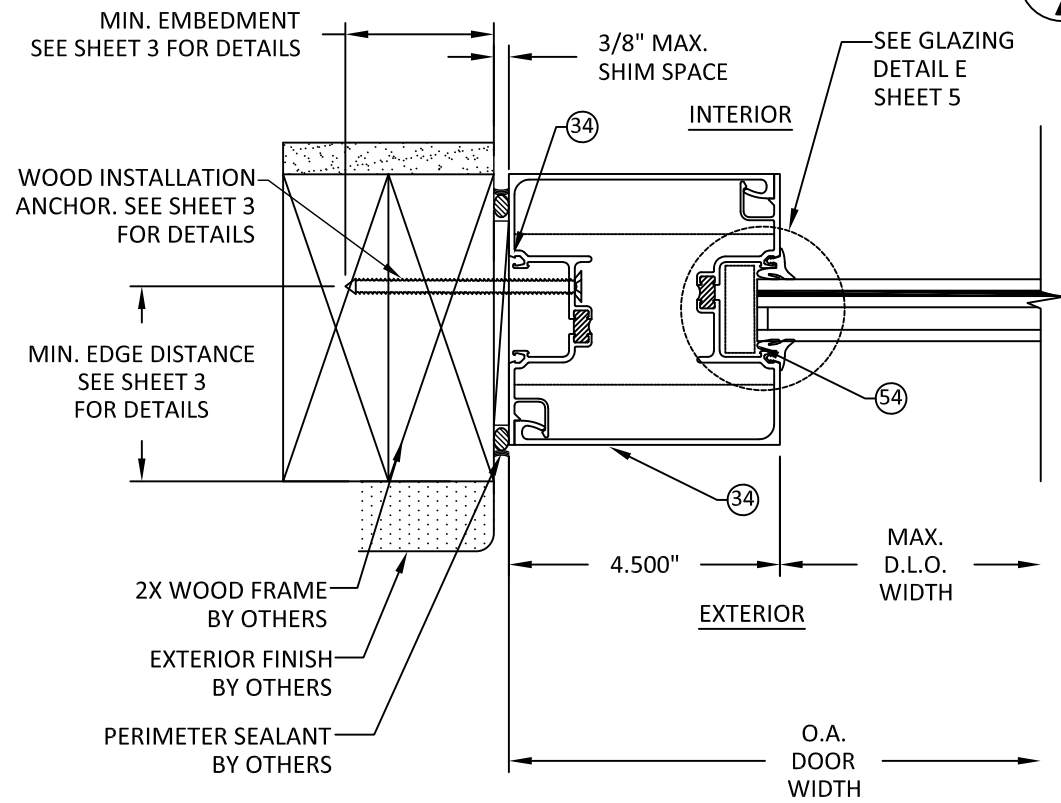
A HORIZONTAL SECTION
7 TRANSOM JAMB-CONCRETE/MASONRY
FIXED UNIT



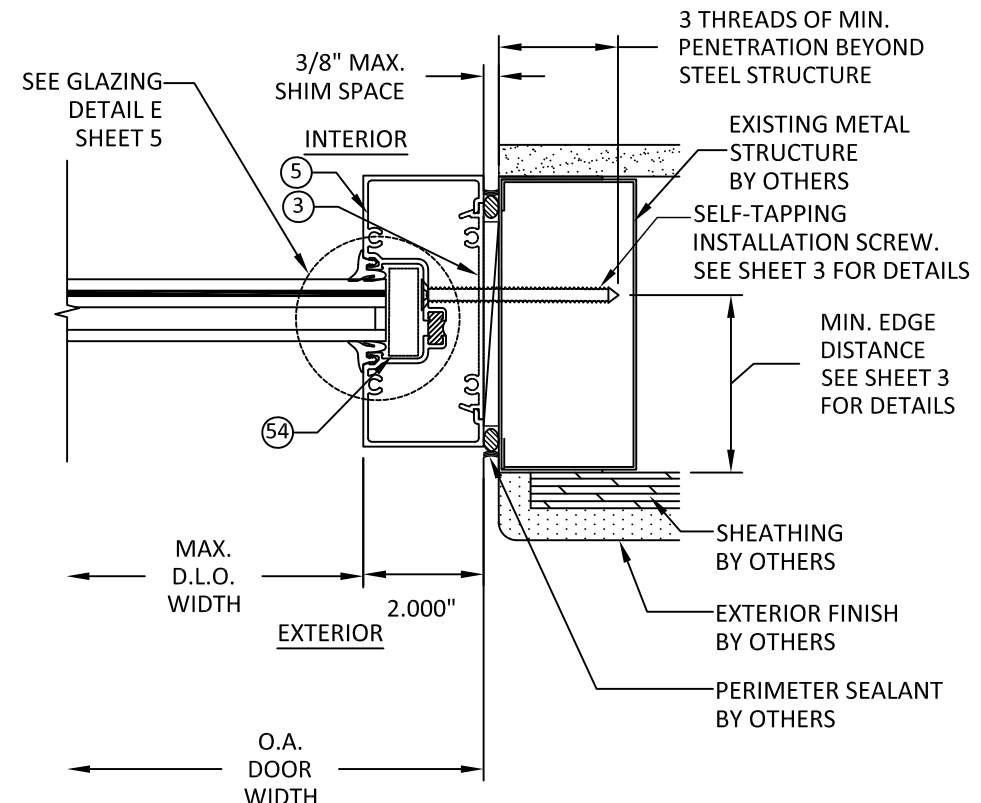
E HORIZONTAL SECTION
7 MULLION - DOOR JAMB AND FIXED UNIT



B HORIZONTAL SECTION
7 JAMB-EXISTING METAL STRUCTURE
FIXED UNIT



C HORIZONTAL SECTION
7 JAMB - 2X WOOD FRAME
FIXED UNIT



D HORIZONTAL SECTION
7 JAMB-EXISTING METAL STRUCTURE
FIXED UNITS

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TITLE: TRIFAB 451/451T
STOREFRONT SYSTEM
(IMPACT)
MULLION OPTIONS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com



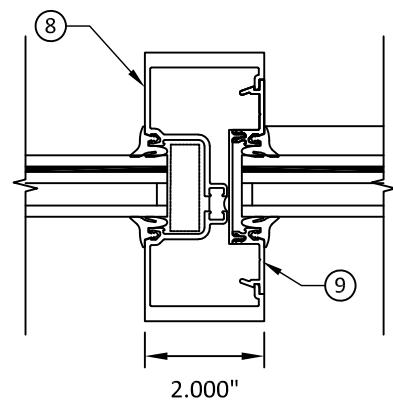
REMARKS	BY	DATE

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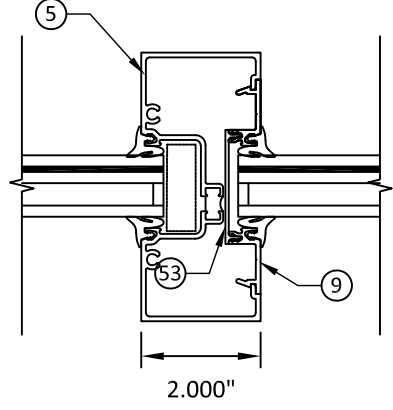


HERMES F. NORERO, P.E.
TEXAS P.E. No. 118471
BUILDING DROPS, INC
398 E. DANIA BEACH BLVD. # 338
DANIA BEACH, FL 33004
TBPE FIRM No. 13734

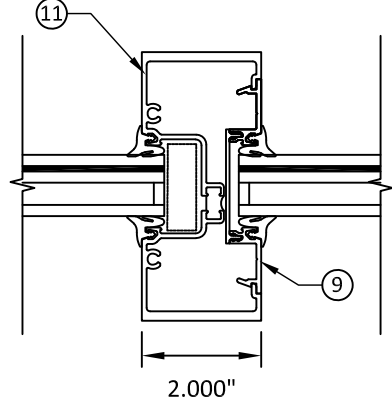
DATE:	02.11.21
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CHK. BY:	HFN
SCALE:	NTS
DWG. #:	KAW016
SHEET:	8



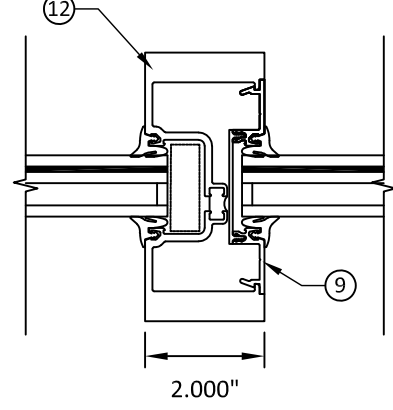
A HORIZONTAL SECTION
8 MULLION OPTION 1



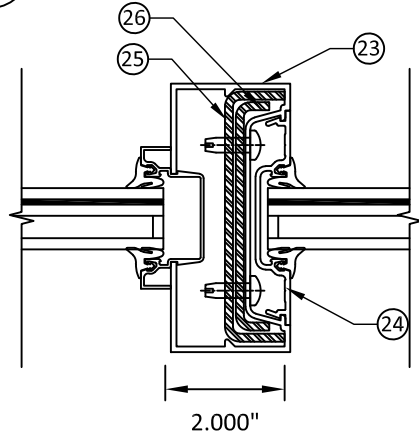
B HORIZONTAL SECTION
8 MULLION OPTION 2



C HORIZONTAL SECTION
8 MULLION OPTION 3

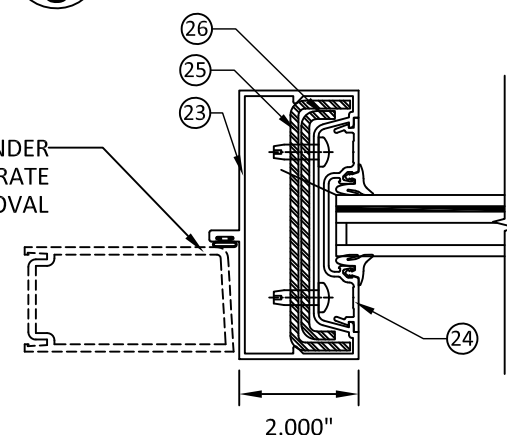


D HORIZONTAL SECTION
8 MULLION OPTION 4

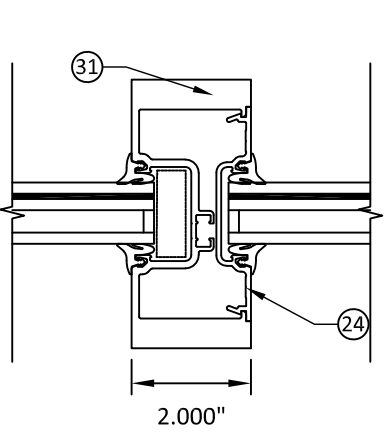


E HORIZONTAL SECTION
8 MULLION OPTION 5

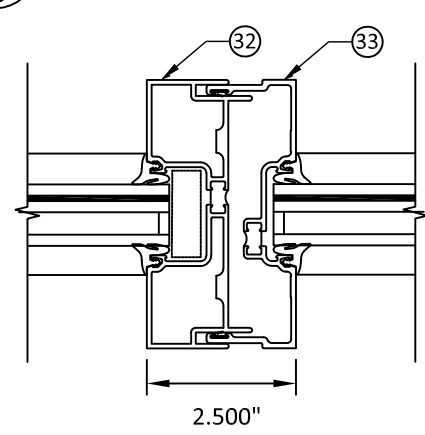
DOOR UNDER SEPARATE APPROVAL



F HORIZONTAL SECTION
8 MULLION OPTION 5 (DOOR JAMBS)

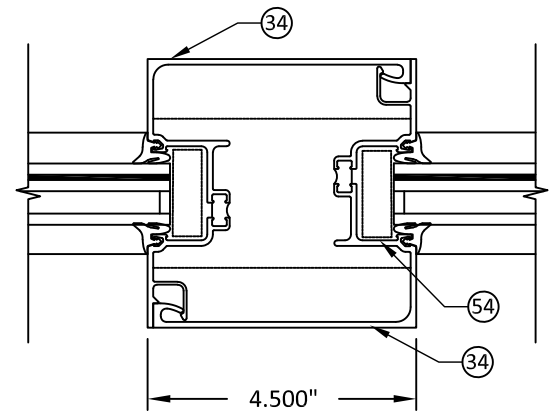


G HORIZONTAL SECTION
8 MULLION OPTION 6

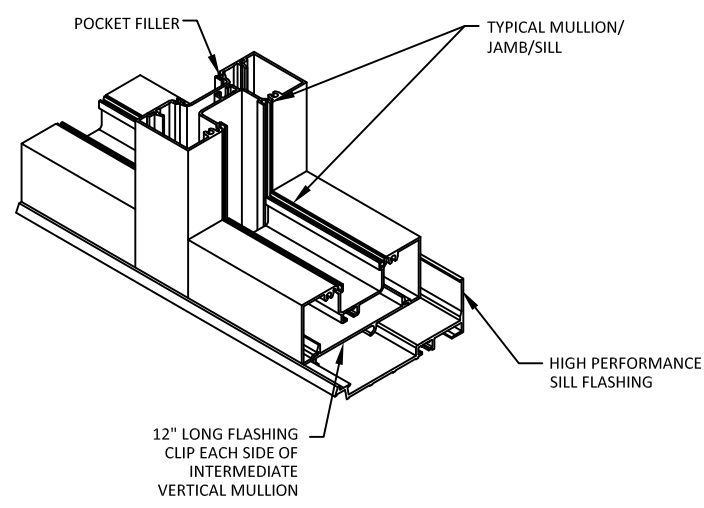


H HORIZONTAL SECTION
8 MULLION OPTION 7

SEE SHEET 9 FOR MULLIONS DESIGN PRESSURE RATING



J HORIZONTAL SECTION
8 MULLION OPTION 8



MULLION ASSEMBLY
NOT TO SCALE

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TITLE: TRIFAB 451/451T
STOREFRONT SYSTEM
(IMPACT)
MULLION DESIGN PRESSURE TABLE

PREPARED BY:
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REMARKS	BY	DATE

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TEXAS P.E. No 118471
BUILDING DROPS, INC
398 E. DANIA BEACH BLVD. # 338
DANIA BEACH, FL 33004
TBPE FIRM No. 13734

DATE: **02.11.21**

DWG. BY: **ER** CHK. BY: **HFN**

SCALE: **NTS**

DWG. #: **KAW016**

SHEET:

MULLION LOAD CAPACITY - ALLOWABLE DESIGN PRESSURE (PSF)										
NOMINAL DIMS.		MULLION 1	MULLION 2	MULLION 3	MULLION 4	MULLION 5	MULLION 6	MULLION 7	MULLION 8	
TRIBUTARY WIDTH (IN)	FRAME HEIGHT (IN)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	
74	120	--	--	--	--	45.0	--	--	--	
68		--	--	--	--	45.0	--	--	--	
62		--	--	--	--	45.0	--	--	--	
56		--	--	--	--	45.0	--	--	--	
50		--	--	20.0	35.0	45.0	45.0	--	--	
44		--	--	22.7	39.8	45.0	45.0	--	--	
38		30.3	20.2	26.3	45.0	45.0	45.0	30.3	30.3	
32		36.0	24.0	31.3	45.0	45.0	45.0	36.0	36.0	
26		44.3	29.5	38.5	45.0	45.0	45.0	44.3	44.3	
20		45.0	38.4	45.0	45.0	45.0	45.0	45.0	45.0	
74	84	--	--	--	--	45.0	--	--	--	
68		--	--	21.0	36.8	45.0	45.0	--	--	
62		--	--	23.0	40.3	45.0	45.0	--	--	
56		45.0	30.6	25.5	44.6	45.0	45.0	45.0	45.0	
50		45.0	34.3	28.6	45.0	45.0	45.0	45.0	45.0	
44		45.0	39.0	32.5	45.0	45.0	45.0	45.0	45.0	
38		45.0	45.0	37.6	45.0	45.0	45.0	45.0	45.0	
32		45.0	45.0	44.6	45.0	45.0	45.0	45.0	45.0	
26		45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	
74		72	--	--	22.5	39.4	45.0	45.0	--	--
68	--		--	24.5	42.9	45.0	45.0	--	--	
62	45.0		32.3	26.9	45.0	45.0	45.0	45.0	45.0	
56	45.0		35.7	29.8	45.0	45.0	45.0	45.0	45.0	
50	45.0		40.0	33.3	45.0	45.0	45.0	45.0	45.0	
44	45.0		45.0	37.9	45.0	45.0	45.0	45.0	45.0	
38	45.0		45.0	43.9	45.0	45.0	45.0	45.0	45.0	
32	45.0		45.0	45.0	45.0	45.0	45.0	45.0	45.0	
74	60		45.0	32.4	27.0	45.0	45.0	45.0	45.0	45.0
68			45.0	35.3	29.4	45.0	45.0	45.0	45.0	45.0
62		45.0	38.7	32.3	45.0	45.0	45.0	45.0	45.0	
56		45.0	42.9	35.7	45.0	45.0	45.0	45.0	45.0	
50		45.0	45.0	40.0	45.0	45.0	45.0	45.0	45.0	
44		45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	

MULLION LOAD CAPACITY - ALLOWABLE DESIGN PRESSURE (PSF)									
NOMINAL DIMS.		MULLION 1	MULLION 2	MULLION 3	MULLION 4	MULLION 5	MULLION 6	MULLION 7	MULLION 8
TRIBUTARY WIDTH (IN)	FRAME HEIGHT (IN)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
74	120	--	--	--	--	45.0	--	--	--
68		--	--	--	--	45.0	--	--	--
62		--	--	--	--	45.0	--	--	--
56		--	--	--	--	45.0	--	--	--
50		--	--	20.0	35.0	45.0	45.0	--	--
44		--	--	22.7	39.8	45.0	45.0	--	--
38		30.3	20.2	26.3	45.0	45.0	45.0	30.3	30.3
32		36.0	24.0	31.3	45.0	45.0	45.0	36.0	36.0
26		44.3	29.5	38.5	45.0	45.0	45.0	44.3	44.3
20		45.0	38.4	45.0	45.0	45.0	45.0	45.0	45.0
74	108	--	--	--	--	45.0	--	--	--
68		--	--	--	--	45.0	--	--	--
62		--	--	--	--	45.0	--	--	--
56		--	--	--	--	45.0	--	--	--
50		--	--	22.2	38.9	45.0	45.0	--	--
44		35.9	23.9	25.3	44.2	45.0	45.0	35.9	35.9
38		41.6	27.7	29.2	45.0	45.0	45.0	41.6	41.6
32		45.0	32.9	34.7	45.0	45.0	45.0	45.0	45.0
26		45.0	40.5	42.7	45.0	45.0	45.0	45.0	45.0
20		45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
74	96	--	--	--	--	45.0	--	--	--
68		--	--	--	--	45.0	--	--	--
62		--	--	20.2	35.3	45.0	45.0	--	--
56		--	--	22.3	39.1	45.0	45.0	--	--
50		45.0	30.0	25.0	43.8	45.0	45.0	45.0	45.0
44		45.0	34.1	28.4	45.0	45.0	45.0	45.0	45.0
38		45.0	39.5	32.9	45.0	45.0	45.0	45.0	45.0
32		45.0	45.0	39.1	45.0	45.0	45.0	45.0	45.0
26		45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
20		45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0

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STOREFRONT SYSTEM
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MULLION DESIGN PRESSURE TABLE

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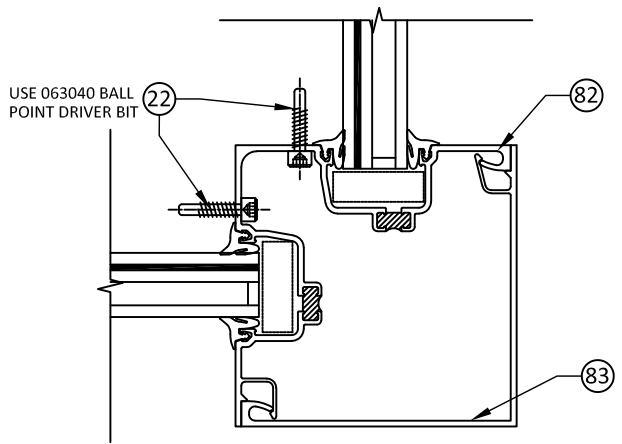


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TBPE FIRM No. 13734

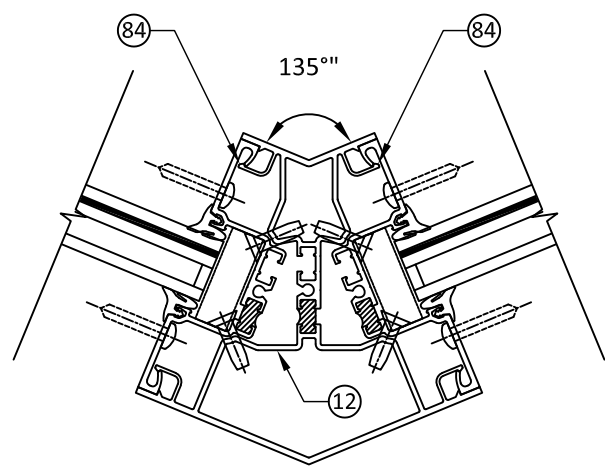
DATE: 02.11.21
DWG. BY: ER CHK. BY: HFN
SCALE: NTS
DWG. #: KAW016
SHEET:

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CORNER MULLION LOAD CAPACITY - ALLOWABLE DESIGN PRESSURE (PSF)				
NOMINAL DIMS.		90 DEGREE MULLION	135 DEGREE MULLION	
TRIBUTARY WIDTH (IN)	FRAME HEIGHT (IN)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	
35	121.5	45.0	45.0	
30		45.0	45.0	
24		45.0	45.0	
35	120	45.0	45.0	
30		45.0	45.0	
24		45.0	45.0	
35	108	45.0	45.0	
30		45.0	45.0	
24		45.0	45.0	
42	96	45.0	45.0	
35		45.0	45.0	
30		45.0	45.0	
24		45.0	45.0	
48	84	45.0	45.0	
42		45.0	45.0	
35		45.0	45.0	
30		45.0	45.0	
24		45.0	45.0	
54		72	45.0	45.0
48	45.0		45.0	
42	45.0		45.0	
35	45.0		45.0	
30	45.0		45.0	
24	45.0		45.0	
66	60		45.0	45.0
60			45.0	45.0
54		45.0	45.0	
48		45.0	45.0	
42		45.0	45.0	
35		45.0	45.0	
30		45.0	45.0	
24		45.0	45.0	



A HORIZONTAL SECTION
10 90 DEGREE MULLION
FIXED UNITS



B HORIZONTAL SECTION
10 135 DEGREE MULLION
FIXED UNITS

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TITLE: TRIFAB 451/451T
STOREFRONT SYSTEM
(IMPACT)
COMPONENTS

PREPARED BY:
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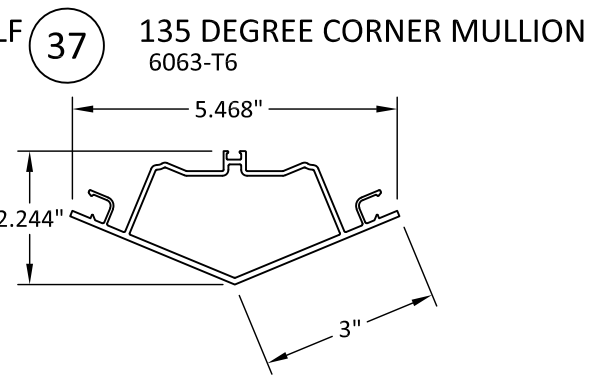
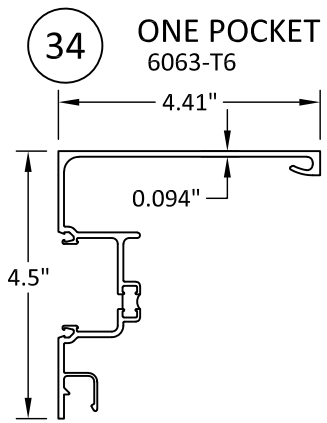
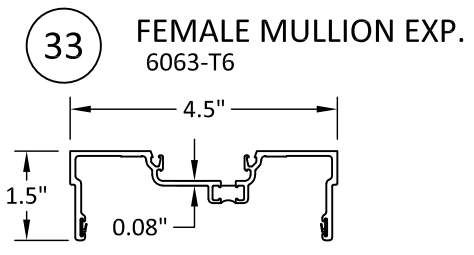
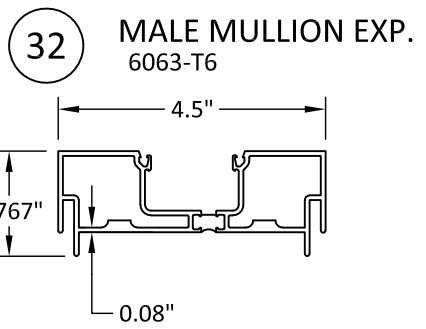
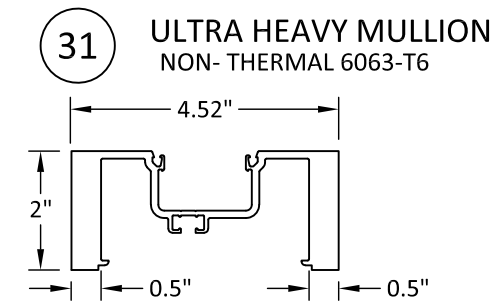
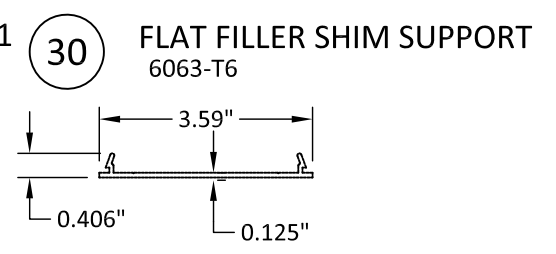
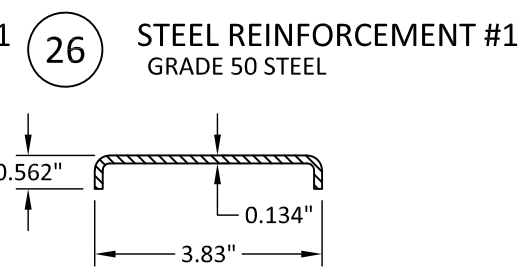
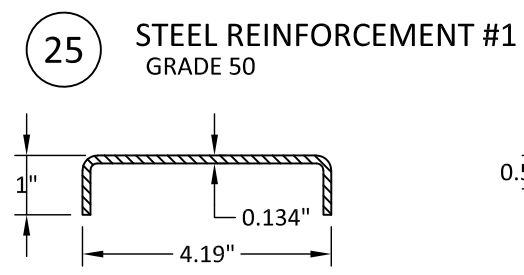
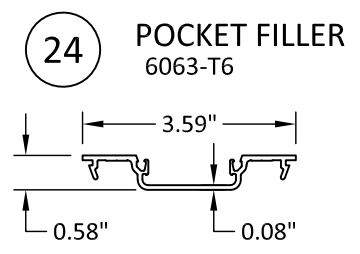
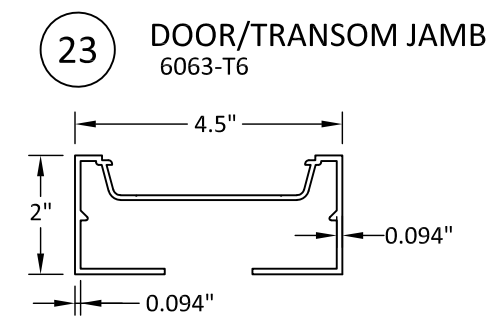
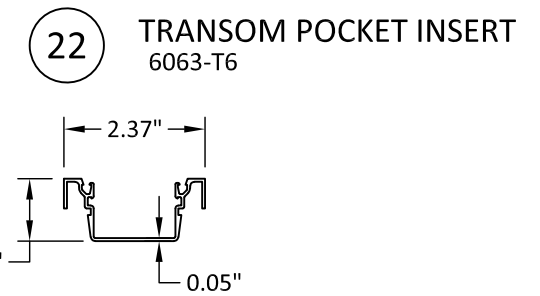
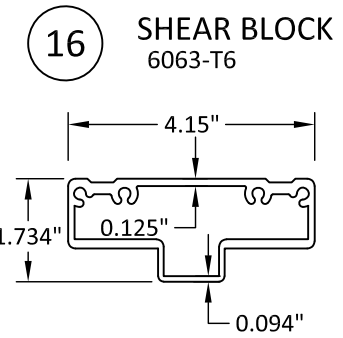
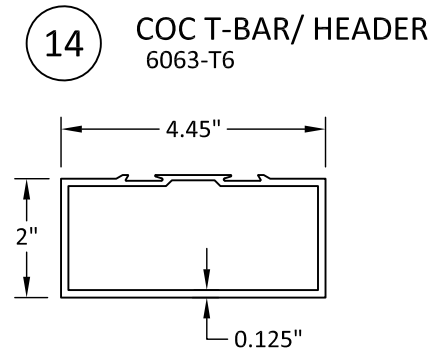
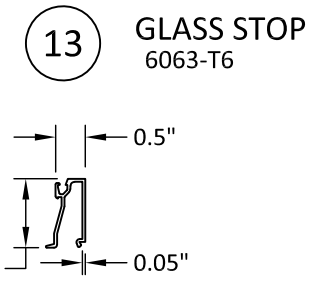
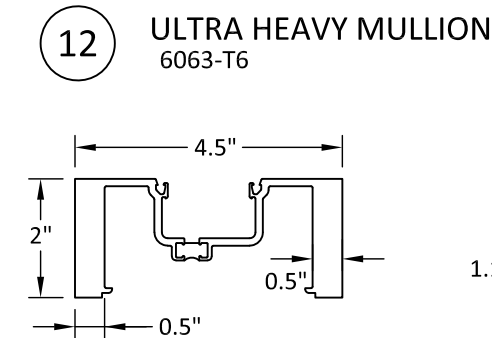
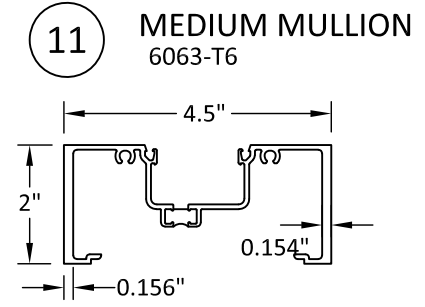
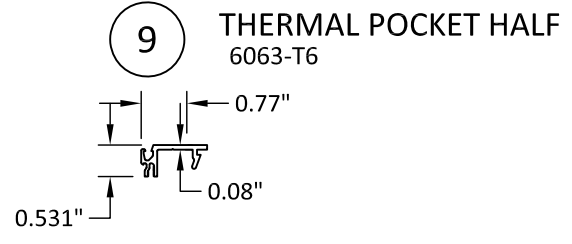
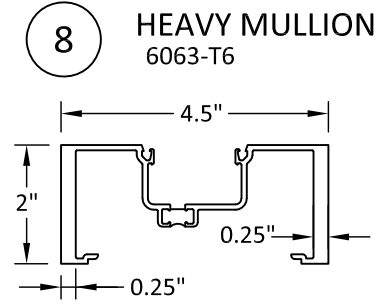
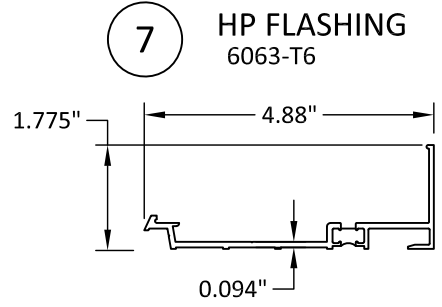
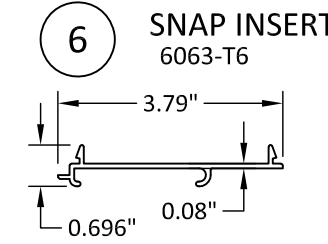
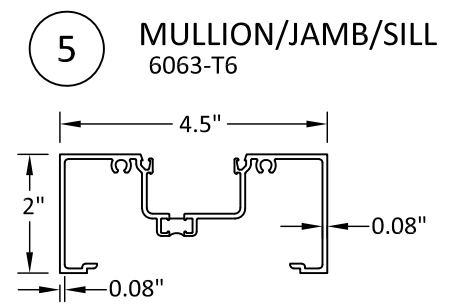
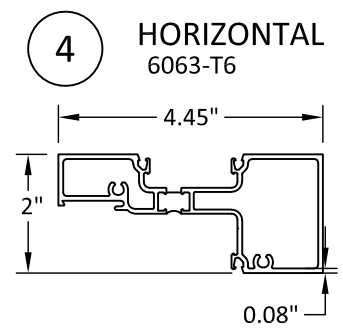
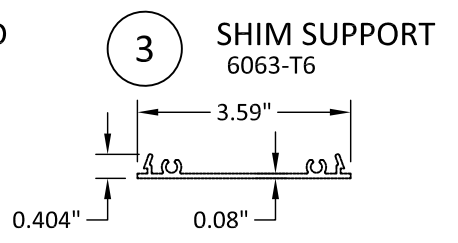
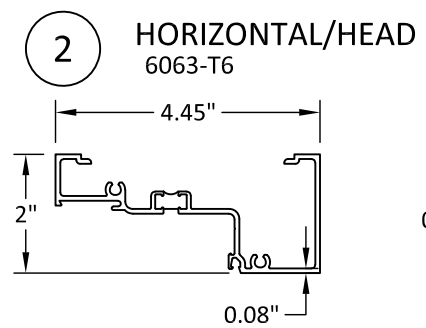
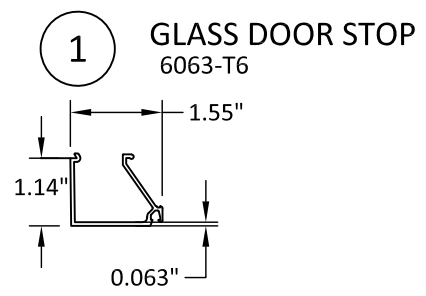
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SHEET:	11

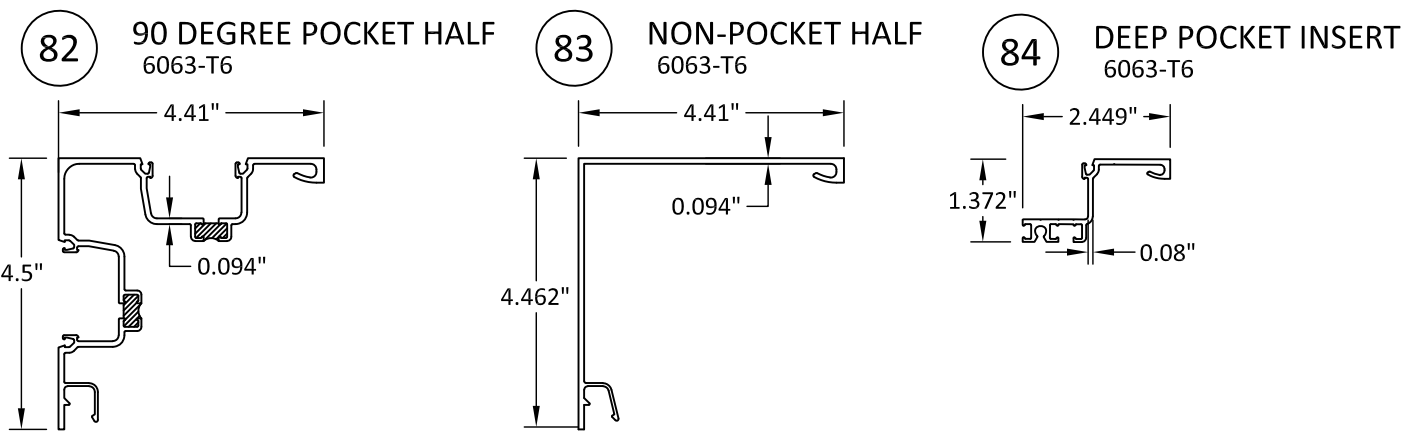


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BILL OF MATERIAL

ID NO.	PART NO.	DESCRIPTION	MATERIAL
1	451-CG-004	GLASS STOP	6063-T6 ALUMINUM
2	451T-CG-003	HORIZONTAL/HEAD	6063-T6 ALUMINUM
3	451-CG-363	SHIM SUPPORT- 12" LONG	6063-T6 ALUMINUM
4	451T-CG-011	HORIZONTAL	6063-T6 ALUMINUM
5	451T-CG001	MULLION/JAMB/SILL	6063-T6 ALUMINUM
6	451-HP-126	SNAP INSERT FOR HP FLASHING- 12"	6063-T6 ALUMINUM
7	451T-HP-037	HP FLASHING	6063-T6 ALUMINUM
8	451T-CG-013	HEAVY MULLION	6063-T6 ALUMINUM
9	451T-CG-102	THERMAL POCKET FILLER HALF	6063-T6 ALUMINUM
10	049-896	THRESHOLD/JAMB CLIP	1010-1020 H.R. STEEL
11	451T-CG-001A	MEDIUM MULLION	6063-T6 ALUMINUM
12	451T-CG-113	ULTRA HEAVY THERMAL MULLION	6063-T6 ALUMINUM
13	450-022	GLASS STOP	6063-T6 ALUMINUM
14	451-079	COC T-BAR/ HEADER	6063-T6 ALUMINUM
15	041-045	SAM II STOP	6063-T6 ALUMINUM
16	451-549	B/H T-BAR SHEAR BLOCK PACKAGE	6063-T6 ALUMINUM
17	200-023	350 TOP RAIL	6063-T6 ALUMINUM
18	451-548	O/P T-BAR SHEAR BLOCK PACKAGE	6063-T6 ALUMINUM
19	200-032	350 BOTTOM RAIL	6063-T6 ALUMINUM
20	-	NOT USED	-
21	-	NOT USED	-
22	451-026	TRANSOM POCKET INSERT	6063-T6 ALUMINUM
23	575-054	DOOR JAMB	6063-T6 ALUMINUM
24	451-CG-002	POCKET FILLR	6063-T6 ALUMINUM
25	575-300	STEEL REINFORCING #1 STEEL	GRADE 50 STEEL
26	575-301	REINFORCING #2	GRADE 50 STEEL
27	200-007	350 INACTIVE DOOR STILE	6063-T6 ALUMINUM
28	200-006	350 ACTIVE DOOR STILE	6063-T6 ALUMINUM
29	200-005	350 BEVELED DOOR STILE	6063-T6 ALUMINUM
30	450-126	FLAT FILLER SHIM SUPPORT	6063-T6 ALUMINUM
31	451CG-113	NON-THERMAL ULTRA HEAVY MULLION	6063-T6 ALUMINUM
32	451T-CG-009	MALE EXPANSION MULL HALF	6063-T6 ALUMINUM
33	451T-CG-010A	TUBULAR FEMALE EXPANSION MULL HALF	6063-T6 ALUMINUM
34	451T-CG-015	ONE POCKET CORNER HALF	6063-T6 ALUMINUM
35	575-298	DOOR JAMB ANCHOR SLEEVE	6063-T6 ALUMINUM
36	575-299	DOOR JAMB ANCHOR STRAP	GRADE 36 STEEL
37	451T-CG-034	135 DEGREE CORNER MULLION	6063-T6 ALUMINUM
38	451T-CG-128	DEEP THERMAL POCKET FILLER HALF	6063-T6 ALUMINUM
39	575-045	SCREW APPLIED DOOR STOP	6063-T6 ALUMINUM
40	575-040	DOOR STOP 1" INFILL	6063-T6 ALUMINUM
41	575-039	DOOR STOP 9/16" INFILL, DRY GLAZED	6063-T6 ALUMINUM
50	027-081	SETTING BLOCK	EPDM
51	451-105	WATER DEFLECTOR	PVC
52	027-073	SETTING BLOCK	EPDM
53	451T-CG-104	THERMAL SEPARATOR	PVC
54	480-520	"W" BLOCK	EPDM
55	027-078	DOOR FRAME WEATHERING	ALCRYN/PVC
56	200-497	ADJUSTABLE ASTRAGAL ASSEMBLY	TPV/POLYPROPYLENE
57	027-806	EXPANSION MULLION WEATHERING	EPDM
58	027-563	FIXED GASKET	--
60	027-432	SETTING BLOCK	EPDM

61	127-041	GLAZING TAPE/SILICONE	POLYURETHANE FOAM
62	027-059	SPACER SETTING BLOCK	SILICONE
63	127-171	3M TAPE	3M TAPE
64	027-074	GASKET	EPDM
70	028-336	#10 X 1 5/8" TYPE B FHST	300 SERIES S.S.
71	028-315	#6 X 3/8" FHTFS	400 SERIES S.S.
72	028-845	#12-24 X 3/8" FHMS	430 SERIES S.S.
73	028-312	#12 X 1/2" PHTFS	430 SERIES S.S.
74	126-910	#10 X 1/2" FHTFS	300 SERIES S.S.
75	028-350	#2 - 24 X 5/8" FHMS	CARBON STEEL ZINVC PATED
76	028-982	1/4" - 20 X 3/4" PHTCMS	430 SERIES S.S.
77	028-856	#12 X 1 1/8" PHTF (SCREW SPLINE FASTENER)	CARBON STEEL ZINC DICROMAX
-	050-322	TOP OFFSET PIVOT (ACTIVE LEAF)	N/A
-	050-331	INTERMEDIATE OFFSET PIVOT (ACTIVE LEAF)	N/A
-	050-327	BOTTOM OFFSET PIVOT LH (ACTIVE LEAF)	N/A
-	037-950	BUTT HUNGE (INACTIVE LEAF)	N/A
-	050-100	AR MS 1850 DEADLOCK	N/A
-	050-078	4016 TOP BOLT	N/A
-	037-368	4056 BOTTOM BLOT	N/A
-	050-079	IMPACT FLUSH BOLT	N/A
-	050-075	IMPACT BOLT GUIDE	N/A
-	035-001	CYLINDER	N/A
-	037-176	THUMBTURN	N/A
-	--	CONCEALED OVERHEAD CLOSER	N/A
80	2000-795	DOOR BOTTOM RAIL SWEEP ASSEMBLY	VARIED
81	069-139	THRESHOLD	6063-T6 ALUMINUM
82	451T-CG-016	90 DEGREE TWO POCKET CORNER HALF	6063-T6 ALUMINUM
83	450017	NO POCKET CORNER HALF	6063-T6 ALUMINUM
85	452T-CG-028	DEEP POCKET INSERT	6063-T6 ALUMINUM



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TITLE: TRIFAB 451/451T
STOREFRONT SYSTEM
(IMPACT)

BILL OF MATERIALS & COMPONENTS

PREPARED BY:
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398 E. DANIA BEACH BLVD., STE. 338
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FAX: (954) 744-4738
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REMARKS	BY	DATE

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT



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TBPE FIRM No. 13734

DATE: 02.11.21

DWG. BY: ER CHK. BY: HFN

SCALE: NTS

DWG. #: KAW016

SHEET:

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