

SERIES TU24000 STOREFRONT SYSTEM

FBC PRODUCT APPROVAL DRAWINGS

NOTES:

1. THE PRODUCT ILLUSTRATED SATISFIES THE REQUIREMENTS FOR THE 2014 FLORIDA BUILDING CODE NOT INCLUDING HVHZ.
2. THE INSTALLATION DRAWINGS DEPICTED WITHIN ARE NECESSARY TO MEET THE STRUCTURAL LOAD REQUIREMENTS. PLEASE SEE THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR SEALING, FLASHING AND DRAINAGE REQUIREMENTS.
3. THIS PRODUCT IS NOT IMPACT RESISTANT AND THEREFORE AN APPROVED IMPACT PROTECTION SYSTEM IS REQUIRED FOR THIS PRODUCT IF IT IS INSTALLED IN A WIND BORNE DEBRIS AREA.
4. THE GLAZING FOR THESE UNITS SHALL COMPLY WITH ASTM E 1300. TESTED GLAZING IS 1" INSULATING GLASS CONSISTING OF TWO SHEETS OF 1/4" FULLY TEMPERED GLASS SEPARATED BY A 1/2" SPACER.
5. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/2". SHIM ALL SPACES IN EXCESS OF 1/16".
7. CONCRETE INSTALLATIONS ASSUME A MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE OF 3,200 PSI . USE A 1/4" ITW TAPCON OR A 1/4" POWERS TAPPER ANCHOR FOR INSTALLATION INTO CONCRETE. THE ANCHOR SHALL HAVE A MINIMUM OF 1-3/8" EMBEDMENT. ANCHORS SHALL BE LOCATED AS DESCRIBED IN THE ELEVATION DETAIL. ANCHORS SHALL BE LOCATED AS DESCRIBED IN THE ELEVATION DETAIL.
7. METAL FRAMING INSTALLATION SHALL BE A MINIMUM OF 18 GAUGE 33 KSI STRENGTH METAL. USE A 1/4-20 GRADE 5 SMS WITH SUFFICIENT LENGTH TO ACHIEVE FULL PENETRATION OF THE METAL FRAMING AND EMBED 1/4" BEYOND THE DRILL POINT. ANCHORS SHALL BE LOCATED AS DESCRIBED IN THE ELEVATION DETAIL.
8. CORROSIVE RESISTANT FASTENERS SHALL BE USED.
9. STOREFRONT FRAME MATERIAL SHALL BE 6063-T5 ALUMINUM.
10. UNITS SHALL BE INSTALLED AS DESCRIBED IN THESE INSTALLATION INSTRUCTIONS AND ALSO IN CONFORMANCE TO THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS.
11. PRODUCT MAY BE INSTALLED TO UNLIMITED WIDTHS AS LONG AS THE OVER ALL HEIGHT DOES NOT EXCEED 144". THE MAXIMUM STOREFRONT BAY WIDTH SHALL NOT EXCEED 47-1/8".
12. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATIONS TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.

ANCHORAGE SCHEDULE AND DESCRIPTION				
SUBSTRATE	ANCHOR	EMBEDMENT	ANCHOR SPACING	EDGE DISTANCE
CONCRETE	1/4" TAPPER	MINIMUM 1-3/8"	MINIMUM 2-1/2"	MINIMUM 2-1/2"
CONCRETE	1/4" TAPCON	MINIMUM 1-1/4"	MINIMUM 3"	MINIMUM 2-1/2"
STEEL STUD	1/4-20 GR.5 SMS	MINIMUM 1"	MINIMUM 2"	MINIMUM 2"

TESTED DESIGN PRESSURE RATING	IMPACT RATING
+/-30.0	N/A

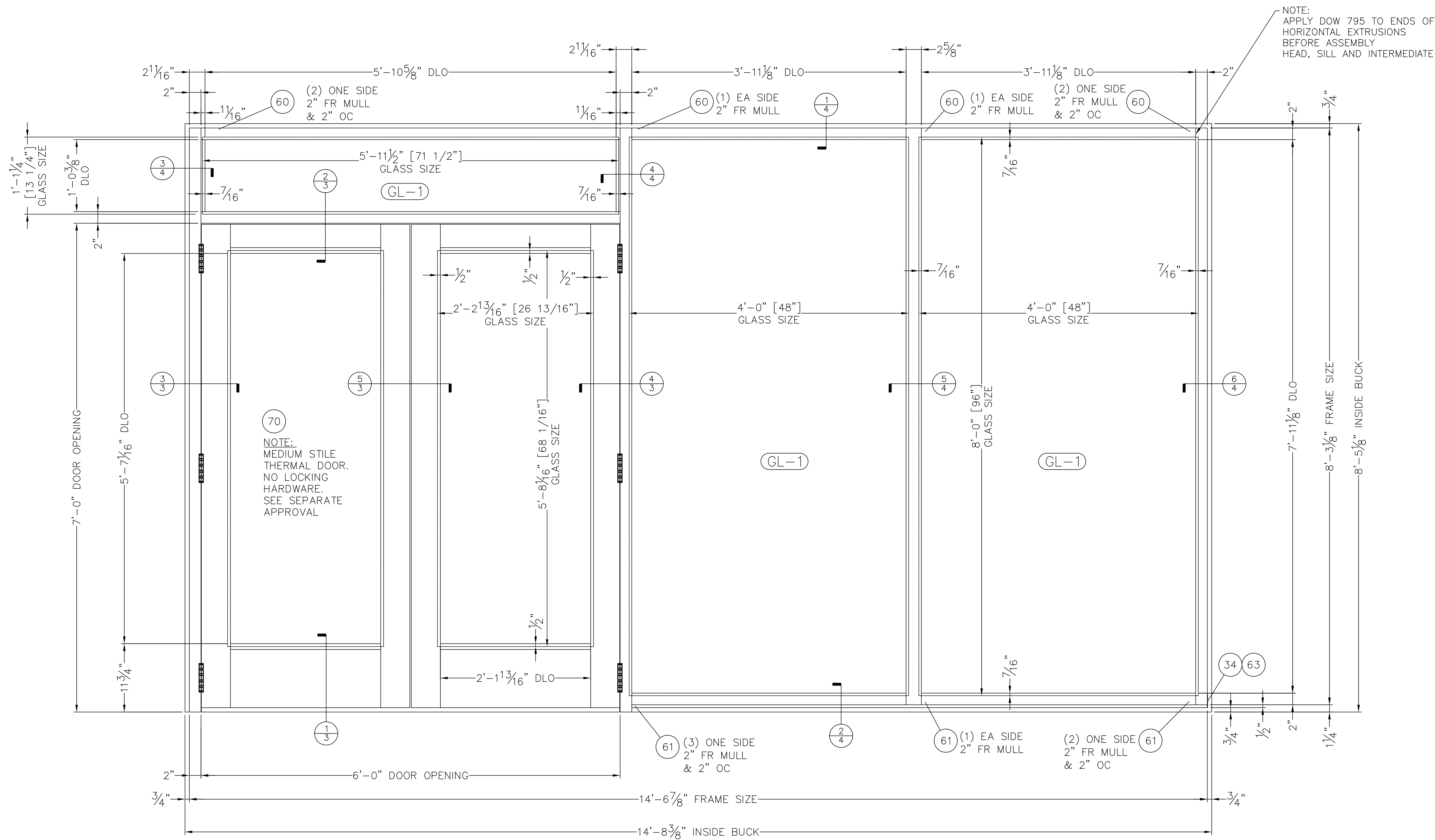
DRAWINGS TABLE OF CONTENTS

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MAXIMUM BAY SIZES:
 47-1/8" X 144"

MAXIMUM D.L.O:
 47-1/8" X 95-1/8"

REVISIONS		MATERIAL	TUBELITE, INC. 3056 WALKER RIDGE DRIVE NW SUITE G WALKER, MI 49544	SCALE NTS
		EST. AREA		DWG NO. 101284D
		EST. WT.		SHEET NO. 1 OF 8
		EST. PERIM.	SERIES TU24000 STOREFRONT SYSTEM FBC INSTALLATION DRAWINGS ELEVATIONS AND GLAZING DETAILS	EXTRUSION NO. REV.
		DRAWN BY JMR	DATE 04/29/15	



TU24000 STOREFRONT ELEVATION AND ANCHORAGE
NON-IMPACT TESTED
WET GLAZED

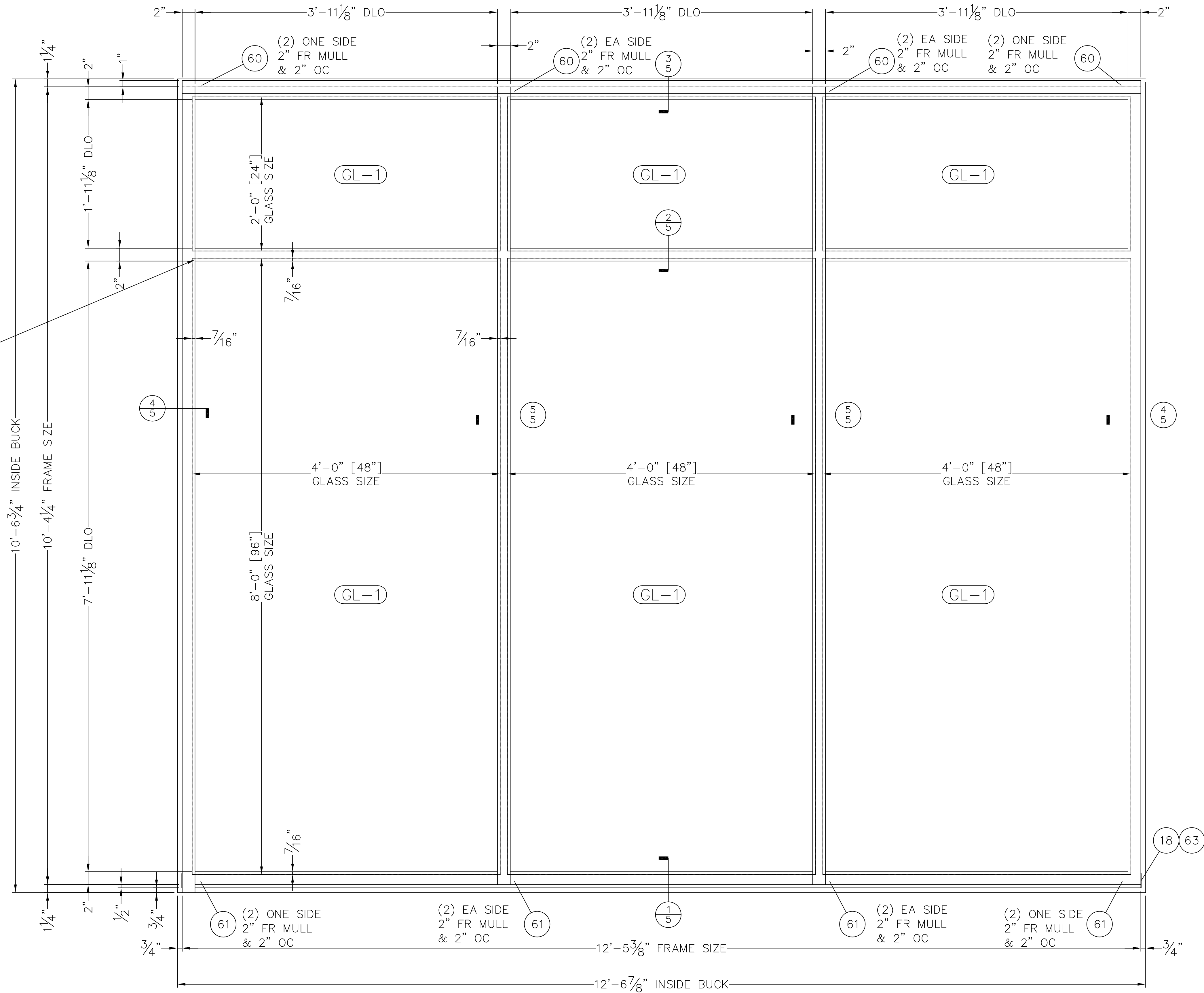
NOTE - STOREFRONT MAY BE INSTALLED TO AN
INFINITE LENGTH PROVIDED THE MAXIMUM BAY WIDTH
DOES NOT EXCEED 47'-1/8".

GLAZING TYPES

TAG	DESCRIPTION
GL-1	1" INSULATED GLASS -1/4" CLEAR, FULLY TEMPERED -1/2" AIR SPACE -1/4" CLEAR, FULLY TEMPERED

REVISIONS		MATERIAL	TUBELITE, INC. 3056 WALKER RIDGE DRIVE NW SUITE G WALKER, MI 49544	SCALE NTS
		EST. AREA	SERIES TU24000 STOREFRONT SYSTEM FBC INSTALLATION DRAWINGS ELEVATIONS AND GLAZING DETAILS	DWG NO. 101284D
		EST. WT.		SHEET NO. 2A OF 8
		EST. PERIM.		EXTRUSION NO.
		DRAWN BY JMR	DATE 04/29/15	REV.

NOTE:
 APPLY DOW 795 TO ENDS OF
 HORIZONTAL EXTRUSIONS
 BEFORE ASSEMBLY
 HEAD, SILL AND INTERMEDIATE



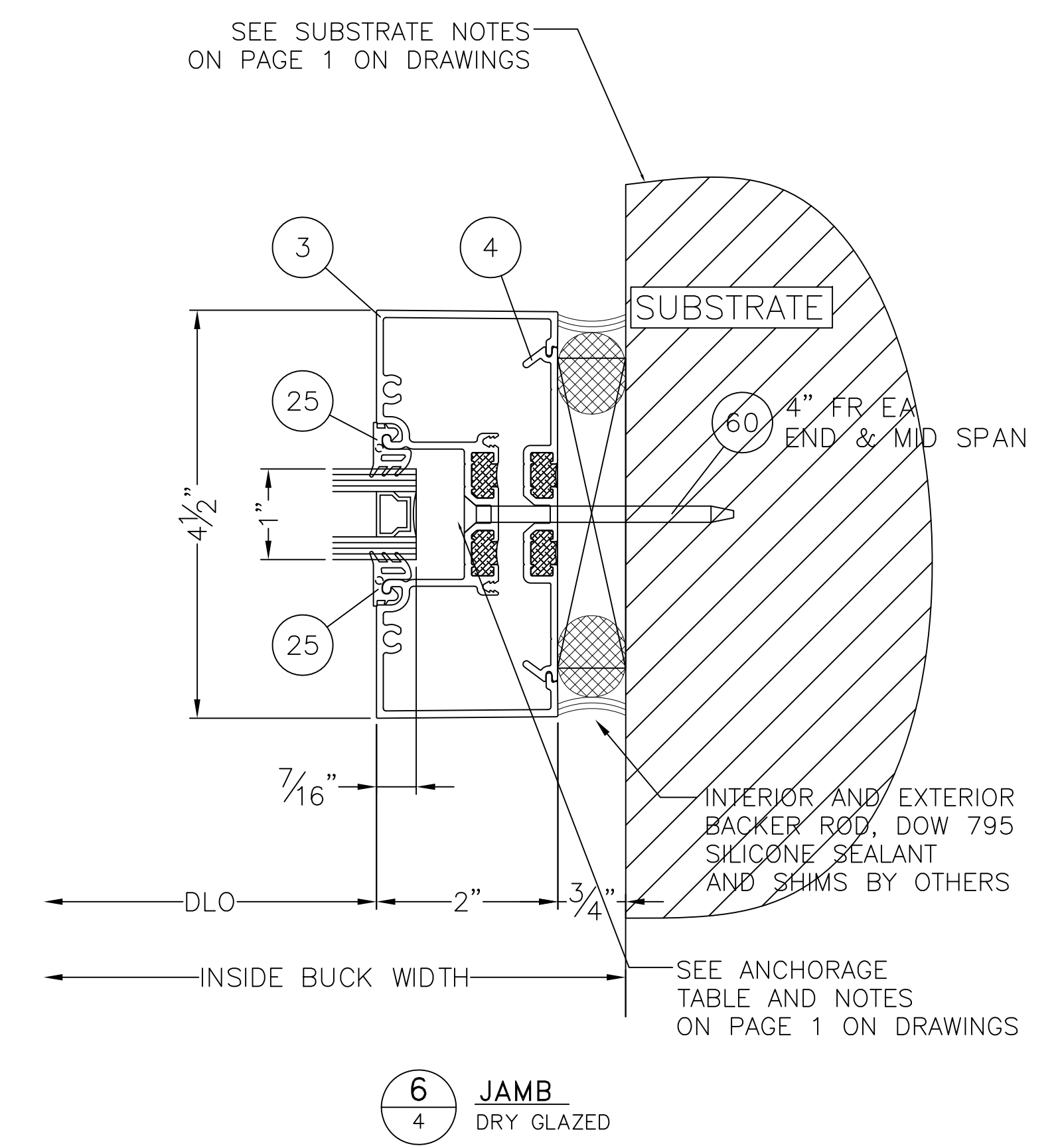
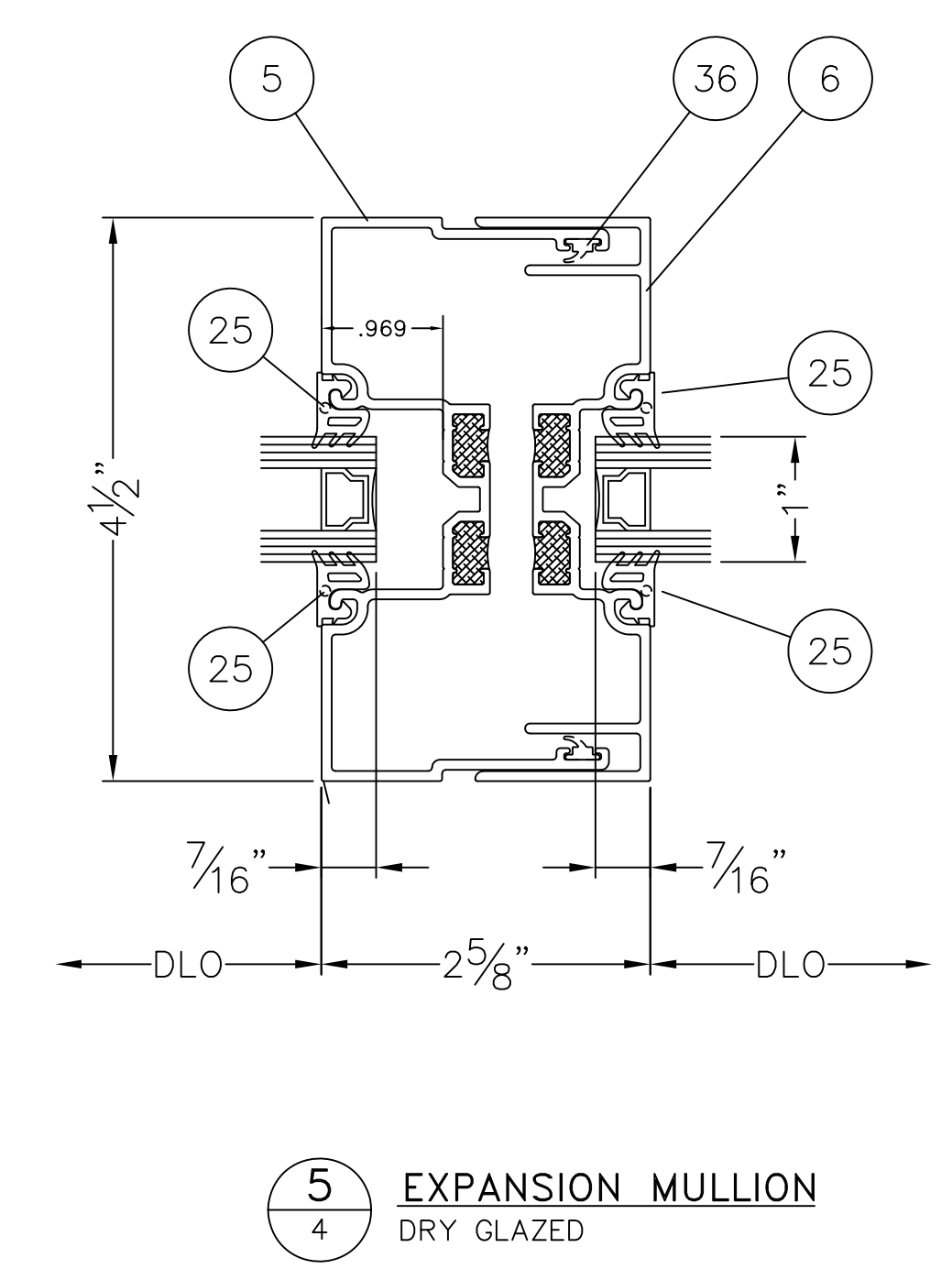
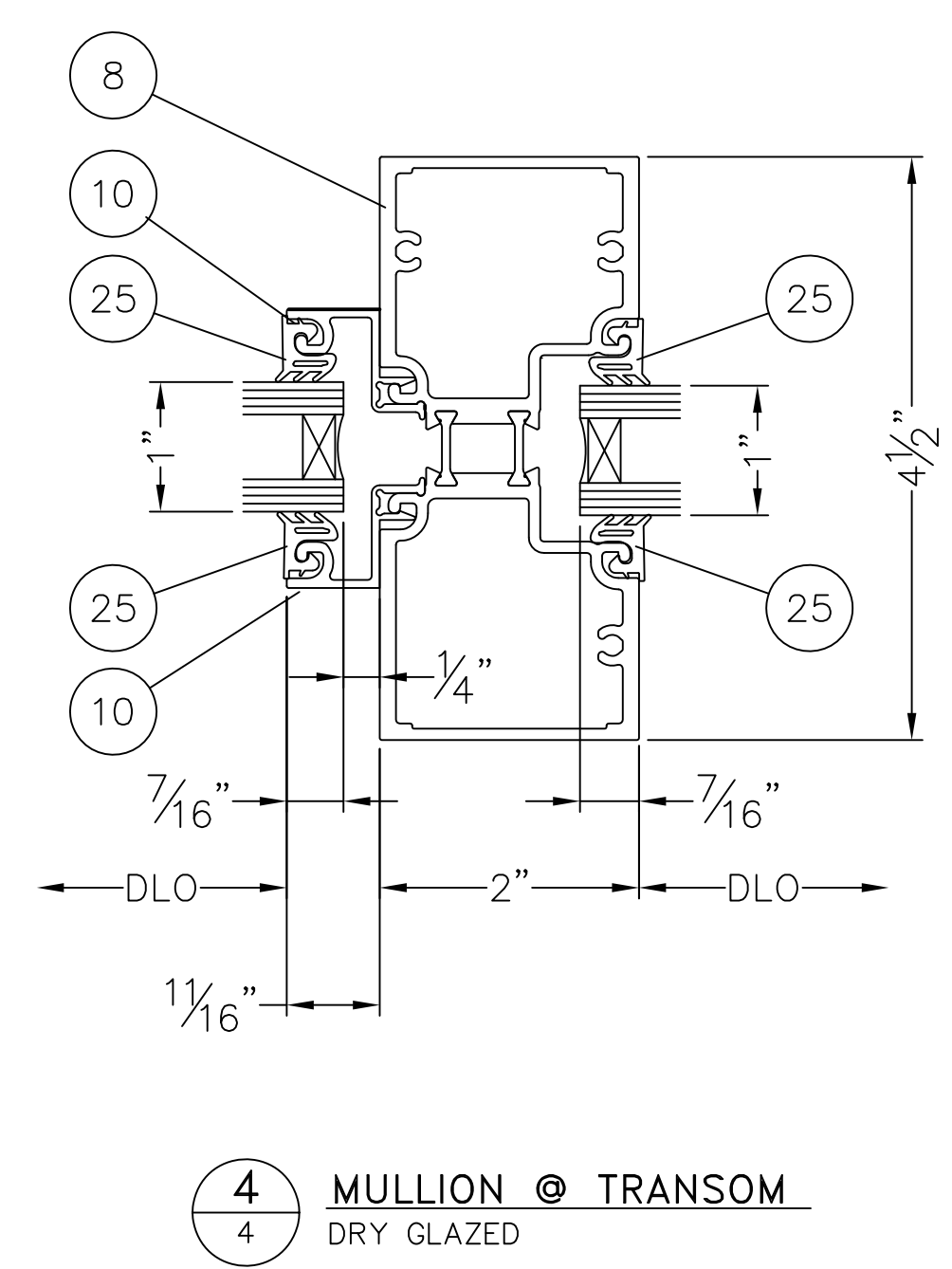
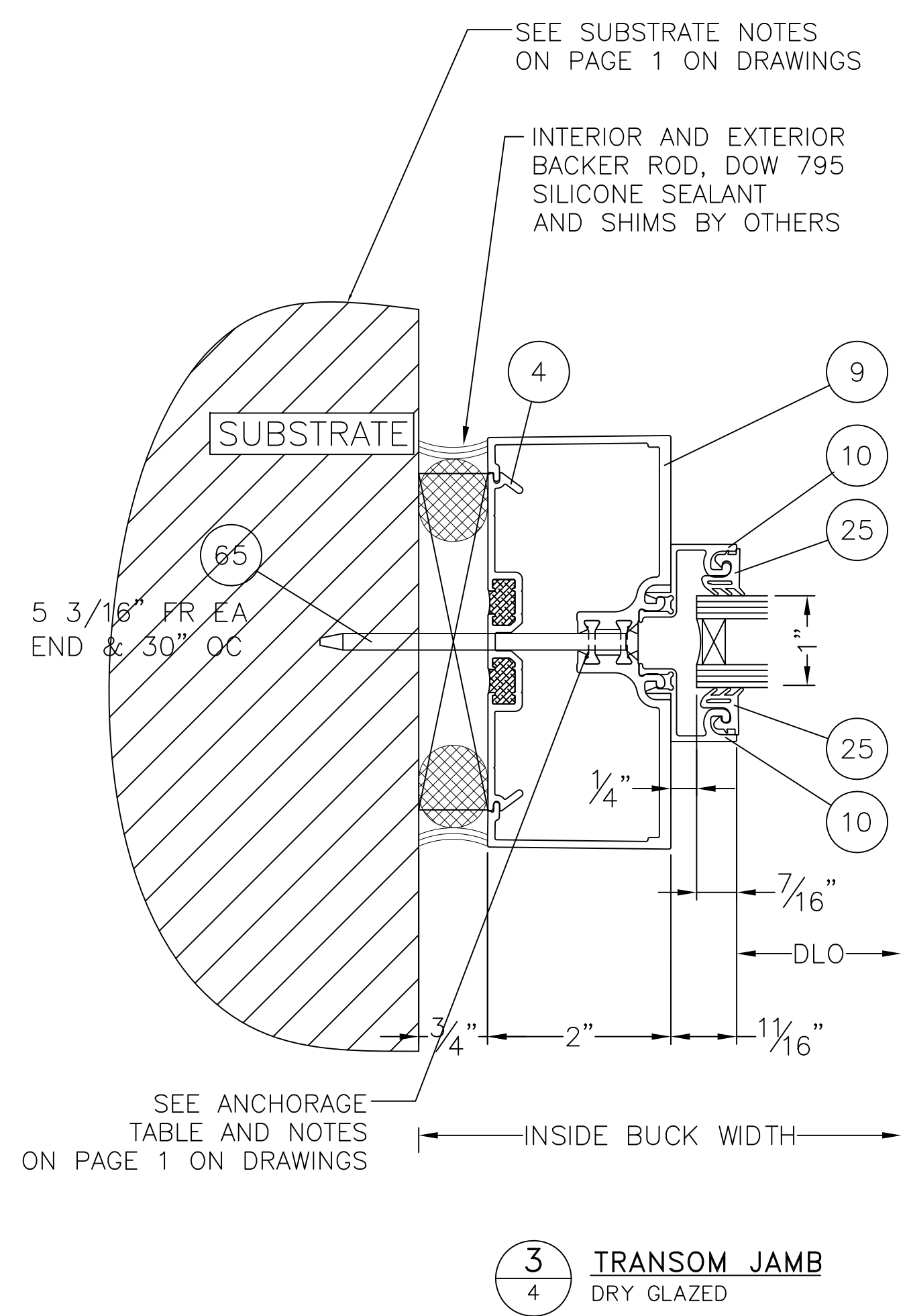
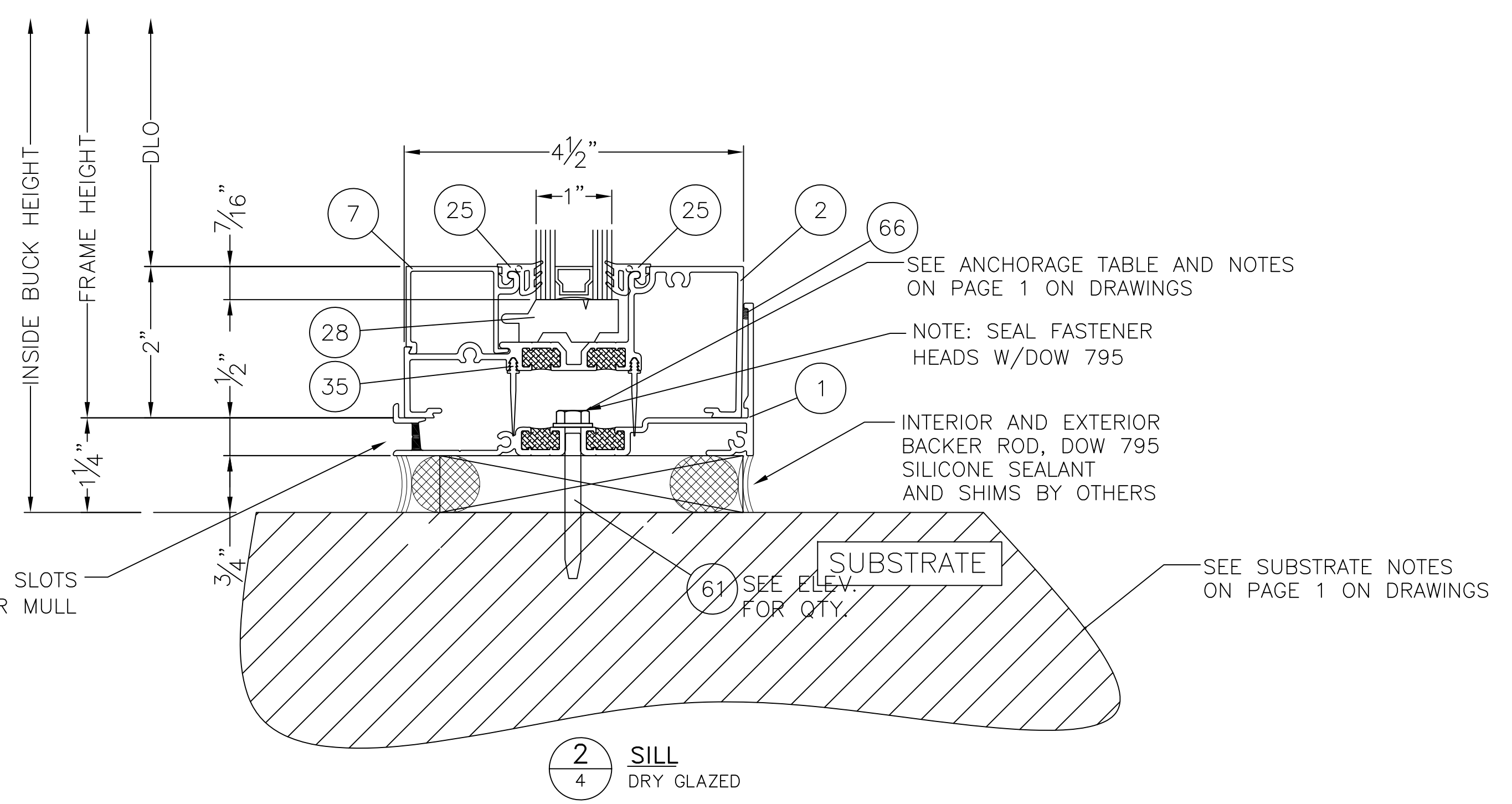
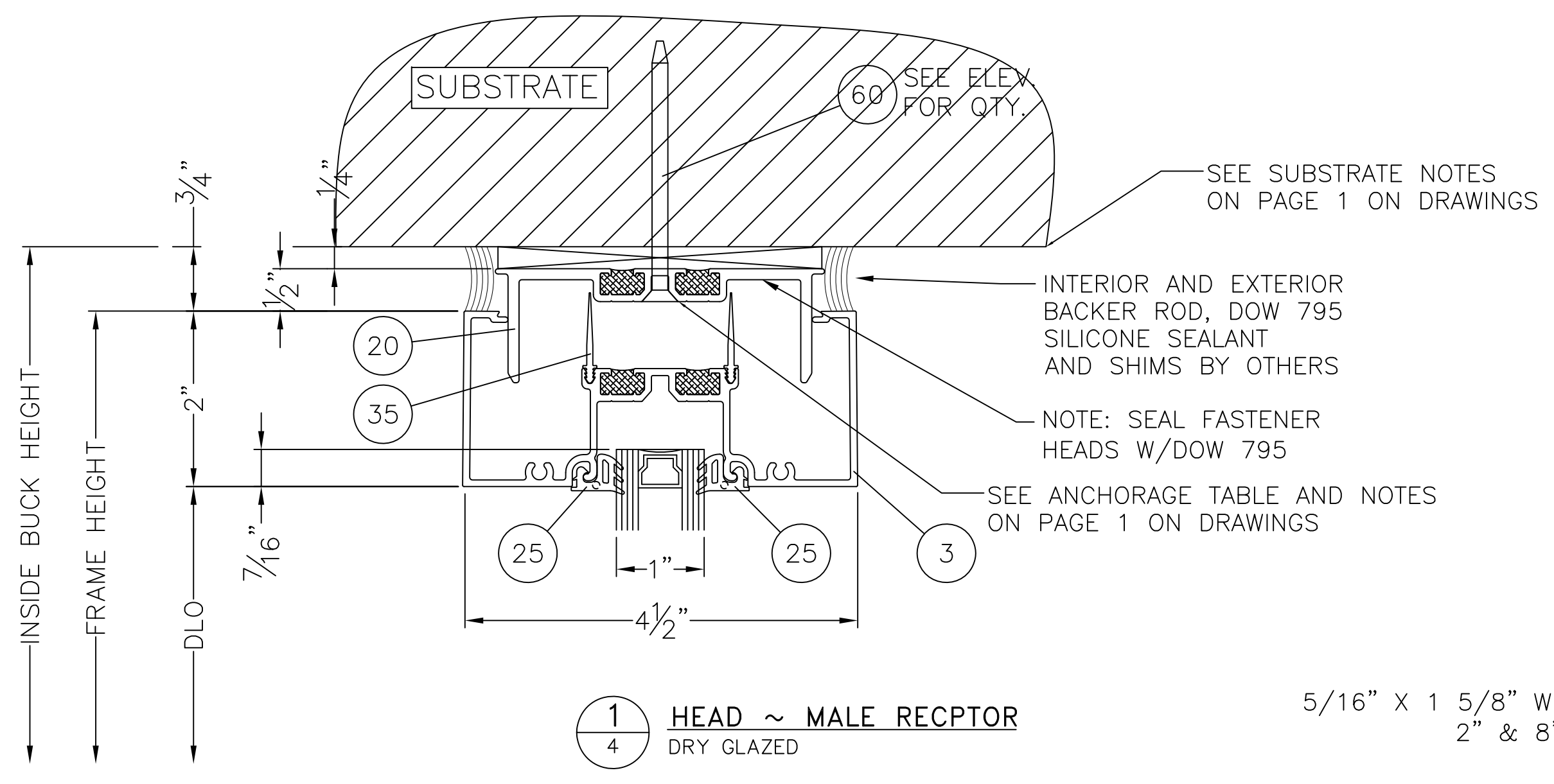
TU24000 STOREFRONT ELEVATION AND ANCHORAGE
 NON-IMPACT TESTED
 WET GLAZED

NOTE - STOREFRONT MAY BE INSTALLED TO AN
 INFINITE LENGTH PROVIDED THE MAXIMUM BAY WIDTH
 DOES NOT EXCEED 47-1/8".

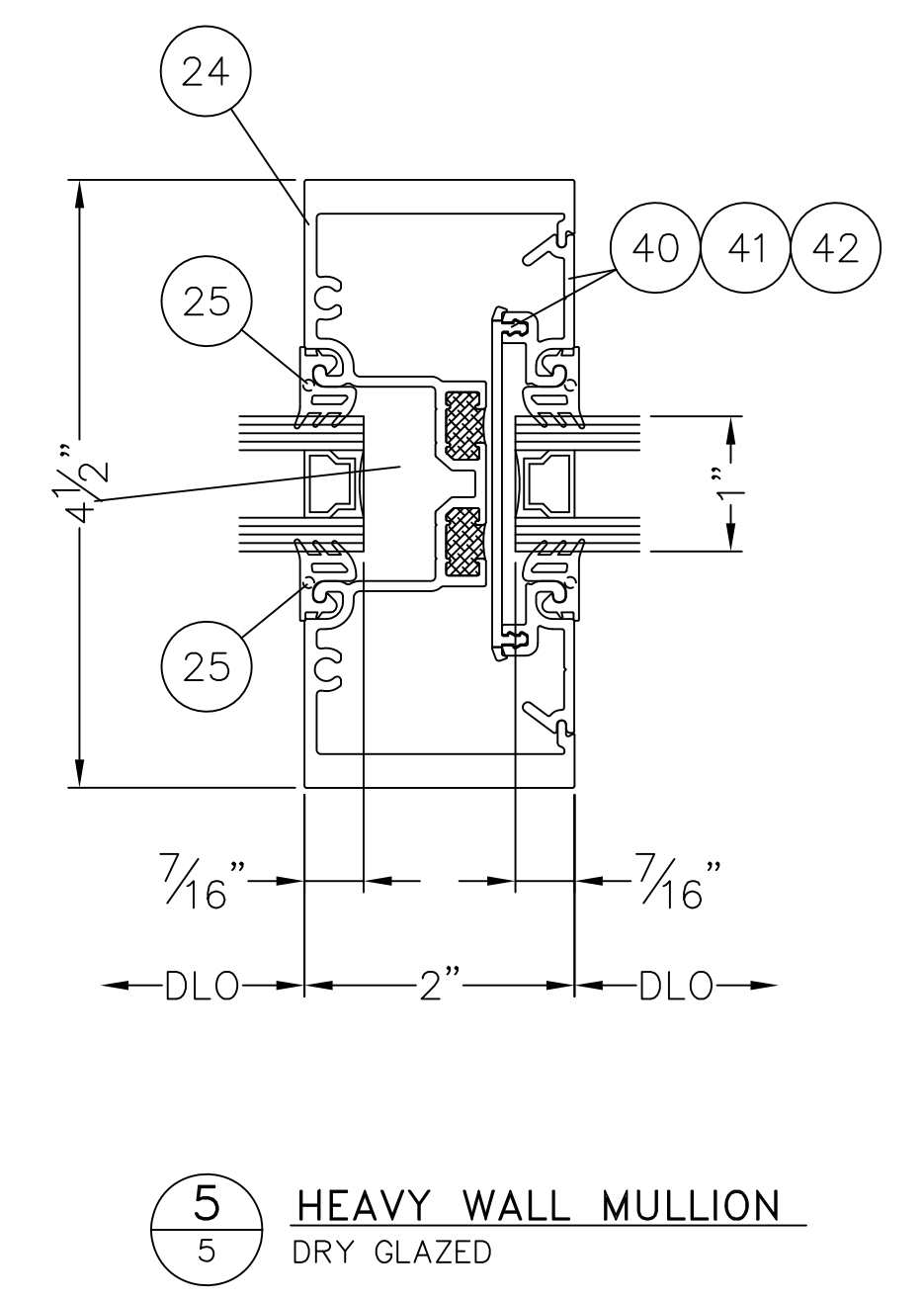
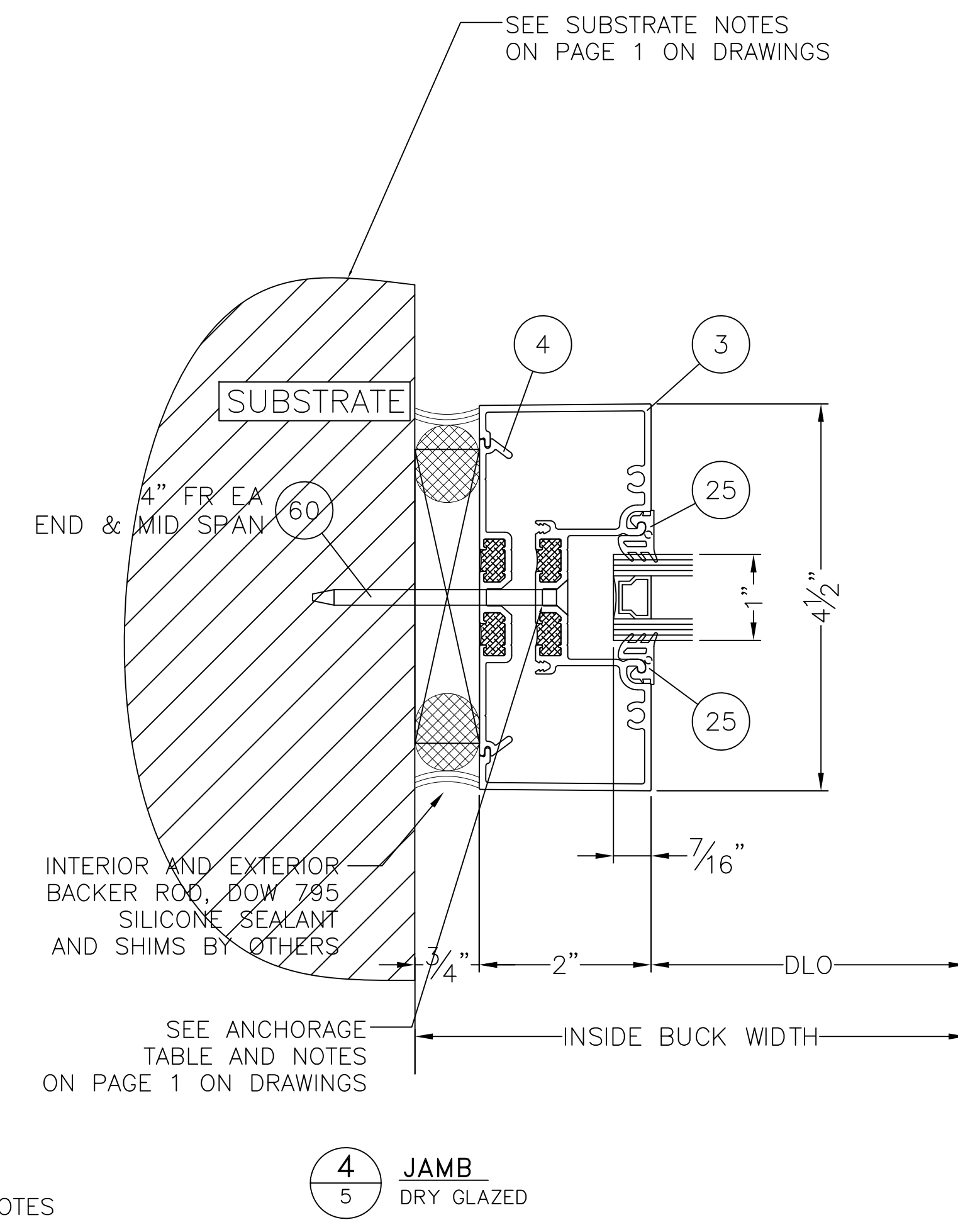
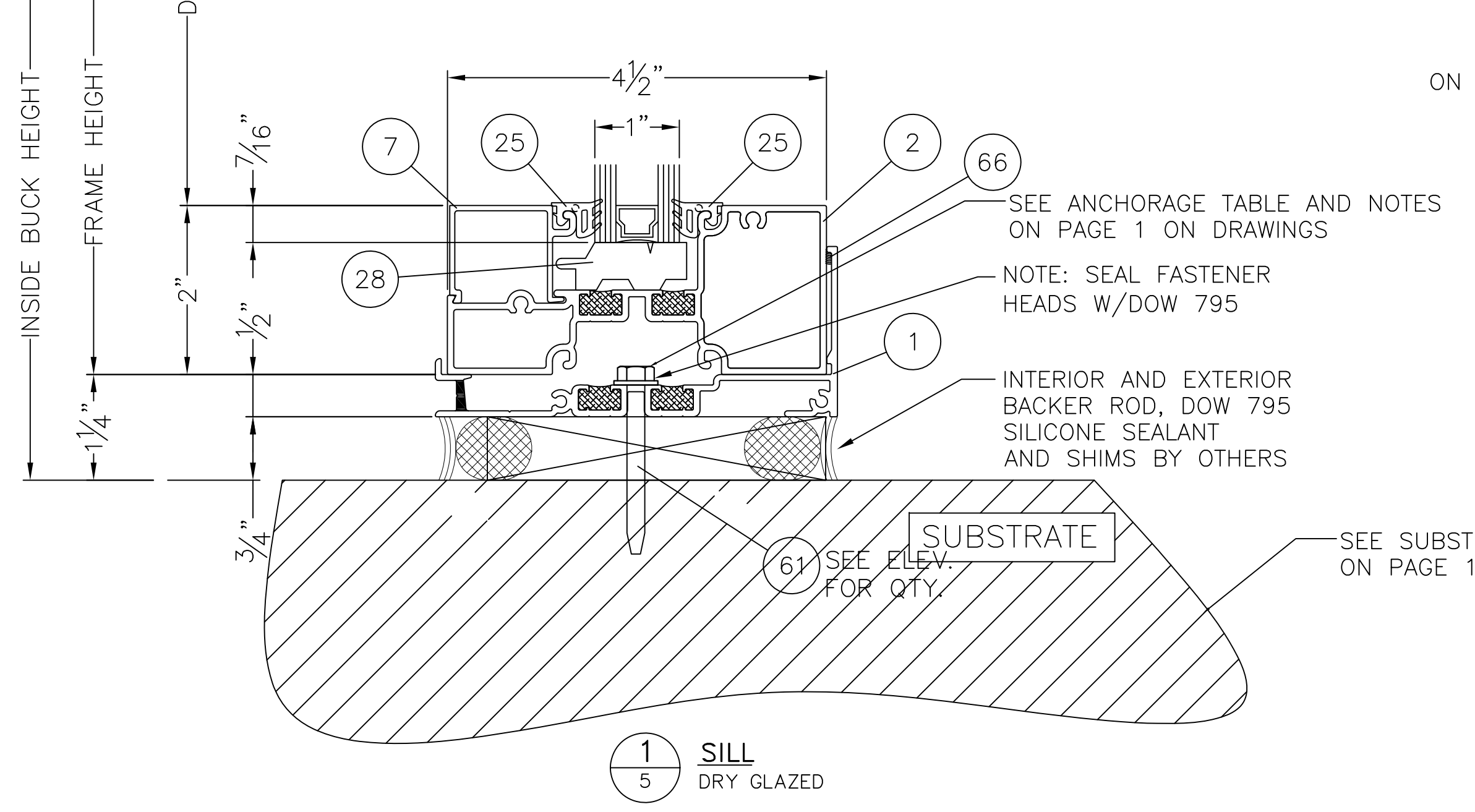
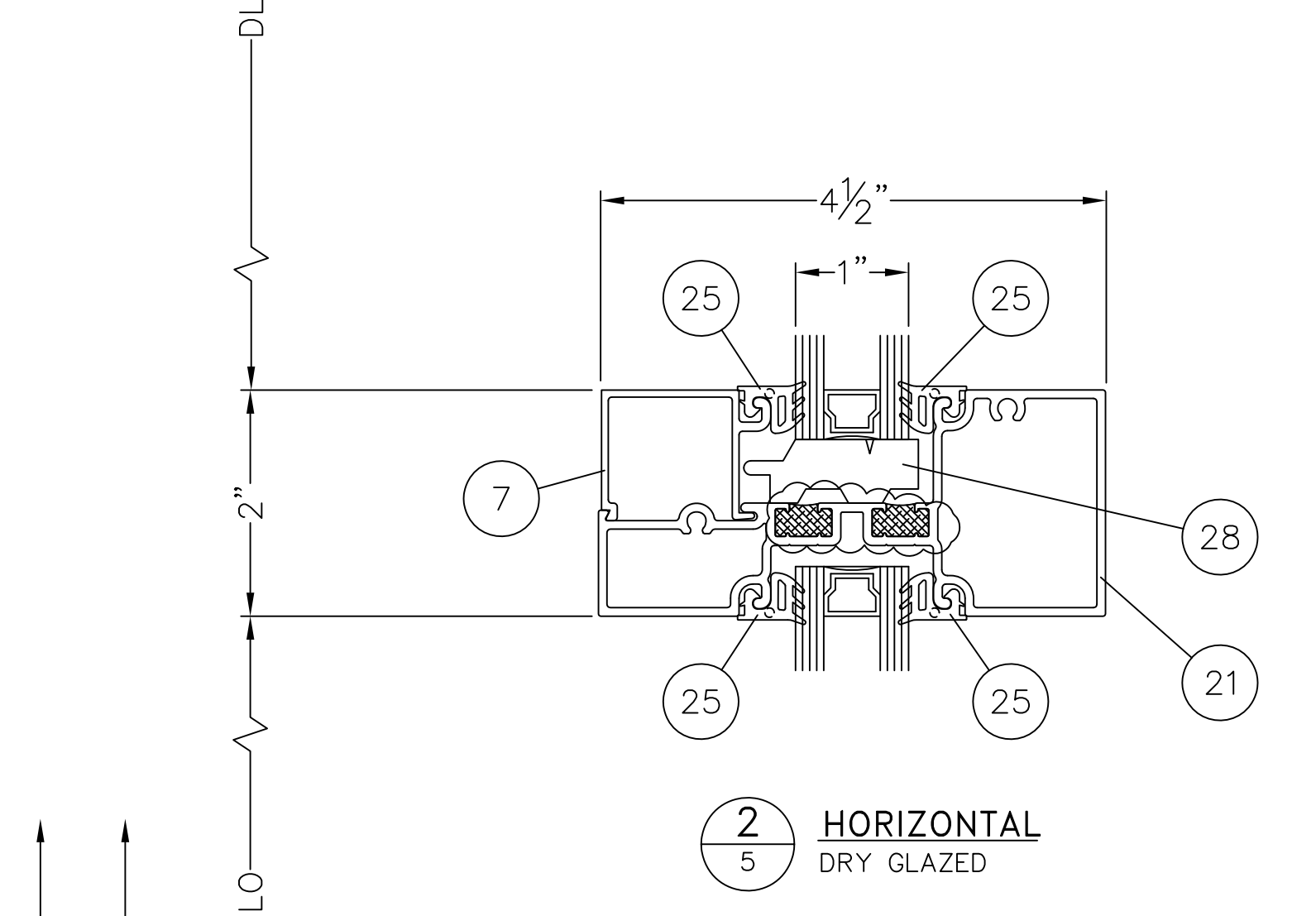
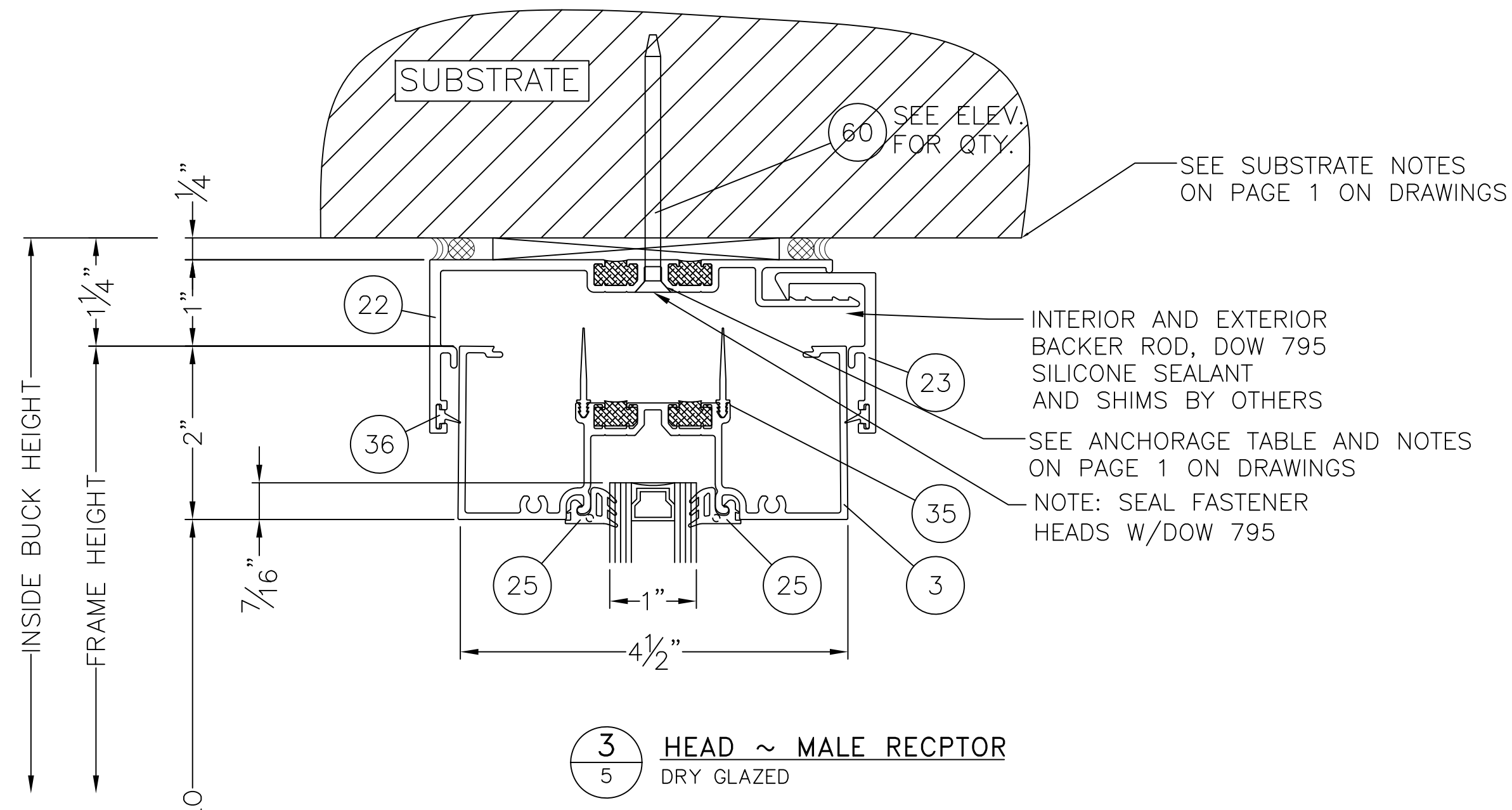
GLAZING TYPES

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GL-1	1" INSULATED GLASS -1/4" CLEAR, FULLY TEMPERED -1/2" AIR SPACE -1/4" CLEAR, FULLY TEMPERED

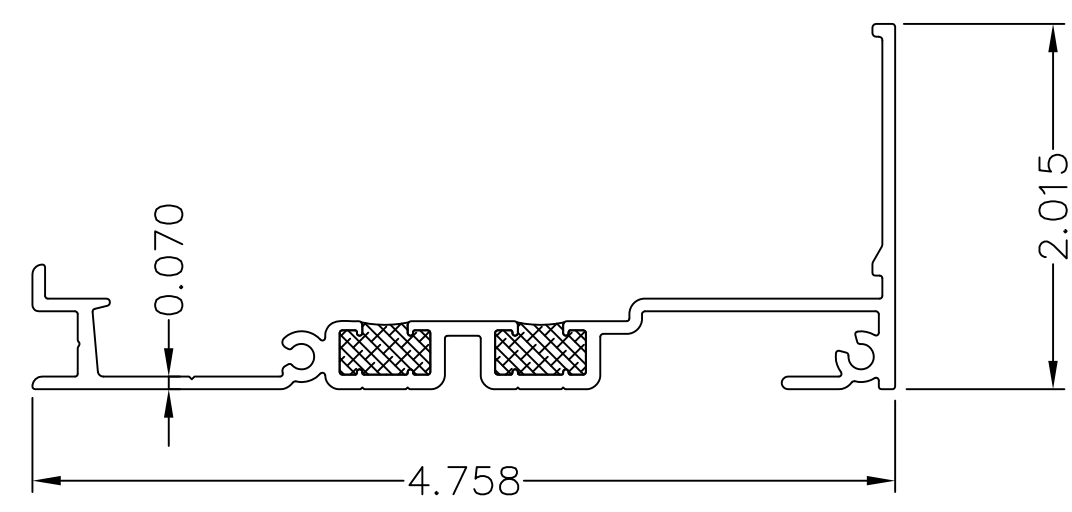
REVISIONS		MATERIAL	TUBELITE, INC. 3056 WALKER RIDGE DRIVE NW SUITE G WALKER, MI 49544	SCALE NTS
		EST. AREA		DWG NO. 101284D
		EST. WT.		SHEET NO. 2B OF 8
		EST. PERIM.	SERIES TU24000 STOREFRONT SYSTEM FBC INSTALLATION DRAWINGS ELEVATIONS AND GLAZING DETAILS	EXTRUSION NO.
		DRAWN BY JMR	DATE 04/29/15	REV.



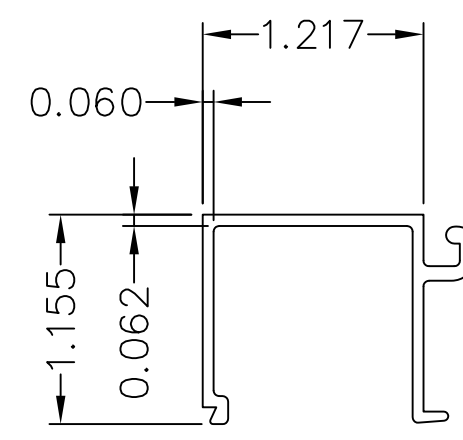
REVISIONS		MATERIAL		TUBELITE, INC.		SCALE	
		EST. AREA		3056 WALKER RIDGE DRIVE NW		NTS	
		EST. WT.		SUITE G		DWG NO.	
		EST. PERIM.		WALKER, MI 49544		101284D	
		DRAWN BY		SERIES TU24000 STOREFRONT SYSTEM		SHEET NO.	
		DATE		FBC INSTALLATION DRAWINGS		4 OF 8	
		JMR		INSTALLATION DETAILS		EXTRUSION NO.	
		04/29/15				REV.	



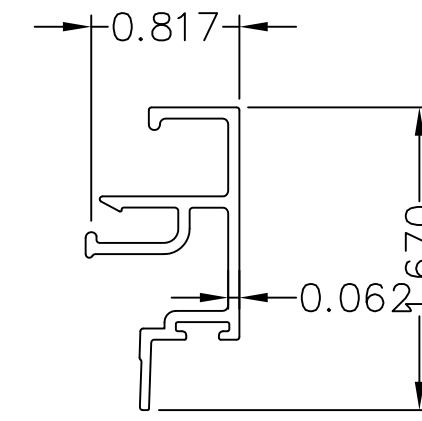
REVISIONS		MATERIAL	TUBELITE, INC. 3056 WALKER RIDGE DRIVE NW SUITE G WALKER, MI 49544	SCALE NTS
		EST. AREA		DWG NO. 101284D
		EST. WT.		SHEET NO. 5 OF 8
		EST. PERIM.	SERIES TU24000 STOREFRONT SYSTEM FBC INSTALLATION DRAWINGS INSTALLATION DETAILS	EXTRUSION NO. REV.
		DRAWN BY JMR	DATE 04/29/15	



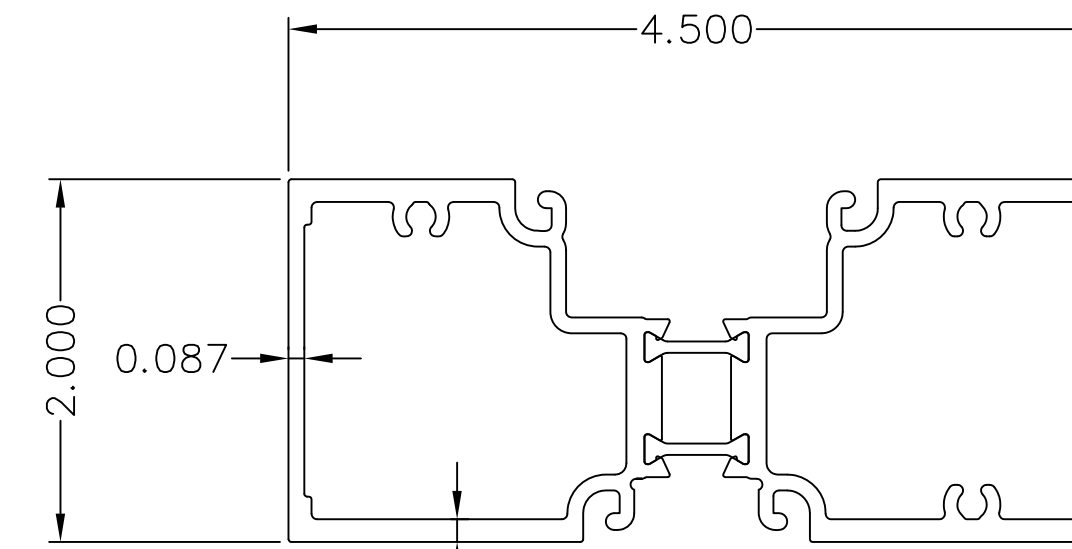
ITEM 1-TU24259
THERMAL SUB SILL



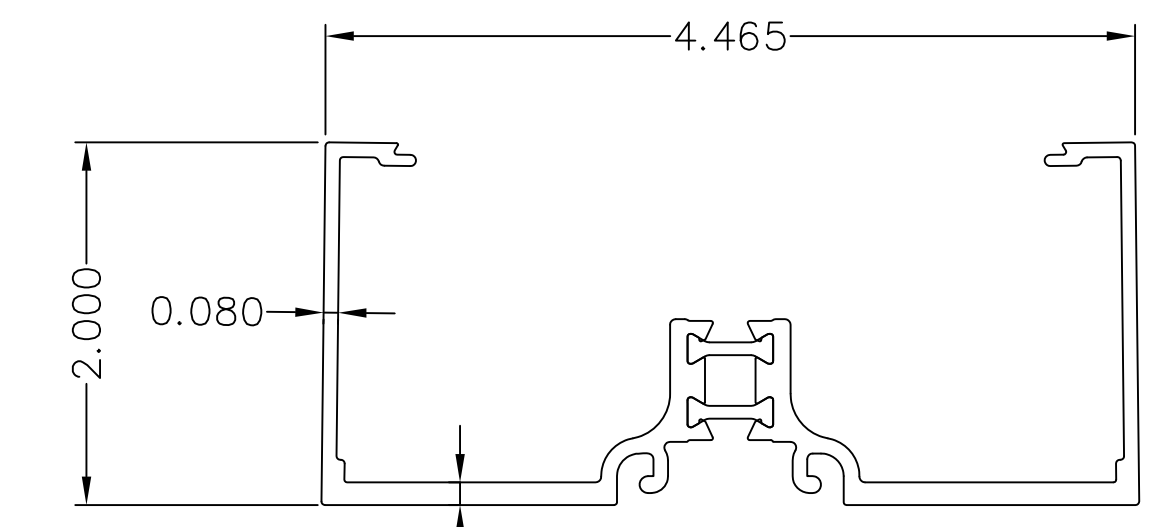
ITEM 7-E14104
GLAZING STOP



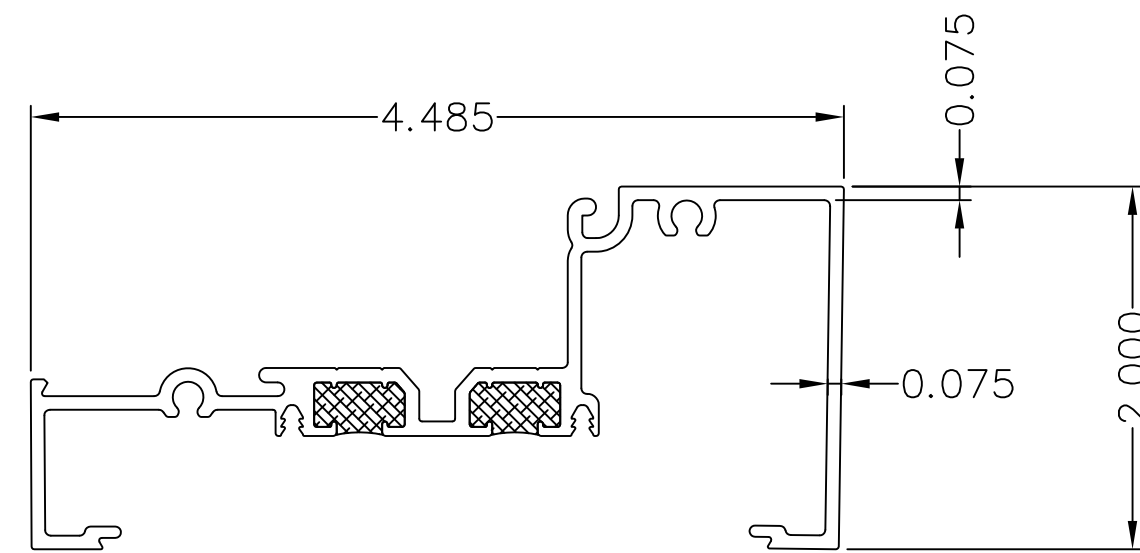
ITEM 18-E6223
INNER DOOR STOP



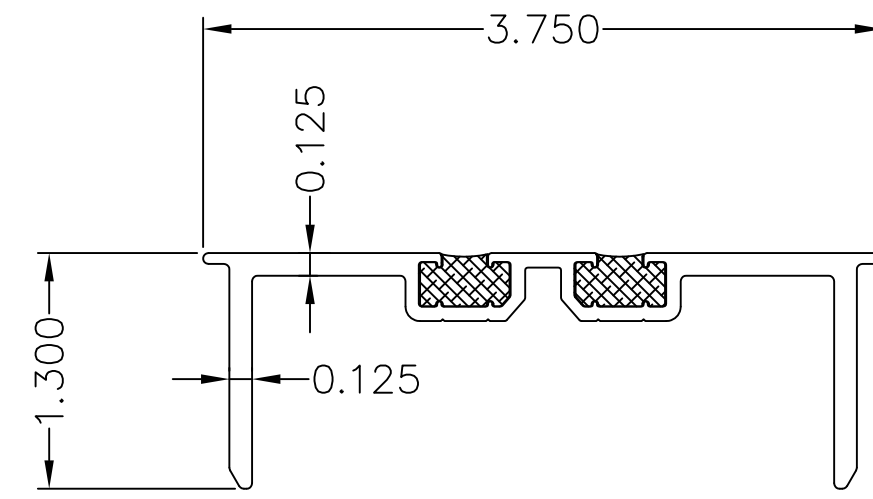
ITEM 8-A624142
DOOR HEADER



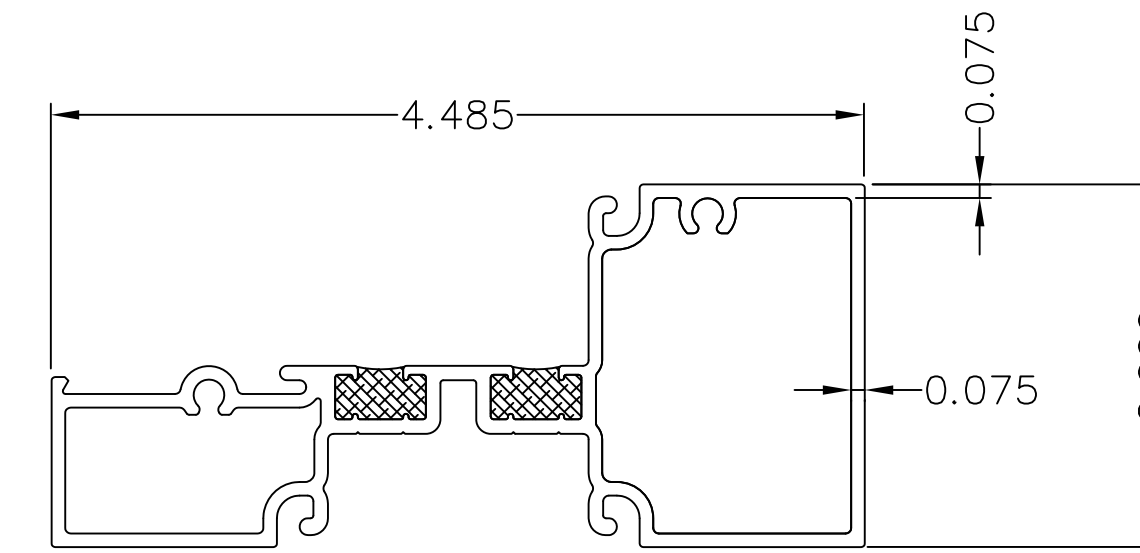
ITEM 9-A624040
DOOR JAMB



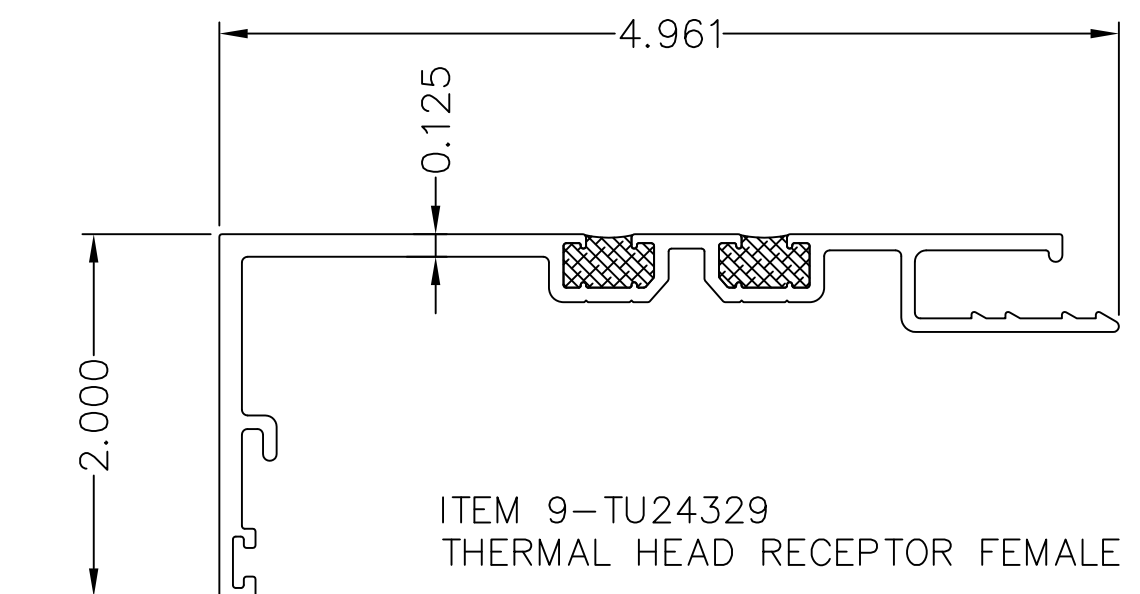
ITEM 2-TU24240
OPEN BACK SILL



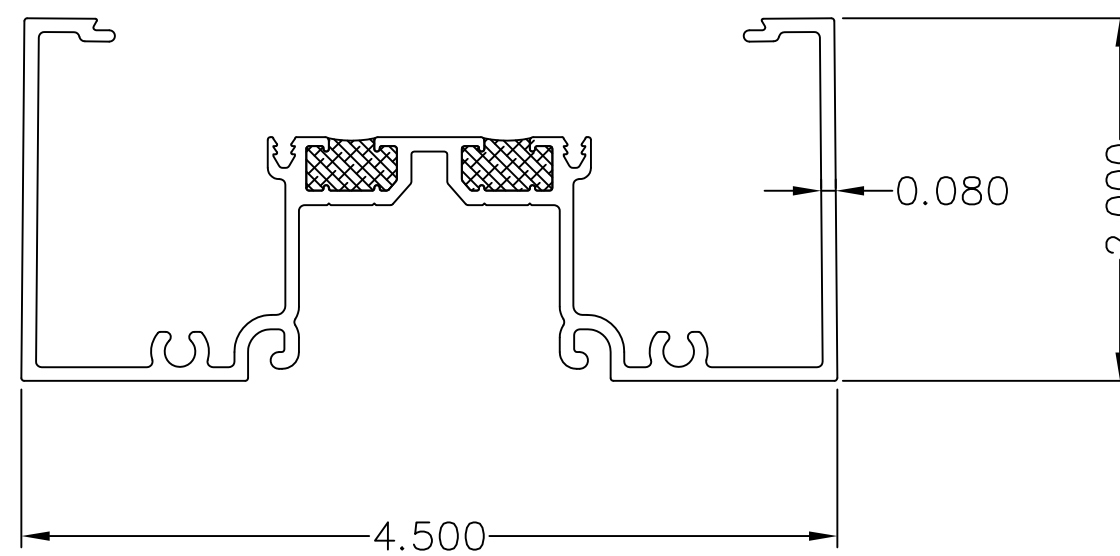
ITEM 20-TU24032
HEAD RECEPTOR MALE



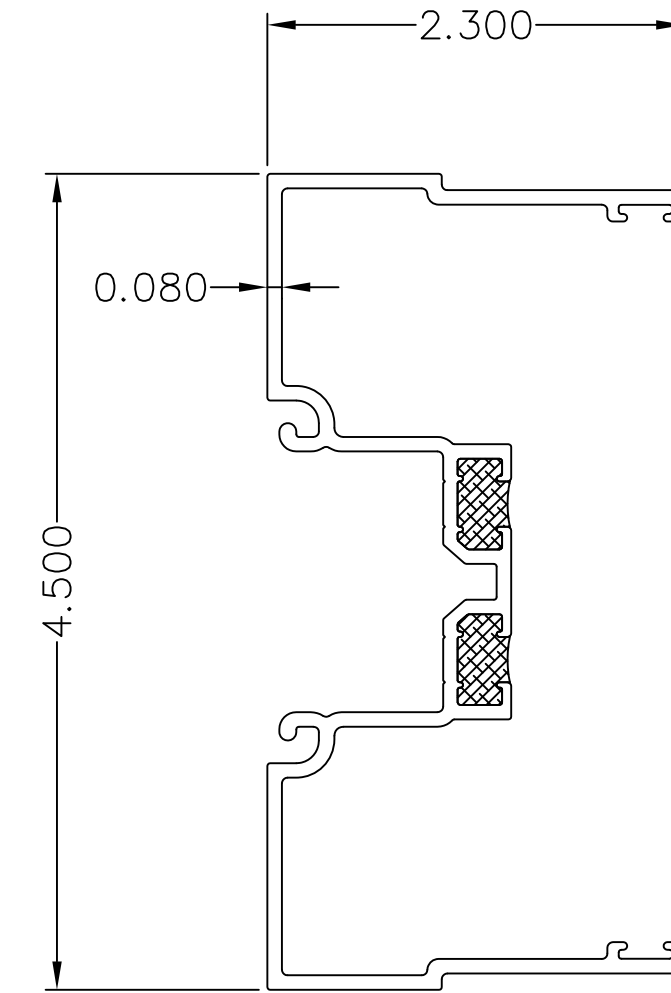
ITEM 2-TU24143
INTERMEDIATE HORIZONTAL



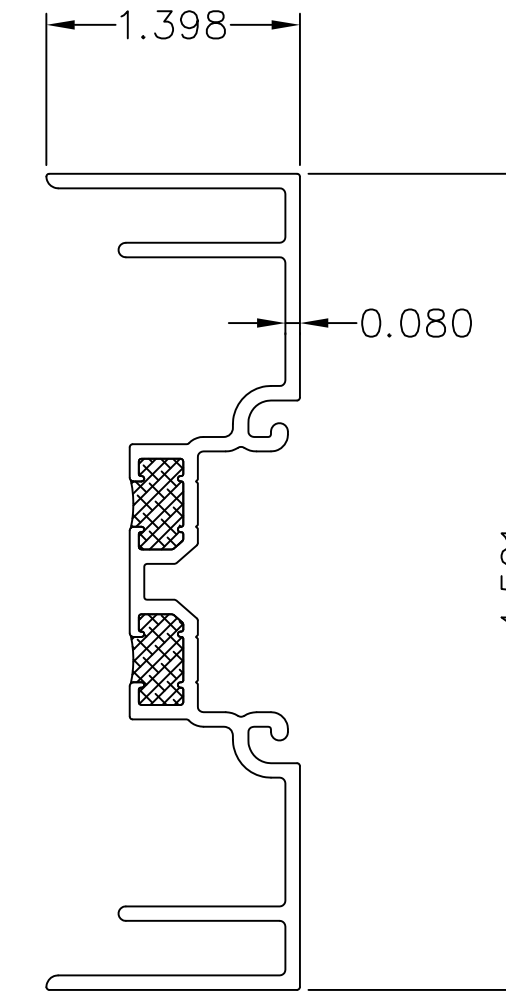
ITEM 9-TU24329
THERMAL HEAD RECEPTOR FEMALE



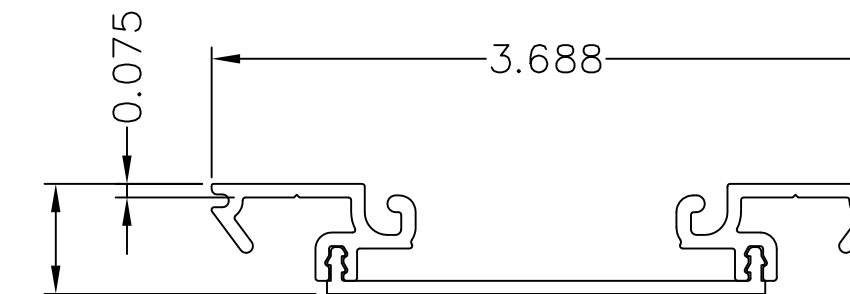
ITEM 3-TU24441
THERMAL OPEN BACK HEAD/JAMB/VERTICAL



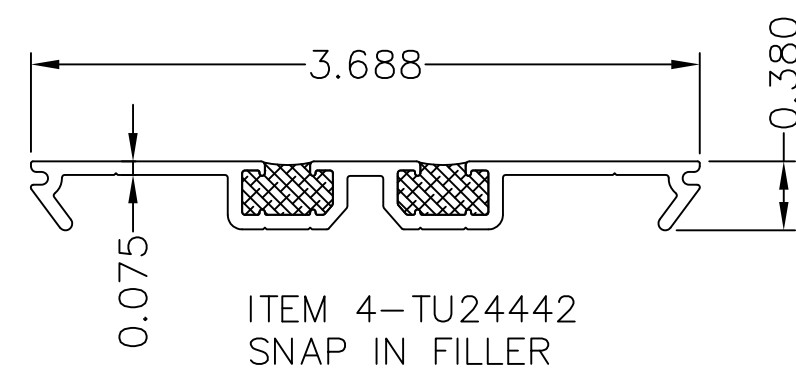
ITEM 5-TU24336
MALE EXPANSION MULLION



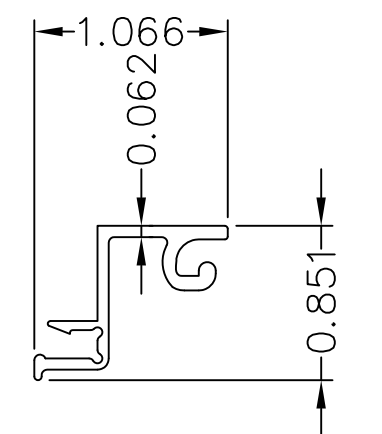
ITEM 6-TU24346
FEMALE EXPANSION MULLION



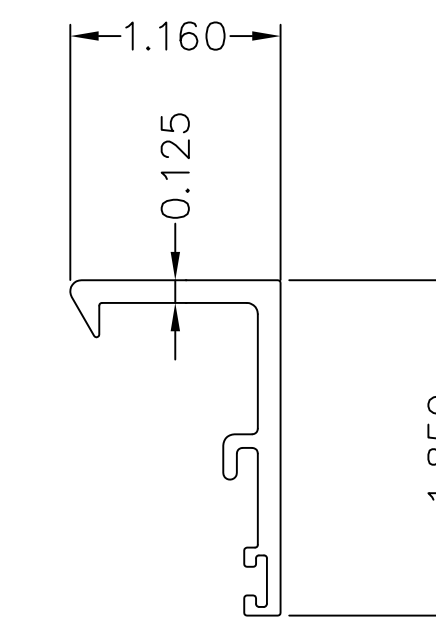
ITEM 5-A244545 CLOSURE POCKET ASSEMBLY
ITEM 6-E2445 CLOSURE POCKET SNAP
ITEM 7-P6595 BRIDGE (PLASTIC)



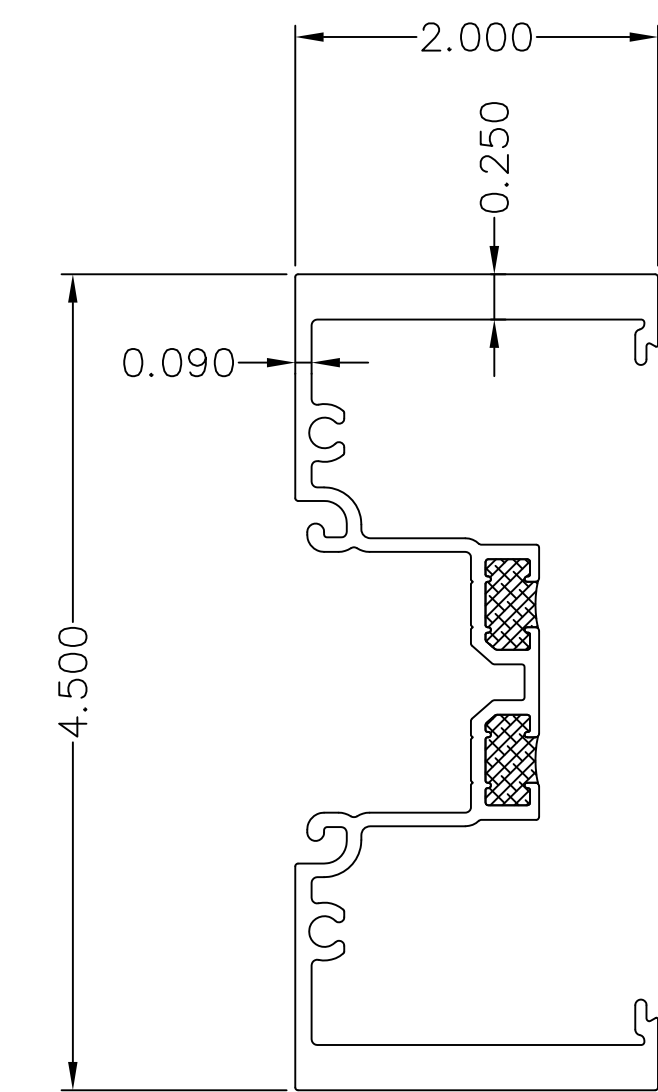
ITEM 4-TU24442
SNAP IN FILLER



ITEM 10-E6221
GLASS ADAPTOR

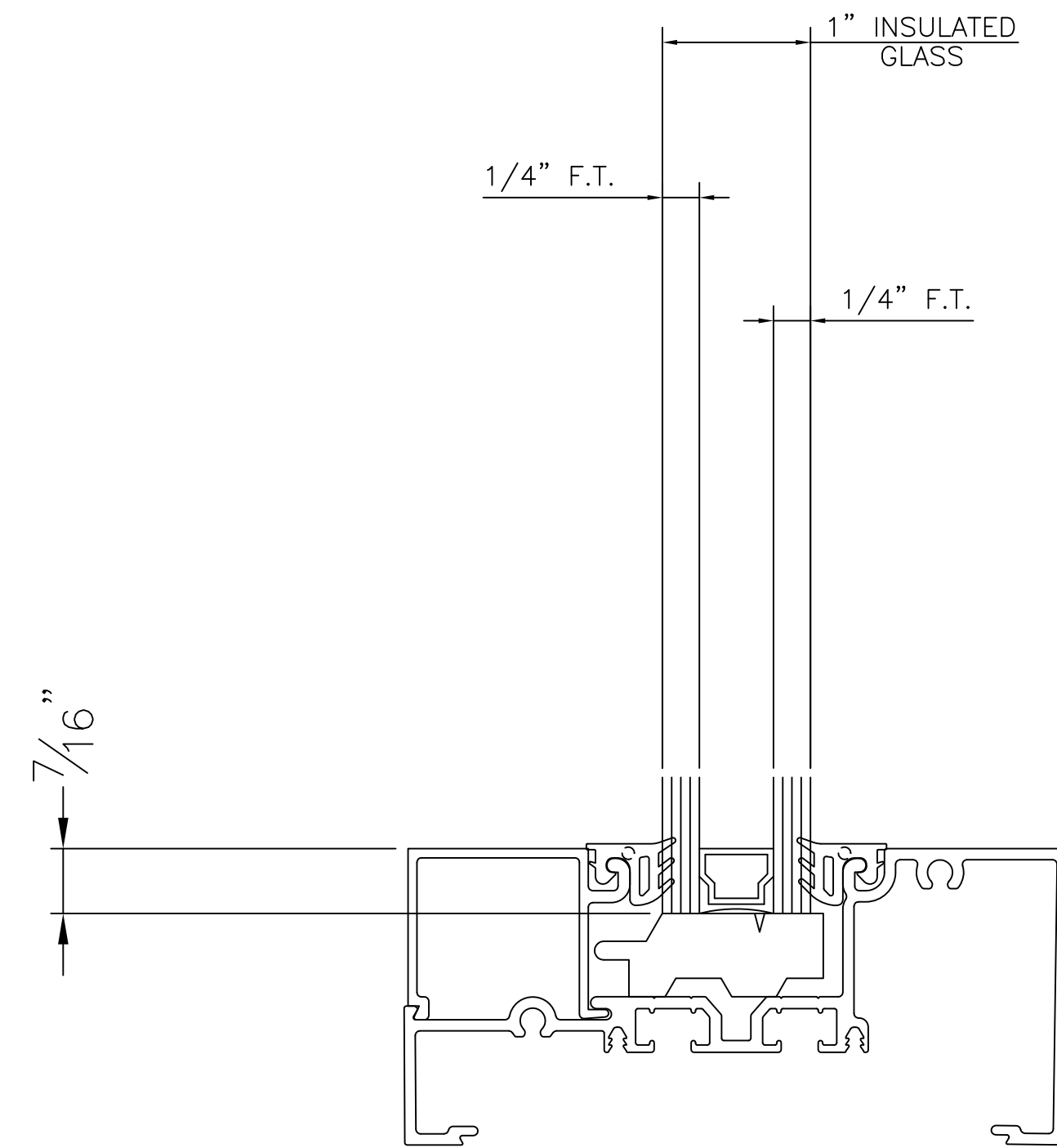


ITEM 10-E24339
HEAD RECEPTOR MALE



ITEM 11-TU24435
HEAVY WALL MULLION

REVISIONS		MATERIAL	TUBELITE, INC. 3056 WALKER RIDGE DRIVE NW SUITE G WALKER, MI 49544		SCALE NTS	
		EST. AREA	SERIES TU24000 STOREFRONT SYSTEM FBC INSTALLATION DRAWINGS PARTS DETAILS		DWG NO. 101284D	
		EST. WT.			SHEET NO. 6 OF 8	
		EST. PERIM.			EXTRUSION NO.	REV.
		DRAWN BY JMR			DATE 04/29/15	



GLAZING DETAILS

NOTE: GLAZING MUST COMPLY WITH ASTM E1300 FOR THE GIVEN DESIGN PRESSURE.

REVISIONS		MATERIAL		TUBELITE, INC. 3056 WALKER RIDGE DRIVE NW SUITE G WALKER, MI 49544		SCALE NTS	
		EST. AREA				DWG NO. 101284D	
		EST. WT.		SERIES TU24000 STOREFRONT SYSTEM FBC INSTALLATION DRAWINGS GLAZING DETAILS		SHEET NO. 7 OF 8	
		EST. PERIM.				EXTRUSION NO.	REV.
		DRAWN BY JMR	DATE 04/29/15				

NON-IMPACT STOREFRONT TEST SPECIMEN – PARTS LIST				MATERIAL
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1	TU24259	EXTRUSION ~ THERMAL SUB SILL	ALUMINUM-6063-T5
2	2	TU24240	EXTRUSION ~ THERMAL OPEN BACK SILL	ALUMINUM-6063-T5
3	4	TU24441	EXTRUSION ~ THERMAL HEAD/JAMB/VERTICAL	ALUMINUM-6063-T5
4	2	TU24442	EXTRUSION ~ SNAP IN FILLER	ALUMINUM-6063-T5
5	1	E22336	EXTRUSION ~ MALE EXPANSION MULLION	ALUMINUM-6063-T5
6	1	E22346	EXTRUSION ~ FEMALE EXPANSION MULLION	ALUMINUM-6063-T5
7	2	E14104	EXTRUSION ~ GLAZING STOP	ALUMINUM-6063-T5
8	2	A624142	EXTRUSION ASSEMBLY ~ DOOR FRAME ~ HEADER	ALUMINUM-6063-T5
9	1	A624040	EXTRUSION ASSEMBLY ~ DOOR FRAME ~ JAMB	ALUMINUM-6063-T5
10	4	E6221	EXTRUSION ASSEMBLY ~ 1" GLASS ADAPTOR	ALUMINUM-6063-T5
11	2	A627879	EXTRUSION ASSEMBLY ~ STILE MED ~ HINGE	ALUMINUM-6063-T5
12	1	A628282	EXTRUSION ASSEMBLY ~ STILE, MED ~ RD FACE	ALUMINUM-6063-T5
13	1	A628384	EXTRUSION ASSEMBLY ~ STILE, MED ~ LOCK/ASTRICAL	ALUMINUM-6063-T5
14	1	E1152	EXTRUSION ~ ASTRICAL (DOOR)	ALUMINUM-6063-T5
15	1	A621414	EXTRUSION ASSEMBLY ~ TOP RAIL 4"	ALUMINUM-6063-T5
16	1	A621010	EXTRUSION ASSEMBLY ~ BOTTOM RAIL 10"	ALUMINUM-6063-T5
17	4	E6291	EXTRUSION ~ GLASS STOP TOP & BOTTOM RAIL	ALUMINUM-6063-T5
18	3	E6223	EXTRUSION ~ INNER DOOR STOP	ALUMINUM-6063-T5
19	1	T6250	THERMAL THRESHOLD	ALUMINUM-6063-T5
20	1	TU24032	HEAD RECEPTOR MALE	ALUMINUM-6063-T5
21	6	TU24143	EXTRUSION ~ INTERMEDIATE HORIZONTAL	ALUMINUM-6063-T5
22	1	TU24329	THERMAL HEAD RECEPTOR FEMALE	ALUMINUM-6063-T5
23	1	E24339	HEAD RECEPTOR MALE	ALUMINUM-6063-T5
24	2	TU24435	EXTRUSION ~ HEAVY WALL MULLION	ALUMINUM-6063-T5
25	130'	P2728	GASKET, GLASS, EPG	P-PART-RUBBER
26	35'	P1112	GASKET, GLASS, EPG (DOOR)	P-PART-RUBBER
27	35'	P2183	GASKET, GLASS, EPG (DOOR)	P-PART-RUBBER
28	6	P1132	SETTING BLOCK 4" LG	P-PART-RUBBER
29	4	P1912	SETTING BLOCK 1/4 x 1/2 x 4" LG	P-PART-RUBBER
30	22'	P6296	BULB WEATHERSEAL	P-PART-WEATHERSEAL
31	15'	P938	PILE, DOOR STOP, AMESBURY GROUP	P-PART-PLASTIC/FAB
32	4	P6240	ELEMENT INHIBITOR (TOP & BOTTOM RAIL)	P-PART-RIGID PVC
33	2	P1275	CONCEALED SCREW WEATHERSTRIP 35 7/8" LG	P-PART-WEATHERSTRIP
34	1	P2455	END DAM FOR SUB SILL TU24259	P-PART-ALUM .040 SHT.
35	50'	P6599	BAFFLE	P-PART-
36	16'	P1221	VINYL GASKET	P-PART-VINYL
37	2	P946	SETTING BLOCK 4" LG	P-PART-RUBBER
38				
39				
40	2	A244545	CLOSURE POCKET ASSEMBLY	
41	2 PER ASSY	E2445	EXTRUSION ~ CLOSURE POCKET SNAP END 12'-2"	ALUMINUM-6063-T5
42	1 PER ASSY	P6595	BRIDGE 12'-2"	P-PART-PLASTIC
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DOOR PARTS AS REQ'D (SEE SEPARATE APPROVAL)

ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
60	13	BY OTHERS	SCREW ~ #12-14 x 3" FH SD #3PT (FRAME TO BUCK)	P-PART-FASTENER
61	7	BY OTHERS	SCREW ~ #12-14 x 2" HEX WASHER HD SD #3PT (FRAME TO BUCK)	P-PART-FASTENER
62	8	BY OTHERS	SCREW ~ 1/4-20 x 1" TYPE F FH THD CUTTING (THRES. TO STEEL BUCK)	P-PART-FASTENER
63	2	S196	SCREW ~ #8 x 3/8" SELF TAPPING PAN HEAD (END DAM TO SUB SILL)	P-PART-FASTENER
64	24	S423	SCREW ~ #10-16 x 1 1/2" HWH SD #3PT (FRAME TO FRAME)	P-PART-FASTENER
65	4	BY OTHERS	SCREW ~ #1/4-14 x 3 1/2" FH SD #3PT (FRAME TO BUCK)	P-PART-FASTENER
66	AS REQ'D	BY OTHERS	SILICONE SEALANT DOW 795	P-PART-SEALANT
67				
68				
69				
70	1	NA	6'-0" x 7'-0" MEDIUM STILE THERMAL DOOR	DOOR ASSEMBLY
71	X	S070	SCREW ~ #12-24 x 1/2" FLAT HD PHIL (HINGE)	P-PART-FASTENER
72	X	S341	SCREW ~ #10-24 x 3/4" FLAT HD PHIL (ASTRAGAL)	P-PART-FASTENER
73	X	P518	LABEL, DOOR, GREEN BRUSHED SILVER (DOOR)	P-PART-LABEL
74	X	P1539	SPRING, STEEL, ASTRAGAL, ADJUSTABLE, (DOOR)	P-PART-HARDWARE
75	X	P1553	WASHER, SCREW & SHOULDER SCREW (DOOR)	P-PART-FASTENER
76	X	S071	NUT, STUD, 3/8-16 X 3/8 (DOOR TIE ROD) (NOT SHOWN)	P-PART - FASTENER
77	X	S186	WASHER, 1/2 OD X 1/2 ID X .062 ALUMINUM (DOOR)	P-PART - FASTENER
78	X	S161	SCREW, 10-24 X 1/2 FLAT HEAD PHIL (DR HINGE/FLUSH BOLTS)	P-PART - FASTENER
79	X	P908	SCREW, 10-24 X 1/2 FH MACH PHIL (DOOR)	P-PART - FASTENER
80	X	P020B	ROD, THREADED TIE, 3/8" (DOOR)	P-PART - FASTENER
81	X	P853	WASHER, DOOR ROD (DOOR)	P-PART - HARDWARE
82				P-PART - HARDWARE
83	6	P2092	HINGE, BUTT, REINFORCEMENT (DOOR)	P-PART - HARDWARE
84	6	P092	BUTT HINGE HAGAR BB-1191	P-PART - HARDWARE
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REVISIONS		MATERIAL		TUBELITE, INC. 3056 WALKER RIDGE DRIVE NW SUITE G WALKER, MI 49544		SCALE NTS	
		EST. AREA				DWG NO. 101284D	
		EST. WT.		SERIES TU24000 STOREFRONT SYSTEM FBC INSTALLATION DRAWINGS INSTALLATION DETAILS		SHEET NO. 8 OF 8	
		EST. PERIM.				EXTRUSION NO.	
		DRAWN BY JMR	DATE 04/29/15			REV.	