

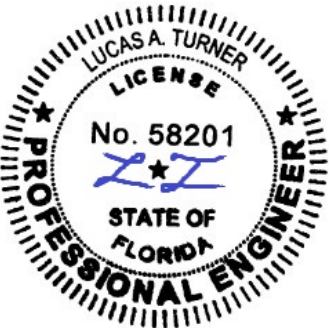
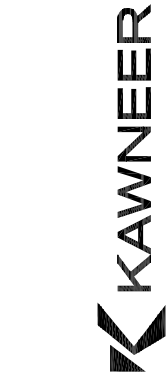
KAWNEER 8225TL PROJECT-OUT AND
FIXED OVER PROJECT-OUT THERMAL WINDOWS

GENERAL NOTES

1. THIS WINDOW SYSTEM HAS BEEN TESTED TO ASTM E283, ASTM E330, ASTM E331, ASTM E1886, ASTM E1996, AND TAS 201/202/203, AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC), CURRENT EDITION, INCLUDING THE HIGH VELOCITY HURRICANE ZONE.
2. THE INSTALLED WINDOW SYSTEM SHALL BE FABRICATED, GLAZED, AND ANCHORED IN ACCORDANCE WITH THIS DRAWING AND APPLICABLE TEST REPORTS, OR AS INDICATED BY THE ENGINEER OF RECORD IN APPROVED SHOP DRAWINGS.
3. THIS DRAWING INDICATES VARIOUS APPROVED GLAZING METHODS AND FRAMING TYPES WHICH MAY BE USED SINGLY OR IN COMBINATION FOR EACH PROJECT. ANY NUMBER OF PANELS/WINDOWS MAY BE USED HORIZONTALLY PROVIDED THE MAXIMUM DLO SIZES AS INDICATED IN THIS DRAWING ARE NOT EXCEEDED.
4. THIS PRODUCT IS LARGE AND SMALL MISSILE IMPACT RESISTANT (SEE APPROVED GLAZING TYPES SHEET 10 OF THIS DRAWING FOR GLAZING TYPES THAT ARE APPROVED FOR LARGE AND FOR SMALL MISSILE PERFORMANCE), AND DOES NOT REQUIRE THE USE OF APPROVED SHUTTERS IN WINDBORNE DEBRIS AREAS.
5. REQUIRED DESIGN PRESSURES SHALL BE DETERMINED FOR EACH PROJECT IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS AND GOVERNING WIND SPEEDS FOR THE PROJECT LOCATION.
6. THE ALLOWABLE DESIGN PRESSURES AND LOAD CAPACITIES SHOWN IN THIS DRAWING ARE ALLOWABLE STRESS DESIGN (ASD) BASIS AND ARE AS LIMITED BY ASTM E-1300 GLASS TABLES AND TESTED PRESSURES ALTERNATE COMPARATIVE OR RATIONAL ANALYSIS CALCULATIONS COMPLIANT WITH FBC AS DEEMED APPROPRIATE ON A PROJECT BASIS BY THE ENGINEER OF RECORD ARE ACCEPTABLE.
7. DISSIMILAR MATERIALS THAT COME INTO CONTACT, INCLUDING BUT NOT LIMITED TO FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SUBSTRATES OR ALUMINUM, SHALL BE COATED OR OTHERWISE PROTECTED PER FBC REQUIREMENTS TO PREVENT CORROSION OR GALVANIC REACTIONS.
8. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER INFILTRATION RESISTANCE OF THE INSTALLED PRODUCT IS NOT WITHIN THE SCOPE OF THIS APPROVAL AND SHALL BE THE RESPONSIBILITY OF OTHERS.
9. THE 4/3 ALLOWABLE STRESS INCREASE HAS NOT BEEN USED IN THE ANCHOR ANALYSIS FOR THIS SYSTEM. THE 1.6 Cd FACTOR WAS USED IN THE ANALYSIS OF WOOD SUBSTRATE.
10. STRUCTURAL INTEGRITY OF SUBSTRATE MATERIALS TO RECEIVE THE LOADS FROM THIS PRODUCT, AND INSTALLATION OF WOOD BUCKS OR OTHER ACCESSORIES TO THE SUBSTRATE, TO BE ENGINEERED BY OTHERS OR AS APPROVED BY THE AUTHORITY HAVING JURISDICTION.
11. THIS PRODUCT SHALL BE INSTALLED USING ONE OF THE APPROVED FASTENING METHODS INDICATED IN THIS DRAWING, AS APPROPRIATE FOR THE SUBSTRATE TYPE, OR AS INDICATED BY THE ENGINEER OF RECORD IN APPROVED SHOP DRAWINGS. ANCHOR SIZE, EMBEDMENT, EDGE DISTANCE, AND LOCATIONS, SHALL BE IN ACCORDANCE WITH THESE DRAWINGS OR AS INDICATED IN APPROVED SHOP DRAWINGS. ENSURE 1-1/2" MIN. CENTER-TO-SPACING BETWEEN ANY TWO INSTALLATION FASTENERS. THE ASSEMBLY AND INSTALLATION FASTENERS INDICATED IN THIS DRAWING ARE APPLICABLE FOR NON-COASTAL APPLICATIONS. IF THE PROJECT IS WITHIN 3000 FT OF A SALTWATER COASTLINE, THE FASTENERS SHALL BE EVALUATED FOR COMPLIANCE WITH FBC SECTION 1711. SEE EVALUATION REPORT FOR THIS APPROVAL FOR ADDITIONAL INFORMATION.
12. MINIMUM ANCHOR EMBEDMENTS LISTED IN THIS DRAWING SHALL BE BEYOND WALL DRESSING OR STUCCO AND FULLY INTO SUBSTRATE. LOAD-BEARING SHIMS SHALL BE USED AT ALL ANCHOR LOCATIONS WHERE A GAP OF MORE THAN 1/16" EXISTS BETWEEN THE PRODUCT AND OPENING SUBSTRATE. MAXIMUM SHIM GAP IS AS INDICATED IN THESE DRAWINGS.
13. SUBTRATES SHALL MEET THE MINIMUM STRENGTH REQUIREMENTS AS SHOWN IN TABLE 1 IN SECTION 6. CONCRETE OR MASONRY SUBSTRATES SHALL NOT BE CRACKED. FOR INSTALLATION TO METAL SUBSTRATES, ANCHORS SHALL BE LONG ENOUGH TO BE FULLY THREADED THROUGH THE METAL THICKNESS WITH AN ADDITIONAL 3/16" MIN. OF THREADS BEYOND.
14. CONSTRUCTION NOTES: THE VERITICAL FRAME MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE COPED & BUTTED TO THE VERTICAL FRAME MEMBER. THE VERTICAL MEMBERS ARE FASTENED TO THE HORIZONTAL MEMBERS WITH ANCHORS INTO SCREW SPLINES. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH KAWNEER INSTALLATION INSTRUCTIONS.

TABLE OF CONTENTS

SHEET	DESCRIPTION
1	GENERAL NOTES
2	SAMPLE ELEVATIONS, FIXED OVER PROJECT-OUT
3	SAMPLE ELEVATIONS AND DP CHART, PROJECT-OUT
4-8	SECTION DETAILS
9	APPROVED GLAZING TYPES, GLAZING DETAILS
10	DESIGN PRESSURE CHARTS
11	PERIMETER ANCHOR DETAILS
12	EXTRUSION PROFILES, MATERIAL PARTS LIST



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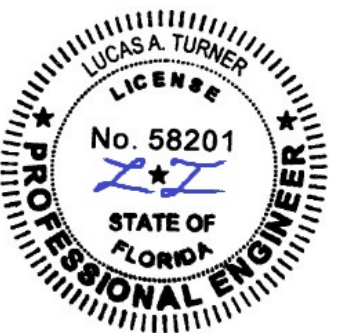
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CONSULTING, INC.
2428 OLD NATCHEZ TRACE TRL.
CAMDEN, TN 38320
PH. 941-380-1574

DRAWING NO. 8225TL-PO-FPA	PRODUCT 8225TL PO
FPA # FL44175	
DATE 10/21/2023	
SCALE NTS	SHEET 1 OF 12



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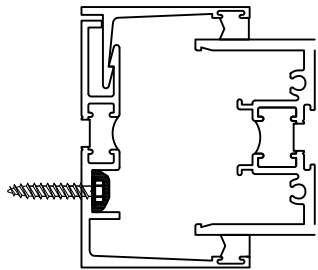


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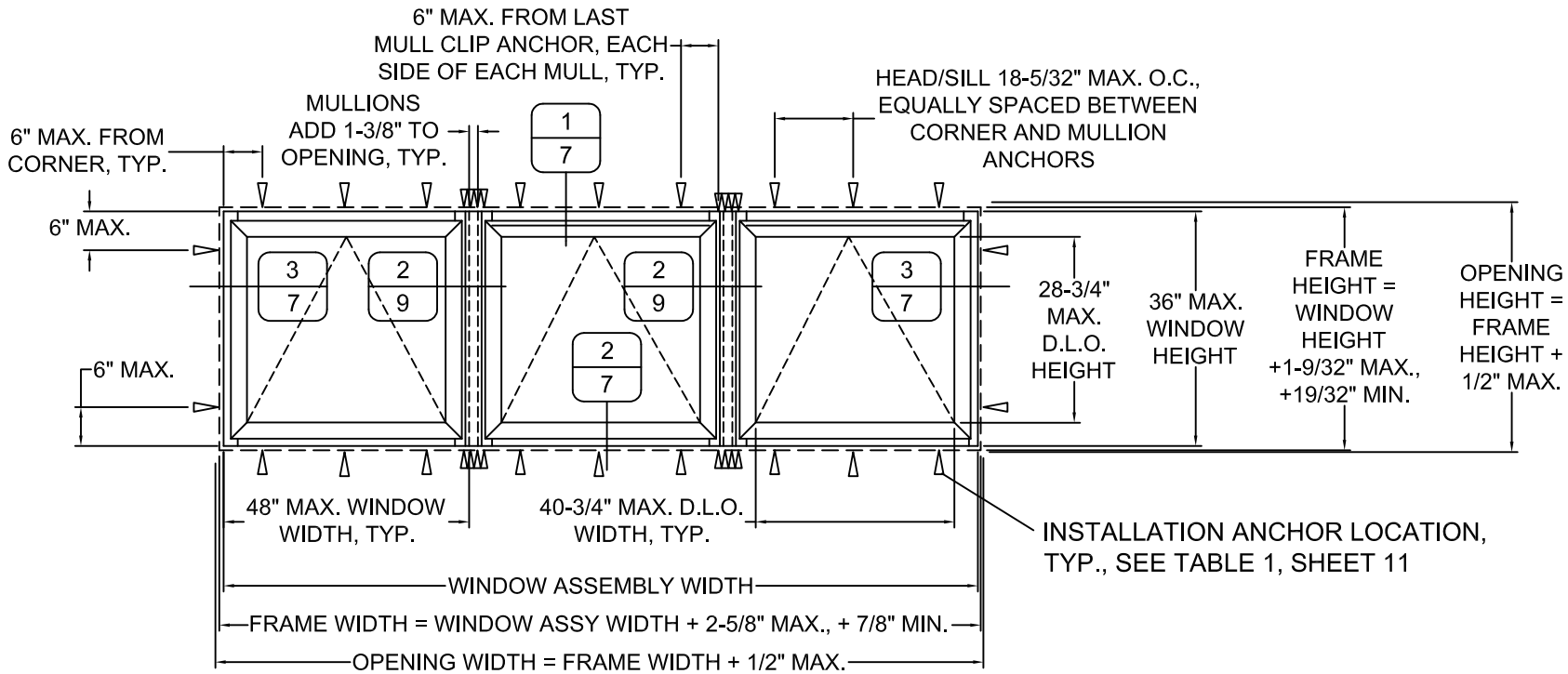
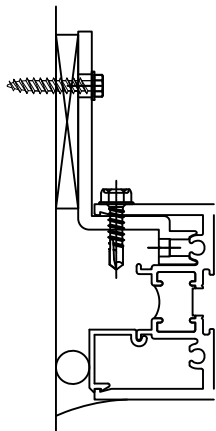
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FPA # FL44175	SHEET 2 OF 12
DATE 10/21/2023	
SCALE NTS	

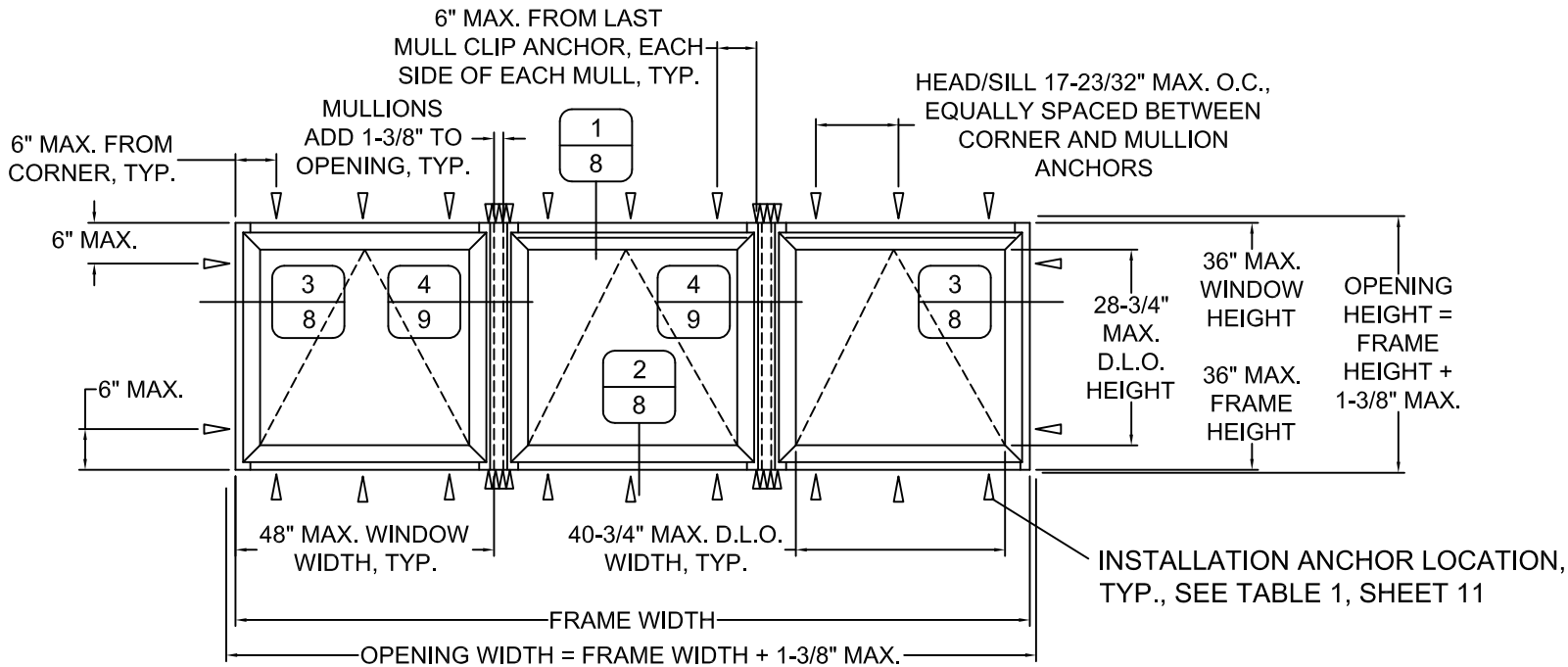
PROJECT-OUT
SAMPLE ELEVATIONS



PROJECT-OUT DP CHART (ALLOWABLE DESIGN PRESSURES) STRAP ANCHORAGE OR RECEPTOR/SUBSILL ANCHORAGE			
APPROVED GLASS TYPE(S) (SEE SHT 10)	APPROVED BACKBEDDING/ STRUCTURAL SILICONE TYPE (SEE SHT 10)	IMPACT RATING	DESIGN PRESSURE
			(+/- psf)
1	BB1	LARGE AND SMALL MISSILE	90
2 OR 3	BB5	SMALL MISSILE	90



SAMPLE ELEVATION, PROJECT-OUT WINDOWS
WITH RECEPTOR/SUBSILL ANCHORAGE



SAMPLE ELEVATION, PROJECT-OUT WINDOWS
WITH STRAP ANCHORAGE



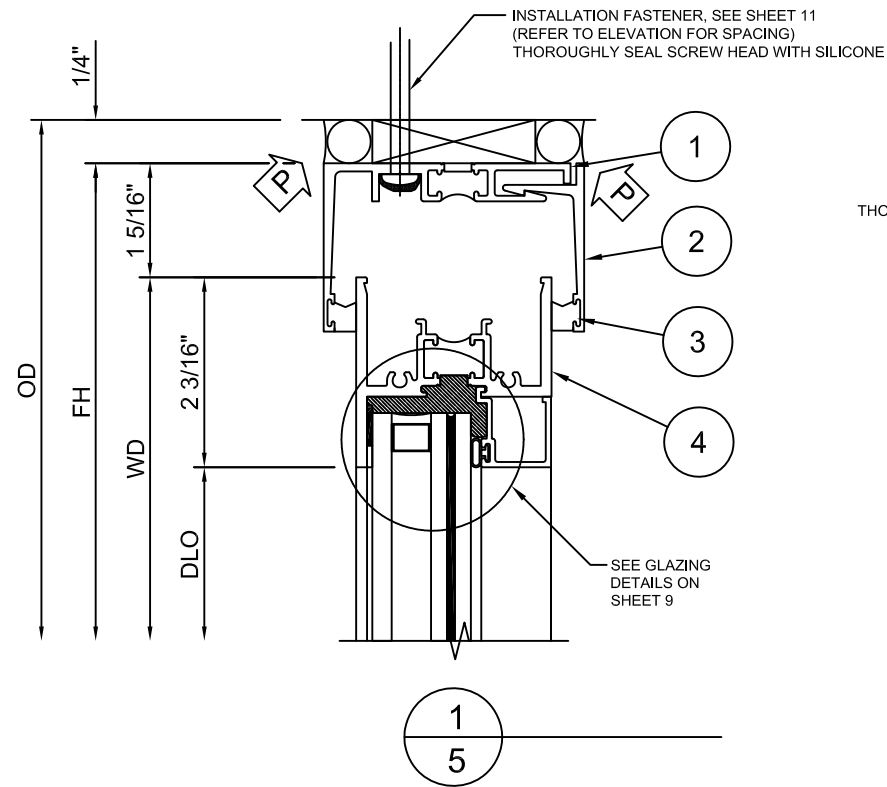
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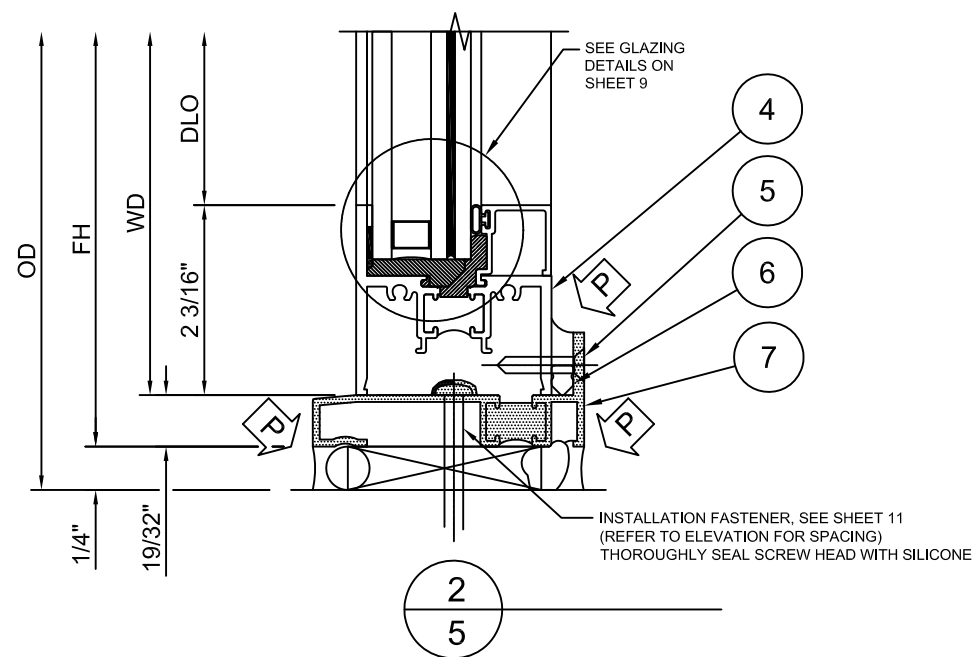
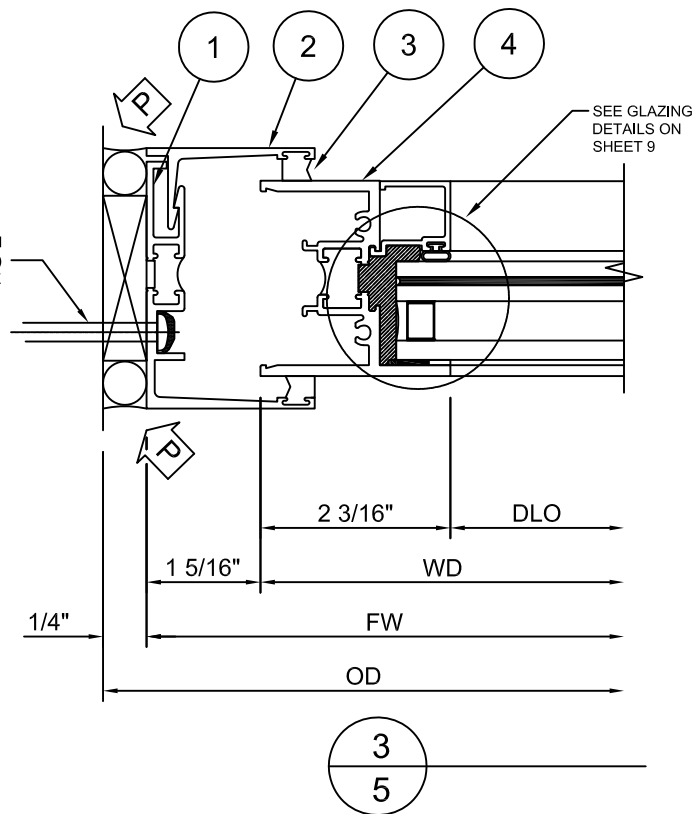
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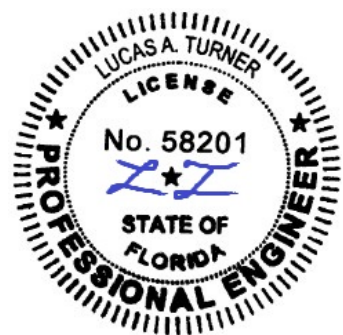
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FPA # FL44175	
DATE 10/21/2023	
SCALE NTS	SHEET 3 OF 12



INSTALLATION FASTENER, SEE SHEET 11
(REFER TO ELEVATION FOR SPACING)
THOROUGHLY SEAL SCREW HEAD WITH SILICONE



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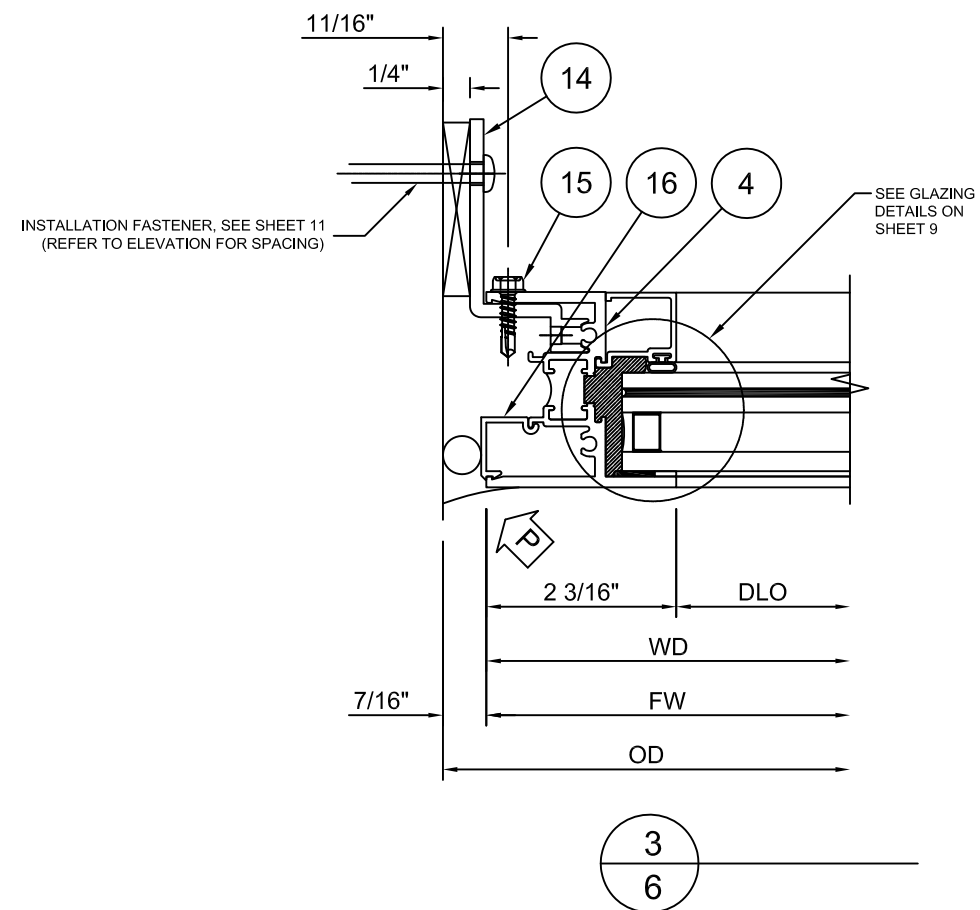
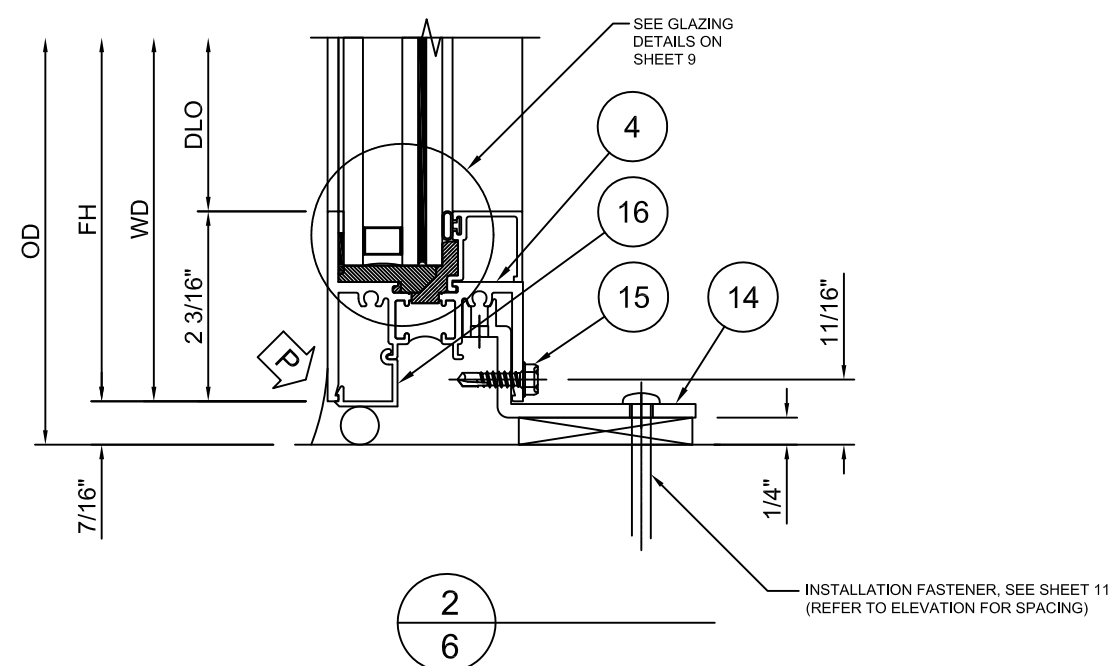
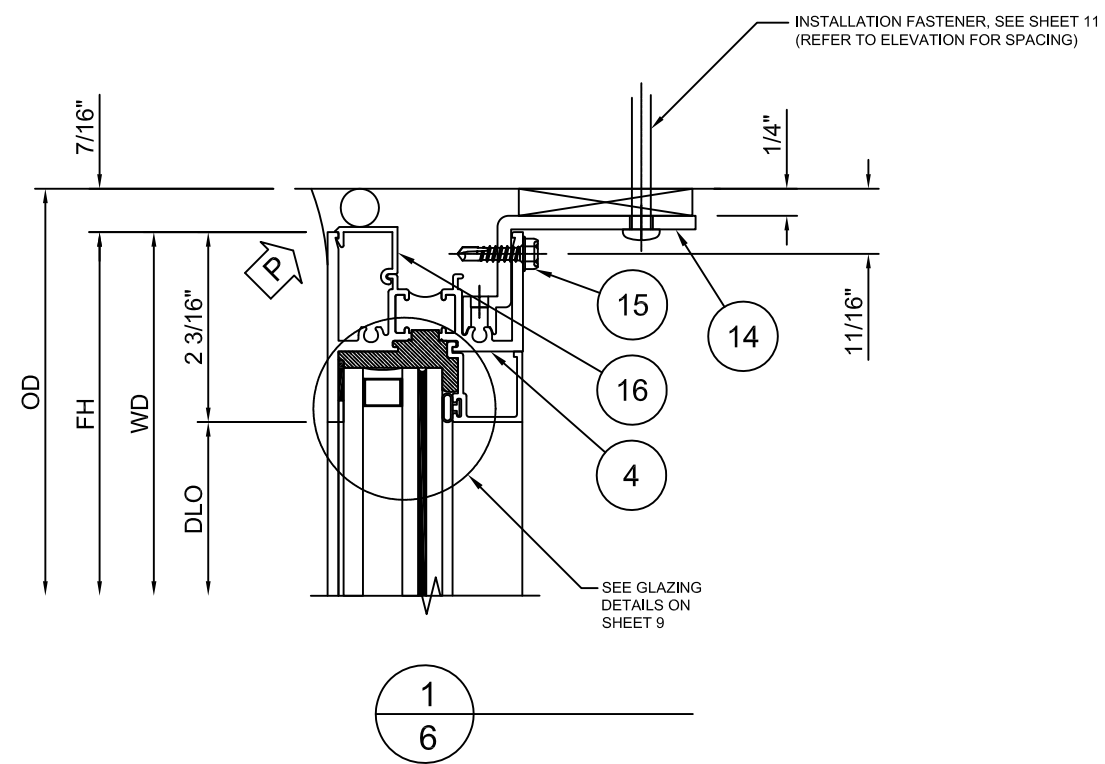


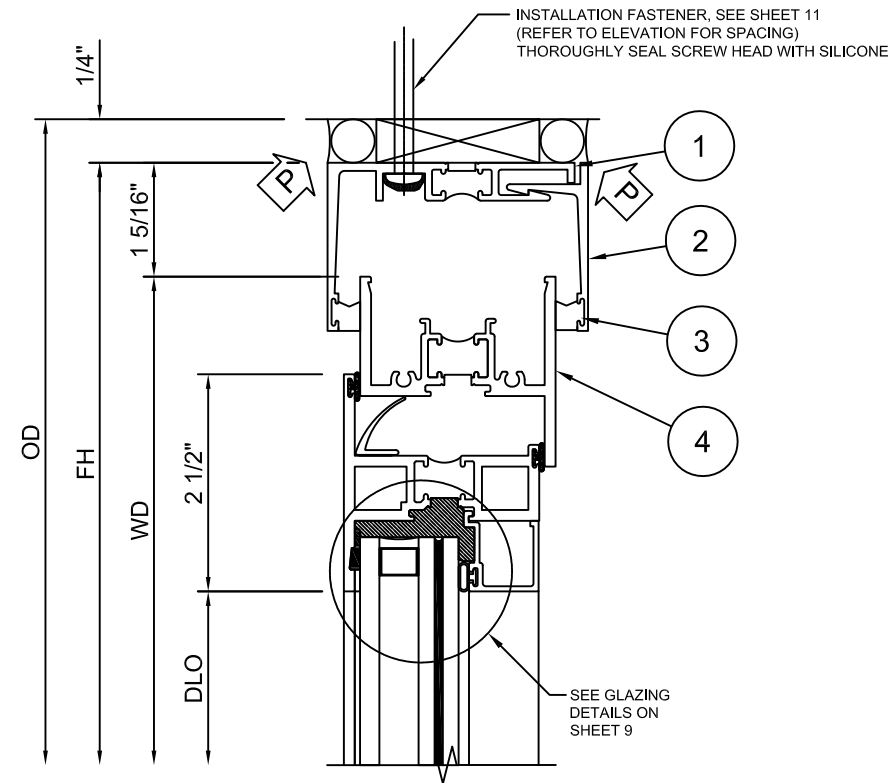
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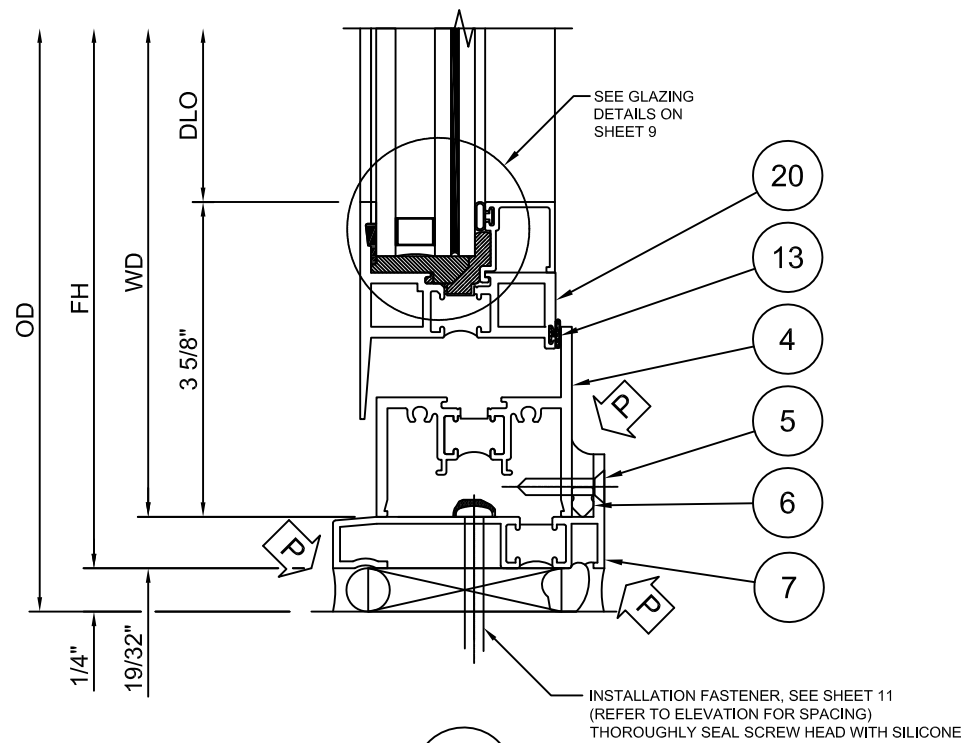
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FPA # FL44175	
DATE 10/21/2023	
SCALE NTS	SHEET 4 OF 12

REV. #	DATE
1	8/18/2026
-	10/21/2023
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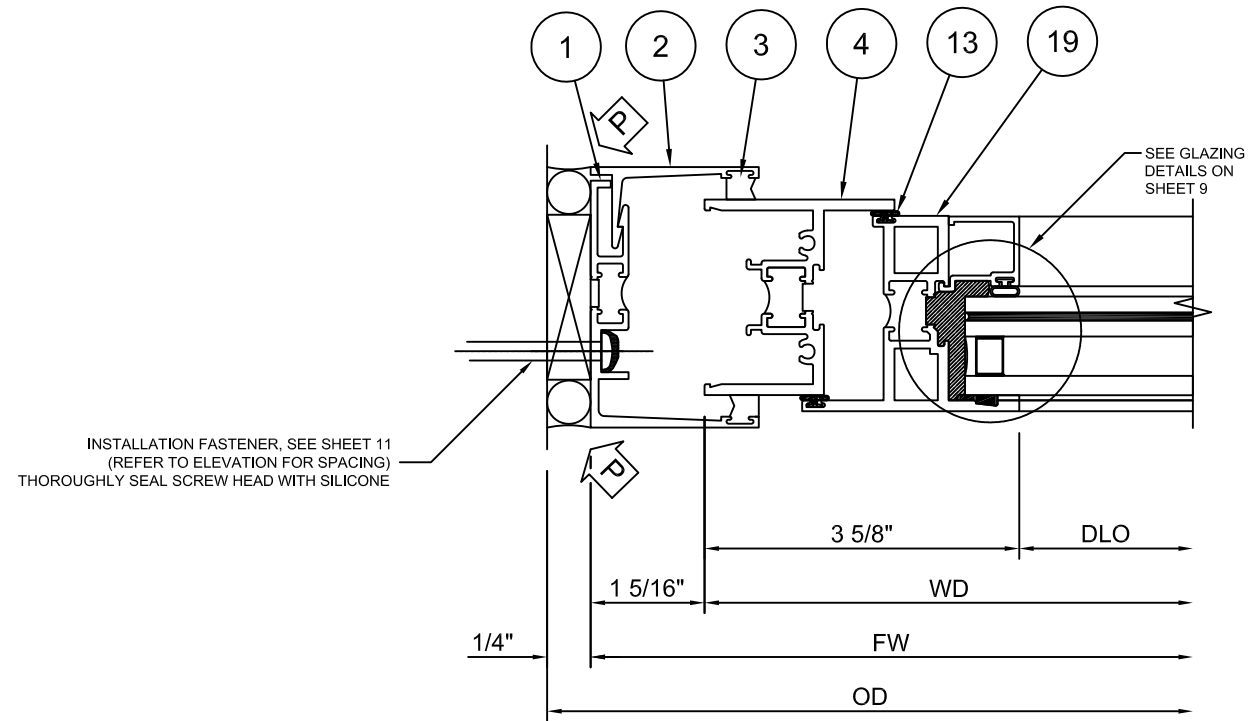
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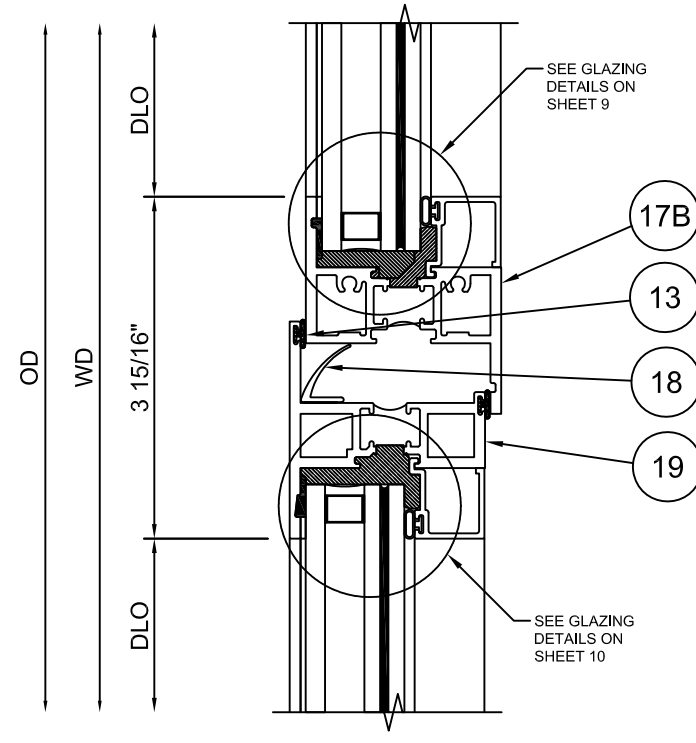
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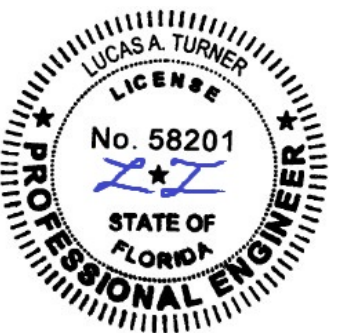
3
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4
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P PERIMETER SEALS
(BY OTHERS)

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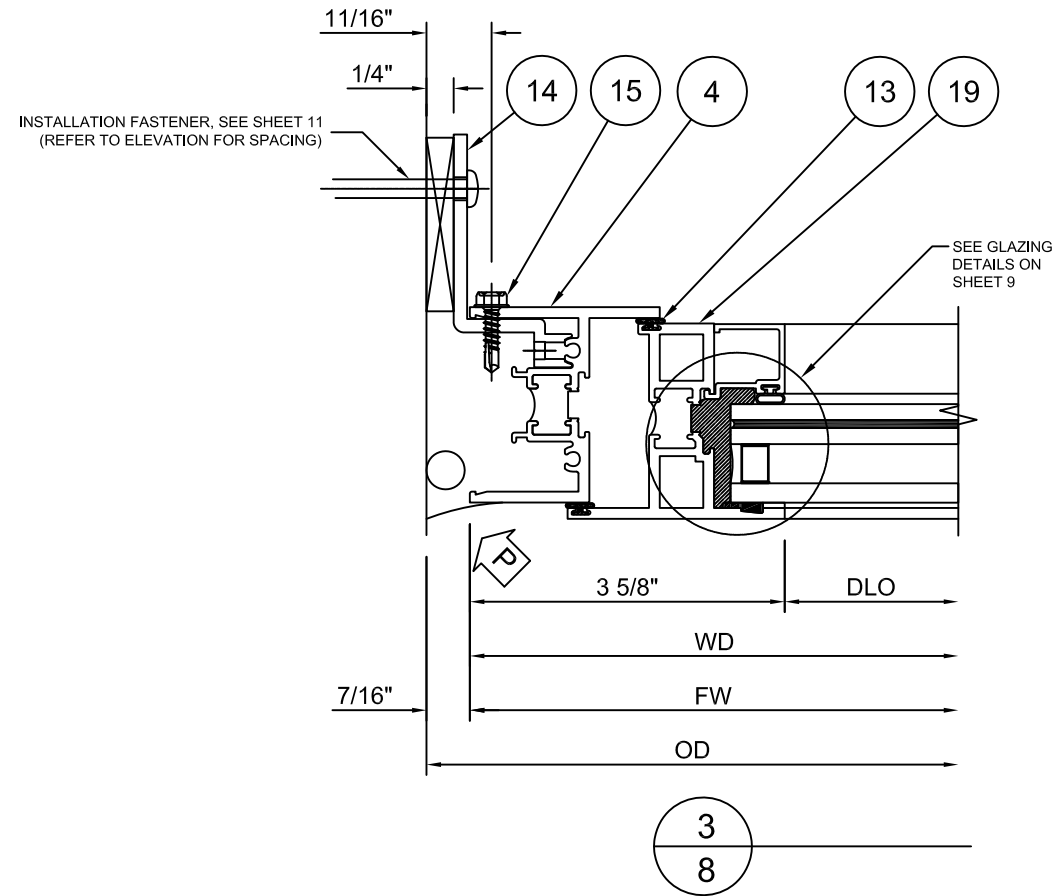
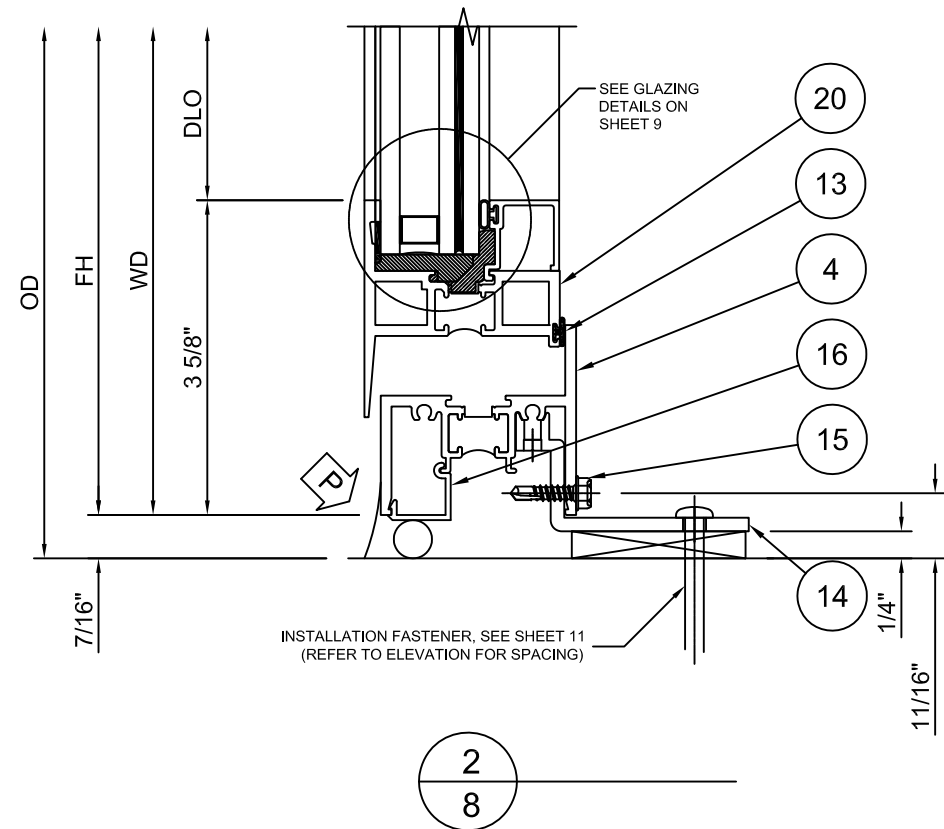
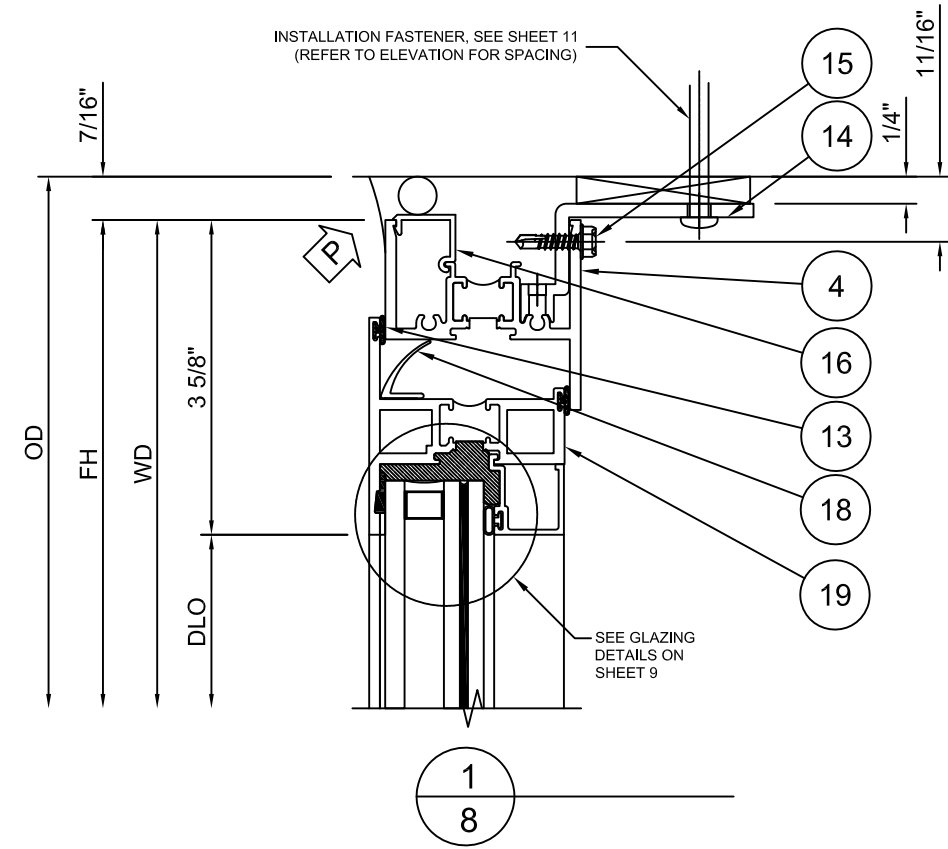


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FPA # FL44175	
DATE 10/21/2023	
SCALE NTS	SHEET 6 OF 12

REV. #	DATE
1	8/18/2026
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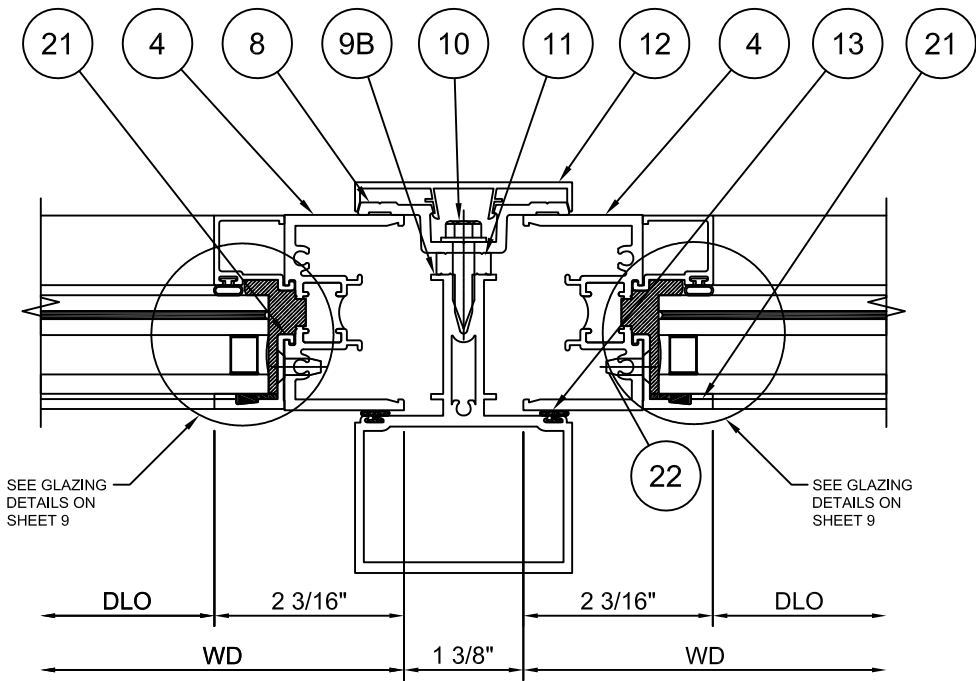


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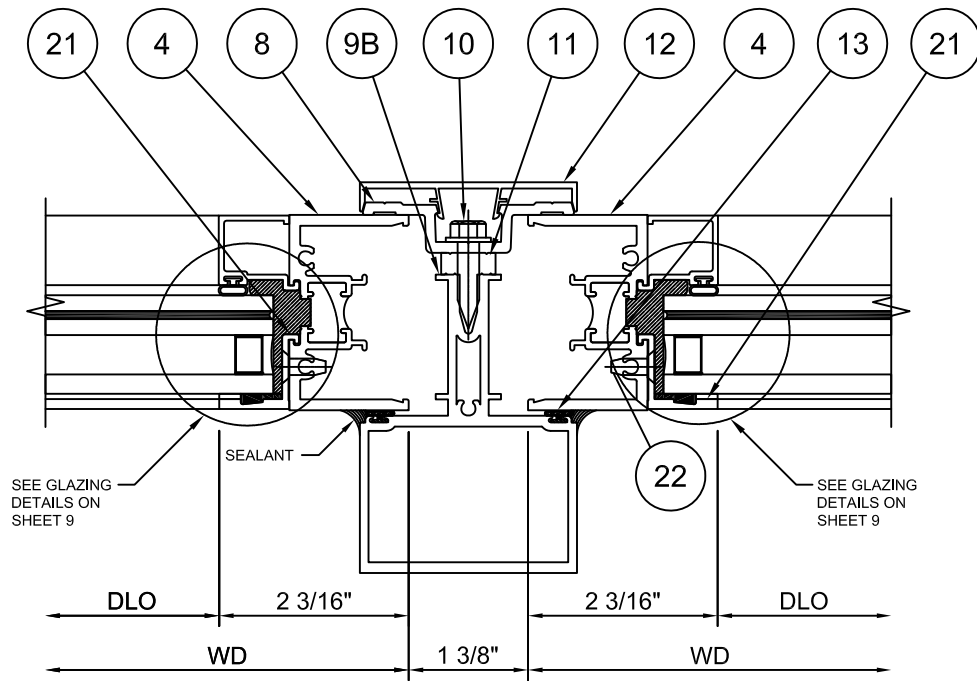
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FPA # FL44175	
DATE 10/21/2023	
SCALE NTS	SHEET 7 OF 12

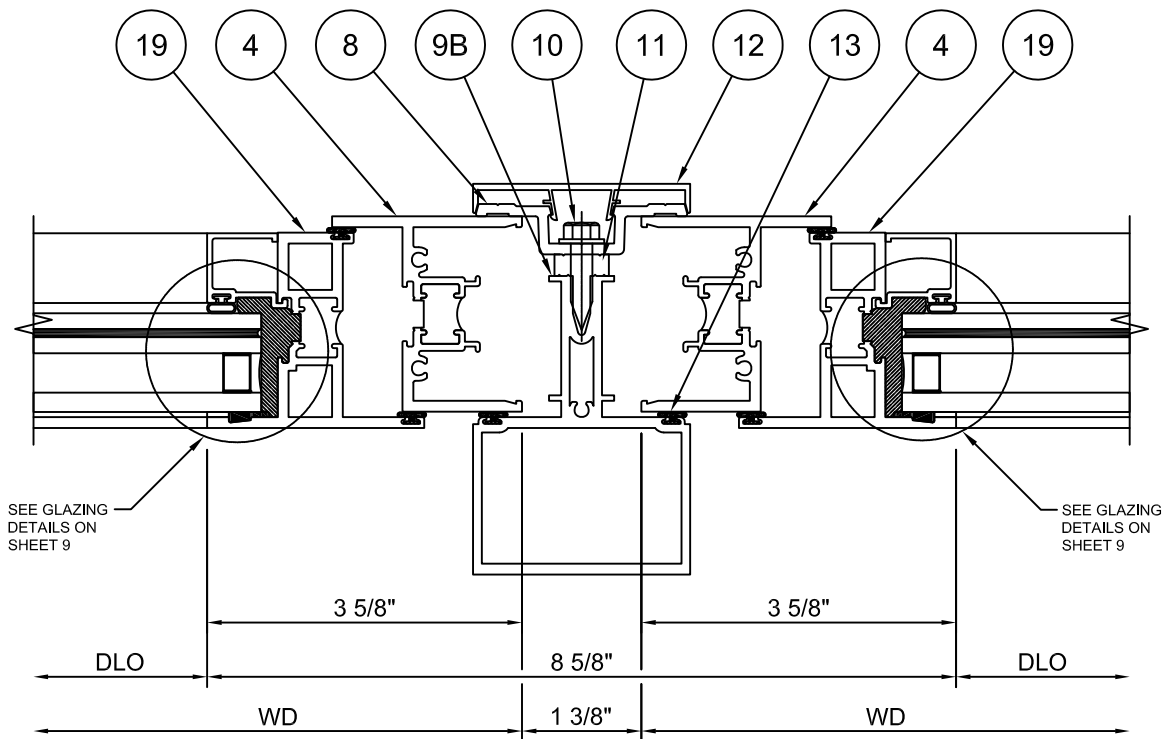
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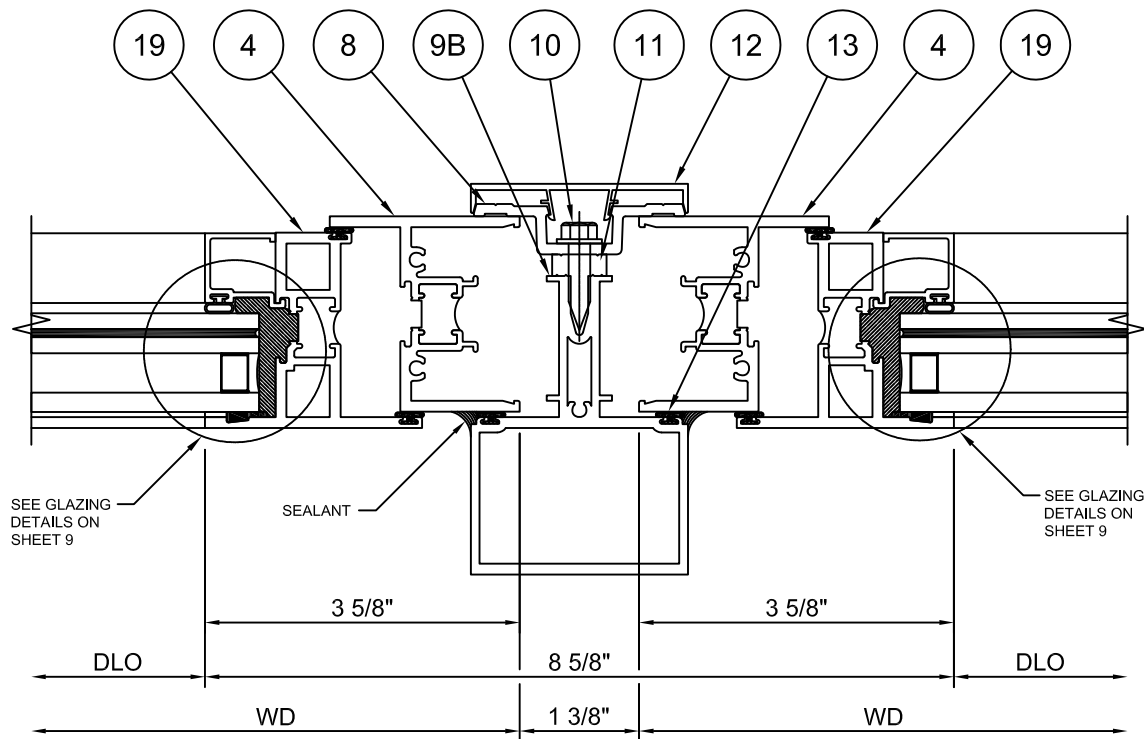
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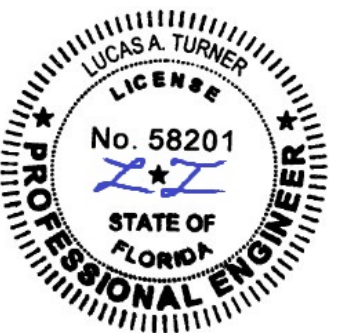
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PRODUCT
8225TL PO

FPA #
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SCALE
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SHEET 8 OF 12

8/18/2026

10/21/2023

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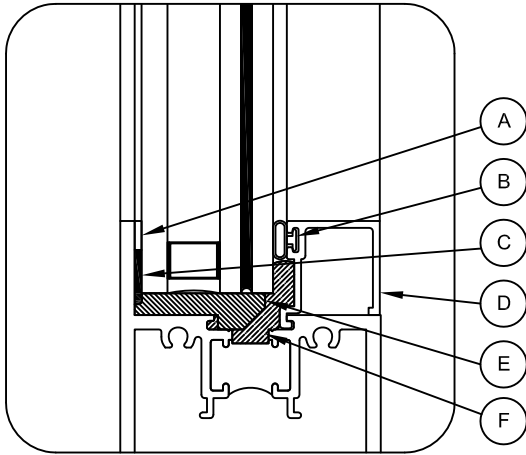
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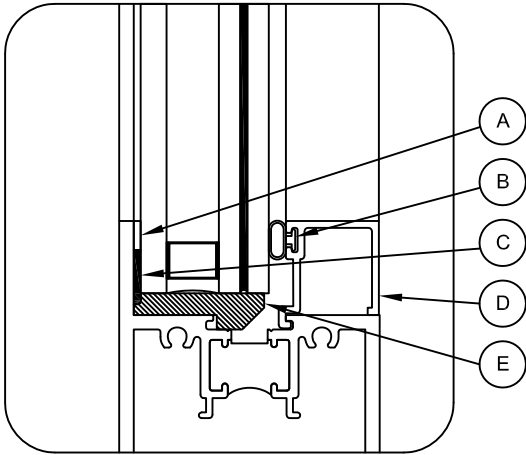
APPROVED GLAZING TYPES							
MISSILE RATING	TYPE	NOMINAL THICKNESS	DESCRIPTION	MISSILE RATING	TYPE	NOMINAL	DESCRIPTION
LARGE AND SMALL MISSILE	1	1-1/8" (1.125")	1/4" FT OUTBOARD, 7/16" AIR SPACER, 3/16" HS INBOARD, 0.090 KURARAY SG, 3/16" HS INBOARD - WET GLAZE	SMALL MISSILE ONLY	2	1-1/8" (1.125")	1/4" FT OUTBOARD, 7/16" AIR SPACER, 3/16" HS INBOARD, 0.060 KURARAY PVB, 3/16" HS INBOARD - DRY GLAZE
					3	1-1/8" (1.125")	1/4" FT OUTBOARD, 7/16" AIR SPACER, 3/16" HS INBOARD, 0.060 EASTMAN SAFLEX PVB, 3/16" HS INBOARD - DRY GLAZE

GLAZING DETAIL:
LARGE AND SMALL
MISSILE IMPACT
GLASS TYPE 1



- A 127186 GLAZING TAPE
B 127074 BULB WEATHERING (SHORE "A" 65±5 DUROMETER TAPE)
C BACK BEDDING SILICONE, SEE TABLE BELOW *
D 224166 GLASS BEAD
E 127106 SETTING BLOCK (SILL ONLY)
F STRUCTURAL SILICONE, SEE TABLE BELOW **

GLAZING DETAIL:
SMALL MISSILE IMPACT
GLASS TYPE 2 & 3



- A 127186 GLAZING TAPE
B 127074 BULB WEATHERING (SHORE "A" 65±5 DUROMETER TAPE)
C BACK BEDDING SILICONE, SEE TABLE BELOW *
D 224166 GLASS BEAD
E 127106 SETTING BLOCK (SILL ONLY)

GLAZING NOTES:
1) INFILL SIZE FORMULA DLO + 1 1/4" UNLESS OTHERWISE NOTED.
2) SETTING BLOCKS FBC 2411.3.3.1 COMPLIANT

APPROVED BACKBEDDING / STRUCTURAL SILICONE				
DESIGNATION	GLASS TYPE	IMPACT RATING	* BACK BEDDING SILICONE	** STRUCTURAL SILICONE
BB1	1	LMI OR SMI	RGS7700 RAPIDSTRENGTH	SCS2000 SILPRUF
BB5	2 3	SMI	RGS7700 RAPIDSTRENGTH	NONE REQ'D



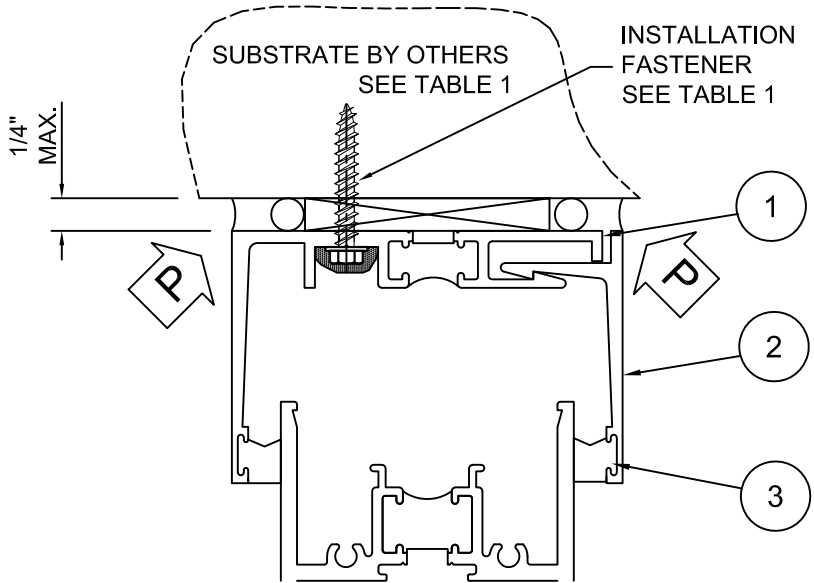
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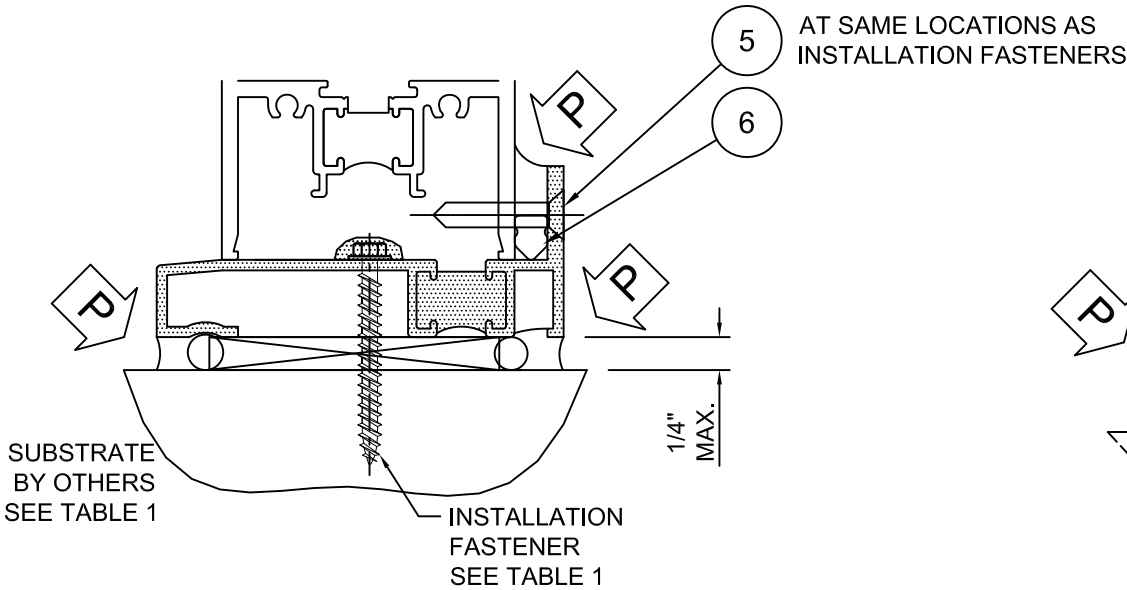
DRAWING NO. 8225TL-PO-FPA	PRODUCT 8225TL PO
FPA # FL44175	SHEET 9 OF 12
DATE 10/21/2023	
SCALE NTS	

TABLE 1. QUALIFIED ANCHOR INFORMATION

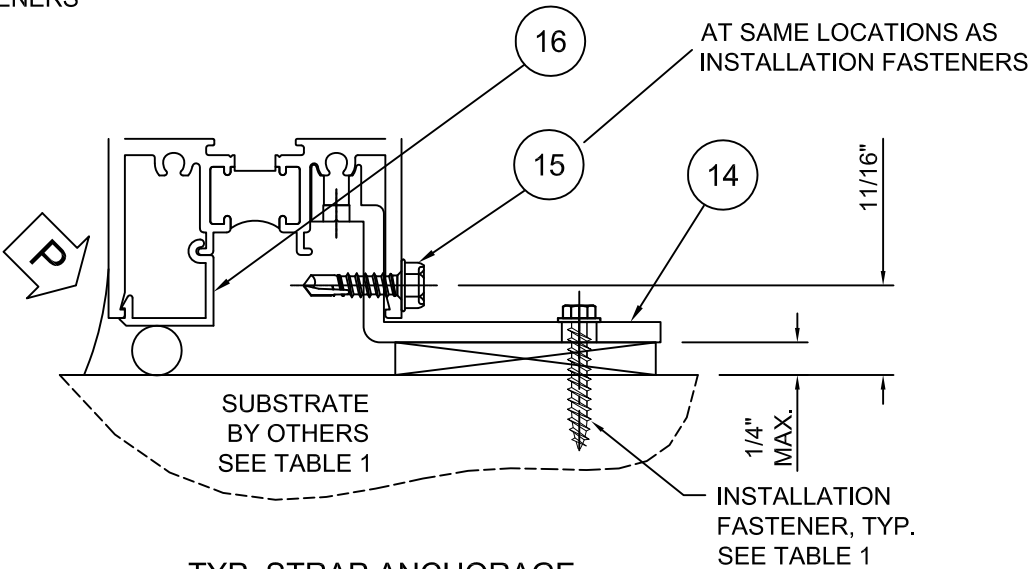
ID	SUBSTRATE	ANCHOR	MIN. EMBEDMENT	MIN. EDGE DISTANCE
A	SOLID UNCRACKED CONCRETE (2850 PSI MIN.)	1/4" DEWALT COATED CARBON STEEL ULTRACON+	1 3/4"	2 1/2"
B	UNCRACKED CMU (ASTM C-90) (JAMBS ONLY)	1/4" DEWALT COATED CARBON STEEL ULTRACON+	1 1/4"	2 1/2"
C	2x MIN. SOUTHERN PINE WOOD (G=0.55 MIN)	#12 GRADE 5 WOOD SCREW	2"	1"
D	16 GAUGE (0.060") MIN. STEEL STUD (33 KSI YIELD MIN.) OR 1/8" MIN. ALUMINUM (6063-T5 MIN.) OR 1/8" MIN. A36 STEEL	#1/4-14 ITW TEKS SELF-DRILLING SCREW	FULL + 3 THREADS	1/2"



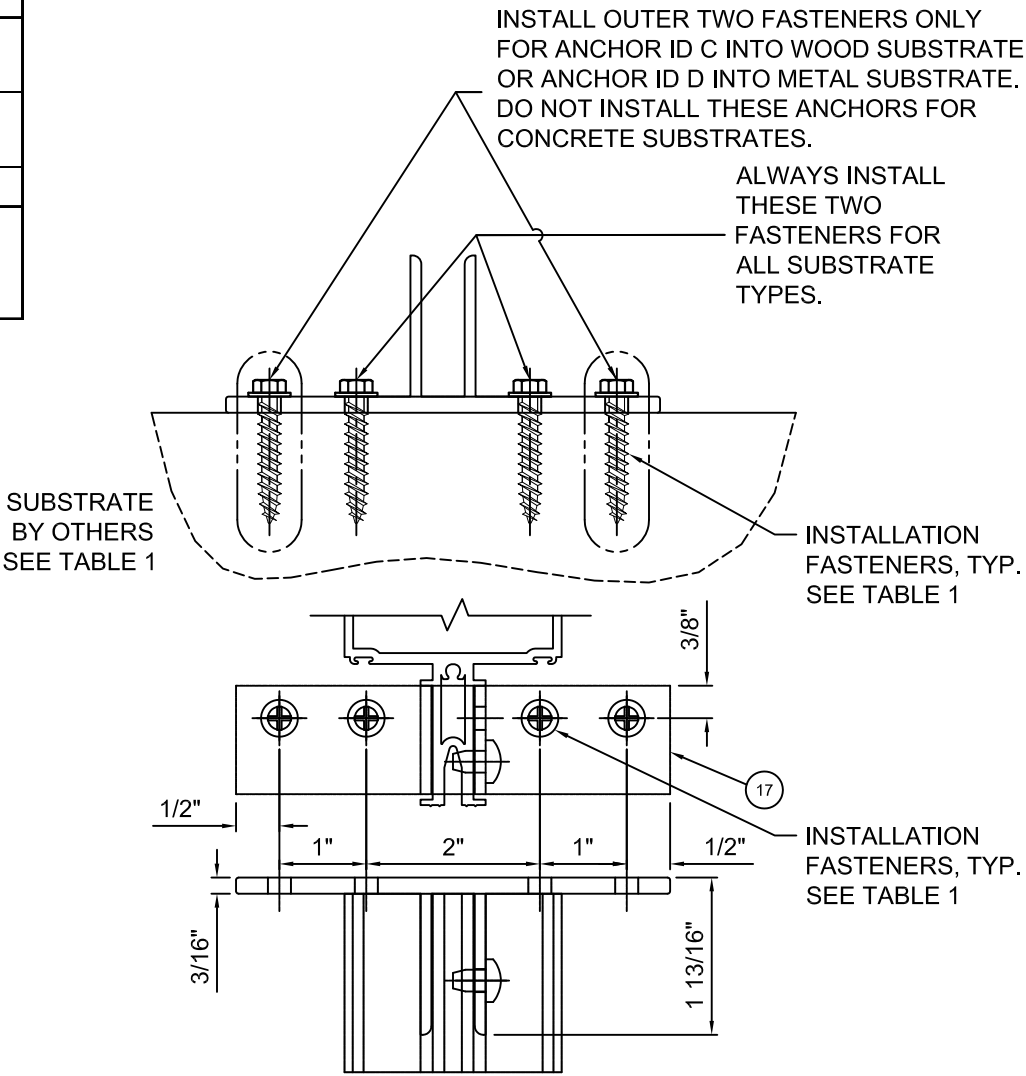
TYP. RECEPTOR ANCHORAGE
HEAD/JAMB



TYP. SUBSILL ANCHORAGE



TYP. STRAP ANCHORAGE
HEAD/SILL/JAMB



TYP. MULLION CLIP ANCHORAGE
HEAD/SILL, EACH MULL

INSTALL OUTER TWO FASTENERS ONLY FOR ANCHOR ID C INTO WOOD SUBSTRATE OR ANCHOR ID D INTO METAL SUBSTRATE. DO NOT INSTALL THESE ANCHORS FOR CONCRETE SUBSTRATES.

ALWAYS INSTALL THESE TWO FASTENERS FOR ALL SUBSTRATE TYPES.



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DATE 10/21/2023	
SCALE NTS	SHEET 11 OF 12

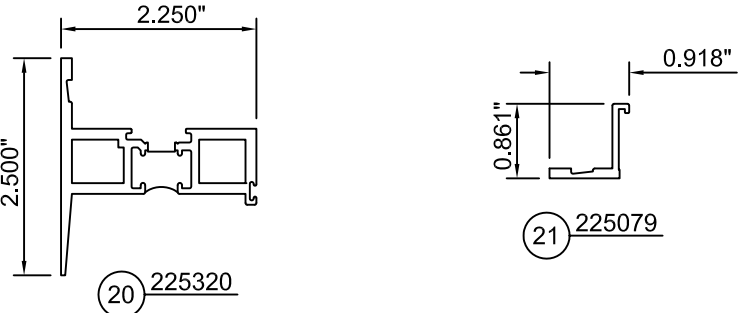
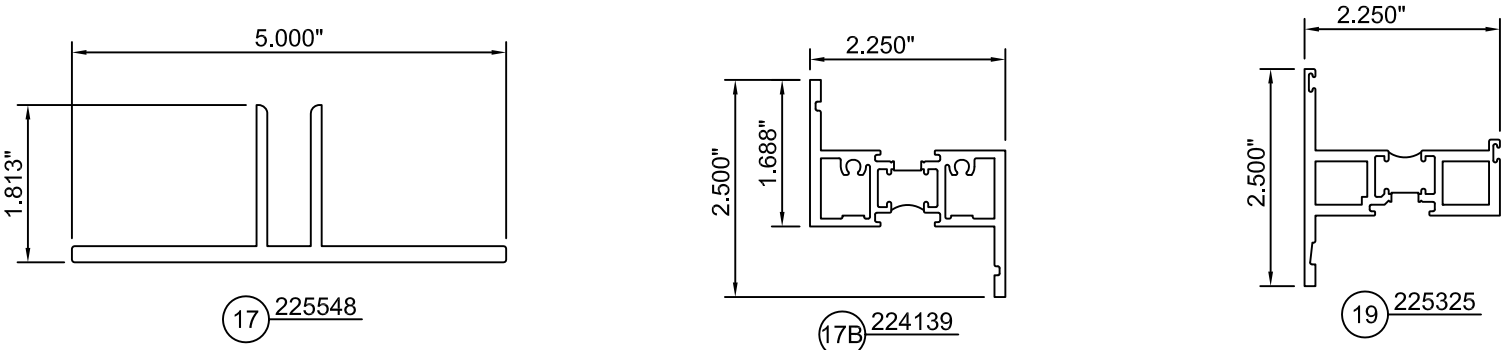
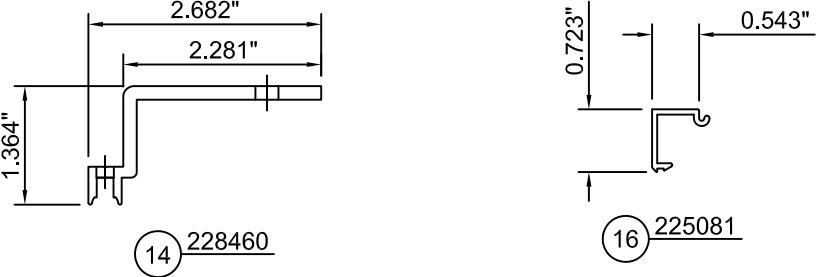
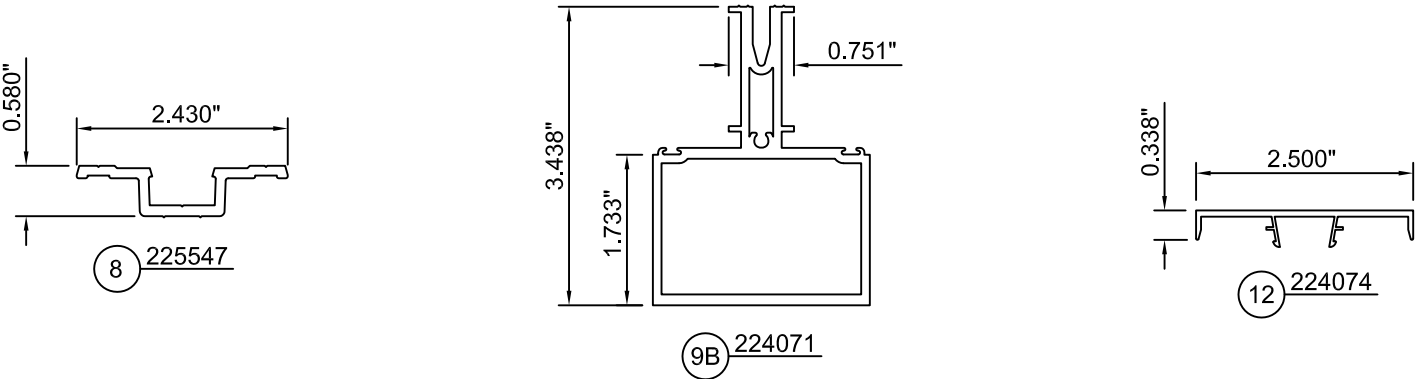
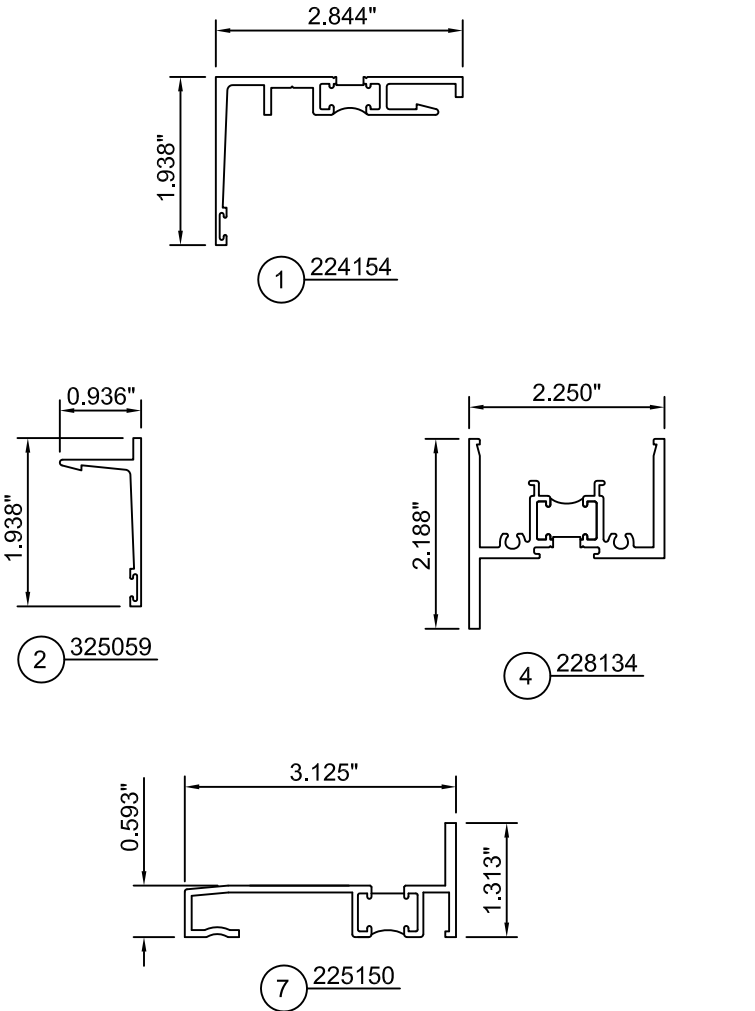
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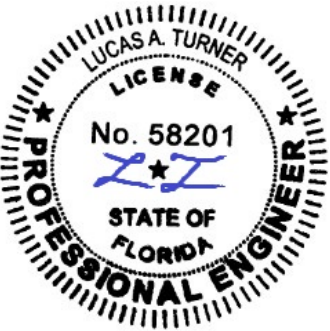
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					1	-	REV. #
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8225TL - THERMAL WINDOWS MATERIAL PARTS LIST

NO.	PART NO.	DESCRIPTION	DIMENSIONS	MATERIAL
EXTRUSIONS & MISC. PARTS				
1	224154	TWO PIECE RECEPTOR	1.938 x 2.844 x 0.080	6063-T6 ALUMINUM
2	325059	TWO PIECE RECEPTOR STOP	1.938 x 0.936 x 0.090	6063-T6 ALUMINUM
3	027883	RECEPTOR WEATHERING	0.349 x 3.849 x 0.040	SANTOPRENE / POLYPROPYLENE
4	228134	REVERSIBLE FRAME FOR 0.125" WALL	2.188 x 2.250 x 0.125	6063-T6 ALUMINUM
5	028520	FASTENER	10 x 1 CRFCHTFS AB	300 SERIES STAINLESS STEEL
6	127038	1/4" BACK UP WEDGE	0.250 x 0.340	BLACK SCR-900
7	225150	FULL DEPTH SUB SILL	1.313 x 3.125 x 0.080	6063-T6 ALUMINUM
8	225547	STRUCTURAL MULLION PRESS PLATE	2.430 x 0.581 x 0.125	6063-T6 ALUMINUM
9B	224071	STRUCTURAL MULLION 1-13/16" PROJECTION	2.500 x 3.453 x 0.100	6063-T6 ALUMINUM
10	128406	FASTENER	1/4 x 1 HWHTFS AB	18-8 STAINLESS STEEL
11	162310	THERMAL BREAK	0.626 x 5.850	BLACK EPDM, PEROXIDE
12	224074	STRUCTURAL MULLION COVER	2.500 x 3.338 x 0.072	6063-T6 ALUMINUM
13	027874	WEATHERING	0.187 x 0.200	VYRAM OR EQ. / POLYPROPYLENE OR EQ. / SANTOPRENE OR EQ.
14	228460	STRAP ANCHOR	2.682 x 1.365 x 0.156	6063-T6 ALUMINUM
15	128961	FASTENER	10-16 x 3/4 HWHSMD	400 SERIES STAINLESS STEEL
16	225081	EXTERIOR SEALANT BACKUP	0.705 x 0.663 x 0.060	6063-T6 ALUMINUM
17	225548	HEAVYWEIGHT MULL AHR CLIP	5 x 1.250 x 1.813	6063-T6 ALUMINUM
17B	224139	ZEE INTERMEDIATE	1.688 x 2.250 x 0.125	6063-T6 ALUMINUM
18	127265	WATER DEFLECTION GASKET	0.495 x 0.760	SANTOPRENE 8201-80 / 10 MIL TRANSFER TAPE
19	225325	1/8" WALL PROJECT OUT VENT SILL	2.500 x 2.250 x 0.125	6063-T6 ALUMINUM
20	225320	1/8" WALL PROJECT OUT VENT SILL	2.500 x 2.250 x 0.125	6063-T6 ALUMINUM
21	225079	REVERSE PROJECTION ADAPTOR	0.861 x 0.808 x 0.070	6063-T6 ALUMINUM
22	128415	FASTENER	10 x 1/2 FHTF B	STAINLESS STEEL AUSTENITIC



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8/18/2026
LUCAS A. TURNER
FL P.E. #58201

TURNER ENGINEERING &
CONSULTING, INC.
2428 OLD NATCHEZ TRACE TRL.
CAMDEN, TN 38320
PH. 941-380-1574

DRAWING NO. 8225TL-PO-FPA	PRODUCT 8225TL PO
FPA # FL44175	SHEET 12 OF 12
DATE 10/21/2023	
SCALE NTS	

2026 FBC UPDATE
INITIAL RELEASE
PRINTS ISSUED FOR

8/18/2026	10/21/2023	DATE
1	-	REV. #