



# THERMAL ALUMINUM DOOR

## **Features**

- Very high thermal performance - 0.31 Btu/h-ft<sup>2</sup>-F
- Double fin seal around perimeter of door
- Air leakage 1.23 L/s/m<sup>2</sup> (0.24 cfm/ft<sup>2</sup>). Pass Water Penetration Resistance PG25, 180 Pa (3.76 psf)
- One piece face extrusion eliminates glass stop for clean design
- Stepped threshold meets ADA requirements and provides water stop
- C-channel door structure separate from thermal break for long lasting durability

## **Dimensions**

- Medium stile has 4" (102mm) vertical stile, 4" (102mm) top and 4" (102mm) bottom
- Option for 8" (203mm) or 10" (254mm) bottom
- Door depth 2 ¼" (57mm)
- Infills 1" (25.4mm)

## **Available finishes**

- Clear anodized finish (Class 1)
- Black/bronze anodized finish (Class 1)
- Custom color powder or Duracron. Compliant to AAMA 2604
- Option for different finish on interior and exterior

## **Hardware configuration**

- Continuous gear hinge
- Compatible with North American door locking and panic hardware
- Standard 9" commercial d-pull. Other pull styles available

## **Product Applications**

- Swing door entrances needing durability of aluminum, high thermal performance, and high air/water penetration performance

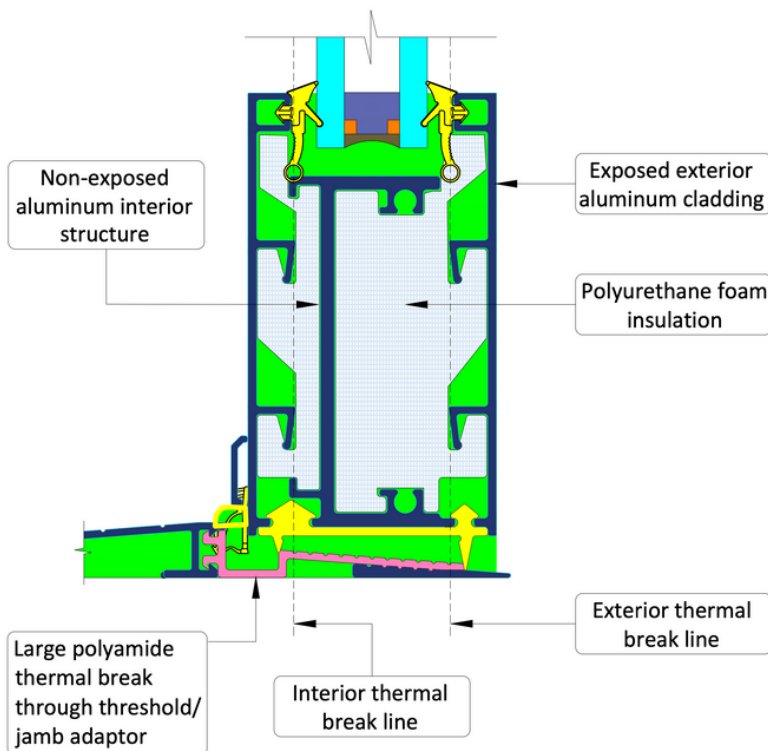
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# EXPLANATION OF THERMAL PERFORMANCE



 <p><b>LAYTON</b> CONSULTING LTD</p> <p>GLAZING, CLADDING, &amp; SPECIALTY STRUCTURAL ENGINEERING Suite 233 - 18525 53<sup>rd</sup> Ave., Surrey, BC, Canada, V3S 7A4</p>	Project:			Project No:		
	Acro Aluminum Swing Door Thermal Simulation Report			1510-17133		
	Product Models			Client:		
Acro Aluminum Swing Doors			Acro Aluminum Inc			
Calc. by	Simulation Date	Chk'd by	Report Date	Revision	Page:	
TW	Jun 14, 2023	TL	Jun 15, 2023	R1	5	

### Insulated Glazing Unit (IGU) Details:

**G1:** LoE<sup>2</sup> 272 on 6 mm Clear (Surface #2,  $\epsilon = 0.042$ ) / 12.7mm Air (10%) - Argon (90%) Mix / Generic Clear Glass (Total Thickness = 24.1mm)

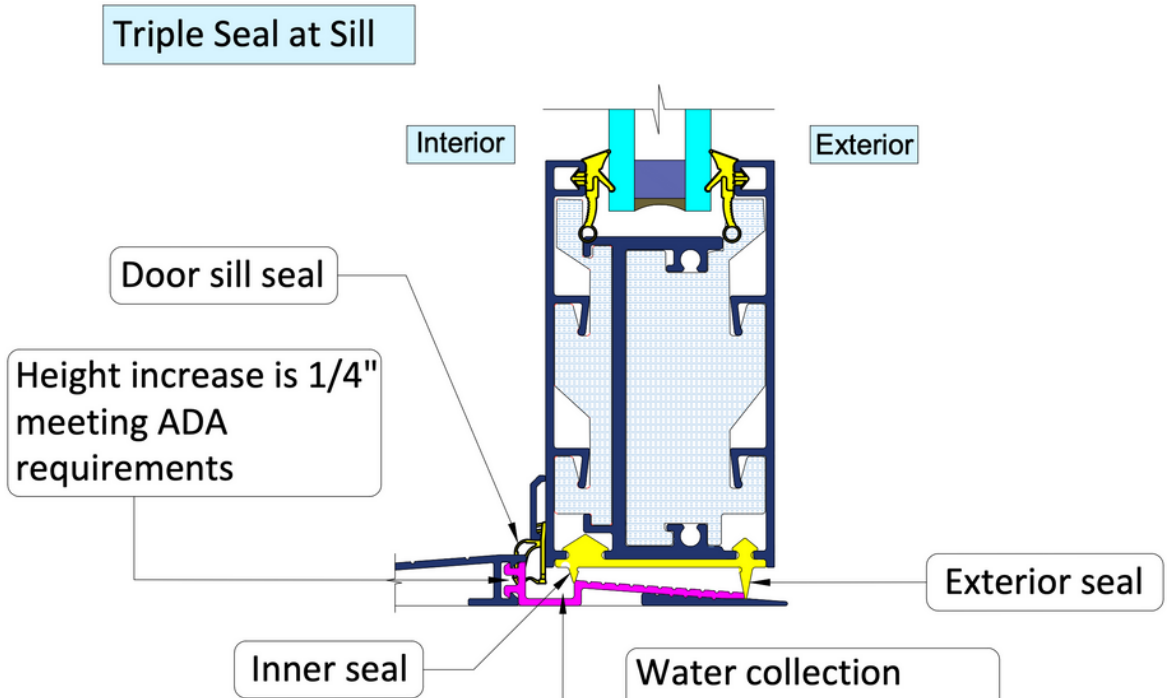
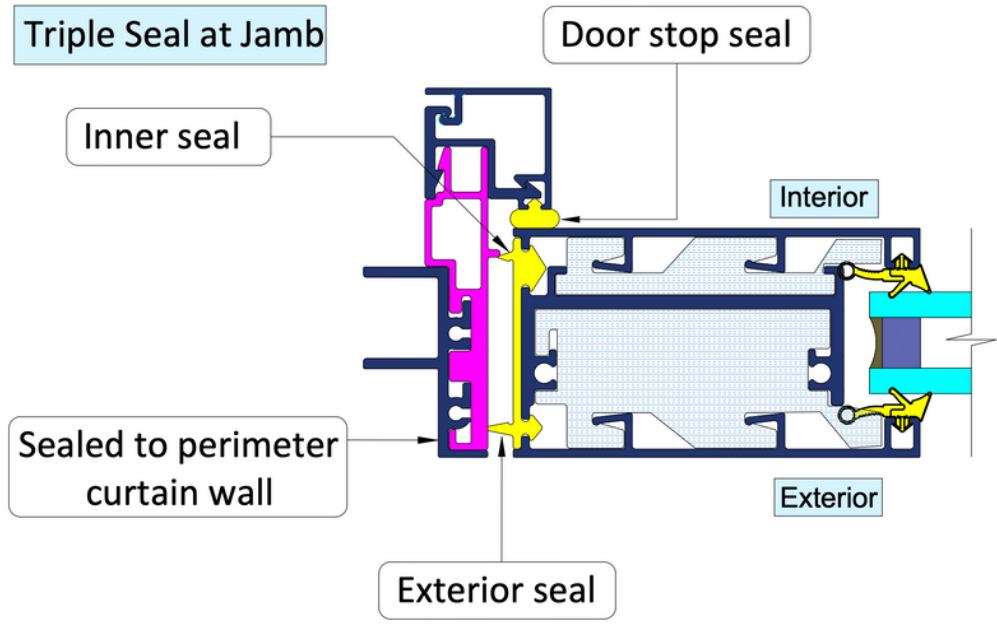
**G2:** LoE<sup>2</sup> 272 on 6 mm Clear (Surface #2,  $\epsilon = 0.042$ ) / 12.7mm Air (10%) - Argon (90%) Mix / i89 on 6mm Clear (Surface #4,  $\epsilon = 0.149$ ) (Total Thickness = 24.1mm)

## RESULTS

**Table 2: Thermal Modelling Result**

Product Name	Glazing Type	Width x Height (mm)	U-Value (W/m <sup>2</sup> -K)	U-Value (Btu/h-ft <sup>2</sup> -°F)	SHGC	VT
Single Door 1-Low-E	G1	960 x 2090	1.76	0.31	0.26	0.46
Single Door 2-Low-E	G2	960 x 2090	1.56	0.27	0.25	0.43
Double Door 1-Low-E	G1	1920 x 2090	1.73	0.30	0.27	0.47
Double Door 2-Low-E	G2	1920 x 2090	1.52	0.27	0.25	0.44

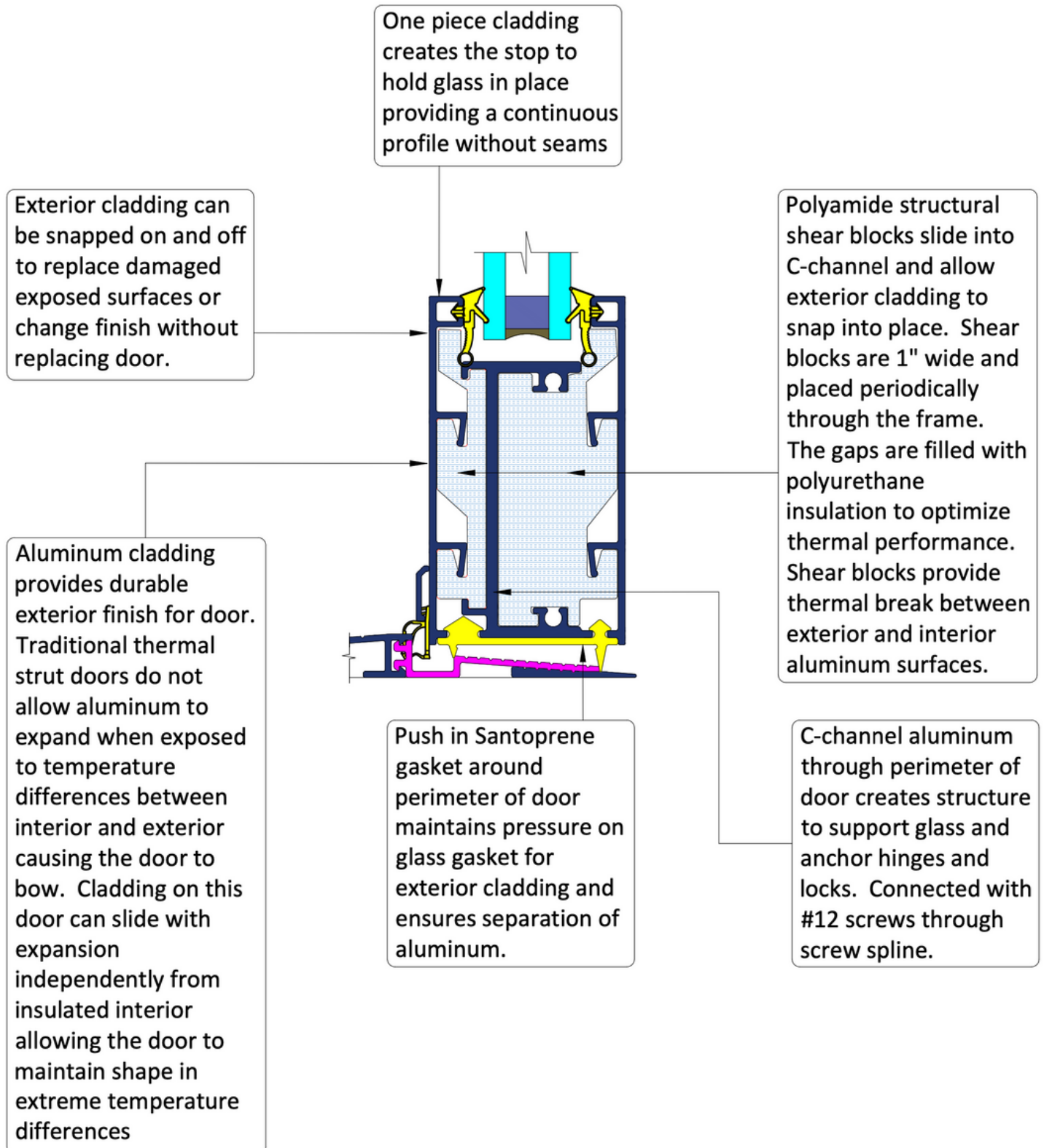
# EXPLANATION OF AIR/WATER PENETRATION



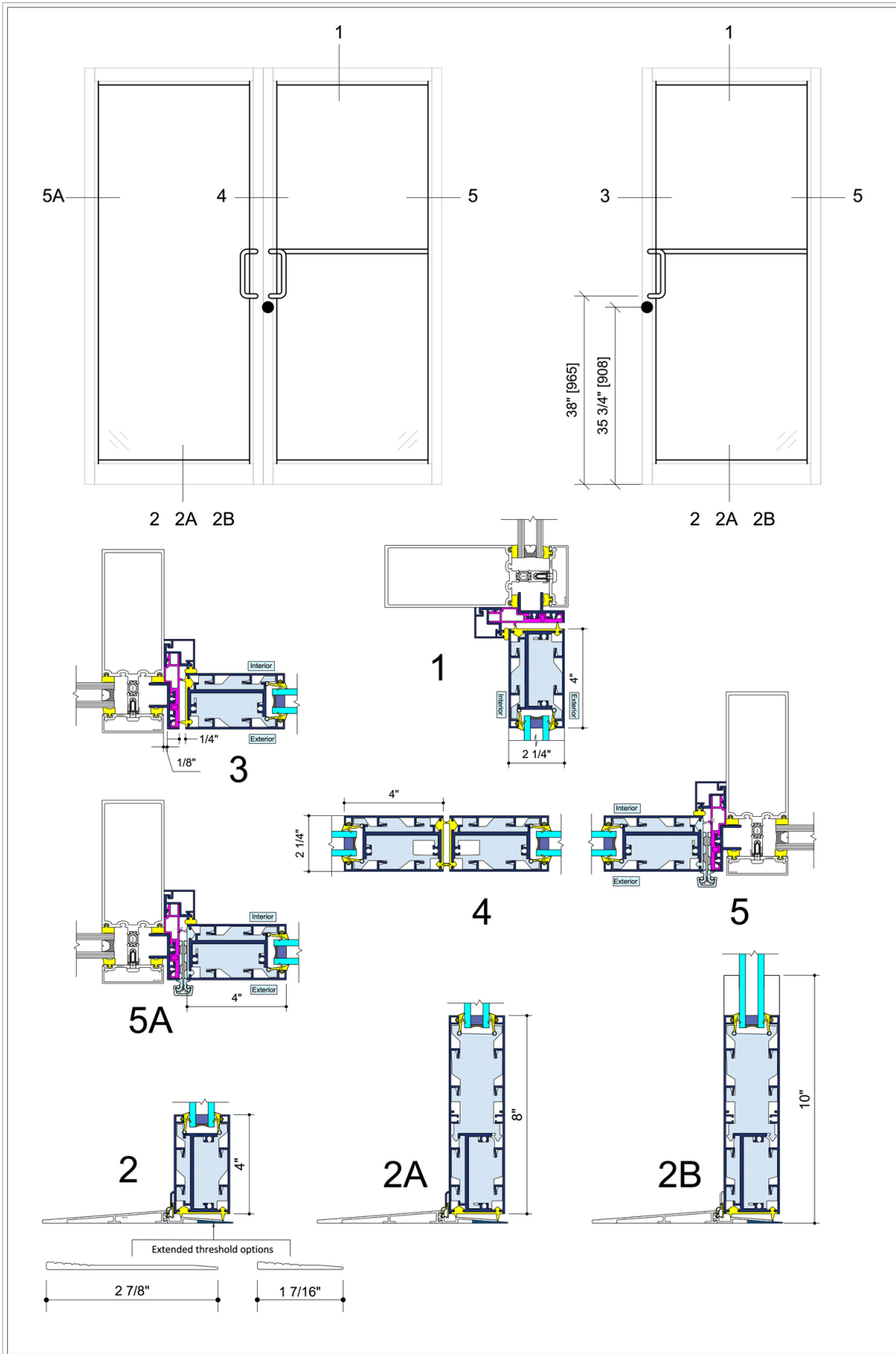
Evaluation Property	Single Outswing Entrance Door
Specimen Size	1070 mm x 2210 mm (42.1" x 87.0")
Air Infiltration Leakage Rate @ 75 Pa	1.23 L/s/m <sup>2</sup> (0.24 cfm/ft <sup>2</sup> )
Water Penetration Resistance	Pass LW @ 0 Pa (0.00 psf) Pass PG25, 180 Pa (3.76 psf)
Uniform Load (overall)	Pass @ DP 1200 Pa (25.1 psf)
Operational Cycling Performance	Pass @ 50000 cycles

INTERTEK TESTING SERVICES NA LTD.

## EXPLANATION OF DOOR STRUCTURE

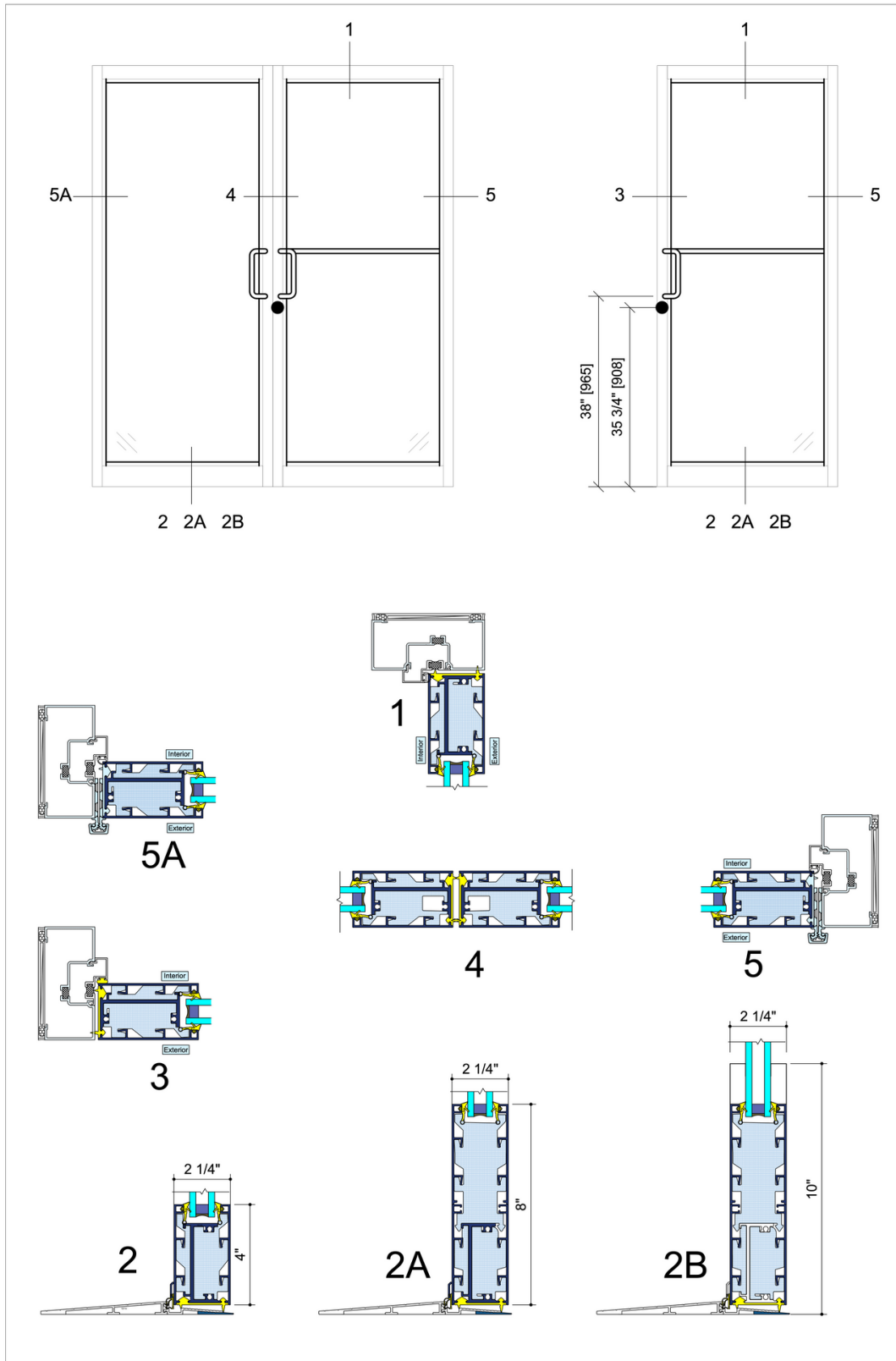


**CONSTRUCTION DETAILS - CURTAIN WALL**

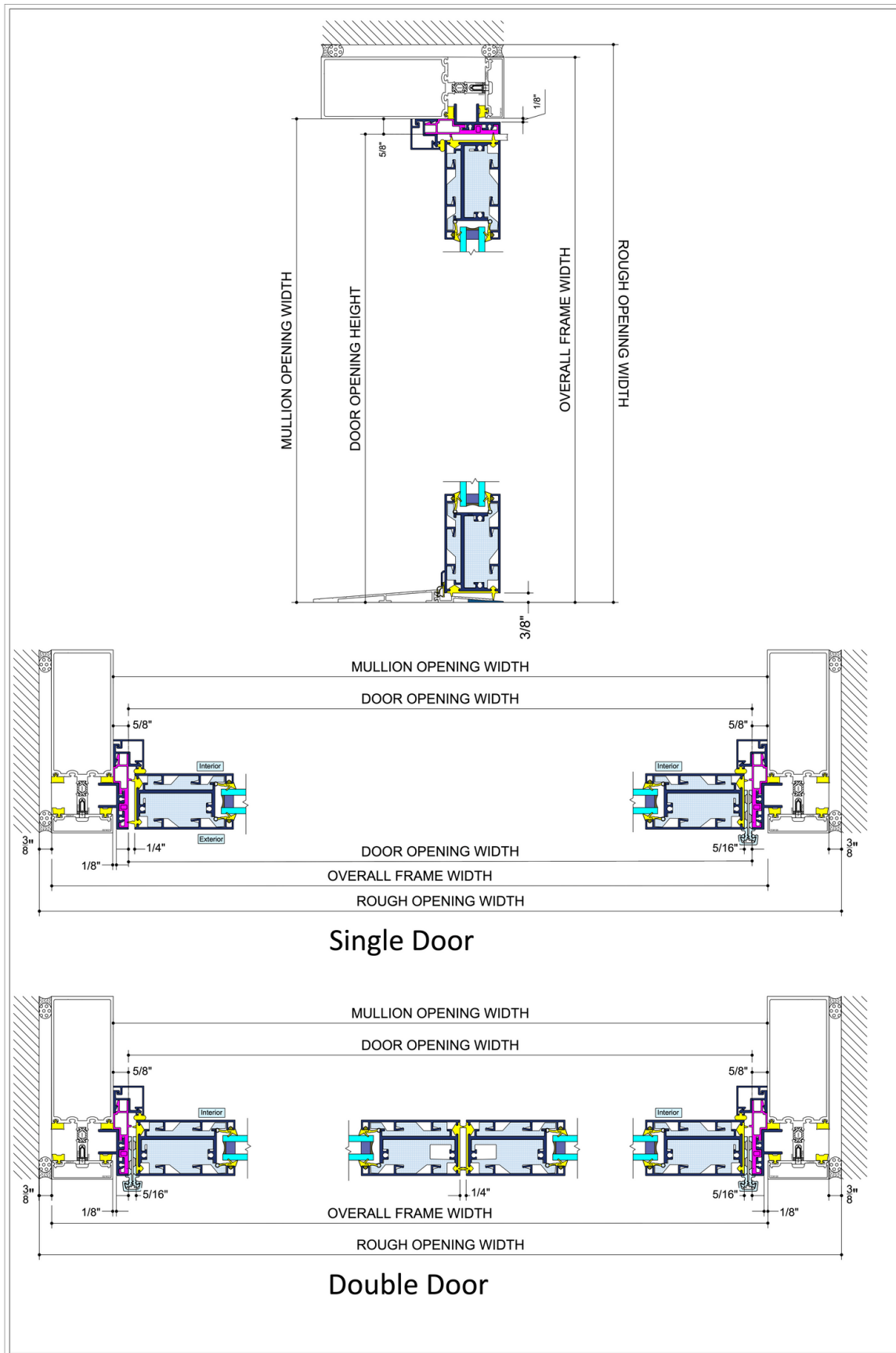




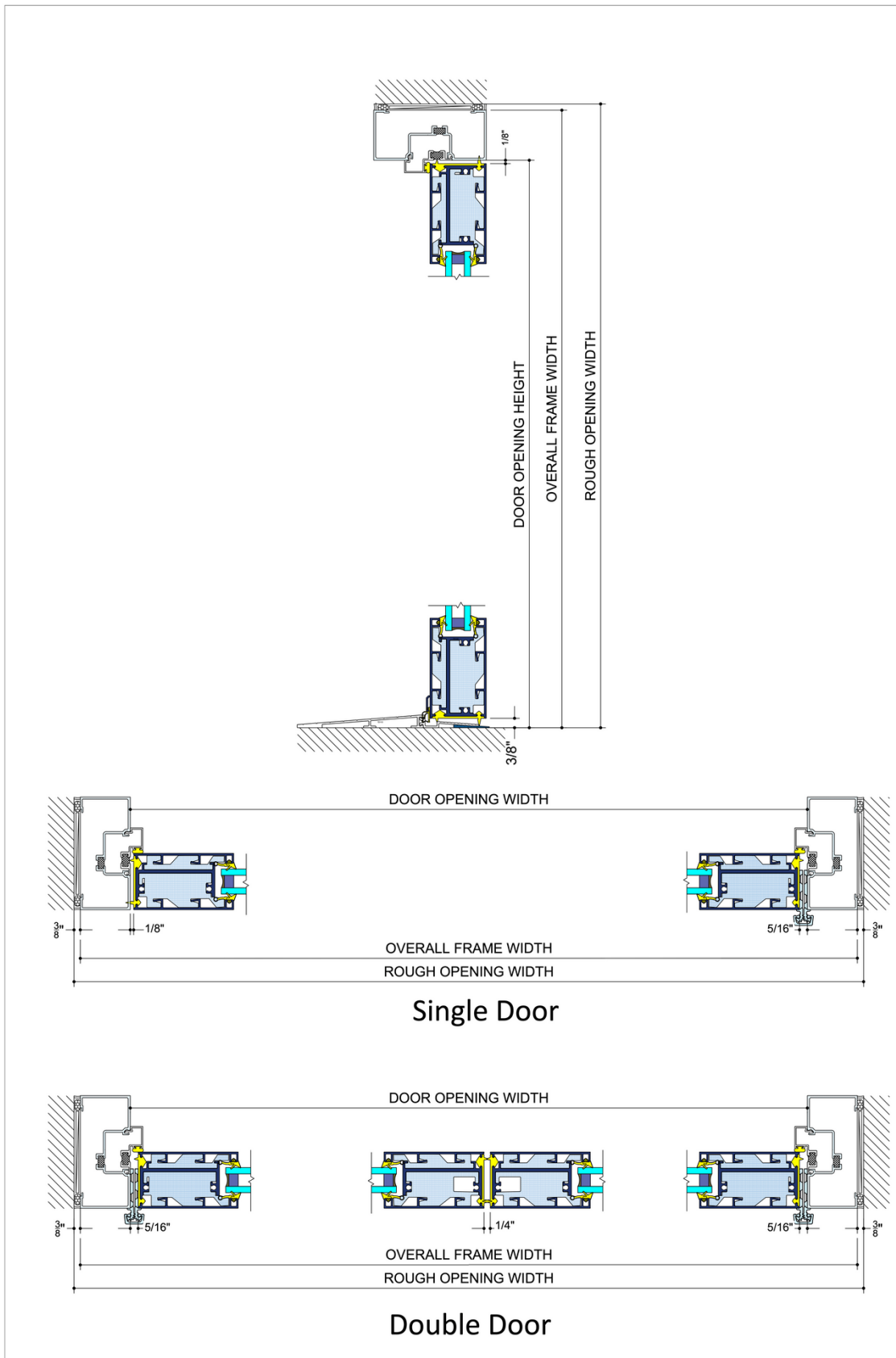
**CONSTRUCTION DETAILS - STOREFRONT**



## STANDARD SIZES - CURTAIN WALL



**STANDARD SIZES - STOREFRONT**



# THERMAL ALUMINUM DOOR

