

TECHNICAL DATA

DESCRIPTION:

THERMALLY BROKEN WALL SYSTEM 2" WIDE, GLASS IS SEALED ON BOTH EXTERIOR AND INTERIOR SURFACE. MULLION SECTION COMES IN 1" (25.4mm) TO 5" (127.0mm) DEPTHS.

FINISH:

PROFILES STOCKED IN MILL FINISH AND CLEAR ANODIZED, OTHER FINISHES ARE AVAILABLE UPON REQUEST.

STOCK LENGTH: 24'-2" (7.37 METERS).

ASSEMBLY:

DESIGNED FOR SHEAR BLOCK ASSEMBLY

STRENGTH:

REFER TO WIND LOAD CHARTS FOR MAXIMUM ALLOWABLE SPAN, CONSULT STRUCTURAL ENGINEERING FOR FINAL DESIGN

REINFORCING:

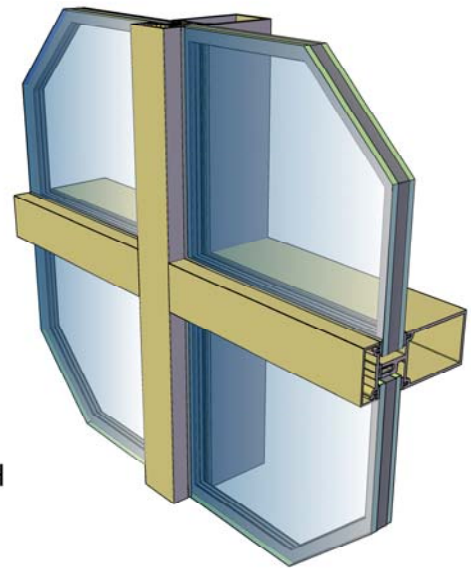
ALUMINUM REINFORCING IS AVAILABLE.

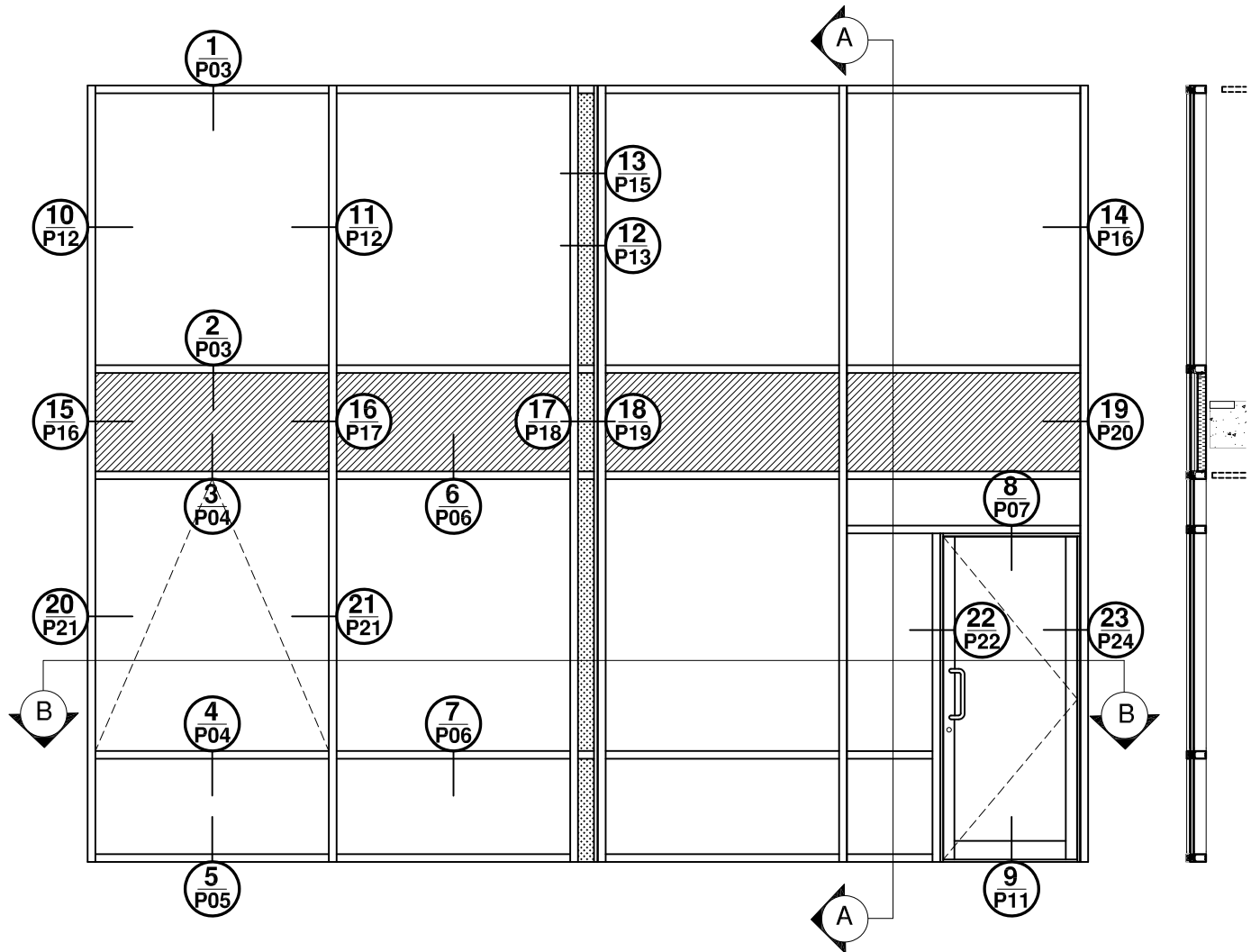
ANCHORING:

REFER TO FABRICATION AND INSTALLATION MANUAL.

GLAZING:

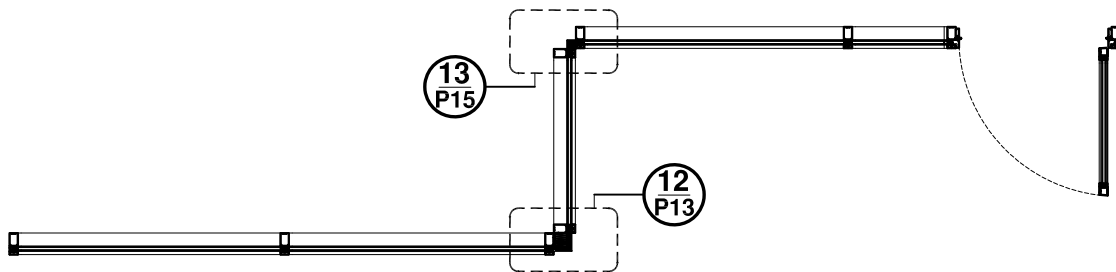
5000 SERIES IS AN EXTERIOR GLAZED SYSTEM WHICH WILL ACCEPT 1/4" (6mm), 1/2" (12.7mm) SINGLE GLASS AND 1" (25mm) SEALED UNIT.



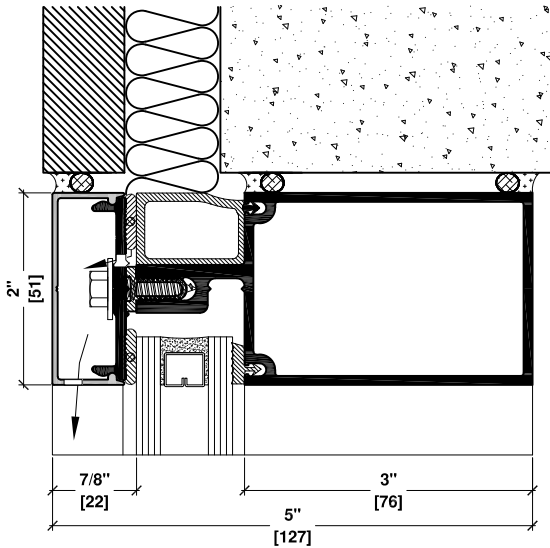


ELEVATION

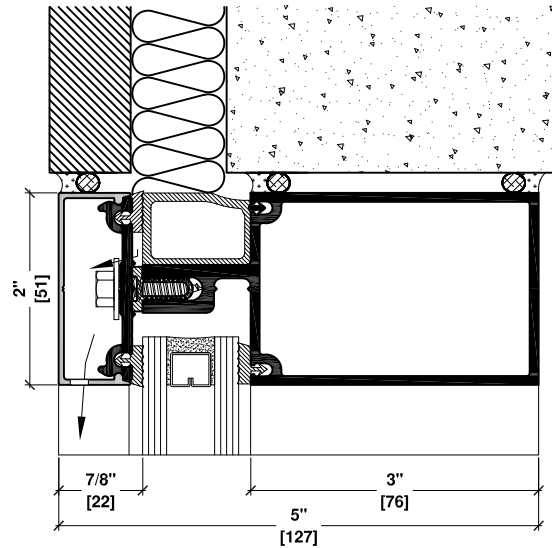
SECTION
A-A



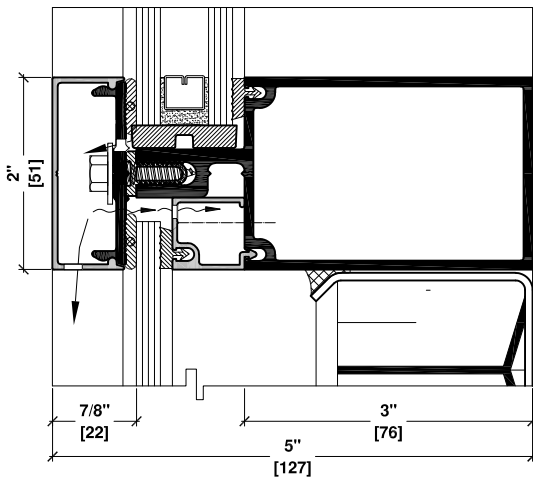
PLAN VIEW B-B



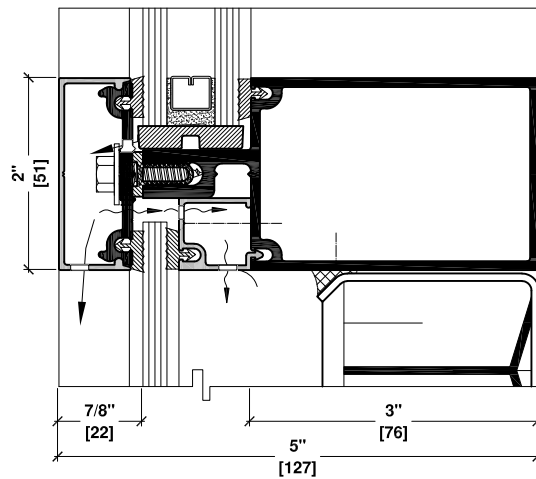
1 3" HORIZONTAL TUBE
HEAD CONDITION/FIXED GLASS
WET GLAZED



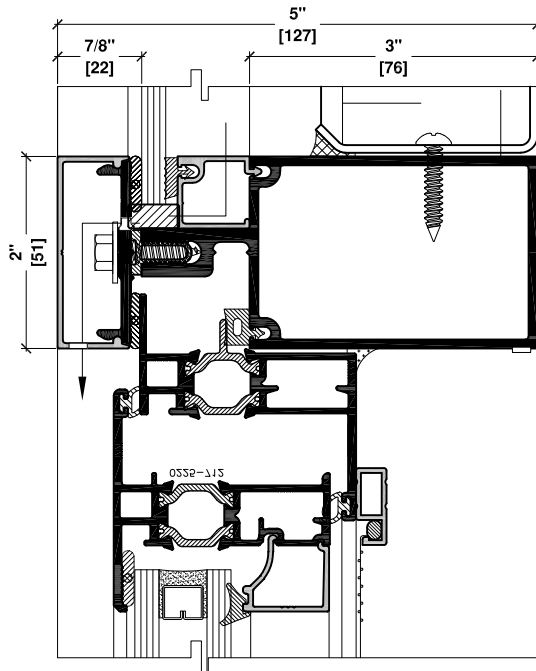
1a 3" HORIZONTAL TUBE
HEAD CONDITION/FIXED GLASS
DRY GLAZED



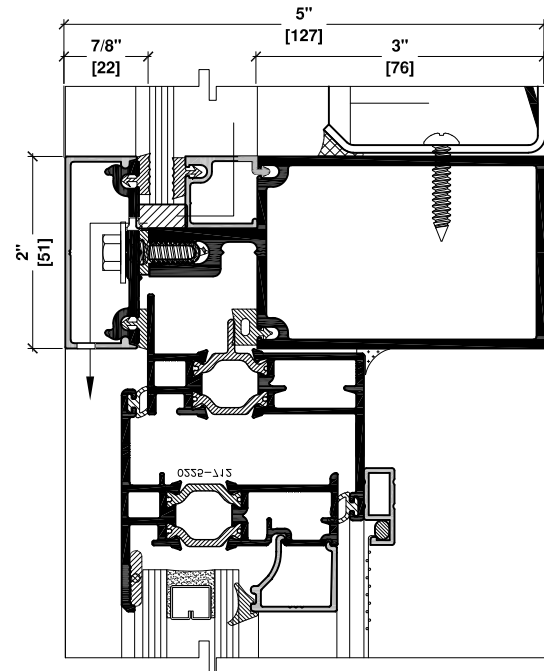
2 3" HORIZONTAL TUBE
FIXED GLASS/SPANDREL
WET GLAZED



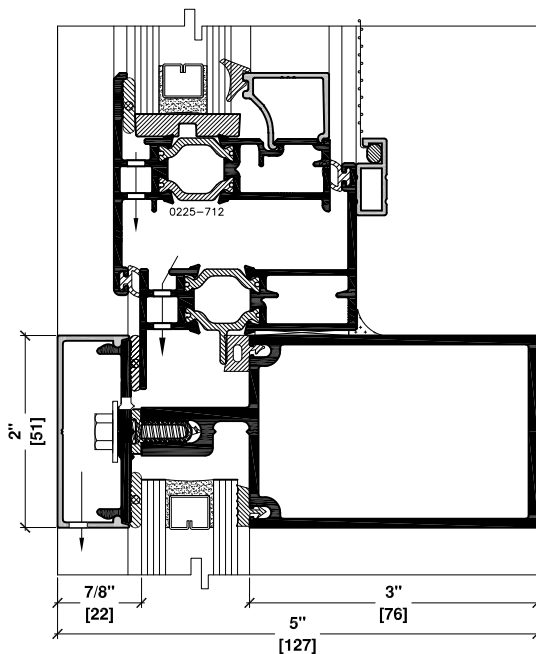
2a 3" HORIZONTAL TUBE
FIXED GLASS/SPANDREL
DRY GLAZED



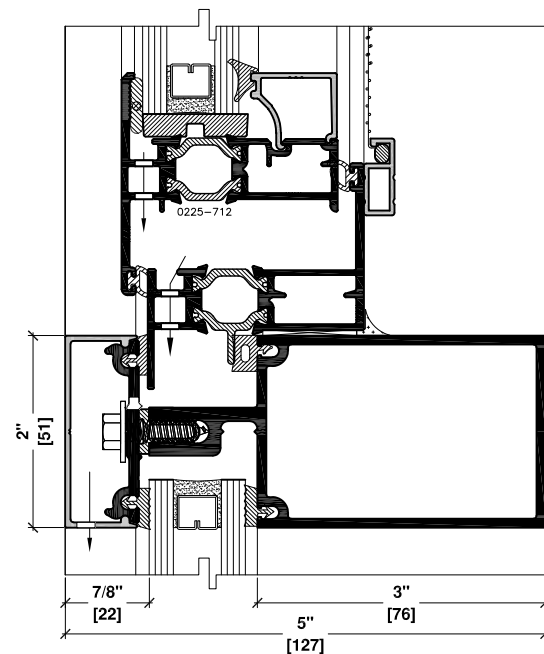
3 3" HORIZONTAL TUBE
SPANDREL/VENT
WET GLAZED



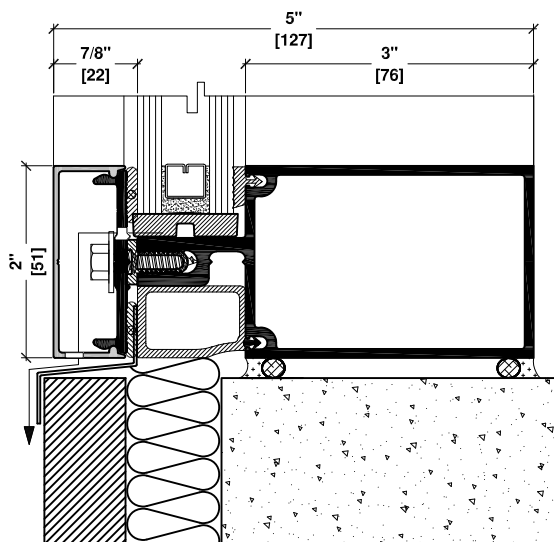
3a 3" HORIZONTAL TUBE
SPANDREL/VENT
DRY GLAZED



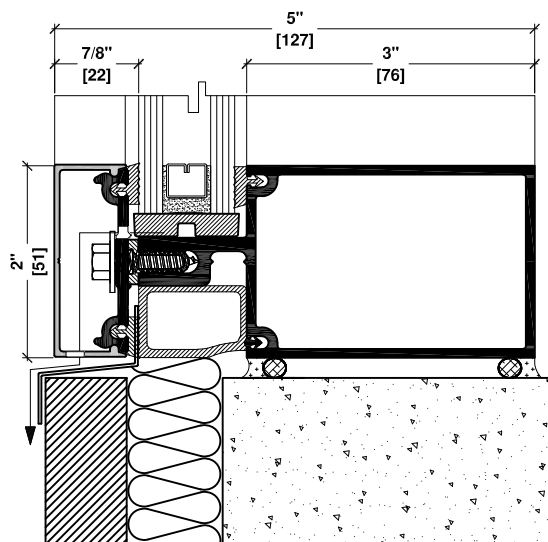
4 3" HORIZONTAL TUBE
VENT/FIXED GLASS
WET GLAZED



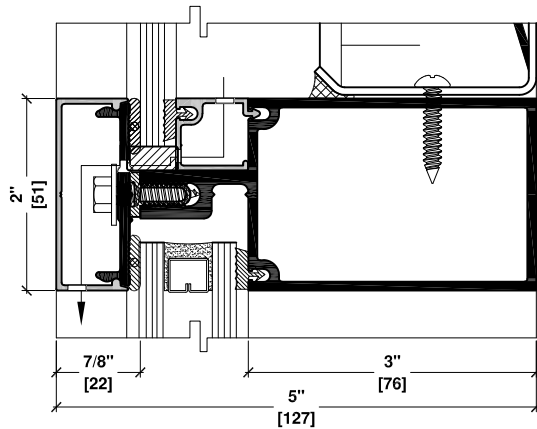
4a 3" HORIZONTAL TUBE
VENT/FIXED GLASS
DRY GLAZED



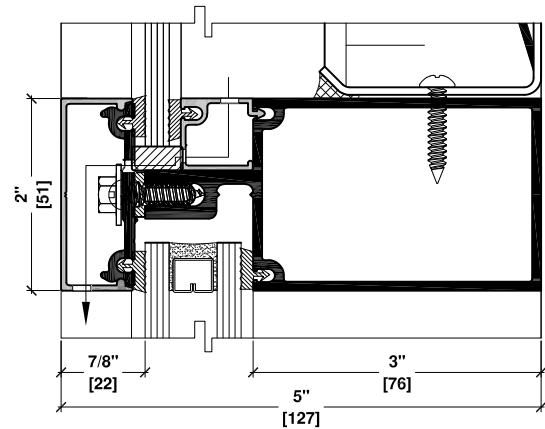
5 3" HORIZONTAL TUBE
FIXED GLASS/SILL CONDITION
WET GLAZED



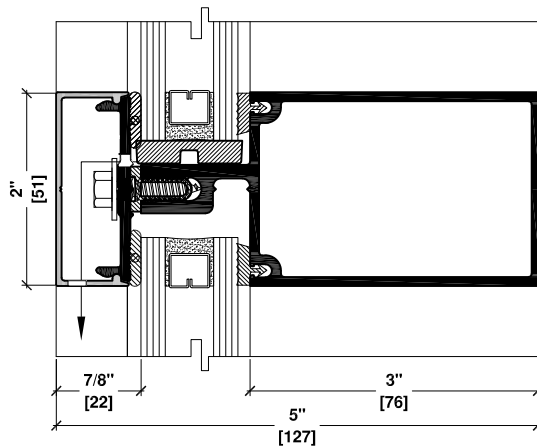
5a 3" HORIZONTAL TUBE
FIXED GLASS/SILL CONDITION
DRY GLAZED



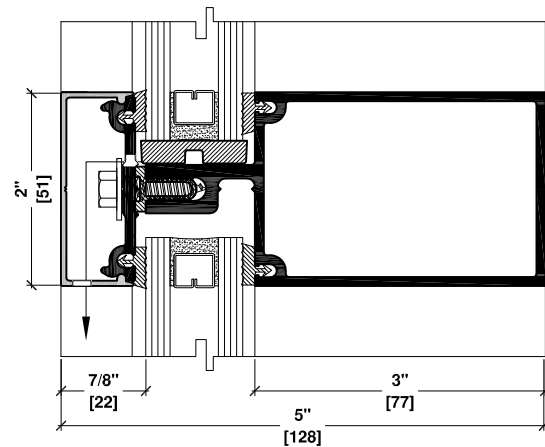
6 3" HORIZONTAL TUBE
SPANDREL/FIXED GLASS
WET GLAZED



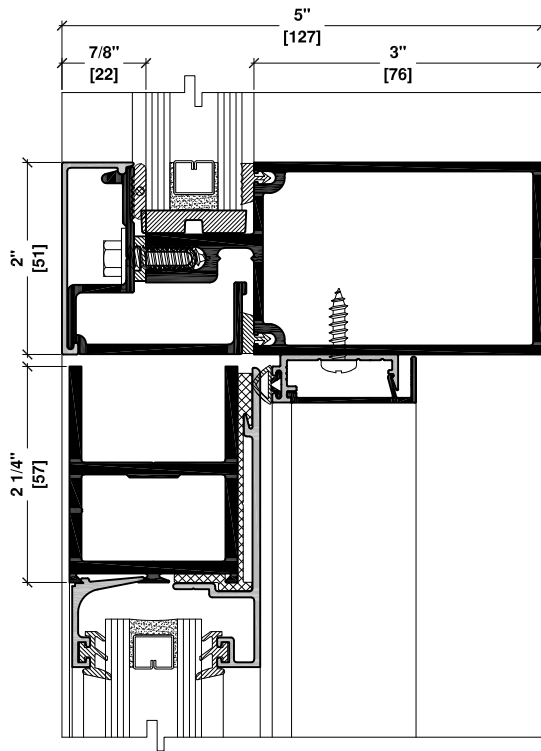
6a 3" HORIZONTAL TUBE
SPANDREL/FIXED GLASS
DRY GLAZED



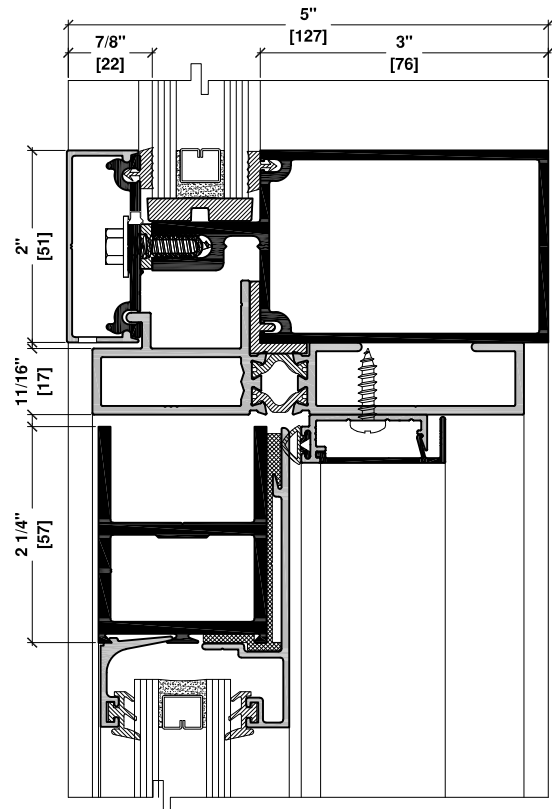
7 3" HORIZONTAL TUBE
FIXED GLASS/FIXED GLASS
WET GLAZED



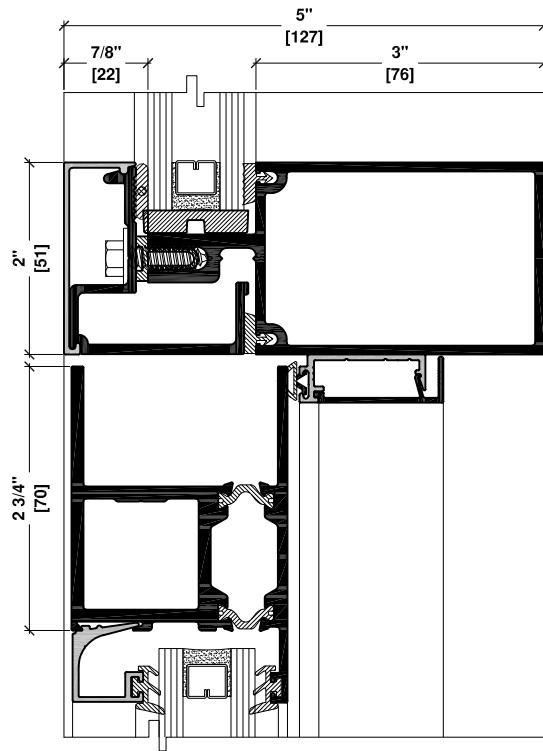
7a 3" HORIZONTAL TUBE
FIXED GLASS/FIXED GLASS
DRY GLAZED



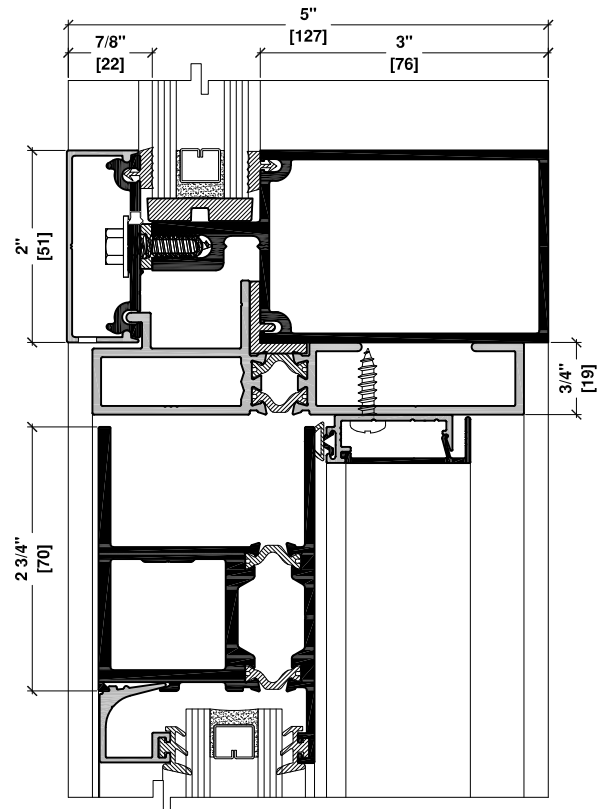
8 3" HORIZONTAL TUBE
SERIES 260 DOOR
WET GLAZED



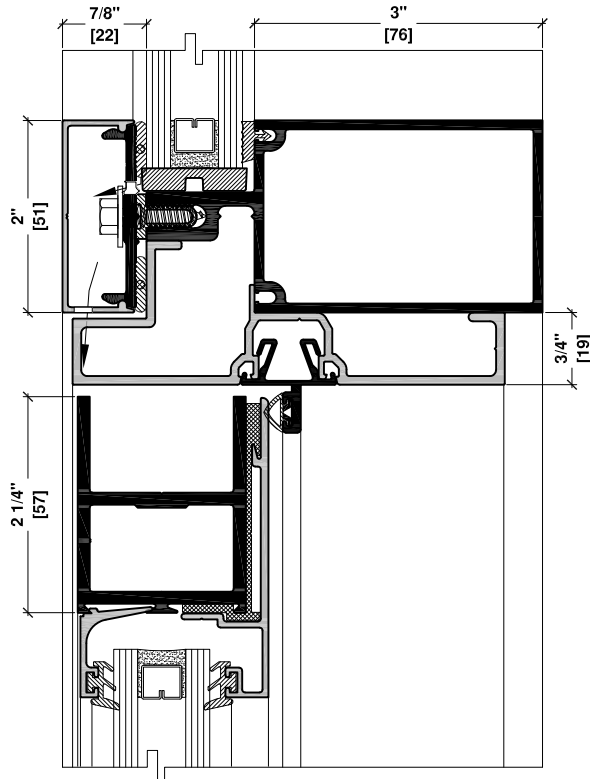
8a 3" HORIZONTAL TUBE
SERIES 260 DOOR
CAPPED



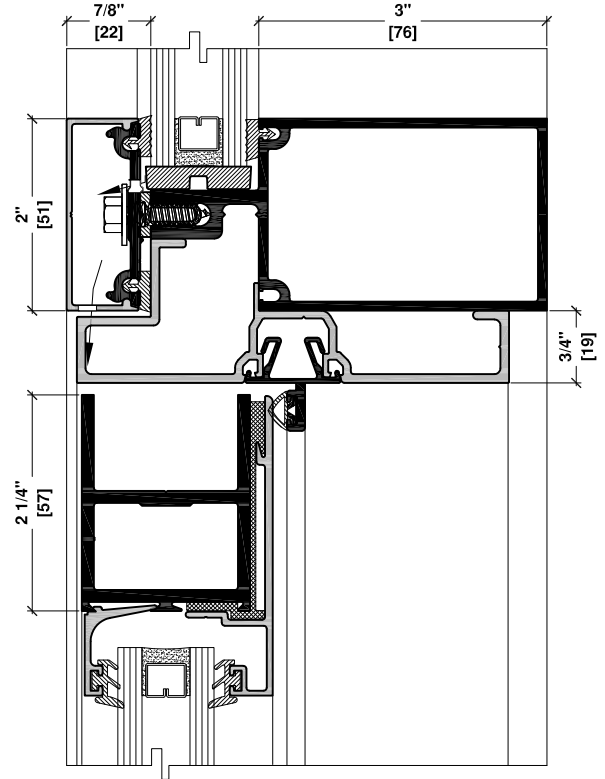
8b 3" HORIZONTAL TUBE
SERIES 4200 DOOR
WET GLAZED



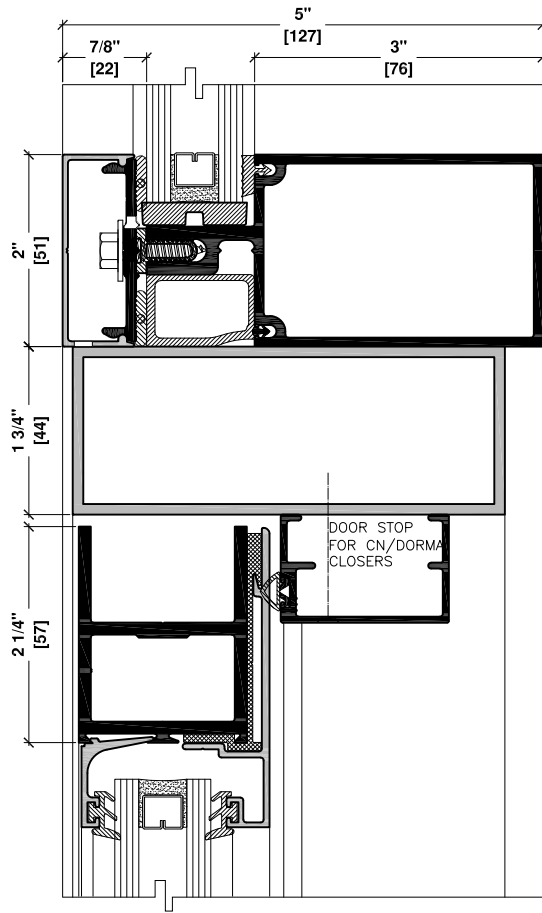
8c 3" HORIZONTAL TUBE
SERIES 4200 DOOR
CAPPED



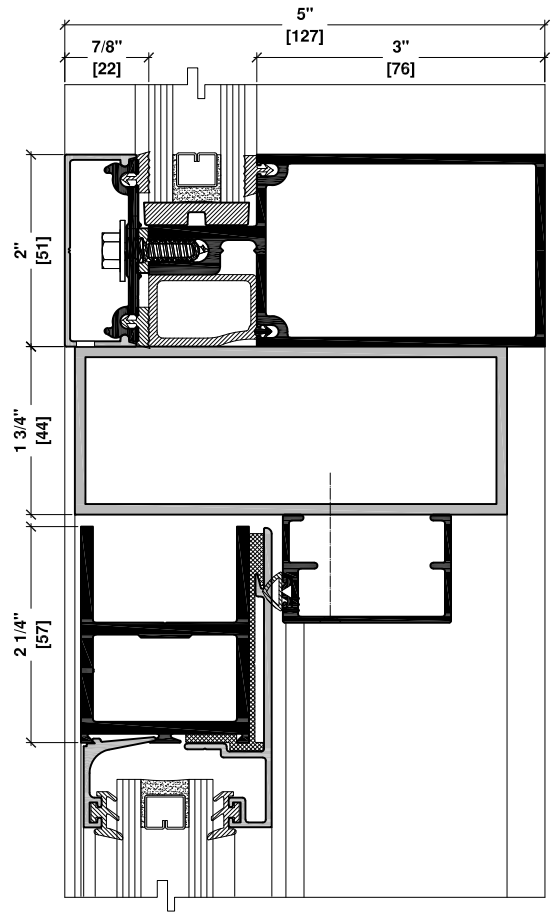
8d 3" HORIZONTAL TUBE
SERIES 260 DOOR
HEADER CONDITION



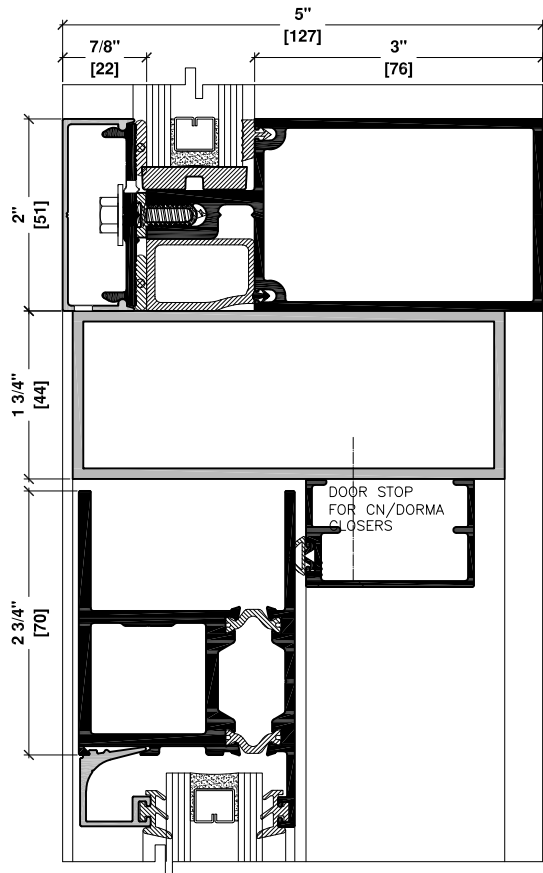
8e 3" HORIZONTAL TUBE
SERIES 260 DOOR
DRY GLAZED



8f 3" HORIZONTAL TUBE
SERIES 260 DOOR
WET GLAZED

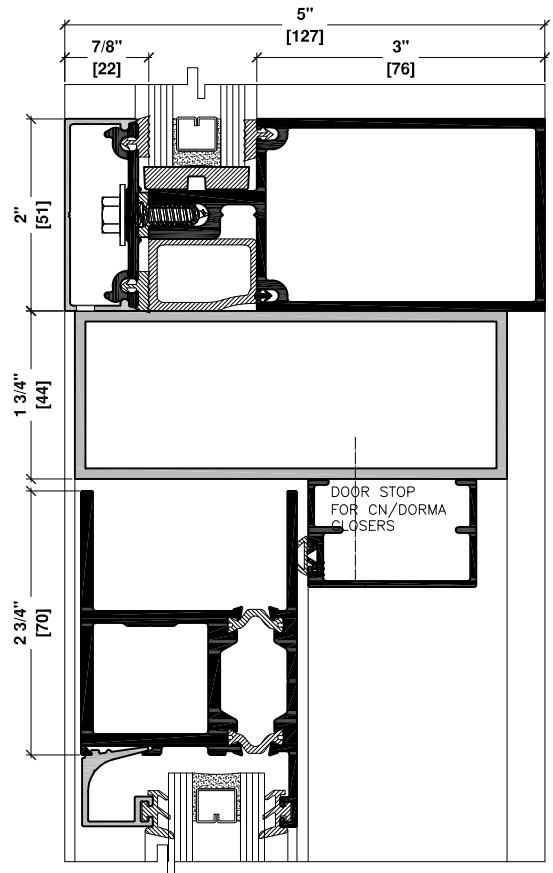


8g 3" HORIZONTAL TUBE
SERIES 260 DOOR
DRY GLAZED



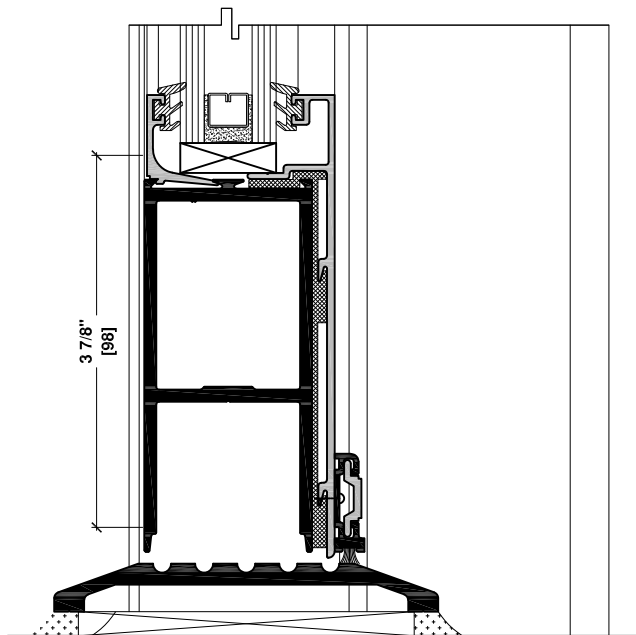
8h

**3" HORIZONTAL TUBE
SERIES 4200 DOOR
WET GLAZED**



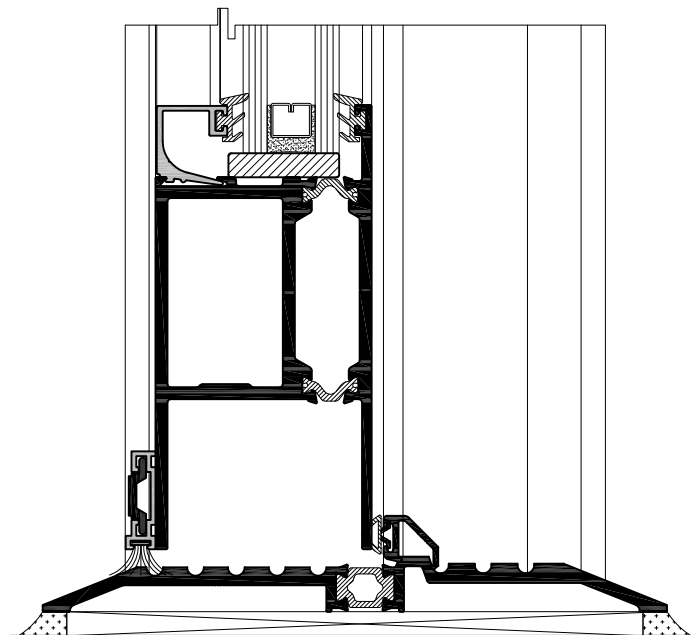
8i

**3" HORIZONTAL TUBE
SERIES 4200 DOOR
DRY GLAZED**



9

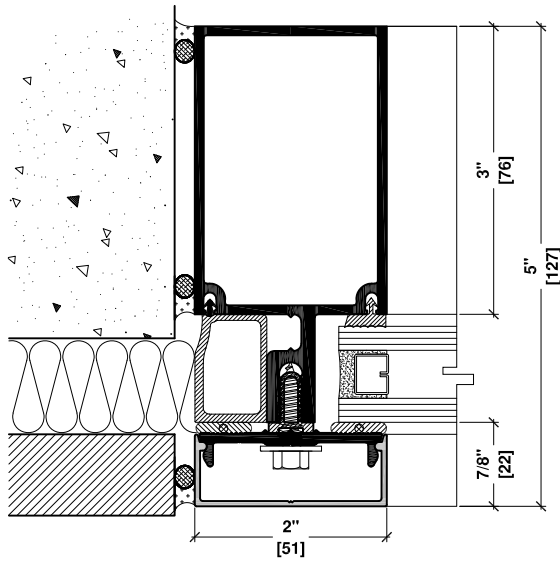
**260 SERIES DOOR
SILL CONDITION**



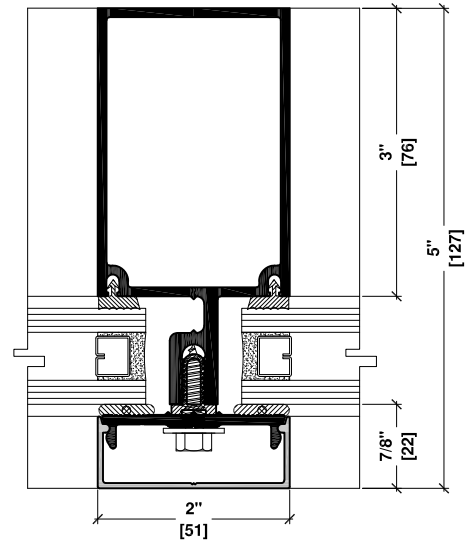
9a

**4200 SERIES DOOR
SILL CONDITION**

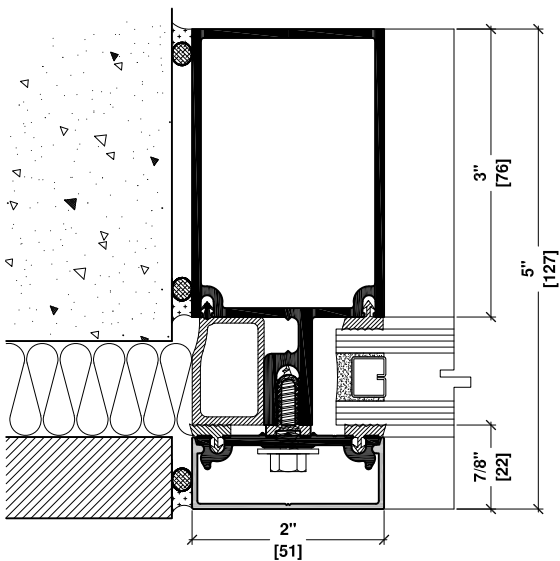
CAPPED



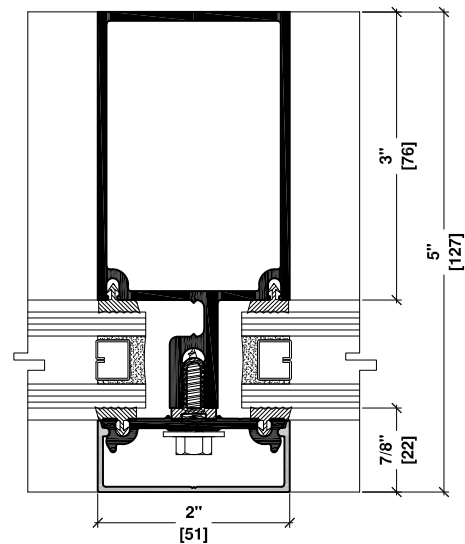
10 3" VERTICAL TUBE
JAMB - FIXED GLASS
WET GLAZED



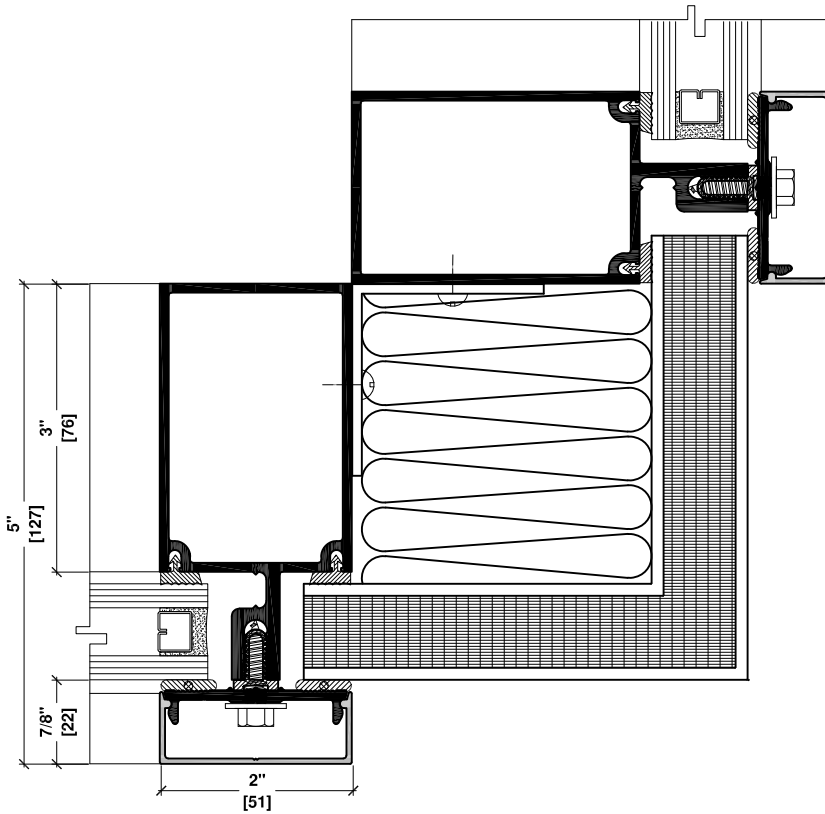
11 3" VERTICAL TUBE
FIXED GLASS - FIXED GLASS
WET GLAZED



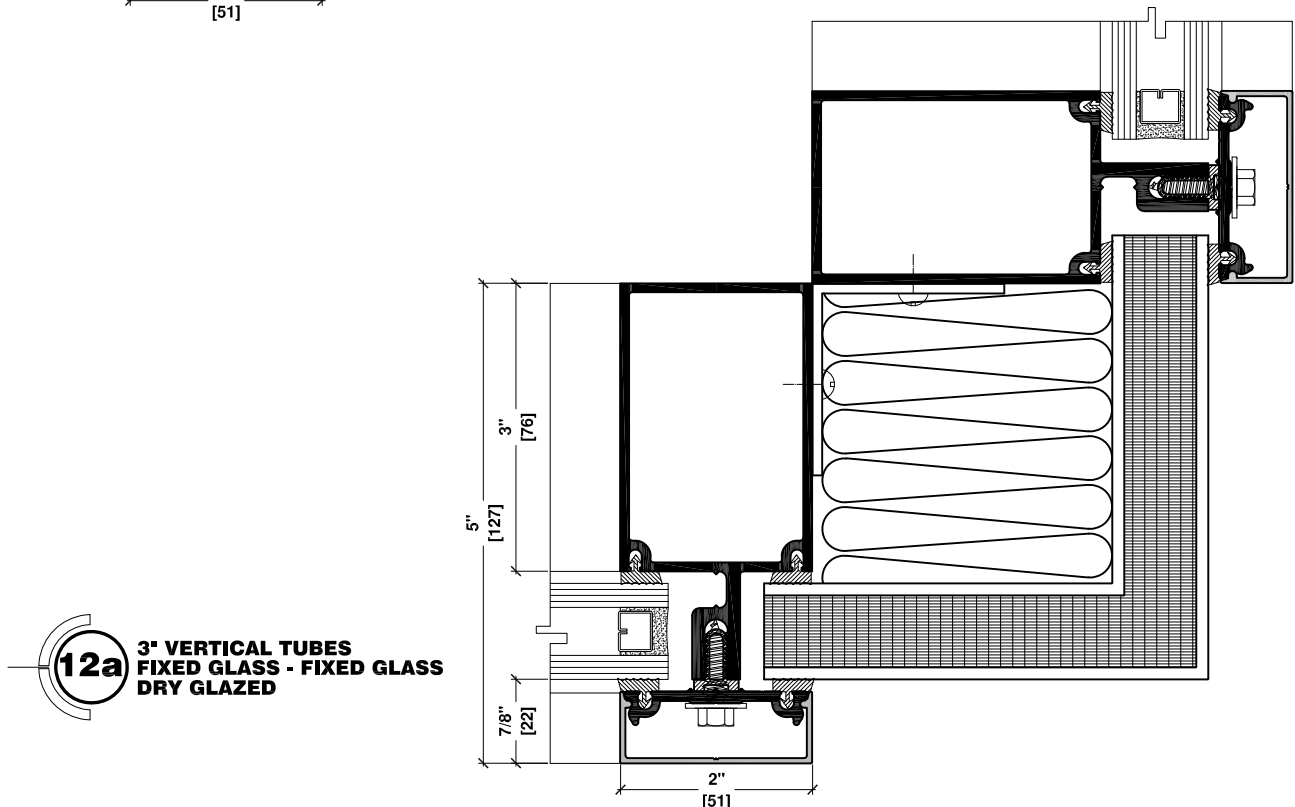
10a 3" VERTICAL TUBE
JAMB - FIXED GLASS
DRY GLAZED



11a 3" VERTICAL TUBE
FIXED GLASS - FIXED GLASS
DRY GLAZED



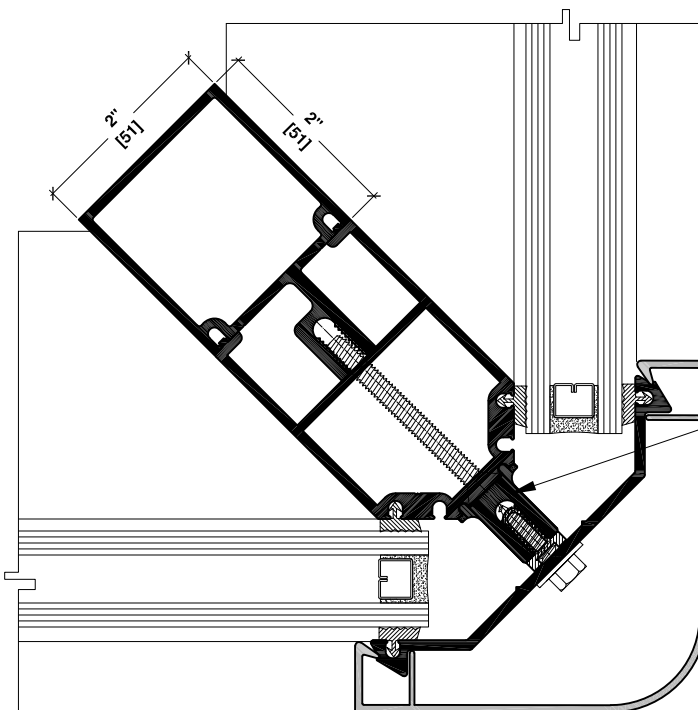
12 3" VERTICAL TUBES
FIXED GLASS - FIXED GLASS
WET GLAZED



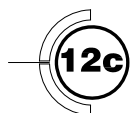
12a 3" VERTICAL TUBES
FIXED GLASS - FIXED GLASS
DRY GLAZED



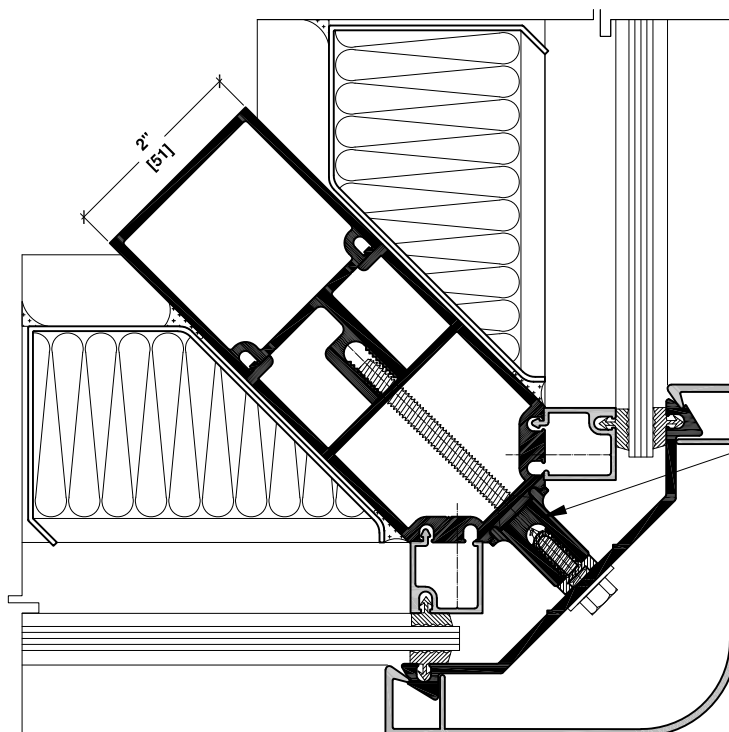
12b VERTICAL TUBES
FIXED GLASS - FIXED GLASS
90° OUTSIDE CORNER



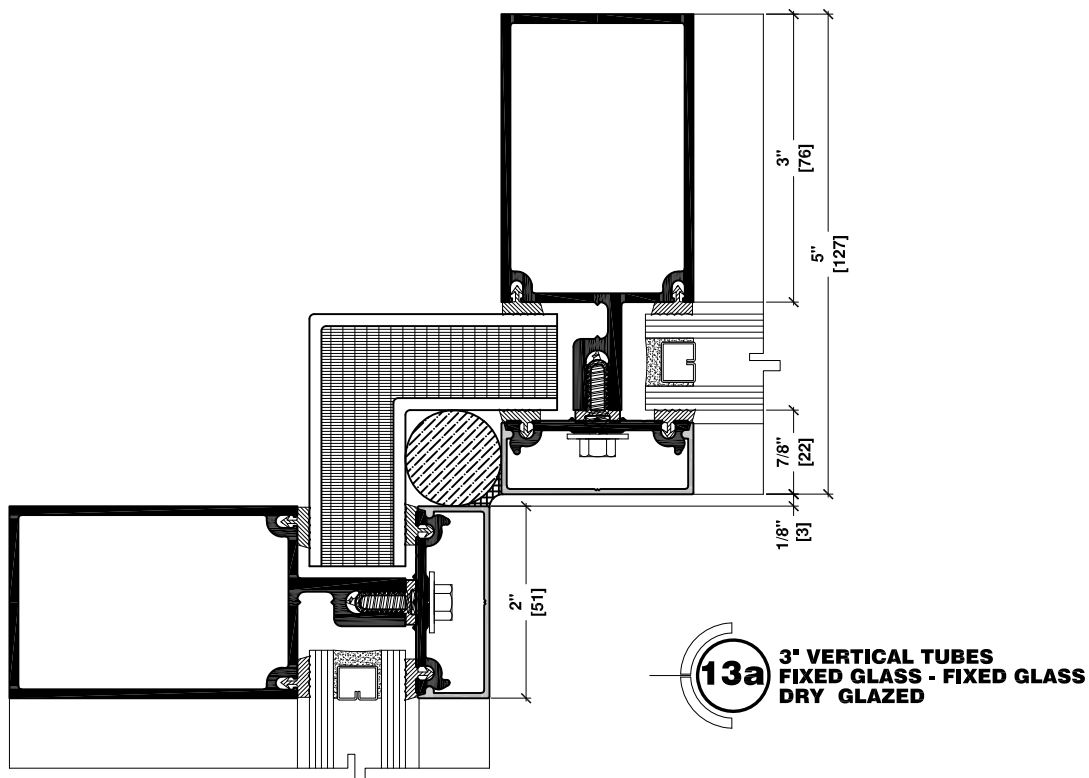
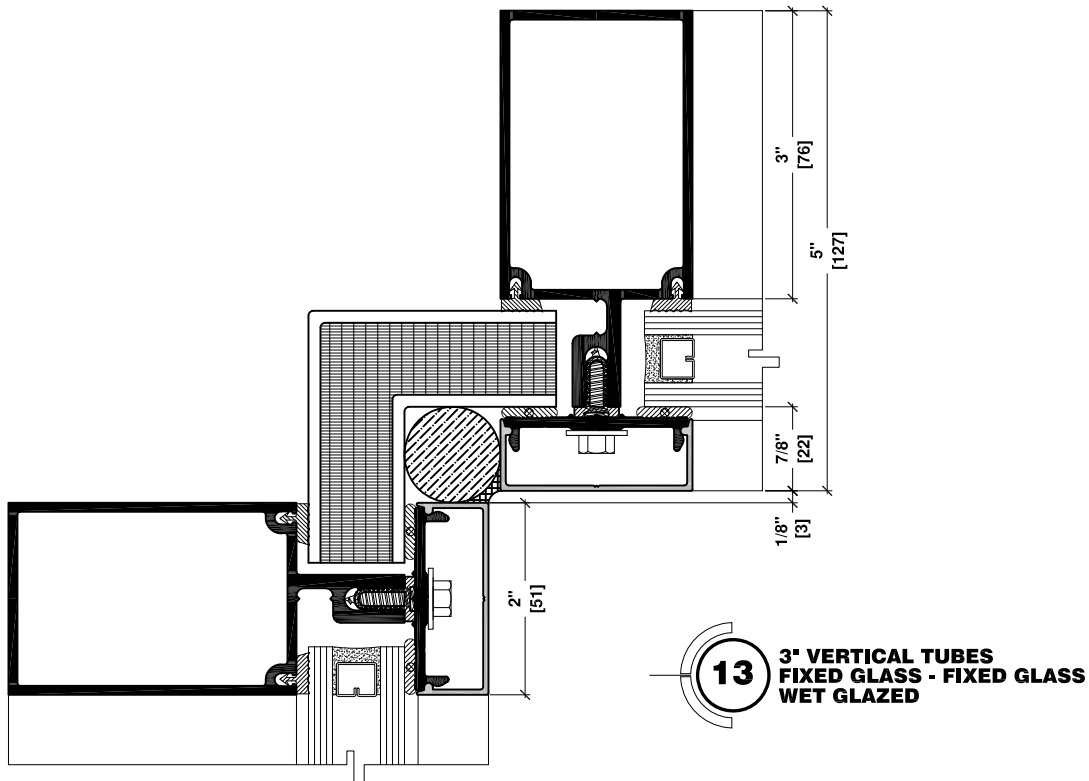
1/4 - 20 X 2 1/2"
SCREW @12" C.C

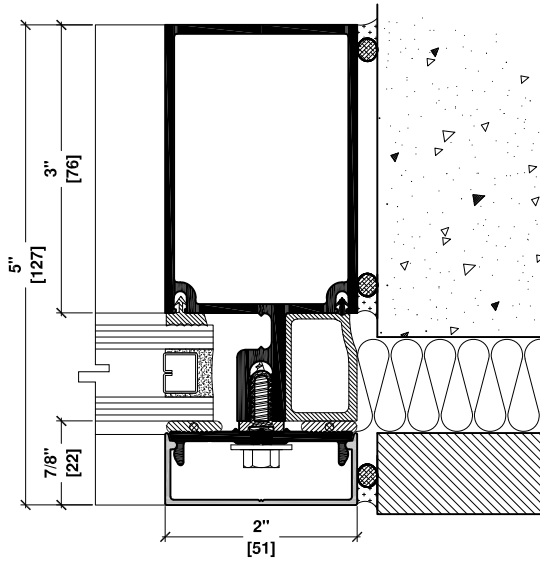


12c VERTICAL TUBE
SPANDREL
90° OUTSIDE CORNER



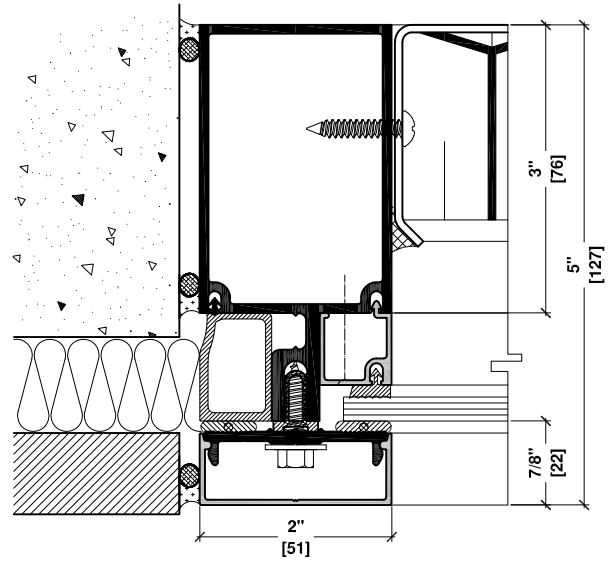
1/4 - 20 X 2 1/2"
SCREW @12" C.C





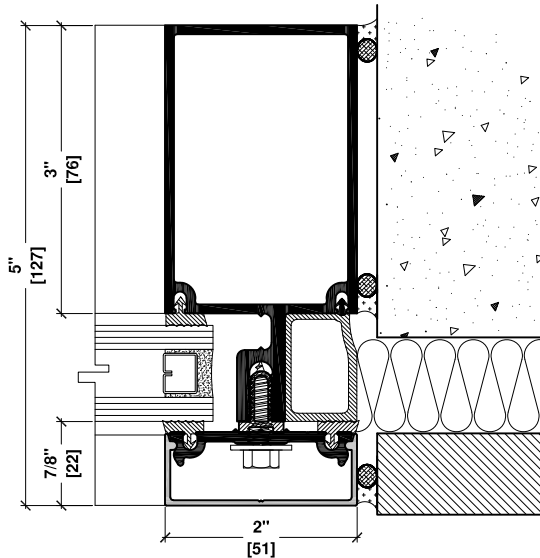
14

**3" VERTICAL TUBE
FIXED GLASS - JAMB
WET GLAZED**



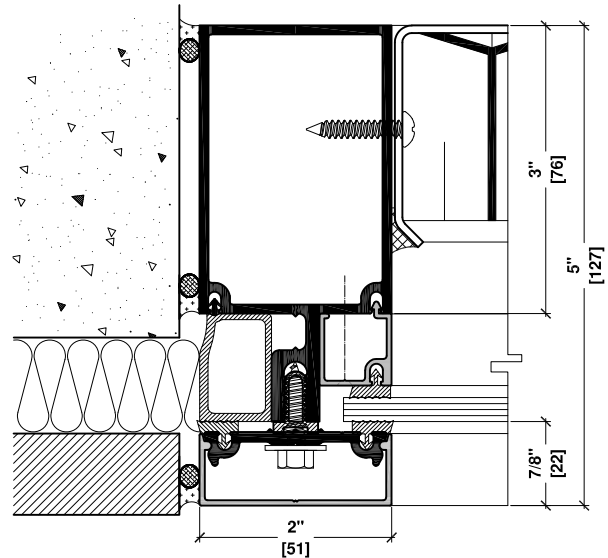
15

**3" VERTICAL TUBE
JAMB - SPANDREL
WET GLAZED**



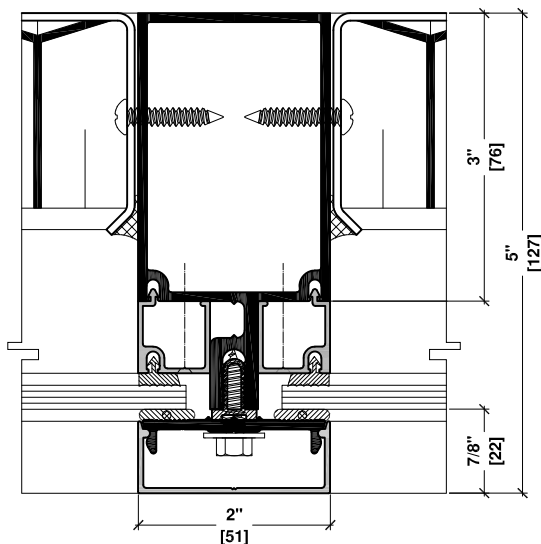
14a

**3" VERTICAL TUBE
FIXED GLASS - JAMB
DRY GLAZED**

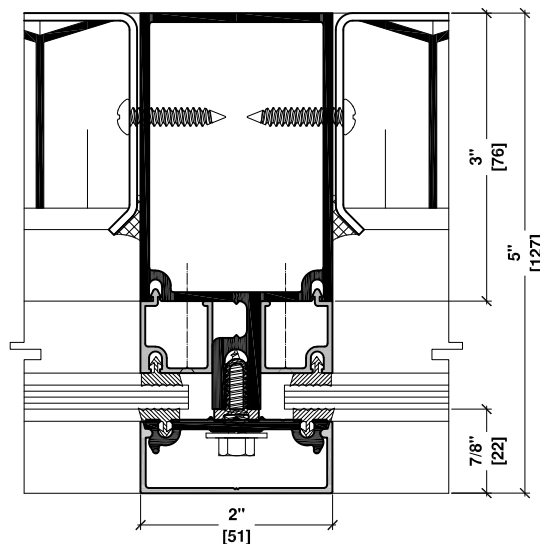


15a

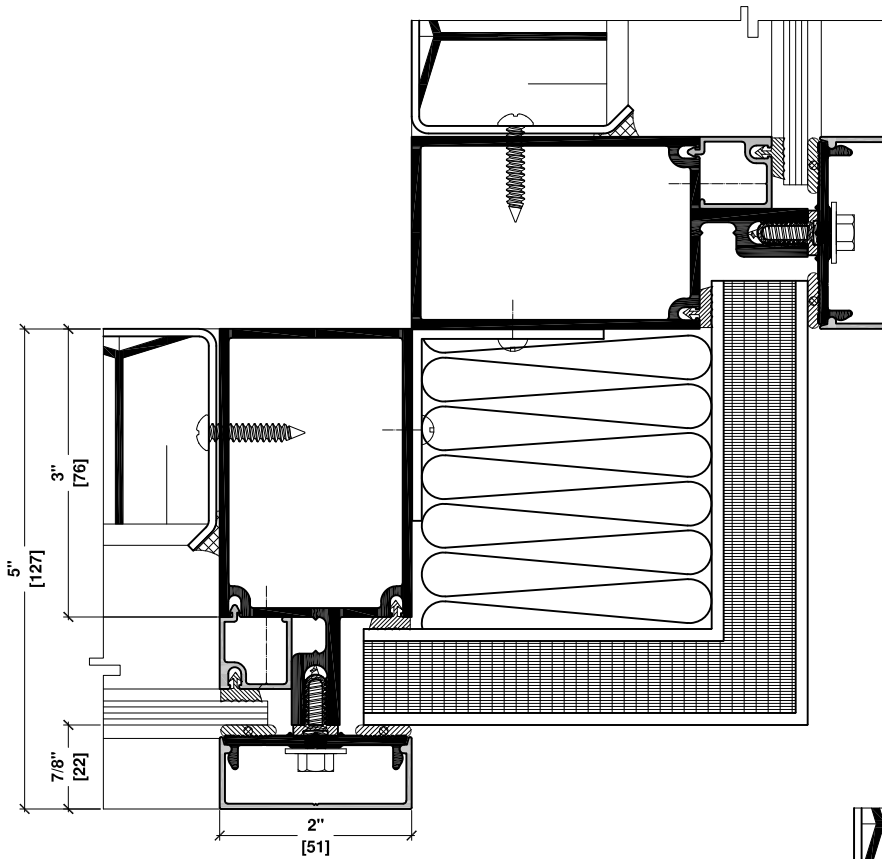
**3" VERTICAL TUBE
JAMB - SPANDREL
DRY GLAZED**



16 3" VERTICAL TUBE
SPANDREL - SPANDREL
WET GLAZED

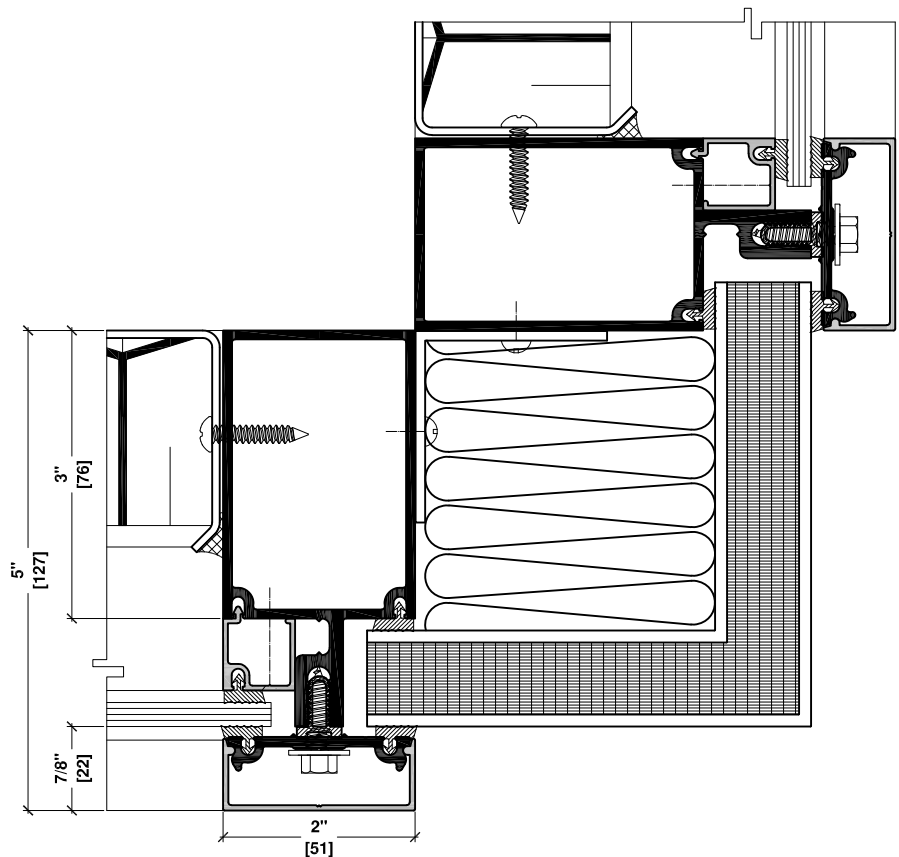


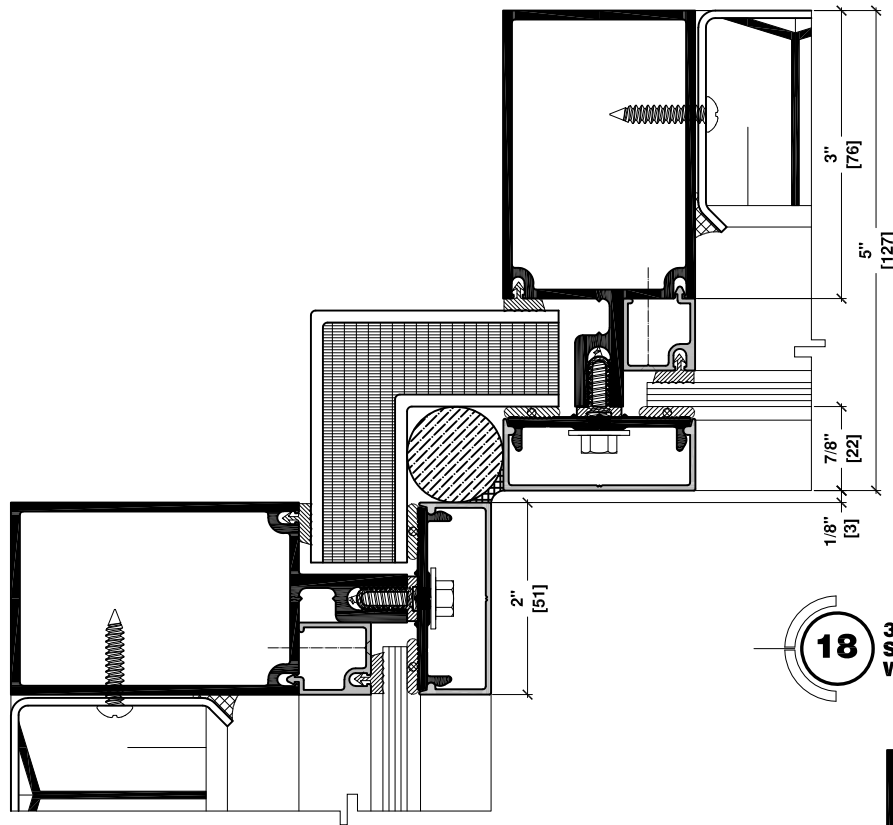
16a 3" VERTICAL TUBE
SPANDREL - SPANDREL
DRY GLAZED



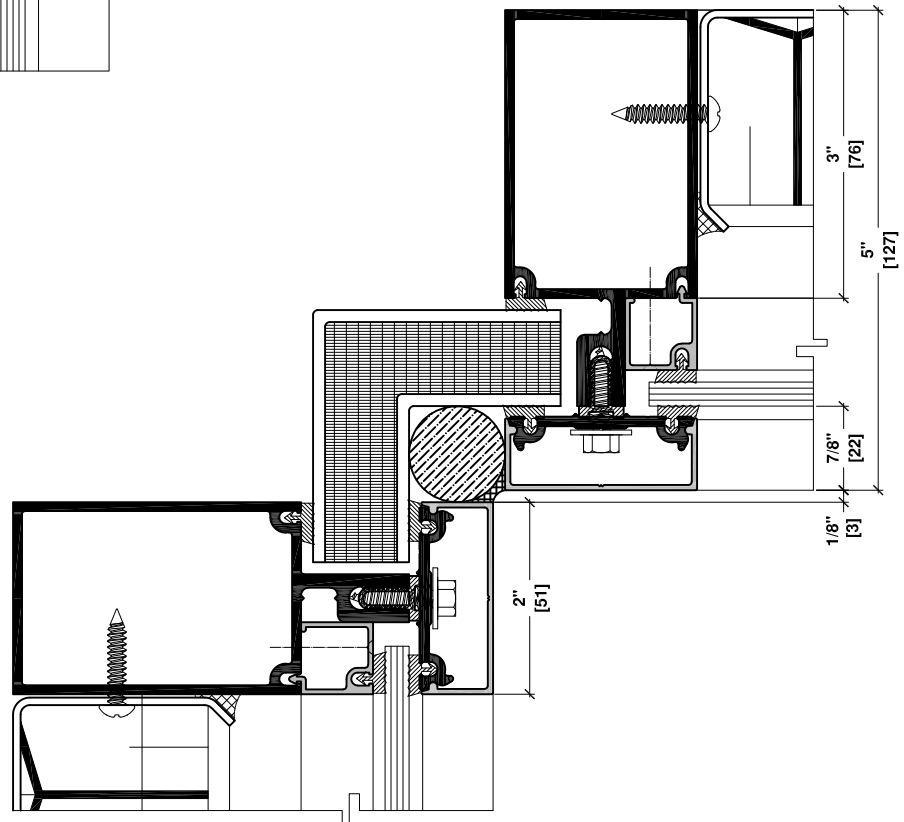
17 3" VERTICAL TUBES
SPANDREL - SPANDREL
WET GLAZED

17a 3" VERTICAL TUBES
SPANDREL - SPANDREL
DRY GLAZED

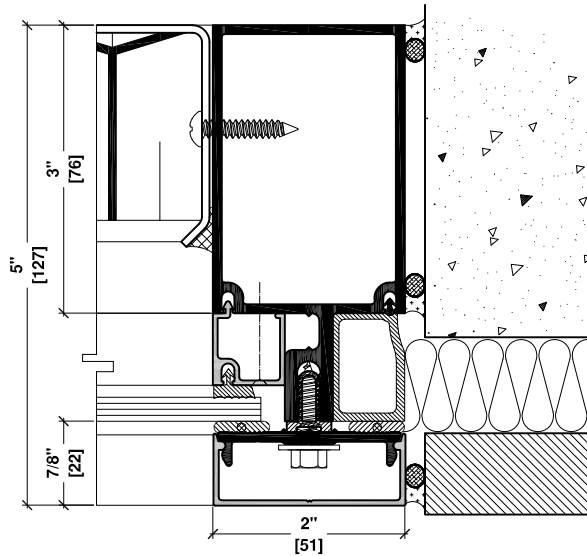




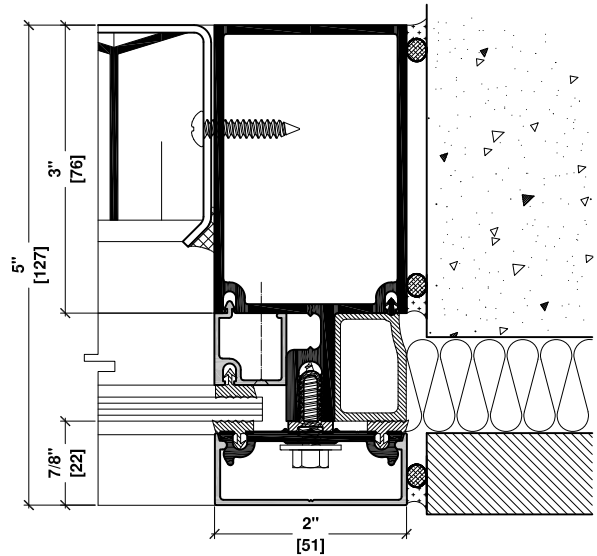
18 3" VERTICAL TUBES
SPANDREL - SPANDREL
WET GLAZED



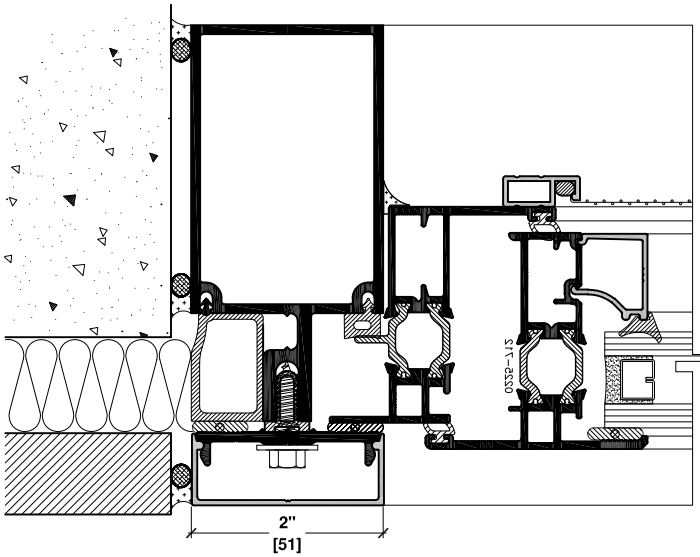
18a 3" VERTICAL TUBES
SPANDREL - SPANDREL
DRY GLAZED



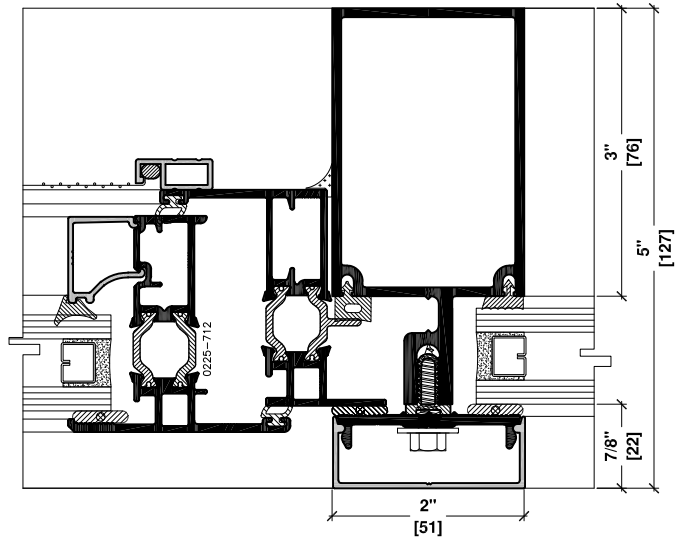
19 3" VERTICAL TUBE
SPANDREL - JAMB
WET GLAZED



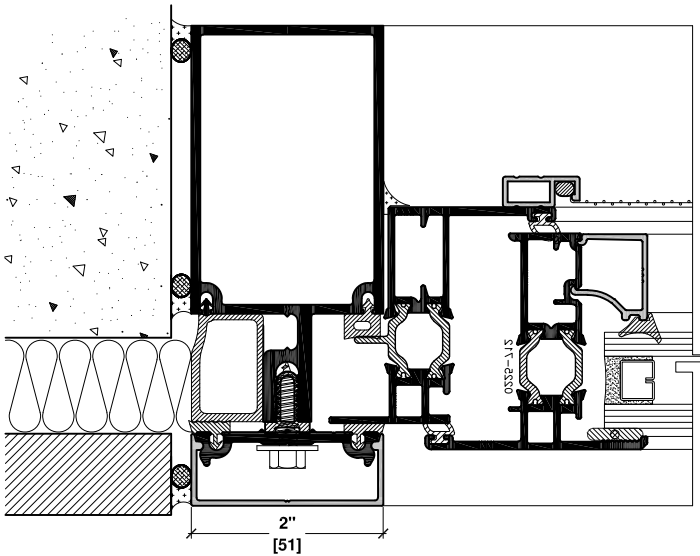
19a 3" VERTICAL TUBE
SPANDREL - JAMB
DRY GLAZED



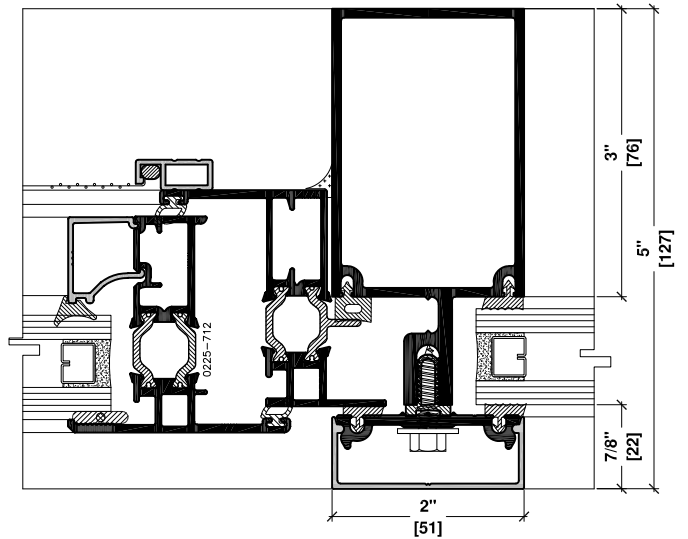
20 3" VERTICAL TUBE
JAMB - VENT
WET GLAZED



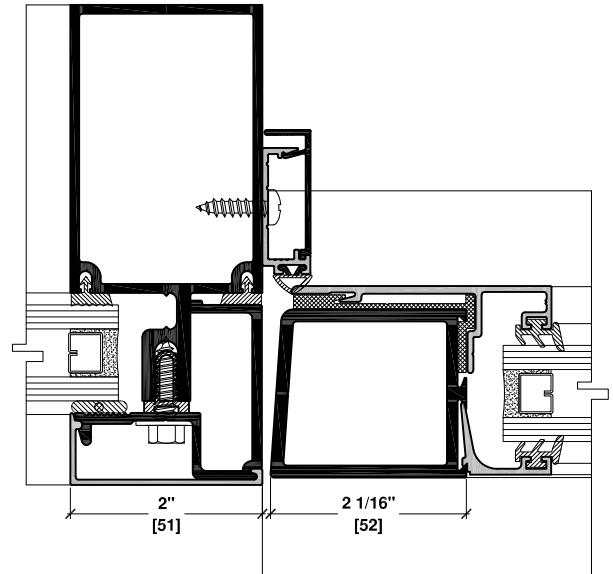
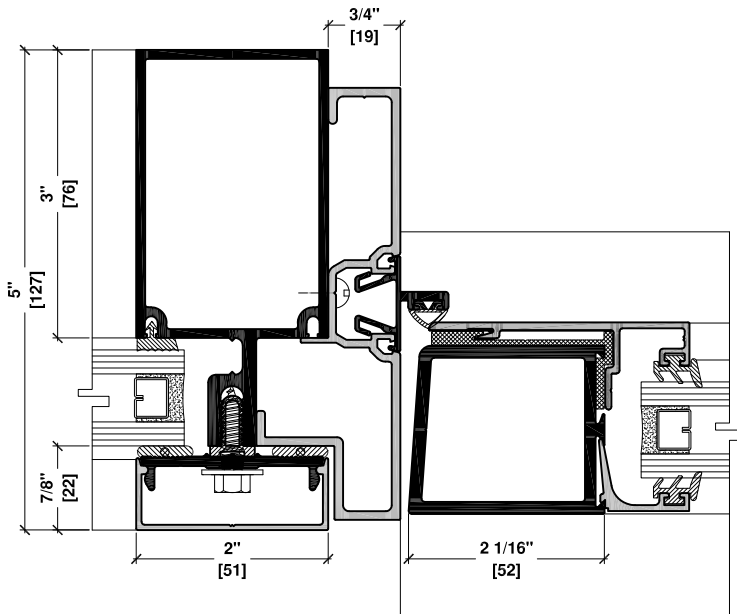
21 3" VERTICAL TUBE
VENT - FIXED GLASS
WET GLAZED



20a 3" VERTICAL TUBE
JAMB - VENT
DRY GLAZED

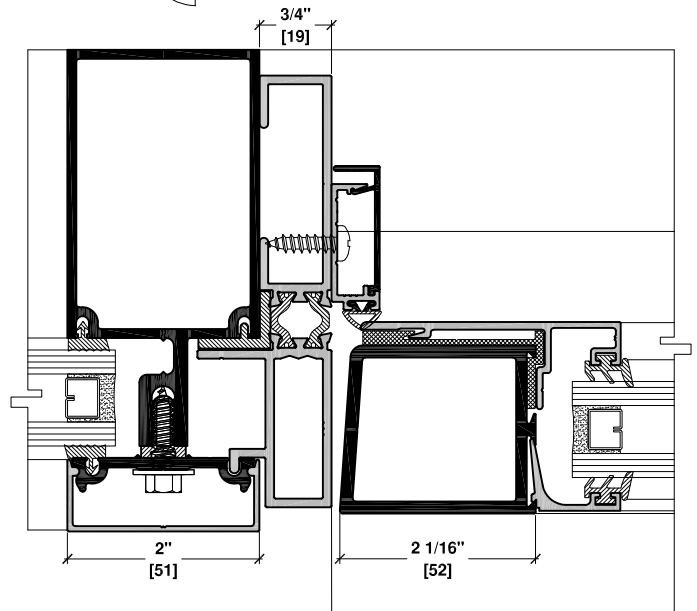
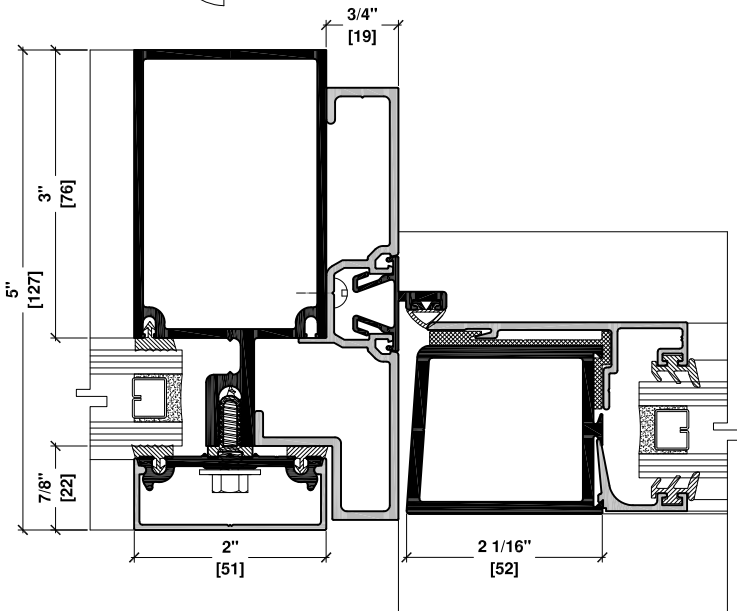


21a 3" VERTICAL TUBE
VENT - FIXED GLASS
DRY GLAZED



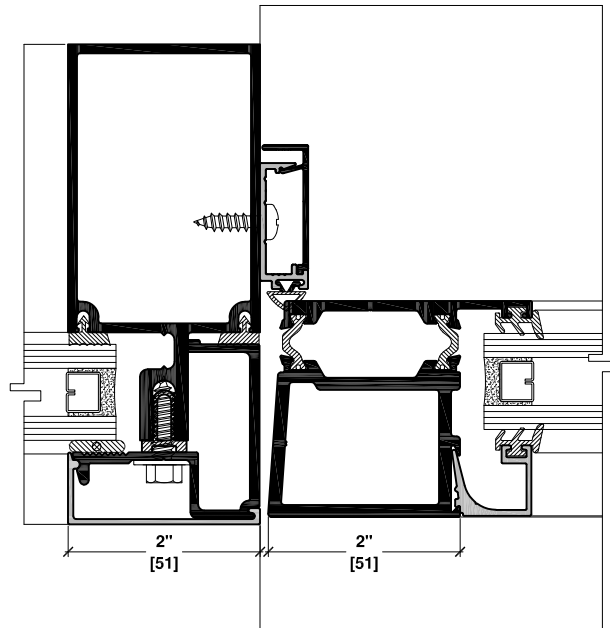
22 3" VERTICAL TUBE
SERIES 260 DOOR
WET GLAZED

22b 3" VERTICAL TUBE
SERIES 260 DOOR
WET GLAZED

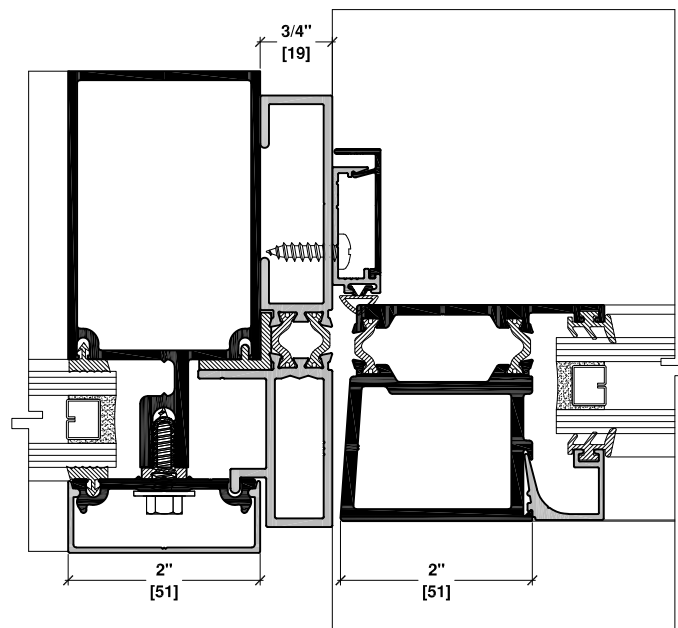


22a 3" VERTICAL TUBE
SERIES 260 DOOR
DRY GLAZED

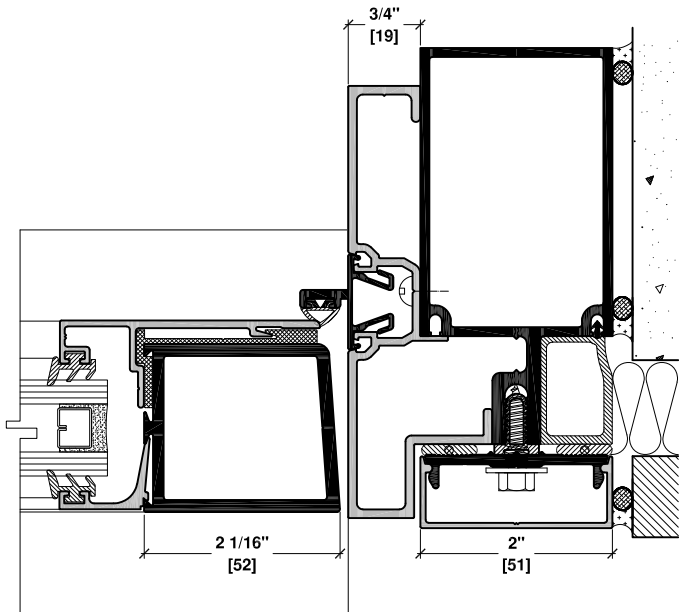
22c 3" VERTICAL TUBE
SERIES 260 DOOR
DRY GLAZED



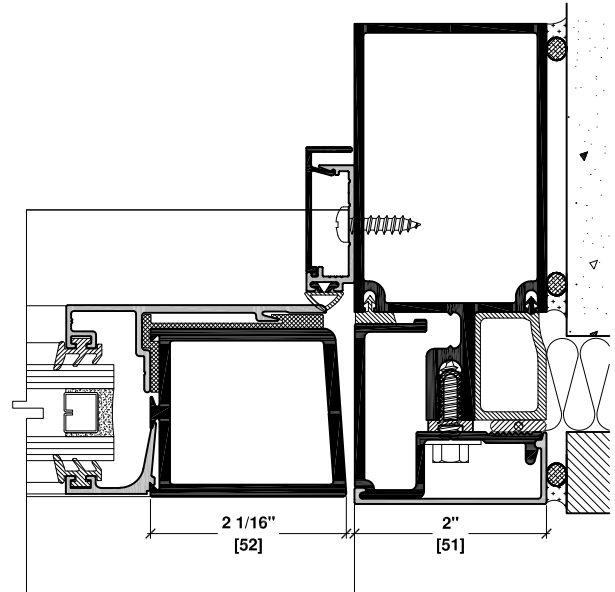
22d 3" VERTICAL TUBE
SERIES 4200 DOOR
WET GLAZED



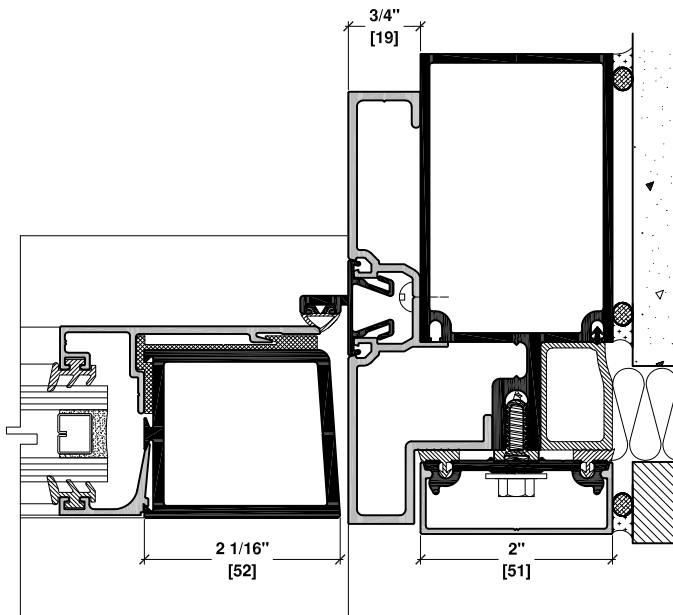
22e 3" VERTICAL TUBE
SERIES 4200 DOOR
DRY GLAZED



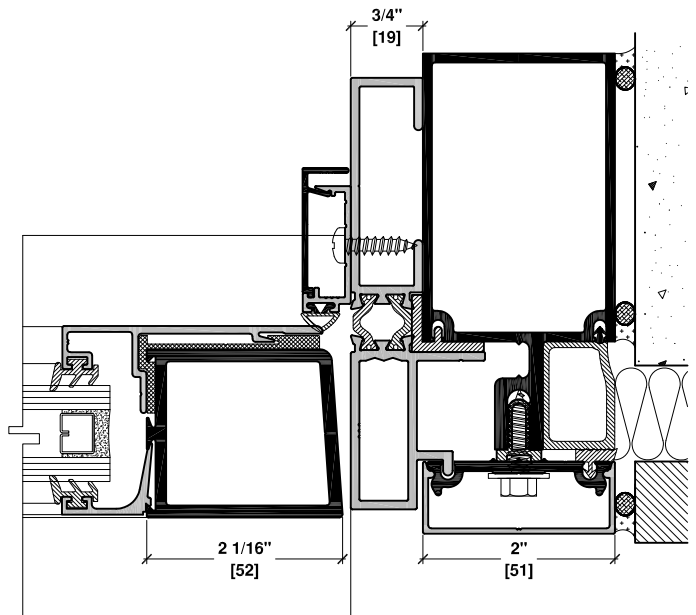
23 3" VERTICAL TUBE
SERIES 260 DOOR
WET GLAZED



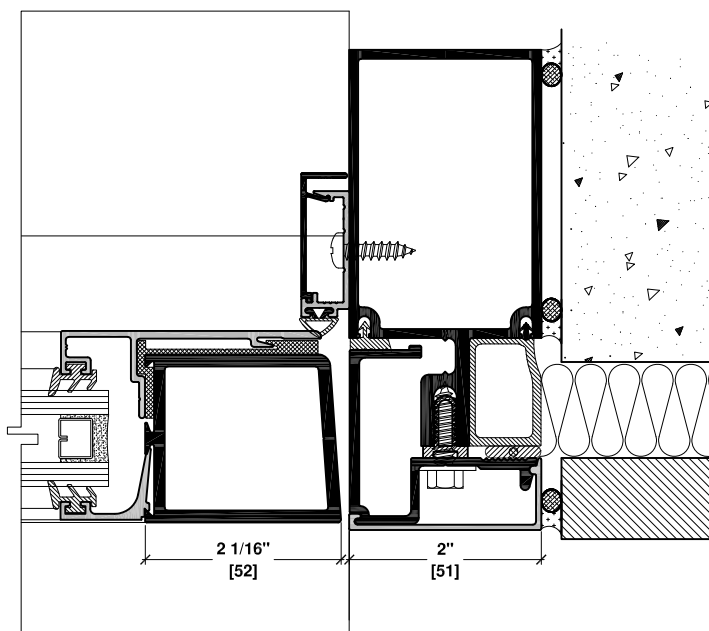
23b 3" VERTICAL TUBE
SERIES 260 DOOR
WET GLAZED



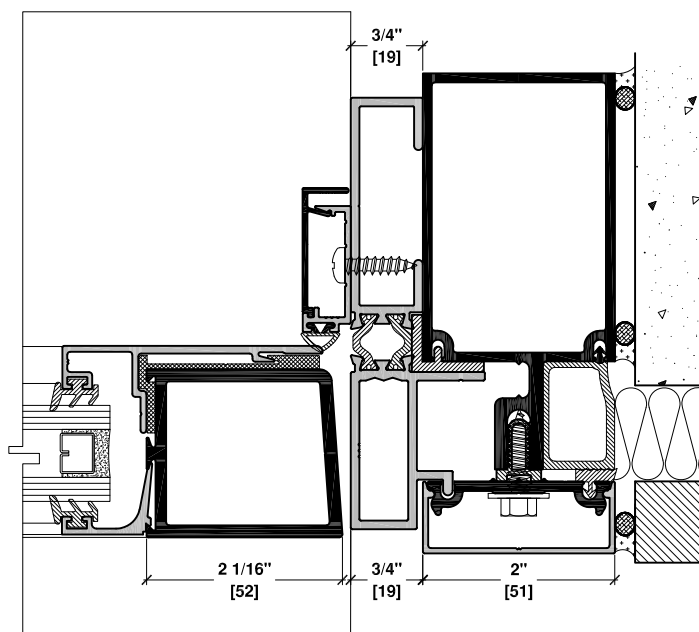
23a 3" VERTICAL TUBE
SERIES 260 DOOR
DRY GLAZED



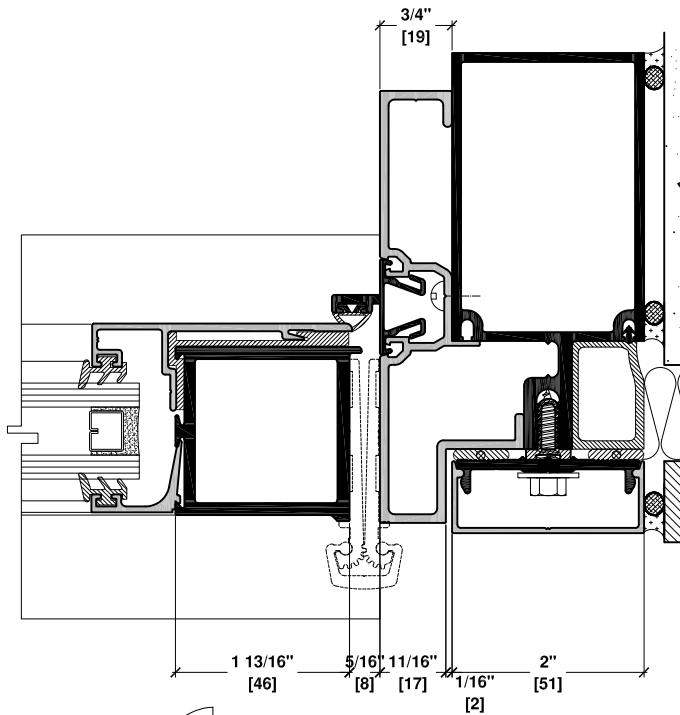
23c 3" VERTICAL TUBE
SERIES 260 DOOR
DRY GLAZED



23d 3" VERTICAL TUBE
SERIES 260 DOOR
WET GLAZED

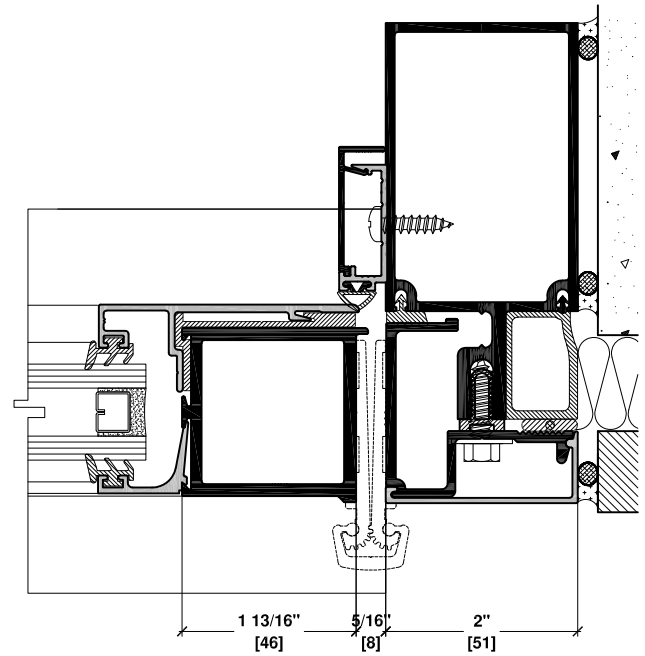


23e 3" VERTICAL TUBE
SERIES 260 DOOR
DRY GLAZED



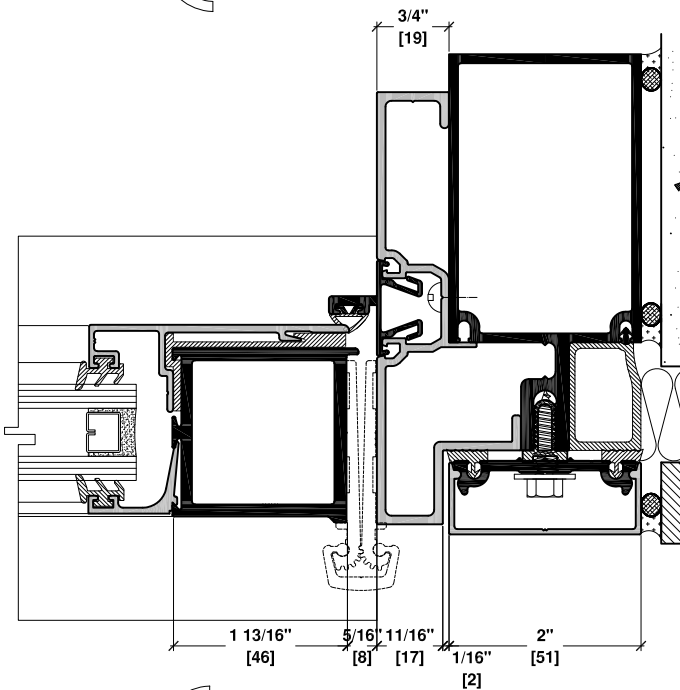
23f

**3" VERTICAL TUBE
SERIES 260 DOOR
WET GLAZED**



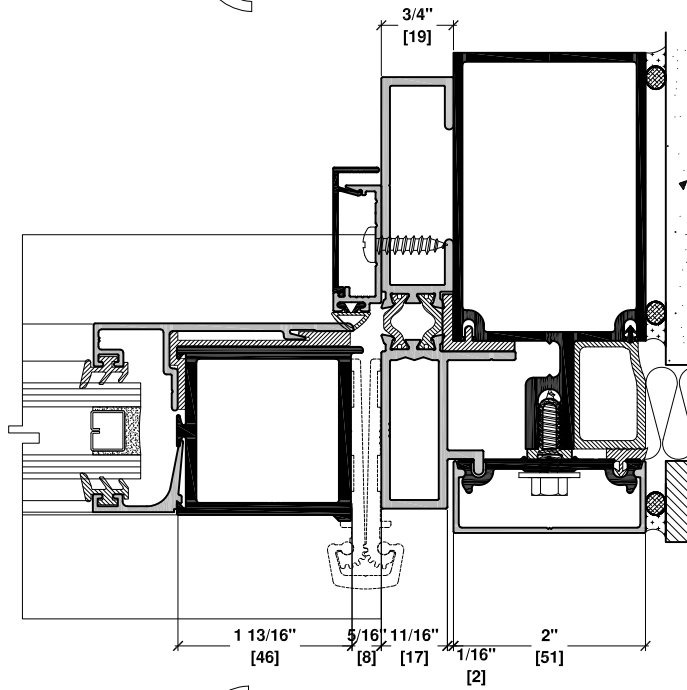
23h

**3" VERTICAL TUBE
SERIES 260 DOOR
WET GLAZED**



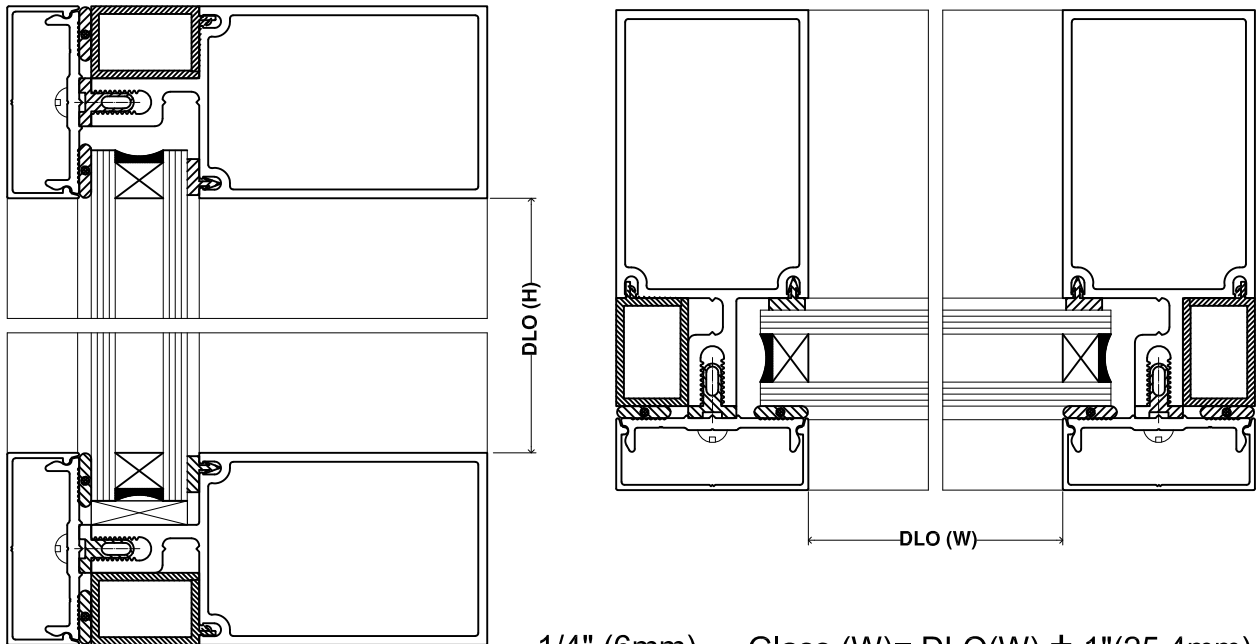
23g

**3" VERTICAL TUBE
SERIES 260 DOOR
DRY GLAZED**



23i

**3" VERTICAL TUBE
SERIES 260 DOOR
DRY GLAZED**

GLASS CALCULATION

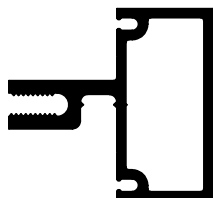
1/4" (6mm) Glass (W)= DLO(W) + 1"(25.4mm)

3/8" (10mm) Glass (H)=DLO(H) + 1"(25.4mm)

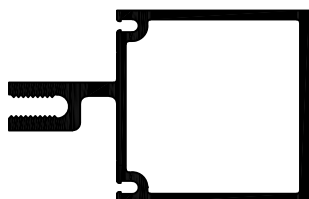
1/2" (12mm)

1" (25.4mm)

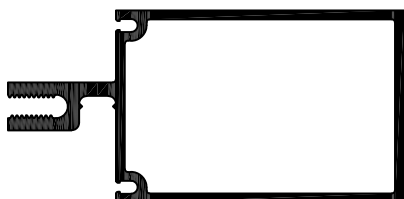
Note: use the appropriate spline



PART #: 5000-101
MULLION 1" (25.4mm)
2" X 1"
(50.8mm X 25.4mm)
(SHEAR BLOCK NOT PROVIDED)



PART #: 5000-102
MULLION 2" (50.8mm)
2" X 2"
(50.8mm X 50.8mm)
WIND LOAD CHART



PART #: 5000-103
MULLION 3" (76.2mm)
2" X 3"
(50.8mm X 76.2mm)
WIND LOAD CHART



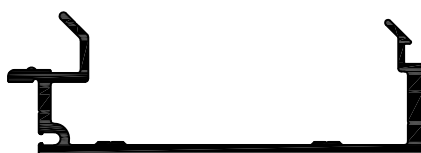
PART #: 5000-104
MULLION 4" (101.6mm)
2" X 4"
(50.8mm X 101.6mm)
WIND LOAD CHART



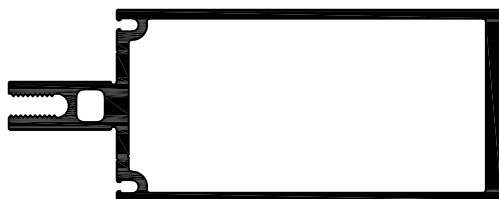
PART #: 5000-105
MULLION 5" (127.0mm)
2" X 5"
(50.8mm X 127.0mm)
WIND LOAD CHART



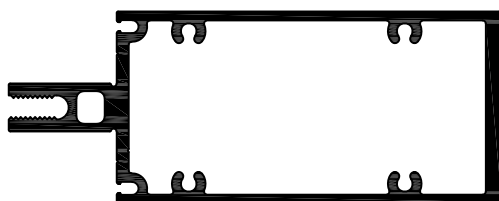
PART #: 5000-014
4" SPLIT MALE MULLION



PART #: 5000-024
4" SPLIT FEMALE MULLION



PART #: 5000-004
MULLION 2" X 4"
(50.8mm X 101.6mm)



PART #: 5000-054
4" MULLION WITH SCREW
PORT



PART #: 5000-115
SINGLE GLASS ADAPTOR



PART #: 5000-111
ADAPTOR SINGLE GLAZED
1/4" (6MM) GLASS



PART #: 5000-114
SINGLE GLAZED ADAPTOR
3/8" (10mm) GLASS
(USE # 9903-103 & # 9903-104
SPLINE) & 1/2" (12mm) GLASS



PART #: 5000-131
PRESSURE PLATE(PUNCHED)
FOR DRY GLAZING



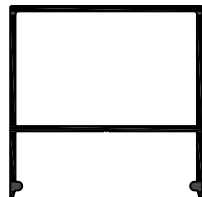
PART #: 5000-631
PRESSURE PLATE
FOR DRY GLAZING



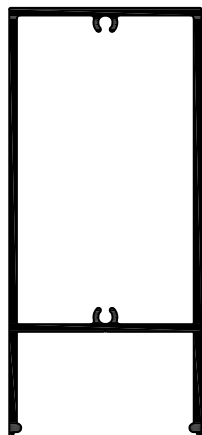
PART #: 5000-132
PRESSURE PLATE
FOR WET GLAZING



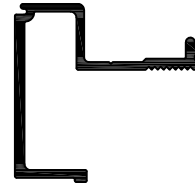
PART #: 5000-130
SNAP ON CAP
3/4" (19mm)



PART #: 5000-154
SNAP ON CAP
2" (50.8mm)



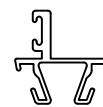
PART #: 5000-157
SNAP ON CAP
4-1/2" (114.30mm)



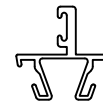
PART #: 5000-121
DOOR ADAPTOR
FLUSH



PART #: 5000-122
SNAP ON CAP
FOR PART #:
5000-121



PART #: 1450-014
DOOR STOP
FOR 1 $\frac{3}{4}$ " (44.5mm)
DOOR



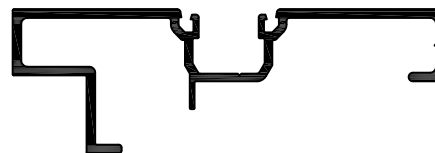
PART #: 1450-015
DOOR STOP
FOR 2" (50.8mm)
DOOR



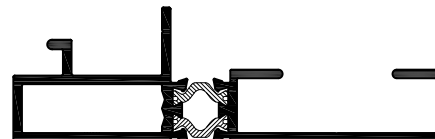
PART #: 8000-075
DOOR STOP BASE



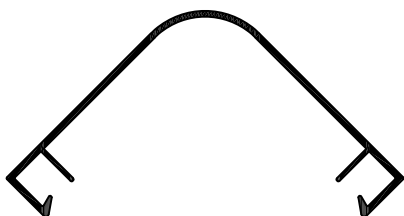
PART #: 8000-076
DOOR STOP COVER



PART #: 5000-116
DOOR ADAPTOR
3/4" X 4-1/2"
(19.0mm X 114.3mm)



PART #: 5000-701
DOOR ADAPTOR
3/4" X 4-1/2"
(USE WITH 8000-075
& 8000-076-2 PIECE
DOOR STOP)



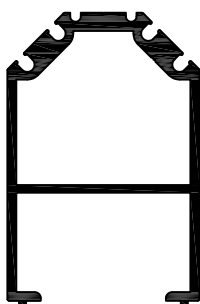
PART #: 5000-137
SNAP ON CAP
FOR 90° OUTSIDE
CORNER



PART #: 5000-136
PRESSURE PLATE
FOR 90° OUTSIDE
CORNER



PART #: 5000-124
NECK ADAPTOR
FOR 90° CORNER
ADAPTOR



PART #: 5000-123
ADAPTOR
FOR 90°
OUTSIDE CORNER

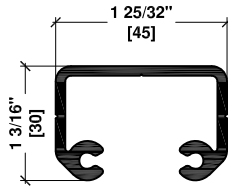
SERIES 5000 SHEAR BLOCK

PART #: 5000-902 FOR 2" MULLION

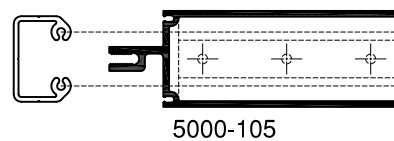
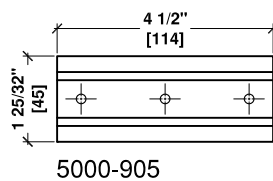
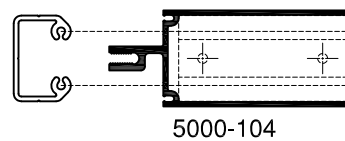
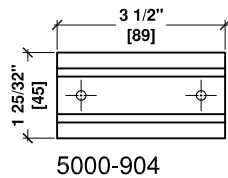
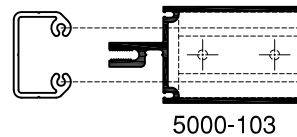
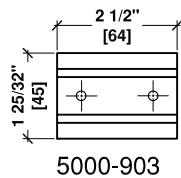
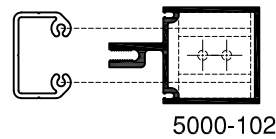
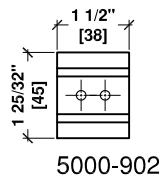
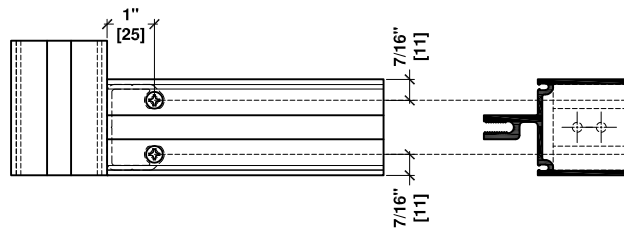
PART #: 5000-903 FOR 3" MULLION



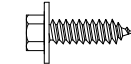

PART #: 5000-904 FOR 4" MULLION

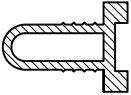


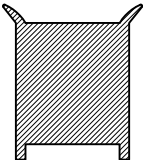




PART #: 5000-905 FOR 5" MULLION



SHEAR BLOCK LOCATION



DRAWING	DESCRIPTION	APPLICATION	QTY/ JOINT
	PART #: 9902-400 # 10 X 1/2" RH SCREW	FASTEN DOOR ADAPTOR TO MULLION	2-3
	PART #: 9902-102 # 6 X 1" FH SCREW	FASTEN S. G. ADAPTOR TO MULLION	2 @ 24" C/C
	ART #: 9902-005 1/4-20 X 7/8" HEX WASHER MACHINE SCREW	FASTEN PRESSURE PLATE TO MULLION	@ 4" C/C
	PART #: 9902-503 # 10 X 1" PH SCREW	FASTEN SHEAR BLOCK TO VERTICAL	2-3

DRAWING	DESCRIPTION	APPLICATION
	PART #: 9903-001 THERMAL BREAK (BLACK)	THERMAL BARRIER
	PART #: 9903-104 1/8" GLAZING SPLINE	APPLY TO MULLION AND DRY GLAZED PRESSURE PLATE
	PART #: 9904-001 1/8" POLYSHIM TAPE BY TREMCO	APPLY TO WET GLAZED PRESSURE PLATE
	PART #: 9903-300 CORNER PLUG (BLACK)	APPLY ONE TO EACH CORNER
	PART #: 9906-100 POCKET FILLER (BLACK)	APPLY INTO THE OUTSIDE POCKET OF EACH PERIMETER
	PART #: 9903-138 DOOR BULB SEAL REMOVABLE	APPLY TO THE DOOR STOP
	PART #: 9906-401 PVC DOOR ADAPTOR	APPLY TO MULLION WHEN USING 8000-701 THERMALLY BROKEN ADAPTOR
	PART #: 9903-143-00 BULB-SEAL FOR DOOR STOP	APPLY TO THE DOOR STOP

SYSTEM GLAZING SPLINE AND WEATHERING

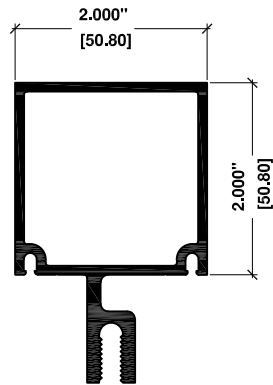
AWSF TEST RESULTS

TEST	RESULTS
Air Leakage Rate Test Pressure 300 Pa (5.20 psf)	0.250 m ³ /h/m ² (0.014 ft ³ /min/ft ²)
Water Pressure Achieved	700 Pa (14.62 psf)
Maximum Structural Pressure Achieved	Test Pressure of 2000 Pa (60 psf) Positive load deflection - 9.887 mm (0.389 in) Negative load deflection - 11.741 mm (0.462 in)

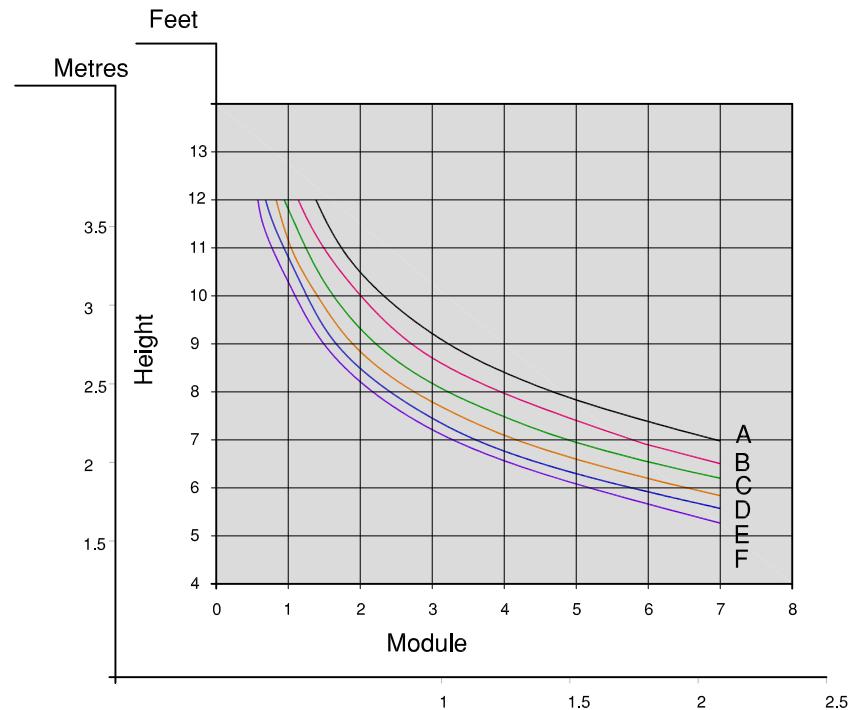
NFRC TEST RESULTS

ITEM	VALUE
Standardized U-Factor	0.41 Btu/hr-ft ² -F

5000-102
MULLION 2" (50.8mm)
2" x 2" (50.8mm x 50.8mm)

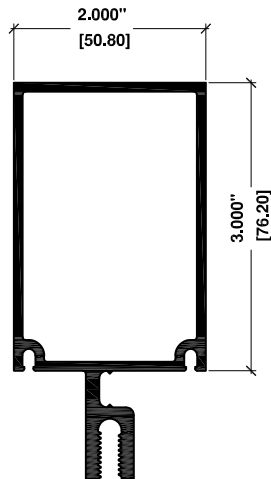


A = 21 psf (1.0 KPa)
B = 25 psf (1.2 KPa)
C = 30 psf (1.4 KPa)
D = 35 psf (1.7 KPa)
E = 40 psf (1.9 KPa)
F = 45 psf (2.1 KPa)

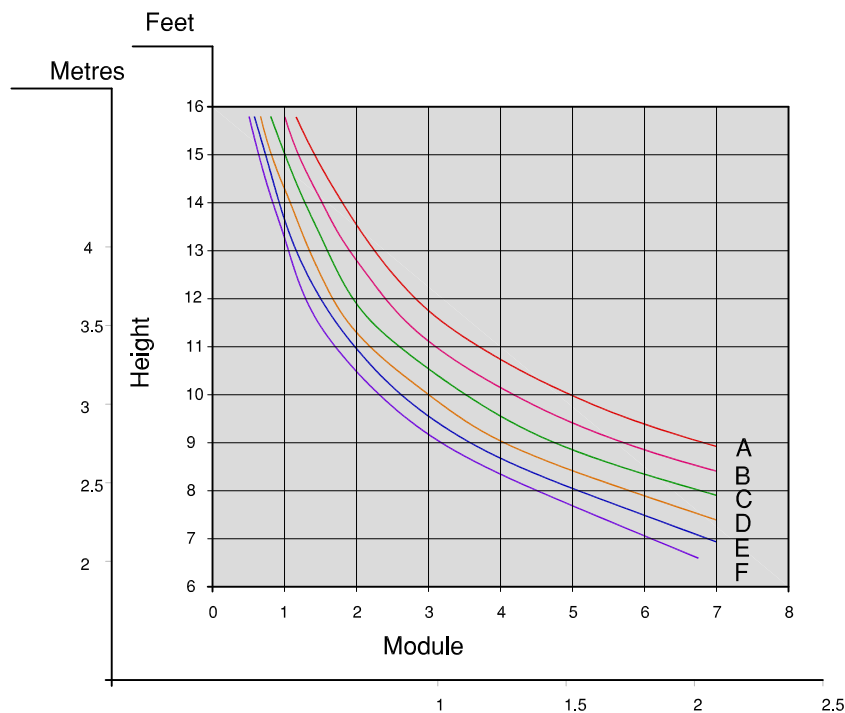


" For information puropes only "
Not for design.

5000-103
MULLION 3"(76.2mm)
2" x 3" (50.8mm x 76.2mm)

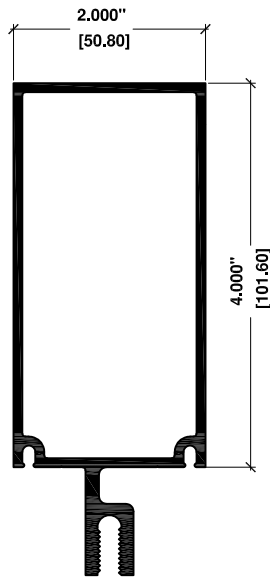


A = 21 psf (1.0 KPa)
B = 25 psf (1.2 KPa)
C = 30 psf (1.4 KPa)
D = 35 psf (1.7 KPa)
E = 40 psf (1.9 KPa)
F = 45 psf (2.1 KPa)

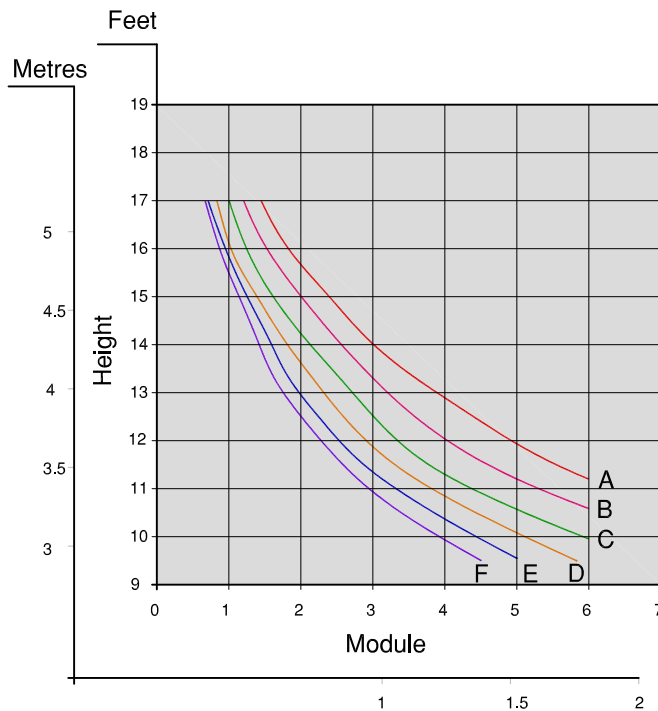


" For information purposes only "
Not for design.

5000-104
MULLION 4"(101.6mm)
2" x 4" (50.8mm x 101.6mm)

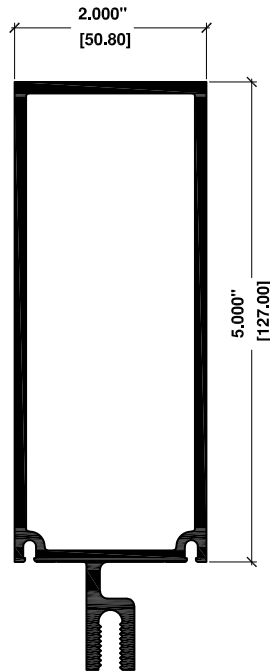


A = 21 psf (1.0 KPa)
B = 25 psf (1.2 KPa)
C = 30 psf (1.4 KPa)
D = 35 psf (1.7 KPa)
E = 40 psf (1.9 KPa)
F = 45 psf (2.1 KPa)

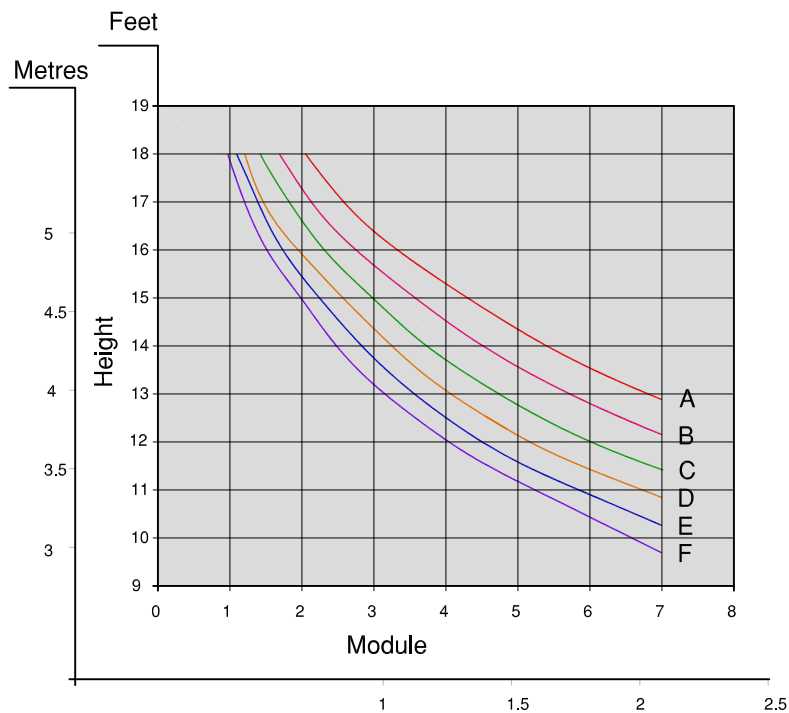


" For information purposes only "
Not for design.

5000 -105
MULLION 5"(127.0mm)
2" x 5" (50.8mm x 127.0mm)

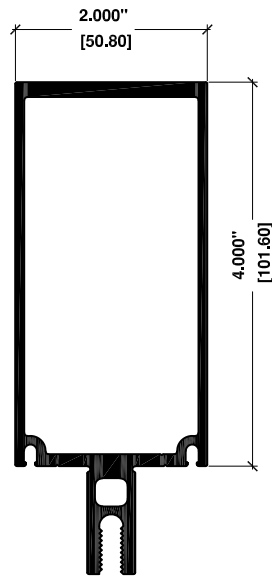


A = 21 psf (1.0 KPa)
B = 25 psf (1.2 KPa)
C = 30 psf (1.4 KPa)
D = 35 psf (1.7 KPa)
E = 40 psf (1.9 KPa)
F = 45 psf (2.1 KPa)

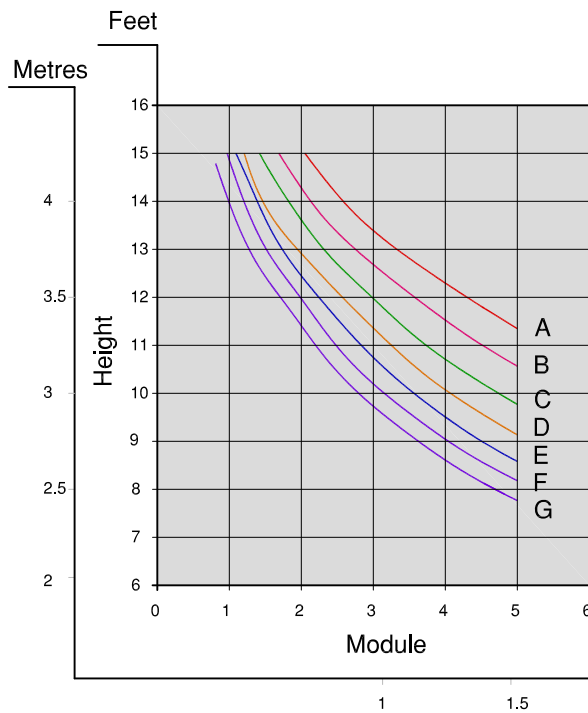


" For information purposes only "
Not for design.

5000 -004
MULLION 4"(101.60mm)
2" x 4" (50.8mm x 101.60mm)



A = 20 psf (0.95 KPa)
B = 25 psf (1.2 KPa)
C = 30 psf (1.4 KPa)
D = 35 psf (1.7 KPa)
E = 40 psf (1.9 KPa)
F = 45 psf (2.1 KPa)
G = 50 psf (2.4 KPa)

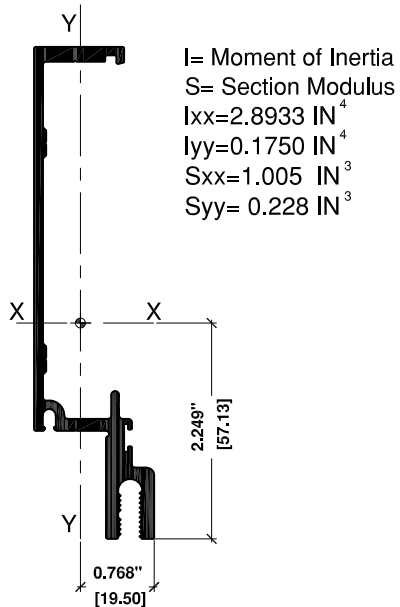


" For information puropes only "
Not for design.

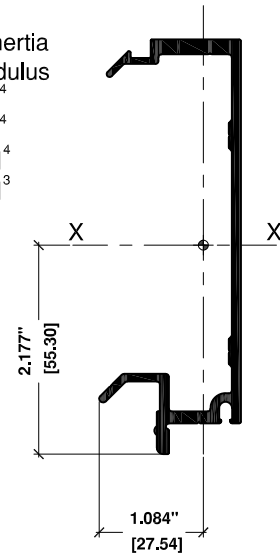
5000 -014

5000-024

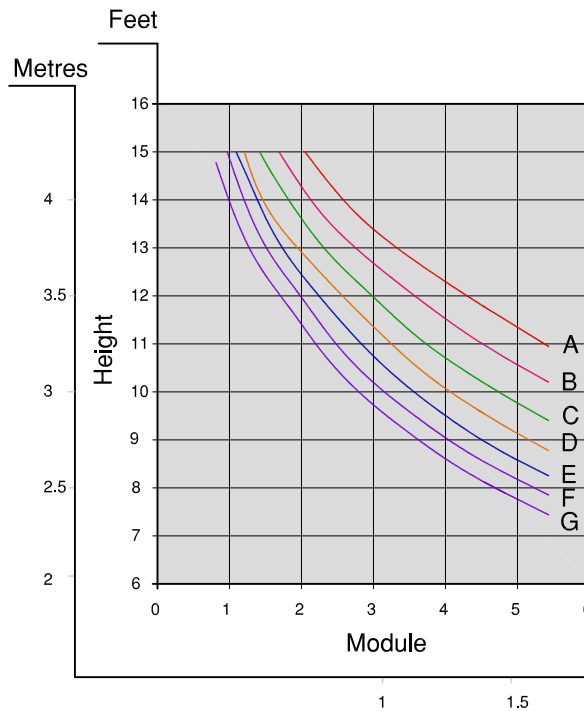
2" x 4" (50.8mm x 101.60.0mm)



I= Moment of Inertia
S= Section Modulus
 $I_{xx}=1.9431 \text{ IN}^4$
 $I_{yy}=0.1366 \text{ IN}^4$
 $S_{xx}=0.8924 \text{ IN}^3$
 $S_{yy}=0.1260 \text{ IN}^3$

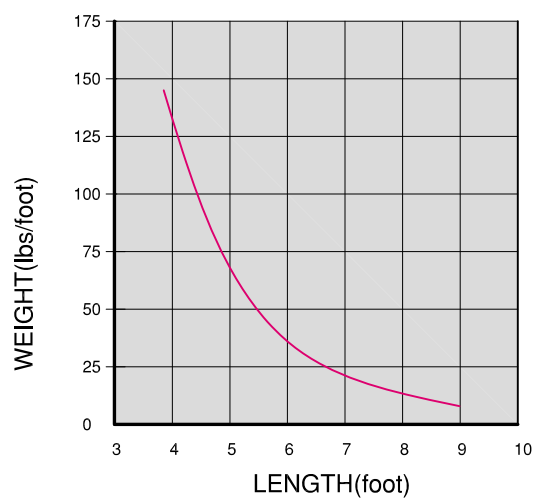
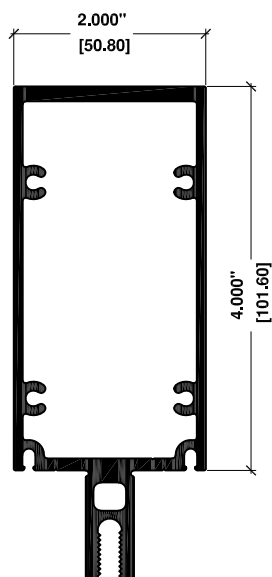


A = 20 psf (0.95 KPa)
B = 25 psf (1.2 KPa)
C = 30 psf (1.4 KPa)
D = 35 psf (1.7 KPa)
E = 40 psf (1.9 KPa)
F = 45 psf (2.1 KPa)
G = 50 psf (2.4 KPa)



" For information purposes only "
Not for design.

5000 -054
2" x 4" (50.8mm x 101.60mm)



5000 SERIES CURTAIN WALL SYSTEM SPECIFICATION

PART 1 - GENERAL

1.1 Work Included

Furnish labour, materials and services for the complete fabrication, assembly and installation of Series 5000 Framing system manufactured by Commdoor Aluminum. Work to include all necessary accessories, anchors and sealants as required based on the purchase agreement.

1.2 Work Excluded

Structural steel, wood blocking or framing, interior trims, concrete masonry, final cleaning, protection, related work specified elsewhere, convactor covers and trims and ceiling trims.

1.3 Design

The 5000 Series Curtain Wall System to be designed based on the "Open Rain Screen" and "Pressure Equalization" principles

1.4 Performance

Deflection of the vertical mullion to be $< 1/175$ of the span at the specified pressure level.
Permanent Deformation of vertical mullion to be $< 0.2\%$ of the Length of the mullion.

Air Leakage should not exceed $0.06 \text{ (ft}^3\text{/min)/ft}^2$.

1.5 Quality Assurance

The 5000 Series 2" CURTAIN WALL System supplied under this specification must comply to the performance requirements of the Canadian Standards Association CAN3-A440-M90, classification fixed, B7, C5, I=52.1. A copy of the test report from an independent testing laboratory certifying compliance must be furnished upon request by the owner/architect.

1.6 Shop Drawings

All work of this section shall be executed in strict accordance with approved shop drawings.

1.7 Warranty

The work of this section shall be guaranteed against defects of materials and workmanship for a period of one year from date of certificate of substantial completion.

PART 2 - PRODUCTS

2.1 Material

2.1.1 Aluminum Extrusion

A) All extruded aluminum sections to be 6063-T6 alloy or equivalent.

B) Frame members (back section) size will be based on published wind load charts to meet specified wind load.

Available back section sizes 1" (25.4mm), 2" (50.8mm), 3" (76.2mm), 4" (101.6mm) and 5" (127.0mm).

2.1.2 Thermal Break

If applicable, extruded virgin polyvinyl chloride (P.V.C).

2.1.3 Glazing Material

Exterior Glazing:

- 1) Macro-polyisobutylene tape with a continuous built in shim; highly adhesive and elastic, or
- 2) Extruded thermoplastic elastomers gasket.

Interior Glazing:

Extruded thermoplastic elastomers gasket.

2.1.4 Fasteners

Fasteners shall be zinc plated.

2.2 Fabrication

Fabrication will be carried out according to the approved shop drawings. All joints will be assembled tight using manufactures provided assembly brackets to maintain the product design performance.

2.3 Finish

2.3.1 Anodize

Anodic Oxide Treatments are to be processed in accordance with AAMA designations.

M12C22A31 class II designation is for #17 Clear anodized finish (0.0004).

M12C22A41 class I designation is for #14 Clear Anodized finish (0.0007) and colour finishes such as #26 light bronze, #40 bronze and #29 black.

2.3.2 Paint

Thermosetting Acrylic Enamel coating are to be applied in accordance with AAMA 603.8. Specify colour and type from PPG. Standard charts.

2.3.3 Fluoropolymer paint Coating

Based on Kynar 500 Resins are to be applied in accordance AAMA 605.2. Specify colour from Valspar current chart.

PART 3 - EXECUTION

3.1 Protection

Aluminum shall be isolated from concrete, mortar, plaster and dissimilar materials with a coating of Bituminous paint. Exposed aluminum surface shall be protected from long term contamination of mortar,

concrete, paint, mud, etc.

Doors and door frames shall be protected from impact damage by wood sheathing and plastic wraps.

3.2 Installation

Comm-door products to be installed according to manufacturers instructions and in conjunction with approved shop drawings. The work shall be performed by qualified skilled personnel using proper equipment in order to expedite the project in an efficient professional manner.

3.3 Cleaning

Interim and final cleaning shall be performed in accordance with the general conditions listing methods outlined in AAMA 609 & 610-02 (2002).