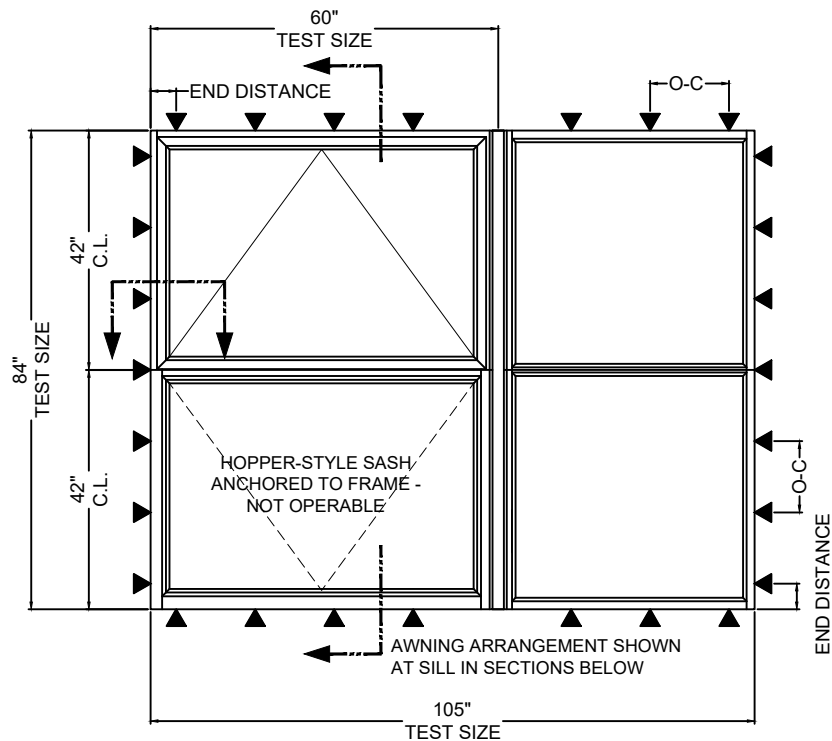




TABLE 1: ANCHOR TO SUBSTRATE CONDITION (BEYOND MULLION ANCHOR CLUSTER)							
SUBSTRATE	LOCATION	HARDWARE (ACCEPTABLE TRADENAME OR EQUIVALENT)	O.C. SPACING (MAX)	END DISTANCE (MAX)	EMBEDMENT (MIN)	SUBSTRATE EDGE DISTANCE (MIN)	d1 INSTALL DIMENSION
WOOD SG = 0.42	HEAD	1/4" Ø LAG SCREW, FULL BODY	12"	4"	1-1/2"	1"	2"
	SILL						
	JAMB						
CONCRETE 3,000 PSI	HEAD	1/4" Ø HILTI KWIK HUS-EZ (KH-EZ)	21"	4"	2-1/2"	1-3/4"	2"
	SILL						
	JAMB						
CONCRETE 4,000 PSI	HEAD	1/4" Ø HILTI KWIK HUS-EZ (KH-EZ)	24"	4"	2-1/2"	1-3/4"	2"
	SILL						
	JAMB						
CMU (GROUT FILLED) f _m = 1,500 PSI	HEAD	1/4" Ø HILTI KWIK HUS-EZ (KH-EZ)	16"	4"	2-1/2"	1-1/2"	2"
	SILL		9"				
	JAMB		12"				
STEEL STUD (18 ga. 33ksi)	HEAD	1/4"-14 SAE GR. 5 HEX/HWH HILTI KWIK FLEX OR DEWALT DRIL-FLEX	12"	4"	3 THREADS	1"	2"
	SILL						
	JAMB						

SEE SHEET 2 FOR ANCHOR SPACING AT / NEAR MULLION AT HEAD & SILL



1. Installations depicted comply with:
Florida Building Code - 8th Ed. (FBC 2023)
International Building Code (IBC 2021)
National Design Specifications (ANSI/AWC NDS 2018)
Aluminum Design Manual (ADM 2020)
Cold-Formed Steel Design Manual (AISI-S100 2020)

2. The installation depicted in this drawing and all calculations are based on a maximum size and design wind pressure rating listed below. These products **have** been proven for EHPA Large Missile Impact per ASTM E1886 / E1996 Missile Level E.

Test size: **105" x 84"** Max Awning Size: **60" x 42"** Design pressure: **+/- 80 psf**

3. Lag screws shall be used for a wood substrate. Screw materials and dimensions shall meet the requirements of ANSI / ASME Standard B18.2.1. All lag screw conditions must be pre-drilled with hole diameters of 40-70% of the fastener diameter. Wood buck installations are assumed to use 2 X S-P-F (G= 0.42) or denser. Tapered or partial bucks are not allowed.

4. Approved screw anchors shall be used for concrete substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in concrete or masonry elements. Anchor embedment shall be as indicated herein. Install per ESR-3027 requirements. Concrete installations are assumed to be at least f_c = 3,000 (or 4,000) psi, normal weight concrete.

5. Approved screw anchors shall be used for CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in concrete or masonry elements. Anchor embedment shall be as indicated herein. Install per ESR-3056 requirements. Concrete masonry installations are assumed at least ASTM C90, Type II, Grade N, with f_m = 1,500 psi, and type M or S mortar.

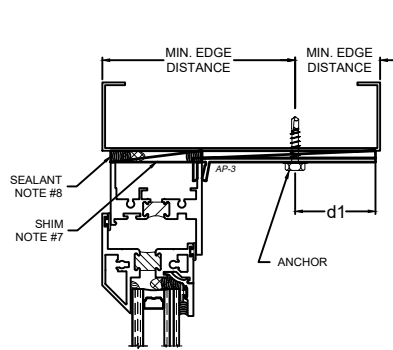
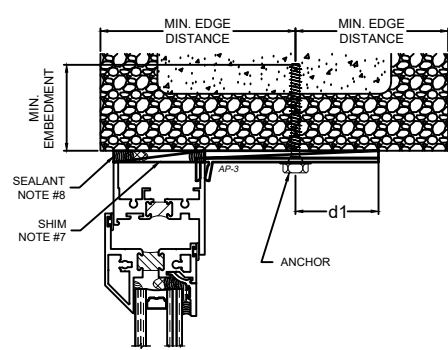
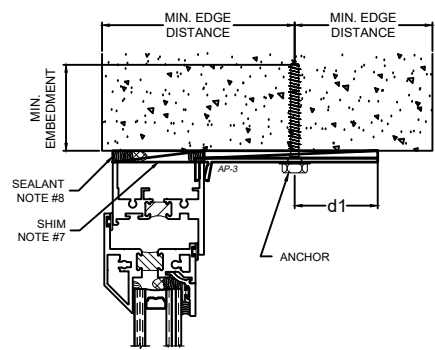
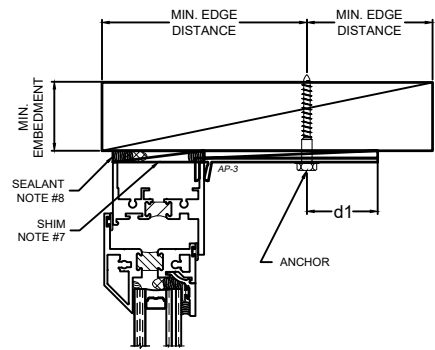
6. Approved self-drilling screws shall be used for steel stud substrate. Screw materials and dimensions shall meet the requirements of SAE Grade 5 Carbon Steel. Steel stud installations assume 18 gauge, 33 ksi studs and follow AISI-S100 rules and procedures.

7. Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load-bearing type.

8. Drawings depict details necessary to meet structural load requirements, but do not address air infiltration, water penetration, intrusion or thermal performance requirements of the installation. See manufacturer's Installation Instructions for sealing, flashing, drainage and other requirements.

9. Minimum fastener on center spacing to be coordinated with fastener manufacturer's technical data for the expected substrate.

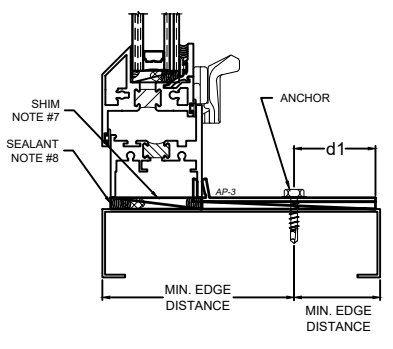
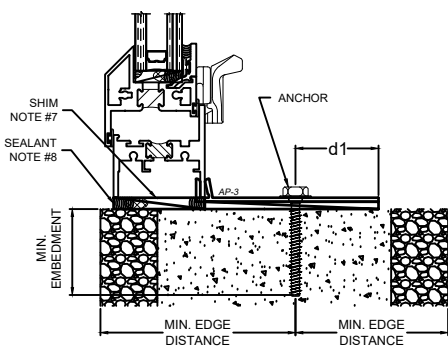
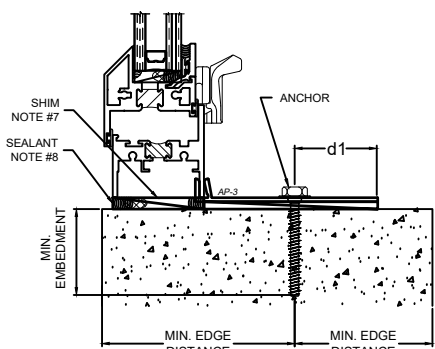
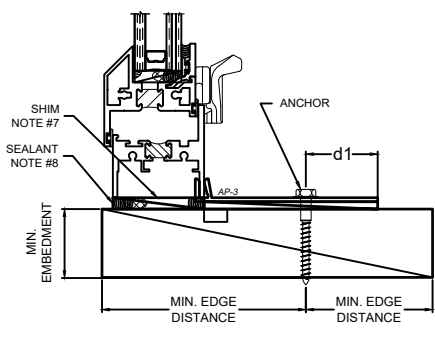
10. All substrate types shall be secured to the building structure to resist all design loads, and shall have widths that exceed the window frame widths.



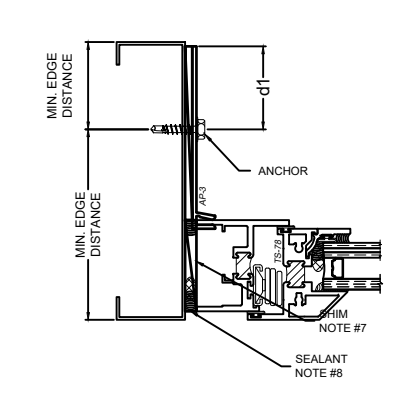
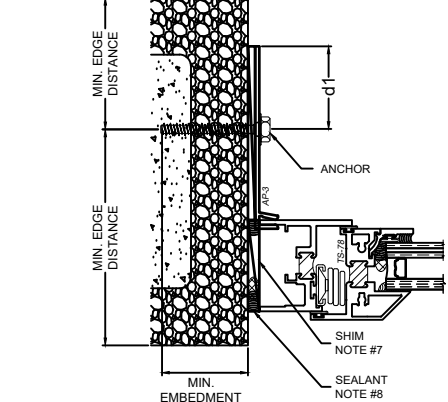
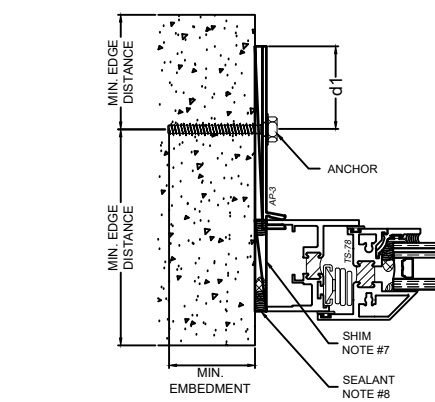
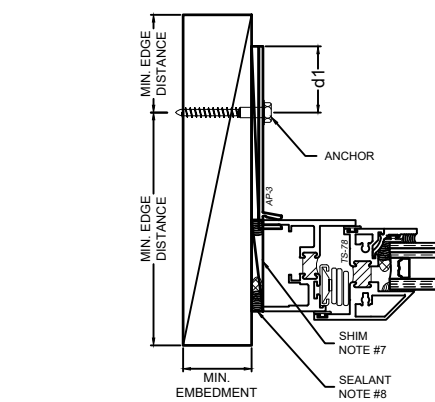
HEAD

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



SILL



JAMBS

Wayne K Helmila
Digitally signed by Wayne K Helmila
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o=Winco Window Co., ou=US,
c=US
Date: 2024.10.24 09:44:05-05'00'

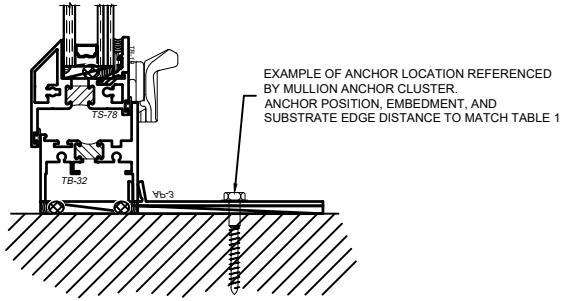


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COA: 9090

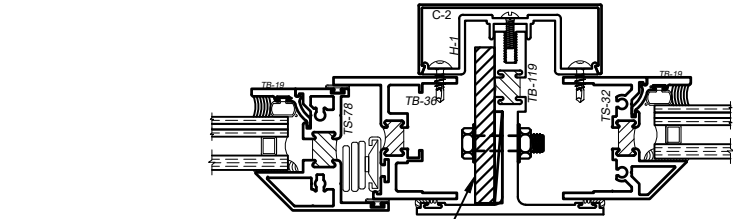
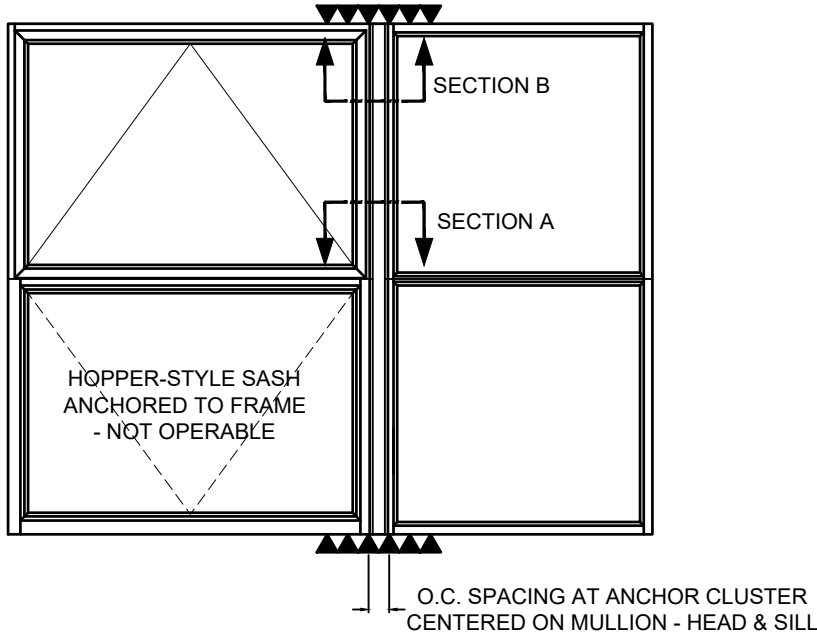
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Scale: NONE		Drawn by: B. FOOTE
Winco Window Co. 6200 Maple Ave. St. Louis, MO 63130		
PHONE: 314-725-8088		
WINCO Product: 1150S AWNING - FX		
Installation: ANCHORAGE: F-CLIPS (SHT.1 OF 2)		
Certification: LMI 1150S		

TABLE 2: ANCHOR CLUSTER CENTERED ON MULLIONS				
SUBSTRATE	LOCATION	HARDWARE (ACCEPTABLE TRADENAME OR EQUIVALENT)	NUMBER OF ANCHORS IN CLUSTER	O.C. SPACING (MAX)
WOOD SG = 0.42	HEAD	1/4" Ø LAG SCREW, FULL BODY	5	4"
	SILL			
CONCRETE 3,000 PSI	HEAD	1/4" Ø HILTI KWI-K HUS-EZ (KH-EZ)	4	5"
	SILL			
CONCRETE 4,000 PSI	HEAD	1/4" Ø HILTI KWI-K HUS-EZ (KH-EZ)	3	5"
	SILL			
CMU (GROUT FILLED) f'm = 1,500 PSI	HEAD	1/4" Ø HILTI KWI-K HUS-EZ (KH-EZ)	6	4"
	SILL		8	
STEEL STUD (18 ga. 33ksi)	HEAD	1/4"-14 SAE GR. 5 HEX/HWH HILTI KWI-K FLEX OR DEWALT DRIL-FLEX	6	2"
	SILL			

FOR ADDITIONAL ANCHOR REQUIREMENTS SUCH AS POSITION, EMBEDMENT, SUBSTRATE EDGE DISTANCE AND ANCHOR POSITION DIMENSIONS, SEE TABLE 1 FOR THE SAME ANCHOR TYPE AND LOCATION.

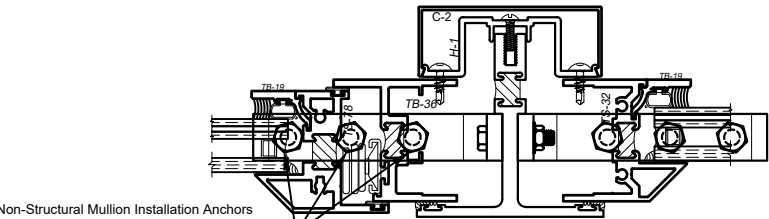


SEE SHEET 1 FOR ANCHOR SPACING AWAY FROM MULLION & AT JAMBS



STEEL REINFORCEMENT AS TESTED FOR MAX WINDOW SIZES AND DESIGN PRESSURE:
(1) 5/16" X 2-1/2" PRIMER COATED A36 STEEL FLAT BAR ATTACHED WITH Ø1/4" SAE GR. 5 THRU BOLTS AT 16" O.C. AND 3" FROM ENDS

SECTION A: STEEL REINFORCEMENT

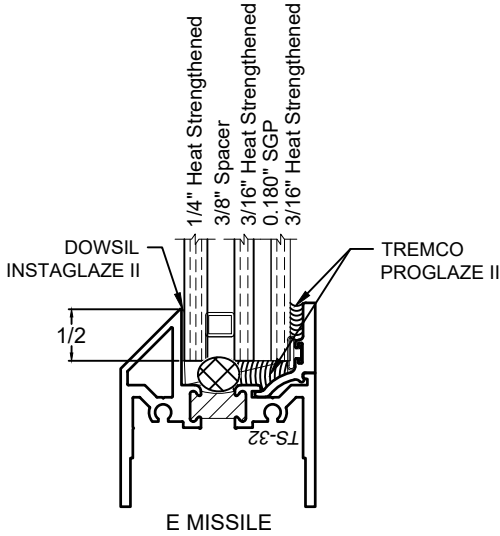
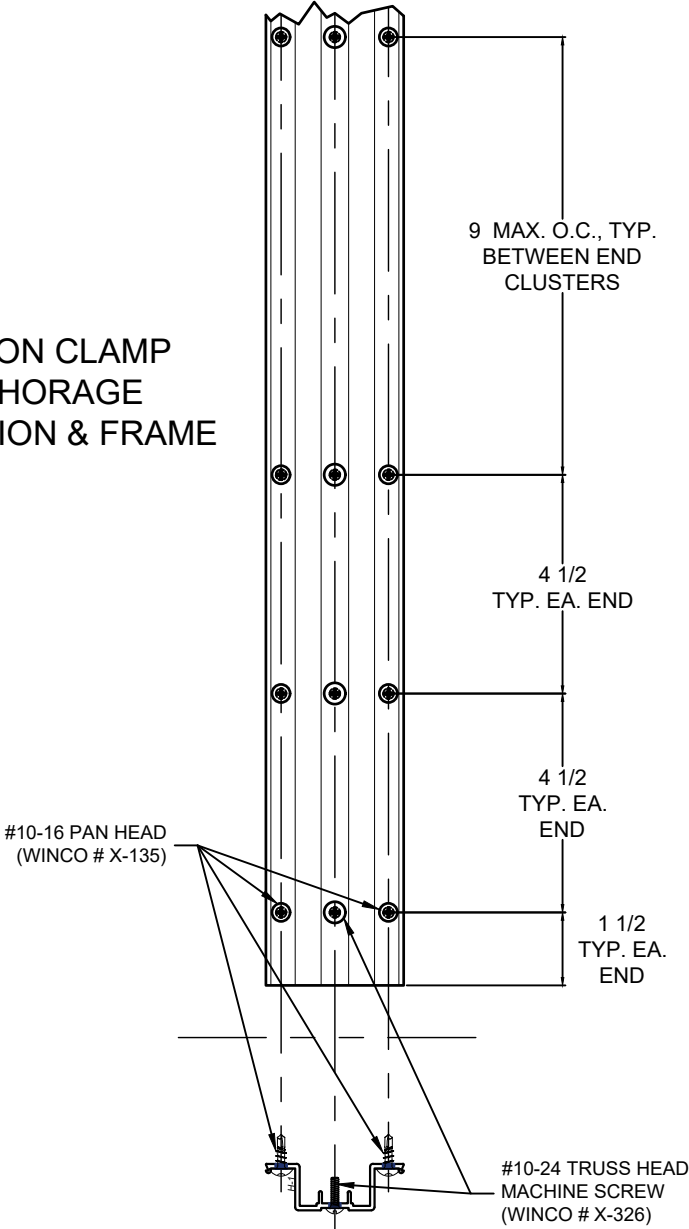


Non-Structural Mullion Installation Anchors
Mullion Loading Transferred through adjacent window frames and resolved by the anchor cluster in the installation trim

SECTION B: ANCH4 (SILL SIMILAR)

ATTACHMENTS AT MULLION

MULLION CLAMP ANCHORAGE TO MULLION & FRAME



GLAZING DETAIL

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Rev.	Description	Date
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