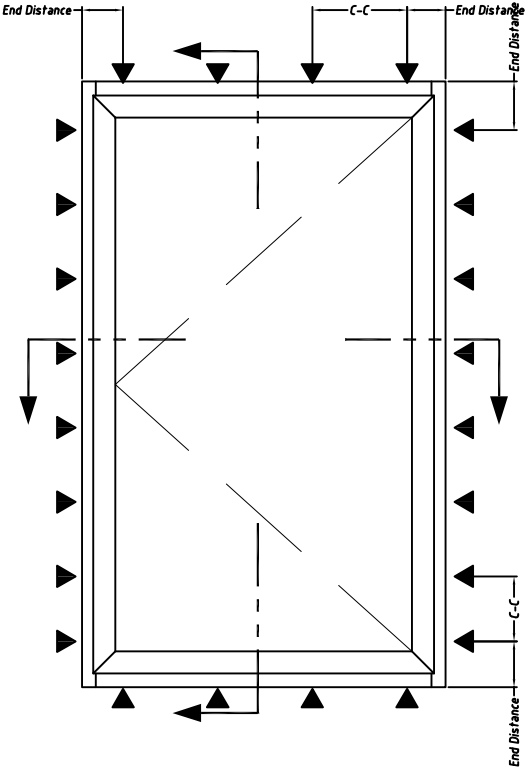


Anchor Information						
SUBSTRATE	LOCATION	ANCHOR (or equivalent)	C-C SPACING (max)	END DISTANCE (max)	EMBEDMENT (min)	EDGE DISTANCE (min)
WOOD SG = 0.42	HEAD	#12 Wood Screw	16"	3"	1-1/2"	1"
	SILL	#12 Wood Screw	16"	3"	1-1/2"	1"
	JAMB	#12 Wood Screw	16"	3"	1-1/2"	1"
CONCRETE 3000 psi	HEAD	1/4" Buildex Tapcon+	24"	3"	2"	1-3/4"
	SILL	1/4" Buildex Tapcon+	24"	3"	2"	1-3/4"
	JAMB	1/4" Buildex Tapcon+	24"	3"	2"	1-3/4"
CMU (Grout Filled) (f _c = 2000psi)	HEAD	1/4" Powers Tapper+	13-1/2"	3"	1-1/2"	1-1/2"
	SILL	1/4" Powers Tapper+	13-1/2"	3"	1-1/2"	1-1/2"
	JAMB	1/4" Powers Tapper+	13-1/2"	3"	1-1/2"	1-1/2"
STEEL STUD (18 ga. 33ksi)	HEAD	1/4"-14 Elco Dril-Flex	16-1/2"	3/4"	3 threads	3/4"
	SILL	1/4"-14 Elco Dril-Flex	16-1/2"	3/4"	3 threads	3/4"
	JAMB	1/4"-14 Elco Dril-Flex	16-1/2"	3/4"	3 threads	3/4"



1. Installations depicted comply with:
7th ed Florida Building Code (FBC 2020)
International Building Code (IBC 2018)
National Design Specifications (ANSI/AWC NDS 2018)
Aluminum Design Manual (ADM 2015)
Cold-Formed Steel Design Manual (AISI-S100 2016)
2. The installation depicted in this drawing and all calculations are based on a maximum size and design wind pressure rating listed below. The products have not been proven for resistance to wind-borne debris.

Maximum Size Design Pressure
36" x 60" +/- 80 psf

3. Wood screws shall be used for a wood substrate. Wood screw materials and dimensions shall meet the requirements of ANSI / ASME Standard B18.6.1

Wood buck installations are assumed 2x S-P-F (G=0.42) or denser. Buck width shall be greater than the window frame width. Tapered or partial bucks are not allowed. Wood buck shall be secured to the structure to resist all design loads.

4. Approved Self drilling screws shall be used for steel stud substrate. Screw materials and dimensions shall meet the requirements of ASTM Standard Specifications for Carbon Bolts and Studs ASTM A 307.

Steel Stud installations assume 18 gauge 33 KSI studs and follow AISI-S100 rules and procedures.

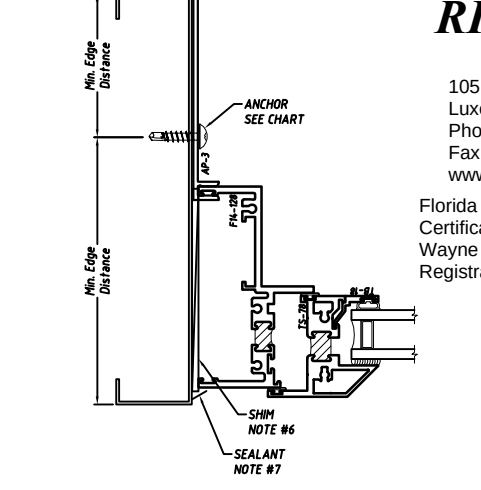
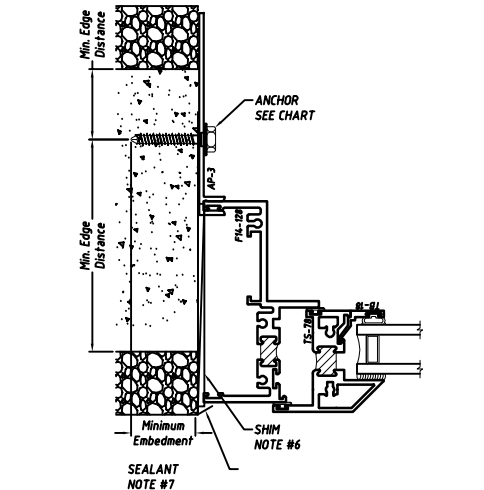
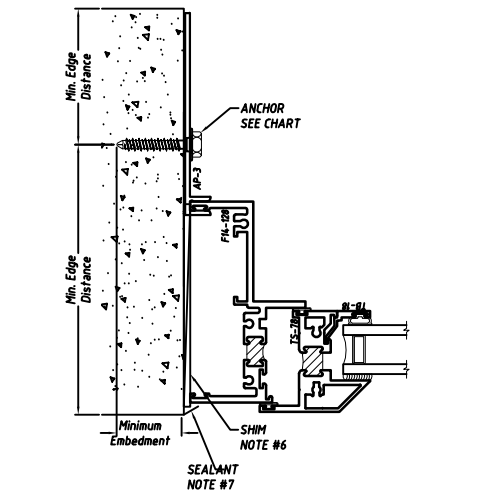
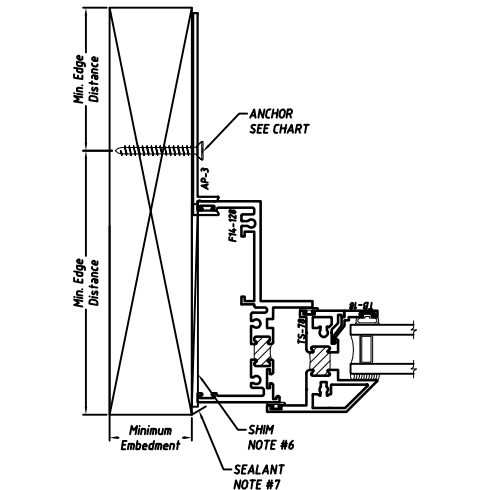
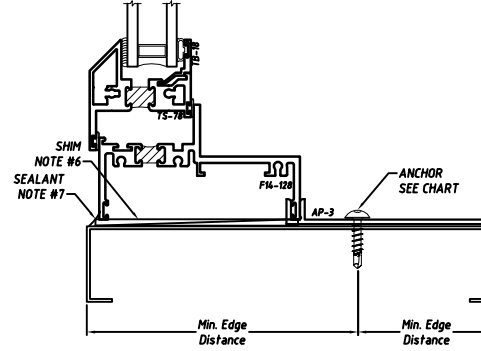
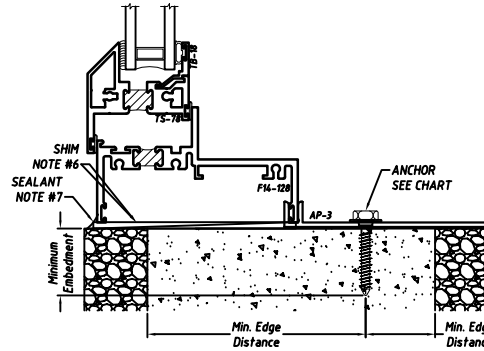
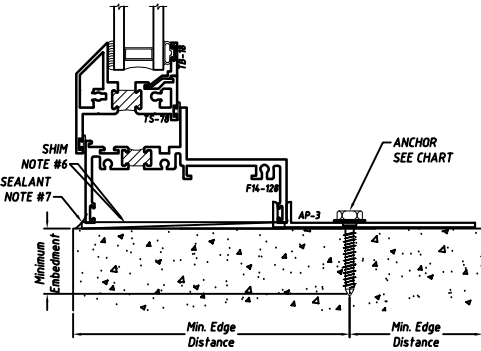
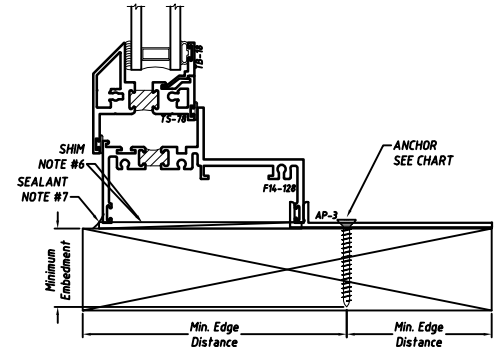
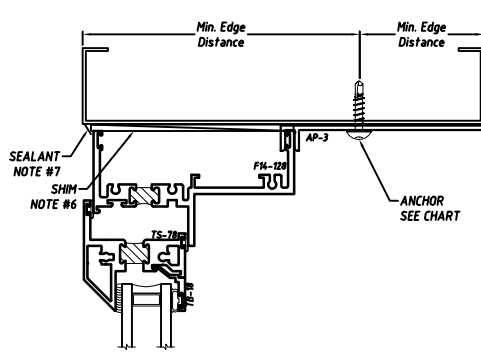
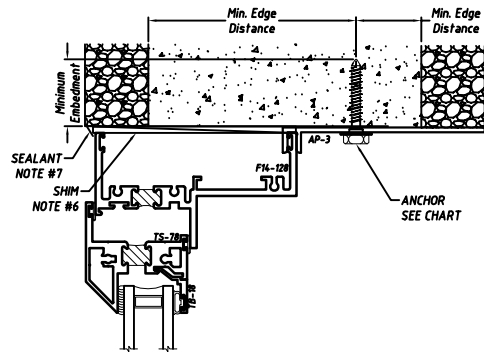
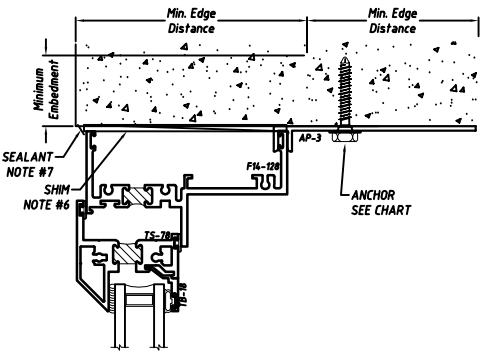
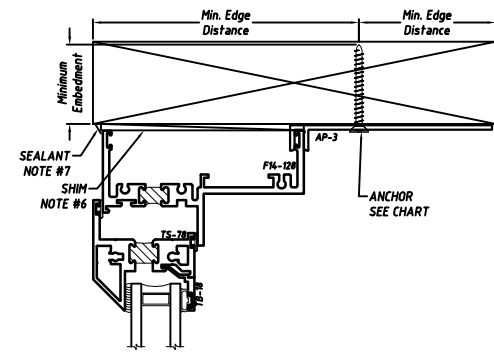
5. Approved Masonry anchors shall be used for concrete or CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in Concrete or Masonry Elements. Anchor Length shall be sufficient to guarantee 1-1/2" of full penetration into concrete. Install concrete anchors per manufacturer's instructions.

Concrete Masonry installations are assumed at least ASTM C90 hollow masonry units with 1-1/4" wall thickness or normal weight concrete with a minimum compressive strength of f_c=3,000 psi.

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

7. These drawings depict the details necessary to meet structural load requirements. They do not address the air infiltration, water penetration, intrusion or thermal performance requirements of the installation. See manufacturer's installation instructions for sealing, flashing and drainage requirements.

8. Maximum End Distance 4"

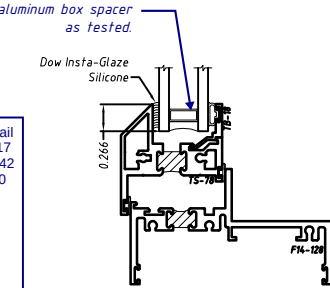


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This item has been electronically signed and sealed by Wayne Helmila, PE, 03/02/2021 using a SHA-2 authentication code.

* Printed copies of this document are not considered signed and sealed and the SHA-2 authentication code must be verified on any electronic copies.

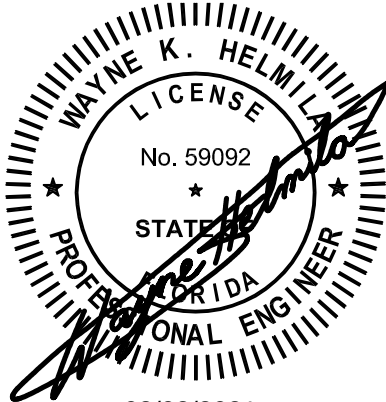
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Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



03/02/2021
COA: 9090

Rev.	Description	Date
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Scale: 6" = 1' Drawn by: K. Snader

Winco Window Co.
6200 Maple Ave.
St. Louis, Mo. 63130
PHONE (314) 725-8088 FAX (314) 725-1419

WINCO Product: 1450/1450S Casement

Installation: F-Clip

Certification: AAMA Non-Impact