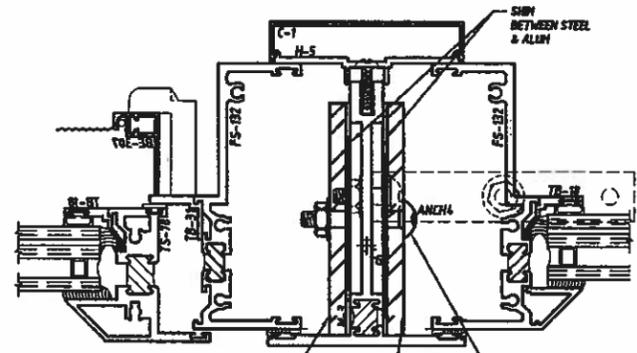
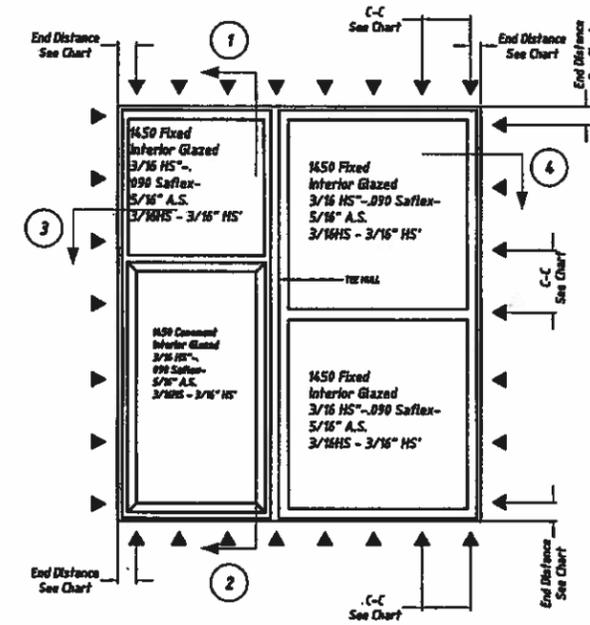
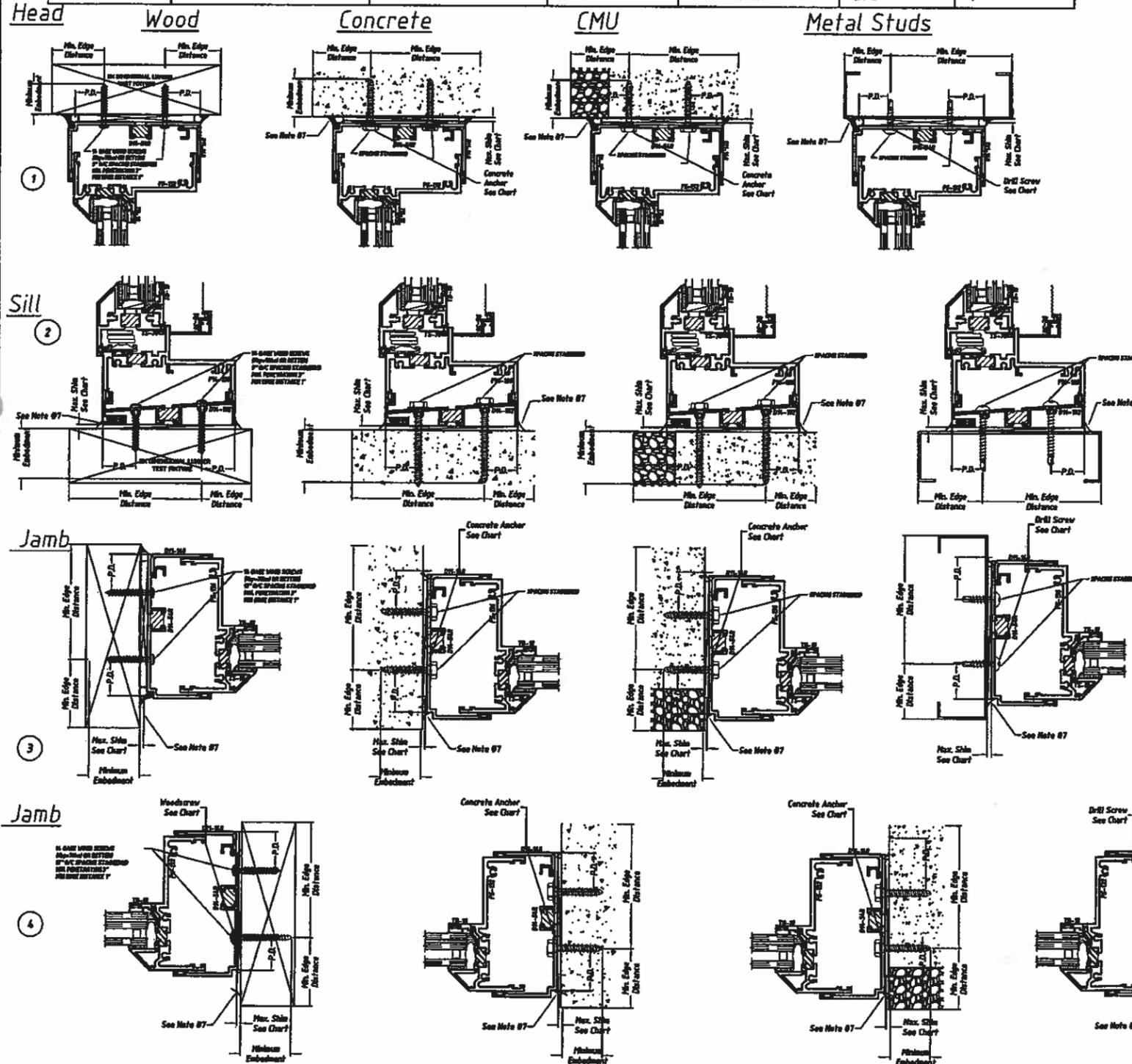


## Fastener Installation Requirements

Location	Head and Jamb (Fastener)			Sill (Fastener)			
	Substrate	Embedment (Min)	ED (Min)	PD (Min)	EB (Min)	ED (Min)	PD (Min)
Wood	#12 Wood Screw @ 2-1/4" Max O.C. at Head and Jamb						#12 Wood Screw @ 2-1/2" Max O.C. Spacing
		1-1/2"	1"	1-1/4"	1-1/2"	1"	1"
Concrete	1/4" Dia. Powers Tapper + @ 6-1/2" Max. O.C. at Head and Jamb						1/4" Dia. Powers Tapper + @ 4-1/2" Max. O.C.
		1-3/4"	3"	1-1/4"	1-3/4"	3"	1"
CMU	1/4" Dia. Powers Tapper + @ 2-1/4" Max. O.C. at Head and Jamb						1/4" Dia. Powers Tapper + @ 3" Max. O.C.
		1-1/2"	3"	1-1/4"	1-1/4"	3"	1"
Metal Stud	1/4" Dia. Buildex Tek @ 4-1/2" Max. O.C. at Head and Jamb						1/4" Dia. Buildex Tek @ 5" Max. O.C.
		N/A	3/8"	1-1/4"	N/A	3/8"	1"

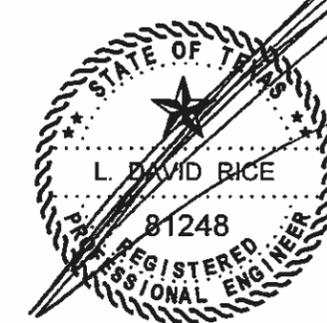


- Notes:**
- Installations depicted comply with the International Building Code (IBC), the limitations and calculations within the ANSI/AF&PA NDS (National Design Specifications) 2012 ASD method and the ADM (Aluminum Design Manual) 2010 ASD method for design wind pressures and overall sizes listed in the following table.
 

Type	Maximum Size	Design Pressure
A	87" X 99-3/16" +/-	80 psf
  - The products depicted in this drawing have not been proven for resistance to wind-borne debris and are thus approved for impact.
  - Wood screws shall be used for a wood substrate. Wood screw materials and dimensions shall meet the requirements of ANSI / AF&PA NDS (National Design Specifications) 2012 and ANSI / ASME Standard B18.6.1. Self Drilling Screws (Buldex Tek™) shall be used for steel stud substrate. Tek™ screw materials and dimensions shall meet the requirements of ASTM Standard Specifications for Carbon Bolts and Studs ASTM A 307. Powers Tapper™ Anchors shall be used for Concrete and CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Pre-drilled Fasteners (Screw Anchors) in Concrete or Masonry Elements. Tapper™ Anchor Length shall be sufficient to guarantee Embedment listed. Install concrete anchors per manufacturer's instructions.
  - Calculations provided with drawings are based only on tested design pressure for wind loading.
  - 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. Steel Stud installations assume 18 gauge 33 KSI studs and follow AISI Cold-Formed Steel Design Manual (2002 Edition) rules and procedures. 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.
  - Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load bearing type.
  - These drawings depict the details necessary to meet structural load requirements. Continuous perimeter seal required.
  - 4" Max. edge distance from corner of window.
  - Provide Glass Setting Blocks at 1/4 points.
  - Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.

**RICE**  
ENGINEERING  
105 School Creek Trail  
Luxemburg, WI 54217  
Phone: 920.845.1042  
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www.rice-inc.com

Texas Firm No: F-2183  
L. David Rice  
Registration No: 81248



Oct. 16, 2014

Rev.	Description	Date

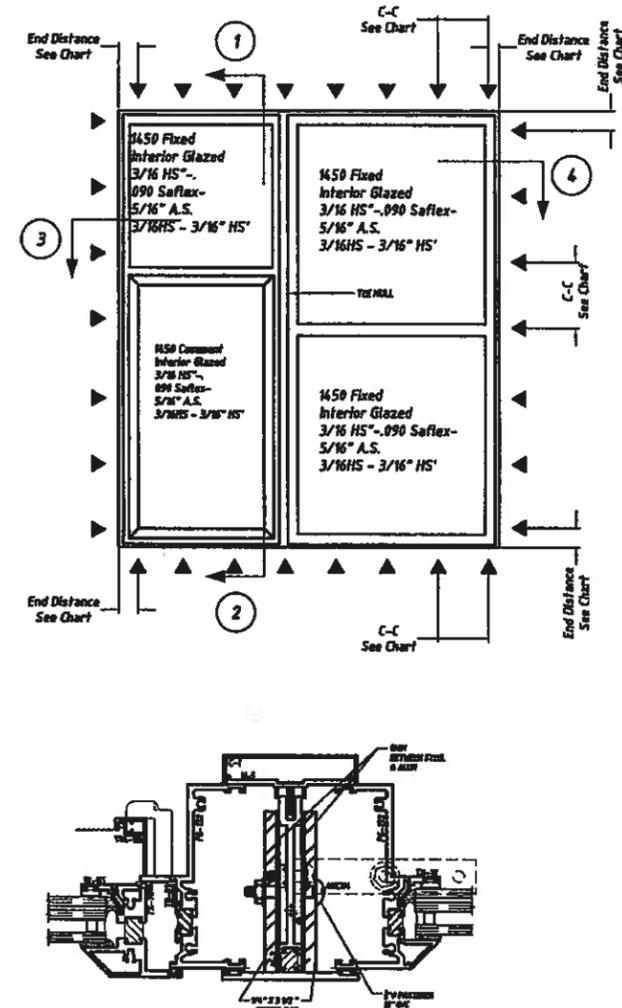
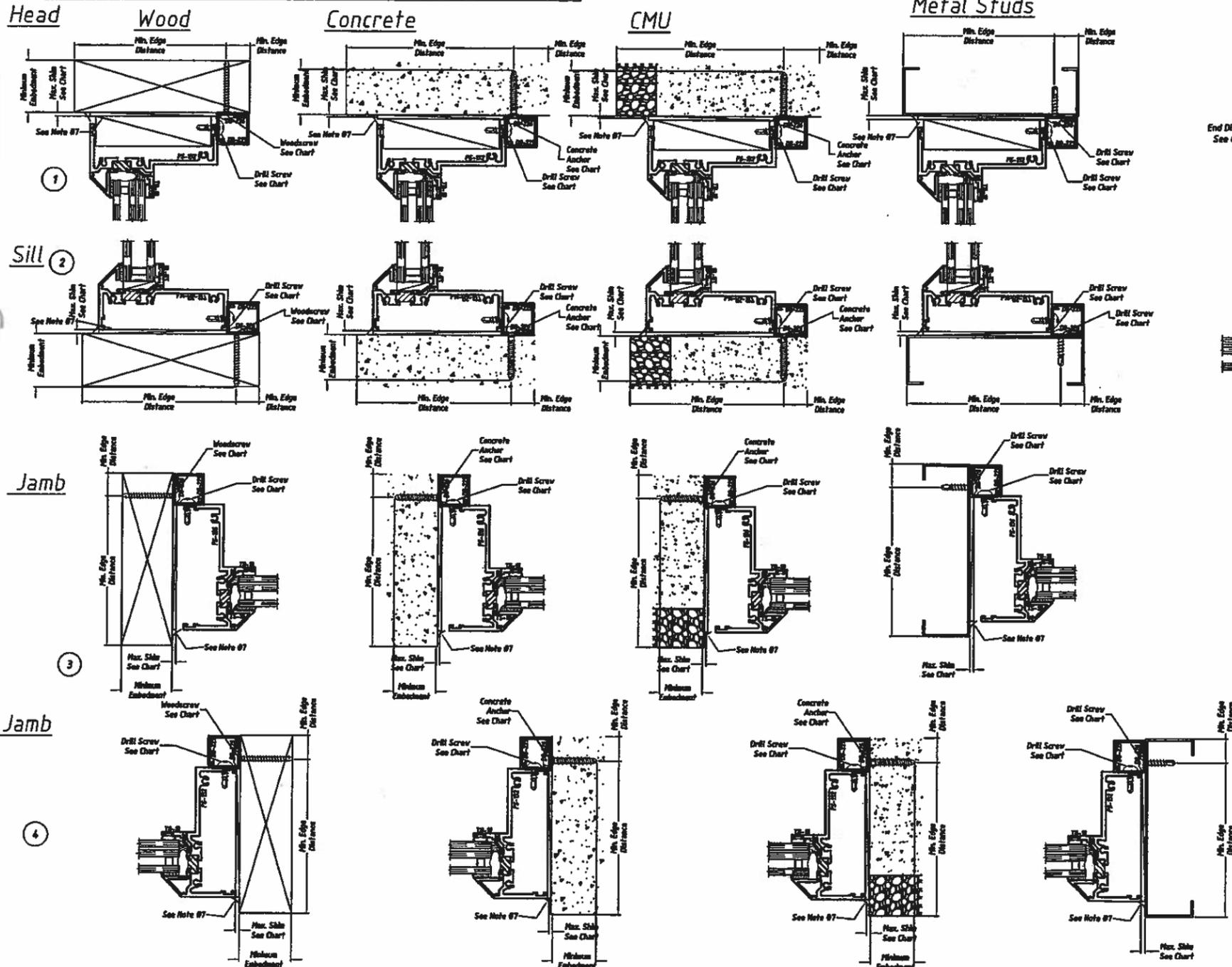
Scale: NTS      Drawn by: K. Snader

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

WINCO Product: 1450S CO/FX - Receptor  
Configuration: Casement Muller Fixed  
Certification: Impact

# Fastener Installation Requirements

Location Substrate	(Fastener)	
	Embedment (Min)	ED (Min)
Wood	Fastener #10 SS Drill Screw @ 3-1/2" Max. O.C. Spacing	
	Fastener #12 Wood Screw @ 4-1/4" Max O.C.	
Concrete	Fastener #10 SS Drill Screw @ 3-1/2" Max. O.C. Spacing	
	Fastener 1/4" Dia. Powers Tapper + @ 11" Max. O.C.	
CMU	Fastener #10 SS Drill Screw @ 3-1/2" Max. O.C. Spacing	
	Fastener 1/4" Dia. Powers Tapper + @ 3-3/4" Max. O.C.	
Metal Stud	Fastener #10 SS Drill Screw @ 3-1/2" Max. O.C. Spacing	
	Fastener 1/4" Dia. Bulldex Tek @ 9-3/4" Max. O.C.	
	N/A	3/8"



- Notes:**
- Installations depicted comply with the International Building Code (IBC), the limitations and calculations within the ANSI/AF&PA NDS (National Design Specifications) 2012 ASD method and the ADM (Aluminum Design Manual) 2010 ASD method for design wind pressures and overall sizes listed in the following table.
 

Type	Maximum Size	Design Pressure
A	87" x 99-3/16"	+/- 80 psf
  - The products depicted in this drawing have not been proven for resistance to wind-borne debris and are thus approved for impact.
  - Wood screws shall be used for a wood substrate. Wood screw materials and dimensions shall meet the requirements of ANSI / AF&PA NDS (National Design Specifications) 2012 and ANSI / ASME Standard B18.6.1. Self Drilling Screws (Bulldex Tek™) shall be used for steel stud substrate. Tek™ screw materials and dimensions shall meet the requirements of ASTM Standard Specifications for Carbon Bolts and Studs ASTM A 307. Powers Tapper™ Anchors shall be used for Concrete and CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Pre-drilled Fasteners (Screw Anchors) in Concrete or Masonry Elements. Tapper™ Anchor Length shall be sufficient to guarantee Embedment listed. Install concrete anchors per manufacturer's instructions.
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  - Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load bearing type.
  - These drawings depict the details necessary to meet structural load requirements. Continuous perimeter seal required.
  - 4" Max. edge distance from corner of window.
  - Provide Glass Setting Blocks at 1/4 points.
  - Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.

**RICE ENGINEERING**  
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 Luxemburg, WI 54217  
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Texas Firm No: F-2183  
 L. David Rice  
 Registration No: 81248



Oct. 16, 2014

Rev.	Description	Date
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Winco Window Co. 6200 Maple Ave. St. Louis, Mo. 63130 PHONE (314)725-8088 FAX (314)725-1419	
WINCO Product: 1450S CO/FX - Trim Clip	
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