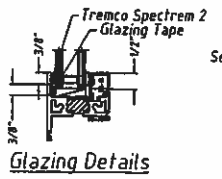
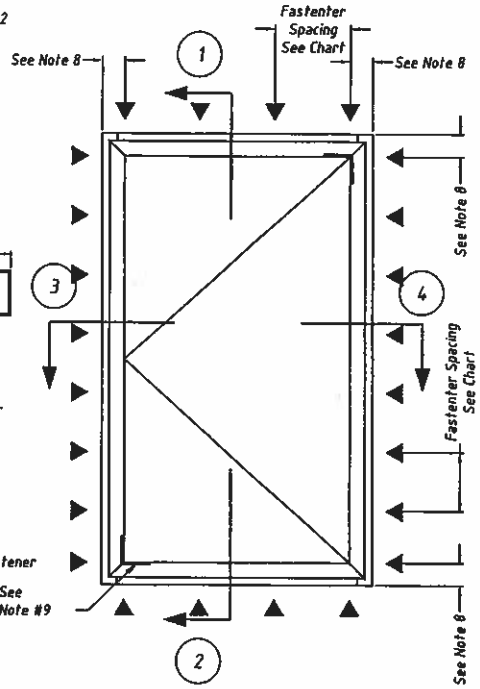
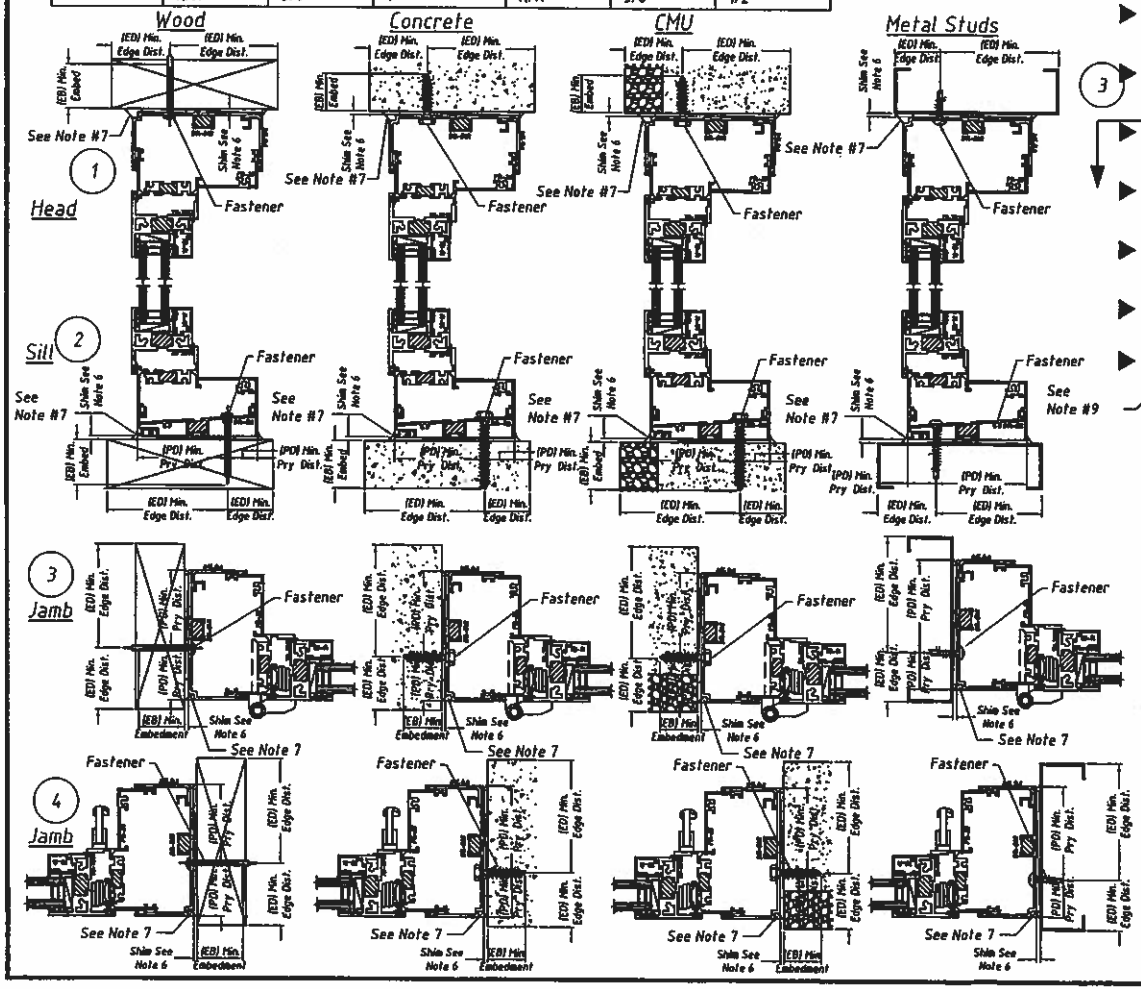
Fastener Installation Requirements

Location / Substrate	Head and Jamb (Fastener)			Sill (Fastener)		
	EB (Min)	ED (Min)	PD (Min)	EB (Min)	ED (Min)	PD (Min)
Wood	#12 Wood Screw @ 6-3/4" @ Max O.C. Spacing			#12 Wood Screw @ 6-3/4" Max O.C. Spacing		
	1-1/2"	1"	1"	1-1/2"	1"	1/2"
Concrete	1/4" Dia. Powers Tapper + @ Max. 14" O.C. Spacing			1/4" Dia. Powers Tapper + @ Max. 14" O.C. Spacing		
	1-3/4"	2-1/2"	1"	1-3/4"	2-1/2"	1/2"
CMU	1/4" Dia.Powers Tapper + @ Max. 5" O.C. Spacing			1/4" Dia. Powers Tapper + @ Max. 5" O.C. Spacing		
	1-1/4"	2-1/2"	1"	1-1/4"	2-1/2"	1/2"
Metal Stud	1/4" Dia. Buildex Tek @ Max. 10" O.C. Spacing			1/4" Dia. Buildex Tek @ Max. 10" O.C. SPacing		
	N/A	3/8"	1"	N/A	3/8"	1/2"



Glazing Details





Notes:

1. Installations depicted comply with the 2006 International Building Code (IBC), the limitations and calculations within the ANSI/AF&PA NDS (National Design Specifications) 2005 ASD method and the ADM (Aluminum Design Manual) 2005 ASD method for design wind pressures and overall sizes listed in the following table.

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

2. The products depicted in this drawing have not been proven for resistance to wind-borne debris and are thus approved for impact.
3. 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) 2005 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 Predrilled 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.
4. Calculations provided with drawings are based only on tested design pressure for wind loading.
5. 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.
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. Continuous perimeter seal required.
8. 4" Max. edge distance from corner of window.
9. Corner block glass as specified by Glass Supplier.
10. Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.

Rice Engineering, Inc.
Texas Firm No.: F-2183

JAN 0 4 2011

Rev.	Description	Date
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Scale: NTS
Drawn by: K. Snader

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

75

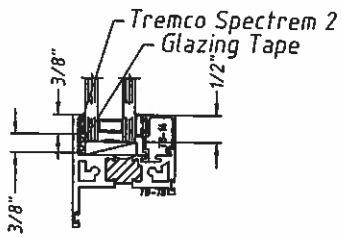
WINCO Product: 1450 - Receptor

Configuration: Casement

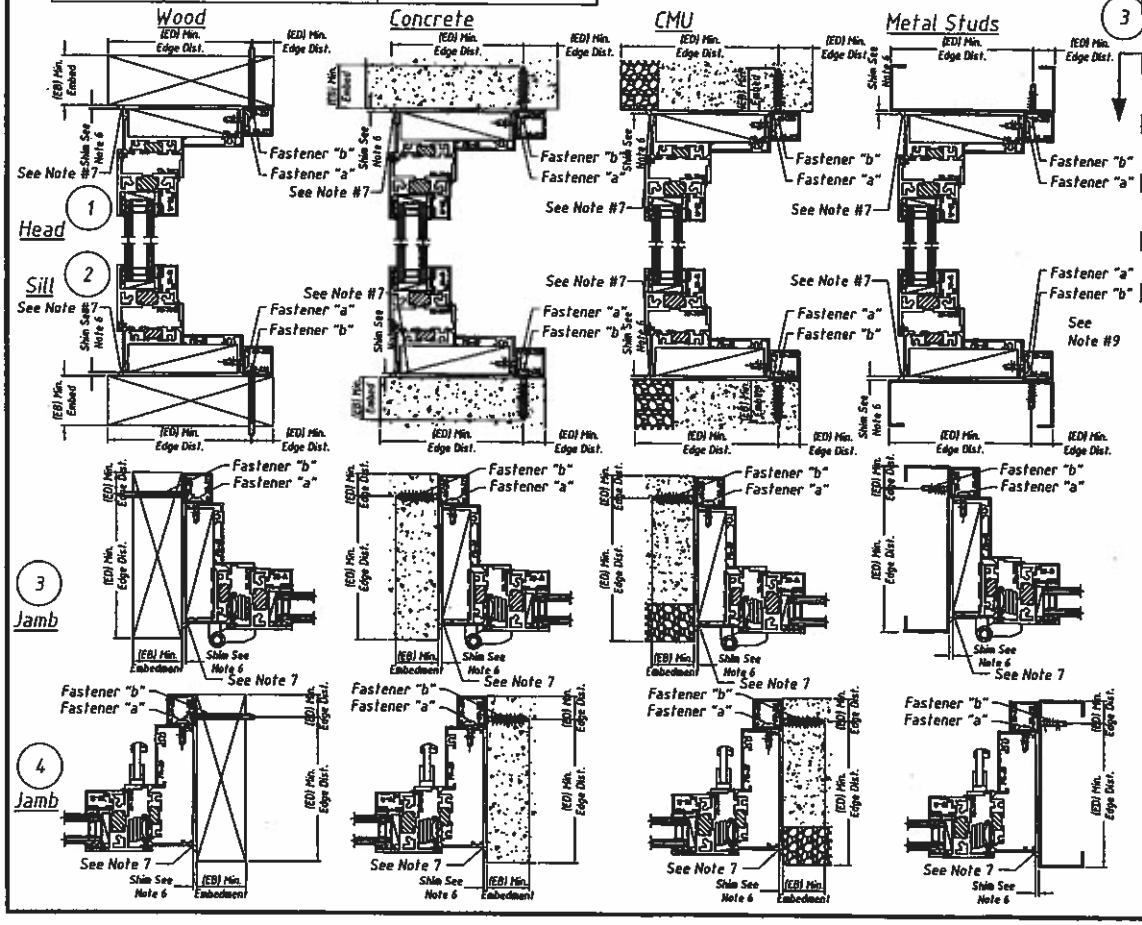
Certification: AAMA Non-Impact

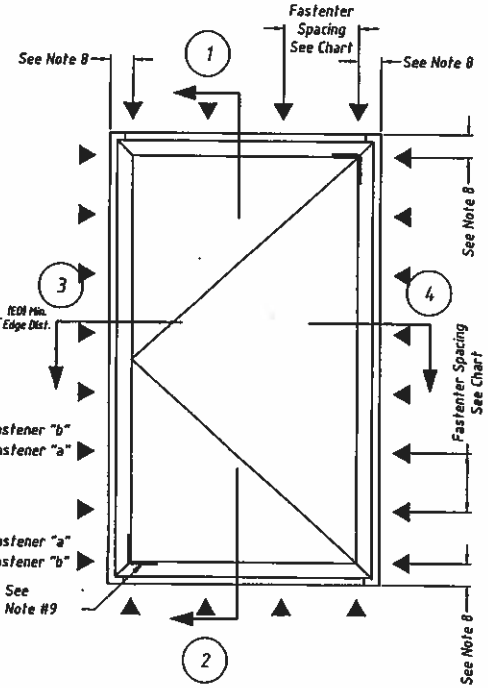
Fastener Installation Requirements

Location / Substrate	(Fastener) EB (Min)	ED (Min)
Wood	Fastener "a" #10 SS Drill Screw @ 9" Max. O.C. Spacing Fastener "b" #12 Wood Screw @ 6" Max O.C. Spacing	
	1-1/2"	1"
Concrete	Fastener "a" #10 SS Drill Screw @ 9" Max. O.C. Spacing Fastener "b" 1/4" Dia. Powers Tapper + @ Max. 12" O.C. Spacing	
	1-3/4"	2-1/2"
CMU	Fastener "a" #10 SS Drill Screw @ 9" Max. O.C. Spacing Fastener "b" 1/4" Dia. Powers Tapper + @ Max. 4-1/2" O.C. Spacing	
	1-1/4"	2-1/2"
Metal Stud	Fastener "a" #10 SS Drill Screw @ 9" Max. O.C. Spacing Fastener "b" 1/4" Dia. Buildex Tek @ Max. 8-1/4" O.C. Spacing	
	N/A	3/8"



Glazing Details





Notes:

1. Installations depicted comply with the 2006 International Building Code (IBC), the limitations and calculations within the AHSI/AF&PA NDS (National Design Specifications) 2005 ASD method and the ADM (Aluminum Design Manual) 2005 ASD method for design wind pressures and overall sizes listed in the following table.

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

2. The products depicted in this drawing have not been proven for resistance to wind-borne debris and are thus approved for impact.
3. Wood screws shall be used for a wood substrate. Wood screw materials and dimensions shall meet the requirements of AHSI / AF&PA NDS (National Design Specifications) 2005 and AHSI / 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 Predrilled 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.
4. Calculations provided with drawings are based only on tested design pressure for wind loading.
5. 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.
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. Continuous perimeter seal required.
8. 4" Max. edge distance from corner of window.
9. Corner block glass as specified by Glass Supplier.
10. Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.

Rice Engineering, Inc.
Texas Firm No.: F-2183

STATE OF TEXAS
L. DAVID RICE
81248
REGISTERED PROFESSIONAL ENGINEER

JAN 04 2011

Rev.	Description	Date
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Scale: NTS
Drawn by: K. Snader

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

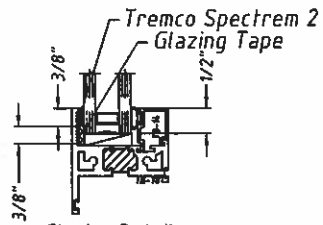
75

WINCO Product: 1450 - Trim Clip

Configuration: Casement

Certification: AAMA Non-Impact

Fastener Installation Requirements			
Location / Substrate	Head and Jamb (Fastener)		
	EB (Min)	ED (Min)	PD (Min)
Wood	#12 Wood Screw @ 10" @ Max O.C. Spacing		
	1-1/2"	1"	1-1/2"
Concrete	1/4" Dia. Powers Tapper @ Max. 19" O.C.		
	1-3/4"	2-1/2"	1-1/2"
CMU	1/4" Dia. Powers Tapper + @ Max. 7" O.C.		
	1-1/4"	2-1/2"	1-1/2"
Metal Stud	1/4" Dia. Buildex Tek @ Max. 12" O.C.		
	N/A	3/8"	1-1/2"



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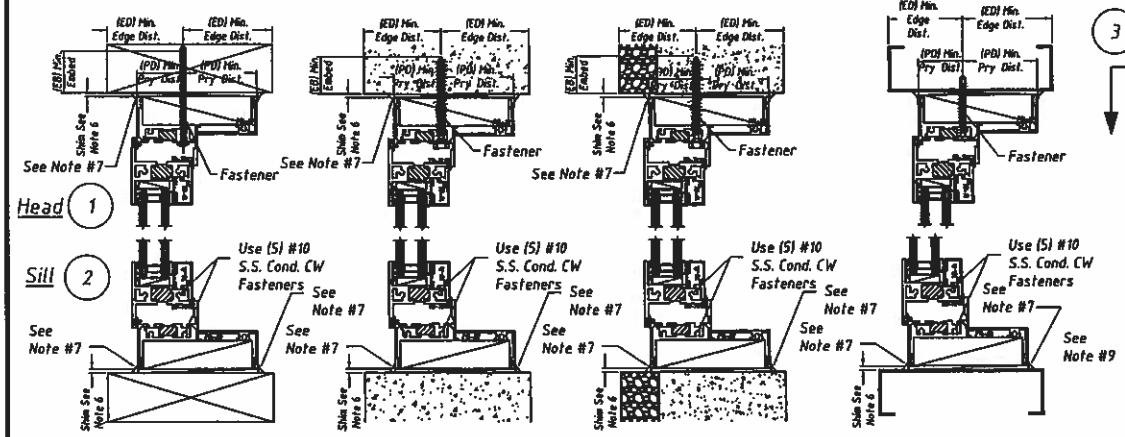

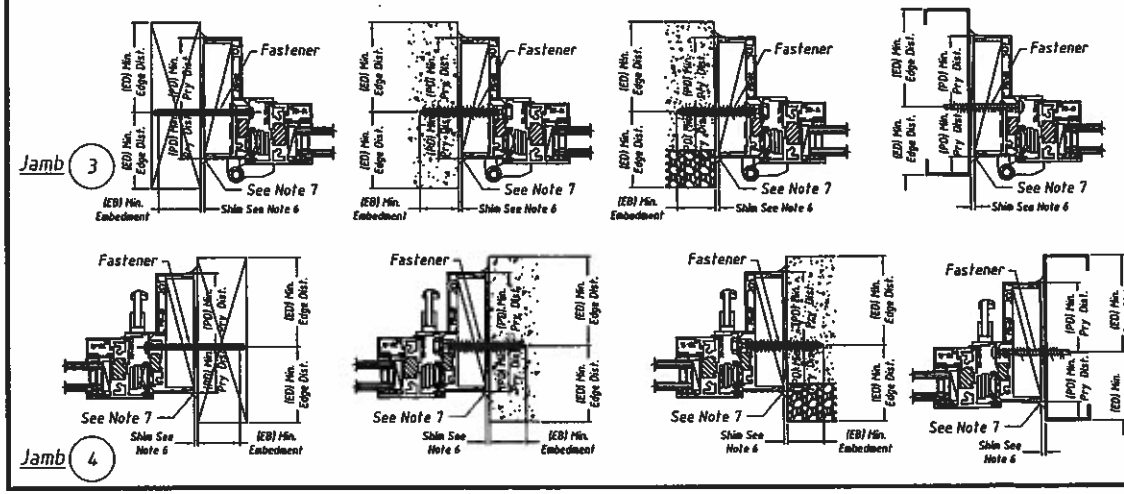

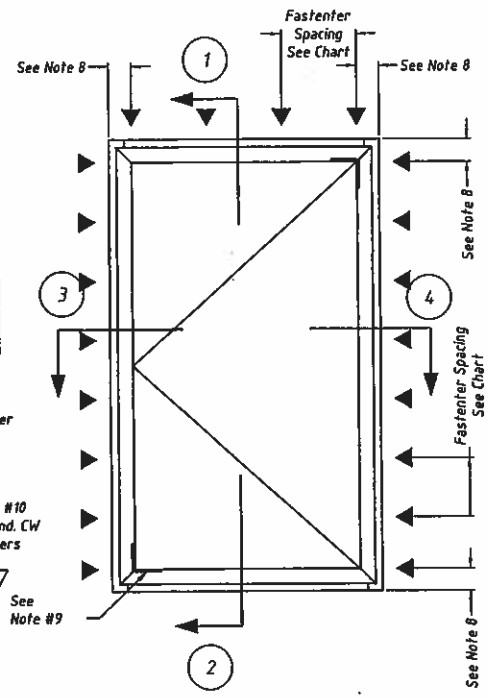

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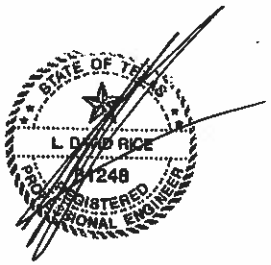
6. Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load bearing type.
7. These drawings depict the details necessary to meet structural load requirements. Continuous perimeter seal required.
8. 4" Max. edge distance from corner of window.
9. Corner block glass as specified by Glass Supplier.
10. Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.

Rice Engineering, Inc.
Texas Firm No.: F-2183



JAN 04 2011

Rev.	Description	Date
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Scale: NTS
Drawn by: K. Snader

Winco Window Co.
6200 Maple Ave.
St. Louis, Mo. 63130
PHONE (314)725-6088
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75

WINCO Product: 1450 - Through Frame

Configuration: Casement

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