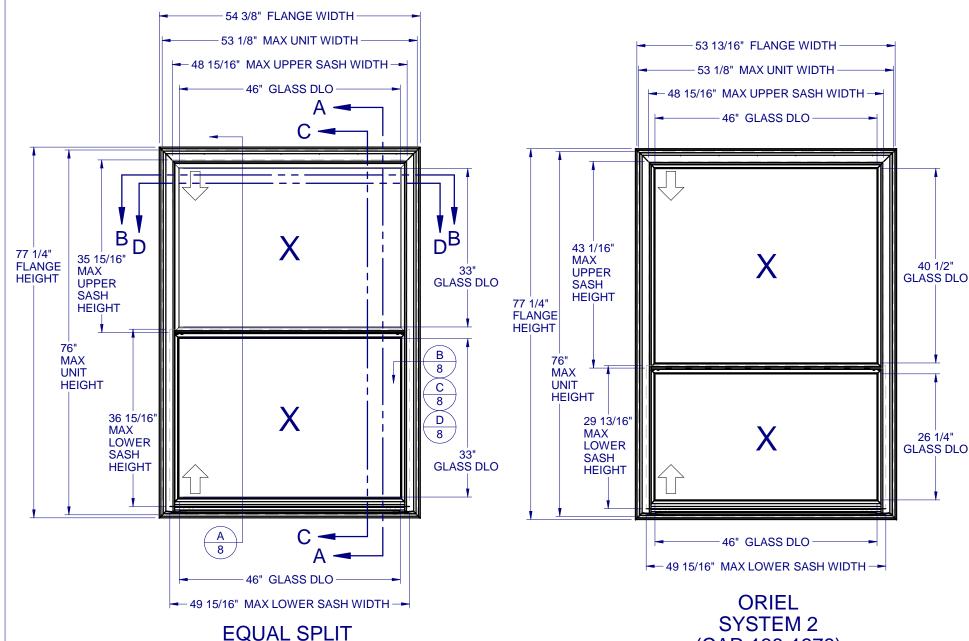
## MODEL 650 SYSTEMS 1 AND 2 DOUBLE HUNG - NON-IMPACT



(CAR 138-1378)

#### **GENERAL NOTES:**

- 1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE (IBC) AND INTERNATIONAL RESIDENTIAL CODE (IRC), WITH TEXAS REVISIONS EFFECTIVE JANUARY 1, 2008.
- 2. GLAZING OPTIONS: (SEE SHEET 3)
- 3. CONFIGURATIONS: "X/X".
- 4. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEET 8 FOR ANCHOR DETAILS. WINDLOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
- 5. NOT APPROVED FOR IMPACT RESISTANCE. IMPACT PROTECTIVE SYSTEM IS REQUIRED IN WIND BORNE DEBRIS REGION.
- 6. ALL FRAMES AND VENTS FULLY WELDED. SMALL JOINT SEAM SEALANT USED AT FIXED MEETING RAIL AND JAMB.
- 7. SERIES / MODEL DESIGNATION DH-650.
- $_{40}^{+}$  1/2" 8. THE DESIGNATION X AND O STAND FOR THE FOLLOWING: GLASS DLO X = OPERABLE SASH
  - 9. SECTION CALLOUTS APPLY TO ALL ELEVATIONS IN A SIMILAR LOCATION.
  - 10. EXTERNAL WEEP SLOT = 1/2 x 2-1/2" LOCATED 5" FROM BOTH ENDS.

#### TABLE OF CONTENTS

SYSTEM 1

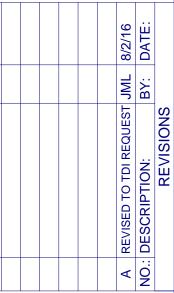
(CAR 138-1307)

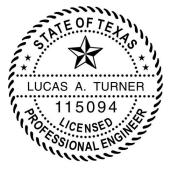
GENERAL NOTES & ELEVATIONS
DP CHARTS
GLAZING DETAILS
SECTION VIEWS & ALT FRAME
EXTRUSIONS & B.O.M
ANCHOR SCHEDULE & NOTES
INSTALLATION DETAILS



1900 SW 44TH AVE. OCALA, FLORIDA 34474 WWW.CWS.CC

## 650 PVC DOUBLE HUNG NON-IMPACT





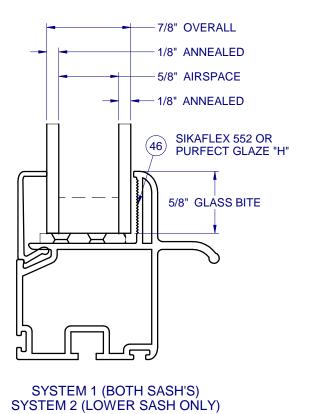
27 8/19/2016

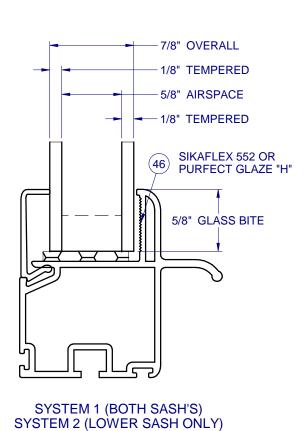
LUCAS A. TURNER, P.E. TX PE # 115094 1239 JABARA AVE. NORTH PORT, FL 34288 PH. 941-380-1574

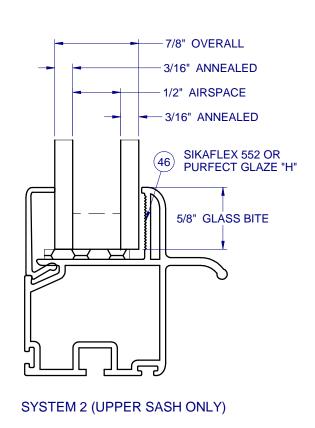
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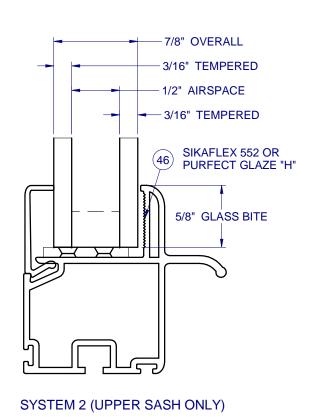
## GENERAL NOTES AND ELEVATIONS

DRAWN BY:	DATE:
EMK	12/17/15
DWG #:	REV.:
TDI-936	-
SCALE:	SHEET
1:20	1 OF 6





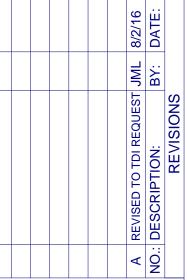






1900 SW 44TH AVE. OCALA, FLORIDA 34474 WWW.CWS.CC

# 650 PVC DOUBLE HUNG NON-IMPACT





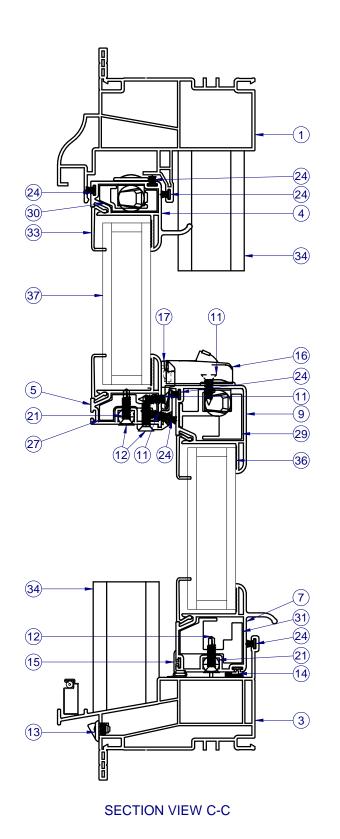
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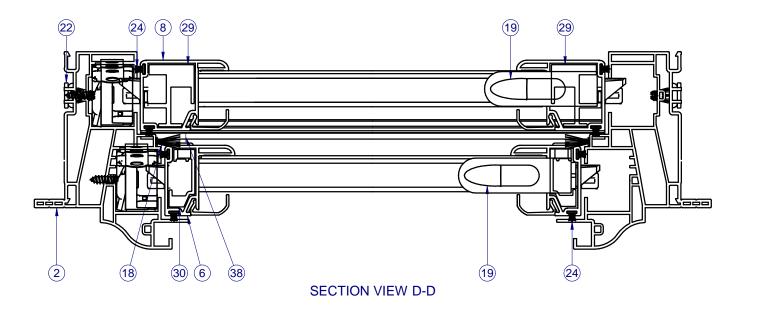
LUCAS A. TURNER, P.E. TX PE # 115094 1239 JABARA AVE. NORTH PORT, FL 34288 PH. 941-380-1574

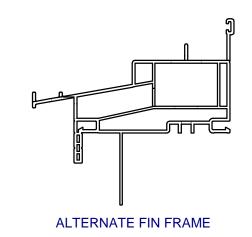
SHEET DESCRIPTION:

#### GLAZING DETAILS

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DWG #:	REV.:
TDI-936	-
SCALE:	SHEET
1:1	2 OF 6





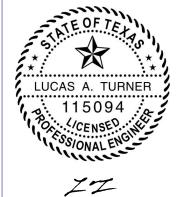




1900 SW 44TH AVE. OCALA, FLORIDA 34474 WWW.CWS.CC

# 650 PVC DOUBLE HUNG NON-IMPACT

			8/2/16	DATE:	
			JML	BY:	
			REVISED TO TDI REQUEST JML 8/2/16	NO.: DESCRIPTION:	REVISIONS
			⋖	Š.	



8/19/2016

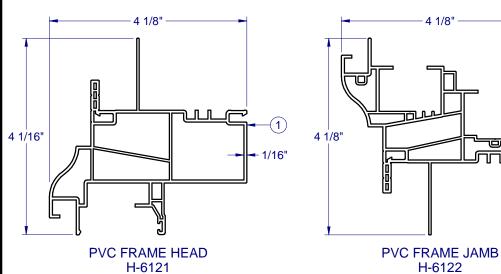
LUCAS A. TURNER, P.E. TX PE # 115094 1239 JABARA AVE. NORTH PORT, FL 34288 PH. 941-380-1574

SHEET DESCRIPTION:

SECTION VIEWS OVER 37" WIDE

DRAWN BY:	DATE:
EMK	12/17/15
DWG #:	REV.:
TDI-936	-
SCALE:	SHEET
1:2	3 OF 6

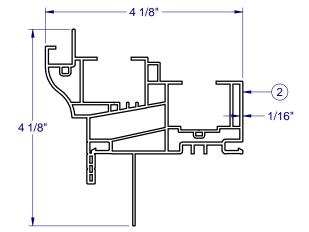
PARTS LIST					
ITEM	PART #	DESCRIPTION	MATERIAL	VENDOR	
1	H-6121	HEAD, OUTERFRAME	PVC	ATN	
2	H-6122	JAMBS, OUTERFRAME	PVC	ATN	
3	H-6123	SILL, OUTERFRAME	PVC	ATN	
4	H-6130	TOP RAIL, UPPER SASH	PVC	ATN	
5	H-6131	BOTTOM RAIL, UPPER SASH	PVC	ATN	
6	H-6132	SASH SIDE RAIL, UPPER SASH	PVC	ATN	
7	H-6133	BOTTOM RAIL, LOWER SASH	PVC	ATN	
8	H-6134	SASH SIDE RAIL, LOWER SASH	PVC	ATN	
9	H-6135	TOP RAIL, LOWER SASH	PVC	ATN	
10	P-3028	SETTING BLOCK	RUBBER	FRANK LOWE	
11	P-3515	#8 x 5/8 PHIL FLAT WHITE SMS	STEEL	FASTENAL	
12	P-4146	#8 X 3/4 PHIL FLAT TEK.	STEEL	FASTENAL	
13	P-4779	WEEP COVER	NYLON	M&M	
14	P-5085	WSTP, .355 X 333BULB VINYL		AMESBURY	
15	P-5086	WSTP, .300 X 187BULB VINYL		AMESBURY	
16	P-3783	LOCKS		INTERLOCK	
17	P-3784	KEEPERS		INTERLOCK	
18	P-5424	WSTP., .500 X 1.5" ADHESIVE BACK STRIP		ULTRAFAB	
19	P-5392	SASH TILT LATCH	NYLON	CALDWELL	
20	P-5393	PIVOT CARRIER	NYLON	CALDWELL	
21	P-5396	PIVOT BAR	SS	CALDWELL	
22	P-5412	JAMB JACK	STEEL	MERCHANTS	
24	P-3305	WSTP., .270 X 187		ULTRAFAB	
25	S-2001	INTERLOCK RAIL	ALUM	ASCEND	
27	S-2003	REINF, BOT RAIL, UPPER SASH	ALUM	ASCEND	
29	S-2005	REINF, TOP RAIL, LOWER SASH, & SIDE RAIL LOWER SAS	ALUM	ASCEND	
30	S-2006	REINF, SASH SIDE RAIL, UPPER SASH	ALUM	ASCEND	
31	S-2010	REINF, BOTTOM RAIL, LOWER SASH	ALUM	ASCEND	
33	S-6141	GLAZING BEAD	PVC	ATN	
34	S-6142	SASH STOP			
35		BALANCERS - CONSTANT FORCE RT		CALDWELL	
36		HOTMELT	SILICONE	TRUSEAL	
37	GLASS	SEE SHEET 2			
38	P-5425	WSTP, .200 X 5/8" X 5/8" DUST PLUG		ULTRAFAB	
39	P-3218	SCREEN FRAME	ALUM	FLA SCREEN	
40	P-4754	SCREEN CORNER KEY	NYLON	FLA SCREEN	
41	P-3228	SCREEN SPLINE		DAPA	
42	P-3029	SCREEN LIFTS		SUMMIT	
43	P-3033	SCREEN SPRINGS		FLA SCREEN	



1 15/16"

PVC BTM RAIL LOWER

H-6133



H-6122



1:8

<del>----</del> 1 7/16" <del>----</del>

H-6131

1 11/16" --

**PVC TOP RAIL LOWER** 

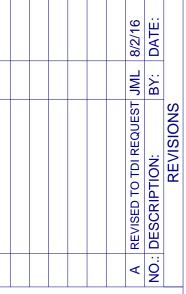
H-6135

1 15/16"

1/16"

WINDOW SYSTEMS 1900 SW 44TH AVE. OCALA, FLORIDA 34474 WWW.CWS.CC

## **650 PVC DOUBLE HUNG NON-IMPACT**





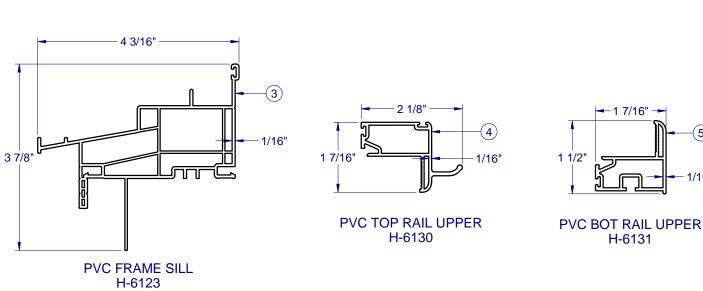
8/19/2016

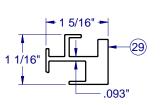
LUCAS A. TURNER, P.E. TX PE # 115094 1239 JABARA AVE. NORTH PORT, FL 34288 PH. 941-380-1574

SHEET DESCRIPTION:

#### **BOM AND EXTRUSIONS**

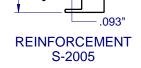
DRAWN BY:	DATE:
EMK	12/17/15
DWG #:	REV.:
TDI-936	-
SCALE:	SHEET
1:2	4 OF 6

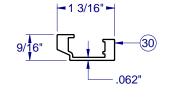




<del>----</del> 1 7/16" <del>---</del>

**PVC SSR UPPER** H-6132





REINFORCEMENT S-2006

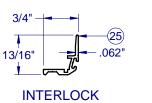
REINFORCEMENT S-2010

- 1 1/2" **→** 

**PVC SSR LOWER** 

H-6134

1 15/16"

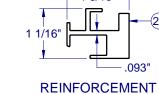


S-2001

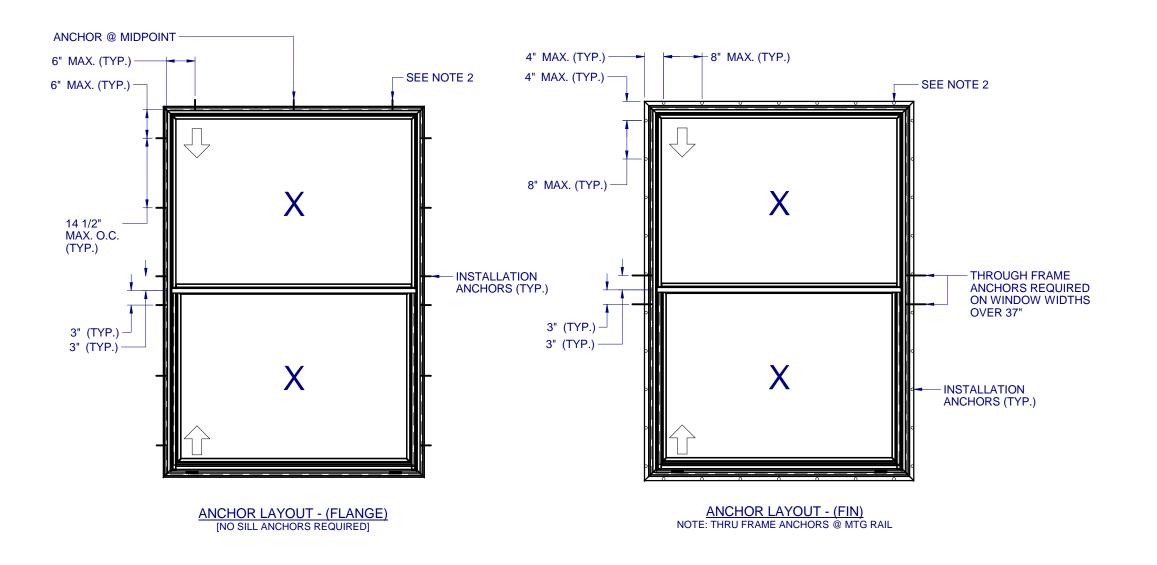
23



S-2003



1 7/16"



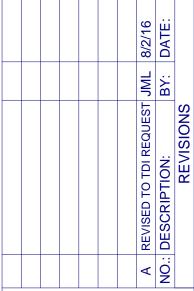
### NOTES:

- 1. INSTALL ONE ANCHOR AT EACH INSTALLATION LOCATION. SILL ANCHOR SPACING SAME AS HEAD.
- 2. SHIM AS REQ AT EACH INSTALLATION ANCHOR USING LOAD BEARING SHIMS. MAX. ALLOWABLE SHIM STACK TO BE 1/4". USE SHIMS WHERE SPACE GREATER THAN 1/16" IS PRESENT. LOAD BEARING SHIMS SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER. WOOD SHIMS ARE NOT ALLOWED.
- 3. ANCHOR TYPE, SIZE, SPACING AND EMBEDMENT SHALL BE AS SPECIFIED IN THESE DRAWINGS, SEE TABLE 1, SHEET 8.
- 4. ALL INSTALLATION ANCHORS MUST BE MADE OF OR PROTECTED WITH A CORROSION RESISTANT MATERIAL OR COATING. DISSIMILAR METALS OR MATERIALS IN CONTACT WITH PRESSURE TREATED WOOD MUST BE PROTECTED TO PREVENT REACTION.
- 5. INSTALLATION ANCHORS SHALL BE IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM SPECIFIED IN TABLE 1, SHEET 8.
- 6. ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL DRESSING OR STUCCO. FOR CONCRETE/CMU OPENINGS, EMBEDMENT SHALL BE BEYOND WOOD BUCKS, IF USED, INTO SUBSTRATE 1X BUCKS ARE OPTIONAL.
- 7. A MINIMUM CENTER-TO-CENTER SPACING SHALL BE MAINTAINED BETWEEN ALL FASTENERS: 3" FOR MASONRY, 1" FOR WOOD AND METAL.
- 8. WOOD OR MASONRY OPENINGS, BUCKS AND BUCK FASTENERS SHALL BE PROPERLY DESIGNED BY THE ARCHITECT OR ENGINEER OF RECORD AND INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
  SUBSTRATES SHALL MEET THE MINIMUM STRENGTH REQUIREMENTS AS SHOWN IN TABLE1. SHEET 8. CONCRETE AND MASONRY SUBSTRATES MAY NOT BE CRACKED.
- 9. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS FOLLOWING THE CURRENT VERSION OF THE REFERENCE DOCUMENTS: FMA/AAMA 100(FIN WINDOWS), FMA/AAMA 200(FLANGE WINDOWS), FMA/WDMA 250(BOX WINDOWS), FMA/AAMA/WDMA 300(EXTERIOR DOORS)



1900 SW 44TH AVE. OCALA, FLORIDA 34474 WWW.CWS.CC

## 650 PVC DOUBLE HUNG NON-IMPACT





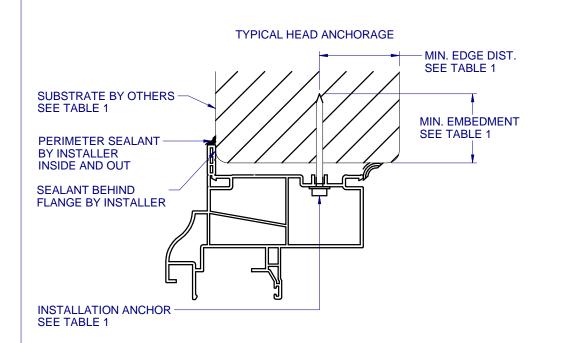
8/19/2016

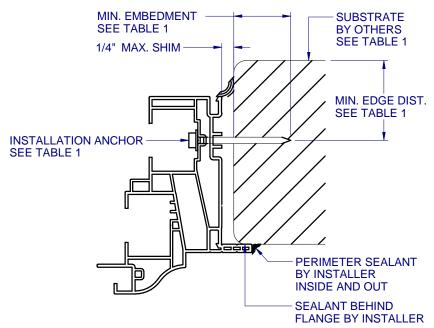
LUCAS A. TURNER, P.E. TX PE # 115094 1239 JABARA AVE. NORTH PORT, FL 34288 PH. 941-380-1574

SHEET DESCRIPTION:

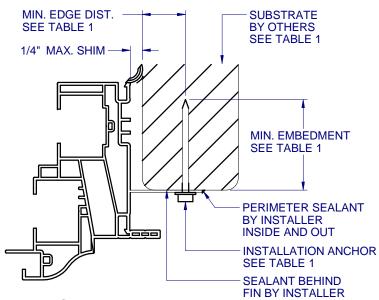
ANCHOR SCHEDULE AND NOTES

DRAWN BY:	DATE:
EMK	12/17/15
DWG #:	REV.:
TDI-936	-
SCALE:	SHEET
1:20	5 OF 6





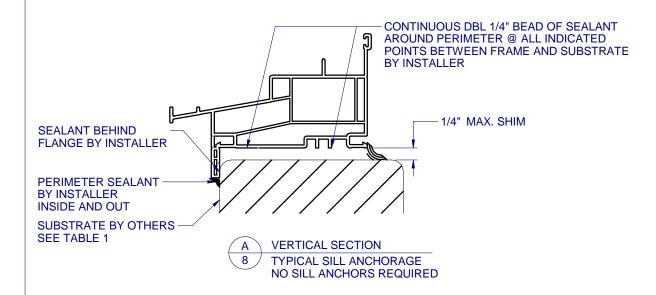
B HORIZONTAL SECTION
8 TYPICAL JAMB ANCHORAGE



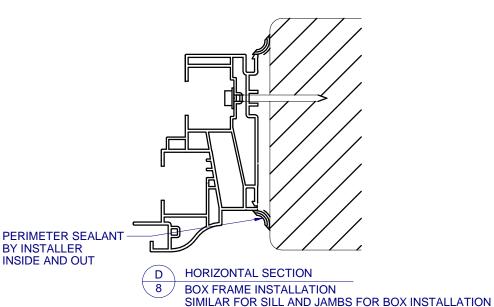
C HORIZONTAL SECTION

TYPICAL FIN ANCHORAGE HEAD AND SILL SIMILAR FOR FIN INSTALLATION

NOTE: ADDITIONAL THRU-FRAME ANCHORS (AS SHOWN IN DET. B/7) REQ'D AT MTG RAIL FOR UNIT WIDTHS OVER 37", SEE SHEET 7 ANCHOR LAYOUT



FRAME TYP	PE SUBSTRATE TYPE	ANCHOR TYPE	MIN. EMBEDMENT	MIN. EDGE DIST
FLANGE	CONCRETE (2.0 KSI MIN.)	3/16" ITW TAPCON	1"	1-1/8"
FLANGE	HOLLOW OR GROUT-FILLED CMU (117 PCF MIN.)	3/16" ITW TAPCON	1"	2"
FLANGE	CONCRETE (2.85 KSI MIN.)	3/16" ELCO ULTRACON	1"	1"
FLANGE	GROUT-FILLED CMU (ASTM C-90)	3/16" ELCO ULTRACON	1-1/4"	2-1/2"
FLANGE	2X MIN. SOUTHERN PINE (G=0.55)	3/16" ITW TAPCON OR ELCO ULTRACON	1-3/8"	7/8"
FLANGE	2X MIN. SOUTHERN PINE (G=0.55)	#10 WOOD SCREW	1-3/8"	7/8"
FLANGE	16 GAUGE (0.060") MIN. STEEL STUD (33 KSI YIELD MIN)	#10-16 HILTI KWIK-FLEX OR ITW TEKS SELF-DRILLING SCREW	FULL THREAD THRU 0.060"	7/16"
FLANGE	1/8" ALUM. (6063-T5 MIN.) OR 1/8" STEEL (33 KSI MIN.)	#10 GRADE 5 SELF-TAPPING / DRILLING SCREW	FULL THREAD THRU 0.125"	7/16"
FIN	2X MIN. SOUTHERN PINE (G=0.55)	#10 WOOD SCREW	1-1/2"	1/2"



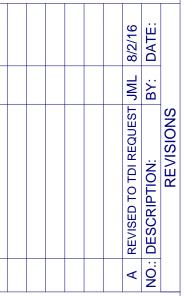
FLANGE REMOVAL NOTE: PARTIALLY OR FULLY REMOVING THE FLANGE, UP TO AND INCLUDING A BOX-FRAME APPLICATION IS ACCEPTABLE PROVIDED:

- MIN. 1/4" FILLET OF CONSTRUCTION-GRADE ADHESIVE CAULK IS APPLIED INSIDE AND OUT, FULL PERIMETER, BY INSTALLER.
- PRODUCT ANCHORAGE IS IN ACCORDANCE WITH REQUIREMENTS AS SHOWN FOR FLANGE WINDOWS.



1900 SW 44TH AVE. OCALA, FLORIDA 34474 WWW.CWS.CC

## 650 PVC DOUBLE HUNG NON-IMPACT





8/19/2016

LUCAS A. TURNER, P.E. TX PE # 115094 1239 JABARA AVE. NORTH PORT, FL 34288 PH. 941-380-1574

SHEET DESCRIPTION:

### **INSTALLATION DETAILS**

	DRAWN BY:	DATE:
):	EMK	12/17/15
	DWG #:	REV.:
	TDI-936	-
	SCALE:	SHEET
	1:2	6 OF 6