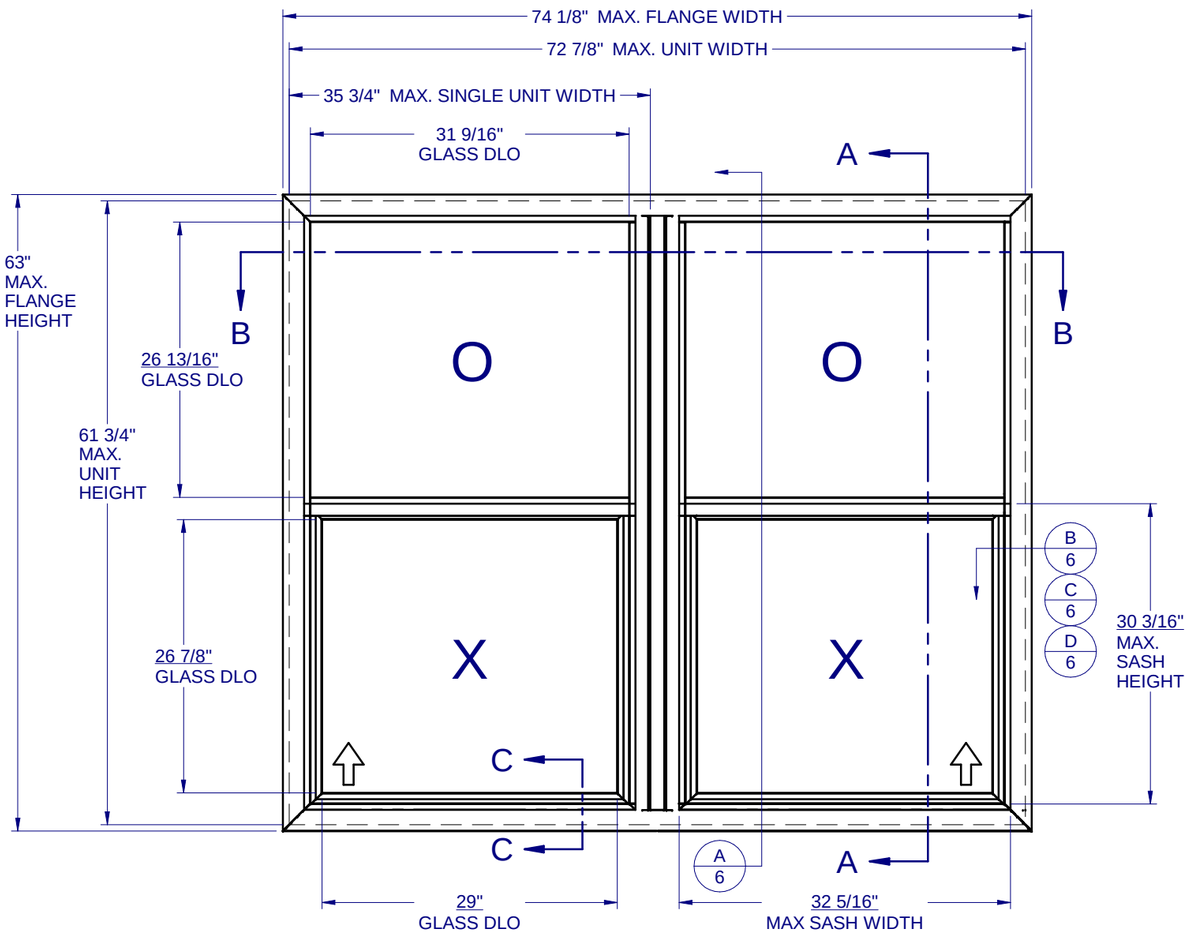
MODEL 8100 SYSTEM 10
SINGLE HUNG - LARGE MISSILE IMPACT



SYSTEM 10
(CAR 138-255/138-475)

TABLE OF CONTENTS

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 2)
3. CONFIGURATIONS: "O/X - O/X".
4. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEET 6 FOR ANCHOR DETAILS. WINDLOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
5. PRODUCT APPROVED FOR IMPACT RESISTANCE. SHUTTERS ARE NOT REQUIRED.
6. ALL FRAMES AND VENTS FULLY WELDED. SMALL JOINT SEAM SEALANT USED AT FIXED MEETING RAIL AND JAMB.
7. SERIES / MODEL DESIGNATION SH-8100.
8. THE DESIGNATION X AND O STAND FOR THE FOLLOWING:
   X = OPERABLE SASH, O = FIXED SASH
9. SECTION CALLOUTS APPLY TO ALL ELEVATIONS IN A SIMILAR LOCATION.
10. EXTERNAL WEEP SLOT = 1/4" x 1-1/4" LOCATED 4" FROM BOTH ENDS.

Lucas A.
Turner
2016-09-29
19:20-04:00

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

8100 PVC SINGLE HUNG IMPACT

NO.:	DESCRIPTION:	BY:	DATE:

REVISIONS

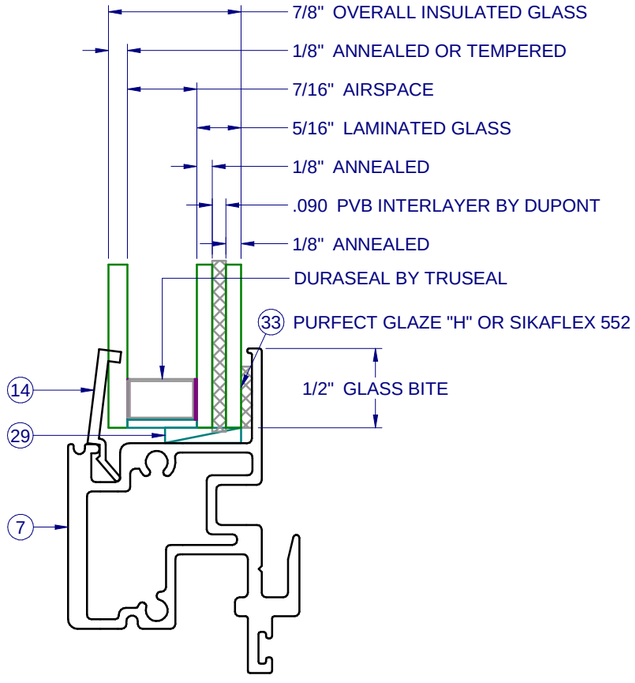
STATE OF TEXAS
LUCAS A. TURNER
115094
LICENSED
PROFESSIONAL ENGINEER

9/29/2016

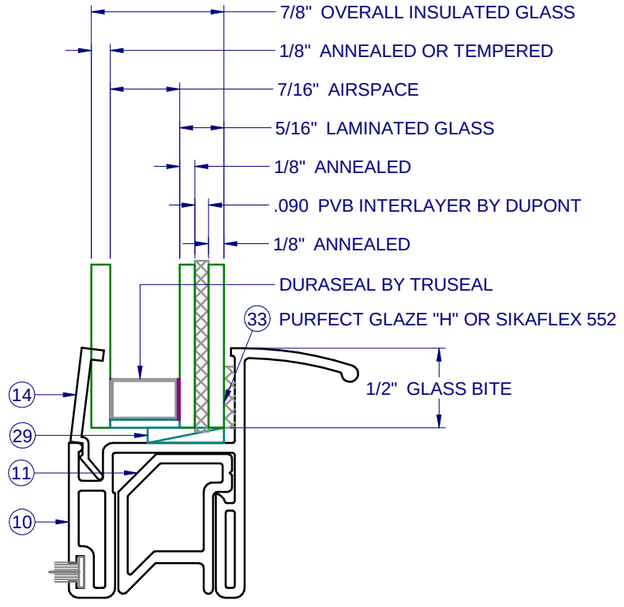
LUCAS A. TURNER, P.E.
TX PE # 115094
1239 JABARA AVE.
NORTH PORT, FL 34288
PH. 941-380-1574

SHEET DESCRIPTION:
GENERAL NOTES AND ELEVATIONS

DRAWN BY:	DATE:
EMK	11/12/15
DWG #:	REV.:
TDI-440	-
SCALE:	SHEET
1:15	1 OF 6



FIXED LITE



SASH LITE

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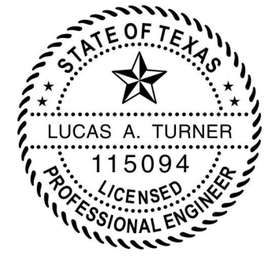
8100 PVC SINGLE HUNG IMPACT

NO.:	DESCRIPTION:	BY:	DATE:

REVISIONS



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TX PE # 115094
1239 JABARA AVE.
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SHEET DESCRIPTION:

GLAZING DETAIL

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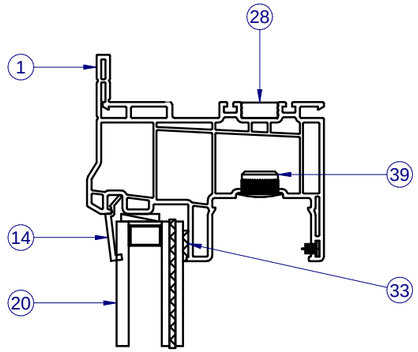
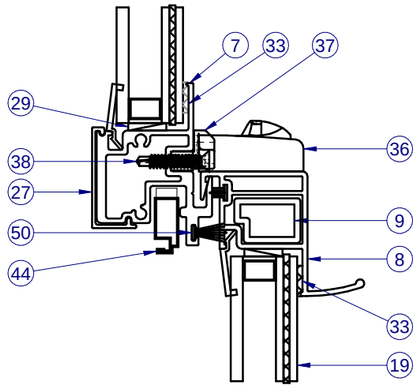
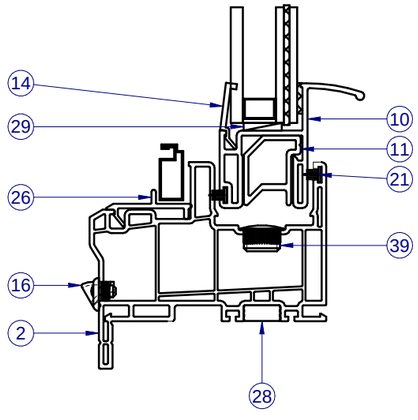
EMK	11/12/15
DWG #:	REV.:
TDI-440	-
SCALE:	SHEET
1:1	2 OF 6

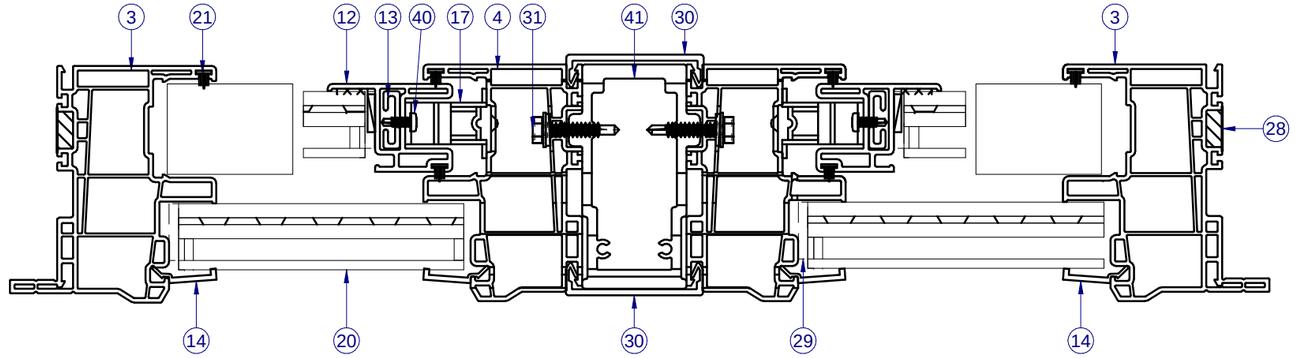




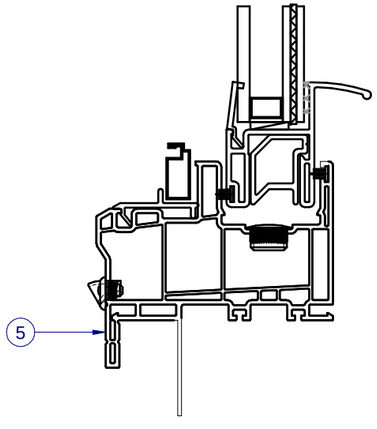


SECTION VIEW A-A

INTERIOR



SECTION VIEW B-B



SECTION VIEW C-C
ALTERNATE FIN FRAME

ITEMS NOT SHOWN FOR CLARITY:
6, 18, 32

Custom C
WINDOW SYSTEMS
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
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8100 PVC SINGLE HUNG IMPACT

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REVISIONS

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TX PE # 115094
1239 JABARA AVE.
NORTH PORT, FL 34288
PH. 941-380-1574

SHEET DESCRIPTION:
SECTION VIEWS

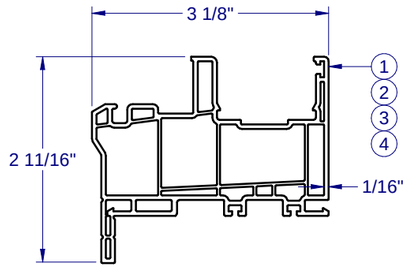
DRAWN BY:	DATE:
EMK	11/12/15
DWG #:	REV.:
TDI-440	-
SCALE:	SHEET
1:2	3 OF 6

PARTS LIST

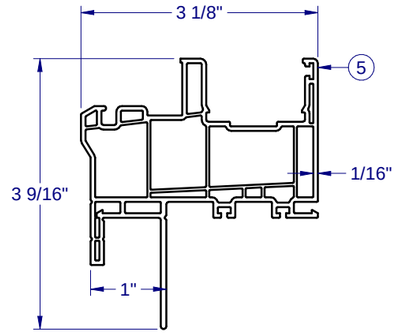
ITEM	PART #	DESCRIPTION	VENDOR	MATERIAL
1	H-6031	Frame Head, Flg,	Mikron	Vinyl
2	H-6031	Frame Sill, Flg,	Mikron	Vinyl
3	H-6031	Frame Jamb, Flg,	Mikron	Vinyl
4	H-6031	Internal Fr.,Jb.	Mikron	Vinyl
5	H-6026	Frame, Fin	Mikron	Vinyl
6	S-6025	Sash Stop / Filler	Mikron	Vinyl
7	H-1836	Alum. Fixed Meet. Rail	Keymark	Alum
8	H-6027	Sash Top Rail	Mikron	Vinyl
9	H-1497	Reinforcement for STR	Keymark	Alum
10	H-6028	Sash Bottom Rail	Mikron	Vinyl
11	H-1699	Reinforcement for SBR	Keymark	Alum
12	H-6004	Sash Side Rail	Mikron	Vinyl
13	S-1498	Reinforcement for SSR	Keymark	Alum
14	S-6064	Glazing Bead	Mikron	Vinyl
15	P-3059	Sash Cam	M&M	Plastic
16	P-4479	Weep Housing & Flap Assm.	M&M	Plastic
17		Block & Tackle Balance	Caldwell	Steel
18	P-3295	Take Out Clip	Summit	Steel
19	Sash	SEE SHEET 2	CARDINAL	GLASS
20	Fixed	SEE SHEET 2	CARDINAL	GLASS
21	P-3429	Wstp., 0.270 x 0.187 back FinSeal	UltraFAB	Nylon
22	P-4638	#8 x 2-1/2 PH Mod. Truss, Type A,	Fastenal	Steel
23		#10 x 1 1/2" Panhead SMS	Fastenal	Steel
24		Flat Washer	Fastenal	Steel
25	S-6014	Screen Support	Mikron	Vinyl
26	S-6013	Screen Catch	Mikron	Vinyl
27	S-6063	Fixed Rail Cover	Mikron	Vinyl
28	P-3113	Screw Support, PVC	Team Plastics	Rubber
29	P-3352	Set. Blk. 1/8" x 5/8" x 2"	Frank Lowe	Rubber
30	S-6018	Mullbar Cover	Mikron	Vinyl
31	P-3767	#10 x 1 Hex Head Tek	Fastenal	Steel
32	P-3342	Seam Sealer, SM-5504	Schnee	
33		SikaFlex 552 or Purfect Glaze "H"	Sika/Henkel	
34	P-3541	#8 x 1/2 Flat Tek	Fastenal	Steel
35	P-4051	#8 x 1 1/4" PH Flat Tek	Fastenal	Steel
36	P-3783	Lock	Interlock	Steel
37	P-4069	Keeper	Interlock	Steel
38	P-4264	#8 x 3/4" PH Flat w/ #6 Head	Fastenal	Steel
39	P-3752	Hole Plug	M&M	Plastic
40	P-3559	#8 x 3/8" PH Pan Tek	Fastenal	Steel
41	H-1727	Internal Mullbar	Keymark	Alum
44	P-3218	Screen frame	ALL Metal	Alum
45	P-3321	Screen Corner Key	ALL Metal	Plastic
46	P-3228	Screen Spline	DAPA	Rubber
47	P-3033	Screen Spring	FLA Screen	Steel
48	P-3029	Screen Pull tab	Summit	Alum
49		Screen Material	NY Wire	Fiberglass
50	P-4959	Wstp., 0.420 x 0.187 back	UltraFAB	Nylon

LINE ITEMS NOT USED:
42-43

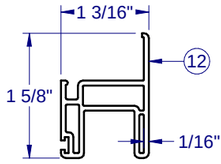
NOTE: ALL EXTRUSIONS ARE ALUMINUM 6063-T6 UNLESS OTHERWISE NOTED.



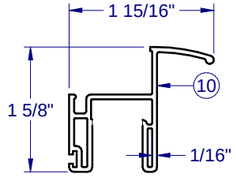
PVC FRAME FLANGE-6031



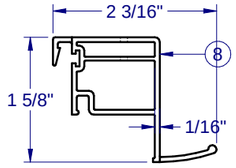
PVC FRAME FIN-6026



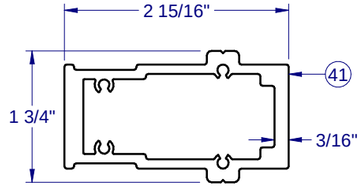
PVC SASH SIDE RAIL-6004



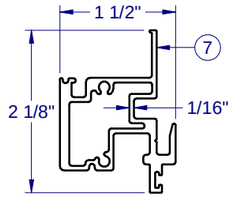
PVC SASH BTM. RAIL-6028



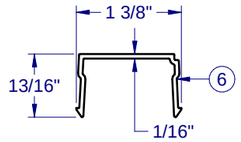
PVC SASH MTG. RAIL-6027



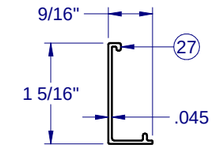
INTERNAL MULL BAR-1727



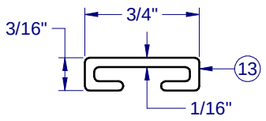
MTG RAIL-1836



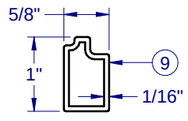
PVC SASH STOP-6025



PVC FXD RAIL COVER-6063



REINF. S.S.R. - 1498



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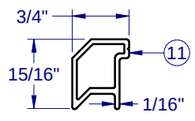

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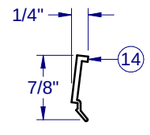
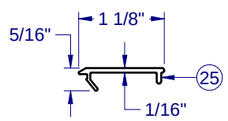
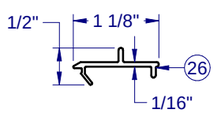


PVC GLAZEBEAD-6064



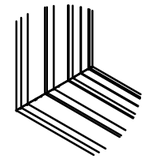
PVC SCREEN SUPPORT-6014

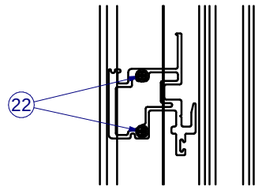


PVC SCREEN CATCH-6013

SCREW SUPPORT-3113

FRAME CORNER CONSTRUCTION


CORNER WELD
(ALL SIDES)
1:8



FIXED MEETING RAIL
SCREWED TOGETHER WITH
OUTERFRAME
1:8

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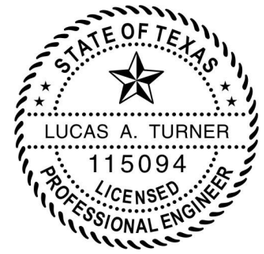
8100 PVC SINGLE HUNG IMPACT

NO.:	DESCRIPTION:	BY:	DATE:

REVISIONS



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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:
BOM AND EXTRUSIONS

DRAWN BY:	DATE:
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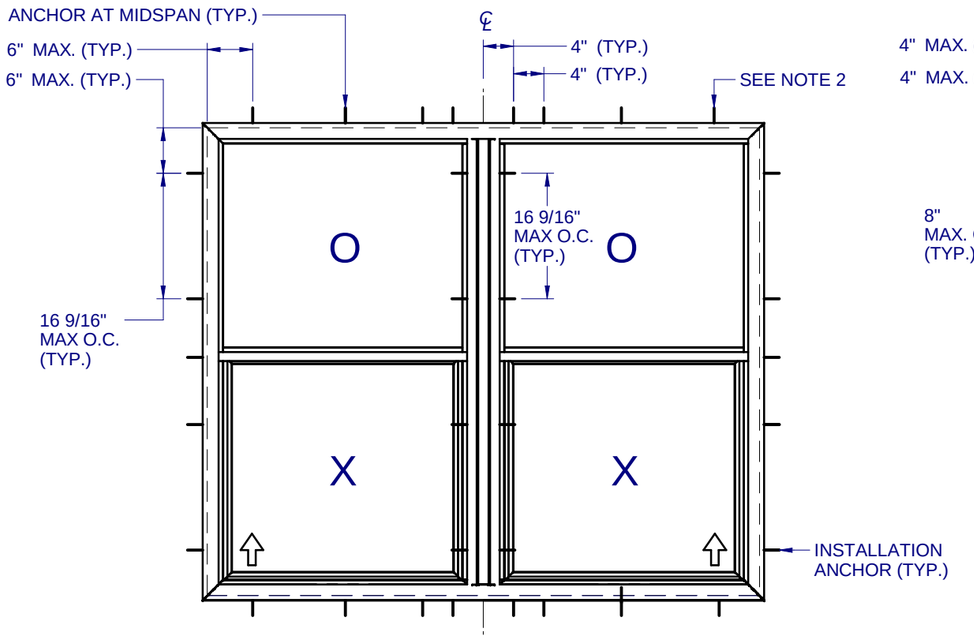
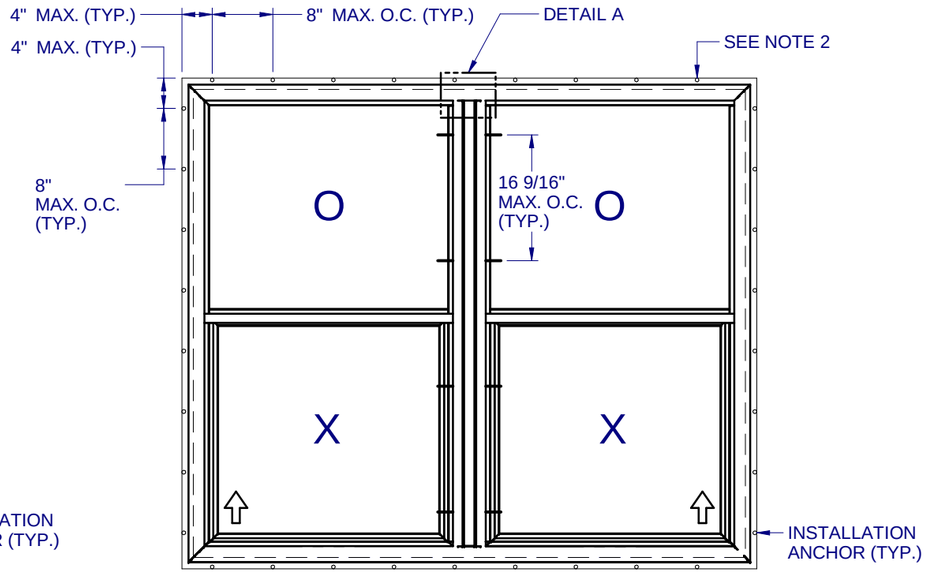
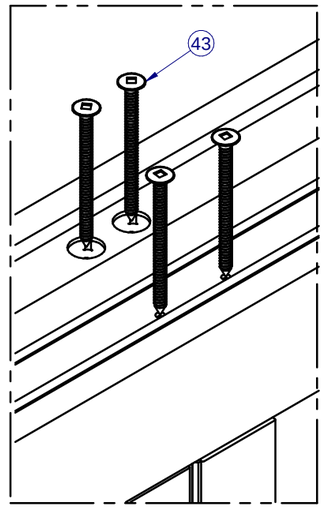
DWG #: TDI-440	REV.: -
SCALE: 1:2	SHEET 4 OF 6



ANCHOR LAYOUT - (FLANGE)



ANCHOR LAYOUT - (FIN)



DETAIL A
INTERNAL MULL ATTACHMENT
1:2

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 6.

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 6.

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. INSTALLATIONS TO SOLID CONCRETE OR GROUT-FILLED CMU MAY INCLUDE BUT DO NOT REQUIRE 1X WOOD BUCKS BETWEEN THE PRODUCT AND THE SUBSTRATE. INSTALLATIONS TO HOLLOW CMU REQUIRE THE USE OF 1X BUCKS BETWEEN THE PRODUCT AND SUBSTRATE.

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 6. 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)

Custom Window Systems
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8100 PVC SINGLE HUNG IMPACT

NO.:	DESCRIPTION:	BY:	DATE:

REVISIONS

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9/29/2016

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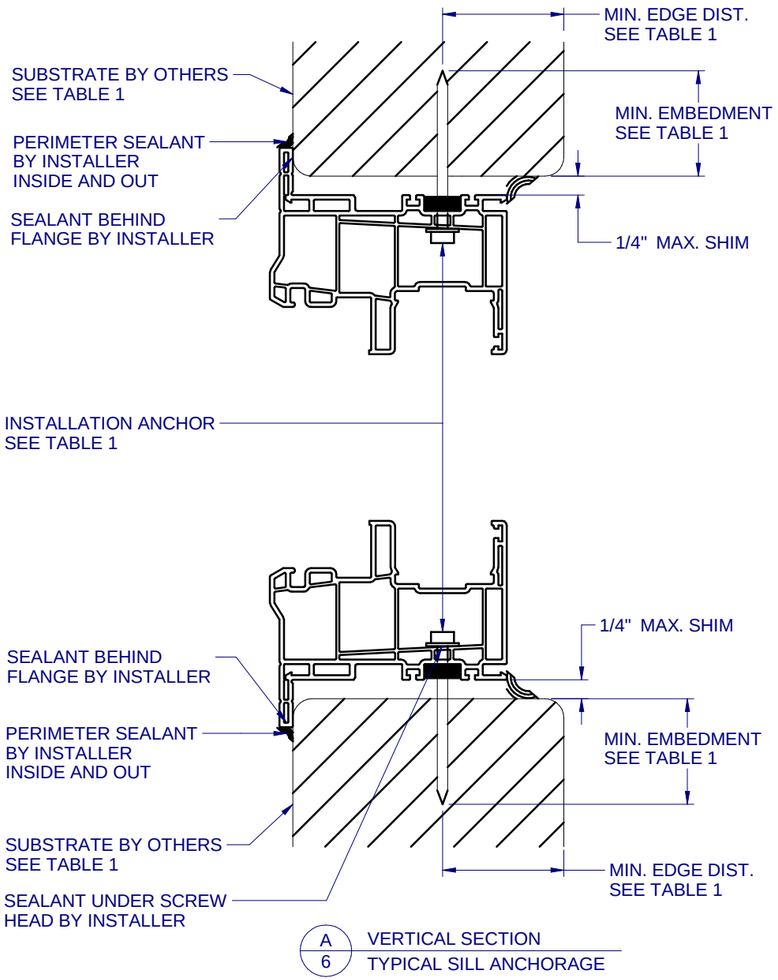
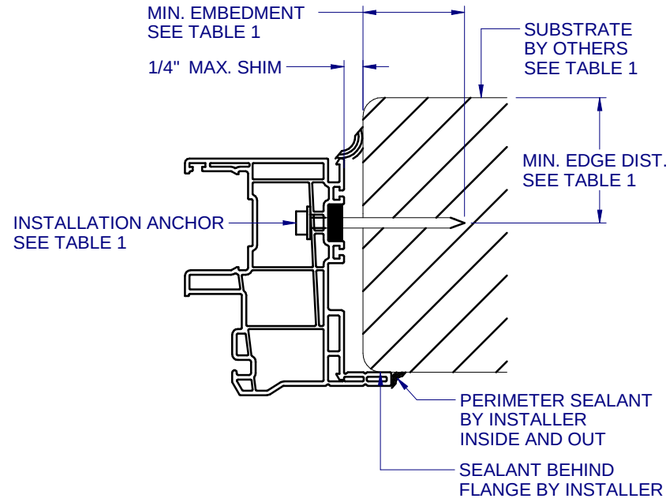
TX PE # 115094
1239 JABARA AVE.
NORTH PORT, FL 34288
PH. 941-380-1574

SHEET DESCRIPTION:
ANCHOR SCHEDULE AND NOTES

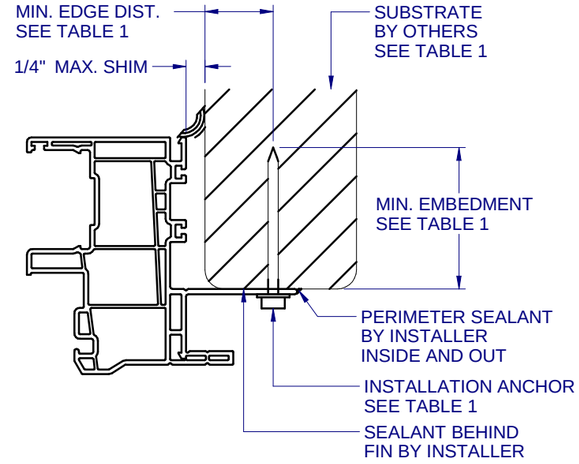
DRAWN BY:	DATE:
EMK	11/12/15
DWG #: TDI-440	REV.: -
SCALE: 1:20	SHEET 5 OF 6



A/6 VERTICAL SECTION
TYPICAL SILL ANCHORAGE



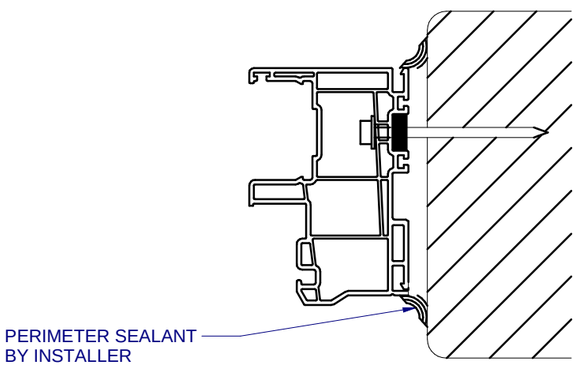
B/6 HORIZONTAL SECTION
TYPICAL JAMB ANCHORAGE



C/6 HORIZONTAL SECTION
TYPICAL FIN ANCHORAGE
HEAD AND SILL SIMILAR FOR FIN INSTALLATION

TABLE 1: APPROVED INSTALLATION FASTENERS

FRAME TYPE	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. SPRUCE-PINE-FIR (G=0.42)	3/16" ITW TAPCON OR ELCO ULTRACON	1-3/8"	7/8"
FLANGE	2X MIN. SPRUCE-PINE-FIR (G=0.42)	#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. SPRUCE-PINE-FIR (G=0.42)	#8 WOOD SCREW	1-1/2"	7/16"



D/6 HORIZONTAL SECTION
BOX FRAME INSTALLATION
HEAD AND SILL SIMILAR FOR BOX INSTALLATION

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.

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

8100 PVC SINGLE HUNG IMPACT

NO.:	DESCRIPTION:	BY:	DATE:

REVISIONS

STATE OF TEXAS
LUCAS A. TURNER
115094
LICENSED
PROFESSIONAL ENGINEER

9/29/2016

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	11/12/15
DWG #:	REV.:
TDI-440	-
SCALE:	SHEET
1:2	6 OF 6