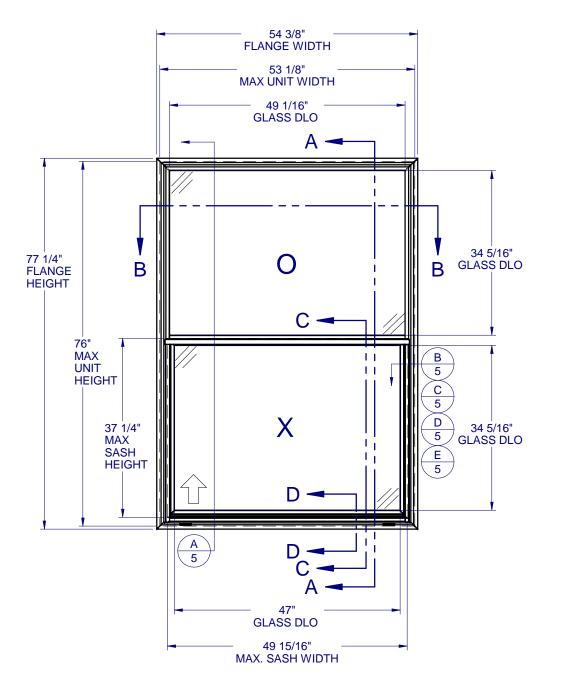
# SINGLE HUNG - LARGE MISSILE IMPACT

(SHOWN w/DIFFERENT OPTIONS)



### **GENERAL NOTES:**

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE FLORIDA BUILDING CODE (FBC), CURRENT EDITION AND IS RATED FOR MISSILE LEVEL D IMPACT USE IN WIND ZONE 3 AREAS AS DEFINED IN ASTM E 1996 PER THE FBC.

THIS PRODUCT MAY NOT BE USED IN THE HIGH VELOCITY HURRICANE ZONE (HVHZ) OR IN ASTM E 1996 WIND ZONE 4 AREAS.

- 2. GLAZING OPTIONS: (SEE SHEET 2)
- 3. CONFIGURATIONS: "O/X".
- 4. DESIGN PRESSURE RATING: -NEGATIVE DESIGN LOADS BASED ON, TESTED PRESSURE AND GLASS TABLES ASTM E-1300-04e01/09.
  - -POSITIVE DESIGN LOADS BASED ON, TESTED PRESSURE, WATER INFILTRATION TEST PRESSURE AND GLASS TABLES ASTM E-1300-04e01/09.
- 5. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEET 5 FOR ANCHOR DETAILS. WINDLOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
- 6. PRODUCT APPROVED FOR IMPACT RESISTANCE. SHUTTERS ARE NOT REQUIRED.
- 7. ALL FRAMES AND VENTS FULLY WELDED. SMALL JOINT SEAM SEALANT USED AT FIXED MEETING RAIL AND JAMB.
- 8. SERIES / MODEL DESIGNATION SH-6100.
- 9. THE DESIGNATION X AND O STAND FOR THE FOLLOWING: X = OPERABLE SASH. O = FIXED SASH
- 10. SECTION CALLOUTS APPLY TO ALL ELEVATIONS IN A SIMILAR
- 11. EXTERNAL WEEP SLOT = 1/4 x 1-1/2" LOCATED 5" FROM BOTH ENDS.



## **410 PVC** SINGLE HUNG **IMPACT**

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SHEET DESCRIPTION:

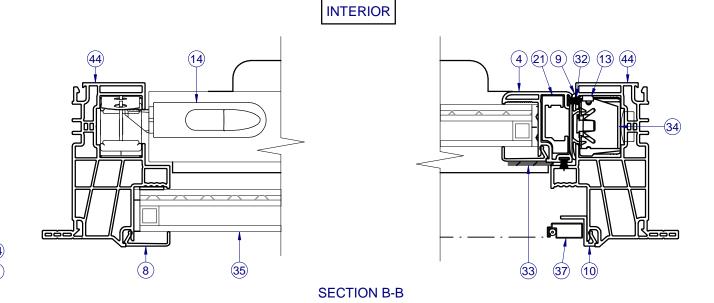
## **GENERAL NOTES AND ELEVATIONS**

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1:20	1 OF 5
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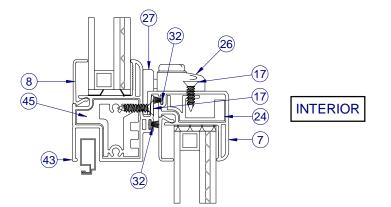
**TABLE OF CONTENTS** 

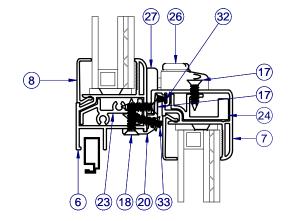
GENERAL NOTES & ELEVATIONS......1 SECTION VIEWS & GLAZING DETAIL....2 BOM & EXTRUSIONS..... ANCHOR SCHEDULE & NOTES.....4 INSTALLATION DETAILS.....5

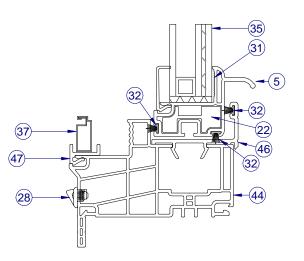
MAX. UNIT	DESIGN PRESSURE	
SIZE	RATING	IMPACT RATING
53-1/8" x 76"	+/- 50 PSF	LARGE MISSILE IMPACT



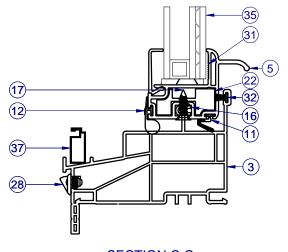
NOTE: LEFT SIDE SHOWS FIXED SECTION VIEW, RIGHT SIDE SHOWS SASH SECTION VIEW.



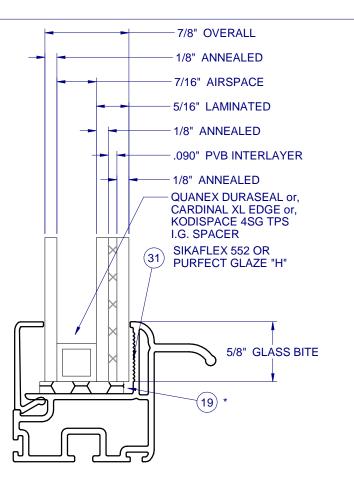




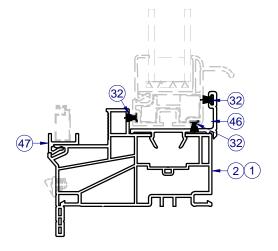
**SECTION A-A** 



SECTION C-C ALT MTG RAIL AND SLOPE SILL



GLASS TYPE A 1:1



SECTION D-D ALT 562 POCKET UNI-FRAME

#### IOTES:

- FIN FRAME AVAILABLE FOR BOTH UNI-FRAME AND STANDARD FRAME TYPES.
- 880 BALANCERS AND DEEP POCKET UNI-FRAME (H-6193) REQUIRED FOR LARGER SASHES.



# 410 PVC SINGLE HUNG IMPACT

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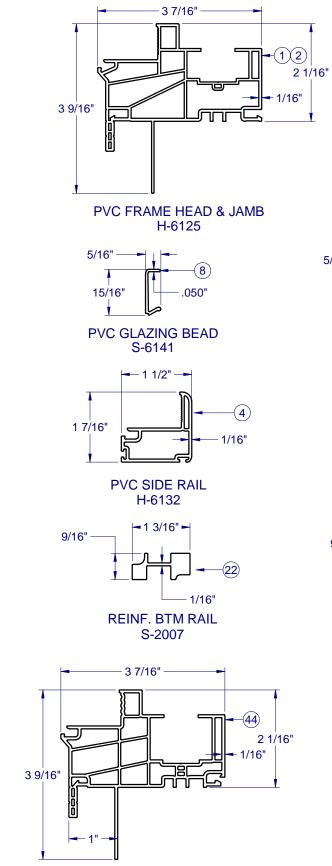
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# SECTION VIEWS AND GLAZING DETAIL

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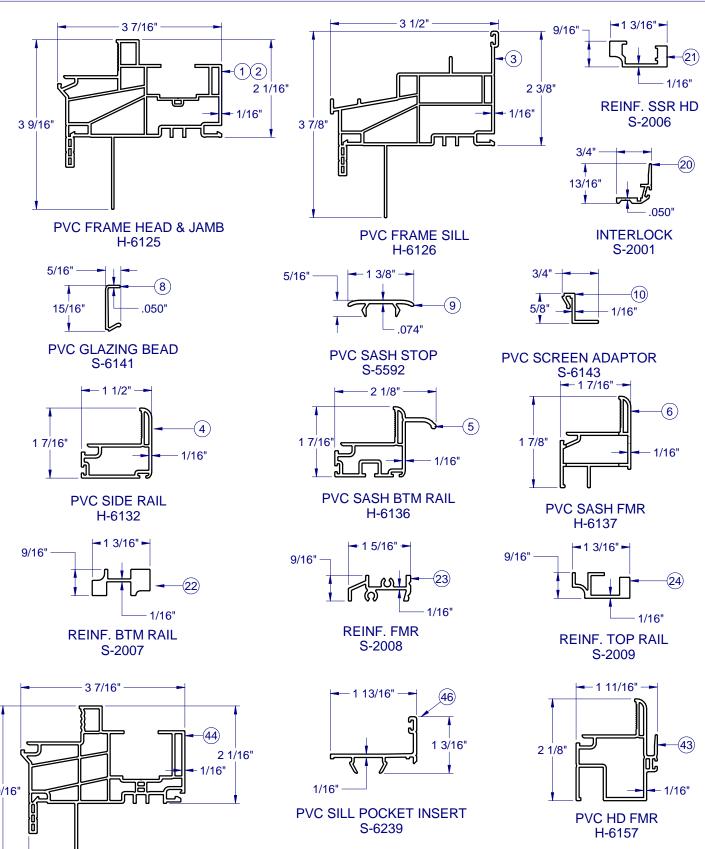
NOTE: ITEMS NOT SHOWN FOR CLARITY: 38-41

ITEM	PART	DESCRIPTION	MATERIAL
1	H-6125	HEAD, OUTERFRAME	PVC
2		JAMBS, OUTERFRAME	PVC
3		SILL, OUTERFRAME	PVC
4		SASH SIDE RAIL	PVC
5	H-6136	SASH BOTTOM RAIL	PVC
6	H-6137	FIXED MEETING RAIL.	PVC
7	H-6138	SASH TOP RAIL	PVC
8	S-6141	GLAZING BEAD	PVC
9	S-5592	SASH STOP, ADEPT, SH/DH, CROSSOVER, 3	PVC
10	S-6143	SCREEN ADAPTOR	PVC
11	P-5085	WSTP, QLON BULB VINYL	
12	P-5471	WSTP, QLON BULB VINYL	
13		BALANCERS - CONSTANT FORCE RT 880	
14	P-5392	SASH TILT LATCH	NYLON
16	P-5396	PIVOT BAR	SS
17	P-3515	#8 x 5/8 PHIL FLAT WHITE SMS	STEEL
18	P-4146	#8 X 3/4 PHIL FLAT tek	STEEL
19	P-5612	Setting Block, .12 x 1 x 2	RUBBER
20	S-2001	INTERLOCK RAIL	ALUM
21	S-2006	REINF, SASH SIDE RAIL, HD	ALUM
22	S-2007	REINF, BOTTOM RAIL	ALUM
23	S-2008	REINF, FMR	ALUM
24	S-2009	REINF, TOP RAIL	ALUM
26	P-3783	IMPACT LOCKS	NYLON
27	P-5557	Keeper, IMPACT, PVC (610/6100)	NYLON
28	P-5420	WEEP COVER	NYLON
31		SIKA FLEX 552 OR PURFECT GLAZE 'H'	SILICONE
32	P-3305	WSTP., .270 X 187, SOFT TOUCH FIN	
34	P-5588	HOLE PLUG	NYLON
35	GLASS	SEE SHEET 2	
36	P-4638	#8 X 2-1/2 PHIL TRUSS tek	STEEL
37	P-3218	SCREEN FRAME	ALUM
38		SCREEN CORNER KEY	NYLON
39	P-5576	Screen Spline, .125" Black PE Ribbed	
40	P-4755	SCREEN CORNER KEY (Rollform scrn 1" Of	
41	P-3195	SPRING, NO HOLE TENSION C-8400	
43	H-6157	HD FIXED MEETRING RAIL	PVC
44	H-6193	UNI-FRAME, 880 BALANCERS	PVC
45	H-2115	REINF, HD FMR	ALUM
46	S-6239	UNI-FRAME SILL POCKET INSERT	PVC
l	l	I	



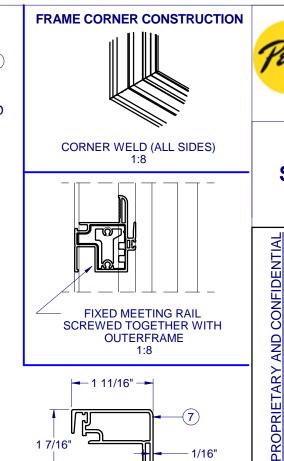
**PVC FRAME** 

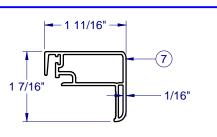
H-6193



7/16"

PVC SCREEN RETAINER S-6217





**OUTERFRAME** 1:8

**PVC SASH TOP RAIL** H-6138

<del>--</del> 1 5/16" <del>--</del>

1/16" -

REINF. HD FMR

H-2115 6005A-T5



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**410 PVC** 

**SINGLE HUNG** 

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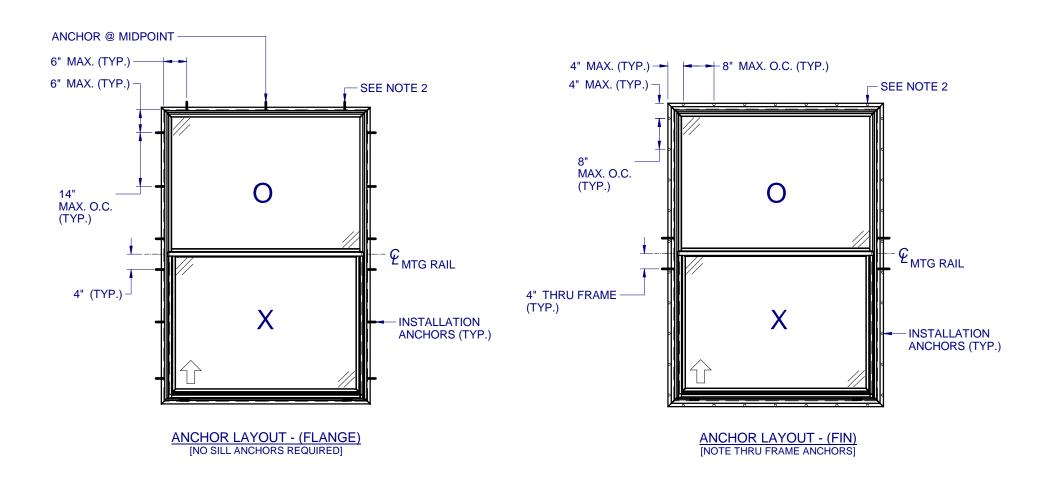
### **BOM AND EXTRUSIONS**

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47 S-6217 UNI-FRAME SCREEN RETAINER

PVC



## NOTES:

- 1. INSTALL ONE ANCHOR AT EACH INSTALLATION LOCATION.
- 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 5.
- 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 5.
- 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 INTO SOLID CONCRETE OR GROUT-FILLED CMU MAY INCLUDE BUT DO NOT REQUIRE 1X WOOD BUCKS BETWEEN THE PRODUCT AND SUBSTRATE. INSTALLATIONS INTO HOLLOW CMU REQUIRE THE USE OF 1X WOOD BUCKS BETWEEN THE PRODUCT AND SUBSTRATE.
- 7. A MINIMUM CENTER-TO-CENTER SPACING SHALL BE MAINTAINED BETWEEN ALL FASTENERS: 3-9/16" 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 5. 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)



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ANCHOR SCHEDULE AND NOTES

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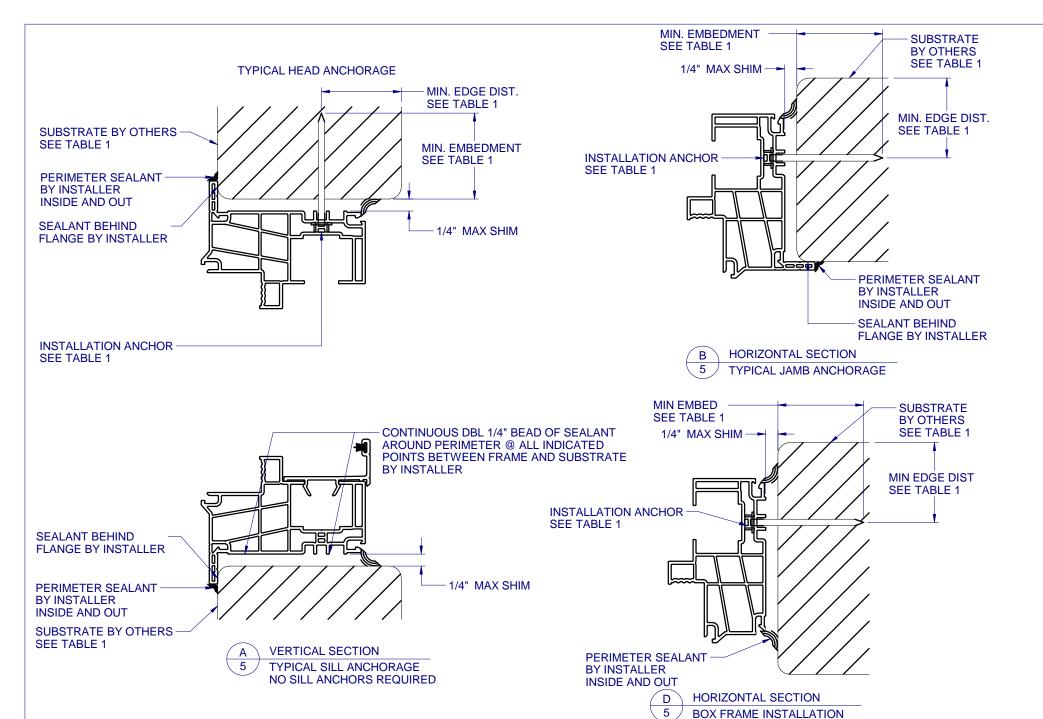


TABLE 1: APPROVED INSTALLATION FASTENERS				
FRAME TYPE	FRAME TYPE SUBSTRATE TYPE ANCHOR TYPE MIN. EMBEDMENT MIN. EDGE DIS			
FLANGE	CONCRETE (2.0 KSI MIN.)	3/16" ITW TAPCON	1"	1-1/8"
FLANGE	HOLLOW OR GROUT-FILLED CMU (117 PCF MIN.)	3/16" ITW TAPCON	1"	2"
FLANGE	CONCRETE (3.05 KSI MIN.)	3/16" DEWALT ULTRACON+	1-3/4"	1"
FLANGE	HOLLOW OR GROUT-FILLED CMU (ASTM C-90)	3/16" DEWALT ULTRACON+	1-3/4"	2-1/2"
FLANGE	2X MIN. SOUTHERN PINE (G=0.55)	3/16" ITW TAPCON OR DEWALT 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"

MIN. EDGE DIST.
SEE TABLE 1

1/4" MAX SHIM

MIN. EMBEDMENT
SEE TABLE 1

PERIMETER SEALANT
BY INSTALLER
INSIDE AND OUT
INSTALLATION ANCHOR
SEE TABLE 1

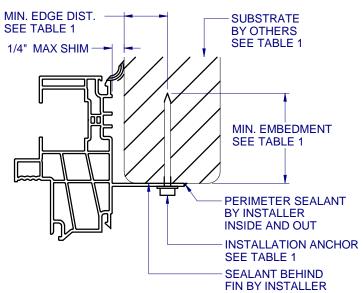
SEALANT BEHIND

C HORIZONTAL SECTION

TYPICAL FIN ANCHORAGE
HEAD AND SILL SIMILAR FOR FIN INSTALLATION

FIN BY INSTALLER

NOTE: ADDTIONAL THRU-FRAME ANCHORS (AS SHOWN IN DET. B/5) REQ'D AT MTG RAIL. SEE SHEET 4 ANCHOR LAYOUT.



E HORIZONTAL SECTION

SIMILAR FOR HEAD AND SILL FOR BOX INSTALLATION

TYPICAL FIN ANCHORAGE HEAD AND SILL SIMILAR FOR FIN INSTALLATION

NOTE: ADDTIONAL THRU-FRAME ANCHORS (AS SHOWN IN DET. B/5) REQ'D AT MTG RAIL. SEE SHEET 4 ANCHOR LAYOUT.

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.



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NOTE: UNIF-FRAME OPTIONS NOT SHOWN.