

ES WINDOWS AND DOORS

SERIES ES-V150 FIXED WINDOW

VINYL, NON-IMPACT, HVHZ

GENERAL NOTES:

1. THE PRODUCT DETAILS CONTAINED HEREIN ARE BASED UPON SIGNED AND SEALED TEST REPORTS BY PRI CONSTRUCTION MATERIALS TECHNOLOGIES LLC; TEST REPORT NO. PRI-2836T0006. PERFORMANCE STANDARDS USED IN TESTING WERE: MIAMI DADE TAS-202-94 TEST PROTOCOLS.
2. THIS PRODUCT CAN BE USED INSIDE AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
3. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE / MASONRY AND 2X FRAMING FRAMING SUBSTRATES AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT ACTING AS THE DESIGN PROFESSIONAL OF RECORD FOR THE PROJECT OF INSTALLATION.
4. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT ACTING AS THE DESIGN PROFESSIONAL OF RECORD FOR THE PROJECT OF INSTALLATION.
5. WHEN INSTALLED IN LOCATIONS WHERE WINDBORNE DEBRIS PROTECTION REQUIREMENTS EXIST,THIS PRODUCT DOES REQUIRE OPENING PROTECTION.
6. SITE CONDITIONS NOT COVERED IN THIS PRODUCT EVALUATION DOCUMENT ARE SUBJECT TO ADDITIONAL ENGINEERING ANALYSIS BY A LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
7. MATERIALS:

7.1. FRAME: RIGID PVC / VINYL BY DECEUNINCK. SEE LATEST DECEUNINCK NORTH AMERICA, LLC M.D. NOTICE OF ACCEPTANCE (N.O.A.) FOR PVC / VINYL CONFORMANCE TO PLASTICS REQUIREMENTS OF THE FLORIDA BUILDING CODE.
8. GLAZING:

8.1. GLASS MEETS THE REQUIREMENTS OF ASTM E1300-16.

8.2. SEE GLAZING DETAILS ON SHEET 7 OF 7.

8.3. THE IGU WAS SET FROM THE EXTERIOR ONTO A BED OF DOWSIL 903 SILICONE SEALANT AND SECURED IN PLACE WITH VINYL GLAZING BEADS.

8.4. GLASS SHALL MEET SAFETY GLAZING REQUIREMENTS PER CURRENT EDITION OF THE FLORIDA BUILDING CODE.

8.5. ALL SETTING BLOCKS SHALL BE IN COMPLIANCE WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE. SETTING BLOCKS SHALL BE NEOPRENE WITH A 70 TO 90 SHORE A DUROMETER.
9. DESIGNATION "O" STANDS FOR FIXED LITE.
10. THESE DRAWINGS CERTIFY THE WINDOW INSTALLATION ONLY. WATER PROOFING OF THE INSTALLED WINDOW IS NOT PART OF THIS INSTALLATION CERTIFICATION. THAT RESPONSIBILITY SHALL BE THAT OF THE MANUFACTURER AND/OR THE INSTALLER.

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	GENERAL & INSTALLATION NOTES
2	ELEVATION & INSTALLATION ANCHOR SCHEDULE
3	ANCHOR ELEVATION LOCATIONS
4 & 5	ANCHOR DETAILS
6	GLASS CHARTS
7	BILL OF MATERIALS & GLAZING DETAIL

PERFORMANCE RATING			
MAXIMUM WINDOW SIZE (See Note Below)	INSTALLATION TYPE	DESIGN PRESSURE (PSF)	IMPACT RATING
60" x 55"	FIN FRAME & THROUGH FRAME	+/- 65	NONE
48" x 36"	FIN FRAME & THROUGH FRAME (See Installation Note 5.3)	+/- 65	

NOTE:
* 60" X 55" TESTED WITH GL-2 and GL-3 GLAZING, SEE GLASS CHART ON SHEET 6.
* 48" X 36" TESTED WITH GL-1 GLAZING, SEE GLASS CHART ON SHEET 6.

INSTALLATION NOTES:

1. PRODUCT ANCHORS SHALL BE AS DESIGNATED AND LOCATED AS SHOWN IN THIS PRODUCT EVALUATION DOCUMENT. ANCHOR EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER AND SIDING.
2. SEE INSTALLATION ANCHOR SCHEDULE ON SHEET 3 FOR TYPE AND GRADE OF ANCHOR, AND/OR MANUFACTURER'S ANCHOR SPECIFICATIONS, INCLUDING MINIMUM NOMINAL SIZE, MINIMUM EMBEDMENT INTO SUBSTRATE AND MINIMUM EDGE DISTANCES.

2.1. EDGE DISTANCES SHALL BE MEASURED FROM CENTERLINE OF ANCHOR TO EDGE OF STRUCTURAL SUBSTRATE EITHER TO THE INTERIOR OR EXTERIOR OF THE FENESTRATION PRODUCT.

2.2. MINIMUM EMBEDMENT SHALL BE BASED ON PENETRATION INTO MAIN WIND FORCE RESISTING SYSTEM SUBSTRATE.
3. SEE SHEETS 4 AND 5 FOR SPECIFIC ANCHOR INSTALLATION DETAILS.
4. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
5. ANCHOR QUANTITIES AND SPACING / EMBEDMENT AND EDGE DISTANCE

5.1. THE NUMBER OF INSTALLATION ANCHORS IS BASED ON THE MAXIMUM END DISTANCE (ED) AND THE MAXIMUM ON CENTER (O.C.) SPACING PLACEMENT OF ANCHORS IN ACCORDANCE WITH ELEVATIONS ON SHEET 2.

5.2. END DISTANCES AND O.C. SPACINGS LESS THAN THAT SHOWN IN THE ELEVATIONS ON SHEETS 2 ARE ACCEPTABLE.

5.3. FOR WINDOW SIZES SMALLER THAN THOSE SHOWN, ANCHOR QUANTITIES CAN BE REDUCED WHILE MAINTAINING EDGE DISTANCE AND O.C. SPACING REQUIREMENTS.

5.4. ANCHOR QUANTITIES AND SPACINGS SHOWN ARE BASED ON THE LOWER OF ANCHOR SPACING USED IN TESTING OR REQUIRED BY LOADING AT DESIGN PRESSURE.

5.5. SEE SPACING, EMBEDMENT AND EDGE DISTANCE REQUIREMENTS IN THE INSTALLATION ANCHOR SCHEDULE ON SHEET 3.
6. MAXIMUM ALLOWABLE SHIM THICKNESS IS 1/4 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF WOOD COMPOSITE, HIGH DENSITY PLASTIC OR SIMILAR LOAD BEARING MATERIAL.
7. FOR CONCRETE BLOCK APPLICATIONS DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS.
8. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHSLESS THAN THE MINIMUM STRENGTH SPECIFIED IN THE INSTALLATION ANCHOR SCHEDULE ON SHEET 3.

This item has been digitally signed and sealed by Robert J. Amoruso, PE on the date adjacent to the seal. Signature must be verified on any electronic copies.

ES WINDOWS & DOORS
3550 NW 49TH STREET
MIAMI, FLORIDA 33142

SERIES ES-V150 NON- IMPACT FIXED WINDOW

INSTALLATION ANCHORAGE DETAILS

DATE

4/2/26

BY

RJA

REVISION DESCRIPTION

EDITORIAL REVISION. NO CHANGES TO INSTALLATION REQUIREMENTS.

NO.

A

SCALE

NONE

DATE:
10/01/2024

DWN BY:
JM

CHK BY:
RJA

SCALE:
NONE

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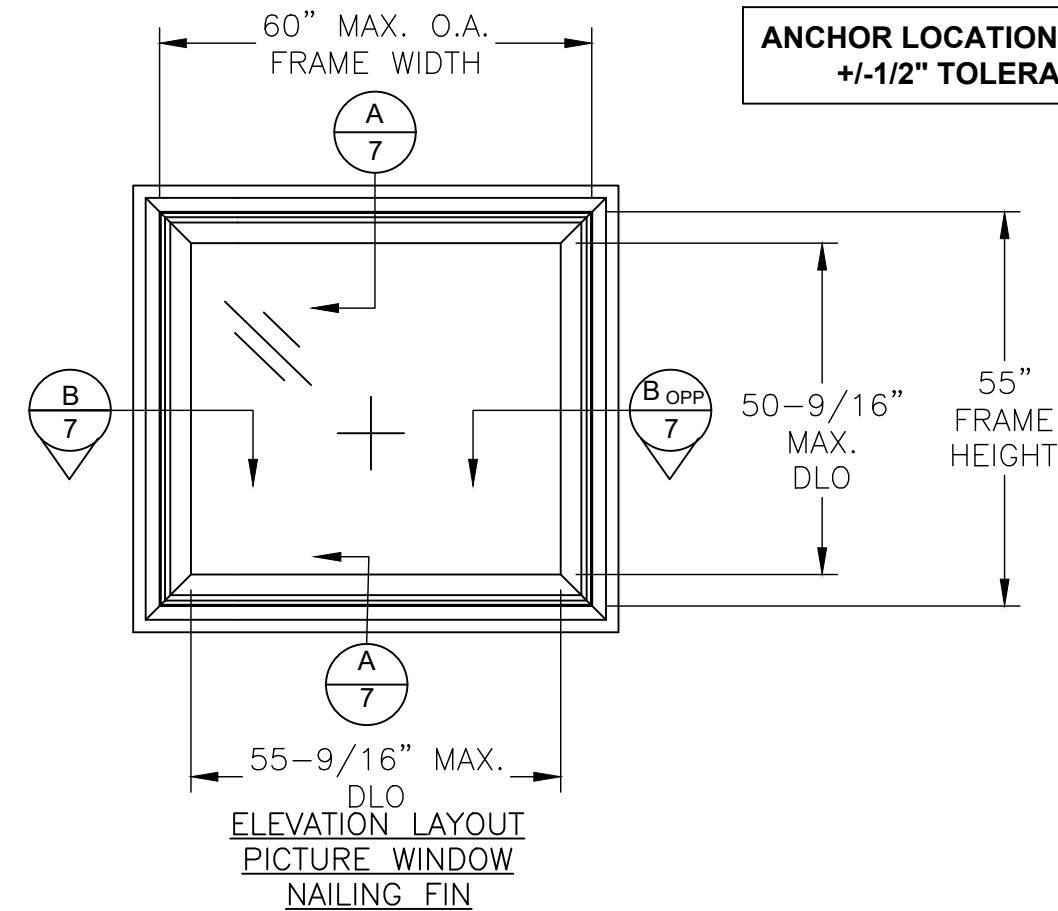
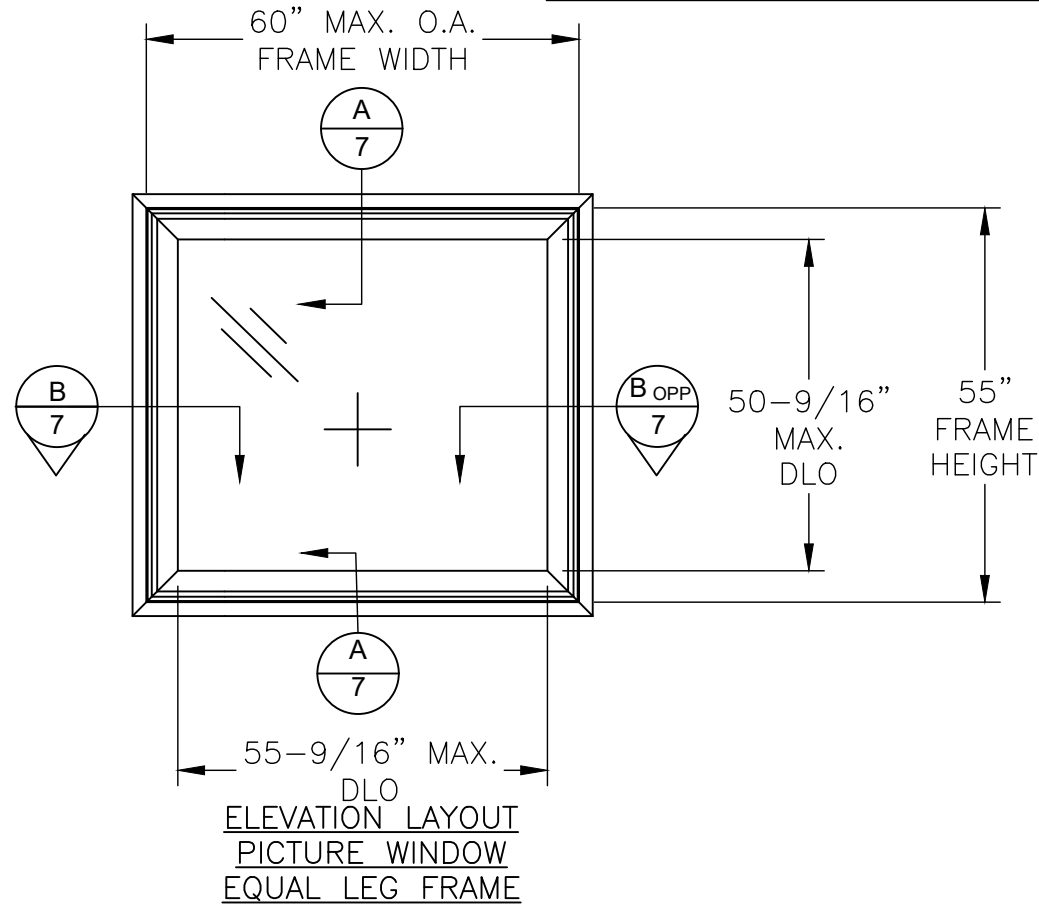
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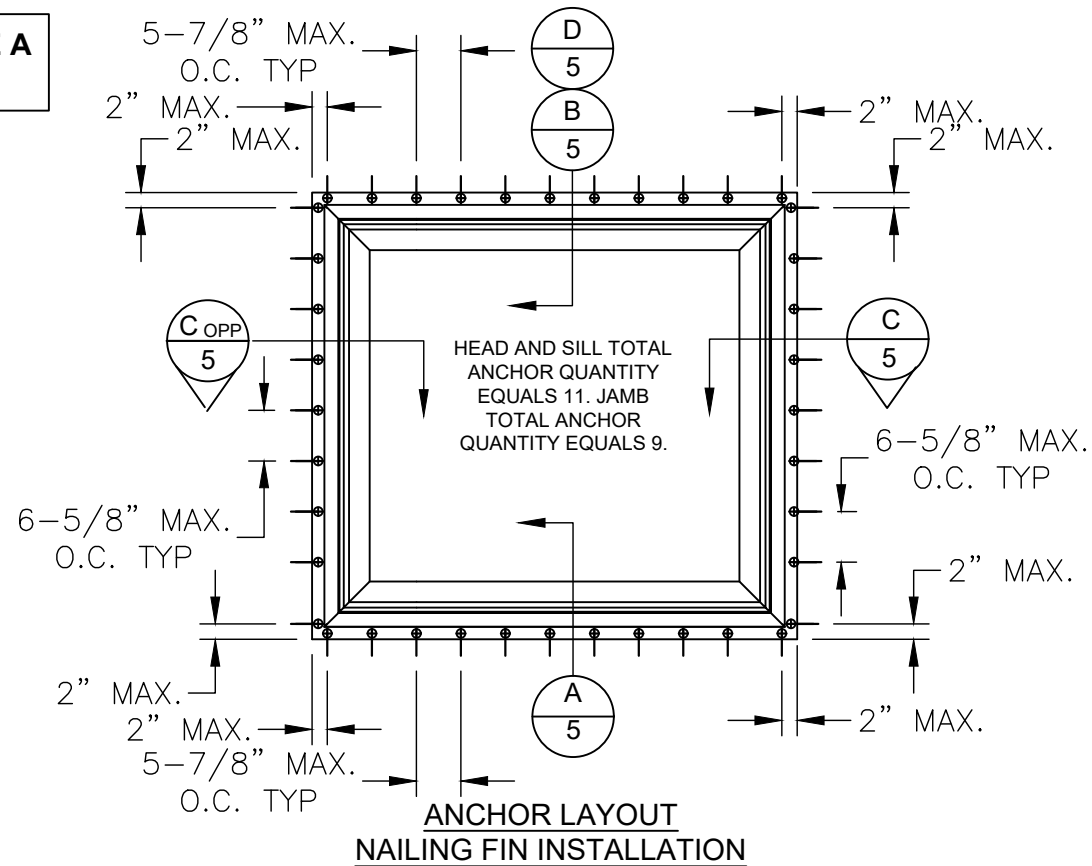
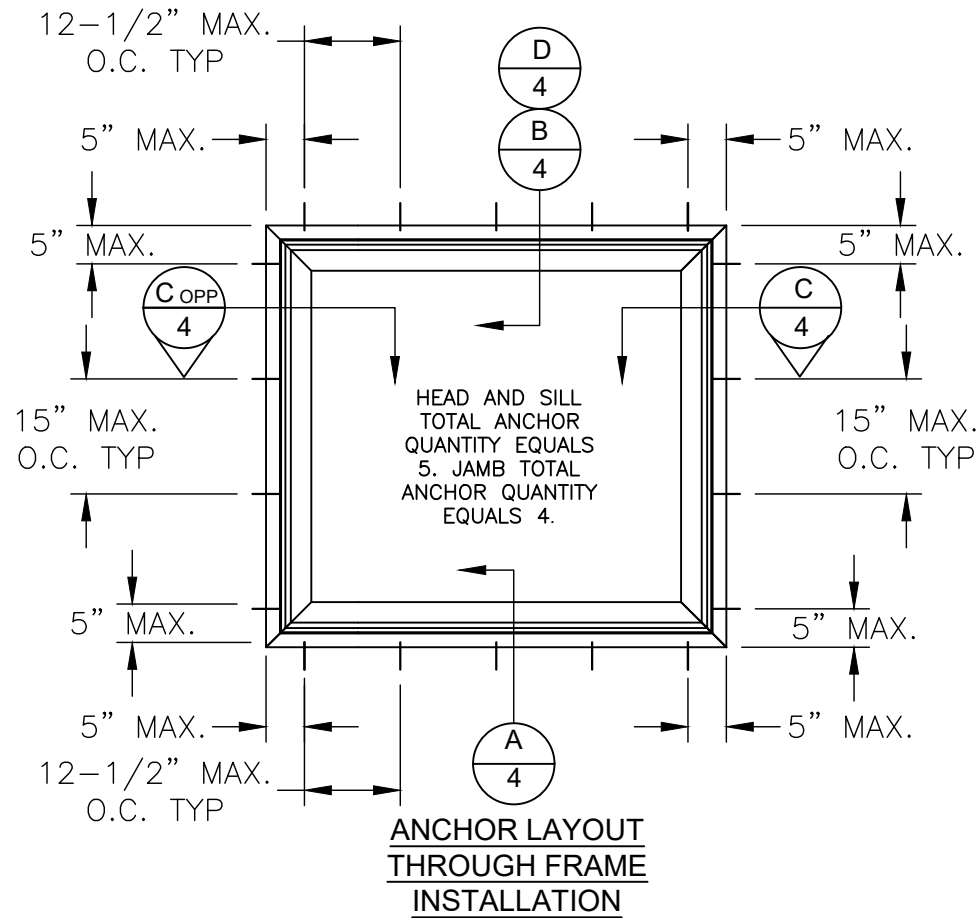
DWG/REV: SCS-0029, Rev A

SHT: 1 of 7

**FIXED WINDOW ELEVATION
INSTALLATION ANCHOR SCHEDULE**



**ANCHOR LOCATIONS HAVE A
+/-1/2" TOLERANCE**



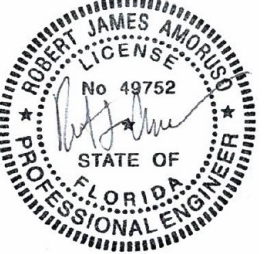
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SERIES ES-V150 NON-IMPACT FIXED WINDOW
INSTALLATION ANCHORAGE DETAILS

NO.	REVISION DESCRIPTION	BY	DATE
A	EDITORIAL REVISION. NO CHANGES TO INSTALLATION REQUIREMENTS.	RJA	4/2/26

DATE: 10/01/2024	DWN BY: JM	CHK BY: RJA	SCALE: NONE
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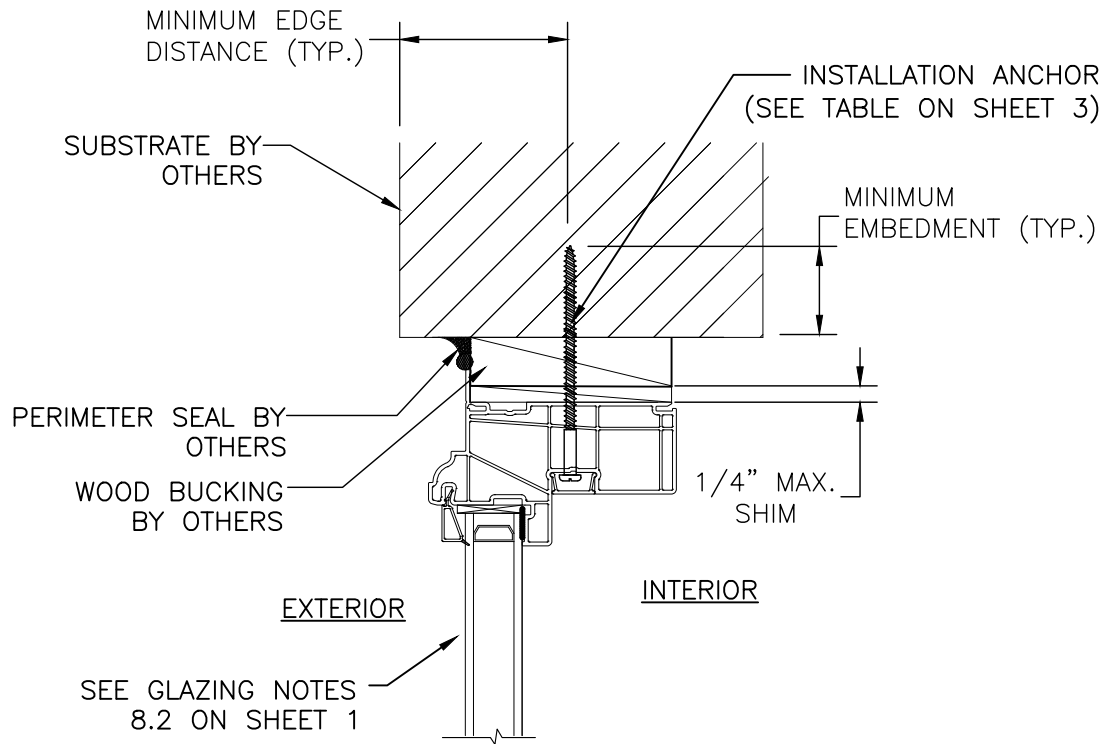
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DWG/REV: SCS-0029, Rev A
SHT: 2 of 7

ANCHOR SCHEDULE
THROUGH (RETROFIT) FRAME AND FIN FRAME (NAILING FIN)

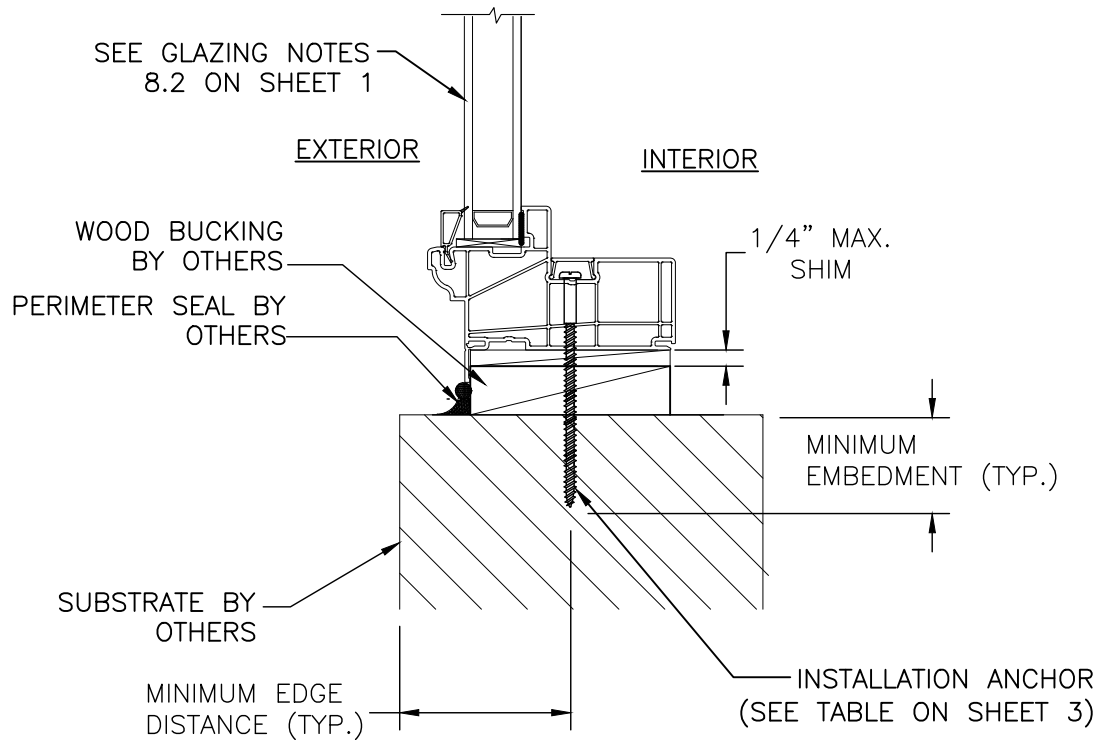
ANCHOR SCHEDULE							
ANCHORING METHOD	SUBSTRATE	SCREW HEAD TYPE	SCREW SIZE	MANUFACTURER AND/OR SPECIFICATION (1)	EMBEDMENT (IN)	EDGE DISTANCE (IN)	ANCHOR CAPACITIES BASED ON THE FOLLOWING SUBSTRATE STRENGTHS
THROUGH FRAME	CONCRETE	HEX OR PAN HEAD PREFERRED.	1/4"	ITW TAPCONS	1-1/2"	1-1/2"	MIN. 2500 PSI CONCRETE
	MASONRY (BLOCK/CMU)	FLAT HEAD ACCEPTABLE.	1/4"	ITW TAPCONS	1"	2"	ASTM C90 MED. WT. (DENSITY) > 117 PCF) MASONRY (CMU) MIN
	WOOD	PAN HEAD PREFERRED.	NO. 14	ANSI B18.6.1 (WOOD SCREW)	1-1/2"	1"	WOOD WITH A MINIMUM SPECIFIC GRAVITY: 0.55 (HVHZ) OR 0.42 (NON-HVHZ)
			NO. 14	ASME B18.6.4 (TAPPING SCREW)	1-1/2"	1"	
	STEEL STUD	FLAT HEAD ACCEPTABLE.	1/4"	ASME B18.6.4 (GRADE 5 TAPPING SCREW) Type AB Threads (requires pilot hole) or Self-Drilling (drill shaped point)	At least three full threads protrude into the interior of the steel stud.	3/8"	STEEL STUD, MIN. 20 GA. 33 MIL., 0.0329 INCH Fy = 33 KSI MIN. AND Fu = 45 KSI MIN.
NAILING FIN	WOOD	TRUSS OR WASHER HEAD PREFERRED.	NO. 10	ANSI B18.6.1 (WOOD SCREW)	1-3/8"	3/4"	WOOD WITH A MINIMUM SPECIFIC GRAVITY: 0.55 (HVHZ) OR 0.42 (NON-HVHZ)
			NO. 10	ASME B18.6.4 (TAPPING SCREW)	1-3/8"	3/4"	
	STEEL STUD	PAN HEAD ACCEPTABLE. FLAT HEAD NOT ACCEPTABLE.	NO.10	ASME B18.6.4 (GRADE 5 TAPPING SCREW) Type AB Threads (requires pilot hole) or Self-Drilling (drill shaped point)	At least three full threads protrude into the interior of the steel stud.	3/8"	STEEL STUD, MIN. 20 GA. 33 MIL., 0.0329 INCH Fy = 33 KSI MIN. AND Fu = 45 KSI MIN.
NOTES:							
(1) ITW (ADVANCED THREADFORM TECHNOLOGY) TAPCONS WILL BE USED FOR CONCRETE/MASONRY INSTALLATION.							

SERIES ES-V150 NON- IMPACT FIXED WINDOW INSTALLATION ANCHORAGE DETAILS	DATE	BY	REVISION DESCRIPTION	EDITORIAL REVISION. NO CHANGES TO INSTALLATION REQUIREMENTS.			
DATE: 10/01/2024	DWN BY: JM	CHK BY: RJA	SCALE: NONE				
ROBERT J. AMORUSO, P.E. #49752 AMORUSO CONSULTING ENG., LLC FBPE REGISTRATION NO. 38327 226 N NOVA RD, NO. 142 ORMOND BEACH, FL 32174 RJAENGPE@GMAIL.COM							
							
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PROJECT#: ACE-2024-212							
DWG/REV: SCS-0029, Rev A							
SHT: 3 of 7							

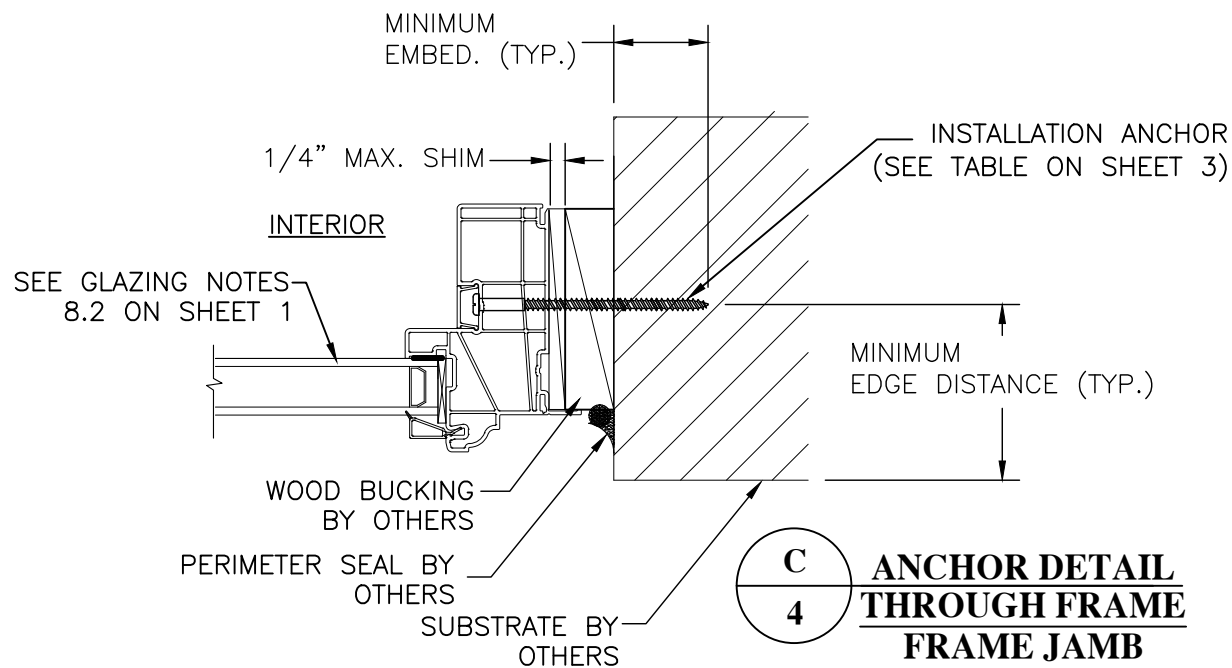
THROUGH FRAME (RETROFIT) ANCHOR DETAIL



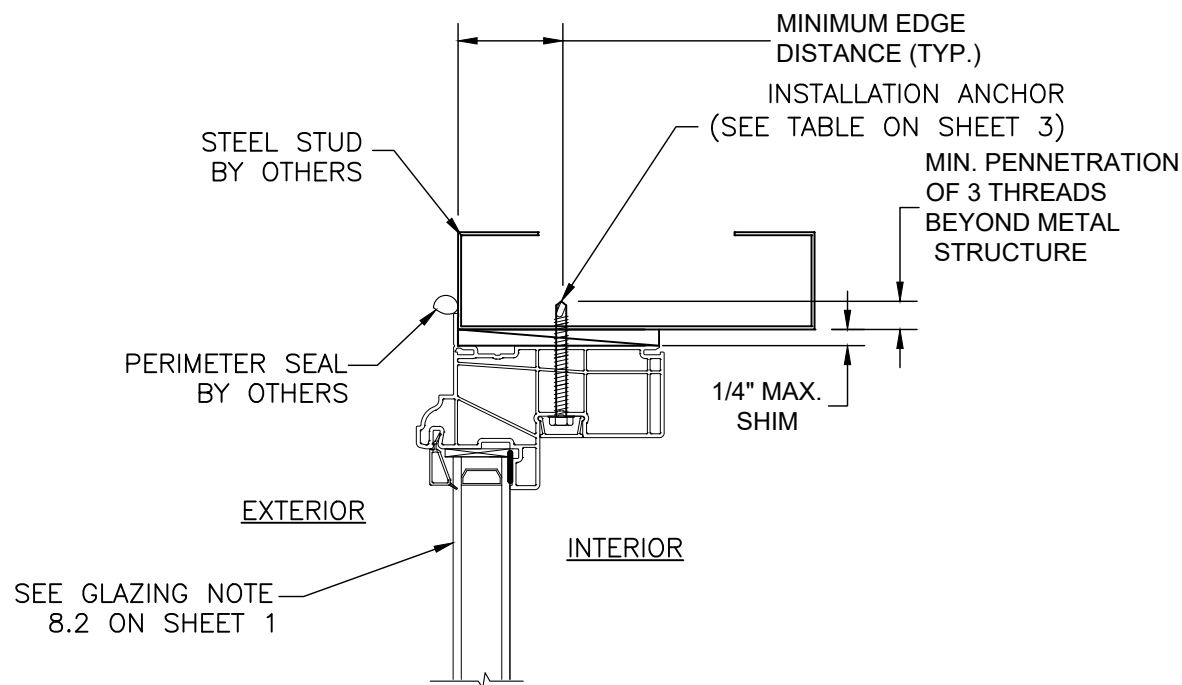
B
4 **ANCHOR DETAIL**
THROUGH FRAME
FRAME HEAD



A
4 **ANCHOR DETAIL**
THROUGH FRAME
FRAME SILL



C
4 **ANCHOR DETAIL**
THROUGH FRAME
FRAME JAMB

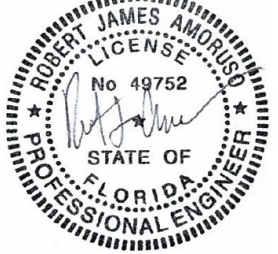


D
4 **VERTICAL SECTION**
STEEL STUD STRUCTURE
FRAME INSTALLATION
HEAD SHOWN, SILL & JAMBS
SIMILAR

SERIES ES-V150 NON-IMPACT FIXED WINDOW INSTALLATION ANCHORAGE DETAILS	DATE	BY			
	4/2/26	RJA			
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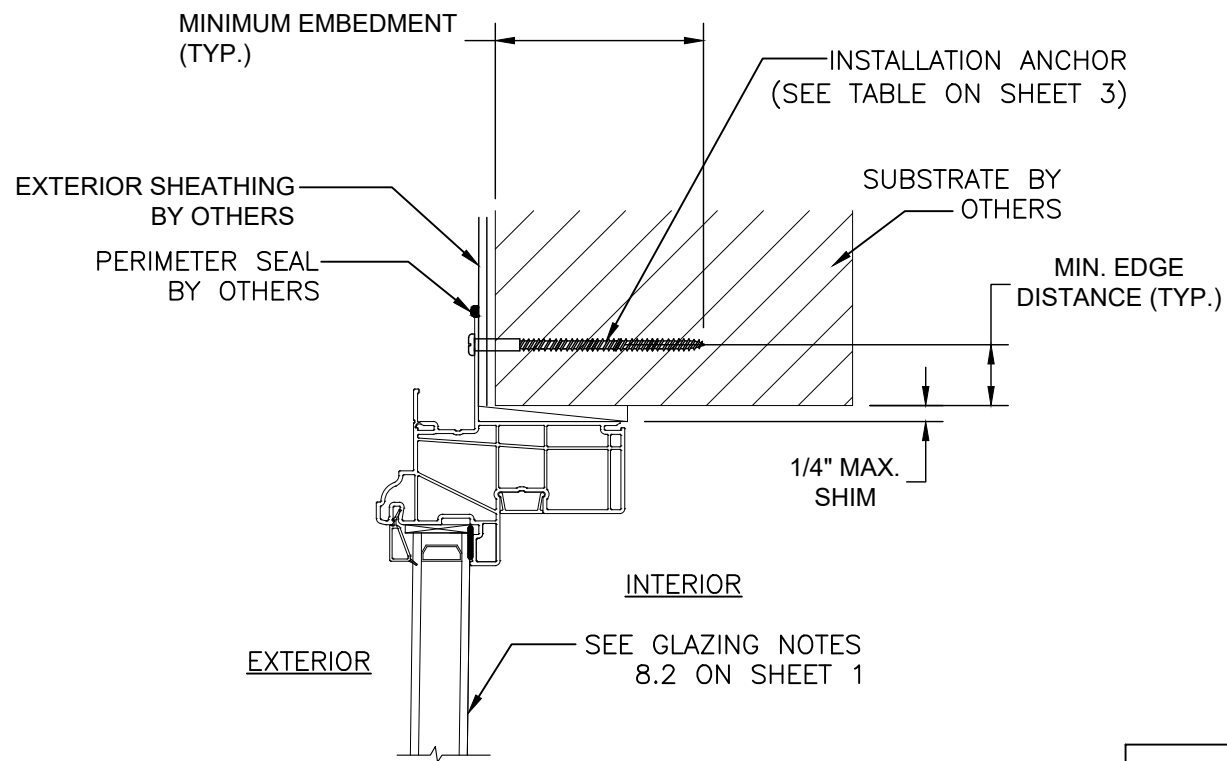
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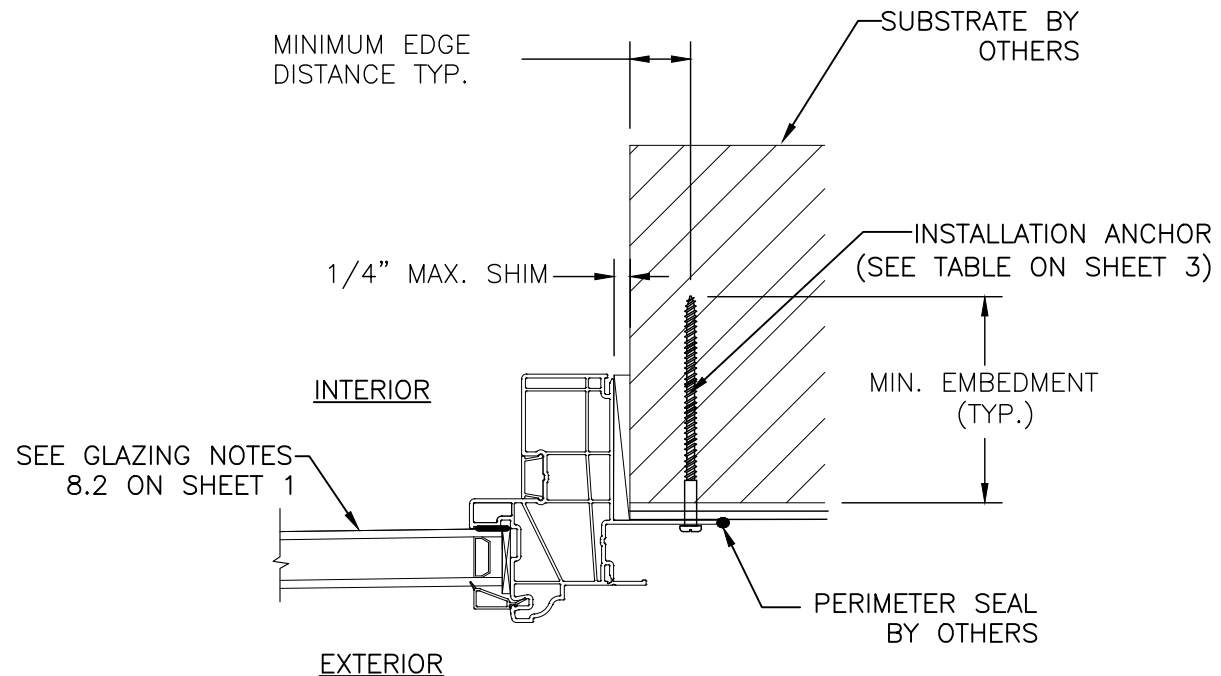


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SHT:	4 of 7

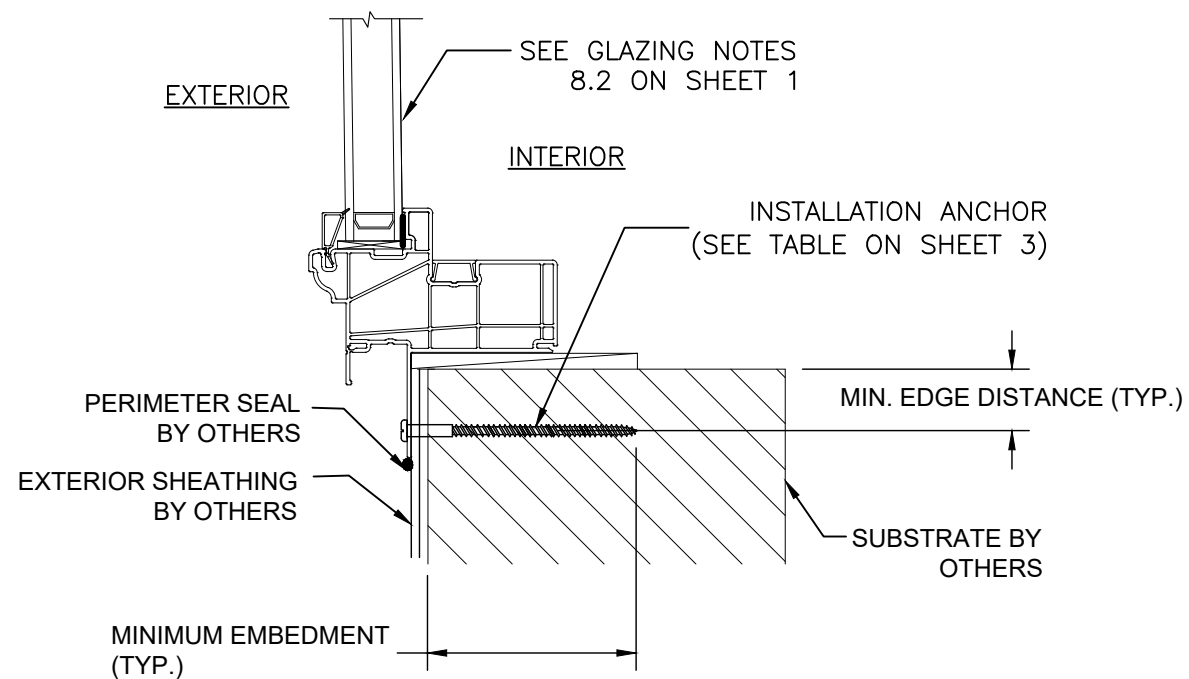


B
5 **ANCHOR DETAIL**
NAILING FIN
FRAME HEAD

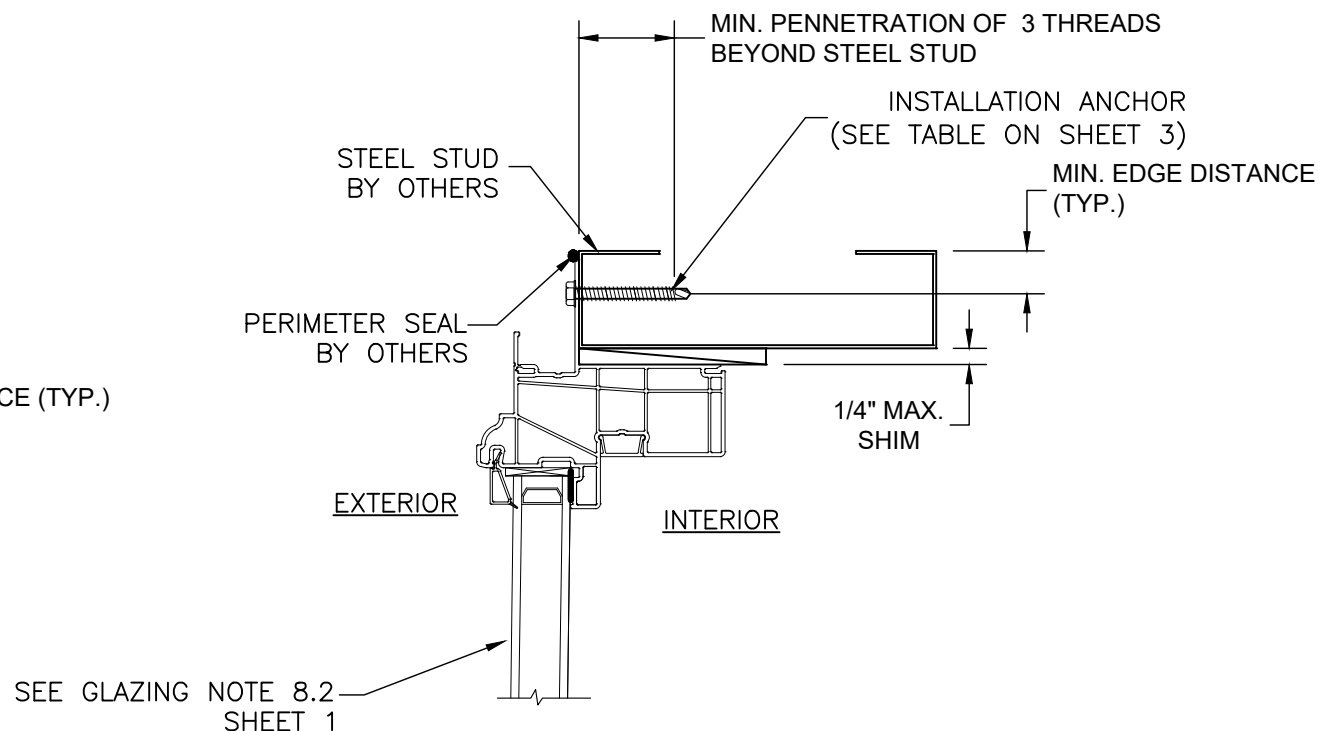


C
5 **ANCHOR DETAIL**
NAILING FIN
FRAME JAMB

FIN FRAME
(NAILING FIN)
ANCHOR DETAIL



A
5 **ANCHOR DETAIL**
NAILING FIN
FRAME SILL



D
5 **VERTICAL SECTION**
STEEL STUD STRUCTURE
NAIL FIN INSTALLATION
HEAD SHOWN, SILL & JAMBS
SIMILAR

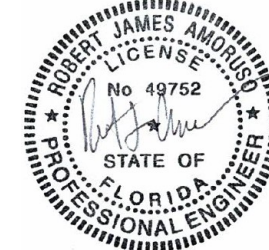
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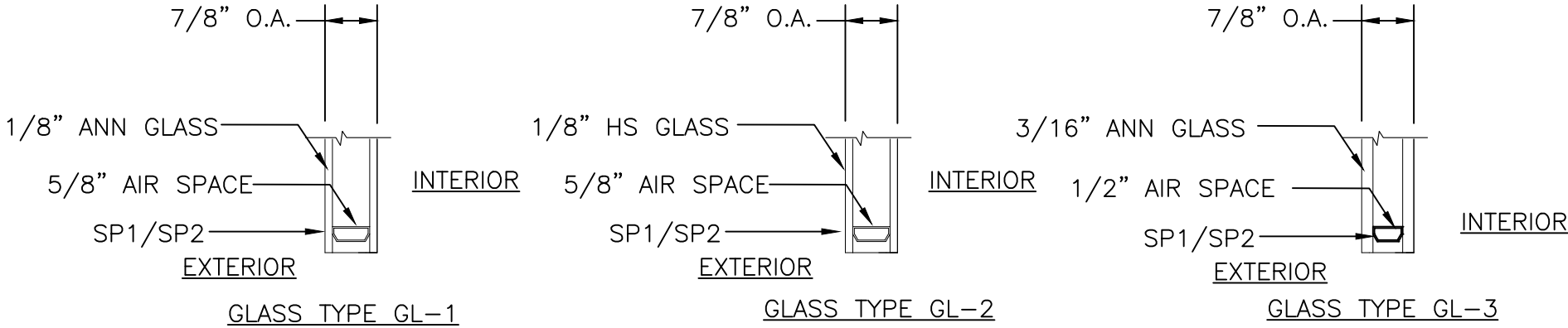
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PROJECT#: ACE-2024-212
DWG/REV: SCS-0029, Rev A
SHT: 5 of 7



GLASS NOTES:
ANN = ANNEALED
HS = HEAT STRENGTHENED
SP1 = KODISPACE 4SG (REACTIVE THERMOPLASTIC WARM EDGE SPACER)
SP2 = HELIMA ALUMINUM BOX SPACER

TABLE 1	
GLASS TYPE	INSULATING GLASS
	MAX. DESIGN PRESSURE (+/- 65.0 PSF)
GL-1	7/8" I.G.: 1/8" ANN + 5/8" AIR SPACE + 1/8" ANN GLASS
GL-2	7/8" I.G.: 1/8" HS + 5/8" AIR SPACE + 1/8" HS GLASS
GL-3	7/8" I.G.: 3/16" ANN + 1/2" AIR SPACE + 3/16" ANN GLASS

MAXIMUM DESIGN PRESSURE CHART ASTM E-1300 (PSF)									
SHORT SIDE (IN.)	WINDOW DIMENSIONS	INSULATING GLASS - GL1 - GL2 - GL3 (SEE TABLE 1, FOR GLASS DESCRIPTIONS)							
		LONG SIDE (IN.)							
		32	36	40	44	48	52	56	60
		32	36	40	44	48	52	56	60
	32	GL1	GL1	GL1	GL1	GL1	GL2/GL3	GL2/GL3	GL2/GL3
	36	GL1	GL1	GL1	GL1	GL1	GL2/GL3	GL2/GL3	GL2/GL3
	40	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3
	44	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3
	46	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3
	48	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3
	52	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3
	55	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3	GL2/GL3

SERIES ES-V150 NON- IMPACT FIXED WINDOW INSTALLATION ANCHORAGE DETAILS			
NO.	REVISION DESCRIPTION	BY	DATE
A	EDITORIAL REVISION. NO CHANGES TO INSTALLATION REQUIREMENTS.	RJA	4/2/26

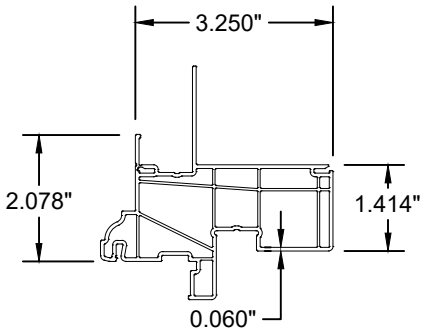
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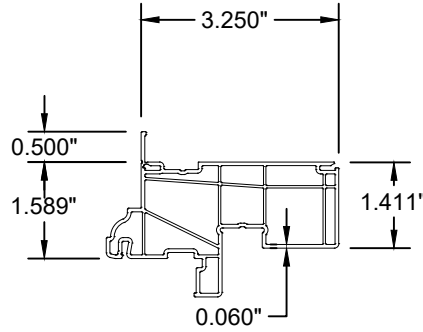


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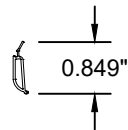
BILL OF MATERIALS			
QUANTITY	PART NO.	DESCRIPTION	MANUFACTURER
1	8996	MAIN FRAME HEAD FIN, JAMB AND SILL, UPVC	DECEUNINCK
2	6177	MAIN FRAME HEAD, JAMB AND SILL, UPVC	DECEUNINCK
3	6177	GLAZING BEAD, UPVC	DECEUNINCK



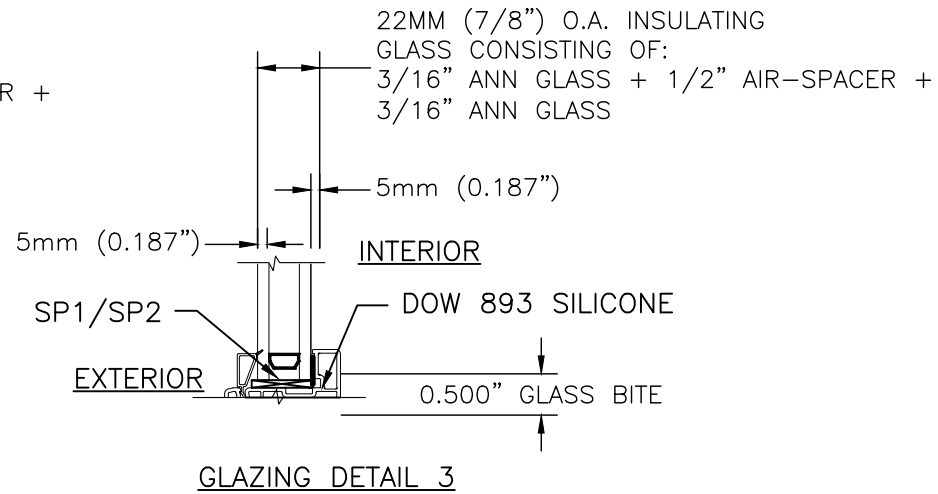
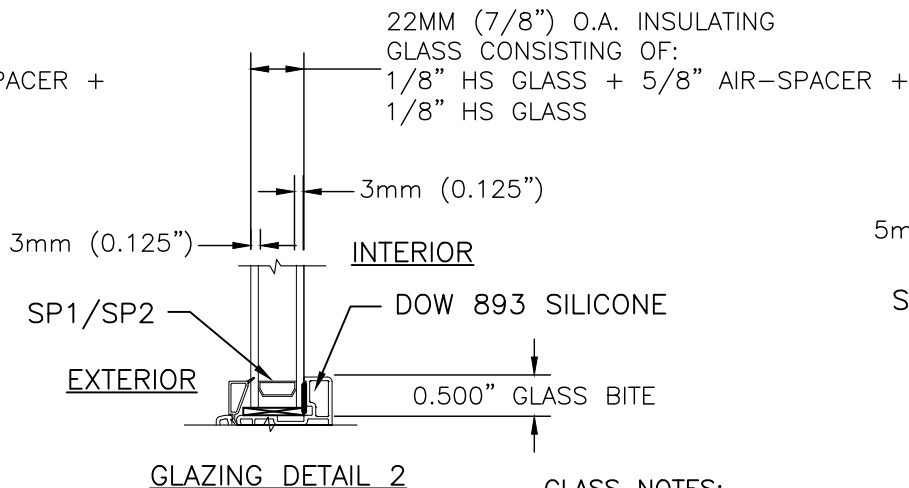
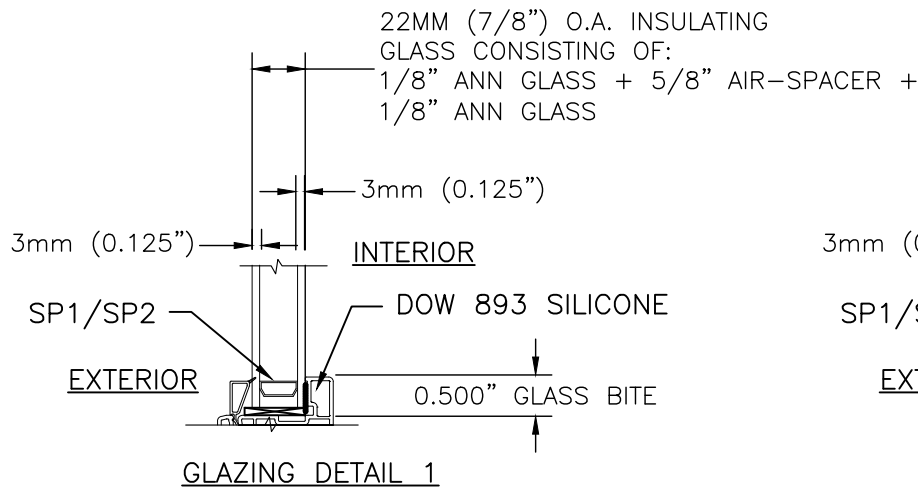
① MAIN FRAME HEAD/JAMB/SILL
EQUAL LEG UPVC / VINYL-FIN



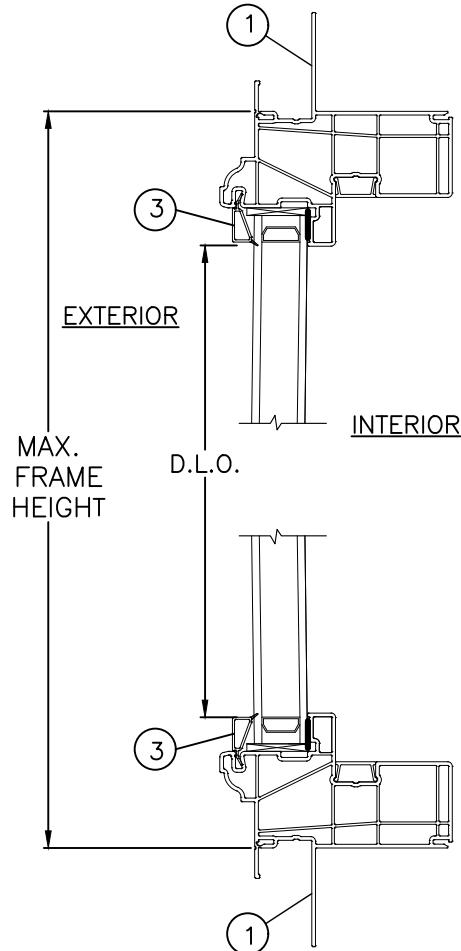
② MAIN FRAME HEAD/JAMB/SILL
EQUAL LEG UPVC / VINYL-FLANGE



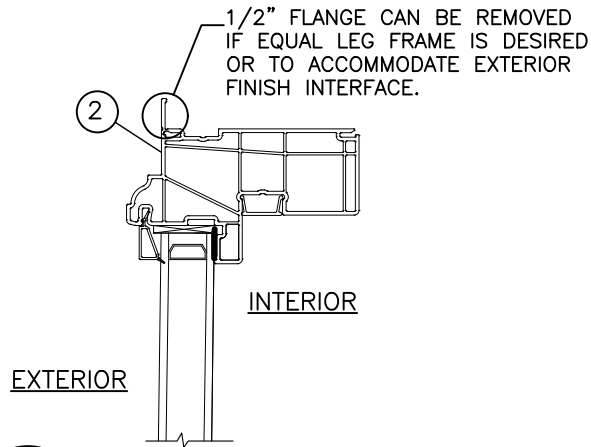
② GLAZING BEAD
UPVC / VINYL



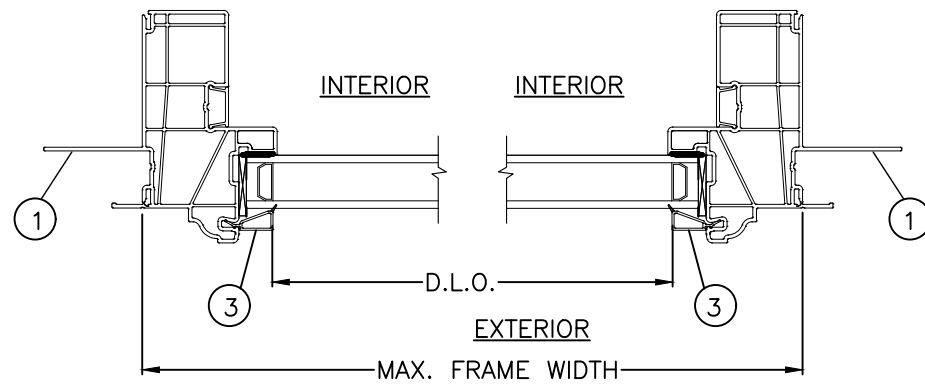
GLASS NOTES:
ANN = ANNEALED
HS = HEAT STRENGTHENED
SP1 = KODISPACE 4SG (REACTIVE THERMOPLASTIC
WARM EDGE SPACER)
SP2 = HELIMA ALUMINUM BOX SPACER



A
8 VERTICAL SECTION
FRAME HD/SILL



A
8 VERTICAL SECTION
FRAME HD/SILL-FLANGED



B
8 HORIZONTAL SECTION
FRAME JAMB

BOPP
8 HORIZONTAL SECTION
FRAME JAMB

SERIES ES-V150 NON-IMPACT FIXED WINDOW
INSTALLATION ANCHORAGE DETAILS

REVISION DESCRIPTION	DATE	BY			
EDITORIAL REVISION: NO CHANGES TO INSTALLATION REQUIREMENTS.	4/2/26	RJA			
NO.	A				

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SHT:	7 of 7