

panoramah! (Jofebar S.A.)

ah!38 TILT & TURN WINDOW

(WZ3)(IMPACT)

GENERAL NOTES:

1.

THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC), **EXCLUDING** HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
 - TAS 201-94
 - TAS 202-94
 - TAS 203-94
2.

ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, 2X FRAMING, AND METAL FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
3.

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 ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
4.

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.
5.

APPROVED IMPACT PROTECTIVE SYSTEM **IS NOT REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE IN WIND ZONE 3 OR LESS.
6.

APPROVED IMPACT PROTECTIVE SYSTEM **IS REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE IN WIND ZONE 4.
7.

WINDOW FRAME MATERIAL: ALUMINUM 6063-T5
8.

GLASS MEETS THE REQUIREMENTS OF ASTM E1300 GLASS CHARTS. SEE SHEET 5 FOR GLAZING DETAIL.

INSTALLATION NOTES:

1.

TWO (2) INSTALLATION ANCHORS ARE REQUIRED AT EACH ANCHOR LOCATION SHOWN, UNLESS OTHERWISE STATED ON SHEET 4.
2.

INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/4 INCH THE DEPICTED LOCATION & SPACING IN THE ANCHOR LAYOUT DETAILS (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
3.

SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM STACK TO BE 3/8 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
4.

MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
5.

INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.

5.1.

FASTENERS USED WITHIN 3000 FEET OF A SALTWATER COASTLINE AND INSTALLED IN ENCLOSED SPACES SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 1711.1.1 (E.G., ASTM A153 CLASS D, ASTM A641 CLASS 3S, OR EQUIVALENT CORROSION RESISTANCE).

5.2.

CONNECTORS AND METAL PLATES USED WITHIN 3000 FEET OF A SALTWATER COASTLINE SHALL BE STANDARD GALVANIZED IN ACCORDANCE WITH SECTION 1711.1.2 (E.G., ASTM A653 G90, ASTM A123, OR PROTECTIVE COATING PER TPI 1).
6.

FOR MASONRY OR CONCRETE OPENINGS, A 1X WOOD BUCK MAY BE USED (OPTIONAL) AS LONG AS THE MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS ARE STILL MET WITHIN THE CORRESPONDING HOST SUBSTRATE. SEE GENERAL NOTE #3 ON SHEET 1 FOR MORE INFORMATION.
7.

FOR HOLLOW BLOCK AND GROUT FILLED BLOCK, DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.
8.

INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.

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SHEET	SHEET DESCRIPTION
1	GENERAL NOTES AND INSTALLATION NOTES
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3	"X" ELEVATION & DESIGN PRESSURE TABLE
4	ANCHOR LAYOUTS
5	VERTICAL SECTIONS & GLAZING DETAIL
6	HORIZONTAL SECTIONS
7	ANCHOR DETAILS & ANCHOR SCHEDULE

DESIGN PRESSURE RATING (PSF)				
CONFIGURATION	WIDTH (IN.)	HEIGHT (IN.)	DESIGN PRESSURE	MISSILE IMPACT RATING
XX	SEE TABLE ON SHEET 2			LARGE & SMALL MISSILE IMPACT
X	SEE TABLE ON SHEET 3			

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TITLE:

ah!38 TILT & TURN WINDOW (WZ3)(IMPACT) GENERAL NOTES & INSTALLATION NOTES

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REMARKS	BY	DATE

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Reason: I am approving this document
Date: 2026.08.18 17:26:00 -03'00'

HERMES F. NORERO

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No. 73778

STATE OF FLORIDA

PROFESSIONAL ENGINEER

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FBPE CERT. OF AUTHORIZATION No. 29578

FL #:

FL48370

DATE:

04.18.2024

DWG. BY:

SH

CHK. BY:

HFN

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NTS

DWG. #:

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SECTION:

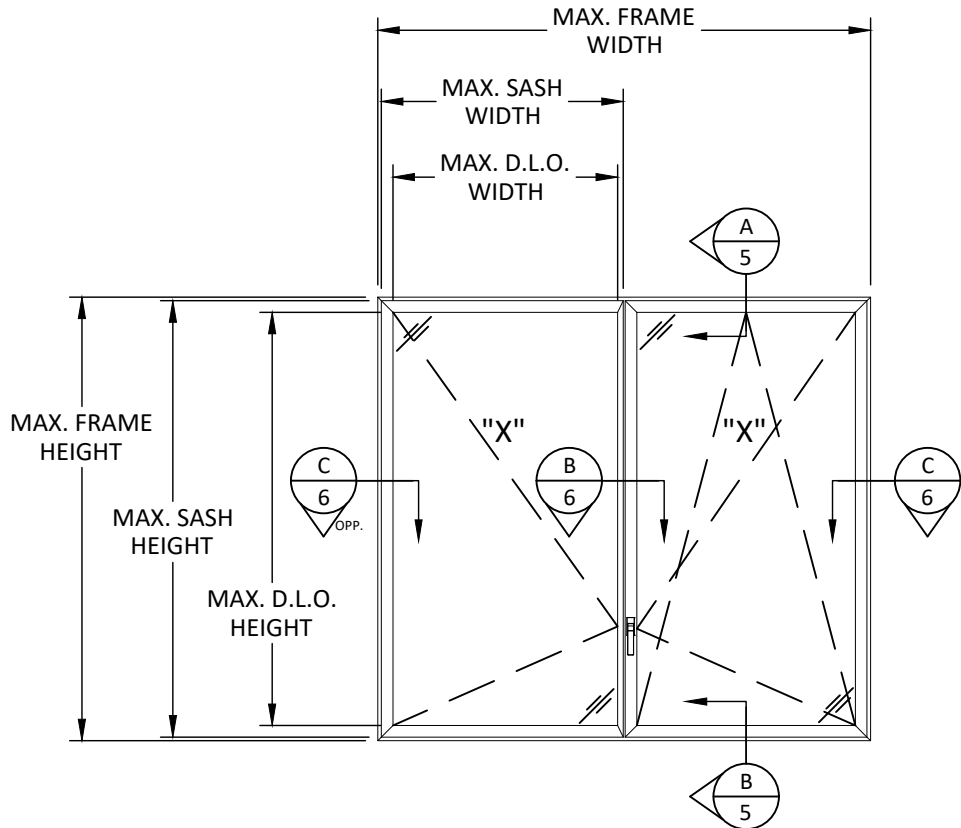
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"XX" ELEVATION
TYPICAL

D.L.O. HEIGHT = FRAME HEIGHT - 4.9375"
D.L.O. WIDTH = FRAME WIDTH/2 - 4.00"
SASH HEIGHT = FRAME HEIGHT - 1.1875"
SASH WIDTH = FRAME WIDTH/2 + 0.4375"

FRENCH TILT & TURN ALLOWABLE DESIGN PRESSURE (PSF)												
FRAME HEIGHT (IN.)	FRAME WIDTH (IN.)											
		32	44	56	68	80	92	104	116	128	140	152
	36	80.0	80.0	68.6	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
	42	80.0	80.0	68.6	65.0	65.0	61.9	61.9	61.9	61.9	-	-
	48	80.0	80.0	68.6	65.0	65.0	56.5	54.2	54.2	-	-	-
	54	80.0	80.0	65.0	65.0	65.0	56.5	50.0	-	-	-	-
	60	80.0	80.0	65.0	65.0	65.0	56.5	-	-	-	-	-
	66	65.0	65.0	65.0	65.0	65.0	-	-	-	-	-	-
	72	65.0	65.0	65.0	65.0	65.0	-	-	-	-	-	-
	78	65.0	65.0	65.0	57.2	-	-	-	-	-	-	-
	84	65.0	65.0	53.8	45.3	-	-	-	-	-	-	-
	90	65.0	54.6	43.5	-	-	-	-	-	-	-	-
	96	61.0	44.8	35.7	-	-	-	-	-	-	-	-
	102	50.8	37.3	29.6	-	-	-	-	-	-	-	-
	108	42.8	31.3	-	-	-	-	-	-	-	-	-
	114	36.3	26.6	-	-	-	-	-	-	-	-	-
	120	31.1	22.8	-	-	-	-	-	-	-	-	-

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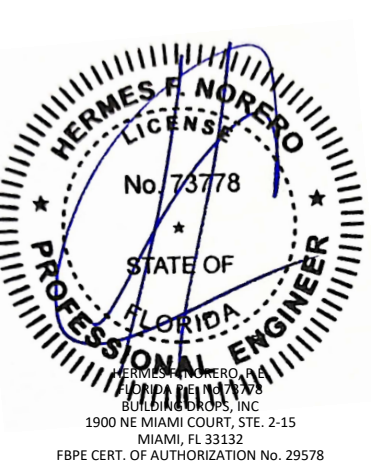
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"XX" ELEVATION & DESIGN
PRESSURE TABLE

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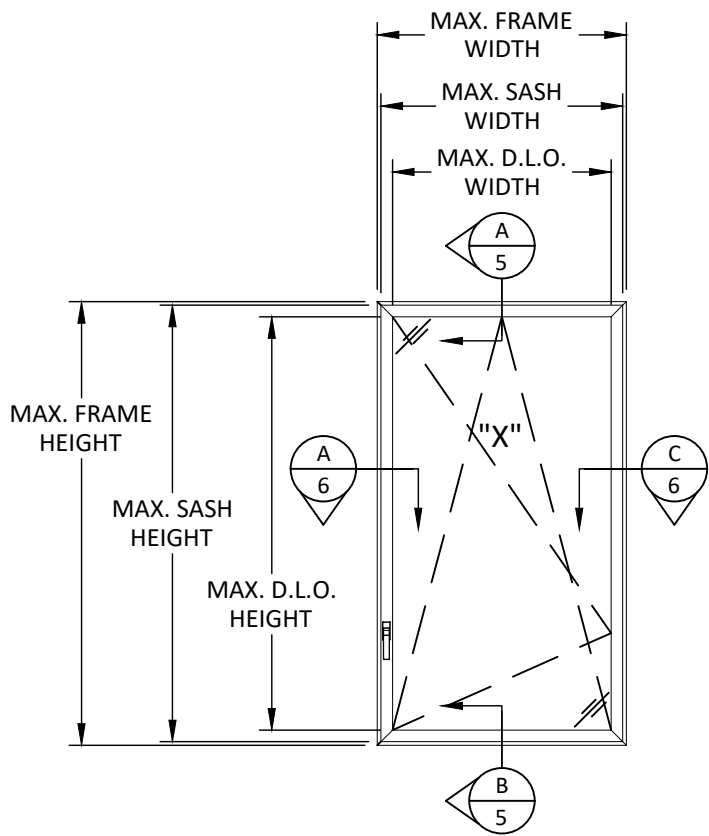
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"X" ELEVATION
TYPICAL

D.L.O. HEIGHT = FRAME HEIGHT - 4.9375"
D.L.O. WIDTH = FRAME WIDTH - 4.9375"
SASH HEIGHT = FRAME HEIGHT - 1.1875"
SASH WIDTH = FRAME WIDTH - 1.125"

SINGLE TILT & TURN ALLOWABLE DESIGN PRESSURE (PSF)												
FRAME HEIGHT (IN.)	FRAME WIDTH (IN.)											
		16	22	28	34	40	46	52	58	64	70	76
	36	80.0	80.0	68.6	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
	42	80.0	80.0	68.6	65.0	65.0	61.9	61.9	61.9	61.9	-	-
	48	80.0	80.0	68.6	65.0	65.0	56.5	54.2	54.2	-	-	-
	54	80.0	80.0	65.0	65.0	65.0	56.5	50.0	-	-	-	-
	60	80.0	80.0	65.0	65.0	65.0	56.5	-	-	-	-	-
	66	80.0	65.0	65.0	65.0	65.0	-	-	-	-	-	-
	72	80.0	65.0	65.0	65.0	65.0	-	-	-	-	-	-
	78	80.0	65.0	65.0	65.0	-	-	-	-	-	-	-
	84	80.0	65.0	65.0	65.0	-	-	-	-	-	-	-
	90	80.0	65.0	65.0	-	-	-	-	-	-	-	-
	96	65.0	65.0	65.0	-	-	-	-	-	-	-	-
	102	65.0	65.0	65.0	-	-	-	-	-	-	-	-
	108	65.0	65.0	-	-	-	-	-	-	-	-	-
	114	65.0	65.0	-	-	-	-	-	-	-	-	-
	120	65.0	65.0	-	-	-	-	-	-	-	-	-

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"X" ELEVATION & DESIGN
PRESSURE TABLE

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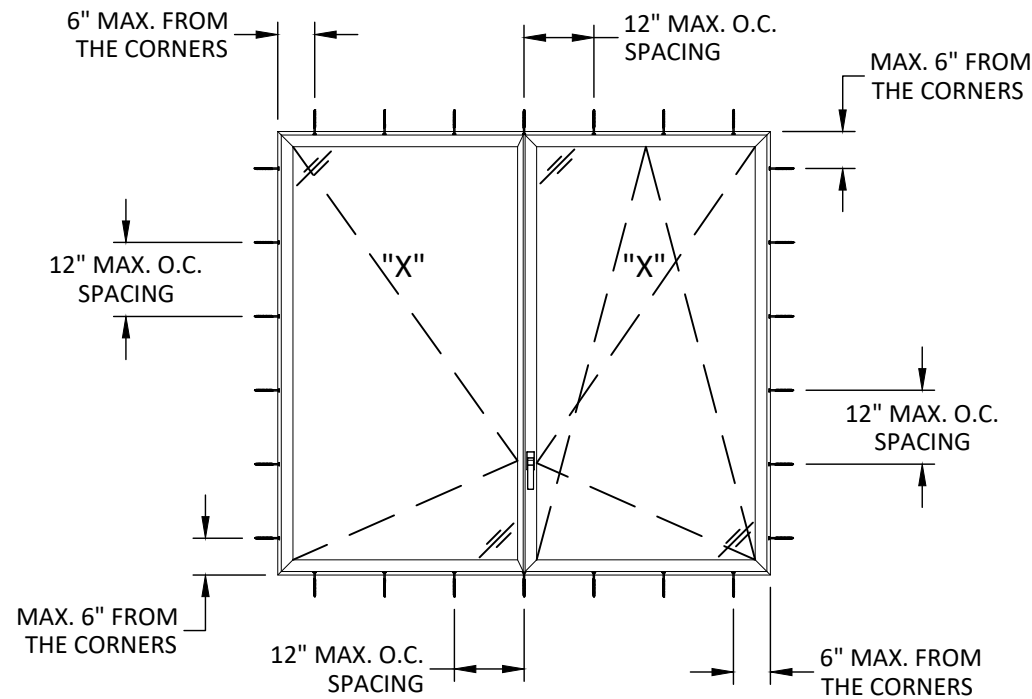
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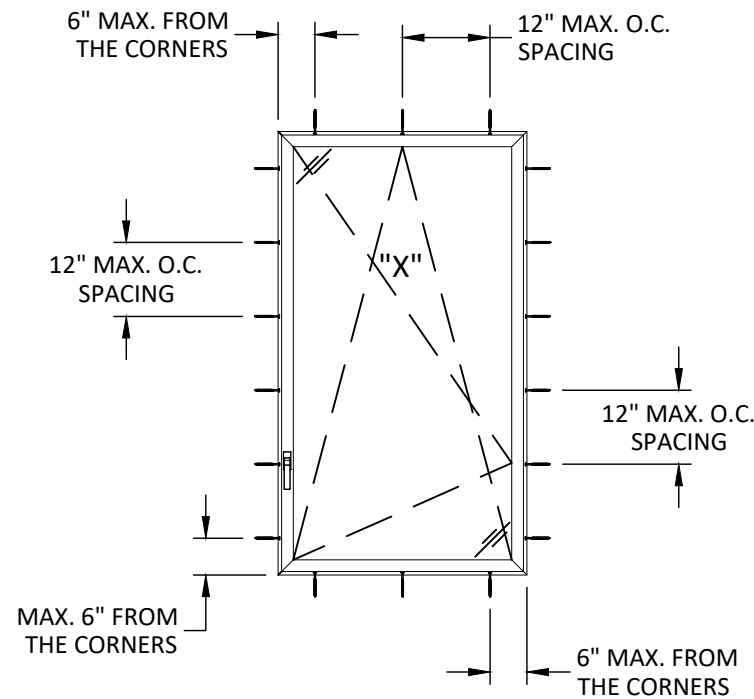
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"XX" ANCHOR LAYOUT
THROUGH FRAME INSTALLATION



"X" ANCHOR LAYOUT
THROUGH FRAME INSTALLATION

NOTE: TWO (2) ANCHORS PER LOCATION.

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ANCHOR LAYOUTS

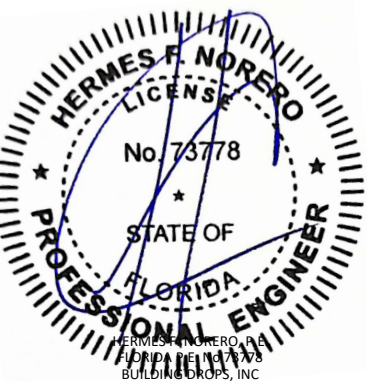
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1. GLASS TYPE COMPLIES WITH ASTM E1300 AND FBC SAFETY GLAZING REQUIREMENTS. PER THE FBC TEMPER AND SAFETY GLAZING REQUIREMENTS SHALL BE REVIEWED ON A SITE SPECIFIC BASIS.
2. SETTING BLOCK DUROMETER HARDNESS OF 70-90 (SHORE A) AS REFERENCED IN FBC CHAPTER 24.
3. SETTING BLOCKS TO BE LOCATED AT 1/4 SPAN LENGTH FOR GLASS WIDER THAN 36" AS PER FBC CHAPTER 24.
4. D.L.O. AND DESIGN PRESSURES MAY NOT EXCEED MAX VALUES SHOWN HEREIN.



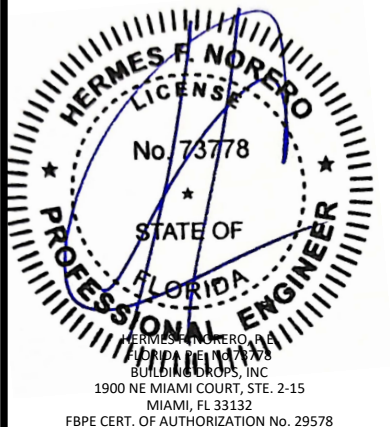
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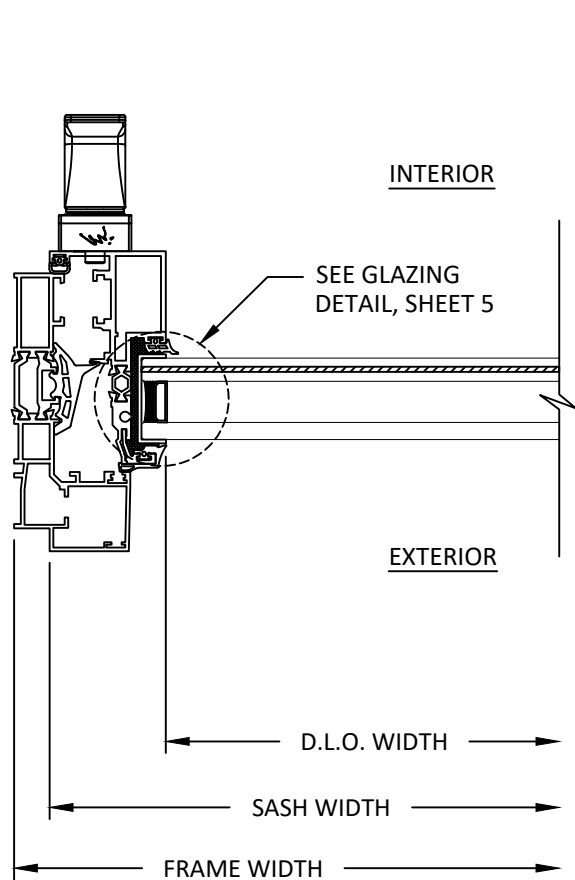
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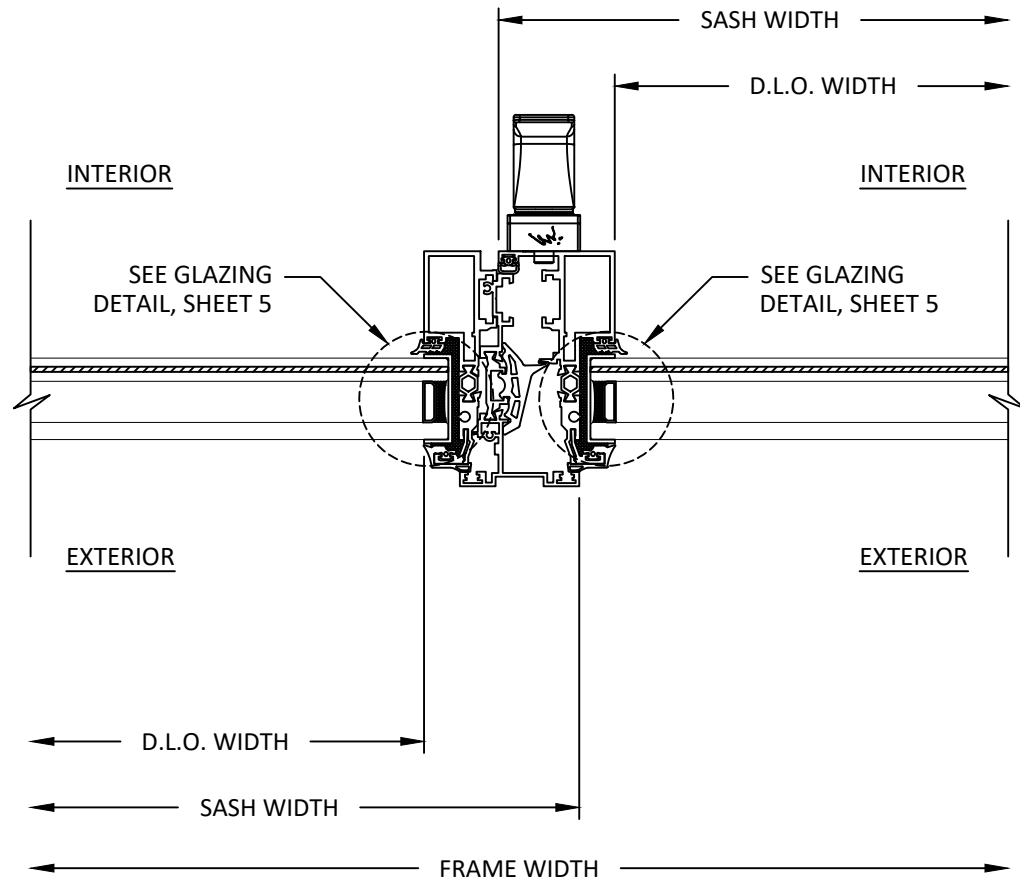
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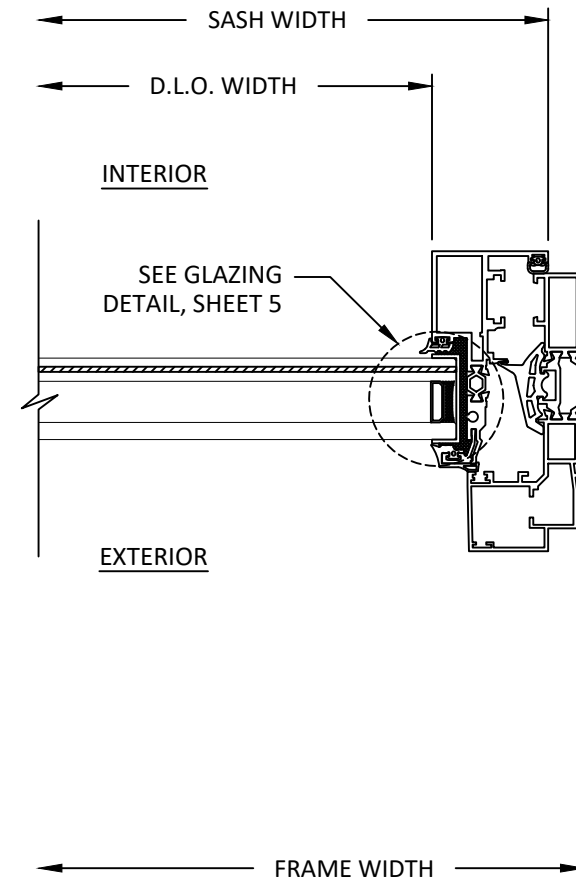
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A HORIZONTAL SECTION
LOCK JAMB



B HORIZONTAL SECTION
MEETING STILE



6 HORIZONTAL SECTION
JAMB

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TITLE: *ah138 TILT & TURN WINDOW (WZ3)(IMPACT)*

HORIZONTAL SECTIONS

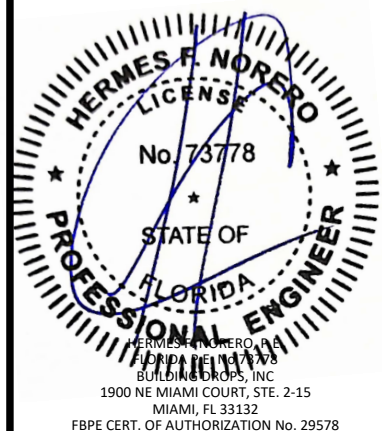
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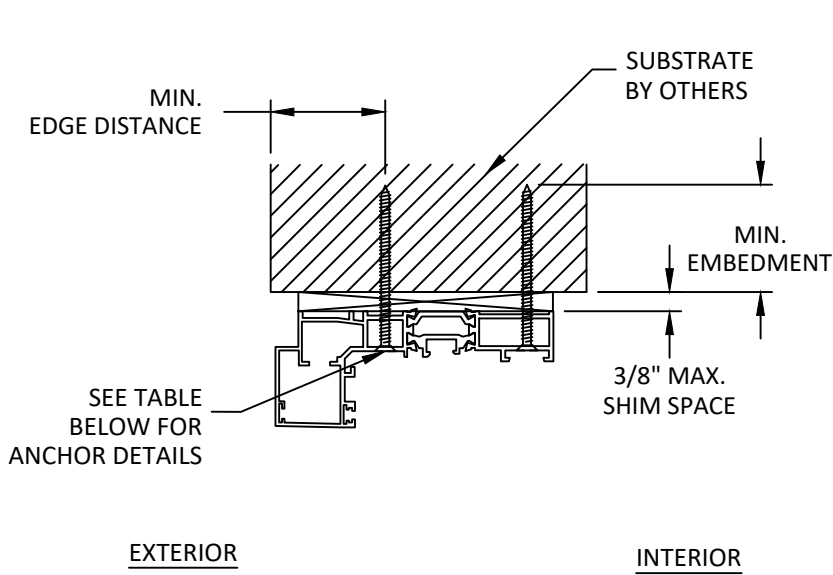
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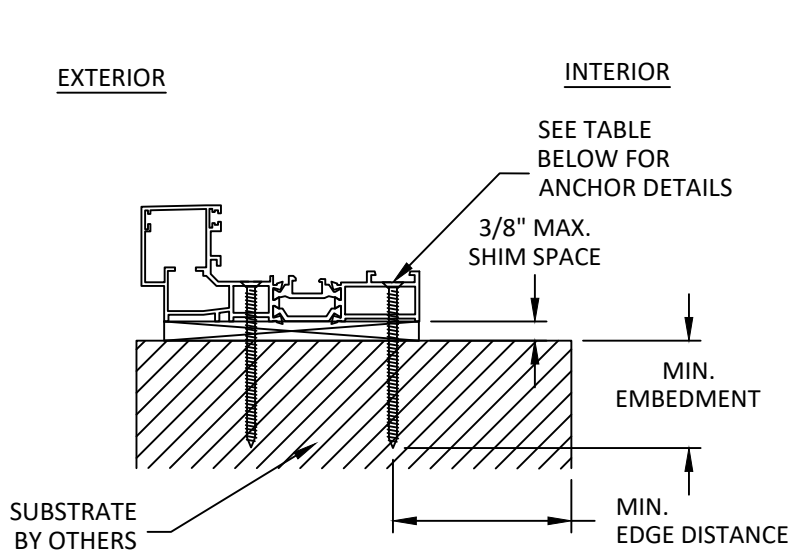


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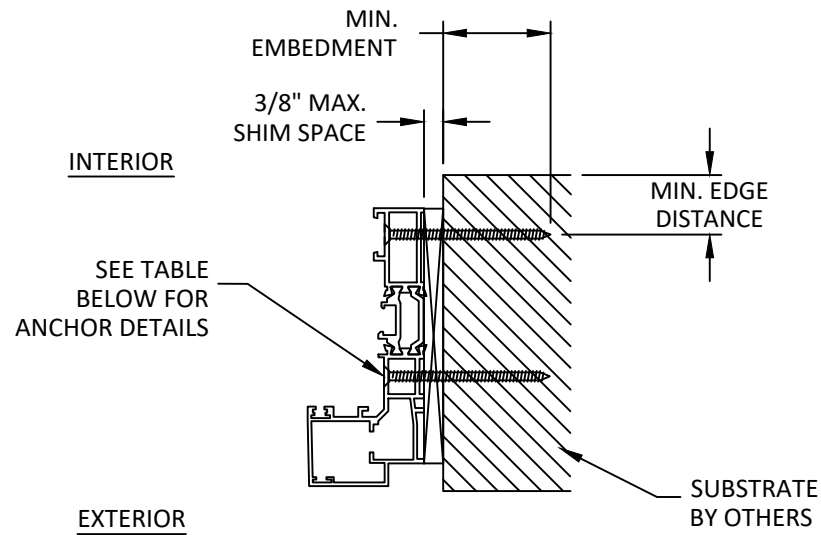
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A
7 VERTICAL SECTION
HEAD - THROUGH FRAME



B
7 VERTICAL SECTION
SILL - THROUGH FRAME



C
7 HORIZONTAL SECTION
JAMB - THROUGH FRAME

ANCHOR SCHEDULE					
METHOD	SUBSTRATE	ANCHOR SCHEDULE	MIN. EMBEDMENT	MIN. EDGE DISTANCE	SPACING
THROUGH FRAME	WOOD: MIN. SG = 0.55	#14 WOOD SCREW	1.50"	0.75"	SEE SHEET 4
	METAL: 18 GAUGE STEEL, MIN. Fy = 33KSI ALUMINUM: 1/8" MIN., 6063-T5	1/4" SELF-DRILLING SCREW	3 THREADS MIN PENETRATION BEYOND STRUCTURE	0.50"	
	CONCRETE: f'c = 3000 PSI	1/4" ITW TAPCON	1.50"	2.50"	
	MASONRY: CMU per ASTM C90 MIN. 2000 PSI	1/4" ITW TAPCON	1.00"	2.50"	

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