

PLAZIT-POLYGAL INC.
16 MM TITAN-SKY (5-WALL) STORM PANEL
INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN EVALUATED TO COMPLY WITH THE CURRENT PROVISIONS OF THE 8th EDITION (2023) FLORIDA BUILDING CODE (FBC) INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AND IS BASED ON TESTING CONDUCTED TO TAS 202, TAS 201 & TAS 203 TEST PROTOCOLS PER TEST REPORT NO. NCTL-210-4125-02 BY NCTL, ORLANDO, FL.
2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE, MASONRY AND 2X 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. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF THE INSTALLATION METHODS DEVIATE FROM THESE APPROVED DETAILS THIS WOULD REQUIRE FURTHER INVESTIGATION BY A LICENSED OR REGISTERED DESIGN PROFESSIONAL.
4. PER SECTION 2413 OF THE 8th EDITION (2023) FBC, ON ANY SIDE OF AN OPENING, THE MAXIMUM SIDE CLEARANCE BETWEEN THE SHUTTER AND A WALL OR INSET SURFACE SHALL BE 1/4 INCH. ANY DISTANCE IN EXCESS OF 1/4 INCH SHALL REQUIRE END CLOSURE OR SHUTTER OVERLAP, WHERE APPLICABLE. SHUTTER OVERLAP SHALL BE A MINIMUM OF 1.5 TIMES THE SIDE CLEARANCE BETWEEN THE SHUTTER AND WALL. THE INSTALLATION DETAILS SHOWN IN THIS PRODUCT APPROVAL DOCUMENT MEET THIS REQUIREMENT WHEN INSTALLED AS SHOWN.
5. PER SECTION 1709.9.3 OF THE 8th EDITION (2023) FBC, THE MANUFACTURER PRODUCT LABEL (EMBOSSSED OR PRINTED) SHALL BE SPACED NOT MORE THAN EVERY 3 LINEAL FEET ON EACH PANEL. THE LABEL SHALL BE APPLIED BY THE HOLDER OF THE PRODUCT APPROVAL AND SHALL FACE THE EXTERIOR OR OUTSIDE. THE LABEL SHALL INCLUDE THE INFORMATION REQUIRED NY SECTION 1709.9.2 OF THE 8th EDITION (2023) FBC.
6. MATERIALS: POLYGAL PANEL IS STANDARD GRADE POLYCARBONATE
7. ALL FASTENERS, NUTS AND WASHERS SHALL HAVE A CORROSION RESISTANT COATING OR BE STAINLESS STEEL.
8. PANELS ARE SHOWN INSTALLED VERTICALLY. THEY MAY BE INSTALLED HORIZONTALLY WHERE APPLICABLE.
9. MINIMUM PANEL SEPARATION TO GLASS MUST BE 2-7/8" BETWEEN PANEL AND WINDOW GLAZING OR FRAMING COMPONENTS. THE MINIMUM SEPARATION SHOWN INCLUDES THE 1 INCH MINIMUM SEPARATION AT MAXIMUM DEFLECTION WITH COMPONENTS AND FRAMES OF COMPONENTS REQUIRED BY SECTION 2413.2 OF THE 8th EDITION (2023) FBC.

ANCHOR INSTALLATION CHART				
Anchor Manufacturer and Type	Size	Substrate	Edge Distance	Depth of Embedment
ELCO PanelMate® Pro, Plus, TVAS	1/4"	Concrete : 2,500 PSI	2.50"	1.75"
			1.00"	2.00"
			2.50"	2.00"
		CMU: 2,000 PSI	2.00"	1.25"
			3.00"	1.25"
		Wood: SG 0.42 (non-HVHZ) and 0.55 (HVHZ)	0.75"	1.875"
ITW Tapcon Storm Guard (SG)	1/4"	Concrete : 2,500 PSI	2.00"	1.50"
			1-1/4"	1"
			2-1/2"	1"
			1-1/4"	1-3/4"
			2-1/2"	1-3/4"
		CMU: 1,500 PSI	1-1/4"	1-1/4"
			2-1/2"	1-1/4"

ANCHOR NOTES:

1. SEE ANCHOR INSTALLATION CHART THIS SHEET FOR APPROVED ANCHOR TYPES, EMBEDMENTS, EDGE DISTANCES AND SUBSTRATES.
2. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:

2.1. WOOD - MINIMUM SPECIFIC GRAVITY OF 0.42 (NON-HVHZ) AND 0.55 (HVHZ).

2.2. CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.

2.3. MASONRY - STRENGTH CONFORMANCE TO ASTM C-90 MEDIUM WEIGHT WITH MIN. COMPRESSIVE STRENGTH OF 1500 PSI OR 2000 PSI (SEE ANCHOR INSTALLATION CHART).

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SHEET NO.	DESCRIPTION
1	GENERAL NOTES AND ELEVATION
2	ELEVATION AND ANCHOR LAYOUT
3-5	INSTALLATION DETAILS
6	BILL OF MATERIALS AND COMPONENTS

POLYGAL INC.
1100 BOND STREET
CHARLOTTE, NC 28208

POLYGAL TITAN SKY 16MM CLEAR STORM PANEL
L.M. IMPACT (HVHZ)
GENERAL NOTES AND ELEVATION

DRAWN:
JRM

DWG NO.
NL-0117

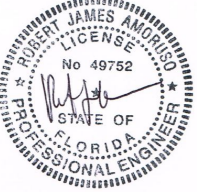
REV
2

SCALE
NTS

DATE
10/24/18

SHEET
1 OF 6

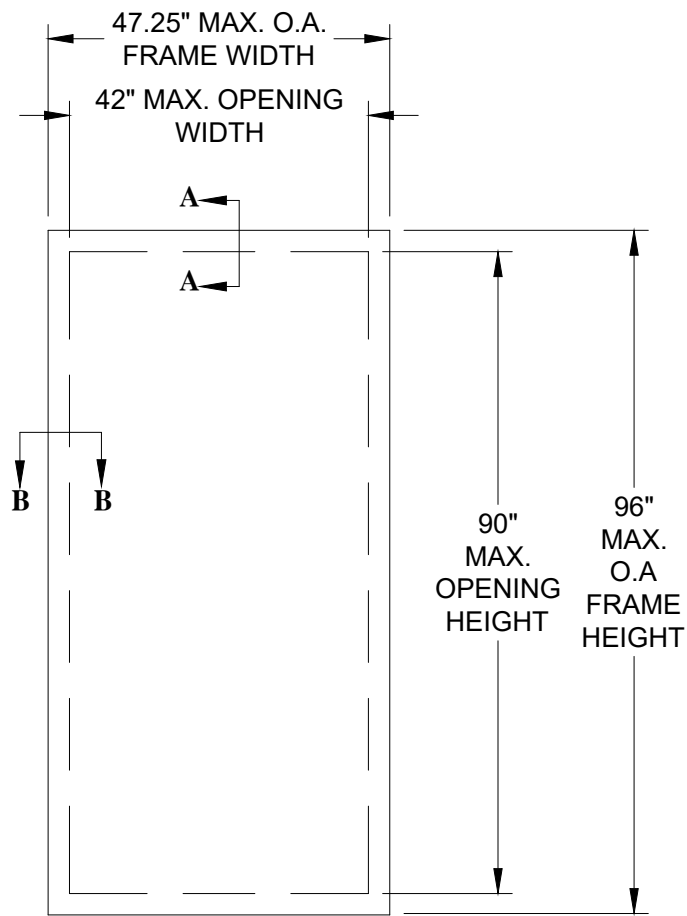
ROBERT J. AMORUSO
FL. P.E. NO. 49752



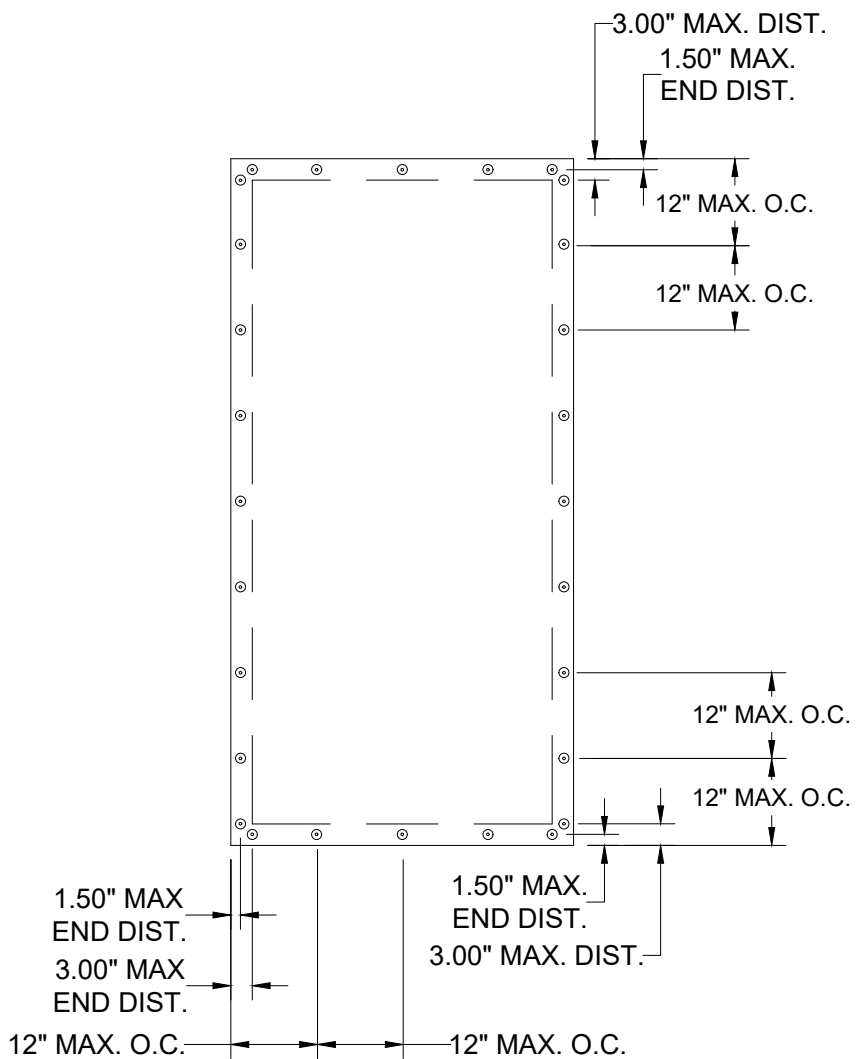
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Robert J Amoruso
Date: 2023.12.18
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226 N Nova Rd., #142
Ormond Beach, FL 32174-5124
rjaengpe@gmail.com

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



ELEVATION
POLYGAL TITAN SKY 16MM
EXTERIOR VIEW



ANCHOR LAYOUT
INTERIOR VIEW

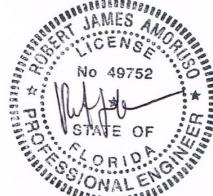
NOTES
1. MAXIMUM PANEL SIZE: 47.25" X 96"

DESIGN PRESSURE RATING	IMPACT RATING
+ 45.0 PSF / -45.0 PSF	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

POLYGAL INC. 1100 BOND STREET CHARLOTTE, NC 28208		
POLYGAL TITAN SKY 16MM CLEAR STORM PANEL L.M. IMPACT (HVHZ) ELEVATION AND ANCHOR LAYOUT		
DRAWN: JRM	DWG NO. NL-0117	REV 2
SCALE NTS	DATE 10/24/18	SHEET 2 OF 6

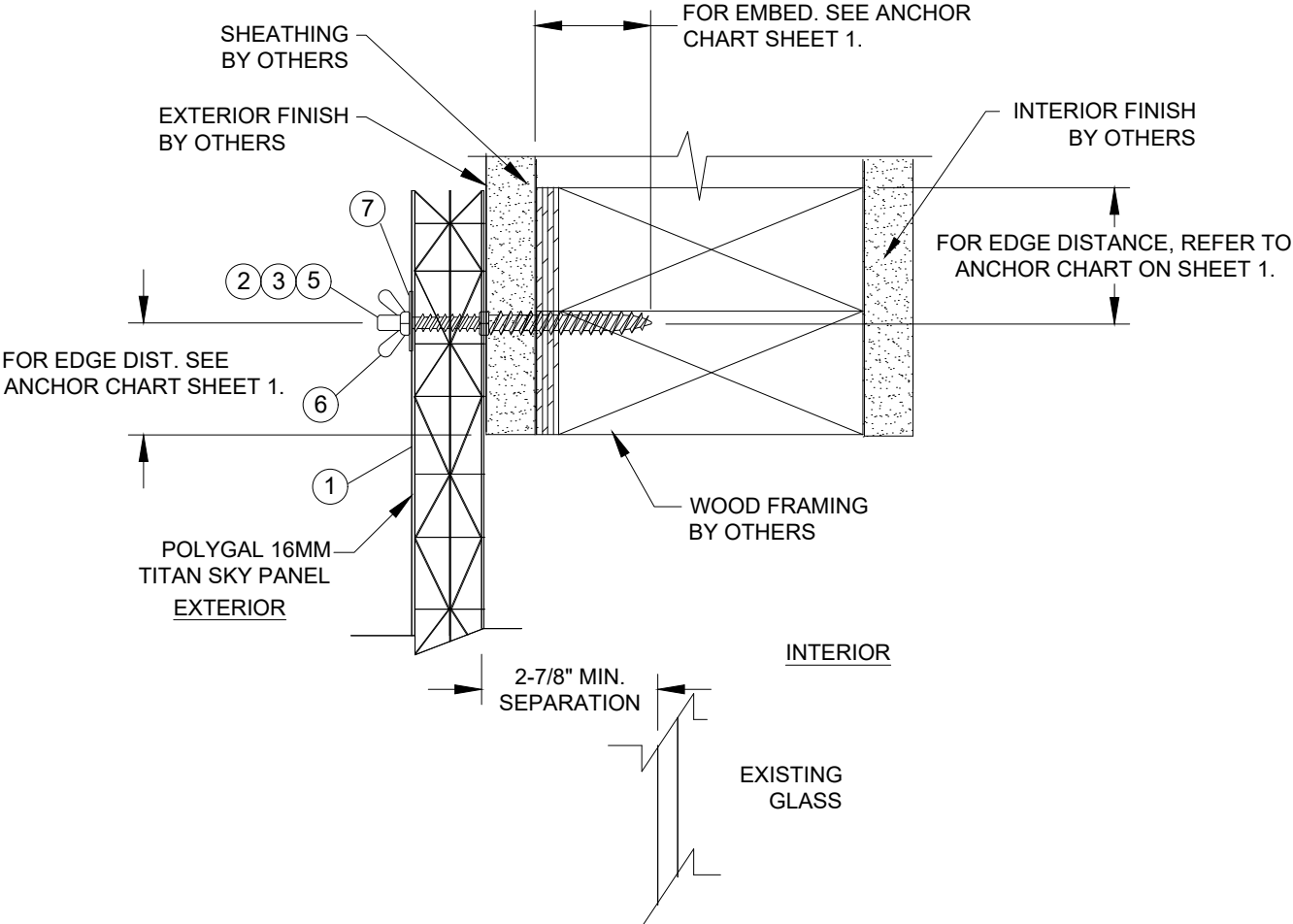
ROBERT J. AMORUSO
FL. P.E. NO. 49752



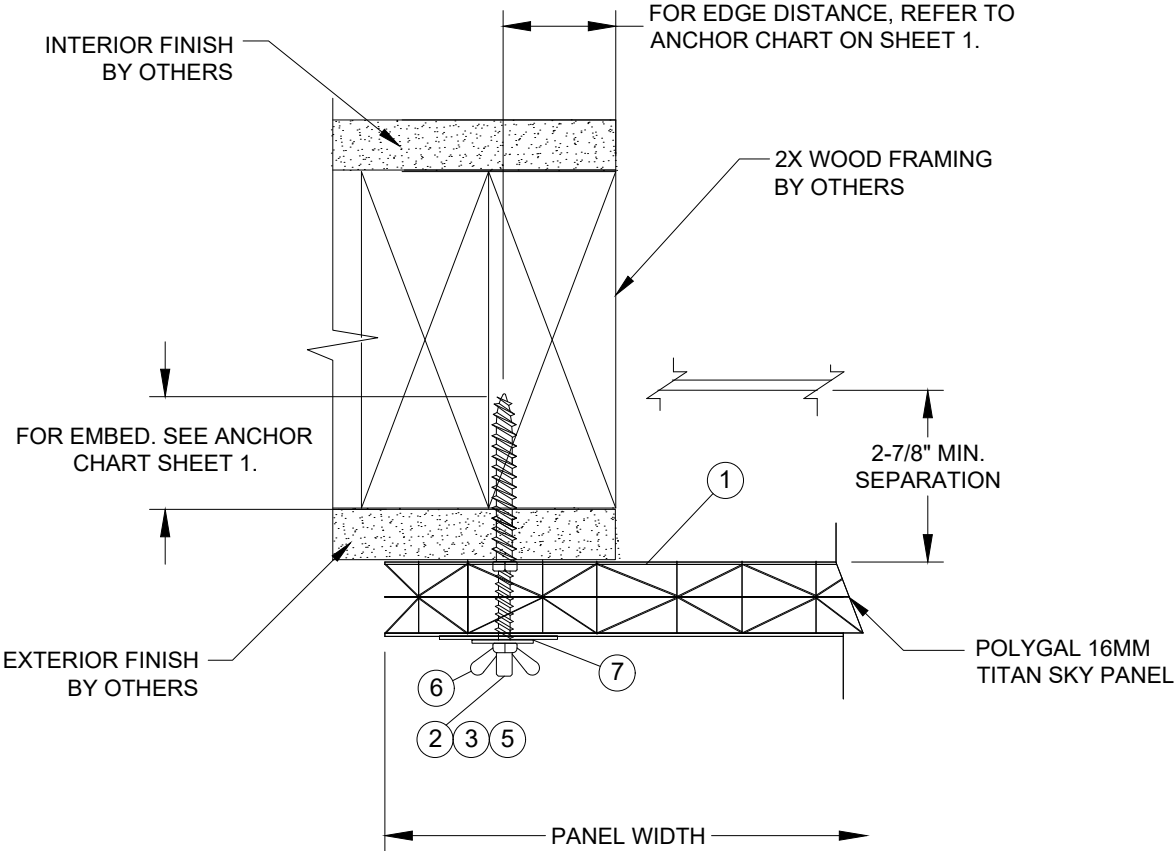
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Robert J Amoruso
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rjaengpe@gmail.com

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A
3 **VERTICAL SECTION**
WOOD FRAME SUBSTRATE
WALL MOUNT INSTALLATION



B
3 **HORIZONTAL SECTION**
WOOD FRAME SUBSTRATE
WALL MOUNT INSTALLATION

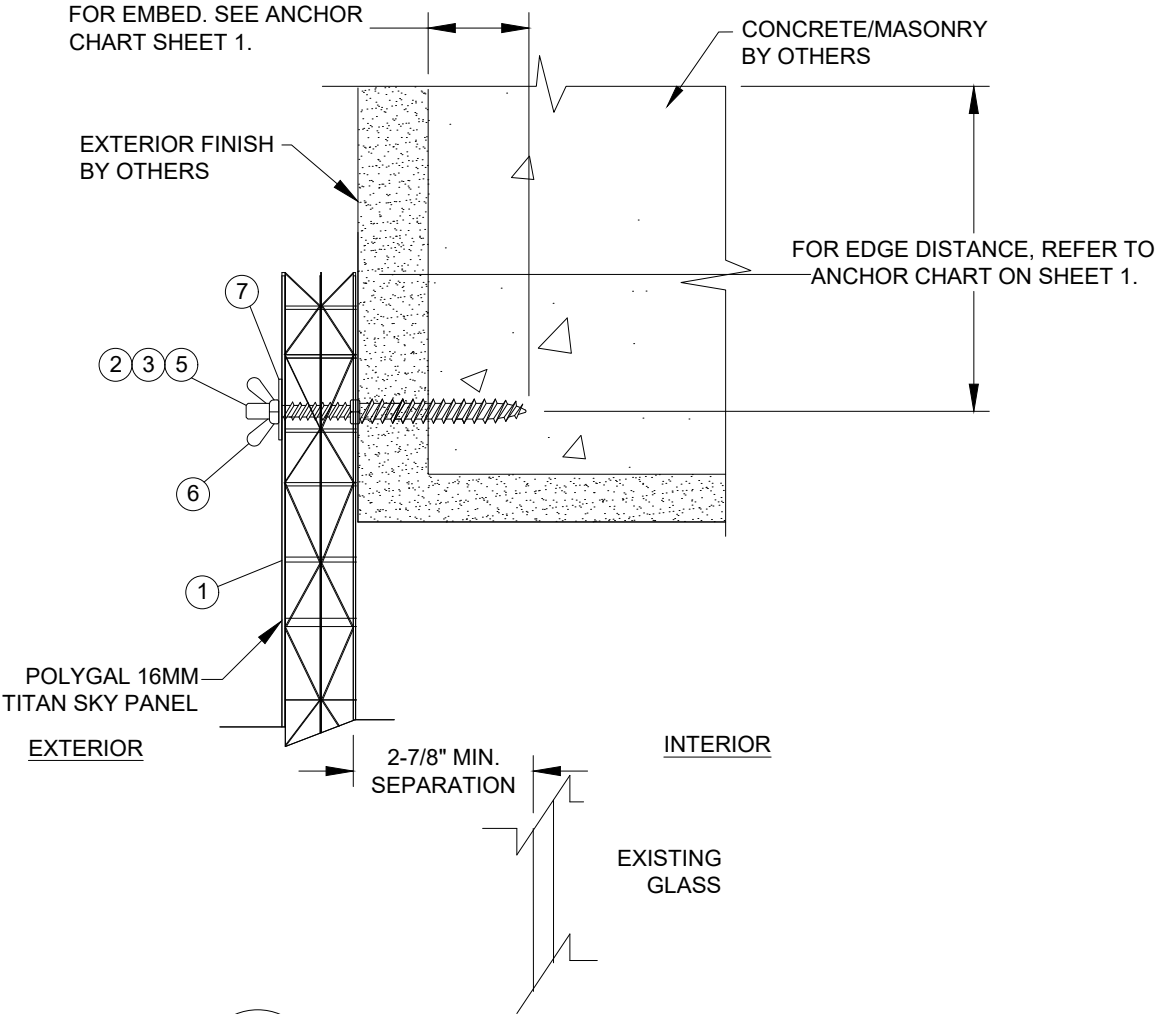
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DRAWN: JRM	DWG NO. NL-0117	REV 2
SCALE NTS	DATE 10/24/18	SHEET 3 OF 6

ROBERT J. AMORUSO
FL. P.E. NO. 49752

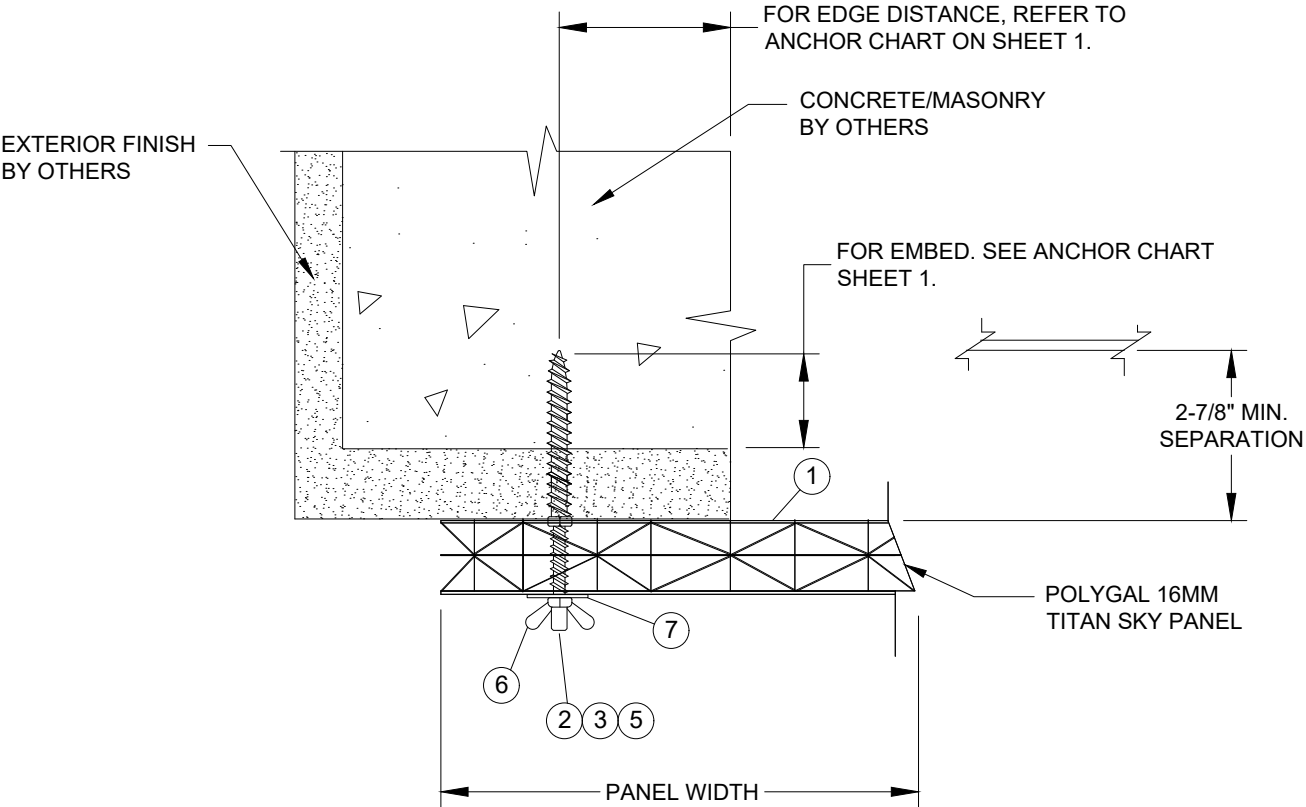
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Robert J Amoruso
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226 N Nova Rd., #142
Ormond Beach, FL 32174-5124
rjaengpe@gmail.com

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A
4 **VERTICAL SECTION**
CONCRETE SUBSTRATE
WALL MOUNT INSTALLATION



B
4 **HORIZONTAL SECTION**
MASONRY/CONCRETE SUBSTRATE
WALL MOUNT INSTALLATION

POLYGAL INC. 1100 BOND STREET CHARLOTTE, NC 28208		
POLYGAL TITAN SKY 16MM CLEAR STORM PANEL L.M. IMPACT (HVHZ) INSTALLATION DETAILS- MASONRY/CONC.		
DRAWN: JRM	DWG NO. NL-0117	REV 2
SCALE NTS	DATE 10/24/18	SHEET 4 OF 6

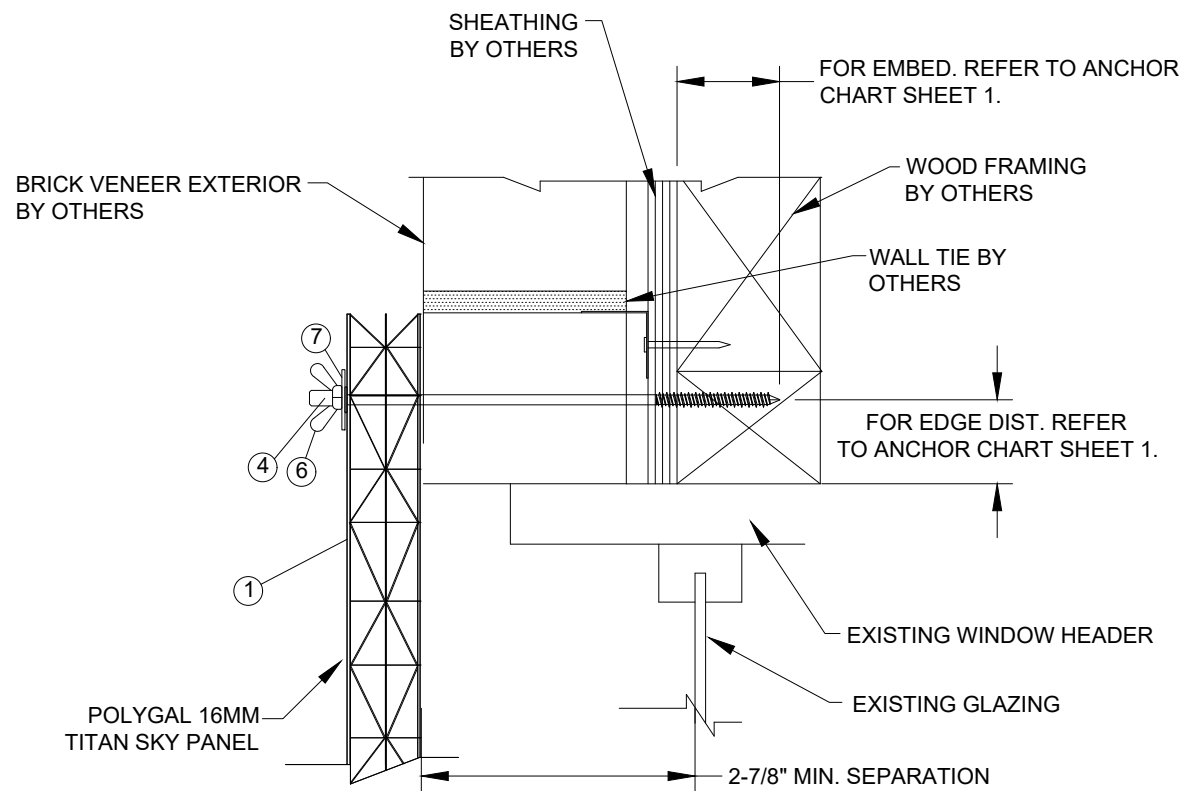
ROBERT J. AMORUSO
FL. P.E. NO. 49752

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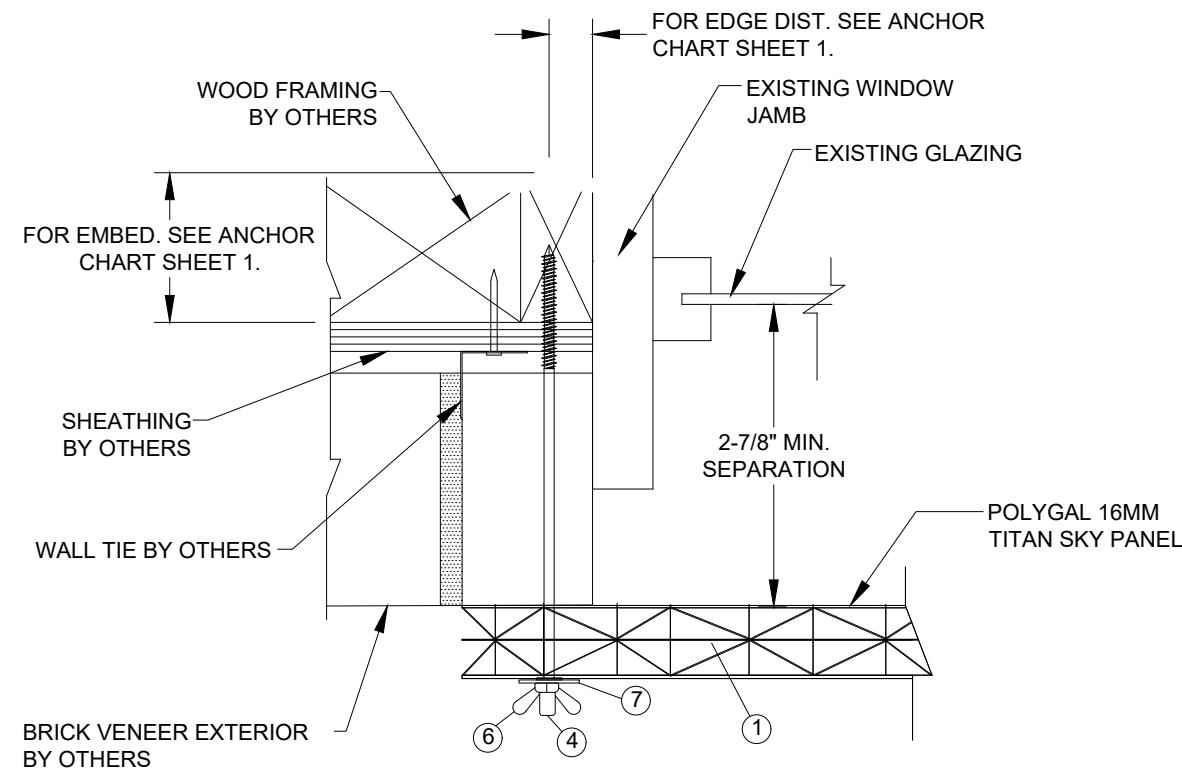
226 N Nova Rd., #142
Ormond Beach, FL 32174-5124
rjaengpe@gmail.com

Professional Engineer Seal: ROBERT J. AMORUSO, LICENSE No. 49752, STATE OF FLORIDA, PROFESSIONAL ENGINEER.

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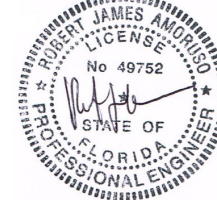
A
5 **VERTICAL SECTION**
SOLID BRICK VENEER ANCHORING
WALL MOUNT INSTALLATION



B
5 **HORIZONTAL SECTION**
SOLID BRICK VENEER ANCHORING
WALL MOUNT INSTALLATION

POLYCAL INC. 1100 BOND STREET CHARLOTTE, NC 28208		
POLYCAL TITAN SKY 16MM CLEAR STORM PANEL L.M. IMPACT (HVHZ) INSTALLATION DETAILS- BRICK VENEER		
DRAWN: JRM	DWG NO. NL-0117	REV 2
SCALE NTS	DATE 10/24/18	SHEET 5 OF 6

ROBERT J. AMORUSO
FL PE NO 10752

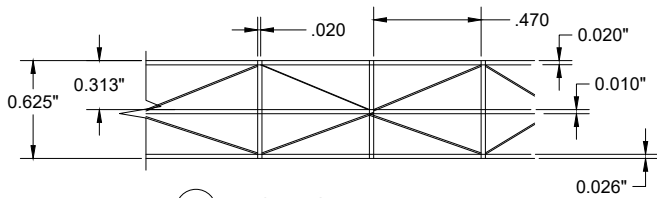


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Robert J Amoruso
Date: 2023.12.18
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226 N Nova Rd., #142
Ormond Beach, FL 32174-5124
rjaengpe@gmail.com

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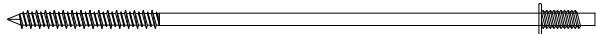
PART NO.	DESCRIPTION	MANUFACTURER
1	16MM TITAN SKY, POLYCARBONATE	POLYGAL INC.
2	1/4" PANELMATE PRO	ELCO
3	1/4" PANELMATE PLUS	ELCO
4	1/4" PANELMATE PRO TVAS	ELCO
5	1/4" TAPCON SG	REDHEAD / ITW BUILDEX
6	1/4"-20 WING NUT, MATERIAL SHALL BE COMPATIBLE WITH ANCHOR (PART NO. 2 OR 3)	-----
7	1/4" FLAT WASHER, 1-1/4" O.D., MATERIAL SHALL BE COMPATIBLE WITH ANCHOR (PART NO. 2 OR 3)	-----



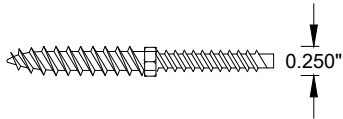
1 POLYGAL 16MM PANEL
CROSS SECTION
POLYCARBONATE



6 1/4"-20 WING NUT STEEL

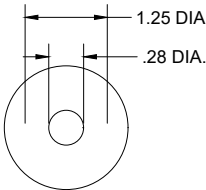


4 1/4" PANELMATE TVAS



2 3 1/4" PANELMATE PRO OR PLUS

5 1/4" TAPCON SG



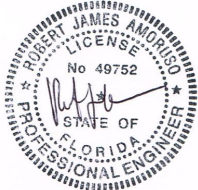
7 1/4" WASHER (1/16" THICK)

POLYGAL INC.
1100 BOND STREET
CHARLOTTE, NC 28208

POLYGAL TITAN SKY 16MM CLEAR STORM PANEL
L.M. IMPACT (HVHZ)
BILL OF MATERIALS & COMPONENTS

DRAWN: JRM	DWG NO. NL-0117	REV 2
SCALE NTS	DATE 10/24/18	SHEET 6 OF 6

ROBERT J. AMORUSO
FL. P.E. NO. 49752



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Robert J Amoruso
Date: 2023.12.18
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226 N Nova Rd., #142
Ormond Beach, FL 32174-5124
rjaengpe@gmail.com