



POLYCARBONATE STORM PANELS (Non-HVHZ)

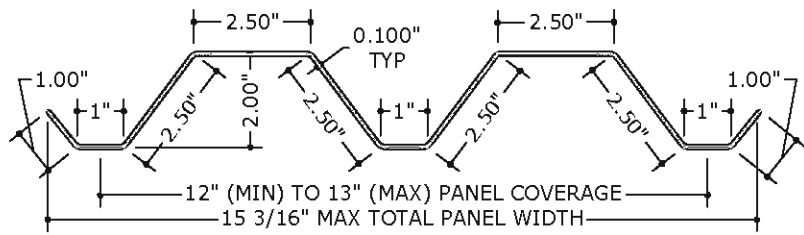
FRANK BENNARDO, PE
PE0046549 CA# 9885



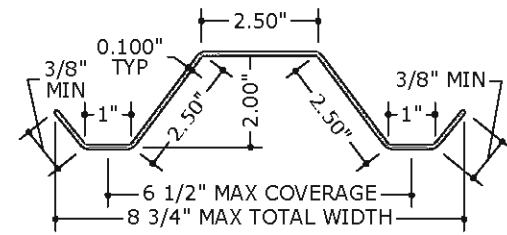
GENERAL NOTES:

- THIS SYSTEM HAS BEEN TESTED AND EVALUATED AS A LARGE MISSILE IMPACT PROTECTIVE SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) AND THE INTERNATIONAL BUILDING/RESIDENTIAL CODE PER ASTM STANDARDS E330, E1886, & E1996. PANELS ARE APPROVED FOR USE IN FLORIDA OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, OR THROUGHOUT OTHER AREAS GOVERNED BY THE IBC/IRC.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT.
- POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE-SPECIFIC PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7-10 AND CHAPTER 1609 OF THE FLORIDA BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
- DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. IF SITE CONDITIONS DEVIATE FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS TO BE USED IN CONJUNCTION WITH THIS DOCUMENT.
- THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS IS OUTSIDE THE SCOPE OF THIS CERTIFICATION AND SHALL BE VERIFIED BY OTHERS.
- CLEAR POLYCARBONATE STORM PANELS (FULL, HALF, & DOUBLE-WIDE) MAY VARY IN "COVERAGE" WIDTH UP TO THE RESPECTIVE MAXIMA SHOWN HEREIN, PROVIDED THAT THE PANEL PROFILE HEIGHT BE MAINTAINED. PANELS SHALL BE MOUNTED WITH FASTENERS OR STUDS AT MAXIMUM SPACING SHOWN FOR EACH PROFILE.
- ALL POLYCARBONATE PANELS SHALL BE MANUFACTURED BY TRANSPARENT PROTECTION SYSTEMS, Inc.
- THIS PRODUCT APPROVAL IS FOR THE USE OF CLEAR POLYCARBONATE PANELS ONLY. ALL POLYCARBONATE PANELS SHALL BE EXTRUDED WITH THICKNESS $t=0.100"$ ($\pm 0.010"$) AND SHALL BE MANUFACTURED FROM 100% SYNTHETIC THERMOPLASTIC POLYMER RESIN (UV STABILIZED). TYPICAL SYNTHETIC THERMOPLASTIC POLYMER TENSILE STRENGTH $F_y=8.908$ KSI, FLEXURAL STRENGTH $F_{by}=12.90$ KSI, & FLEXURAL MODULUS IS 328.7 KSI.
- ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.N.O.
- PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL CONTAINING THE FOLLOWING:
TRANSPARENT PROTECTION SYSTEMS, INC.
BENSALEM, PENNSYLVANIA
ASTM E330, E1886 & E1996
PRODUCT APPROVAL NUMBER
- STORM PANELS HAVE BEEN DESIGNED AND TESTED TO THE MAXIMUM SPANS AND CORRESPONDING LOADS SHOWN HEREIN. REFERENCE CONSTRUCTION TESTING CORPORATION (CTC OF MIAMI, FL) TEST REPORTS #04-009-FE-ASTM & #04-009-LE-ASTM, AS WELL AS HURRICANE TEST LAB (HTL OF RIVIERA BEACH, FL) TEST REPORTS #0239-0107-05, #0239-1013-07, #0239-0312-06, #0239-0110-07 & #0239-0813-06.
- TOP & BOTTOM MOUNTING SECTIONS MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED VERTICALLY OR HORIZONTALLY AS APPLICABLE.
- USE OF KEYHOLE WASHERS IS OPTIONAL IN CONJUNCTION WITH ANY MOUNTING CONDITION. HOLES MAY BE FIELD DRILLED AT $\varnothing 3/8"$ (OR $\varnothing 5/8"$ WITH KEYHOLE WASHER) WITH ANY FASTENER TYPE. WASHERED WINGNUTS SHALL HAVE 0.865" MINIMUM WASHER DIAMETER.
- ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.
- THE HURRI-OUT EGRESS STORM PANEL DETAILS ARE INTENDED TO ALLOW THE POSSIBILITY OF REMOVING PANELS FROM INSIDE OF DWELLING. RESULTS MAY VARY ACCORDING TO INSTALLATION, END-USER, AND TRAINING, ETC. ENGINEERING EXPRESS AND TRANSPARENT PROTECTION SYSTEMS DO NOT ASSUME ANY RESPONSIBILITY OR LIABILITY ASSOCIATED WITH USE OF THIS INSTALLATION AND OR ITS APPLICATIONS.

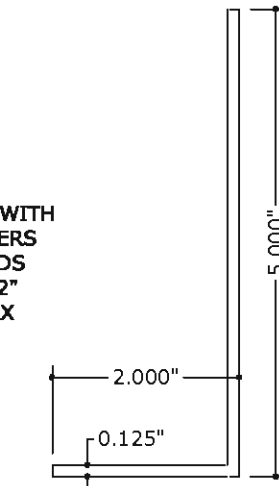
*NOTE: FOR ALTERNATE ARCH TOP INSTALLATIONS, THE TOP TRACK OR U-HEADER SHALL BE CUT INTO 6" MINIMUM ADJACENT SEGMENTS. EACH SEGMENT SHALL HAVE ANCHORS SPACED PER THE ANCHOR SCHEDULE, WITH A MINIMUM OF (2) ANCHORS PER SEGMENT. ANCHORS SHALL BE 1-1/2" MIN FROM ENDS OF EACH SEGMENT AND SPACED 3" MINIMUM FROM ADJACENT ANCHORS. FOR STUDDED TRACKS ONLY, THERE SHALL BE A MINIMUM OF (1) STUD PER SEGMENT FASTENED TO THE STORM PANEL. STUDS SHALL BE LOCATED 2" MINIMUM FROM ENDS OF EACH SEGMENT.



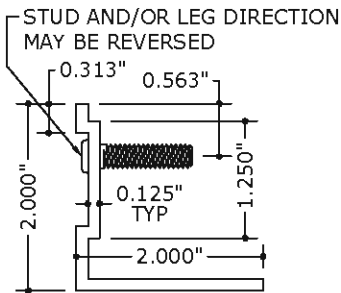
1 FULL PANEL PROFILE
3" = 1'-0" (SEE GEN NOTE 7)
MOUNT WITH FASTENERS OR STUDS AT 13" O.C. MAX



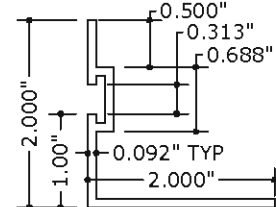
2 HALF PANEL PROFILE
3" = 1'-0" (SEE GEN NOTE 7)
MOUNT WITH FASTENERS OR STUDS AT 6-1/2" O.C. MAX



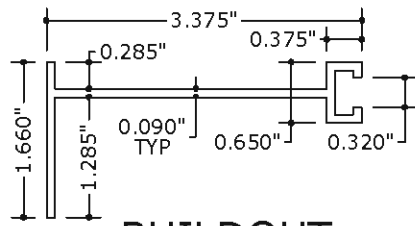
7 CLOSURE ANGLE
6" = 1'-0"



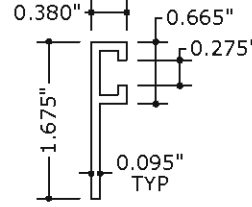
3 STUD ANGLE
6" = 1'-0"



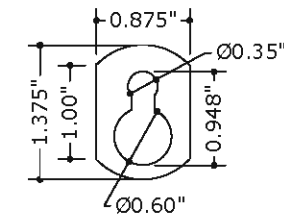
4 REVERSE 'F' ANGLE
6" = 1'-0"



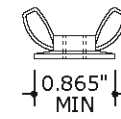
5 BUILDOUT 'F' TRACK
6" = 1'-0"



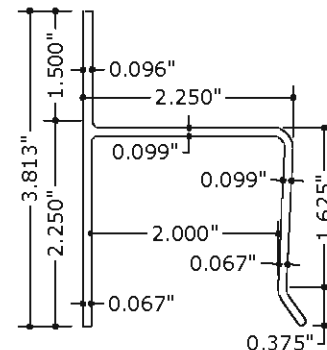
6 'F' TRACK
6" = 1'-0"



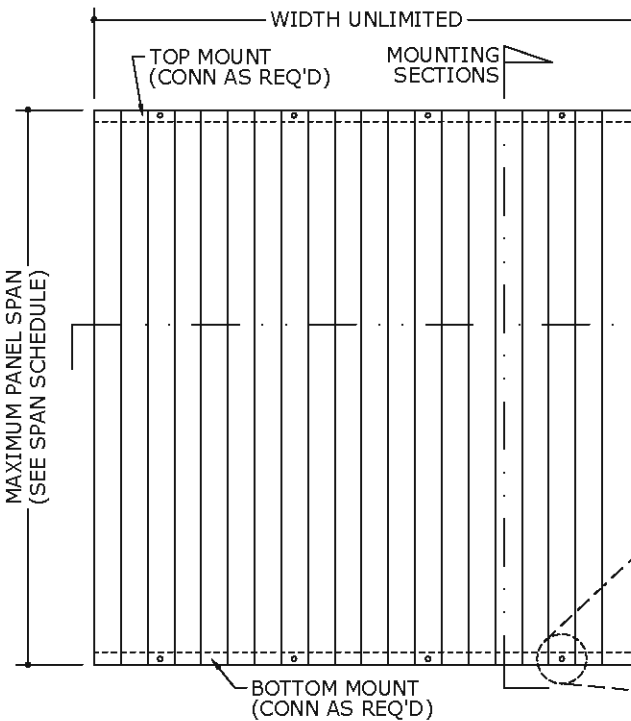
8 KEYHOLE WASHER
6" = 1'-0"



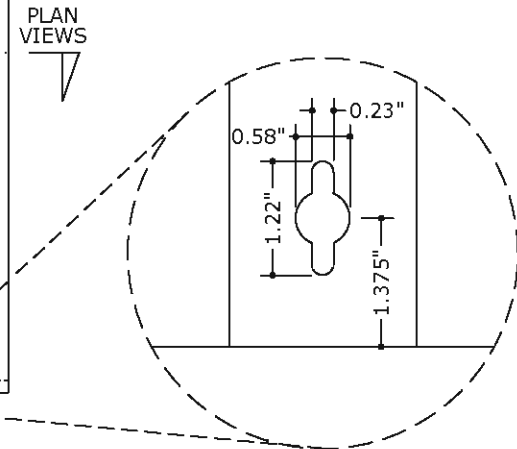
9 WASHERED WINGNUT
6" = 1'-0"



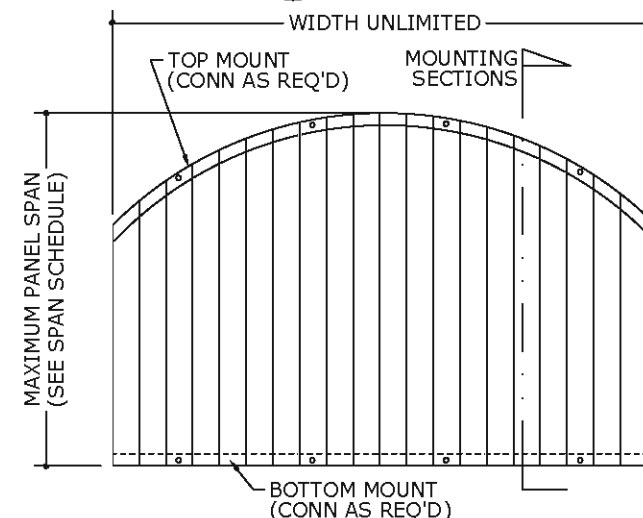
10 'H' HEADER
6" = 1'-0"



1 TYPICAL ELEVATION
1 N.T.S.



2 KEYHOLE DETAIL
1 N.T.S.
ALT: FIELD DRILL $\varnothing 3/8"$ HOLE (OR $\varnothing 5/8"$ HOLE W/ KEYHOLE WASHER)



3 ALT. ARCH TOP*
1 N.T.S.

ENGINEERING EXPRESS
CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

Transparent Protection Systems, Inc.
633 Dunksifery Road
Bensalem, PA 19020

TPS
CLEARGUARD POLYCARBONATE STORM PANELS
FOR USE OUTSIDE THE HVHZ
FLORIDA STATEWIDE APPROVAL FL6417.1

REMARKS	DRWN	CHKD	DATE
2007 FBC	CL	FLB	8/17/04
2010 FBC	KL	CL	12/29/08
2014 FBC	EFT	KL	12/12/11
2017 FBC	RWN	CSL	5/11/15
2020 FBC	TSB	RWN	8/04/17
	CCB	RWN	8/4/20

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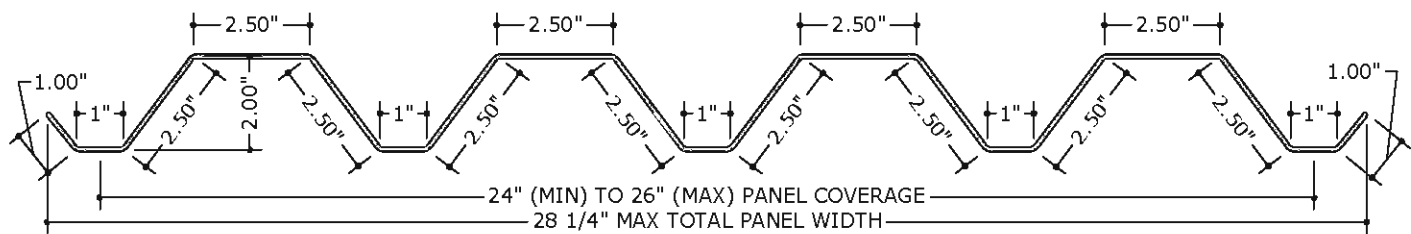
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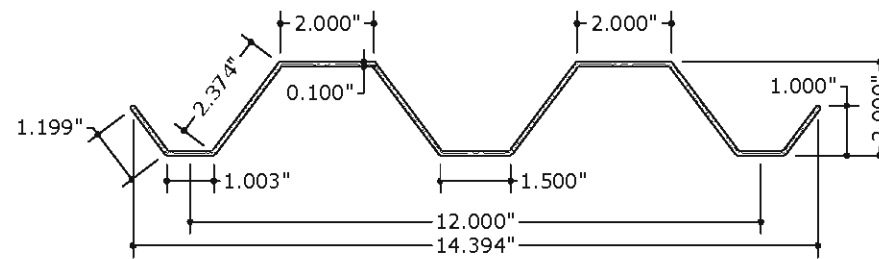
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FOR SITE SPECIFIC DEVIATIONS & MORE INFORMATION ABOUT THIS DOCUMENT OR SCAN THIS QR CODE
VISIT ENGINEERINGEXPRESS.COM/STORE FOR ADDITIONAL PLANS, REPORTS & RESOURCES

09/04/2020 - 8:57am colby C:\Users\colby\Engineering\Express\Production - Documents\Projects\20-30218 - FL6417.1 - ClearGuard Polycarbonate Storm Panels (Non-HVHZ Product)\WP\2020\FBC\20-30218 - FL6417.1 - DWG.dwg



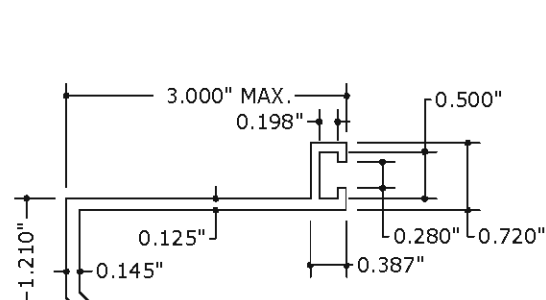
11 "CLEARMAX™" DOUBLE-WIDE PANEL PROFILE
3" = 1'-0"
(SEE GEN NOTE 6)

MOUNT WITH FASTENERS OR STUDS AT 13" O.C. MAX

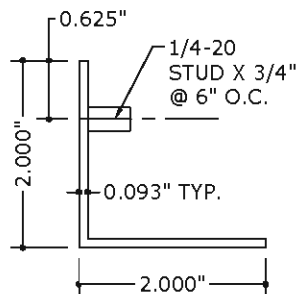


12 ALT. FULL PANEL PROFILE
N.T.S.
(SEE GEN NOTE 6)

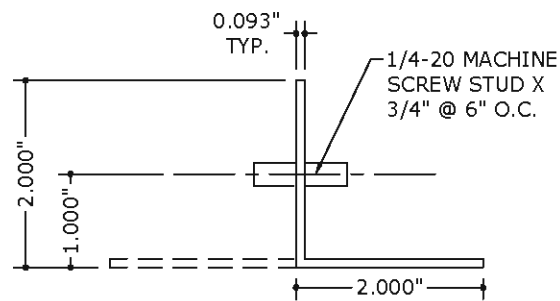
MOUNT WITH FASTENERS OR STUDS AT 13" O.C. MAX



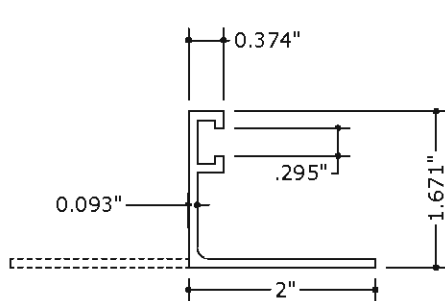
13 ALTERNATE B.O. 'F' TRACK
6" = 1'-0"



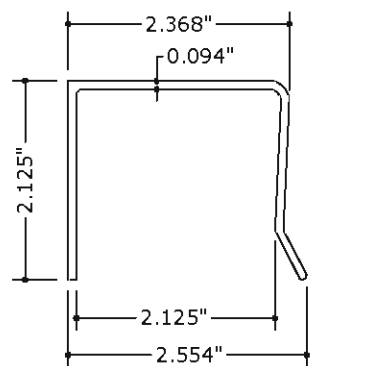
14 ALTERNATE STUD ANGLE
6" = 1'-0"



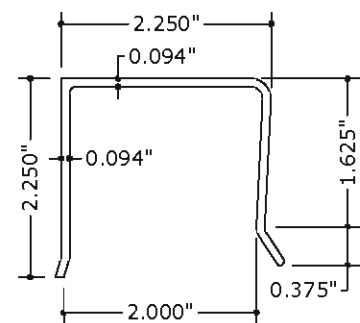
15 STUDDED ANGLE
6" = 1'-0"



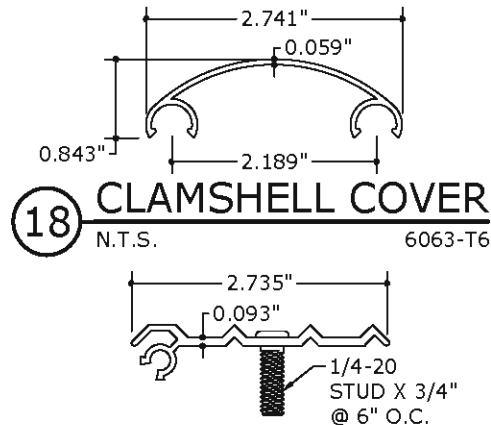
20 'F' TRACK ANGLE
6" = 1'-0"



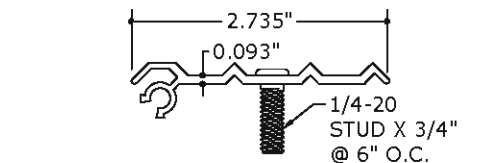
16 U-HEADER
N.T.S. 6063-T6



17 ALTERNATE U-HEADER
N.T.S. 6063-T6



18 CLAMSHELL COVER
N.T.S. 6063-T6



19 CLAMSHELL TRACK
N.T.S. 6063-T6

MAXIMUM PANEL SPAN SCHEDULE (POSITIVE CONN.)

LOAD (psf)	MAX SPAN (ft)
38	12'-0"
40	11'-5"
45	10'-1"
50	9'-1"
55	8'-3"
60	7'-7"
65	7'-0"
70	6'-7"
75	6'-1"
80	5'-9"
90	5'-1"
100	4'-7"
110	4'-2"
120	3'-10"

MAXIMUM PANEL SPAN SCHEDULE (W/ "H" HEADER)

LOAD (psf)	MAX SPAN (ft)
17.3	8'-7"
24.2	7'-9"
34.6	7'-0"
41.6	6'-0"
55.4	5'-0"
104	4'-0"

MAXIMUM PANEL SPAN SCHEDULE (W/ "U" HEADER)

MAX SPAN (ft)	MAX DESIGN PRESSURES (psf)	
	POSITIVE	NEGATIVE
6'-3"	35	38
5'-3"	48	48
4'-4"	78	80

MAXIMUM SPAN SCHEDULE NOTES:

1. SPANS SHOWN IN "MAX PANEL SPAN SCHEDULES" ARE MAXIMUM ALLOWABLE SPANS AT EACH RESPECTIVE DESIGN PRESSURE.
2. THE <POSITIVE CONNECTION> SPAN SCHEDULE MAY BE USED TO DETERMINE MAXIMUM ALLOWABLE SPANS FOR PANELS INSTALLED USING ANY COMBINATION OF MOUNTING EXTRUSIONS INVOLVING A POSITIVE CONNECTION - i.e. ALL INSTALLATIONS WHICH DO NOT INCLUDE AN "H" OR "U" HEADER.
3. THE <WITH "H" HEADER> SPAN SCHEDULE SHALL BE USED FOR ALL INSTALLATIONS WHICH INCLUDE AN "H" HEADER.
4. THE <WITH "U" HEADER> SPAN SCHEDULE SHALL BE USED FOR ALL INSTALLATIONS WHICH INCLUDE A "U" HEADER.
5. TABLES ARE VALID FOR PANELS MOUNTED HORIZONTALLY OR VERTICALLY. SPAN DIRECTION IS ALWAYS PERPENDICULAR TO LINE OF ANCHORAGE.

FRANK BERNARDO, PE
PE0046549 CA# 9885



ENGINEERING EXPRESS
CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

Transparent Protection Systems, Inc.
633 Dunksifery Road
Bensalem, PA 19020

TPS

CLEARGUARD POLYCARBONATE STORM PANELS
FOR USE OUTSIDE THE HVHZ
FLORIDA STATEWIDE APPROVAL FL6417.1

REMARKS	DRWN	CHKD	DATE
2017 FBC	KL	FLB	8/17/04
2010 FBC	EFT	CL	12/29/08
2014 FBC	RWN	CSL	12/12/11
2017 FBC	TSB	RWN	5/11/15
2020 FBC	CCB	RWN	8/04/17
			9/4/20

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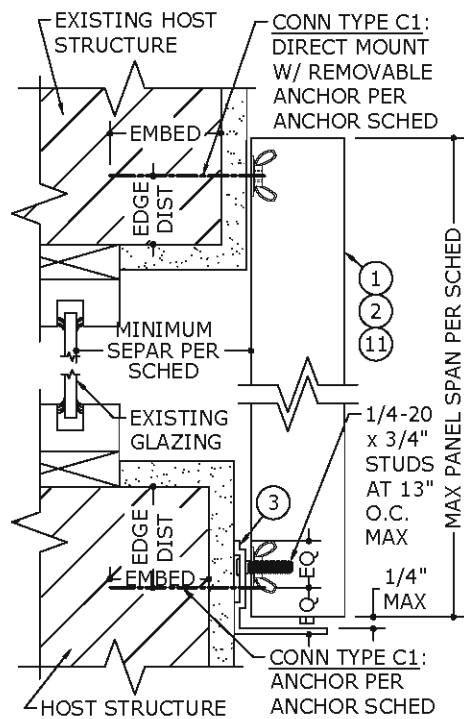
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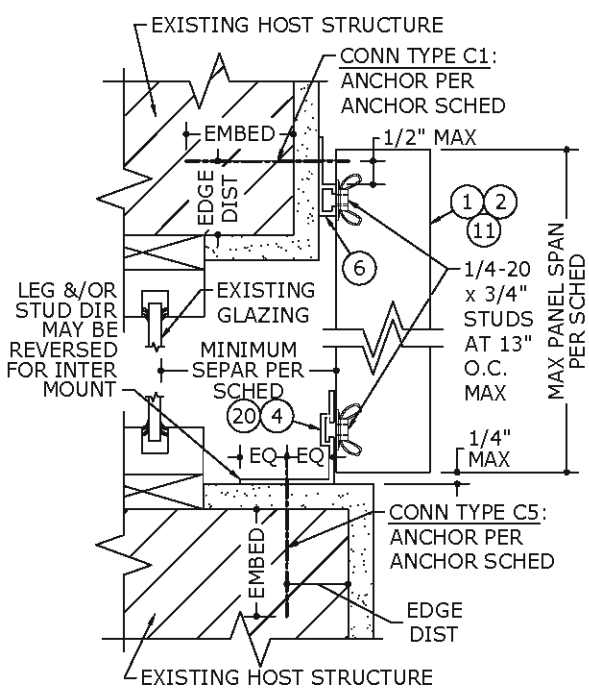
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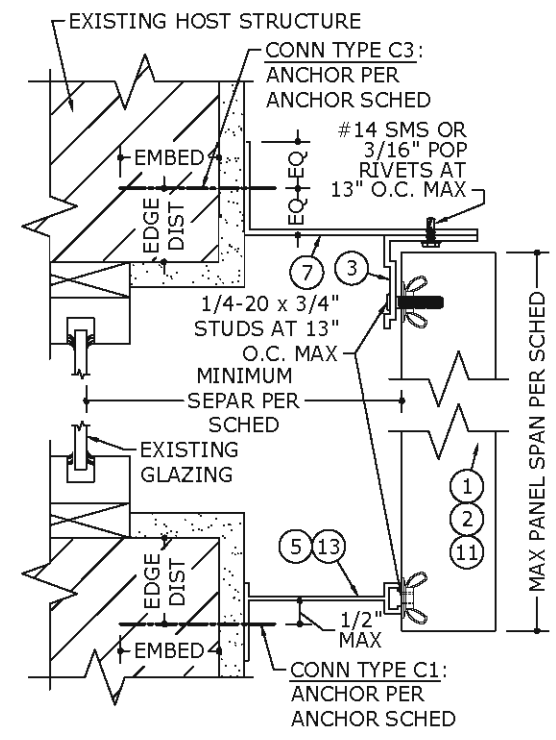
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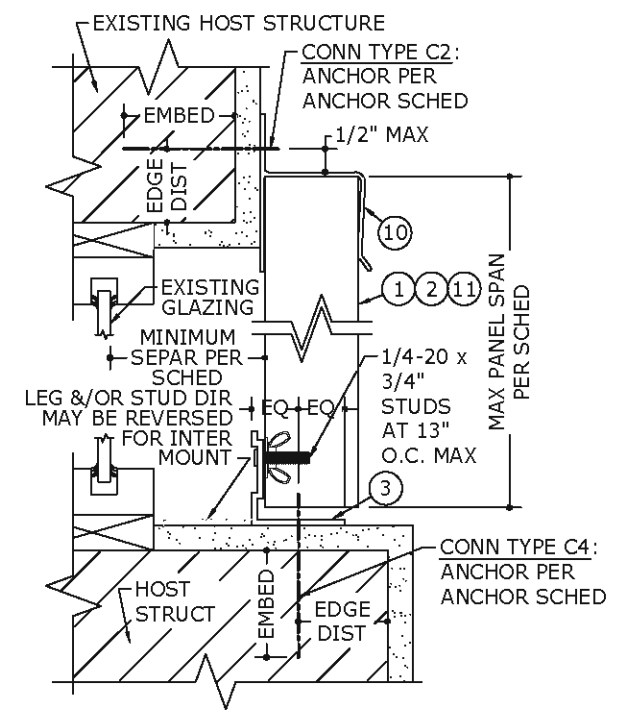
1 MOUNTING SECTION
3 3" = 1'-0" VERT SECTION



2 MOUNTING SECTION
3 3" = 1'-0" VERT SECTION



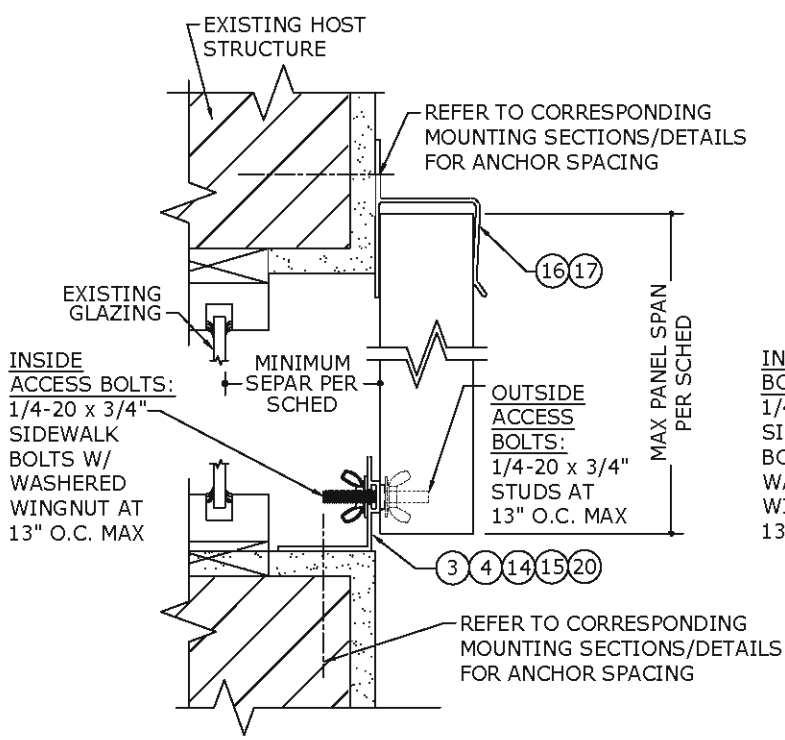
3 MOUNTING SECTION
3 3" = 1'-0" VERT SECTION



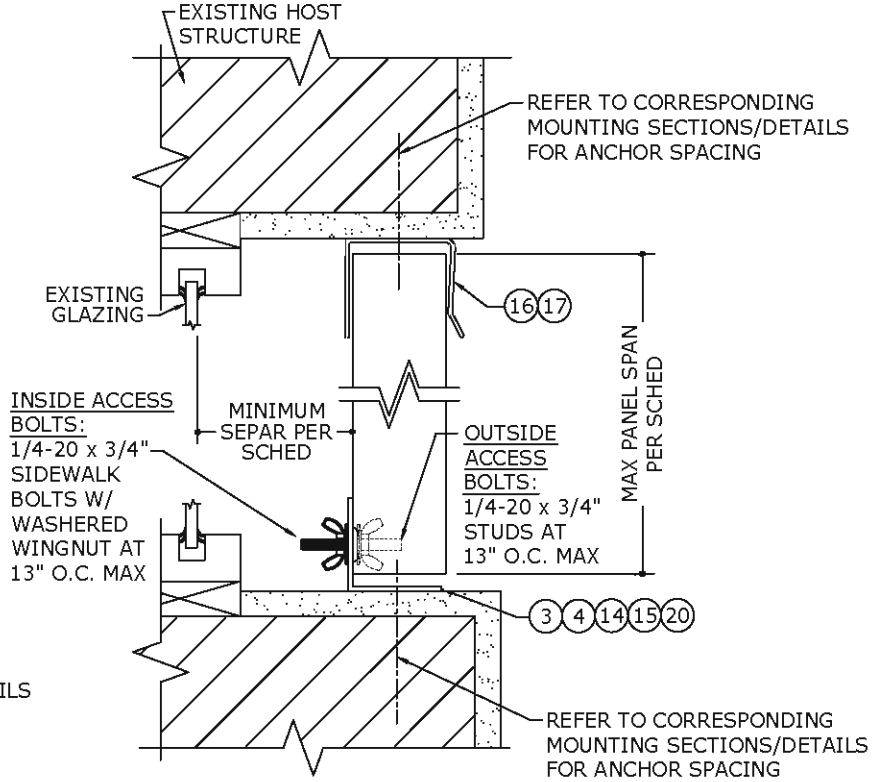
4 MOUNTING SECTION
3 3" = 1'-0" VERT SECTION

HURRI-OUT™ EGRESS STORM PANEL DETAILS*

(*NOTE: SEE GENERAL NOTE #15)

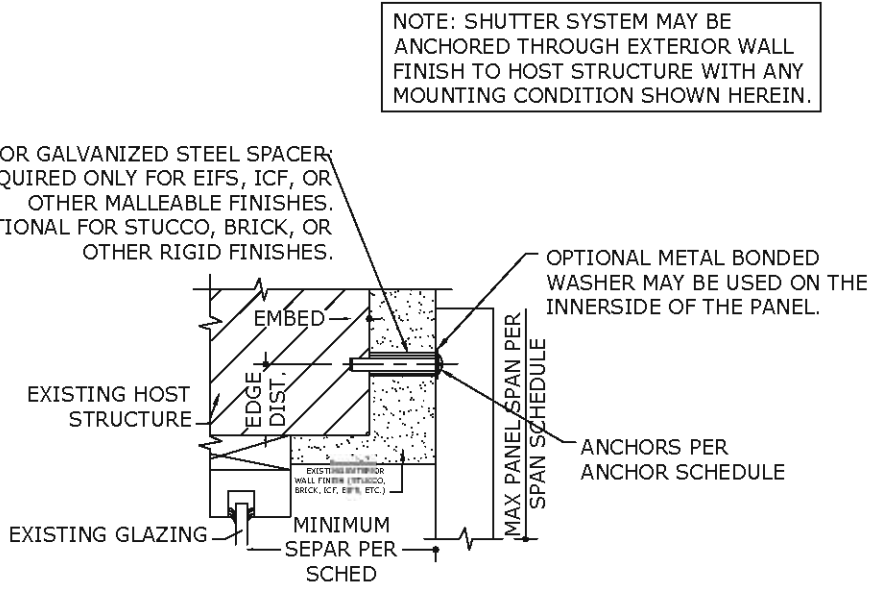


5 MOUNTING SECTION
3 N.T.S. VERT SECTION



6 MOUNTING SECTION
3 N.T.S. VERT SECTION

- ALUMINUM OR GALVANIZED STEEL SPACER:
- REQUIRED ONLY FOR EIFS, ICF, OR OTHER MALLEABLE FINISHES.
 - OPTIONAL FOR STUCCO, BRICK, OR OTHER RIGID FINISHES.



7 MOUNTING SECTION THRU EXTERIOR WALL FINISH (BRICK, ICF, EIFS, ETC.)
3 N.T.S. VERT SECTION

NOTE: SHUTTER SYSTEM MAY BE ANCHORED THROUGH EXTERIOR WALL FINISH TO HOST STRUCTURE WITH ANY MOUNTING CONDITION SHOWN HEREIN.

FRANK BENNARDO, PE
PE0046549 CA# 9885



ENGINEERING EXPRESS
CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

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FLORIDA STATEWIDE APPROVAL FL6417.1

DRWN	CHKD	DATE
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KL	CL	12/29/08
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RWN	CSL	5/11/15
TSB	RWN	8/04/17
CCB	RWN	8/4/20

REMARKS
2007 FBC
2010 FBC
2014 FBC
2017 FBC
2020 FBC

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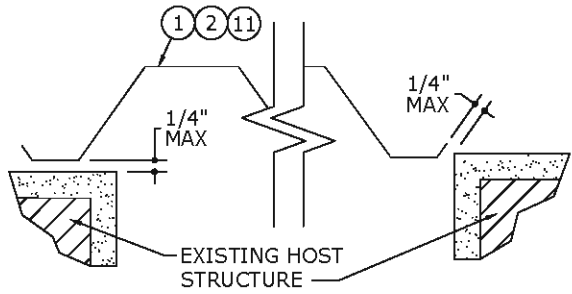
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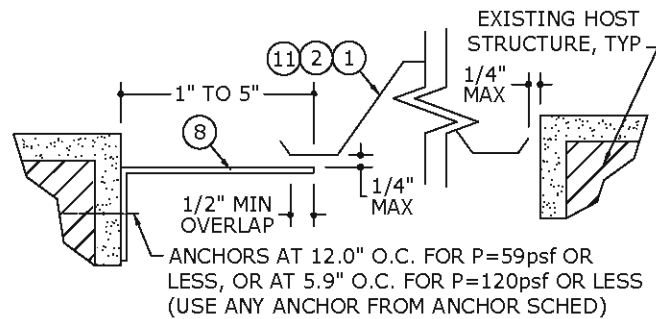
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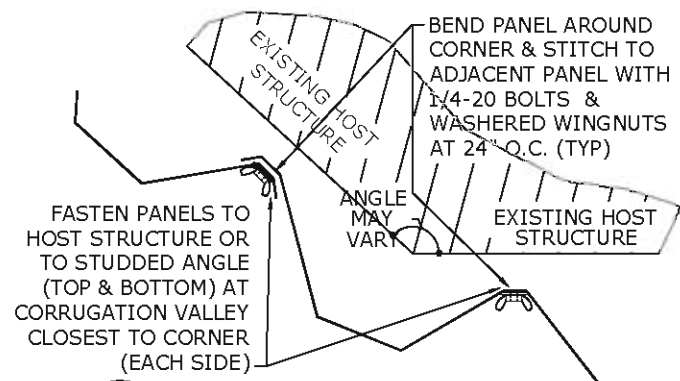
CLOSURE DETAILS



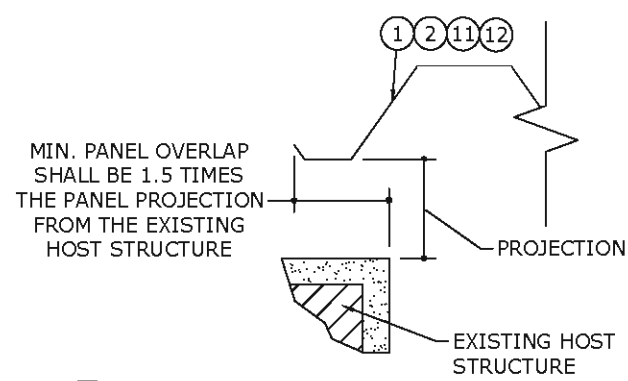
1 WALL MOUNT CLOSURE
 5 3" = 1'-0" PLAN VIEW



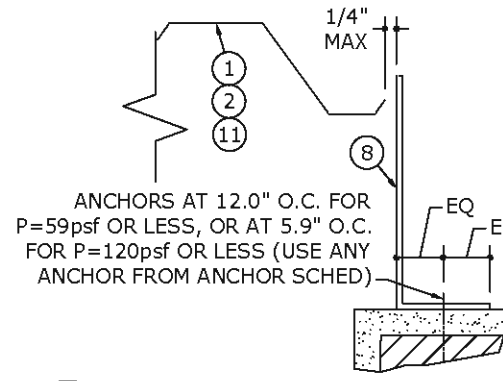
2 TRAP MOUNT CLOSURE
 5 3" = 1'-0" PLAN VIEW



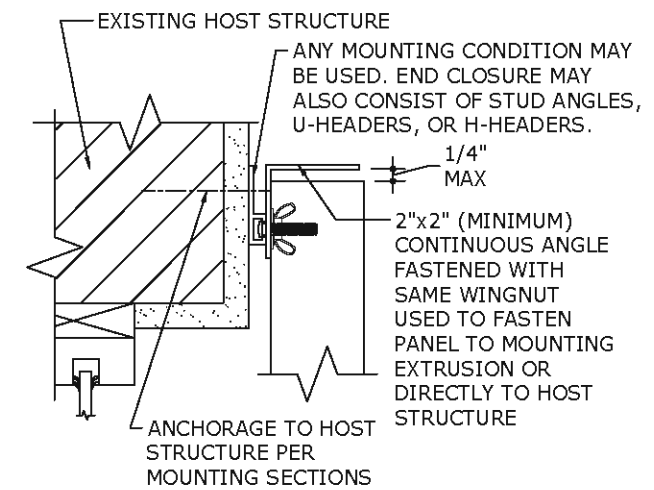
3 CORNER CLOSURE
 5 N.T.S. PLAN VIEW



4 PANEL OVERLAP
 5 N.T.S. PLAN VIEW



5 BUILD-OUT CLOSURE
 5 3" = 1'-0" PLAN VIEW



6 TOP/BOTTOM CLOSURE
 5 N.T.S. VERT SECTION

MINIMUM SPAN SCHEDULE

ONE (1) CLOSURE AT TOP OR BOTTOM

TOP OR BOTTOM WITH CLOSURE	TOP OR BOTTOM MOUNT WITHOUT CLOSURE							
	DIRECT MOUNT	STUD ANGLE (WALL MOUNT)	"F" TRACK	REVERSE "F" ANGLE	B.O. 2x5 + STUD ANGLE	B.O. "F" TRACK	"H" HEADER	STUD ANGLE (TRAP MOUNT)
DIRECT MOUNT	32"	30"	33"	30"	30"	32"	30"	30"
STUD ANGLE (WALL MOUNT)	32"	30"	33"	30"	30"	32"	30"	30"
"F" TRACK	33"	30"	35"	30"	30"	33"	30"	30"
REVERSE "F" ANGLE	32"	30"	33"	30"	30"	32"	30"	30"
B.O. 2x5 + STUD ANGLE	32"	30"	33"	30"	30"	32"	30"	30"
B.O. "F" TRACK	32"	30"	33"	30"	30"	32"	30"	30"
"H" HEADER	30"	30"	30"	30"	30"	30"	30"	30"
STUD ANGLE (TRAP MOUNT)	32"	30"	33"	30"	30"	32"	30"	30"

MINIMUM SPAN SCHEDULE

NO TOP/BOTTOM CLOSURES

TOP MOUNT	BOTTOM MOUNT							
	DIRECT MOUNT	STUD ANGLE (WALL MOUNT)	"F" TRACK	REVERSE "F" ANGLE	B.O. 2x5 + STUD ANGLE	B.O. "F" TRACK	"H" HEADER	STUD ANGLE (TRAP MOUNT)
DIRECT MOUNT	53"	32"	55"	32"	32"	53"	30"	32"
STUD ANGLE (WALL MOUNT)	32"	30"	33"	30"	30"	32"	30"	30"
"F" TRACK	55"	33"	57"	33"	33"	55"	30"	33"
REVERSE "F" ANGLE	32"	30"	33"	30"	30"	32"	30"	30"
B.O. 2x5 + STUD ANGLE	32"	30"	33"	30"	30"	32"	30"	30"
B.O. "F" TRACK	53"	32"	55"	32"	32"	53"	30"	32"
"H" HEADER	30"	30"	30"	30"	30"	30"	30"	30"
STUD ANGLE (TRAP MOUNT)	32"	30"	33"	30"	30"	32"	30"	30"

MINIMUM SPAN SCHEDULE NOTES:

- SPANS SHOWN ABOVE ARE MINIMUM ALLOWABLE SPANS BASED ON ANY COMBINATION OF MOUNTING CONDITIONS AT TOP OR BOTTOM. PANEL LENGTHS LESS THAN THOSE NOTED IN TABLES ABOVE ARE NOT ACCEPTABLE.
- NO SEPARATION FROM GLASS IS REQUIRED WHEN PANEL LENGTH IS GREATER THAN THAT NOTED FOR RESPECTIVE MOUNTING COMBINATIONS ABOVE.
- SIDE CLOSURES REQUIRED IF GAP BETWEEN PANEL AND STRUCTURE EXCEEDS DISTANCE SHOWN IN HORIZONTAL SECTION DETAILS (REF. DETAILS 6/3, 7/3 AND 9/3).
- TABLES ABOVE ARE VALID FOR PANELS MOUNTED HORIZONTALLY OR VERTICALLY.
- TOP/BOTTOM CLOSURES MAY CONSIST OF NON-STRUCTURAL 28ga (0.018" MIN) GALV STEEL OR 0.022" MIN SHEET ALUMINUM OF ALLOY 5052-H32 OR 3004-H34. REFERENCE DETAILS HEREIN FOR DEPICTION OF TOP/BOTTOM CLOSURE MOUNTING REQUIREMENTS.
- STORM PANELS MAY BE INSTALLED WITH A 12" MINIMUM SPAN WHEN INSTALLED WITH A CLOSURE ANGLE AT BOTH TOP AND BOTTOM.

FRANK BENNARDO, PE
 # PE0046549 CA# 9885



ENGINEERING EXPRESS
 CORPORATE OFFICE:
 160 SW 12th AVE, SUITE 106
 DEERFIELD BEACH, FL 33442
 (954) 354-0660 | (866) 396-9999
 TEAM@ENGINEERINGEXPRESS.COM
 ENGINEERINGEXPRESS.COM

TPS Transparent Protection Systems, Inc.
 633 Dunksifery Road
 Bensalem, PA 19020

CLEARGUARD POLYCARBONATE STORM PANELS
 FOR USE OUTSIDE THE HVHZ
 FLORIDA STATEWIDE APPROVAL FL6417.1

REMARKS	DRWN	CHKD	DATE
2007 FBC	CL	FLB	8/17/04
2010 FBC	KL	CL	12/29/08
2014 FBC	EFT	KL	12/12/11
2017 FBC	RWN	CSL	5/11/15
2020 FBC	CCB	RWN	8/04/17
		CCB	8/4/20

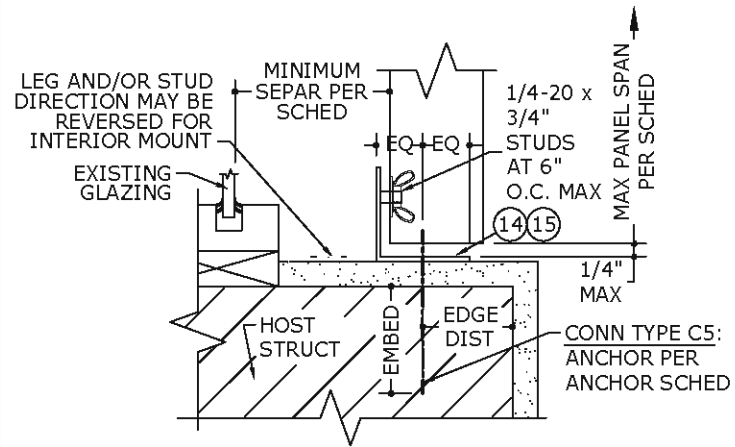
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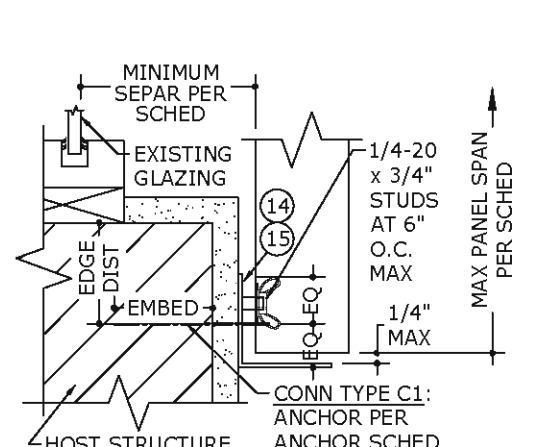
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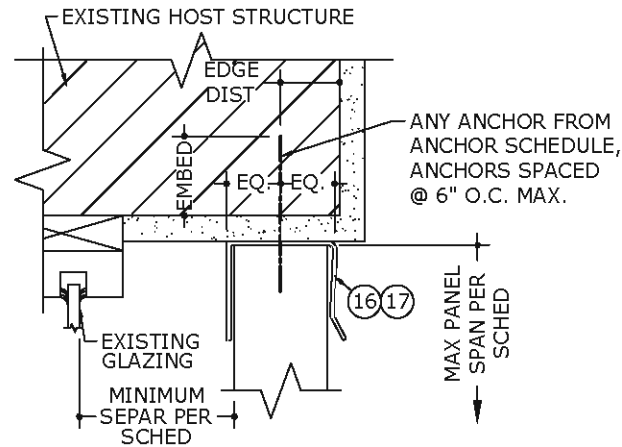
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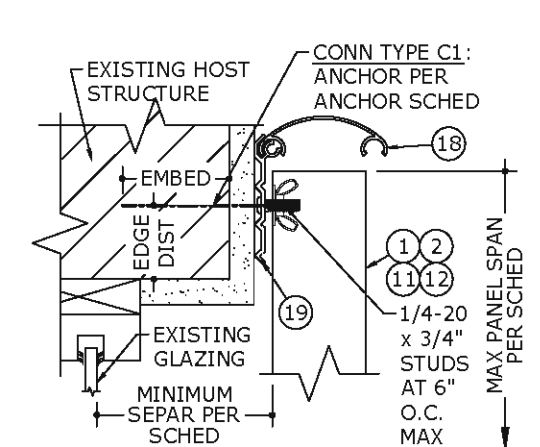
1
4 **MOUNTING SECTION**
3" = 1'-0" VERT SECTION



2
4 **MOUNTING SECTION**
3" = 1'-0" VERT SECTION



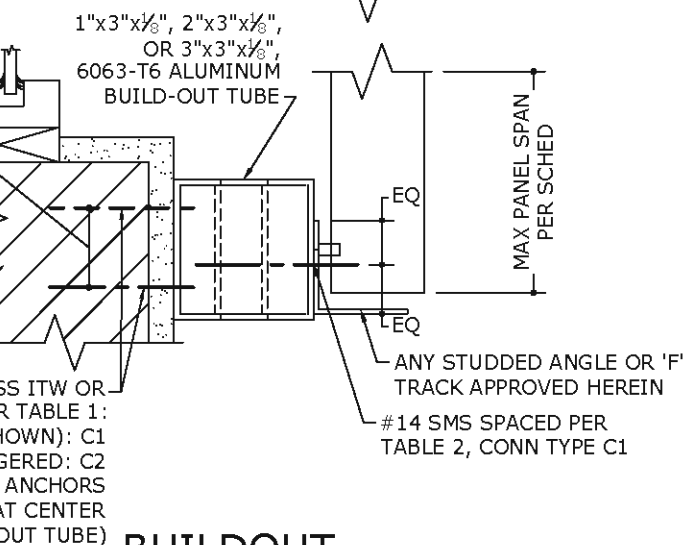
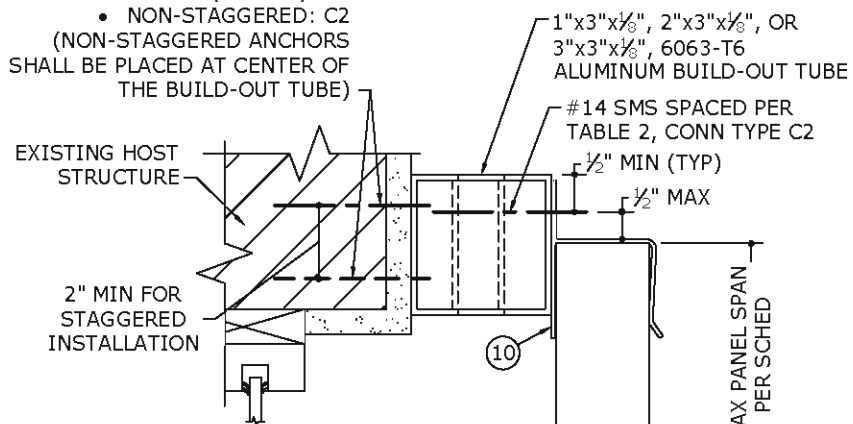
3
4 **MOUNTING SECTION**
N.T.S. VERT SECTION



4
4 **MOUNTING SECTION**
N.T.S. VERT SECTION

BUILDOUT MOUNTING DETAILS

1/4" TAPCONS (SS ITW OR DEWALT) SPACED PER TABLE 1:
 • STAGGERED (SHOWN): C1
 • NON-STAGGERED: C2
 (NON-STAGGERED ANCHORS SHALL BE PLACED AT CENTER OF THE BUILD-OUT TUBE)



5
4 **BUILDOUT MOUNTING DETAIL**
N.T.S. VERT SECTION

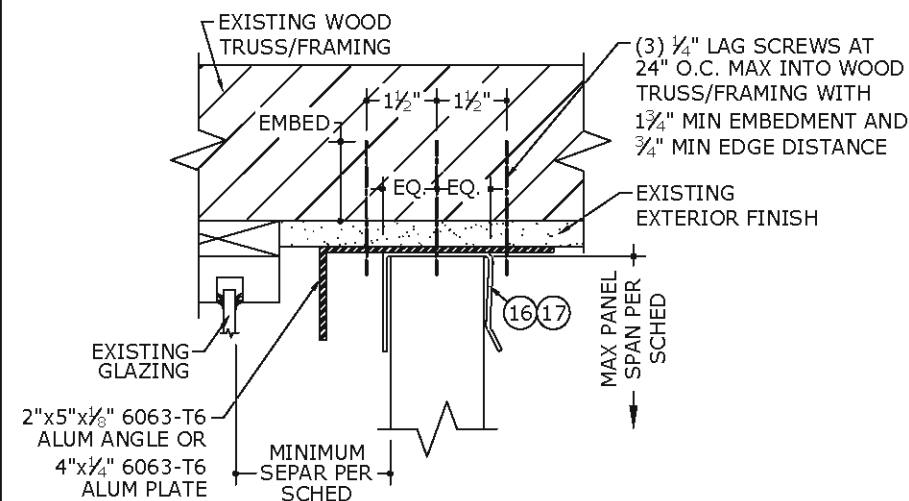
TABLE 1*: BUILDOUT ONLY

HOST STRUCT.	LOAD (psf)	Spans Up To 6'-0"		Spans Up To 8'-6"		Spans Up To 11'-4"	
		CONN TYPE C1	CONN TYPE C2	CONN TYPE C1	CONN TYPE C2	CONN TYPE C1	CONN TYPE C2
CONCRETE	30	13.0"	13.0"	13.0"	13.0"	13.0"	11.8"
	38	13.0"	13.0"	13.0"	12.4"	13.0"	9.3"
	47	13.0"	13.0"	13.0"	10.1"	13.0"	8.5"
	54	13.0"	12.4"	13.0"	8.8"	13.0"	8.5"
HOLLOW BLOCK	30	10.9"	6.6"	7.7"	4.6"	5.8"	3.5"
	38	8.6"	5.2"	6.1"	3.7"	4.6"	
	47	7.0"	4.2"	4.9"	3.0"	4.2"	
	54	6.1"	3.6"	4.3"		4.2"	
WOOD	30	13.0"	8.5"	10.0"	6.0"	7.5"	4.5"
	38	11.2"	6.7"	7.9"	4.7"	5.9"	3.6"
	47	9.1"	5.4"	6.4"	3.8"	5.4"	3.3"
	54	7.9"	4.7"	5.6"	3.3"	5.4"	3.3"
120	5.4"	3.3"	5.4"	3.3"	5.4"	3.3"	

TABLE 2*: BUILDOUT ONLY

LOAD (psf)	Spans Up To 6'-0"		Spans Up To 8'-6"		Spans Up To 11'-4"	
	CONN TYPE C1	CONN TYPE C2	CONN TYPE C1	CONN TYPE C2	CONN TYPE C1	CONN TYPE C2
30	13.0"	13.0"	13.0"	13.0"	13.0"	13.0"
38	13.0"	13.0"	13.0"	13.0"	11.3"	8.1"
47	13.0"	13.0"	12.2"	9.4"	10.3"	6.8"
54	13.0"	13.0"	10.6"	7.2"	10.3"	6.8"
120	10.3"	6.8"	10.3"	6.8"	10.3"	6.8"

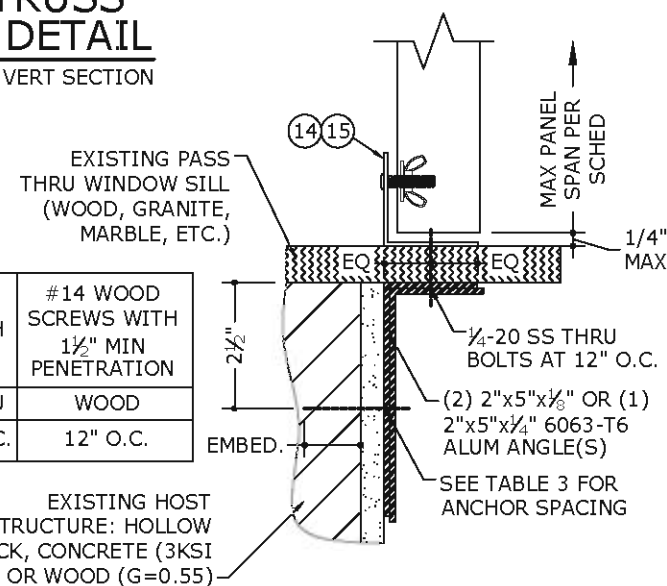
NOTES:
 1. TABLE 1 AND 2 APPLY ONLY TO BUILDOUT MOUNTING DETAIL (7/3).
 2. TAPCONS SHALL BE INSTALLED WITH THE FOLLOWING MINIMUM EMBEDMENT:
 • TO CONCRETE: 1 3/4" MIN
 • TO HOLLOW BLOCK: 1 1/4" MIN
 • TO WOOD: 1 1/2" MIN
 3. REFER TO SHT 6 FOR ADDITIONAL ANCHOR NOTES.
 4. THESE MOUNTING CONDITIONS MAY BE USED INDEPENDENTLY OF ONE ANOTHER AND IN CONJUNCTION WITH OTHER MOUNTING CONDITIONS/DETAILS DEPICTED HEREIN.



6
4 **WOOD TRUSS MOUNT DETAIL**
N.T.S. VERT SECTION

TABLE 3:

1/4" ITW SS TAPCONS WITH 1 1/4" MIN EMBED		1/4" ALL POINTS SOLID-SET WITH 7/8" MIN EMBED		#14 WOOD SCREWS WITH 1 1/2" MIN PENETRATION	
CONC	CMU	CONC	CMU	WOOD	
12" O.C.	8" O.C.	12" O.C.	11" O.C.	12" O.C.	



7
4 **PASS THRU WINDOW DETAIL**
N.T.S. VERT SECTION

FRANK BENNARDO, PE
 # PE0046549 CA# 9885



ENGINEERING EXPRESS
 CORPORATE OFFICE:
 160 SW 12th AVE, SUITE 106
 DEERFIELD BEACH, FL 33442
 (954) 354-0660 | (866) 396-9999
 TEAM@ENGINEERINGEXPRESS.COM
 ENGINEERINGEXPRESS.COM

TPS Transparent Protection Systems, Inc.
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DRWN	CHKD	DATE
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KL	CL	12/29/08
EFT	KL	12/12/11
RWN	CSL	5/11/15
TSB	RWN	8/04/17
CCB	RWN	8/4/20

REMARKS:
 2017 FBC
 2010 FBC
 2014 FBC
 2020 FBC
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POSITIVE CONNECTION MINIMUM GLASS SEPARATION SCHEDULE

LOAD (PSF)	SPAN LESS THAN	MINIMUM SEPARATION AT OR BELOW 30' ABOVE GRADE	MINIMUM SEPARATION AT ELEVATION > 30' ABOVE GRADE
38	4'-0"	7.73"	1.65"
	7'-0"	7.73"	4.38"
	12'-0"	8.78"	8.78"
40	4'-0"	7.73"	1.69"
	7'-0"	7.73"	4.56"
	11'-5"	8.33"	8.33"
45	4'-0"	7.73"	1.77"
	7'-0"	7.73"	5.01"
	10'-1"	7.73"	7.39"
50	4'-0"	7.73"	1.86"
	7'-0"	7.73"	5.45"
	9'-1"	7.73"	6.87"
60	4'-0"	7.73"	2.03"
	7'-0"	7.73"	6.34"
	7'-7"	7.73"	6.57"
70	4'-0"	7.73"	2.20"
	6'-7"	7.73"	6.38"
120	3'-10"	7.73"	2.74"

H-HEADER MINIMUM GLASS SEPARATION SCHEDULE

SPAN LESS THAN	MINIMUM SEPARATION AT OR BELOW 30' ABOVE GRADE	MINIMUM SEPARATION AT ELEVATION > 30' ABOVE GRADE
8'-7"	8.60"	7.17"
7'-9"	8.60"	6.69"
7'-0"	8.60"	5.97"
6'-0"	8.60"	4.94"
5'-0"	8.60"	4.10"
4'-0"	8.60"	3.58"

GLASS SEPARATION SCHEDULE NOTES:

1. GLASS SEPARATION SCHEDULE PROVIDES MINIMUM SEPARATION DISTANCE REQUIRED BETWEEN EXTERIOR FACE OF GLAZING (OR OTHER PRODUCT BEING PROTECTED) AND INTERIOR FACE OF INSTALLED STORM PANEL.
2. SEPARATION DISTANCE PER THIS SCHEDULE IS REQUIRED FOR USE WITH POSITIVE LOADS ONLY.
3. SEPARATION FROM GLASS IS REQUIRED ONLY WHEN INSTALLED WITHIN ASTM WIND ZONE 4 AND ESSENTIAL FACILITIES.

U-HEADER MINIMUM GLASS SEPARATION SCHEDULE

SPAN LESS THAN	MINIMUM SEPARATION AT OR BELOW 30' ABOVE GRADE	MINIMUM SEPARATION AT ELEVATION > 30' ABOVE GRADE
6'-3"	3.98"	3.21"
5'-3"	3.98"	2.58"
4'-4"	3.98"	2.24"



ENGINEERING EXPRESS
CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
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