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FL # Application Type Code Version Application Status Comments Archived	FL6418-R2 Revision 2007 Approved <input type="checkbox"/>								
Product Manufacturer Address/Phone/Email	Transparent Protection Systems, Inc. 6643 42nd Terrace North West Palm Beach, FL 33407								
Authorized Signature	Frank Bennardo frank@engexp.com								
Technical Representative Address/Phone/Email	Scott D. Kuntz 6643 42nd Terrace North West Palm Beach, FL 33407 (561) 844-2445 scottkuntz@transparentprotection.com								
Quality Assurance Representative Address/Phone/Email									
Category Subcategory	Shutters Storm Panels								
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input checked="" type="checkbox"/> Evaluation Report - Hardcopy Received								
Florida Engineer or Architect Name who developed the Evaluation Report Florida License Quality Assurance Entity Quality Assurance Contract Expiration Date Validated By	Frank L. Bennardo, P.E. PE-0046549 National Accreditation and Management Institute 12/31/2012 Jorge A. Pomerantz, P.E. <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received								
Certificate of Independence	FL6418_R2_COI_Cert_Indep.pdf								
Referenced Standard and Year (of Standard)	<table border="0"> <thead> <tr> <th style="text-align: left;"><u>Standard</u></th> <th style="text-align: left;"><u>Year</u></th> </tr> </thead> <tbody> <tr> <td>ASTM E1886</td> <td>2002</td> </tr> <tr> <td>ASTM E1996</td> <td>2002</td> </tr> <tr> <td>ASTM E330</td> <td>2002</td> </tr> </tbody> </table>	<u>Standard</u>	<u>Year</u>	ASTM E1886	2002	ASTM E1996	2002	ASTM E330	2002
<u>Standard</u>	<u>Year</u>								
ASTM E1886	2002								
ASTM E1996	2002								
ASTM E330	2002								
Equivalence of Product Standards Certified By									
Sections from the Code									

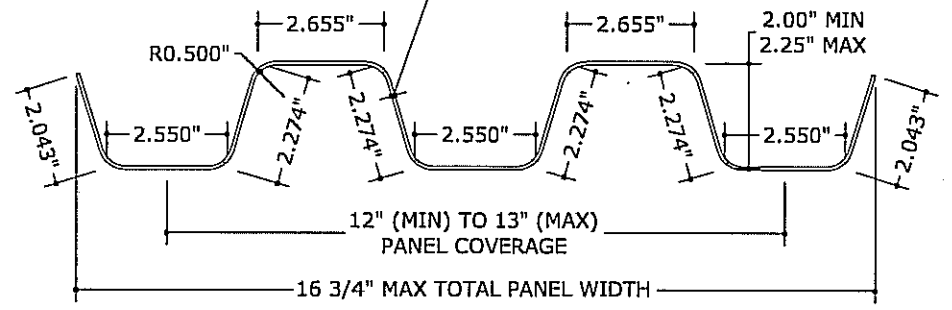


ValueGUARD™ POLYMER STORM PANELS

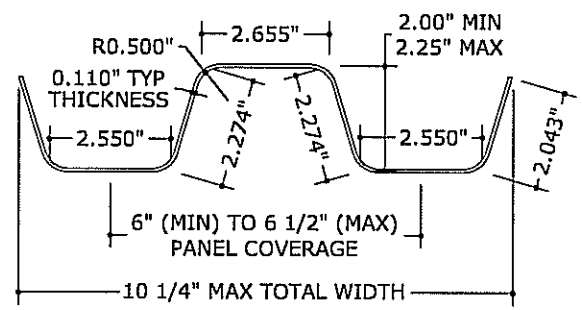
FRANK L. BENNARDO, P.E.
PE0046549

12/31/2008

PANEL THICKNESSES
POLYOLEFIN: 0.110" TYP
POLYCARBONATE: 0.070" TYP



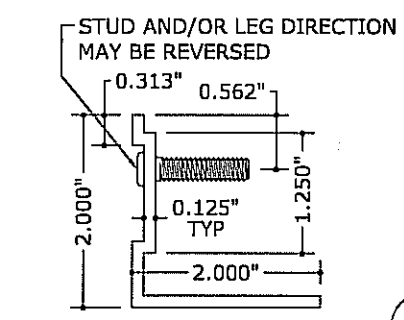
1 FULL PANEL PROFILE
3" = 1'-0" (SEE GEN NOTE 7)



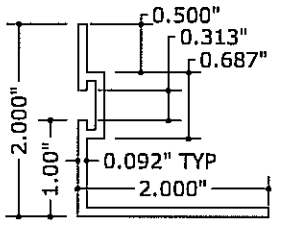
2 HALF PANEL PROFILE
3" = 1'-0" (SEE GEN NOTE 7)

GENERAL NOTES:

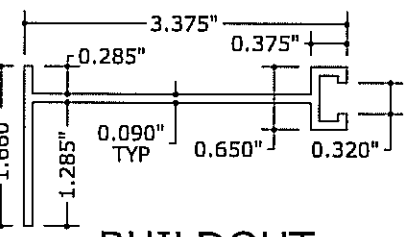
- THIS SYSTEM HAS BEEN TESTED AND EVALUATED AS A LARGE MISSILE IMPACT PROTECTIVE SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2007 FLORIDA BUILDING CODE AND THE 2006 INTERNATIONAL BUILDING/RESIDENTIAL CODE PER ASTM STANDARDS E330, E1886, & E1996. PANELS ARE APPROVED FOR USE IN FLORIDA OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, OR THROUGHOUT OTHER AREAS GOVERNED BY THE 2006 IBC/IRC.
 - TESTING HAS BEEN PERFORMED IN ACCORDANCE WITH THE ASTM E1996 STANDARD FOR USE IN HIGH VELOCITY WIND ZONES (WIND ZONE 4) WHERE THE BASIC WIND SPEED IS GREATER THAN 140 MPH.
 - NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN PER 2005 NDS SPECIFICATIONS.
 - POSITIVE AND NEGATIVE DESIGN PRESSURES TO BE USED WITH THESE DRAWINGS SHALL BE DETERMINED BY OTHERS FOR SPECIFIC JOBS IN ACCORDANCE WITH THE GOVERNING CODE. WHEN CALCULATING PRESSURES PER ASCE 7-05, USE OF DIRECTIONALITY FACTOR Kd=0.85 IS ALLOWED AS SPECIFIED THEREIN.
 - 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.
 - PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND NEW SUPERIMPOSED LOADS.
 - ALL STORM PANELS (FULL AND HALF, TRANSLUCENT POLYOLEFIN AND TRANSPARENT POLYCARBONATE) MAY VARY IN "COVERAGE WIDTH" BETWEEN THE RESPECTIVE MINIMA & MAXIMA SHOWN HEREIN, PROVIDED THAT THE PANEL PROFILE HEIGHT IS MAINTAINED BETWEEN THE MAXIMUM & MINIMUM SHOWN.
 - THIS PRODUCT APPROVAL IS FOR THE USE OF TRANSLUCENT POLYOLEFIN STORM PANELS AND TRANSPARENT POLYCARBONATE PANELS. ALL STORM PANELS SHALL BE MANUFACTURED BY TRANSPARENT PROTECTION SYSTEMS, INC.
 - ALL TRANSLUCENT POLYOLEFIN PANELS SHALL BE EXTRUDED FROM SYNTHETIC THERMOPLASTIC POLYMER WITH A PROPRIETARY TPS ADDITIVE FOR ENHANCED UV PROTECTION AND WEATHERABILITY, WITH THICKNESS T=0.110" (±0.011"). TYPICAL TENSILE STRENGTH Fy=4.0 KSI & FLEXURAL MODULUS IS 190.0 KSI.
 - ALL TRANSPARENT POLYCARBONATE PANELS SHALL BE EXTRUDED FROM SYNTHETIC THERMOPLASTIC POLYMER RESIN (UV STABILIZED), WITH THICKNESS T=0.070" (±0.007"). TYPICAL TENSILE STRENGTH Fy=8.9 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.
WEST PALM BEACH, FLORIDA
- NOTE: TEST STANDARDS AND PRODUCT APPROVAL NUMBERS SHALL BE INCLUDED IN PANEL LABELS.
- STORM PANELS HAVE BEEN DESIGNED AND TESTED TO THE MAXIMUM SPANS AND CORRESPONDING LOADS SHOWN HEREIN. REFERENCE HURRICANE TEST LABORATORY (HTL OF RIVIERA BEACH, FL) TEST REPORTS #0239-0107-05 & #0239-0216-05.
 - 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 HOLES FIELD DRILLED AT Ø3/8". IF HOLES ARE Ø1/2" OR LARGER (Ø5/8" MAX), KEYHOLE WASHERS OR WASHERED WINGNUTS WITH 1.000" MINIMUM DIAMETER SHALL BE USED. WASHERED WINGNUTS SHALL HAVE 0.865" MINIMUM WASHER DIAMETER. ALL STORM PANELS SHALL BE MOUNTED USING ANCHORS OR 1/4-20 STUDS AT EVERY VALLEY (i.e. 6.5" O.C. MAX).
 - ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.



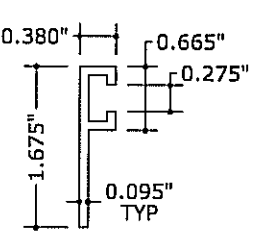
3 STUD ANGLE
6" = 1'-0"



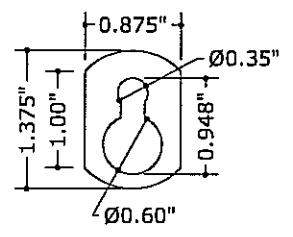
4 REVERSE 'F' ANGLE
6" = 1'-0"



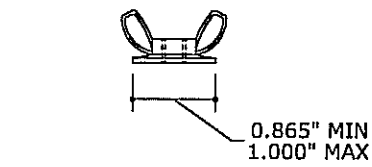
5 BUILDOUT 'F' TRACK
6" = 1'-0"



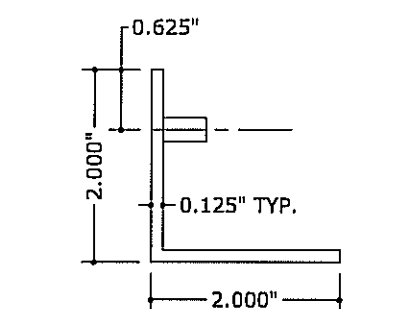
6 'F' TRACK
6" = 1'-0"



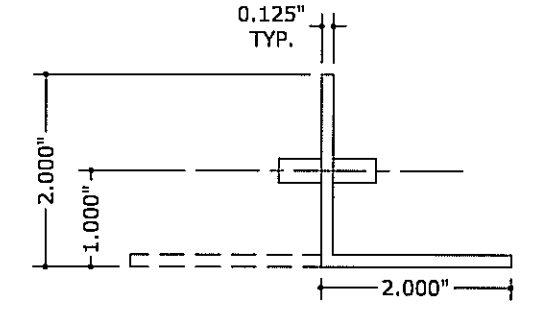
8 KEYHOLE WASHER
6" = 1'-0"



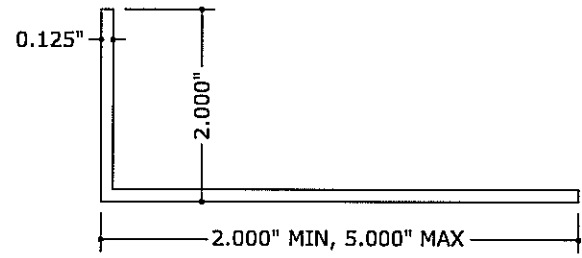
9 WASHERED WINGNUT
6" = 1'-0"



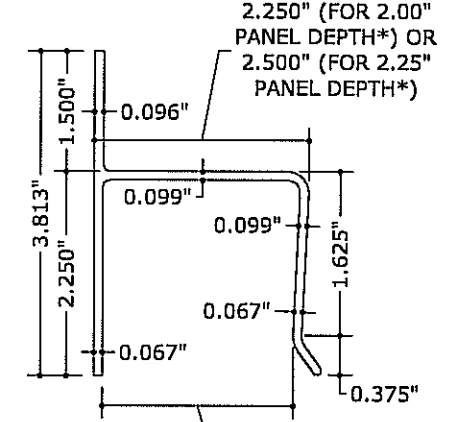
12 ALTERNATE STUD ANGLE
6" = 1'-0"



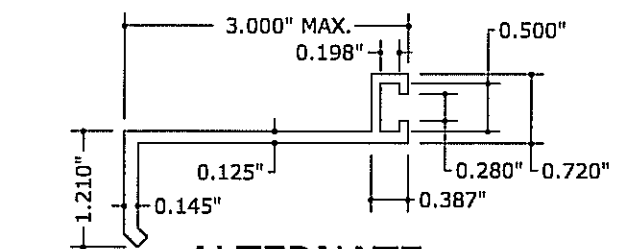
13 STUDDED ANGLE
6" = 1'-0"



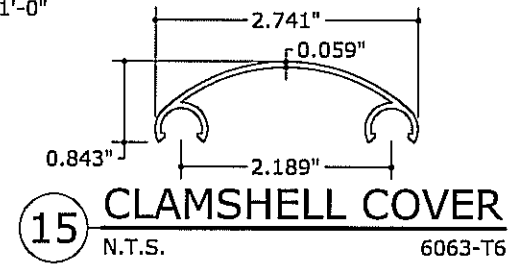
7 CLOSURE ANGLE
6" = 1'-0"



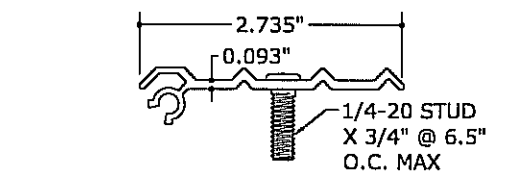
10 'H' HEADER
6" = 1'-0"



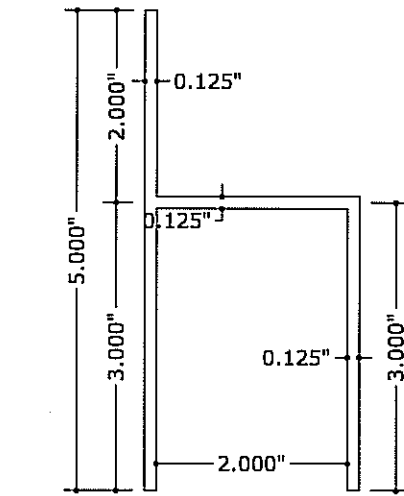
14 ALTERNATE B.O. 'F' TRACK
6" = 1'-0"



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



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



11 SUPER 'H' HEADER™
6" = 1'-0"

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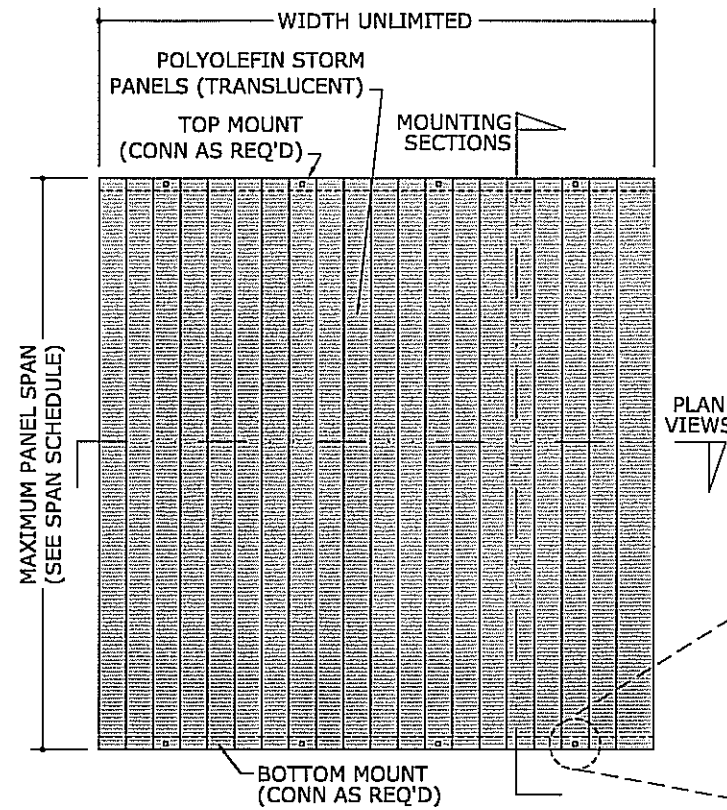
Transparent Protection Systems, Inc.
TPS
6643 42nd Terrace North
West Palm Beach, FL 33407
ValueGuard™ POLYMER STORM PANELS
AND MaxLite™ STORM PANEL SYSTEM
FLORIDA STATEWIDE APPROVAL

REMARKS	DRWN/CHKD	DATE
INIT ISSUE	CL	3/2/06
FT HEADER/ MAXLITE	KL	10/26/08

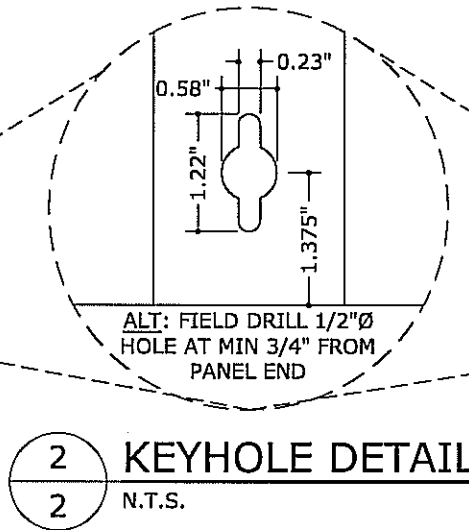
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ValueGUARD™ STORM PANEL SYSTEM
POLYOLEFIN STORM PANELS (Non-HVHZ)

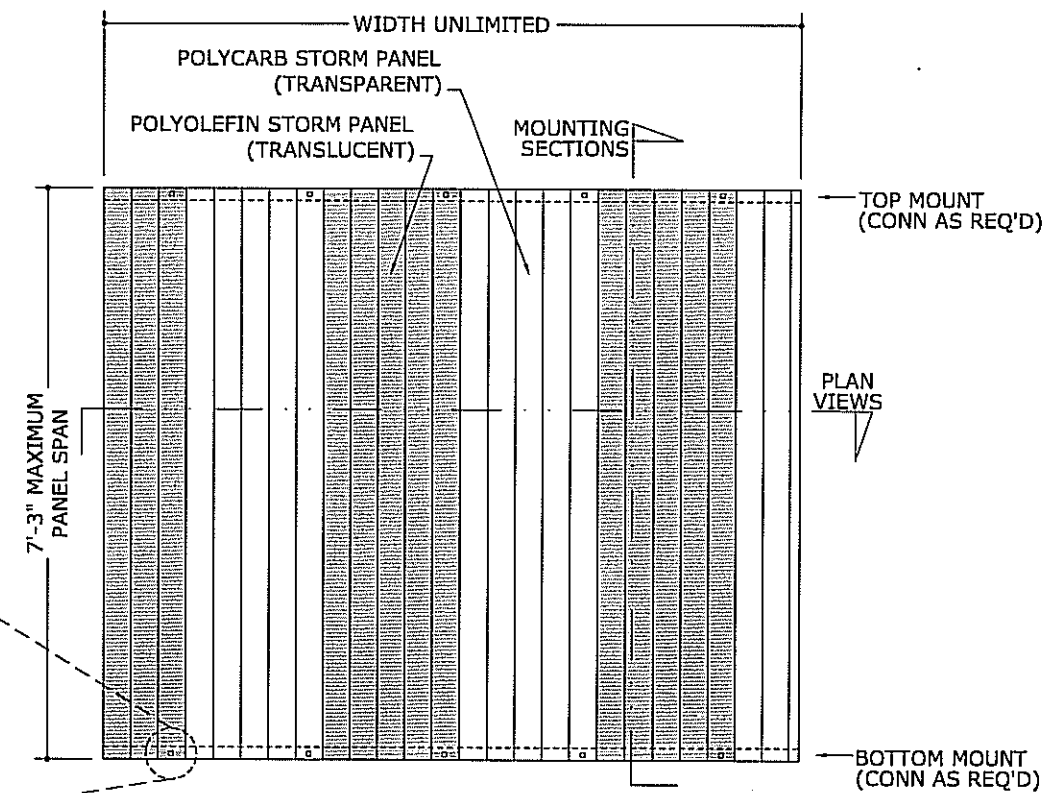


1 TYPICAL ELEVATION
2 N.T.S.



2 KEYHOLE DETAIL
2 N.T.S.

MaxLITE™ STORM PANEL SYSTEM
ALTERNATING POLYOLEFIN & POLYCARBONATE STORM PANELS (Non-HVHZ)



3 TYPICAL ELEVATION
2 N.T.S.

ValueGUARD™ STORM PANEL SYSTEM

MAXIMUM PANEL SPAN SCHEDULE (POSITIVE CONN.) (W/ "H" HEADERS)

LOAD (psf)	MAX SPAN (ft)
25	10'-0"
30	10'-0"
35	10'-0"
40	10'-0"
45	9'-3"
50	8'-8"
55	8'-2"
60	7'-8"
65	7'-3"
70	6'-4"
75	5'-7"
80	4'-11"
85	4'-3"
90	3'-9"

LOAD (psf)	MAX SPAN (ft)
26.5	7'-3"
35	5'-10"
55	4'-9"
70	3'-9"

MAXIMUM SPAN SCHEDULE NOTES:

1. SPANS SHOWN IN MAX PANEL SPAN SCHEDULES ARE MAXIMUM ALLOWABLE SPANS AT EACH RESPECTIVE DESIGN PRESSURE.
2. "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" HEADER.
3. SPAN SCHEDULE LABELLED FOR USE "WITH 'H' HEADERS" MUST BE USED FOR ALL INSTALLATIONS WHERE THE "H" HEADER IS USED.
4. ALL TABLES ARE VALID FOR PANELS MOUNTED HORIZONTALLY OR VERTICALLY. SPAN DIRECTION IS ALWAYS PERPENDICULAR TO LINE OF ANCHORAGE.

MaxLITE™ STORM PANEL SYSTEM

MAX PANEL SPAN: 7'-3"
MAX DESIGN LOAD: ±65 PSF

NOTE: MaxLITE™ STORM PANEL SYSTEM IS NOT VALID FOR USE WITH "H" HEADERS.

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PE0046549

12/31/2008



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ValueGUARD™ POLYMER STORM PANELS
AND MaxLite™ STORM PANEL SYSTEM
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"H" HEADER / MAXLITE	KL	CL	10/26/08

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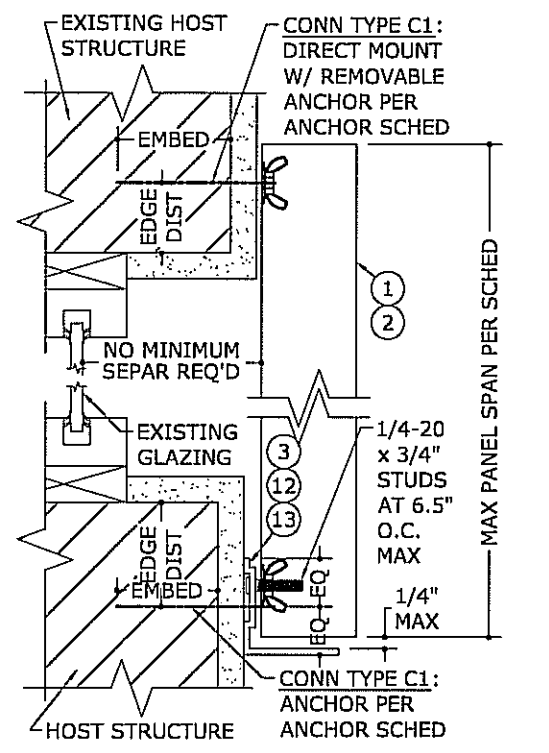
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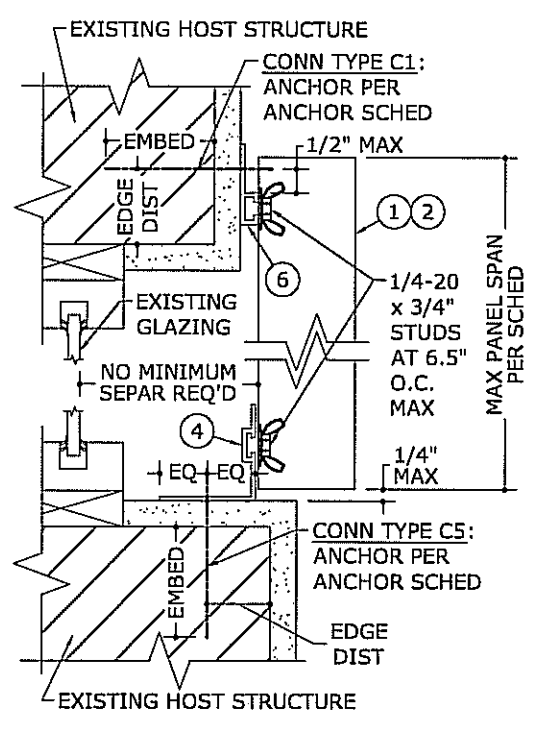
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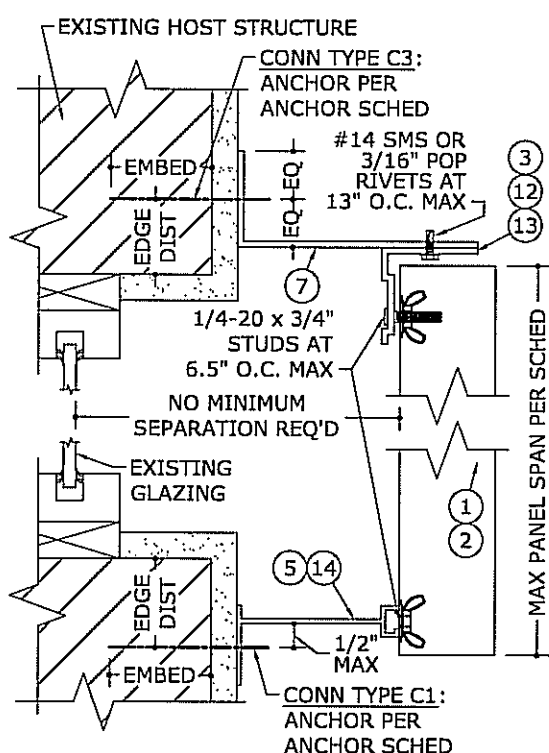
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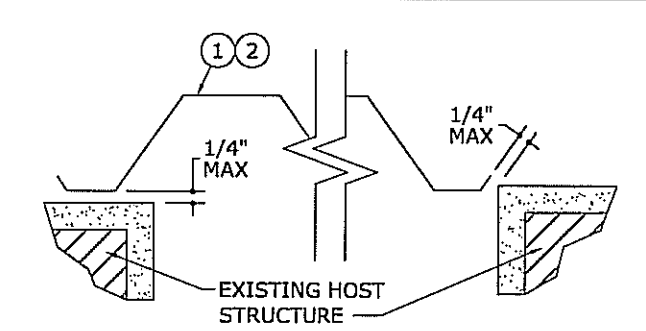
1 MOUNTING SECTION
3 3" = 1'-0" VERT SECTION



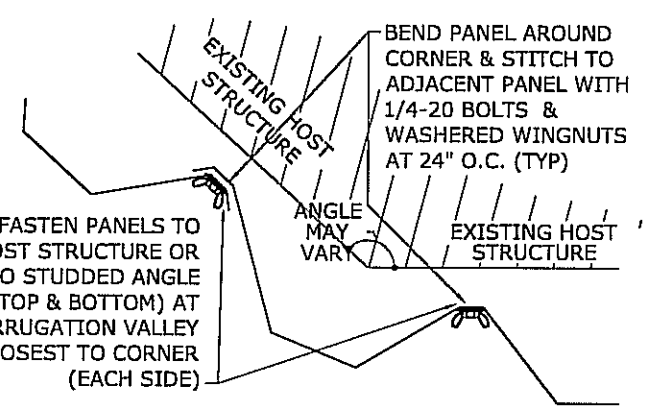
2 MOUNTING SECTION
3 3" = 1'-0" VERT SECTION



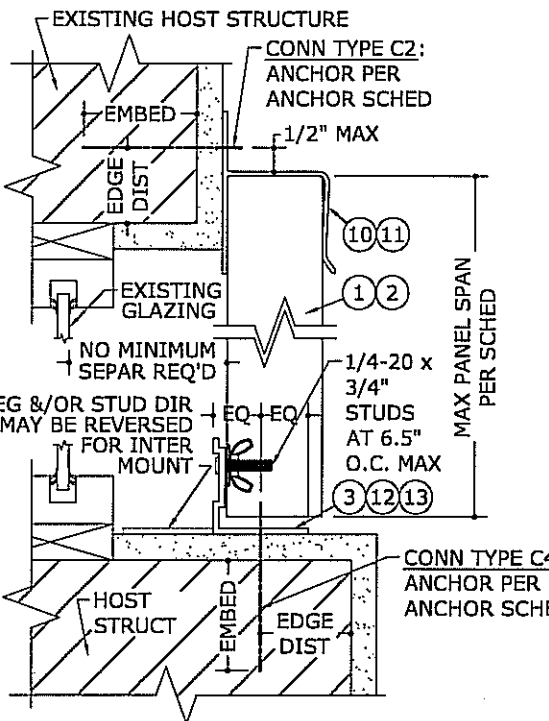
3 MOUNTING SECTION
3 3" = 1'-0" VERT SECTION



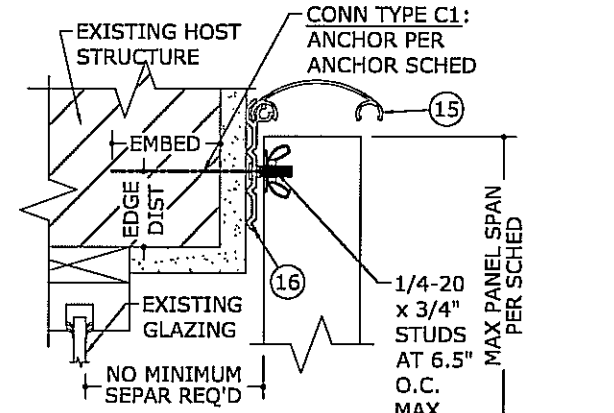
6 WALL MOUNT CLOSURE
3 3" = 1'-0" PLAN VIEW



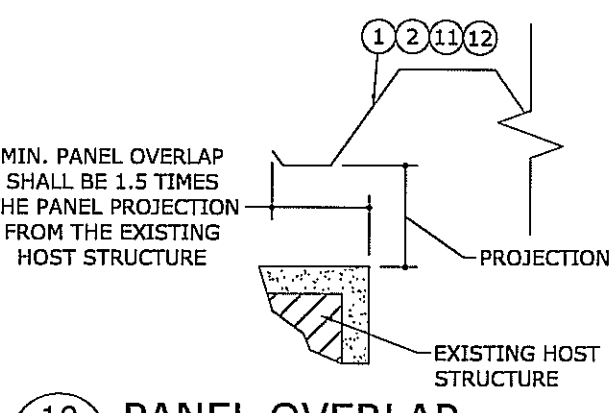
7 CORNER CLOSURE
3 N.T.S. PLAN VIEW



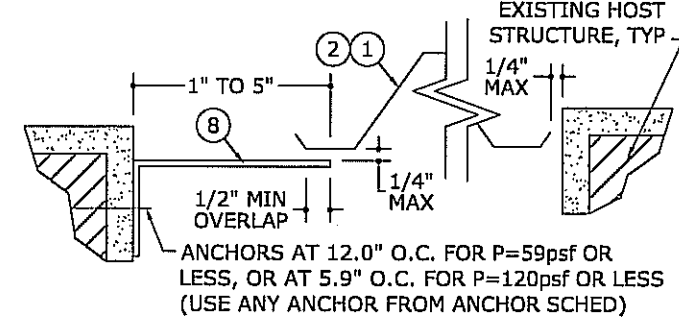
4 MOUNTING SECTION
3 3" = 1'-0" VERT SECTION



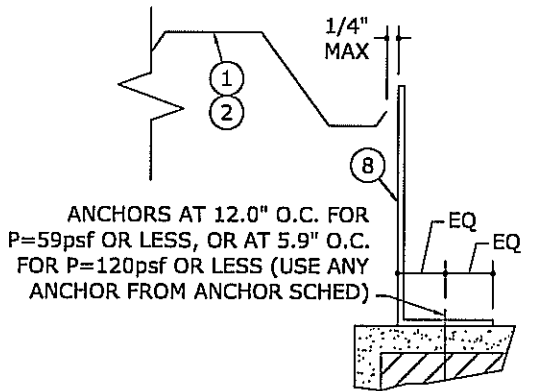
5 MOUNTING SECTION
3 N.T.S. VERT SECTION



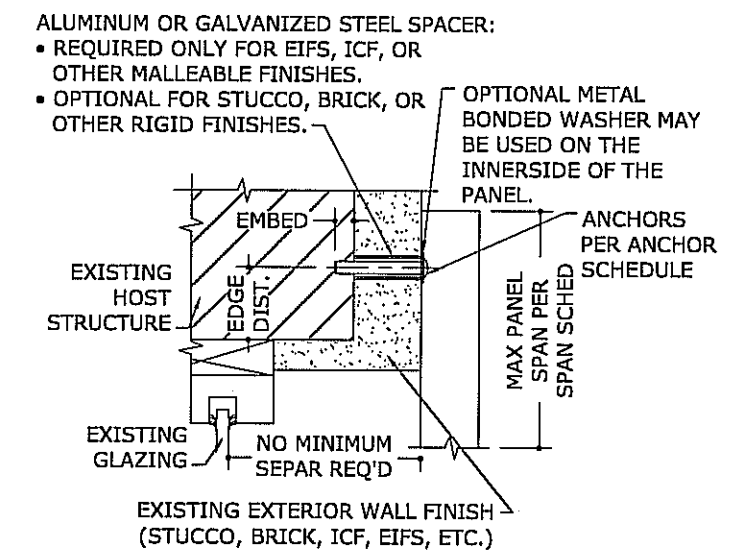
10 PANEL OVERLAP
3 N.T.S. PLAN VIEW



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



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



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

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ValueGuard™ POLYMER STORM PANELS
AND MaxLite™ STORM PANEL SYSTEM
FLORIDA STATEWIDE APPROVAL

REMARKS	DATE	DRWN/CHKD	DATE
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