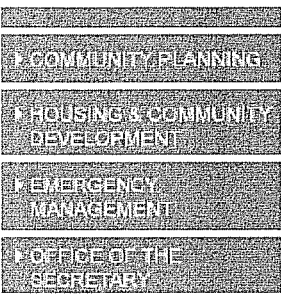


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 Application Detail



FL #	FL8220
Application Type	New
Code Version	2004
Application Status	Approved
Comments	
Archived	<input type="checkbox"/>
Product Manufacturer	CAT-5 Protection, Inc.
Address/Phone/Email	160 SW 12th Ave. Suite 106 Deerfield Beach, FL 33442 (954) 571-9718 ext 0 info@hurricane-net.com
Authorized Signature	Pomerantz Jorge ingconsultants@yahoo.com
Technical Representative	
Address/Phone/Email	
Quality Assurance Representative	
Address/Phone/Email	
Category	Shutters
Subcategory	Products Introduced as a Result of New Technology
Compliance Method	Evaluation Report from a Florida Registered Architect Licensed Florida Professional Engineer <input checked="" type="checkbox"/> Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name	Jorge A. Pomerantz
who developed the Evaluation Report	
Florida License	PE-55326

Quality Assurance Entity PFS Corporation
 Validated By Michael LeComte, PE

Certificate of Independence [FL8220 R0 COI Cert Indep.pdf](#)

Referenced Standard and Year (of Standard)	Standard	Year
	ASTM E1886	2002
	ASTM E1996	2002
	ASTM E330	2002
	TAS 201	1994
	TAS 202	1994
	TAS 203	1994

Equivalence of Product Standards
 Certified By

Sections from the Code

Product Approval Method Method 1 Option D

Date Submitted 01/16/2007
 Date Validated 02/16/2007
 Date Pending FBC Approval 01/25/2007
 Date Approved 02/19/2007

Summary of Products

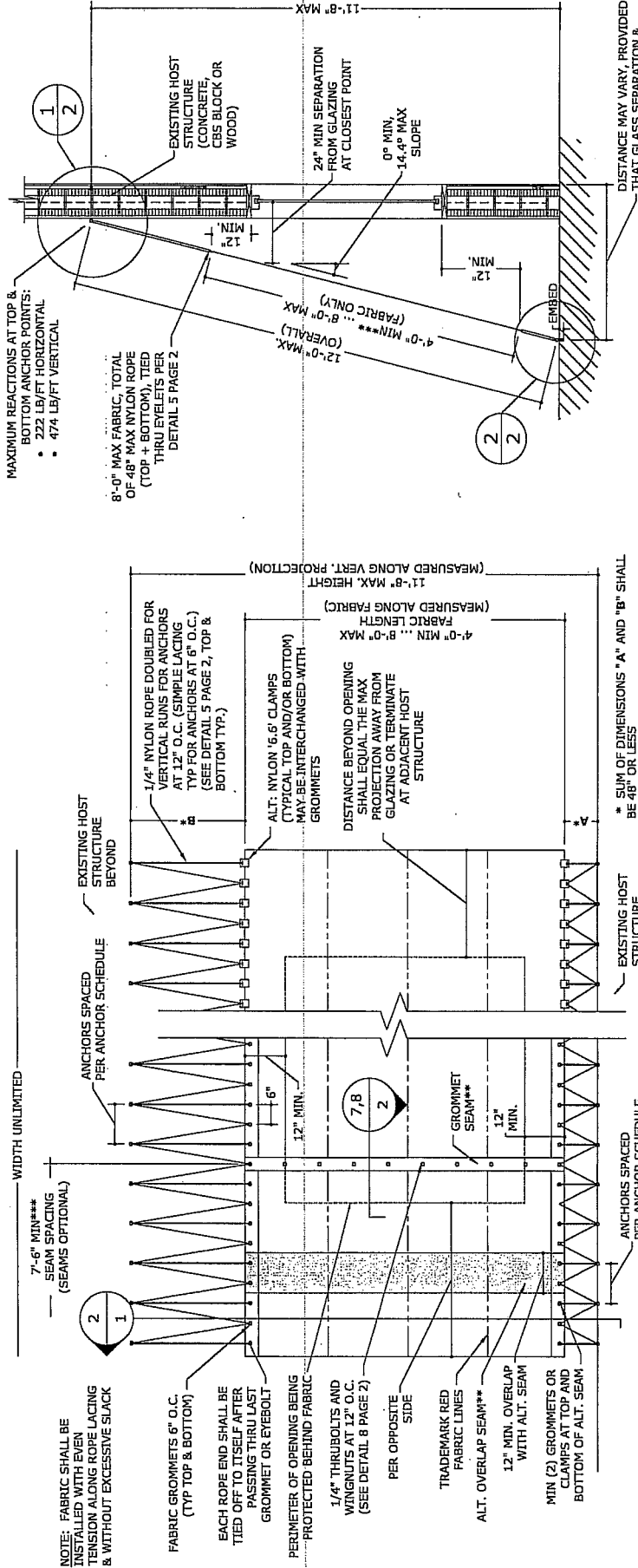
FL #	Model, Number or Name	Description
8220.1	CAT-5 Hurricane Net	Impact Resistant Shutter System
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: See installation drawing for additional limits of use.		Installation Instructions FL8220 R0 II Dwg.pdf Verified By: Jorge A. Pomerantz, PE PE Evaluation Reports FL8220 R0 AE 06-027 ASTM.pdf FL8220 R0 AE 06-027 TAS.pdf FL8220 R0 AE 06-027-B ASTM.pdf FL8220 R0 AE 06-027-B TAS.pdf FL8220 R0 AE Calcs.pdf FL8220 R0 AE Eval Report.pdf

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CAT-5 IMPACT PROTECTION APPROVAL DOCUMENT

FL



MAXIMUM REACTIONS AT TOP & BOTTOM ANCHOR POINTS:
 • 222 LB/FT HORIZONTAL
 • 474 LB/FT VERTICAL

8'-0" MAX FABRIC TOTAL OF 48" MAX NYLON ROPE (TOP + BOTTOM), TIED THROUGH PER DETAIL 5 PAGE 2

EXISTING HOST STRUCTURE (CONCRETE, CBS BLOCK OR WOOD)

24" MIN SEPARATION FROM GLAZING AT CLOSEST POINT

0° MIN, 14.4° MAX SLOPE

12" MIN

4'-0" MIN (FABRIC ONLY) (OVERALL) 8'-0" MAX

EMBED

DISTANCE MAY VARY, PROVIDED THAT GLASS SEPARATION & SLOPE ARE MAINTAINED

VERTICAL SECTION

1 3/8" = 1'-0"

WIDTH UNLIMITED

7.6" MIN SEAM SPACING (SEAMS OPTIONAL)

1 2

12" MIN

6"

1 2

12" MIN

12" MIN

12" MIN

12" MIN

12" MIN

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12" MIN

NOTE: FABRIC SHALL BE INSTALLED WITH EVEN TENSION ALONG ROPE LACING & WITHOUT EXCESSIVE SLACK

FABRIC GROMMETS 6" O.C. (TOP & BOTTOM) EACH ROPE END SHALL BE TIED OFF TO ITSELF AFTER PASSING THRU LAST GROMMET OR EYEBOLT

PERIMETER OF OPENING BEING PROTECTED BEHIND FABRIC

1/4" THURBOLTS AND WINGNUTS AT 12" O.C. (SEE DETAIL 8 PAGE 2) PER OPPOSITE SIDE

TRADEMARK RED FABRIC LINES

ALT. OVERLAP SEAM** 12" MIN. OVERLAP WITH ALT. SEAM

MIN (2) GROMMETS OR CLAMPS AT TOP AND BOTTOM OF ALT. SEAM

ANCHORS SPACED PER ANCHOR SCHEDULE

EXISTING HOST STRUCTURE BEYOND

EXISTING HOST STRUCTURE BEYOND

11'-8" MAX. HEIGHT (MEASURED ALONG VERT. PROJECTION)

4'-0" MIN. FABRIC LENGTH (MEASURED ALONG FABRIC)

ALT. NYLON 6.6 CLAMPS (TYPICAL TOP AND/OR BOTTOM) MAY BE INTERCHANGED WITH GROMMETS

DISTANCE BEYOND OPENING SHALL EQUAL THE MAX PROJECTION AWAY FROM GLAZING OR TERMINATE AT ADJACENT HOST STRUCTURE

* SUM OF DIMENSIONS "A" AND "B" SHALL BE 48" OR LESS

** GROMMET SEAM AND ALTERNATE OVERLAP SEAM MAY BE USED W/ GROMMET-BOTTOM.

*** THESE DIMENSIONS MAY BE LESS THAN THOSE SHOWN, PROVIDED ALLOWABLE PRESSURES ARE ADJUSTED TO ACCOUNT FOR REDUCED POROSITY.

MAXIMUM ALLOWABLE PRESSURES
 ±65.0 PSF WITH CLAMPS OR CLAMP/GROMMET COMBO
 ±86.7 PSF WITH GROMMETS

MAXIMUM DESIGN PRESSURES HAVE BEEN DETERMINED IN CONSIDERATION OF THE FABRIC'S POROSITY (46.72% OPEN) AND ALL HEMS & SEAMS.

GENERAL NOTES

- THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE INCLUDING 2006 SUPPLEMENTS FOR USE OUTSIDE THE HIGH VELOCITY HURRICANE ZONE PER ASTM E330, E1886, & E1996 TEST STANDARDS
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR C_d=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN. #2 DOLG. FIR OR SYP MIN REQUIRED.
- 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.
- MULTIPLE UNITS MAY BE INSTALLED TO UNLIMITED WIDTH AS SHOWN.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED

- A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS AND CALCULATED REACTIONS.
- TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PRODUCT MAY BE INSTALLED VERTICALLY OR HORIZONTALLY AS APPLICABLE.
- FABRIC IS COMPOSED OF PLAIN WEAVE FABRIC CONSISTING OF 0.30" DIAMETER VINYL COATED DOUBLE DENIER STRAND POLYESTER CORE YARNS IN WARP AND FILL WITH PROPERTIES PER THE MATERIAL SPECIFICATIONS LISTED IN THE PRODUCT EVALUATION REPORT.
- ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.

REMARKS	DATE
INITIALS	DATE
CHKD	DATE
DRWN	DATE
JEM	07/18/07
JAP	
DATE	

0107-006-0

SCALE: PAGE DESCRIPTION:

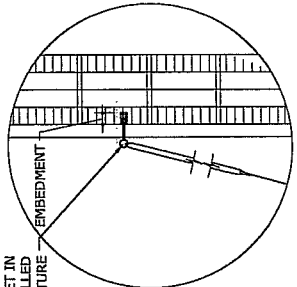
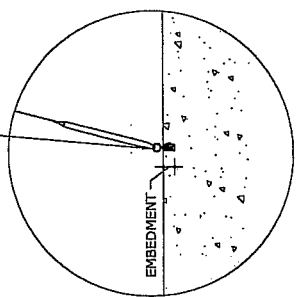
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INC Consultants, Inc.
 428 NW 70TH AVE, #135
 PLANTATION, FL 33317
 (954) 394-8521
 CERT OF AUTHORIZATION #27242

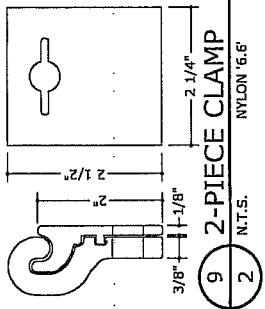
CAT-5 PROTECTION, INC.
 160 S.W. 12th AVENUE, #106
 DEERFIELD BEACH, FL 33442
 WWW.HURTCAT-5.COM
 CAT-5 HURRICANE NET
 IMPACT RESISTANT WIND ABATEMENT SYSTEM
 FLORIDA STATE PRODUCT APPROVAL

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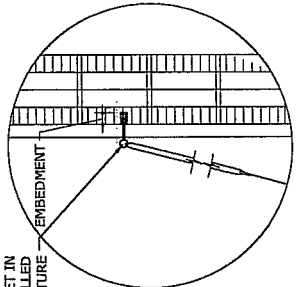
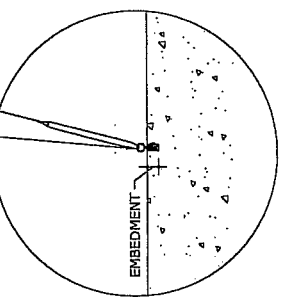
1/4" CAST STEEL EYELET IN LEAD ANCHOR INSTALLED INTO HOST STRUCTURE



1/4" CAST STEEL EYELET IN LEAD ANCHOR INSTALLED INTO HOST STRUCTURE



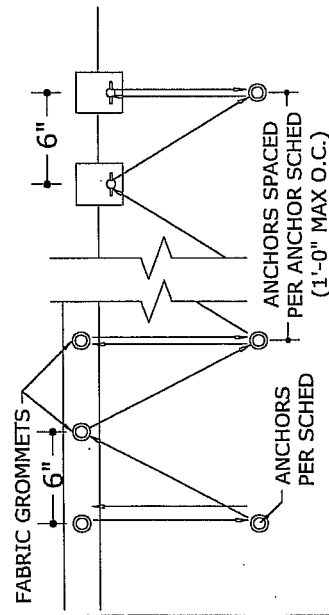
1/4" CAST STEEL EYELET IN LEAD ANCHOR INSTALLED INTO HOST STRUCTURE



1/4" CAST STEEL EYELET IN LEAD ANCHOR INSTALLED INTO HOST STRUCTURE

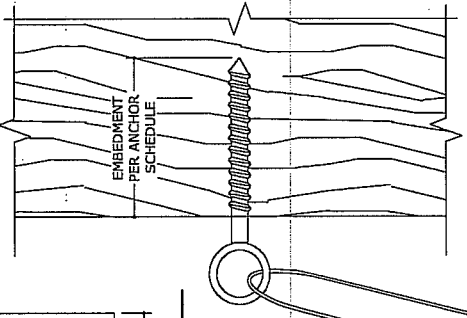
ATTACHMENT TO HOST STRUCTURE
 2 N.T.S.
 2 (OPTIONAL)
 2 N.T.S.

ATTACHMENT TO CONCRETE
 2 N.T.S.
 2 (OPTIONAL)
 2 N.T.S.

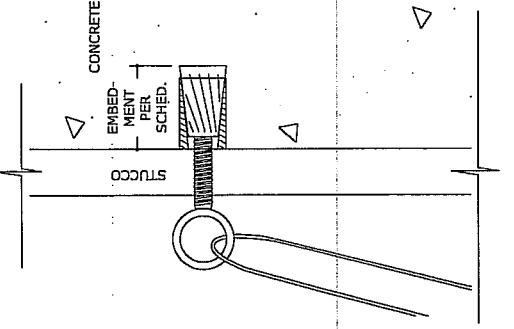


5 FABRIC LACING ATTACHMENT METHOD
 2 N.T.S.

HEAD TO WOOD (OPTIONAL)
 3 N.T.S.
 2



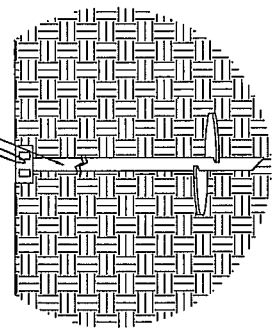
HEAD TO CONCRETE (OPTIONAL)
 4 N.T.S.
 2



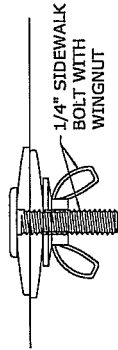
ANCHOR SCHEDULE

HOST	ANCHOR	EMBED	MAXIMUM SPACING	MAXIMUM ALLOWABLE PRESSURE
CONCRETE (3,000 PSI)	1/2-13 POWERS CALK-IN	1 1/2"	12.0"	±96.7 P.S.F.
CONCRETE (3,000 PSI)	1/4-20 POWERS CALK-IN	7/8"	12.0"	±44.8 P.S.F.
CONCRETE (3,000 PSI)	1/4-20 POWERS CALK-IN	7/8"	6"	±96.7 P.S.F.
CONCRETE (3,000 PSI)	1/2-13 POWERS CALK-IN (GROUT FILLED BLOCK ONLY)	1 1/2"	12"	±96.7 P.S.F.
WOOD	1/4-20 POWERS CALK-IN	7/8"	12"	±39.9 P.S.F.
WOOD	1/4-20 POWERS CALK-IN	7/8"	6"	±69.6 P.S.F.
WOOD	1/2" x 4" LAG SCREW	2 1/2"	6"	±81.8 P.S.F.
WOOD	3/8" x 4" LAG SCREW	2 1/2"	6"	±69.2 P.S.F.

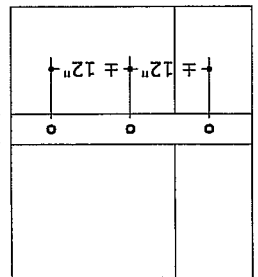
GROUND ANCHORS AT 12" O.C. SHALL BE DESIGNED TO RESIST THE FOLLOWING MINIMUM REACTIONS (PER ANCHOR):
 TENSION: 222 LBS
 SHEAR: 691 LBS



GROUND ANCHOR AT SILL (OPTIONAL)
 6 N.T.S.
 2



8 PANEL TO PANEL CONNECTION
 2 N.T.S.



7 SEAM GROMMETS
 2 N.T.S.