Product Approval
USER: Public User

FL #	FL812-R4
Application Type	Revision
Code Version	2007
Application Status	Re-Apply
Comments	r-a 5/10/10 Reviewed 5/16/10 Discussion Item - Withdrawn by applicant at the June 2010 POC (to keep their -R3 for HVHZ). Archived on 6/8/10. VL Unarchived per request of applicant on 6/9/10. VL r-a 6/14/10
Archived	☐
Product Manufacturer	Armor Screen Corp.
Address/Phone/Email	1881 Old Okeechobee Road West Palm Beach, FL 33409 (561) 841-8890 dougt@armorscreen.com
Authorized Signature	Douglas Turner dougt@armorscreen.com
Technical Representative	Dan Reames
Address/Phone/Email	1881 Old Okeechobee Road West Palm Beach, FL 33409 (561) 841-8890 danr@armorscreen.com
Quality Assurance Representative	Dan Reames
Address/Phone/Email	1881 Old Okeechobee Road West Palm Beach, FL 33409 (561) 841-8890 danr@armorscreen.com
Category	Shutters
Subcategory	Products Introduced as a Result of New Technology
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer ☑ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Gary D. Foreman P.E., S.E., A.I.A.
Florida License	PE-57343
Quality Assurance Entity	National Accreditation & Management Institute,
Quality Assurance Contract Expiration Date	12/31/2011
Validated By	Warren J. Von Werne, P.E. ☐ Validation Checklist - Hardcopy Received
Certificate of Independence	FL812_R4_COI_Cert. of Independence.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM E 1996	2005
ASTM E 1886	2005
ASTM E 330	2002

HVHZ	2007
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: 05/04/2010
Date Validated:
Date Pending FBC Approval: 05/17/2010

Summary of Products

FL #	Model, Number or Name	Description
812.1	Armor Screen Series 2000	Flexible Wind Abatement / Impact Protection System

Limits of Use
Approved for use in HVHZ: Yes
Approved for use outside HVHZ: Yes
Impact Resistant: Yes
Design Pressure: +130/-136.5
Other: This system is compliant with the HVHZ with natural deflection or with the use of a deflection device. Outside the HVHZ and per ASTM E 1886 and ASTM E 1996 standards, no glass separation is required for this screen system installation; however, the glass may break with any size screen. The un-breached envelope criterion is met since the system is considered 'non-porous' and remains intact under impact and air pressure loading. The system is to enclose the protected opening all around.

Installation Instructions
FL812_R4_II_Installation Drwgs. pg. 1-10.pdf
FL812_R4_II_Installation Drwgs. pg. 11-19.pdf
FL812_R4_II_Installation Drwgs. pg. 20-28.pdf
FL812_R4_II_Installation Drwgs. pg. 29-37.pdf
Verified By: Gary D. Foreman, P.E., A.I.A. No. 57343
Created by Independent Third Party: No

Evaluation Reports
FL812_R4_AE_812 Product Evaluation Report.pdf
FL812_R4_AE_Compliance Letter 2007 FBC.pdf
FL812_R4_AE_Product Evaluation Report.pdf
FL812_R4_AE_PTID_812_Test 201.pdf
FL812_R4_AE_PTID_812_Test 202.pdf
FL812_R4_AE_PTID_812_Test 203.pdf
FL812_R4_AE_PTID_812_Test 204 (2).pdf
FL812_R4_AE_PTID_812_Test 205.pdf
FL812_R4_AE_PTID_812_Test 206.pdf
FL812_R4_AE_Test Report 5279.pdf
FL812_R4_AE_Test Report 5533.pdf
FL812_R4_AE_Test Report 5651.pdf
Created by Independent Third Party: Yes

Back Next

Department of Community Affairs
Florida Building Code Online
Codes and Standards
2555 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100
(850) 487-1824, Fax (850) 414-8436

Product Approval Accepts:

ARMOR SCREEN SERIES 2000 HURRICANE PROTECTION

GENERAL NOTES:

- This Wind Abatement / Impact Hurricane Protection System is designed and tested to comply with the High Velocity Hurricane Zone (HVHZ) of the Florida Building Code.
- An offset between the glazing and the screen is recommended but not required outside HVHZ (Miami-Dade and Broward Counties).
- The design loads are calculated in accordance with ASCE-7 per the Florida Building Code 2007 and ASCE/SEI 7-05..
- Testing meets the 2007 Florida Building Code; TAS 201; TAS 202; TAS 203 and fulfills its requirement for opening protection.
- The open areas in the Armor Screen Fabric are small enough that the surface tension of water causes the barrier screen to become solid in the presence of rain, and in actual hurricane conditions has been shown to prevent damaging voluminous water intrusion, even from torrential rains.
- The unbreached envelope criterion is met as per ASTM E 1996 as the system is considered "non-porous" and remains intact under impact and air pressure loading. The envelope criterion is met when the system encloses the protected opening all around.
- Product Marking: A label shall be fixed to the screen barrier with the following statement: "Armor Screen Corporation, Current Address, Testing Standards, Current FBC Number, Job Name and Screen Opening/Number, Patented and Patents Pending, US Patent No. 6176050, 6325085, 6865852".

PRODUCT DATA:

- Geosynthetic hurricane screen: The hurricane screen shall be produced from a polypropylene, woven monofilament geotextile fabric with individual filaments woven into a basket weave network and calendered such that the filaments retain dimensional stability relative to each other.

The woven monofilament geotextile fabric shall have the following minimum average roll values:

Grab Textile Strength	425 x 325 LBS
Puncture Strength	130 LBS
Mullen Burst	675 PSI
Trapezoidal Tear	150 x 125 LBS
Wide Width Tensile Strength	225 x 205 LBS/IN
Thickness	20 MIL.
Wide Width Elongation	22 x 21%
Apparent Opening Size	30 US STD Sieve
Percentage of Open Area	5%

LIMITATIONS OF USE:

Maximum Span	24 ft. / 288"
Maximum Non-Span	Unlimited, Utilizing side overlapping details, page 4
Maximum Design Pressure	+130 / -130 PSF

- The design pressure may be increased 5% for negative loads (-136 ½).
- Span (anchor span) equals the distance between the primary rows of anchors on opposing sides of the screen and when calculated with negative wind pressure, determines fastener size and spacing. "Opening Span" is equal to the opening size of the protected opening and when calculated with the positive wind pressure, determines the deflection for HVHZ applications. Refer to page 21 for Deflection Table.

All Geosynthetic Hurricane Screen assembly details depicted within these drawings are typical for the installation of this wind abatement and impact system only. All other building components shown herein are depicted as existing or samples and not constructed by the screen company.

INSTALLATION NOTES:

- All anchor types and locations are determined by common / local construction design principles and are attached into obvious or common sense structural members.
- Screen may be mounted with opposing primary anchored perimeters in vertically, horizontally, or any alignment appropriate to the structure being protected.
- Deflection is the minimum glass separation measured at mid span of the screen and subject to rational analysis (see tables on page 21). Deflection may be achieved by utilizing Natural Deflection, various Angled Style Screens, Window Style Screens, Center Hem Style Screen, Storm Bars and Pneumatic Devices.
- Angles Screens, unable to return to the face of ht e structure, should extend past the protected opening by a distance equal to or greater than the minimum deflection or offset, which ever is greater.
- The screens may be installed at any height on the structure as long as the design pressure rating for the screens is not exceeded.
- Anchors on the non-primary perimeter side (span side) of the screen are optional to complete the enclosure.
- In instances where a screen is made up of two pieces of fabric or for repair purposes, a flat felled seam (see Detail Ⓑ on page 2) with a minimum of two rows of double lock stitch thread is acceptable.
- For screens returning perpendicular to the wall of an opening to be protected, the minimum deflection is not applicable, however side anchors should be considered.
- Screen flaps as depicted in the drawings are optional.
- Opposing primary screen attachments / anchors are not required to be in direct alignment.
- The thickness of typical facing materials i.e. stucco, siding, stone, brick, pavers, etc. are not to be considered part of the anchor embedment. Longer fasteners may be used to allow for facing materials.
- Anchor embedment into masonry shall be into face shell, not mortar joints.
- All fully embedded anchors may be flush with the finished facing provided they have the correct minimum embedment into the structure behind.
- Anchor installations should follow the manufacturer's recommended methods.
- Locking style Hex Nuts, Flange Nuts, Cap Nuts, Wing Nuts, etc., are acceptable when used with Threaded Rod, Carriage Bolt, or Eyebolt.
- A caulk or sealant should be used with all wood penetrating anchors.
- All fasteners shall be corrosion resistant as specified in the IRC and IBC or stainless steel.
- Any substitute product shall be equivalent or greater in specification.
- Weight of concrete slabs must be greater than the screen's design load to insure proper anchoring.
- Refer to pages 15 - 20 for anchor details.
- Refer to pages 22 - 37 for approved anchors and anchor spacing.
- Refer to page 21 for deflection and storm bar tables.

Engineering Review By:

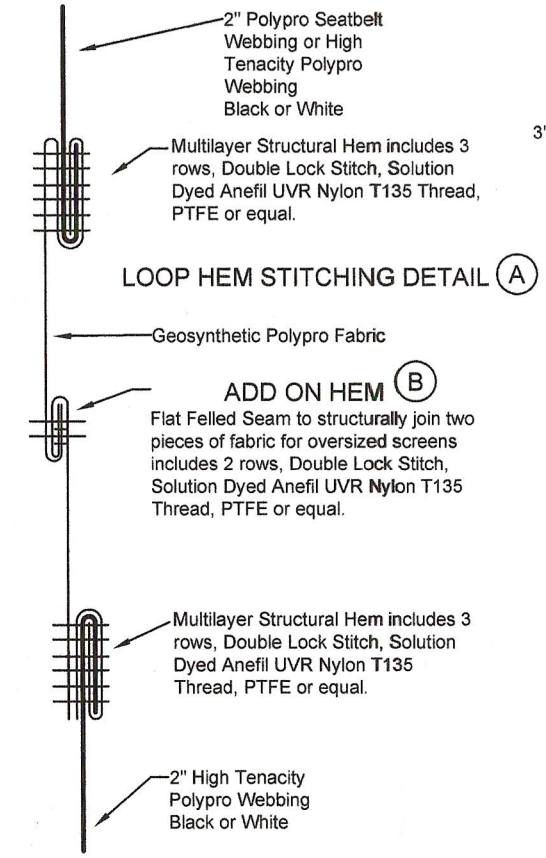
5/18/10

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

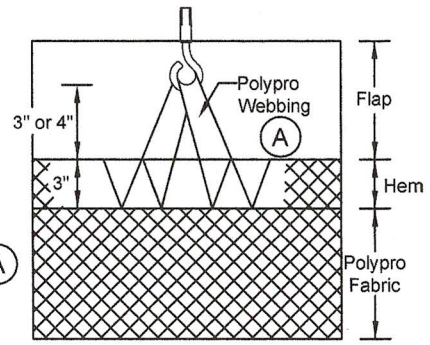
ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10	Rev. Date:	Rev. Date:
Scale: Not to Scale	Page: 1 of 37	

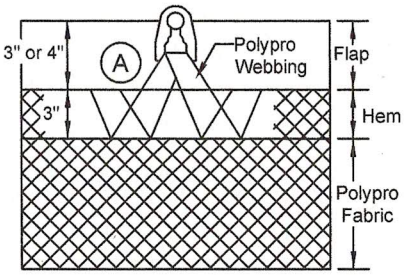


LOOP HEM STITCHING DETAIL (A)

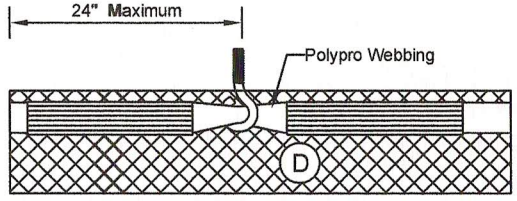
BUCKLE HEM STITCHING DETAIL (C)



LOOP SYSTEM DETAIL



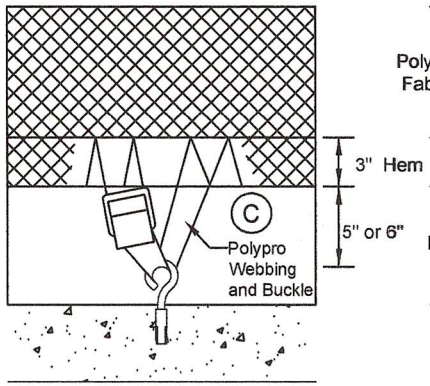
LOOP WITH KEYHOLE CLIP SYSTEM DETAIL



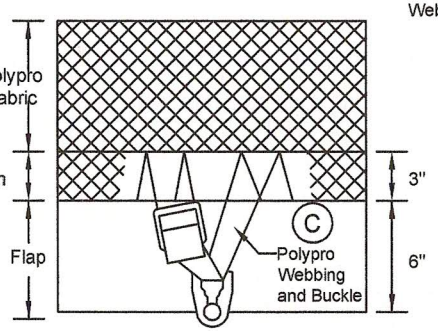
ALTERNATE LOOP SYSTEM DETAIL

ALTERNATE LOOP STITCHING (D)

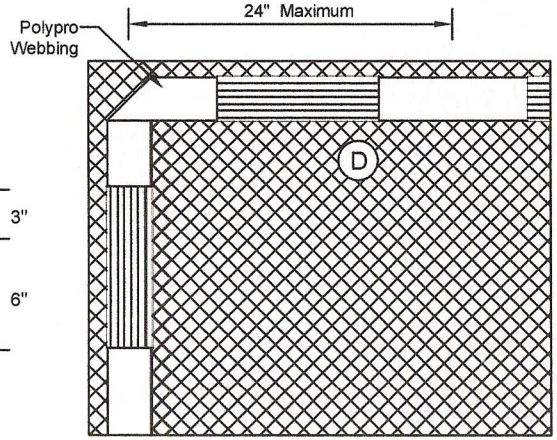
Multilayer Structural Hem includes 3 rows, Double Lock Stitch, Solution Dyed Anefil UVR Nylon T135 Thread, PTFE or equal.



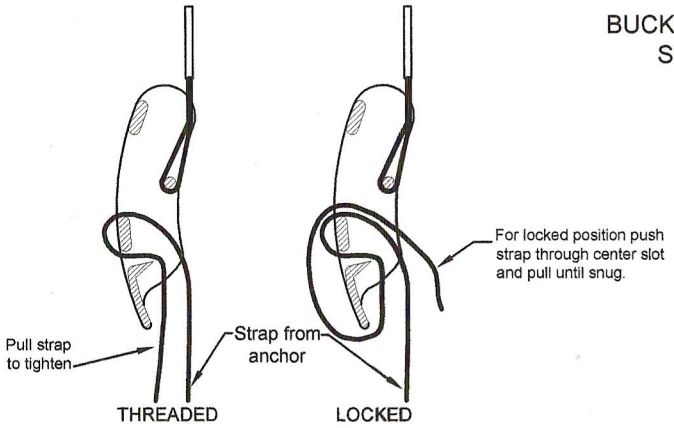
BUCKLE / STRAP SYSTEM



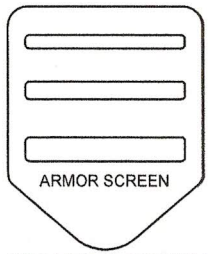
BUCKLE / STRAP SYSTEM WITH KEYHOLE CLIP



ALTERNATE CORNER LOOP SYSTEM DETAIL



BUCKLE / STRAP POSITIONS



ARMOR SCREEN PROPRIETARY BUCKLE

Buckles should be "locked" for storm conditions.
Buckle with raised "Armor Screen" imprint is proprietary to Armor Screen Corp. equal to Nexus Super Contoured Buckle.

NOTES:

1. Considering egress requirements and ease of deployment, the design of the screen attachments to the structure may allow the buckles to face outward (weather side) or inward.
2. In most screen designs, the flap covers the buckle and strap on the weatherside

SCREEN AND HEM DETAILS

Engineering Review By:

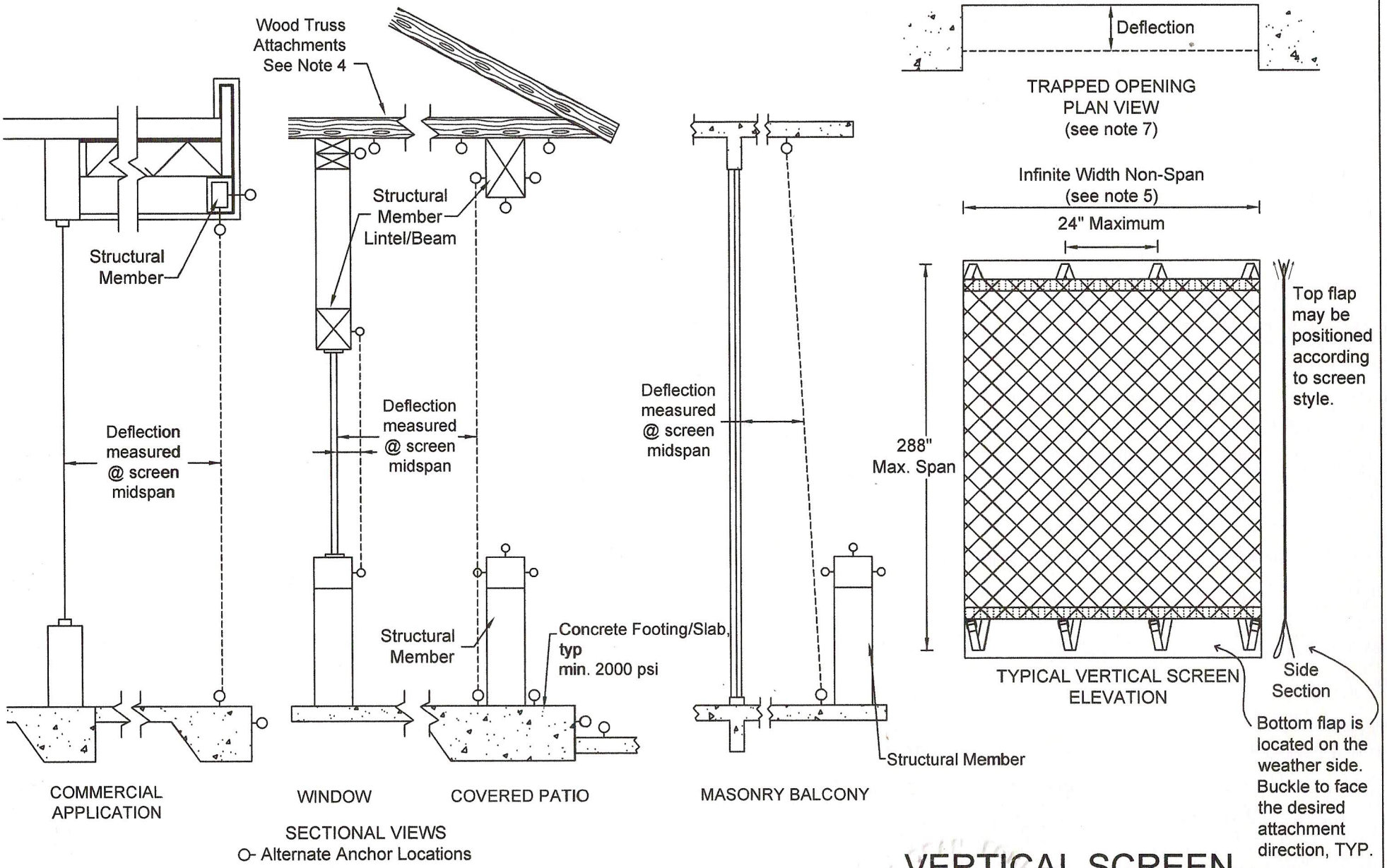
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale | Page: 2 of 37



VERTICAL SCREEN

Notes:

1. Refer to pages 15 - 20 for anchor details.
2. Refer to pages 22 - 37 for approved anchors and anchor spacing.
3. Refer to page 21 for deflection and storm bar tables.
4. Refer to page 10 for truss anchoring details and maximum span.
5. Refer to page 4 for overlap details.
6. Side midpoint anchors and flaps are optional.
7. For trapped openings, screen span edge (sides) should butt the sides of the opening. Anchoring is not required, but should be considered.

Engineering Review By:

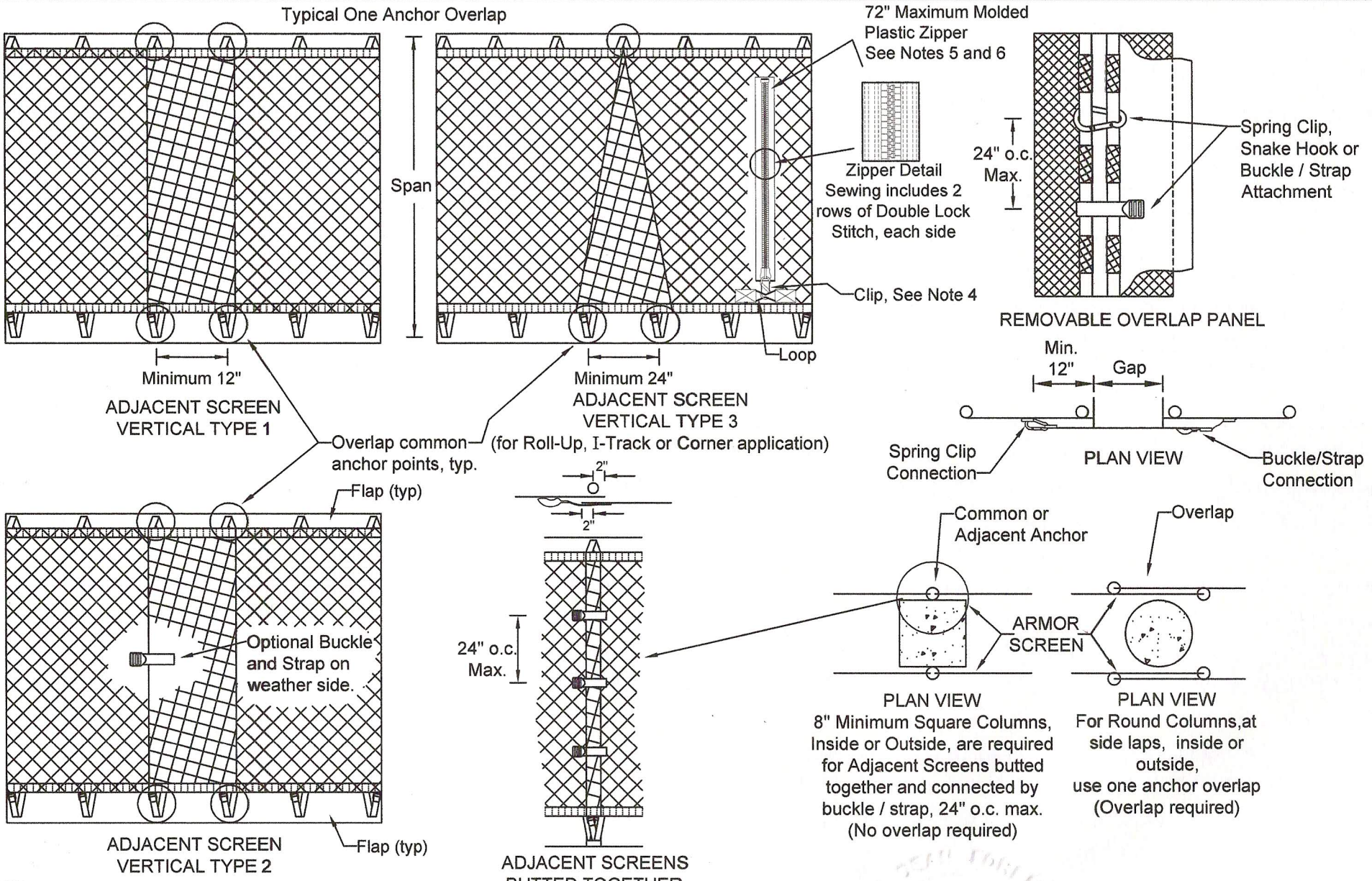
5/7/10

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10	Rev. Date:	Rev. Date:
Scale: Not to Scale	Page: 3 of 37	



Notes:

1. Maximum anchor spacing is 24" on center.
2. The above overlap methodology may be applied to any style screen.
3. Overlaps may be positioned at any point of the protected area.
4. Any clip with minimum rating of 50 lbs W.L.
5. A screen utilizing a zipper can not exceed +110 / -115.5 psf.
6. Zipper may be used in any style screen as long as it is parallel to the screen span.
7. For horizontal screens, structural columns may act as the screen anchor provided long straps with abrasion protection is utilized and permanent embedded anchors are used in the 4 corners.

VERTICAL SCREEN OVERLAP

Engineering Review By:

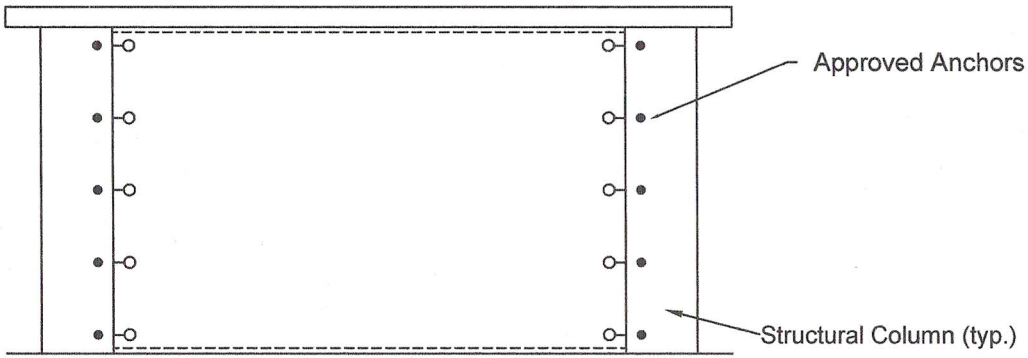
5/2/10

Gary D Foreman PE
FL PE 57343

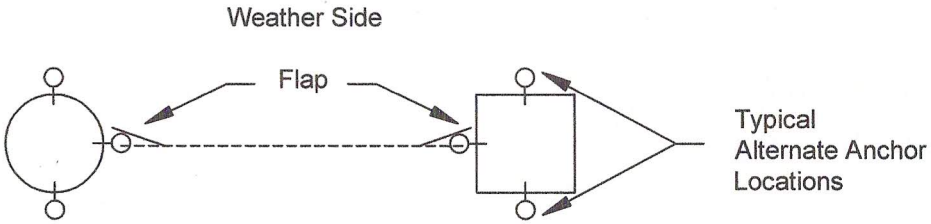
ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

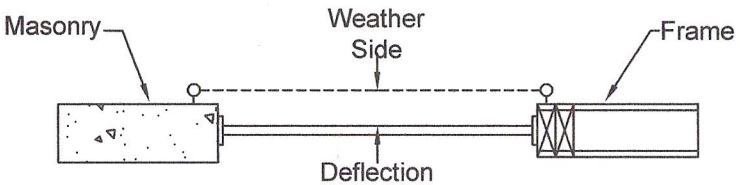
Date: 04/26/10	Rev. Date:	Rev. Date:
Scale: Not to Scale	Page: 4 of 37	



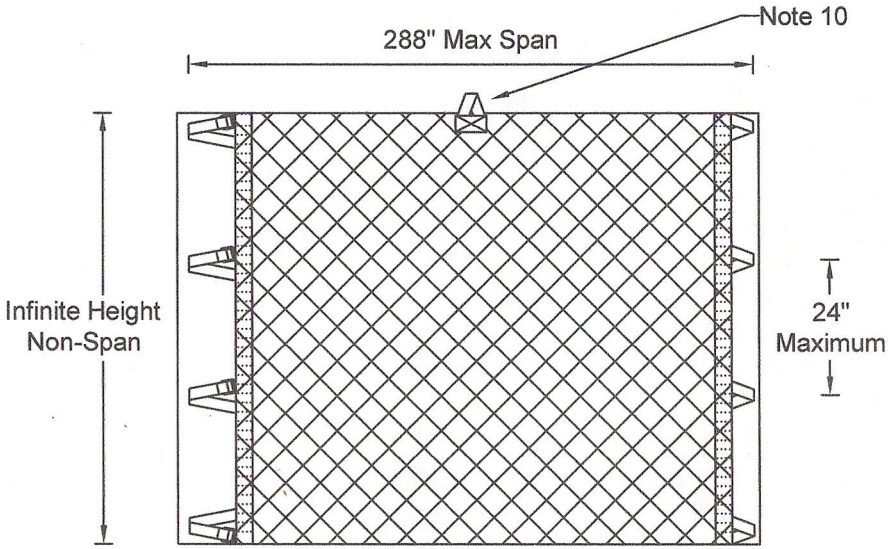
FACE MOUNT OR TRAPPED OPENING
HORIZONTAL SCREEN ANCHORS
ELEVATION VIEW



HORIZONTAL SCREEN
STRUCTURAL COLUMN MOUNTING
PLAN VIEW



WINDOW
HORIZONTAL SCREEN
PLAN VIEW



ELEVATION VIEW

NOTES:

1. Refer to pages 15 - 20 for approved anchor details.
2. Refer to pages 22 - 37 for approved anchors and anchor spacing.
3. Refer to page 21 for deflection and storm bar tables.
4. Top and bottom anchors are optional.
5. For trapped openings: Screen span edge, top and bottom, should butt the top and bottom of the opening. Anchoring is not required, but should be considered.
6. For face mounted screens, flaps may be inside or outside.
7. All flaps are optional.
8. Vertical columns must be structurally capable of horizontal and vertical loads.
9. Screens may be overlapped.
10. Midpoint Loop, Buckle/Strap, Grommet or Hemcord optional, but suggested to reduce any sag.
11. For horizontal screens, structural columns may act as the screen anchor provided long straps with abrasion protection is utilized and permanent embedded anchors are used in the 4 corners.

HORIZONTAL SCREEN

Engineering Review By:

6/21/10

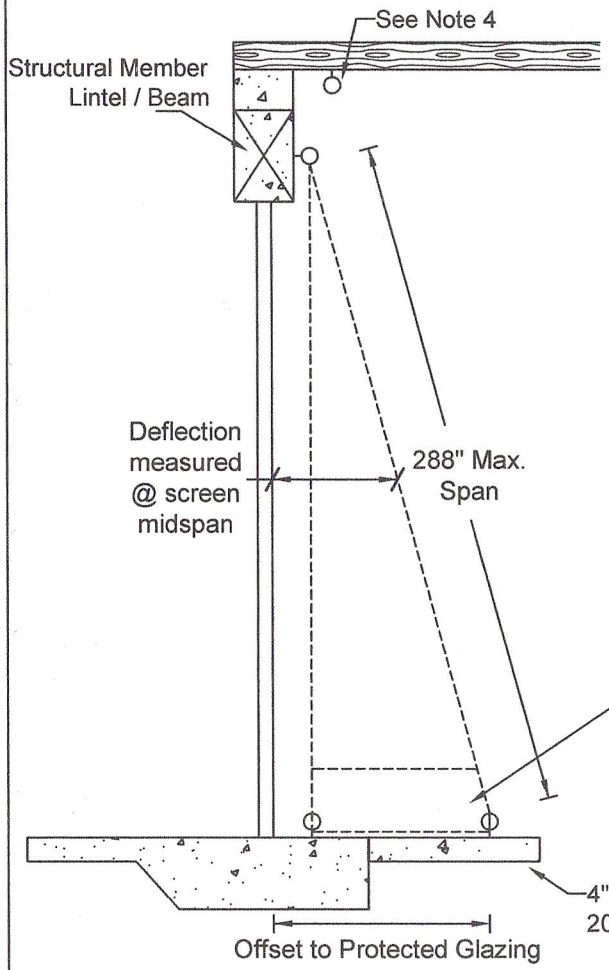
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

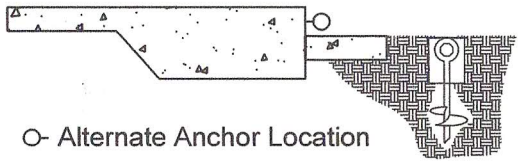
ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

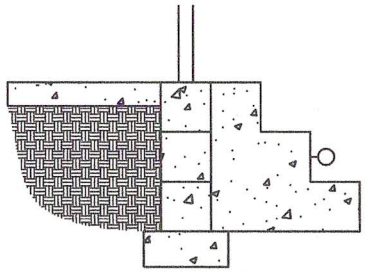
Date: 04/26/10 | Rev. Date: | Rev. Date:

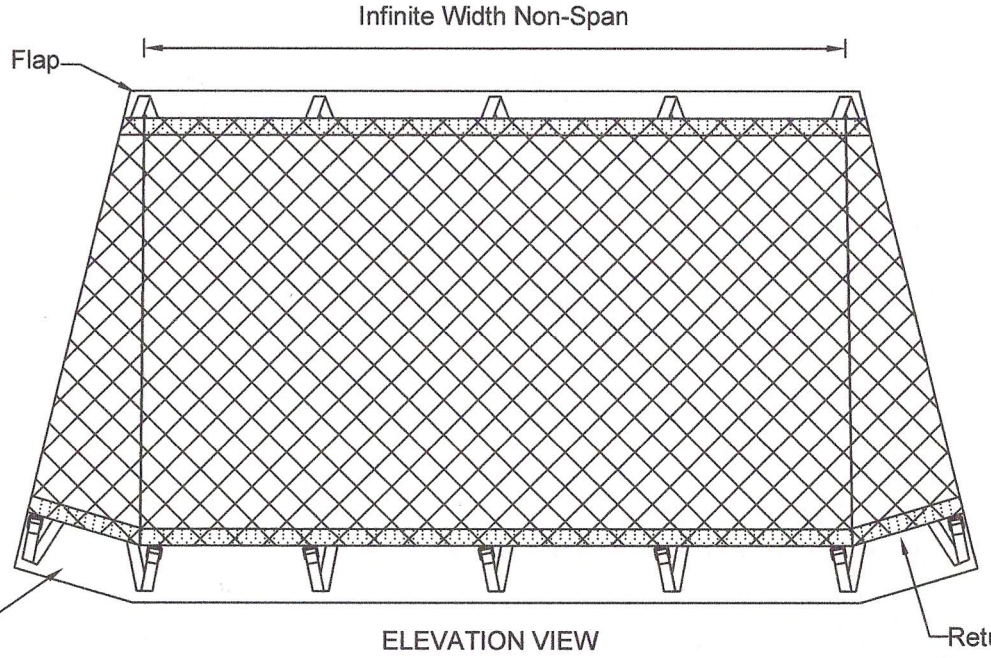
Scale: Not to Scale |



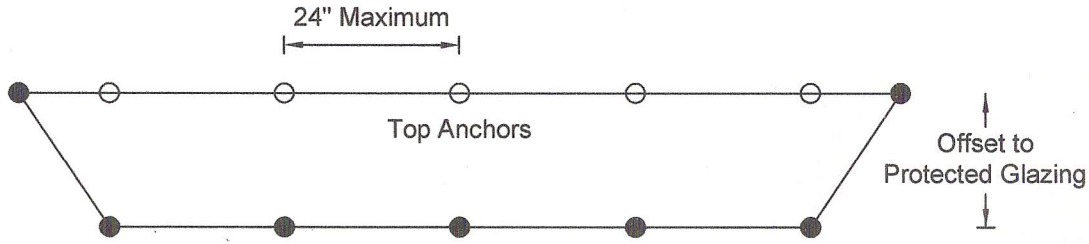
TYPICAL SLIDING DOOR
SECTIONAL VIEW







ELEVATION VIEW



PLAN VIEW

NOTES:

1. Refer to pages 15 - 20 for approved anchor details.
2. Refer to pages 22 - 37 for approved anchors and anchor spacing.
3. Refer to page 21 for deflection and storm bar tables.
4. Refer to page 10 for truss anchoring details and maximum span.
5. Screens may be overlapped.
6. All flaps are optional.

ANGLED SCREEN

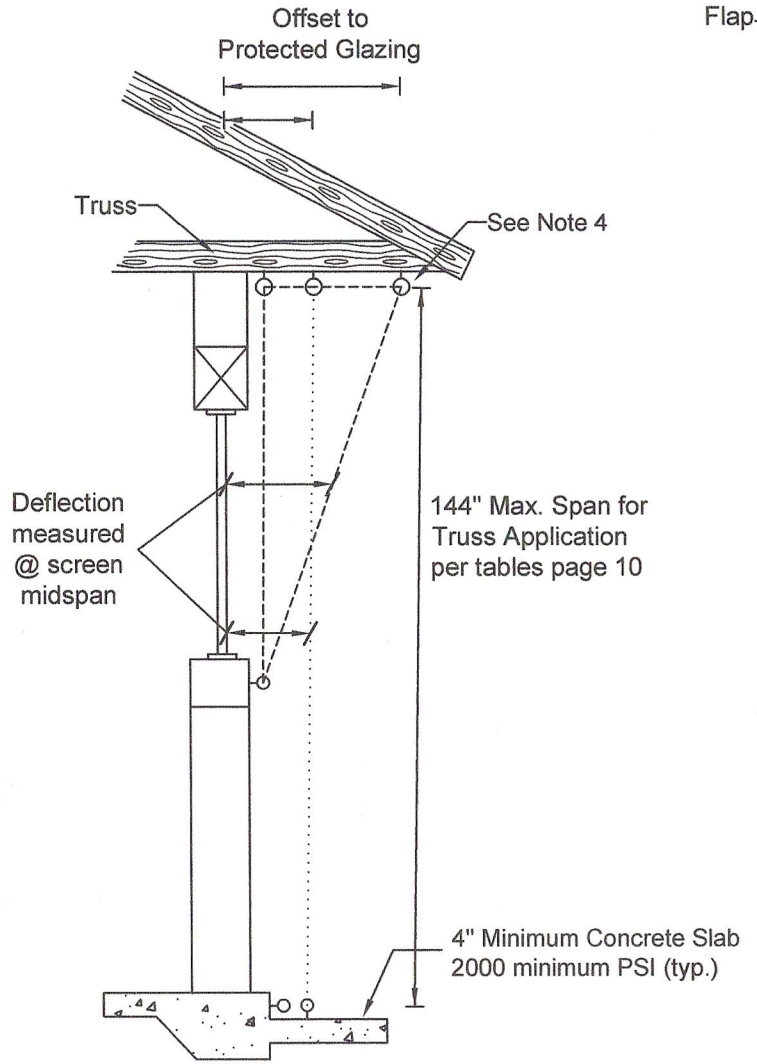
Engineering Review By:

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

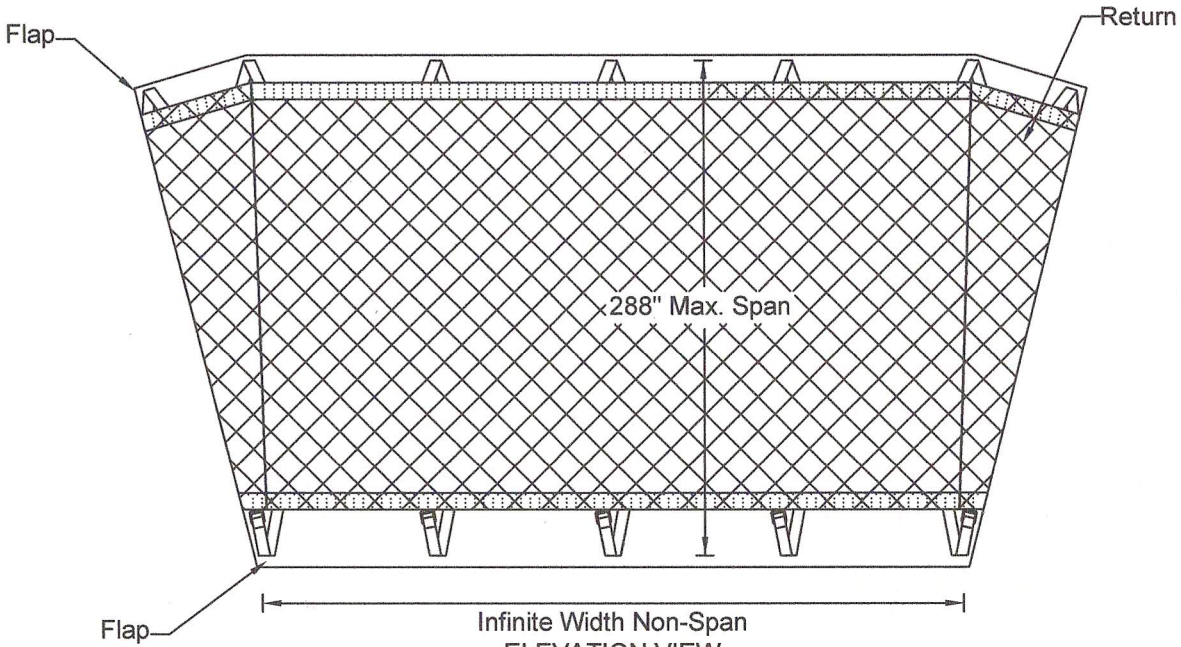
ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10	Rev. Date:	Rev. Date:
Scale: Not to Scale	Page: 6 of 37	

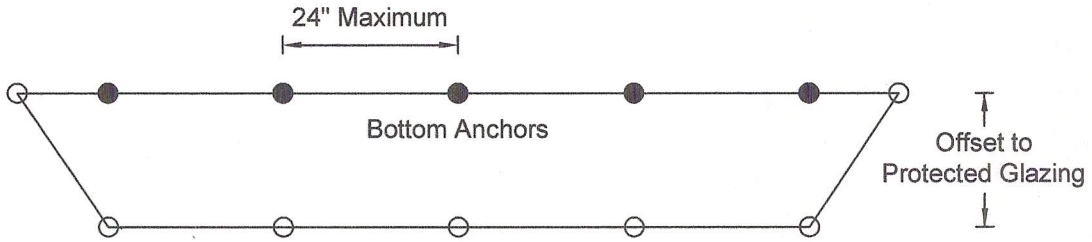


TYPICAL WINDOW
SECTIONAL VIEW

O- Alternate Anchor Location



ELEVATION VIEW



PLAN VIEW

INVERTED SCREEN

NOTES:
1. Refer to pages 15 - 20 for approved anchor details.
2. Refer to pages 22 - 37 for approved anchors and anchor spacing.
3. Refer to page 21 for deflection and storm bar tables.
4. Refer to page 10 for truss anchoring details and maximum span.
5. Screens may be overlapped.
6. All flaps are optional.

Engineering Review By:

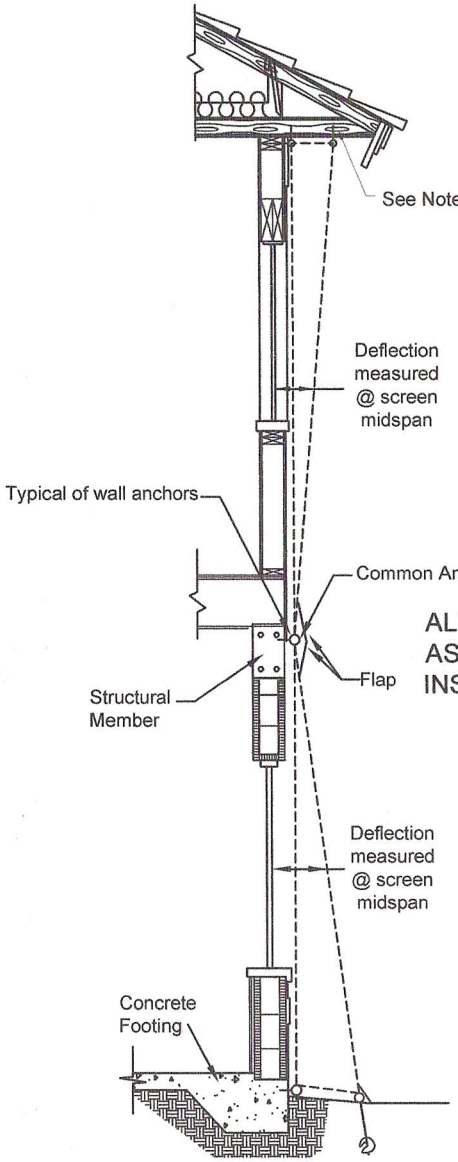
5/21/10

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

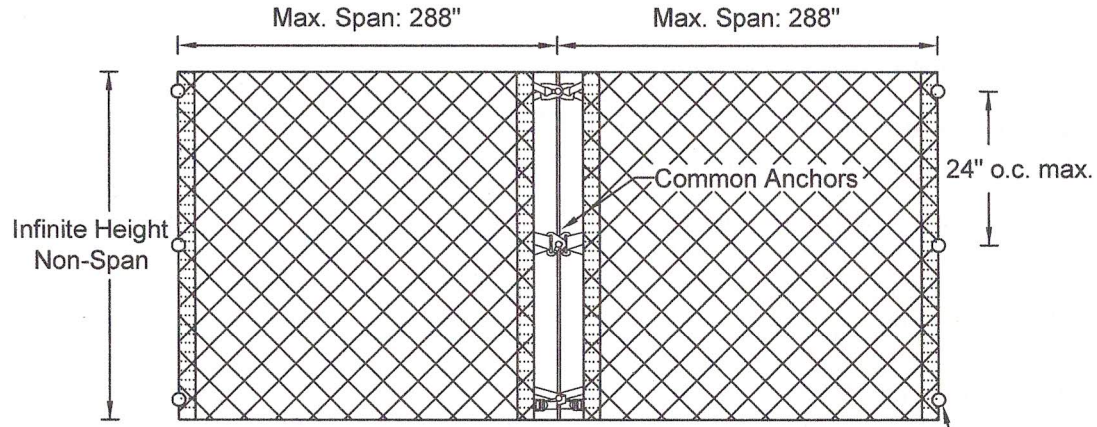
ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10	Rev. Date:	Rev. Date:
Scale: Not to Scale	Page: 7 of 37	



ALTERNATE ASSEMBLY INSTALLATION

VERTICAL / ANGLED / INVERTED

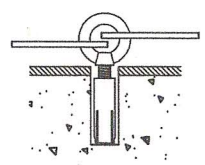


Detail is common to horizontal and all common anchor style screens.

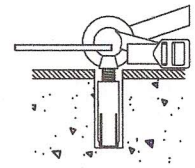
HORIZONTAL

Any approved anchor (typ.)

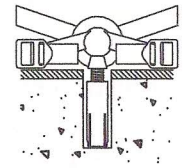
KEYHOLE CLIPS



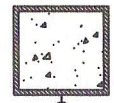
SNAKE HOOKS

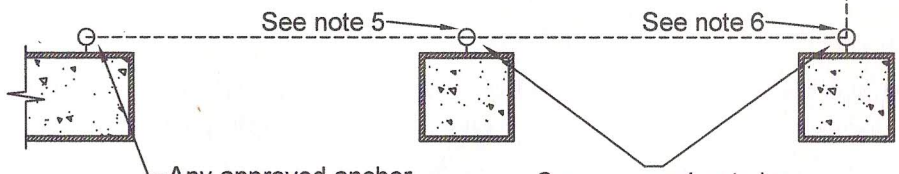


SNAKE HOOK AND BUCKLE / STRAP



BUCKLE / STRAPS





Any approved anchor and attachment (typ)

Common anchor to be permanently closed eyebolt or carriage bolt

NOTES:

1. Refer to pages 15 - 20 for approved anchor details.
2. Refer to pages 22 - 37 for approved anchors and anchor spacing.
3. Refer to page 21 for deflection and storm bar tables.
4. Refer to page 10 for truss anchoring details and maximum span.
5. Two adjacent screens may share common anchors.
6. For adjacent corner screens only, the common anchor spacing is reduced in half of the table value.
7. Common anchors may be used for any style screen or orientation.

COMMON ANCHORS

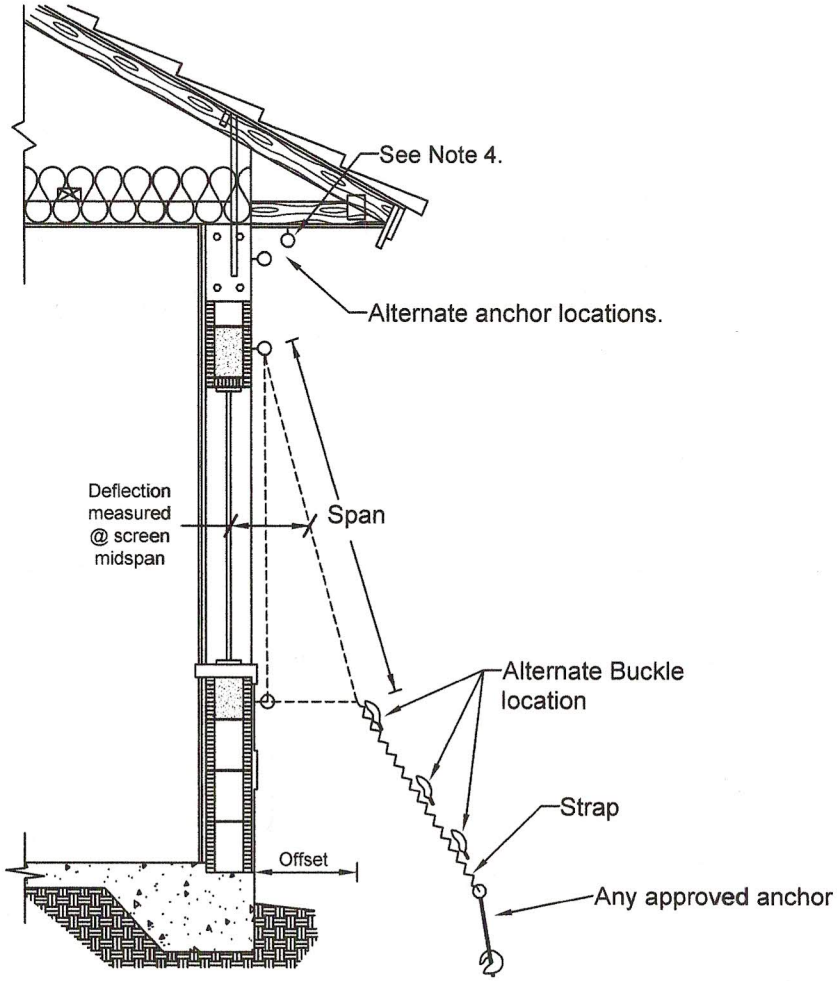
Engineering Review By:

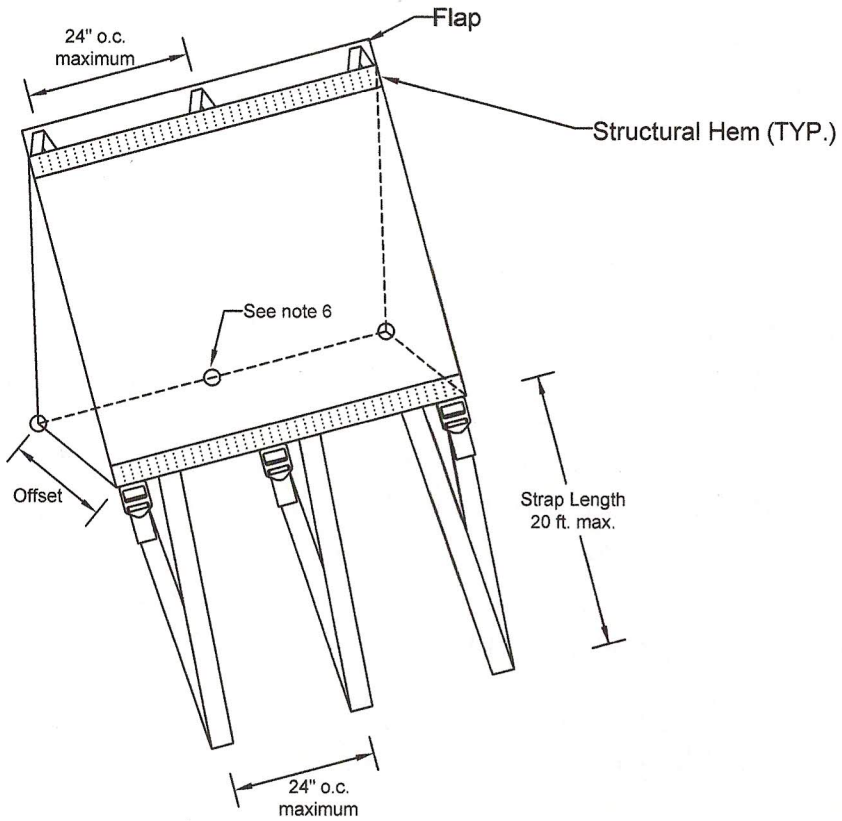
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10	Rev. Date:	Rev. Date:
Scale: Not to Scale	Page: 8 of 37	





WINDOW STYLE SCREEN

NOTES:

1. Refer to pages 15 - 20 for anchor details.
2. Refer to pages 22 - 37 for approved anchors and anchor spacing.
3. Refer to page 21 for deflection and storm bar tables.
4. Refer to page 10 for truss anchoring details and maximum span.
5. Closed on sides and bottom with anchors at lower corners.
6. Anchors in between the lower corners may be equal spaced at 24" - 48" o.c.
7. Maximum strap length is 20 ft (from hem to anchor).
8. Refer to page 12 for strap anchor spacing.
9. Spring Clips or Snake Hooks may be used at either end of support strap.
10. Top flaps are optional.

WINDOW STYLE SCREEN

Engineering Review By:

5/7/10

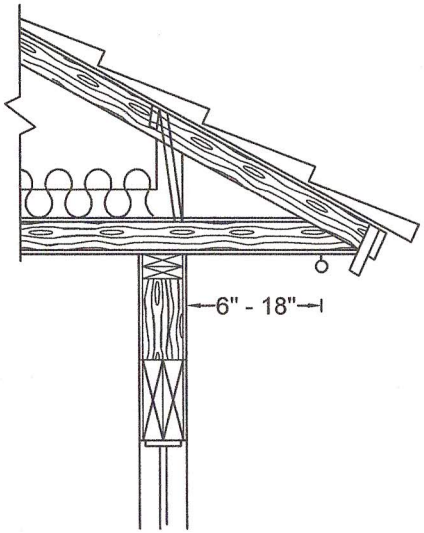
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

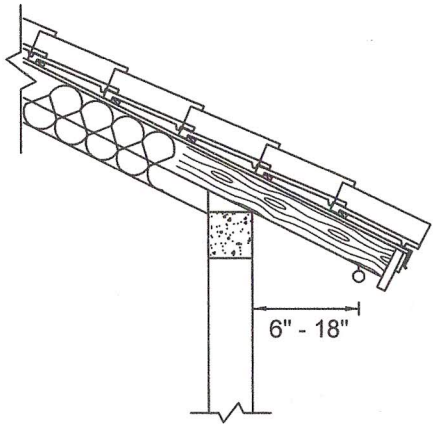
ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |



CANTILEVERED TRUSS



TRUSS OR RAFTER WITH OVERHANG

24" O.C. SPACING WOOD TRUSS/ RAFTER ATTACHMENT									
24" O.C. SPACING	6'-0" (72") SCREEN SPAN			9'-4" (112") SCREEN SPAN			12'-0" (144") SCREEN SPAN		
DIST FROM SUPPORT	6"	12"	18"	6"	12"	18"	6"	12"	18"
Wood 2" X 4"	40 psf	x	x	30 psf	x	x	30 psf	x	x
Wood (2) 2" X 4"	62 psf	40 psf	30 psf	62 psf	30 psf	x	40 psf	x	x
Wood 2" X 6"	62 psf	62 psf	30 psf	62 psf	30 psf	x	40 psf	30 psf	x
Wood 3" X 6"	62 psf	62 psf	62 psf	62 psf	62 psf	30 psf	62 psf	40 psf	30 psf

16" O.C. SPACING WOOD TRUSS/ RAFTER ATTACHMENT									
16" O.C. SPACING	6'-0" (72") SCREEN SPAN			9'-4" (112") SCREEN SPAN			12'-0" (144") SCREEN SPAN		
DIST FROM SUPPORT	6"	12"	18"	6"	12"	18"	6"	12"	18"
Wood 2" X 4"	62 psf	30 psf	x	30 psf	x	x	30 psf	x	x
Wood (2) 2" X 4"	62 psf	62 psf	40 psf	62 psf	40 psf	30 psf	62 psf	30 psf	x
Wood 2" X 6"	62 psf	62 psf	62 psf	62 psf	62 psf	30 psf	62 psf	40 psf	30 psf
Wood 3" X 6"	62 psf	62 psf	62 psf	62 psf	62 psf	62 psf	62 psf	62 psf	40 psf

NOTES:
1. -O Any approved anchor per tables on pages 31 and 32.
2. Truss equal to SYP. #2 (0.55 sg). Douglas Fir - Larch alternate acceptable wood type.
3. Anchor attachment into fascia not approved.
4. These tables do not apply to anchors for screen side return attachments.

TRUSS ATTACHMENT

Engineering Review By:

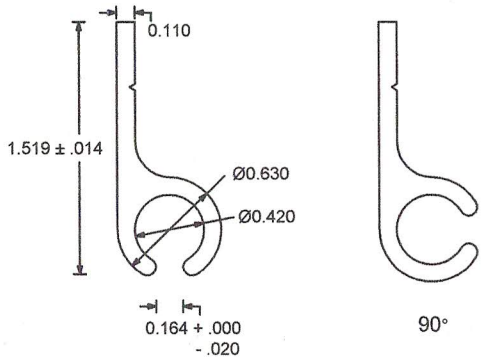
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

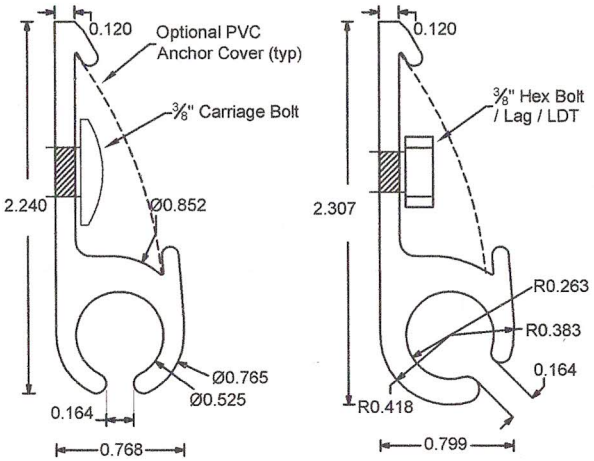
ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

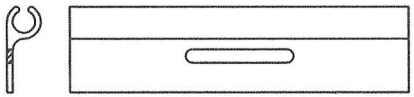
Scale: Not to Scale |



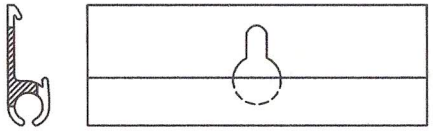
SMALL C-CHANNEL
(CONTINUOUS OR SEGMENTED)



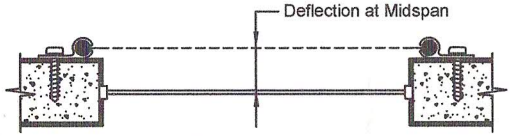
LARGE C-CHANNEL
(CONTINUOUS OR SEGMENTED)



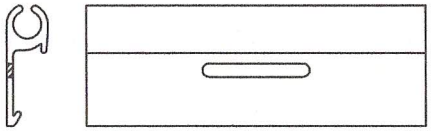
5" and 10" SLOTTED SEGMENT



5" and 10" KEYHOLE SEGMENT

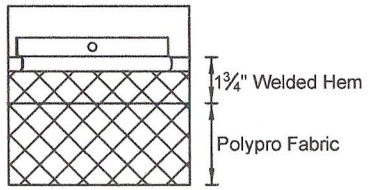


PLAN VIEW
TYPICAL WINDOW
HORIZONTAL MOUNT SCREEN

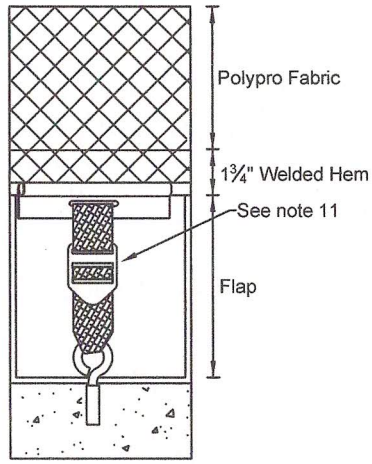


5" and 10" SLOTTED SEGMENT

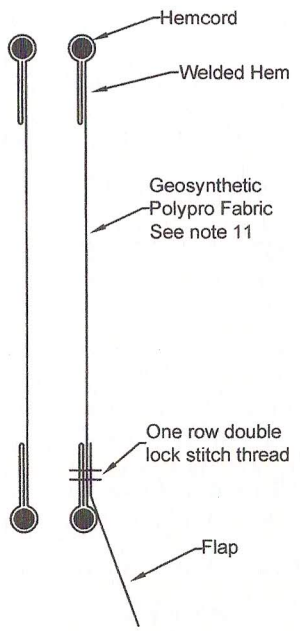
C-Channel
Alloy: 6063-T6 Aluminum
NOTE: Heavier alternate extrusion may be used.



SEGMENTED OR
CONTINUOUS C-CHANNEL



COMBINATION ATTACHMENT
SEGMENTED C-CHANNEL WITH
BUCKLE & STRAP ASSEMBLY



HEMCORD DETAIL
- Trifold, Double Heatweld Hem
- Hemcord Dia.: 5/16"

C-CHANNEL	MAX. PSF	ANCHOR SPACING (Per Anchor Tables pages 22 - 37)			
		SPAN			
		UP TO 12 FT.		12 FT. - 24 FT.	
		Minimum	Maximum	Minimum	Maximum
5" Segment	110	8" o.c.	24" o.c.	N/A	N/A
10" Segment	130	12" o.c.	24" o.c.	12" o.c.	12" o.c.
Continuous	130	N/A	24" o.c.	N/A	18" o.c.

NOTES:
1. Refer to pages 15 - 20 for approved anchor details.
2. Refer to pages 22 - 37 for approved anchors and anchor spacing.
3. Refer to page 21 for deflection and storm bar tables.
4. Refer to page 10 for truss anchoring details and maximum span.
5. C-Channel may be continuous or 5" and 10" segments.
6. The length of the segmented C-Channel is governed by the strength of the fabric to C-Channel connection, not the hardware attachment to the C-Channel.
7. C-Channel may be used in combination with any other approved method of attachment.
8. A screw may be used to secure the C-Channel end to limit screen movement.
9. ⅜" hardware is maximum for use with removable segmented Keyhole Style and PVC Bolt cover application.
10. For Anchor Spacing, see Anchor Tables on pages 22 - 37.
11. Refer to page 2 for hem and buckle & strap specifications.

HEMCORD / C-CHANNEL

Engineering Review By:

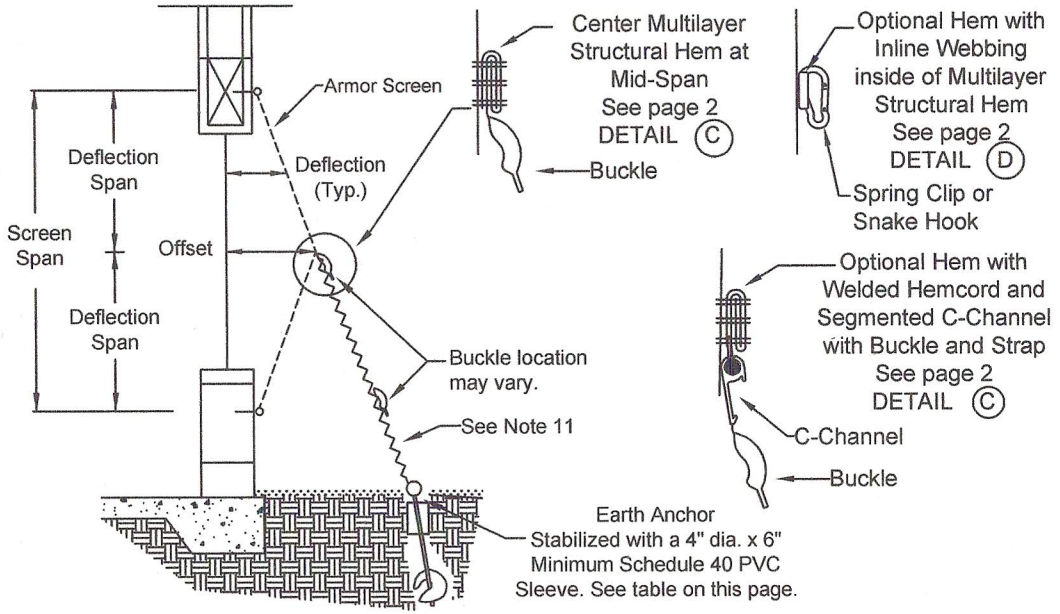
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

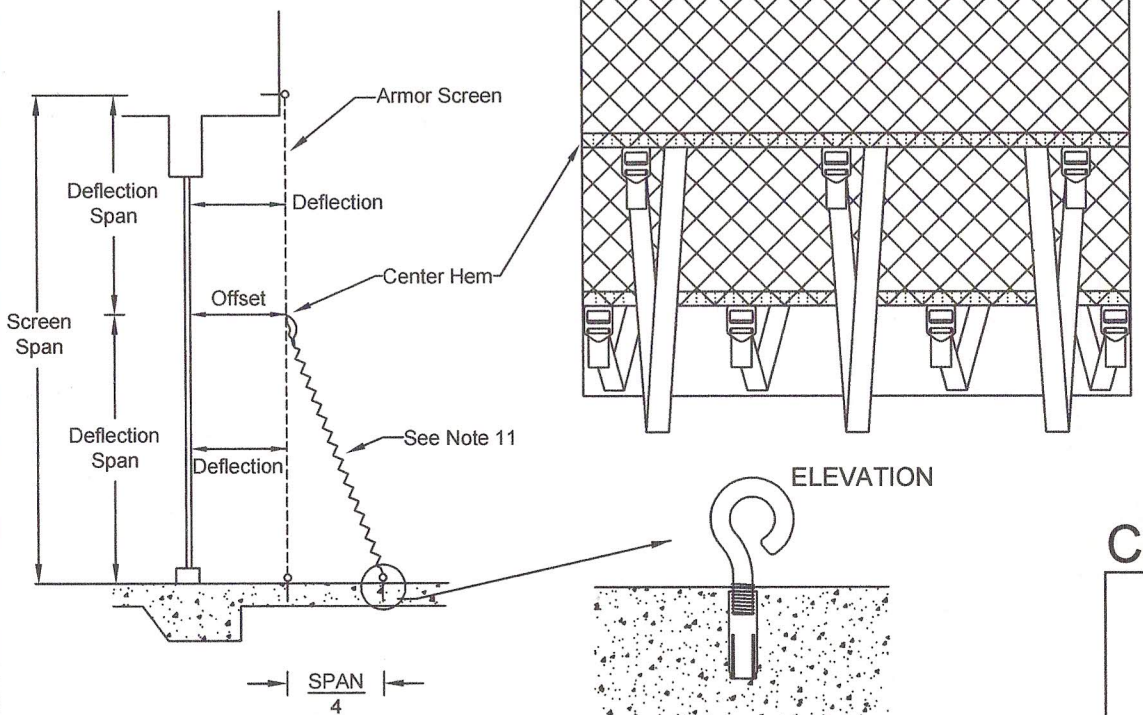
Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |



SIDE SECTION

CENTER HEM SUPPORT ANCHORS						
	ANCHOR	MIN. EMBED.	MIN. E.D.	SPAN		
				up to 100"	up to 192"	up to 288"
				ANCHOR SPACING		
3000 PSI CONCRETE	⅜" DROP-IN ANCHOR	1 ½"	4"	18"	12"	N/A
	½" DROP-IN ANCHOR	2"	5"	24"	18"	12"
SOIL CLASS 3, 4, 5	EARTH ANCHOR ½" x 30" SHAFT x 4" HELIX WITH WELDED EYE. 3150 LBS WORKING LOAD	28"	N/A	24"	24"	18"
	PAVER ANCHOR ½" x 30" SHAFT x 4" HELIX WITH SS COUPLER AND SS EYEBOLT	28"	N/A	24"	18"	12"



SIDE SECTION

ELEVATION

Drop-In Anchor or any approved anchor
See table on this page.

CENTER HEM DEFLECTION SYSTEM NOTES:

1. Refer to pages 15 - 20 for anchor details.
2. Refer to pages 22 - 37 for approved anchors and anchor spacing. Spacing is determined using full screen span.
3. Refer to page 21 for deflection and storm bar tables.
4. This system is designed to achieve required deflection by pulling and supporting the center of the screen towards the windward direction.
5. The structural hem acts as a storm bar and splits the screen span into multiple spans, each of which is used to determine the minimum deflection.
6. One or more structural hems with buckles and straps may be used to achieve deflection acting as a storm bar.
7. The support hem system may be positioned horizontal, vertical or as required according to screen span.
8. Screen unable to return should extend past protected opening by distance equal to or greater than the minimum deflection or offset, which ever is greater.
9. Spring Clips or Snake Hooks may be used at either end of support strap.
10. All flaps are optional.
11. Maximum strap length is 20 ft (from center hem to anchor).

CENTER HEM DEFLECTION SYSTEM

Engineering Review By:

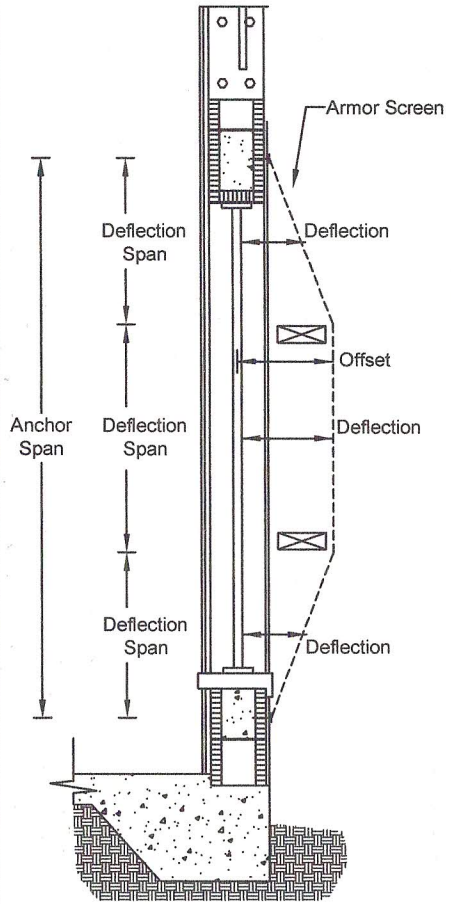
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

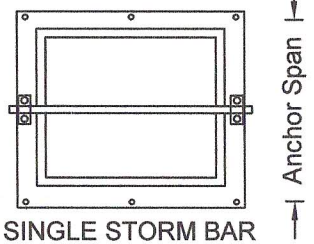
ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

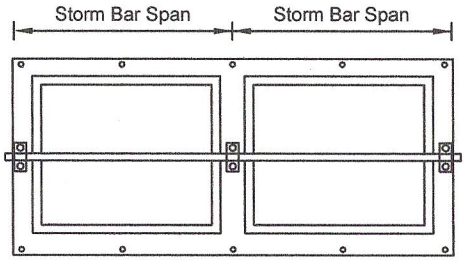
Scale: Not to Scale |



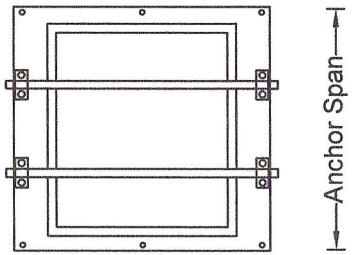
MULTIPLE STORM BAR WITH SINGLE OPENING



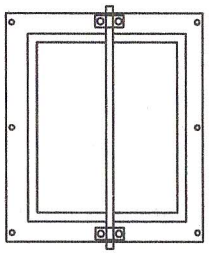
SINGLE STORM BAR ELEVATION



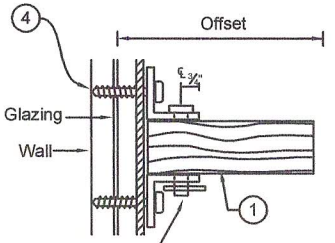
SINGLE STORM BAR WITH MULTIPLE OPENINGS ELEVATION

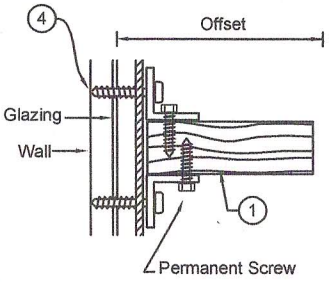


MULTIPLE STORM BAR ELEVATION

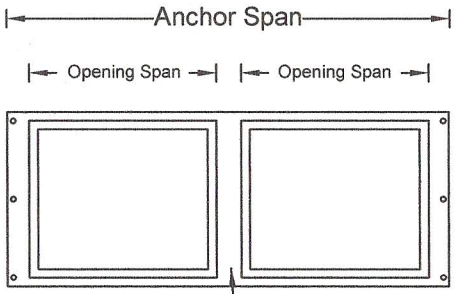


VERTICAL STORM BAR ELEVATION

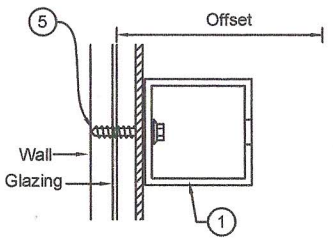




ALTERNATE BRACKETS
2" x 2" x 1½" x ⅛"
ALUMINUM ANGLE
All Storm Bars to be mounted on edge.
Refer to Storm Bar #1, #2 & #3, page 21



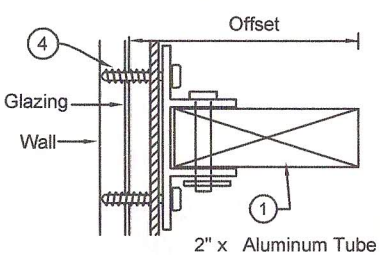
Building Structure between adjacent window / door frames may act as a Storm Bar if proper offset to the glazing is present. This applies to both vertical and horizontal applications.

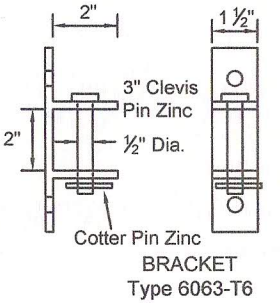


2" x 2" x ⅛"
ALUMINUM TUBE
Type 6063-T6
Refer to Storm Bar #4, page 21

STORM BAR NOTES:

1. Refer to page 21 for deflection tables, storm bar tables, and storm bar alloy.
2. The storm bar system is designed to achieve required deflection and may utilize one or more storm bars. The offset may be increased with blocking at the support.
3. Storm bars may be positioned horizontal, vertical, angled or as required.
4. The storm bar bracket may be permanent or removable and attached to the structure using a minimum of two (2) ¼" x 1¾" anchors.
5. The storm bar bracket may be permanent or removable and attached to the structure using a minimum of one ¼" x 1¾" anchor.
6. The storm bar bracket may be wall, floor or ceiling mounted.
7. The storm bar and screen should extend past the protected opening by the distance equal to or greater than the required deflection / offset, which ever is greater.
8. The storm bar splits the anchor / screen span into multiple spans, each of which is used to determine the minimum deflection.
9. Screen anchors should be sized and spaced using full anchor / screen span.
10. Use "opening" span and positive wind pressure to determine minimum separation between screen and glazing.
11. Use "anchor" span and negative wind pressure to determine fastener size and spacing.





STORM BAR WITH "H" BRACKET

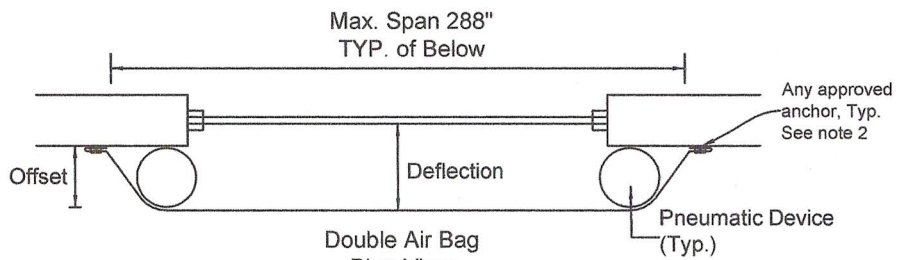
STORM BAR DEFLECTION SYSTEM

Engineering Review By:
Gary D Foreman PE
FL PE 57343
5/3/10

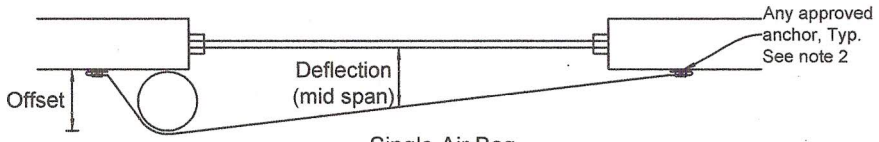
ARMOR SCREEN
SERIES 2010
HURRICANE PROTECTION

ARMOR SCREEN, Inc.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

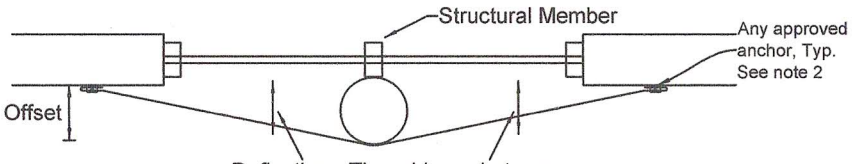
Date: 04/26/10 | Rev. Date: | Rev. Date:
Scale: Not to Scale | Page: 13 of 37



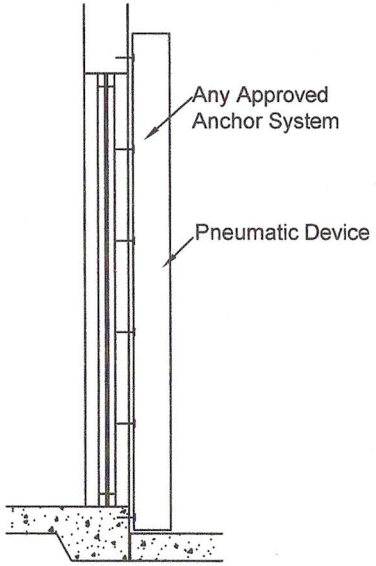
Double Air Bag
Plan View



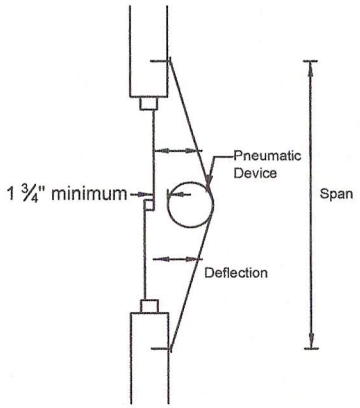
Single Air Bag
Plan View



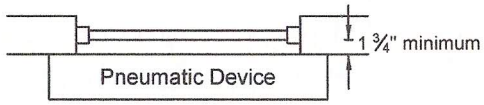
STORE FRONT OR CURTAIN WALL APPLICATION
Plan View



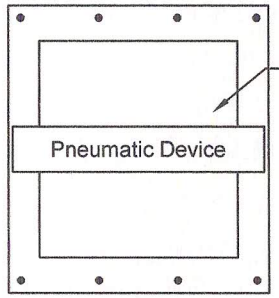
Side Sectional
End Supported PD



Side Sectional
End Supported PD



Top Sectional
End Supported PD



Elevation
End Supported PD

PNEUMATIC DEVICE (PD) SPECIFICATIONS:

1. Pneumatic Device consists of two parts, a refillable polymer air bladder capable of holding air without perceptible leakage, and a tough fabric cover for structural integrity and durability.
2. May be inflated by any residential or commercial vacuum cleaner, or air pump intended for air mattresses or equivalent devices.
3. Upon removal, the Pneumatic Device should be deflated and stored with screen barrier.

NOTES: PNEUMATIC DEVICE (PD) DEFLECTION SYSTEM

1. Refer to the Deflection Table on page 21 to determine PD diameter.
2. Refer to pages 22 - 37 for approved anchors.
3. Pneumatic device must not rest on glazing for HVHZ applications. Outside HVHZ the PD may rest on a wind rated window mullion.
4. The pneumatic device may be attached to barrier and may rest on but not attached to the structure. The device may be end supported if spanning the protected opening.
5. Inflation of the device requires a minimum pressure of 2.0 psi.
6. One or more devices may be used to achieve required HVHZ separation.
7. This system may be positioned horizontally, vertically, or as required.
8. The pneumatic device may be permanently attached to the screen or made removable.
9. The sleeve should not be attached to the building structure unless designed as a site specific installation by a structural engineer.
10. The pneumatic device should be positioned to provide adequate deflection between the screen / barrier and surface being protected.

PNEUMATIC DEFLECTION SYSTEM

Engineering Review By:

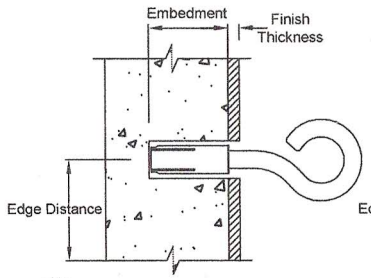
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2010
HURRICANE PROTECTION

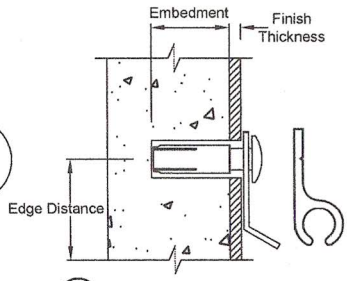
ARMOR SCREEN, Inc.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10	Rev. Date:	Rev. Date:
Scale: Not to Scale	Page: 14 of 37	

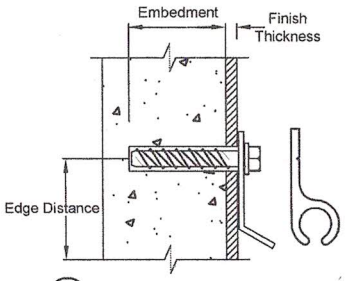
CONCRETE & CMU



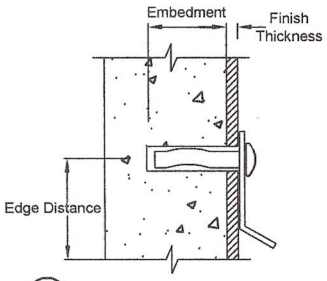
(A) DROP-IN
REMOVABLE EYEBOLT



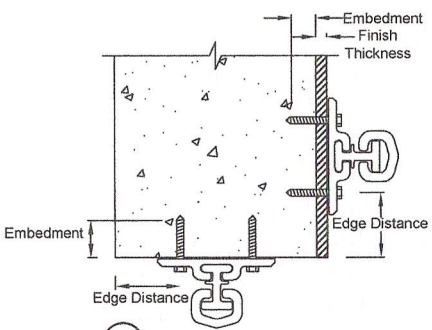
(B) DROP-IN
CARRIAGE BOLT
KEYHOLE CLIP
C-CHANNEL



(C) WEDGE BOLT / LDT
KEYHOLE CLIP
C-CHANNEL

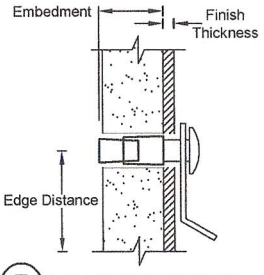


(D) MUSHROOM HEAD SPIKE
KEYHOLE CLIP

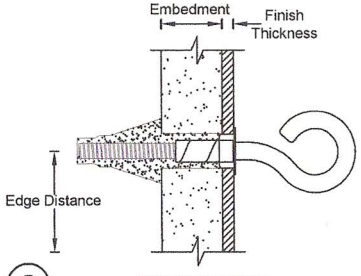


(E) I-TRACK SYSTEM

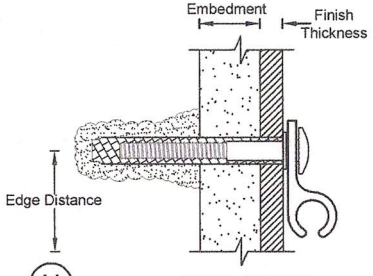
HOLLOW CMU



(F) HOLLOW-SET DROP-IN

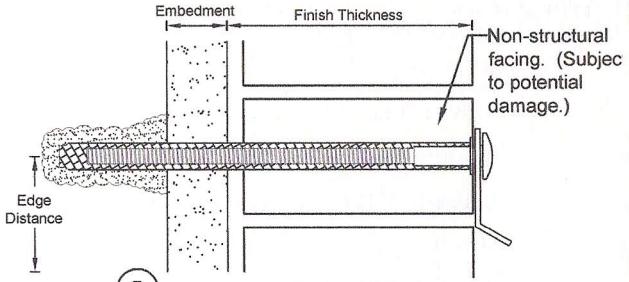


(G) EPOXY SYSTEM
UMBRELLA / SS THREADED INSERT



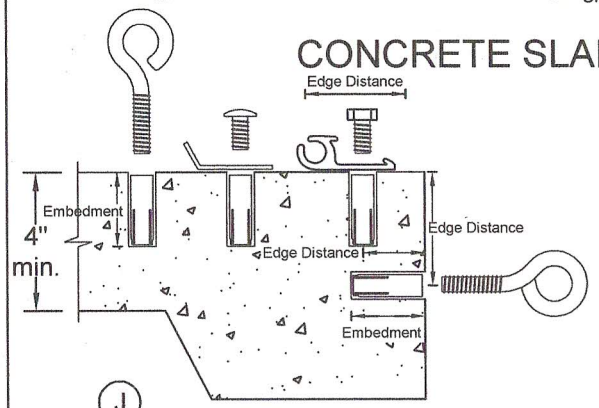
(H) EPOXY SYSTEM
SCREEN TUBE / SS THREADED INSERT

HOLLOW CMU / BRICK FACADE

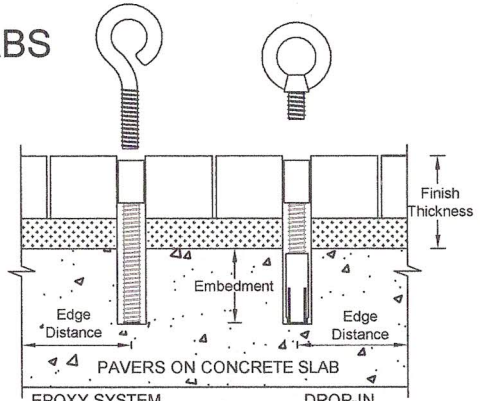


(I) EPOXY SYSTEM
SCREEN TUBE / SS THREADED INSERT

CONCRETE SLABS



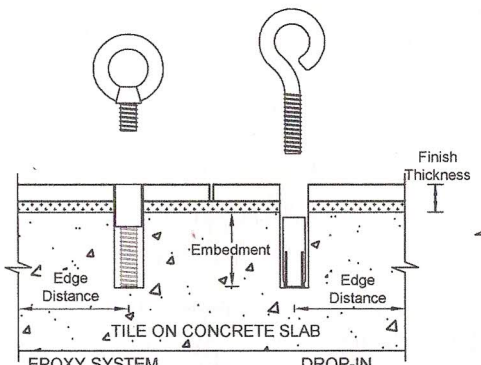
(J) DROP-IN
REMOVABLE EYEBOLT
CARRIAGE BOLT / KEYHOLE CLIP
C-CHANNEL



EPOXY SYSTEM
THREADED ROD /
COUPLER

(K)

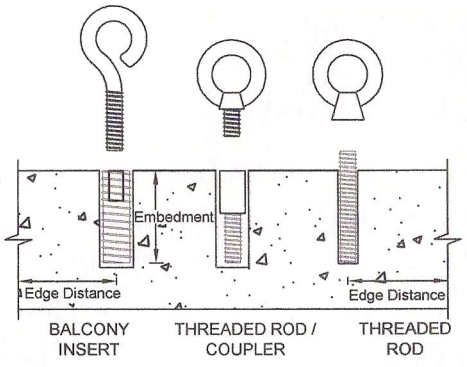
DROP-IN
THREADED ROD /
COUPLER



EPOXY SYSTEM
THREADED ROD /
COUPLER

(L)

DROP-IN
THREADED ROD /
COUPLER



BALCONY
INSERT

THREADED ROD /
COUPLER

THREADED
ROD

(M) EPOXY SYSTEM

Notes:

1. Refer to pages 22 - 30 for anchor spacing.
2. Carriage bolts and eyebolts are interchangeable.
3. Closed eyebolts required on common anchors only.
4. Concrete wall / slab thickness to be 4" minimum.
5. Anchor embedment shall be in face shell, not mortar joints.
6. All anchor holes must be clean and free of dust before inserting intended anchor.
7. Provide longer fasteners, if required, to allow for thickness of finishes such as stucco, plaster, siding, etc.

CONCRETE & MASONRY ANCHOR DETAILS

Engineering Review By:

5/7/10

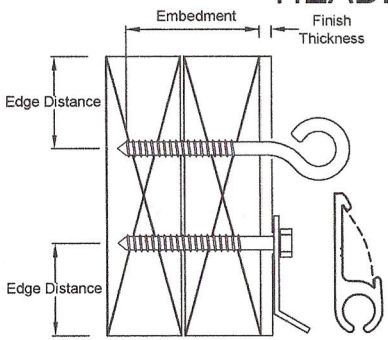
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

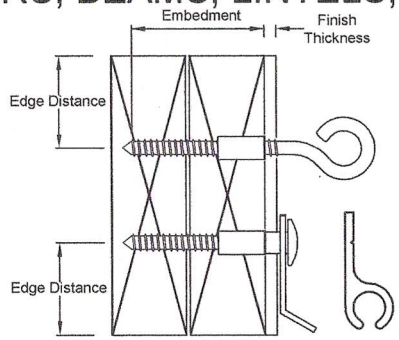
ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10	Rev. Date:	Rev. Date:
Scale: Not to Scale	Page: 15 of 37	

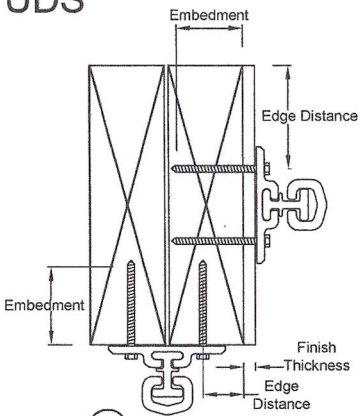
STRUCTURAL MEMBERS
HEADERS, BEAMS, LINTELS, STUDS



(A) EYELAG
HEX LAG SCREW
WITH KEYHOLE CLIP
OR C-CHANNEL

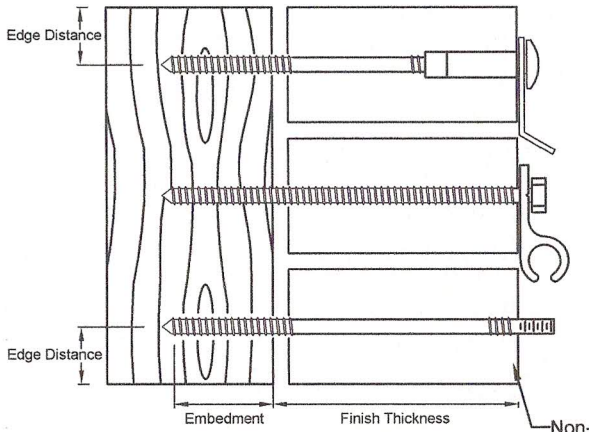


(B) FEMALE LAG ANCHOR
REMOVABLE EYEBOLT /
CARRIAGE BOLT
WITH KEYHOLE CLIP
OR C-CHANNEL



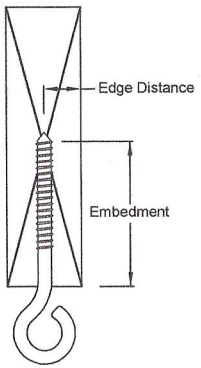
(C) I-TRACK

FRAME / BRICK FACADE

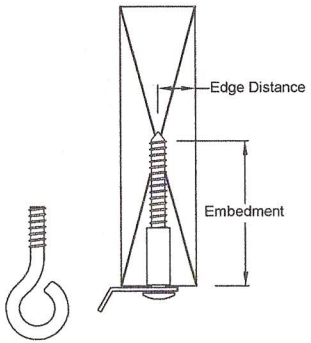


(D) BRICK / STONE FACADE
HANGER BOLT / COUPLER
HEX LAG SCREW
HANGER BOLT

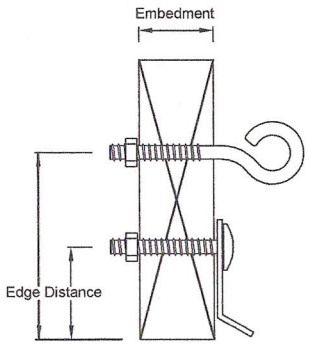
TRUSS, JOIST, STUDS



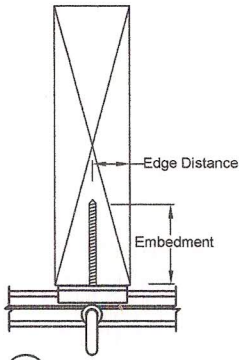
(E) EYELAG



(F) FEMALE LAG ANCHOR
CARRIAGE BOLT / KEYHOLE CLIP
EYEBOLT

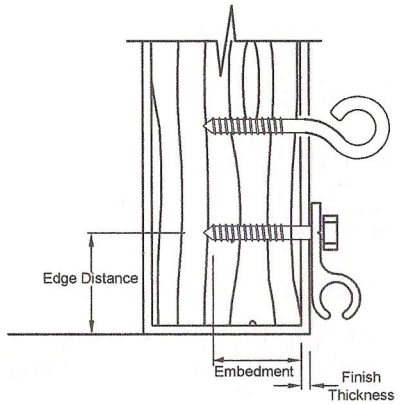


(G) EYEBOLT / NUT
CARRIAGE BOLT / NUT



(H) I-TRACK

STUD



(I) EYELAG
HEX LAG SCREW
WITH C-CHANNEL

Notes:
1. Refer to pages 31 - 32 for anchor spacing.
2. Design as per NDS 2005.
3. Anchor embedment shall be in face shell, not mortar joints.
4. Lag anchor to be fully embedded.
5. Douglas Fir - Larch alternate acceptable wood type.
6. Provide longer fasteners, if required, to allow for thickness of finishes such as stucco, plaster, siding, etc.
7. A caulk or sealant is suggested for all wood embedded and non-structural facing anchors.

WOOD ANCHOR DETAILS

Engineering Review By:

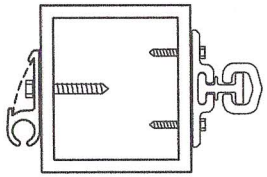
5/3/10

Gary D Foreman PE
FL PE 57343

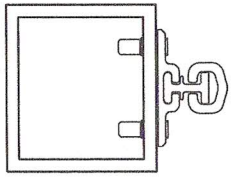
ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

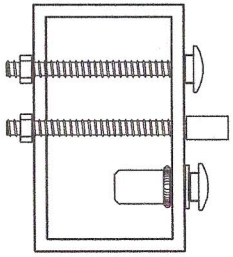
Date: 04/26/10	Rev. Date:	Rev. Date:
Scale: Not to Scale	Page: 16 of 37	



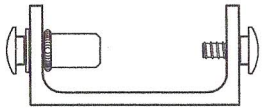
(A) TUBE
I-TRACK
C-CHANNEL
TEKS SCREWS



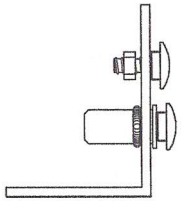
(B) TUBE
I-TRACK / RIVET NUTS / BOLT



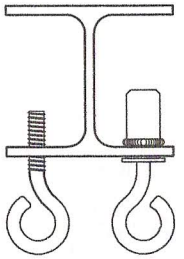
(C) TUBE
RIVET NUT / CARRIAGE BOLT
THREADED ROD / COUPLER
CARRIAGE BOLT / LOCKING NUT
HEX BOLT / LOCKING NUT



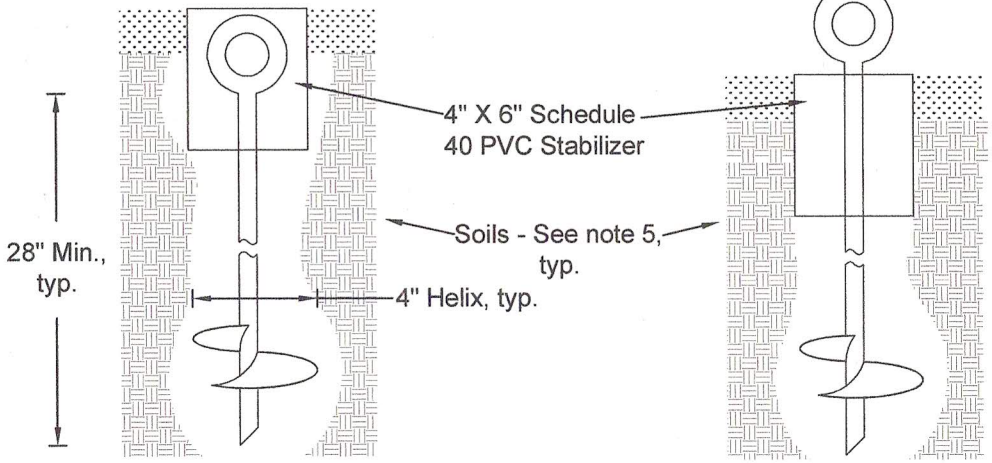
(D) C-CHANNEL / STUDS
RIVET NUT / CARRIAGE BOLT
TAPPED / CARRIAGE BOLT



(E) ANGLE
RIVET NUT /
CARRIAGE BOLT
OR EYEBOLT

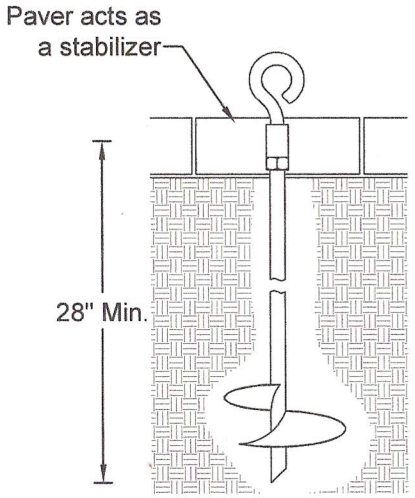


(F) I-BEAM
RIVET NUT / EYEBOLT
TAPPED / EYEBOLT

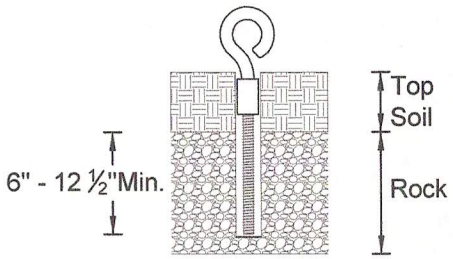


(G) EARTH ANCHOR
BELOW GRADE

(H) EARTH ANCHOR
ABOVE GRADE



(I) PAVER ANCHOR /
COUPLER / EYEBOLT



(J) SOLID / POROUS ROCK
EPOXY SYSTEM

METAL & EARTH ANCHORS

Notes:
1. Refer to pages 33 - 37 for anchor spacing and aluminum alloy.
2. Anchor embedment shall be in face shell, not mortar joints.
3. All details apply to steel and aluminum and may apply to any other appropriate shape.
4. Any combination of approved attachments, i.e. eyebolts, carriage bolts, threaded rod/coupler, etc, are acceptable. Above details are sample illustrations only.
5. Earth and paver anchors are appropriate for class 3, 4 and 5 soil.

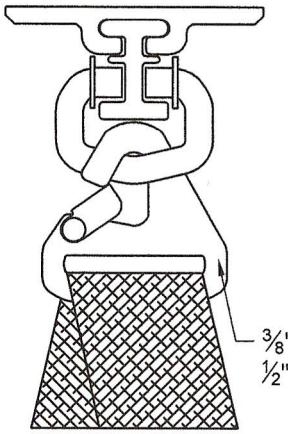
Engineering Review By:
5/3/10
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

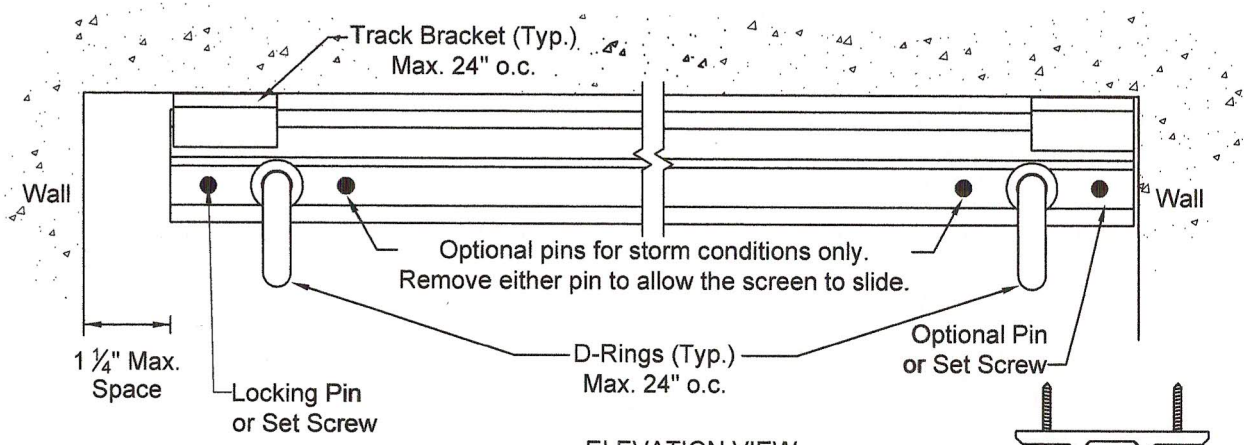
ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

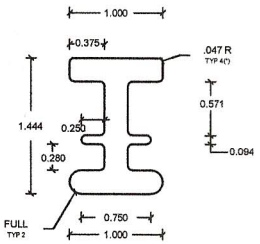
Scale: Not to Scale |



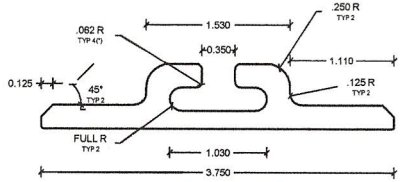
⅜" Snake Hook AS # 131179
½" Snake Hook AS # 131175



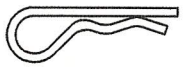
ELEVATION VIEW



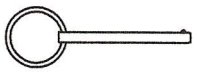
I-TRACK



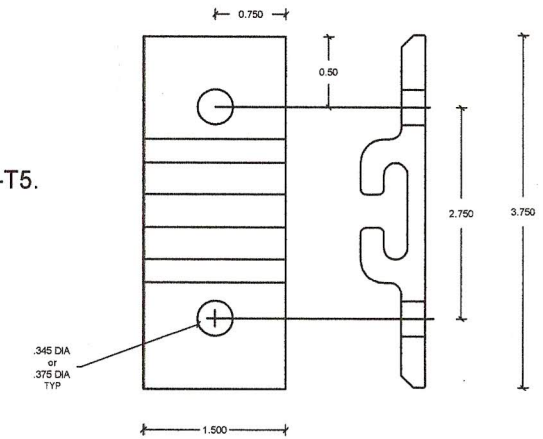
BRACKET



COTTER PIN

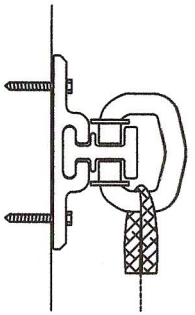


HITCH PIN

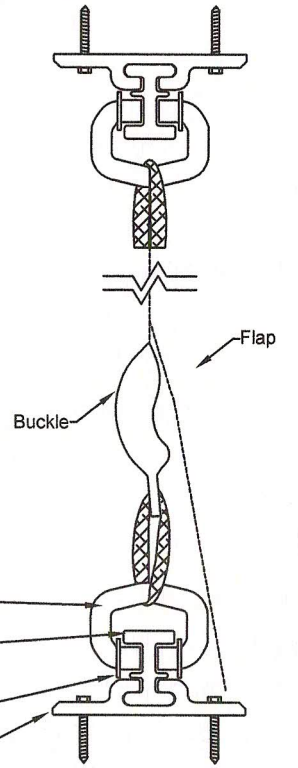


I-Track and Bracket
Aluminum Alloy 6005-T5.

I-Track Bracket	AS # 121041
I-Track	AS # 121029
D-Ring	AS # 121025
Shoulder Washer	AS # 121053
Cotter Pin	AS # 121001
Hitch Pin	AS # 121021



WALL MOUNT
SECTIONAL VIEW



CEILING TO FLOOR MOUNT
SECTIONAL VIEW

Notes:
1. Refer to pages 15 - 20 for anchor details.
2. Refer to pages 25 - 35 for approved anchors and anchor spacing.
3. D-Rings do not have to be in direct alignment with the brackets.
4. Screen may be attached to the D-Ring directly with the loop or a snake clip.
5. At minimum, the quantity of D-Ring attachments should match the required number of anchor brackets.
6. Any type of removable pin or set screw may be used to lock the end D-Rings in place for storm conditions.
7. I-Track as a bottom anchor is optional. Any approved anchor may be used.

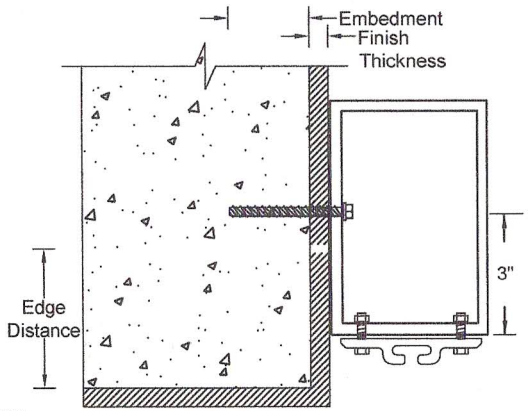
I-TRACK DETAIL

Engineering Review By:
5/7/10
Gary D Foreman PE
FL PE 57343

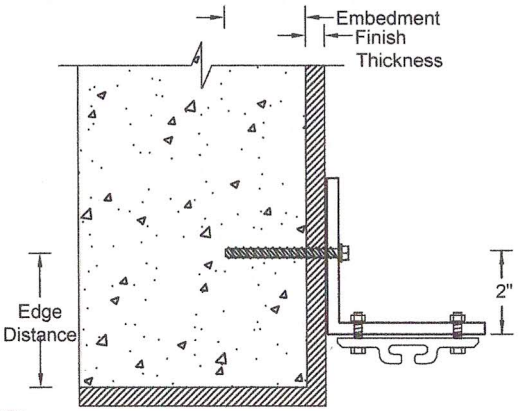
ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

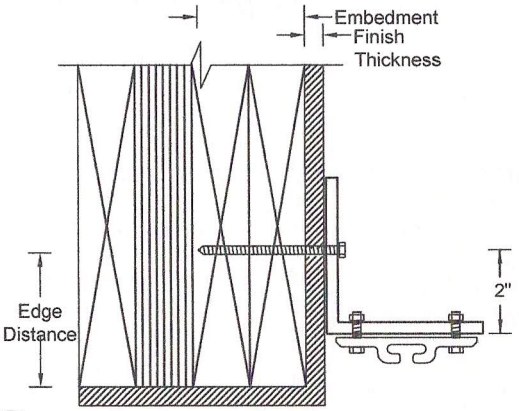
Date: 04/26/10 | Rev. Date: | Rev. Date:
Scale: Not to Scale |



(A) Continuous 6" x 4" x ¼" Aluminum Tube 6063-T5



(B) Continuous 4" x 4" x ¼" Aluminum Angle 6061-T6



(C) Continuous 4" x 4" x ¼" Aluminum Angle 6061-T6

CONCRETE, GROUT FILLED OR PRECAST
⅜" Dia. SS Powers Wedge Anchor Spacing

Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 100"	112"	124"	132"	144"	156"	168"
3 ½"	4 ½"	30 (psf)	12	12	12	12	8	8	8
		40 (psf)	12	8	8	8	8	6	6
		60 (psf)	8	8	8	6	6	6	x
		90 (psf)	6	6	6	x	x	x	x
		110 (psf)	6	x	x	x	x	x	x
		130 (psf)	x	x	x	x	x	x	x

CONCRETE, GROUT FILLED OR PRECAST
⅜" Dia. SS Powers Wedge Anchor Spacing

Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 100"	112"	124"	132"	144"	156"	168"
3 ½"	4 ½"	30 (psf)	12	12	12	8	8	8	6
		40 (psf)	12	8	8	8	8	6	6
		60 (psf)	8	6	6	6	6	x	x
		90 (psf)	6	6	x	x	x	x	x
		110 (psf)	6	x	x	x	x	x	x
		130 (psf)	x	x	x	x	x	x	x

WOOD HEADER SYP #2
⅜" Dia. SS Lag Screw Anchor Spacing

Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 100"	112"	124"	132"	144"	156"	168"
2 ½"	2"	30 (psf)	12	12	12	12	8	8	8
		40 (psf)	12	12	8	8	8	6	6
		60 (psf)	8	8	8	6	6	6	x
		90 (psf)	6	6	6	x	x	x	x
		110 (psf)	6	6	x	x	x	x	x
		130 (psf)	x	x	x	x	x	x	x

CONCRETE, GROUT FILLED OR PRECAST
½" Dia. SS Powers Wedge Anchor Spacing

Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 100"	112"	124"	132"	144"	156"	168"
4"	6"	30 (psf)	12	12	12	12	12	8	8
		40 (psf)	12	12	12	8	8	6	6
		60 (psf)	8	8	8	6	6	6	x
		90 (psf)	6	6	6	6	6	x	x
		110 (psf)	6	6	6	x	x	x	x
		130 (psf)	x	x	x	x	x	x	x

CONCRETE, GROUT FILLED OR PRECAST
½" Dia. SS Powers Wedge Anchor Spacing

Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 100"	112"	124"	132"	144"	156"	168"
4"	6"	30 (psf)	12	12	12	12	12	8	8
		40 (psf)	12	12	8	8	8	6	6
		60 (psf)	8	8	8	6	6	6	6
		90 (psf)	6	6	6	x	x	x	x
		110 (psf)	6	6	x	x	x	x	x
		130 (psf)	6	x	x	x	x	x	x

WOOD HEADER SYP #2
½" Dia. SS Lag Screw Anchor Spacing

Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 100"	112"	124"	132"	144"	156"	168"
2 ½"	2 ½"	30 (psf)	24	18	18	18	12	12	12
		40 (psf)	18	12	12	12	12	12	8
		60 (psf)	12	12	12	8	8	8	6
		90 (psf)	8	8	8	8	6	6	6
		110 (psf)	8	8	8	6	6	6	x
		130 (psf)	8	6	6	6	x	x	x

Notes:
1. Refer to pages 33, 34 and 36 for bracket attachment details.
2. Refer to pages 33 - 36 for approved anchors and anchor spacing.
3. Aluminum tube of same size / dimension x .125" thickness may be used in lieu of angle (B) and (C).

I-TRACK SUPPORT

Engineering Review By:

Gary D Foreman PE
FL PE 57343

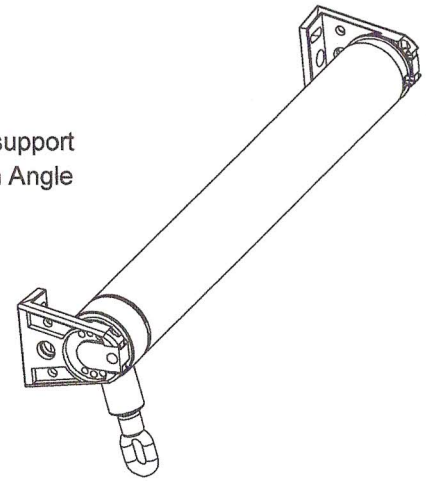
ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

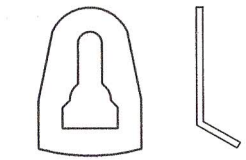
Scale: Not to Scale |

Note: To extend the shown support bracket, 2 x 7 x ¼" Aluminum Angle may be used.

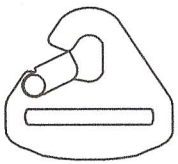


MANUAL AWNING STYLE ROLLUP ASSEMBLY

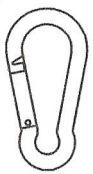
Note: This system is a storage device only, as there is no load on the roller tube. Typically, top anchors always remain attached. A storage hood is not required but optional. The tube assembly is recommended to be protected by the screen when under load. (Aluminum Roller Tube with powder coated steel brackets.)



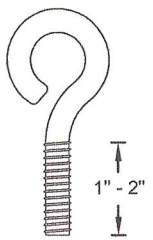
KEYHOLE CLIP
⅜" AS # 131167
½" AS # 131171



SNAKE HOOK
⅜" AS # 131175
½" AS # 131179

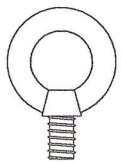


4" LOCKING SPRING CLIP,
316 SS
AS # 121057

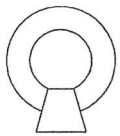


EYEBOLT
⅜" x 2" AS # 141468
½" x 2" AS # 141116
(2" - 6" optional)

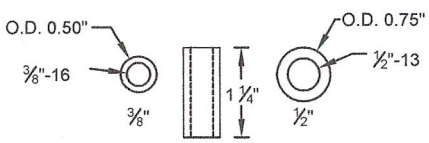
CARRIAGE BOLT
⅜" x 1" AS # 141416
½" x 1" AS # 141044



SPECIAL CLOSED EYE BOLT
⅜" AS # 141255
½" AS # 141253

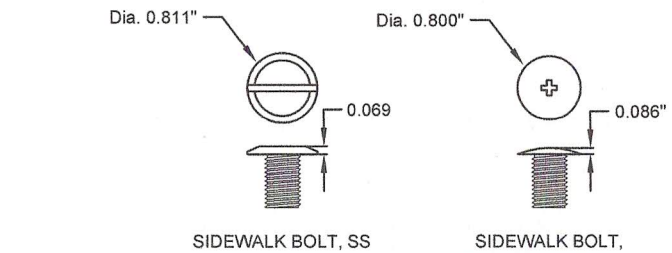


SPECIAL CLOSED EYE NUT
⅜" AS # 141256
½" AS # 141010



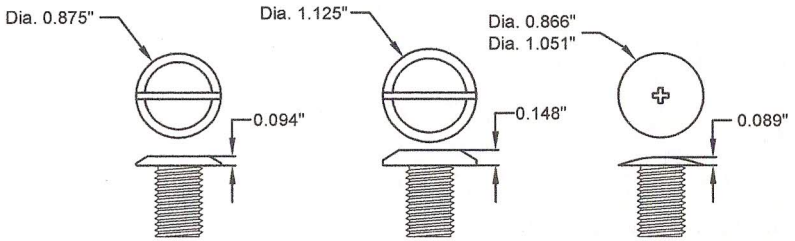
COUPLER, 316 SS
⅜" x 1 ¼" AS # 141460
½" x 1 ¼" AS # 141100

THREADED ROD WITH COUPLER
⅜"-16 and ½"-13
Refer to Anchor Spacing Tables for AS Part Number.
See this page for coupler detail.



SIDEWALK BOLT, SS
⅜" x ½" AS # 141440
⅜" x 1" AS # 141412

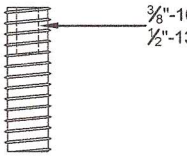
SIDEWALK BOLT,
WHITE UVR ACETAL
⅜" x ½" AS # 141442
⅜" x 3" AS # 141502



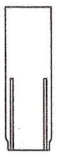
SIDEWALK BOLT, SS
SMALL HEAD
½" x ¾" AS # 141152
½" x 1 ¼" AS # 141104

SIDEWALK BOLT, SS
LARGE HEAD
½" x ¾" AS # 141146
½" x 1" AS # 141086
½" x 1 ¼" AS # 141098

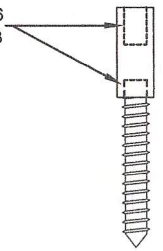
SIDEWALK BOLT,
WHITE UVR ACETAL
½" x ¾" AS # 141154
½" x 3" AS # 141138



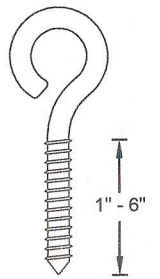
CONDO BALCONY ANCHOR
Refer to Anchor Spacing Tables for AS Part Number



DROP IN ANCHOR
⅜"-16 AS # 141388
½"-13 AS # 141004



WOOD LAG ANCHOR
⅜" x 4" AS # 141556
½" x 4" AS # 141272
See this page for coupler detail.



EYE LAG
⅜" x 3" AS # 141500
½" x 4" AS # 141192

COMMON HARDWARE

NOTES:
1. Refer to pages 15 - 20 for anchor detail.
2. Refer to pages 22 - 37 for approved anchors and anchor spacing.
3. Hardware is minimum 303 SS, unless noted.
4. All threaded hardware to be ⅜"-16 and ½"-13.

Engineering Review By:

5/3/10

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

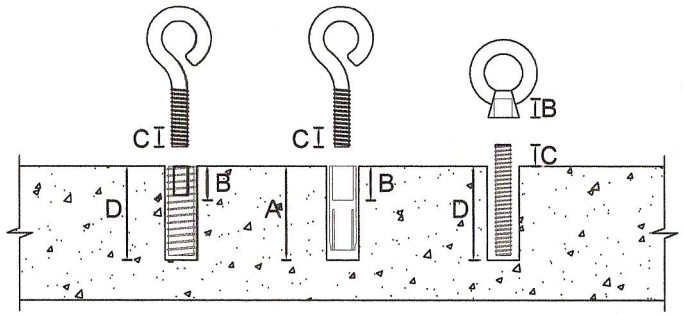
Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

SCREEN DEFLECTION TABLE									
Span in feet	Span in inches	DEFLECTION IN INCHES							
		30 psf	40 psf	50 psf	60 psf	70 psf	90 psf	110 psf	130 psf
4 ft.	48 in.	4.9	5.3	5.7	6.0	6.6	7.1	7.8	8.1
5 ft.	60 in.	5.9	6.3	6.8	7.3	8.0	8.6	9.5	9.9
6 ft.	72 in.	6.9	7.4	8.0	8.6	9.4	10.1	11.2	11.7
7 ft.	84 in.	7.9	8.5	9.1	9.8	10.7	11.7	12.9	13.4
8 ft.	96 in.	8.9	9.5	10.3	11.1	12.1	13.2	14.6	15.2
9 ft.	108 in.	9.9	10.6	11.5	12.3	13.5	14.7	16.3	17.0
10 ft.	120 in.	10.8	11.7	12.6	13.6	14.9	16.2	18.0	18.6
11 ft.	132 in.	11.8	12.7	13.8	14.9	16.3	17.8	19.7	20.5
12 ft.	144 in.	12.8	13.8	15.0	16.1	17.7	19.3	21.4	22.3
13 ft.	156 in.	13.8	14.8	16.1	17.4	19.1	20.8	23.2	24.1
14 ft.	168 in.	14.8	16.0	17.3	18.6	20.5	22.3	24.9	25.9
15 ft.	180 in.	15.8	17.0	18.5	19.9	21.9	23.9	26.6	27.6
16 ft.	192 in.	16.7	18.1	19.6	21.2	23.3	25.4	28.3	29.4
17 ft.	204 in.	17.7	19.2	20.8	22.4	24.7	26.9	30.0	31.2
18 ft.	216 in.	18.7	20.2	22.0	23.7	26.1	28.4	31.7	33.0
19 ft.	228 in.	19.7	21.3	23.1	24.9	27.4	30.0	33.4	34.7
20 ft.	240 in.	20.7	22.4	24.3	26.2	28.8	31.5	35.1	36.5
21 ft.	252 in.	21.7	23.4	25.4	27.5	30.2	33.0	36.8	38.3
22 ft.	264 in.	22.7	24.5	26.6	28.7	31.6	34.5	38.5	40.1
23 ft.	276 in.	23.6	25.6	27.8	30.0	33.0	36.1	40.2	41.8
24 ft.	288 in.	24.6	26.6	28.9	31.2	34.4	37.6	41.9	43.6

NOTES:
1. Deflection is the minimum glass separation measured at MID SPAN of the screen and subject to rational analysis. Spans smaller than 4 ft. are acceptable.
2. 1" has been added to actual minimum separation for safety factor.

EMBEDDED ANCHOR DIAMETER			
	¼"	⅜"	½"
A	1"	1 9/16"	2"
B	½"	11/16"	13/16"
C	5/16"	7/16"	9/16"



MINIMUM BOLT THREAD ENGAGEMENT

A - Drop-In Length / Minimum Embedment
B - Internal Thread Length
C - Minimum Thread Engagement
D - Refer to Epoxy Anchor Tables pages 24 - 37.

NOTE: Table applies to any threaded connection.

STORM BAR TABLE									
Storm Bar Span / Length		3'	4'	5'	6'	8'	10'	12'	14'
Max. PSF		Per Deflection Table							
Deflection		Per Deflection Table							
1	Wood 2" x 6"	x	x	x	x				
2	Wood 2" x 8"	x	x	x	x	x			
3	Alum. Tube 1" x 2" x ⅛" 6063-T6	x							
4	Alum. Tube 2" x 2" x ⅛" 6063-T6	x	x	x					
5	Alum. Tube 2" x 4" x ⅛" 6061-T6	x	x	x					
6	Alum. Tube 2" x 4" x ¼" 6061-T6	x	x	x	x				
7	Alum. Tube 2" x 6" x ⅛" 6063-T6	x	x	x	x	x			
8	Alum. Tube 2" x 6" x ¼" 6061-T6	x	x	x	x	x	x	x	
9	Alum. Tube 2" x 8" x ¼" 6061-T6	x	x	x	x	x	x	x	x

NOTES:
1. All storm bars to be mounted on edge.
2. Storm Bar #1, #2 and #3 requires alternate storm bar bracket, see detail on page 13.
3. Wood Storm Bar #1 and #2 to be #2 SYP (Southern Yellow Pine) or Douglas Fir-Larch.
4. Storm Bars #3, #4, #5 and #6, screen width supported by storm bars shall be equal to span or 6' maximum. For screens wider than maximum width use multiple storm bars.

DEFLECTION AND STORM BAR TABLES

Engineering Review By:
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:
Scale: Not to Scale |

2000 PSI CONCRETE — ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
3/8"	Drop-In, 303 SS	1 1/2"	3 3/4"	40 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				50 (psf)	24	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				60 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	9	6	6	6
				70 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				90 (psf)	24	24	24	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
				110 (psf)	24	24	18	18	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x	x
	A,B,J,K,L / 13 Powers			130 (psf)	24	18	12	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x
1/2"	Drop-In, 303 SS	2"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12	12
				50 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12
				60 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12	9
				70 (psf)	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9	9
				90 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				110 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
	A,B,J,K,L / 13 Powers			130 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	9	9	6	6	6	6	6	6

3000 PSI CONCRETE — ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
3/8"	Drop-In, 303 SS	1 1/2"	3 3/4"	40 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	12	9
				50 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				60 (psf)	24	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	9	9
				70 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6	6
				90 (psf)	24	24	24	18	18	18	12	12	12	12	9	9	9	9	9	6	6	6	6	6	6
				110 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
	A,B,J,K,L / 13 Powers			130 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
1/2"	Drop-In, 303 SS	2"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12
				70 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12
				90 (psf)	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9
				110 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9	9
	A,B,J,K,L / 13 Powers			130 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6	6

NOTES:

1. (—) Refers to anchor detail on pages 15 - 20.
2. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
3. All anchor holes to be clean and dust free before inserting intended anchor.
4. Anchor spacing subject to rational analysis.
5. All anchors to be as specified or equal.

Engineering Review By:

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

3000 PSI CONCRETE — ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
1/4"	Wedge Bolt or LDT, 410 SS (C-Channel Application Only)	2"	3"	40 (psf)	24	24	18	12	12	12	9	9	6	6	6	x	x	x	x	x	x	x	x	x	x
				50 (psf)	24	18	12	12	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x
				60 (psf)	24	12	12	9	9	9	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				70 (psf)	18	12	12	9	9	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	C 13 Powers 7705			90 (psf)	12	12	9	9	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	12	12	9	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	12	9	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3/8"	Wedge Bolt or LDT, 410 SS	2"	4"	40 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9	9
				50 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6	6
				60 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6
				70 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6
	C 13 Powers 7705			90 (psf)	24	24	18	18	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x	x
				110 (psf)	24	18	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x
				130 (psf)	18	18	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x
3/8"	Wedge Bolt or LDT, 410 SS	2 1/2"	4 1/2"	40 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12	9
				50 (psf)	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	9	9	9	9	9
				60 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				70 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	9	6	6	6
	C 13 Powers 7706			90 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6
				110 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x
				130 (psf)	24	18	18	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x	x
1/2"	Wedge Bolt or LDT, 410 SS	2 1/2"	4 1/2"	40 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12	12	12	12
				50 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12	9
				60 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				70 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9
	C 13 Powers 7710			90 (psf)	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				110 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6
				130 (psf)	24	24	18	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x
1/2"	Wedge Bolt or LDT, 410 SS	3 1/2"	4 1/2"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	18
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12
				60 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12	12	12	12
				70 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12
	C 13 Powers 7711			90 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				110 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9
				130 (psf)	24	24	24	24	18	18	18	18	12	12	12	12	9	9	9	9	9	6	6	6	6

NOTES:

1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
3. All anchor holes to be clean and dust free before inserting intended anchor.
4. Anchor spacing subject to rational analysis.
5. All anchors to be as specified or equal.

Engineering Review By:

5/3/10

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

3000 PSI CONCRETE ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
3/8"	Epoxy Balcony Insert or Threaded Rod / Coupler or Threaded Rod (All 303/316 SS)	2"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12	12	12	12
				50 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	12	9
				60 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	12	9	9	9
				70 (psf)	24	24	24	24	24	24	24	18	18	12	12	12	12	12	12	12	9	9	9	9	9
				90 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6	6
				110 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				130 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
	K,L,M 13 — Balcony Insert AS # 141385, Threaded Rod AS # 141356, Coupler AS # 141460																								
3/8"	Epoxy Balcony Insert or Threaded Rod / Coupler or Threaded Rod (All 303/316 SS)	3 3/8"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12
				60 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12
				70 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12
				90 (psf)	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12	9	9
				110 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9	9
				130 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	6	6	6	6
	K,L,M 13 — Balcony Insert AS # 141387, Threaded Rod AS # 141358, Coupler AS # 141460																								
1/2"	Epoxy Balcony Insert or Threaded Rod / Coupler or Threaded Rod (All 303/316 SS)	2"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	18	18
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12
				70 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12	12	12	12	12
				90 (psf)	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	12	9	9
				110 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9	9
				130 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6	6
	K,L,M 13 — Balcony Insert AS # 141006, Threaded Rod AS # 141258, Coupler AS # 141100																								
1/2"	Epoxy Balcony Insert or Threaded Rod / Coupler or Threaded Rod (All 303/316 SS)	3"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	12	12	12
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	12	12	12	12	12
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	12	12	12	12	12
				90 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12	9	9
				110 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	9	9	9	9	9
				130 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	9	9	6	6	6
	K,L,M 13 — Balcony Insert AS # 141003, Threaded Rod AS # 141251, Coupler AS # 141100																								

NOTES:

1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
3. All anchor holes to be clean and dust free before inserting intended anchor.
4. Anchor spacing subject to rational analysis.
5. All anchors to be as specified or equal.
6. Epoxy equal to Adhesive Technologies Ultrabond.
7. Epoxy Anchor minimum hole diameter:
   - 3/8" Diameter Anchor = 7/16" Hole
   - 1/2" Diameter Anchor = 9/16" Hole
   - 5/8" Diameter Anchor = 11/16" Hole
   - 3/4" Diameter Anchor = 13/16" Hole

Engineering Review By:

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

3000 PSI CONCRETE — ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' 48"	5' 60"	6' 72"	7' 84"	8' 96"	9' 108"	10' 120"	11' 132"	12' 144"	13' 156"	14' 168"	15' 180"	16' 192"	17' 204"	18' 216"	19' 228"	20' 240"	21' 252"	22' 264"	23' 276"	24' 288"
½"	Epoxy Balcony Insert or Threaded Rod / Coupler or Threaded Rod (303/316 SS)	4 ½"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				90 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18
				110 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18
	K,L,M / 13 — Balcony Insert AS # 141007, Threaded Rod AS # 141259, Coupler AS # 141100			130 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12
⅜"	Mushroom Head Spike, 316 SS	1 ¾"	3 ½"	40 (psf)	24	24	24	18	18	18	12	12	12	12	9	9	9	9	9	6	6	6	6	6	6
				50 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6	x
				60 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				70 (psf)	18	18	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x
				90 (psf)	18	12	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
	D / 13 — Powers 6646			110 (psf)	18	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	12	9	9	9	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
¼"	I-Track with two (2) ¼" Tapper 304 SS per bracket	1 ¾"	2 ½"	40 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6	x
				50 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				60 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x
				70 (psf)	24	18	12	12	12	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x	x
				90 (psf)	18	18	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
	E / 13 — Powers 4114			110 (psf)	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
¼"	I-Track with two (2) ¼" Wedge Bolt or LDT 410 SS per bracket	1 ½"	3"	40 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				50 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				60 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				70 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				90 (psf)	24	24	18	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6	x
	E / 13 — Powers 7701			110 (psf)	24	24	18	18	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x	x
				130 (psf)	24	18	12	12	12	12	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x

NOTES:

1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
3. All anchor holes to be clean and dust free before inserting intended anchor.
4. Anchor spacing subject to rational analysis.
5. All anchors to be as specified or equal.
6. Epoxy equal to Adhesive Technologies Ultrabond.
7. Epoxy Anchor minimum hole diameter:
   - ⅜" Diameter Anchor = 7/16" Hole
   - ½" Diameter Anchor = 9/16" Hole
   - ⅝" Diameter Anchor = 11/16" Hole
   - ¾" Diameter Anchor = 13/16" Hole

Engineering Review By:

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

4000 PSI CONCRETE — ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
3/8"	Drop-In, 303 SS	1 9/16"	4 1/2"	40 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	18	12	12	12	12	12
				50 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9
				60 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				70 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9
				90 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
	A,B, J,K,L / 13 Powers			110 (psf)	24	24	24	24	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6	6
				130 (psf)	24	24	24	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x
1/2"	Drop-In, 303 SS	2"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12
				90 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12
	A,B, J,K,L / 13 Powers			110 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9
				130 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9	9
1/2"	Epoxy Balcony Insert or Threaded Rod / Coupler or Threaded Rod (All 303/316 SS)	2"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12
				90 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	12	9
	K,L,M / 13 Balcony Insert AS # 141006, Threaded Rod AS # 141258, Coupler AS # 141100			110 (psf)	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9
				130 (psf)	24	24	24	24	24	24	18	18	12	12	12	12	12	12	12	9	9	9	9	9	9
1/2"	Epoxy Balcony Insert or Threaded Rod / Coupler or Threaded Rod (All 303/316 SS)	3"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12
				90 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12
	K,L,M / 13 Balcony Insert AS # 141003, Threaded Rod AS # 141251, Coupler AS # 141100			110 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	9	9
				130 (psf)	24	24	24	24	24	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9
1/2"	Epoxy Balcony Insert or Threaded Rod / Coupler or Threaded Rod (All 303/316 SS)	4 1/2"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				90 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18
	K,L,M / 13 Balcony Insert AS # 141007, Threaded Rod AS # 141259, Coupler AS # 141100			110 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18
				130 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12

NOTES:
1. Epoxy equal to Adhesive Technologies Ultrabond.
2. Epoxy Anchor hole diameter :
   - 1/2" Diameter Anchor = 9/16" Hole
   - 5/8" Diameter Anchor = 3/4" Hole
   - 3/4" Diameter Anchor = 7/8" Hole

NOTES:
1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Provide longer fasteners, if required, to allow for thickness or non-structural finished such as stucco, plaster, brick, stone, siding, etc.
3. All anchor holes to be clean and dust free before inserting intended anchor.
4. Anchor spacing subject to rational analysis.
5. All anchors must be as specified or equal.

Engineering Review By:

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

4000 PSI CONCRETE — ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
5/16"	I-Track with two (2) 5/16" Tapcon XL per bracket E 13 ITW Buildex 3395902	2"	3 1/8"	40 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				50 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6
				60 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6
				70 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
				90 (psf)	24	24	18	18	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				110 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x
				130 (psf)	18	12	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
5/16"	I-Track with two (2) 5/16" Tapcon XL per bracket E 13 ITW Buildex 3395902	2 1/4"	3 1/8"	40 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				50 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				60 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				70 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6
				90 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6	x
				110 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				130 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x
3/8"	I-Track with two (2) 3/8" Wedge Bolt or LDT 410 SS per bracket C,E 13 Powers 7705	2 1/4"	4"	40 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9
				50 (psf)	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	9	9	9	9	9
				60 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6
				70 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				90 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	9	6	6	6	6	6	6	6
				110 (psf)	24	24	18	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6	x	x
				130 (psf)	24	18	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x
3/8"	I-Track with two (2) 3/8" Wedge Bolt or LDT 410 SS per bracket C,E 13 Powers 7705	3 1/2"	4"	40 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12
				50 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				60 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9
				70 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	9	6	6
				90 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6
				110 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
				130 (psf)	24	24	18	18	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
3/8"	I-Track with two (2) 3/8" Mushroom Head Spikes 316 SS per bracket D,E 13 Powers 6646, 6648, 6650	1 3/4"	5 1/4"	40 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				50 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6
				60 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x
				70 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				90 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x
				110 (psf)	18	12	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
				130 (psf)	18	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x

NOTES:

1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
3. All anchor holes to be clean and dust free before inserting intended anchor.
4. Anchor spacing subject to rational analysis.
5. All anchors to be as specified or equal.

Engineering Review By:

5/21/10

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

SOLID GROUTED CMU — ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
3/8"	Drop-In, 303 SS	1 5/8"	4"	40 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				50 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
				60 (psf)	24	24	18	18	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x	x
				70 (psf)	24	24	18	12	12	12	12	9	9	6	6	6	6	6	6	6	x	x	x	x	x
	A,B / 13 Powers			90 (psf)	24	18	12	12	12	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x	x
				110 (psf)	18	12	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
				130 (psf)	18	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x
1/2"	Drop-In, 303 SS	2"	6"	40 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				50 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				60 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				70 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6
	A,B / 13 Powers			90 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6	x
				110 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				130 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x
3/8"	Wedge Bolt or LDT, 410 SS	2 1/2"	4"	40 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				50 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9	6	6
				60 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				70 (psf)	24	24	24	24	18	18	12	12	12	12	9	9	9	9	9	6	6	6	6	6	6
	C / 13 Powers 7706			90 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x
				110 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x
				130 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x
1/2"	Wedge Bolt or LDT, 410 SS	2 1/2"	4"	40 (psf)	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9	9
				50 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9
				60 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6	6
				70 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
	C / 13 Powers 7710			90 (psf)	24	24	24	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6	x
				110 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				130 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x

NOTES:

1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
3. All anchor holes to be clean and dust free before inserting intended anchor.
4. Anchor spacing subject to rational analysis.
5. All anchors to be as specified or equal.

Engineering Review By:

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

SOLID GROUTED CMU — ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
3/8"	Epoxy Balcony Insert or Threaded Rod / Coupler or Threaded Rod (All 303/316 SS) K,L,M / 13 — Balcony Insert AS # 141387, Threaded Rod AS # 141358, Coupler AS # 141460	3 1/2"	5"	40 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	9	6	6
				50 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				60 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
				70 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6	x
				90 (psf)	24	18	18	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x	x
				110 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x
				130 (psf)	18	12	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
1/2"	Epoxy Balcony Insert or Threaded Rod / Coupler or Threaded Rod (All 303/316 SS) K,L,M / 13 — Balcony Insert AS # 141007, Threaded Rod AS # 141259, Coupler AS # 141100	4 1/4"	5"	40 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12
				50 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	12	9	9	9
				60 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9
				70 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6
				90 (psf)	24	24	24	24	18	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6
				110 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
				130 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
3/8"	Mushroom Head Spike, 316 SS D / 13 — Powers 6646	1 3/4"	4"	40 (psf)	24	24	18	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6	x	x
				50 (psf)	24	18	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x
				60 (psf)	18	18	12	12	12	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x	x
				70 (psf)	18	12	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
				90 (psf)	18	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	12	12	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3/8"	Hollow-Set Drop In F / 13 — Powers 9440	1 1/2"	4"	40 (psf)	24	24	18	12	12	12	9	9	9	9	6	6	6	6	6	6	x	x	x	x	x
				50 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x
				60 (psf)	18	18	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
				70 (psf)	18	12	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
				90 (psf)	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	12	9	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

NOTES:

1. (13) Refers to anchor detail on pages 15 - 20.
2. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
3. All anchor holes to be clean and dust free before inserting intended anchor.
4. Anchor spacing subject to rational analysis.
5. All anchors to be as specified or equal.

Engineering Review By:

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

HOLLOW BLOCK CMU AND TERRA COTTA BLOCK WITH STUCCO — ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' 48"	5' 60"	6' 72"	7' 84"	8' 96"	9' 108"	10' 120"	11' 132"	12' 144"	13' 156"	14' 168"	15' 180"	16' 192"	17' 204"	18' 216"	19' 228"	20' 240"	21' 252"	22' 264"	23' 276"	24' 288"
3/8"	Wedge Bolt or LDT, 410 SS C 13 Powers 7705	1 1/4"	4"	40 (psf)	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x
				50 (psf)	18	12	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
				60 (psf)	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x
				70 (psf)	12	12	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				90 (psf)	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	9	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3/8"	Epoxy System: Plastic Umbrella with SS Threaded Insert (All 303/316 SS) G,H,I 13 Red Head HBU-38 AS #141492 with Threaded Rod AS # 141492, Coupler AS # 141460	3 1/4"	4"	40 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				50 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
				60 (psf)	24	24	18	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x
				70 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				90 (psf)	24	18	12	12	12	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x	x
				110 (psf)	18	18	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
				130 (psf)	18	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x
3/8"	Epoxy System: Screen Tube with SS Threaded Insert (All 303/316 SS) G,H,I 13 Stimpson ETS623P AS #141208 with Threaded Rod AS # 141358, Coupler AS # 141460	3 1/4"	4"	40 (psf)	24	24	24	18	12	12	12	12	9	9	9	9	9	6	6	6	6	6	6	6	x
				50 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				60 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x
				70 (psf)	24	12	12	12	12	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x	x
				90 (psf)	18	12	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	12	12	12	9	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	12	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1/2"	Epoxy System: Screen Tube with SS Threaded Insert (All 303/316 SS) G,H,I 13 Galv. Epoxy Screen AS #141384 with Threaded Rod AS # 141258, Coupler AS # 141460	2"	3"	40 (psf)	24	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				50 (psf)	24	12	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x
				60 (psf)	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x
				70 (psf)	18	12	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
				90 (psf)	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	12	9	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1/4"	I-Track with two (2) 1/4" Wedge Bolt or LDT, 410 SS C,E 13 Powers 7701N	1 1/4"	4"	40 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x
				50 (psf)	24	18	18	12	12	12	9	9	9	9	6	6	6	6	6	x	x	x	x	x	x
				60 (psf)	18	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x
				70 (psf)	18	12	12	12	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x	x	x
				90 (psf)	18	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	12	12	9	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	9	9	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

NOTES:
1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
3. All anchor holes to be clean and dust free before inserting intended anchor.
4. Anchor spacing subject to rational analysis.
5. All anchors to be as specified or equal.
6. Allowable for Terra Cotta Block with Stucco values per HTL Test Report # 0365-0416-06, dated 05/31/06.
7. Epoxy equal to Adhesives Technologies Ultrabond.

Engineering Review By:

Gary D Foreman PE
FL PE 57343

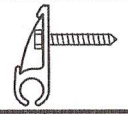
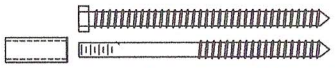
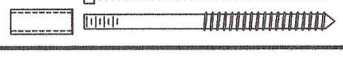
ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

WOOD SYP #2 (0.55 SG) ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
1/4"	C-Channel with Hex Lag Screw SS A,D / 16 	3"	3/4"	40 (psf)	24	24	24	18	12	12	12	12	12	9	9	9	9	9	9	6	6	6	6	6	6
				50 (psf)	24	24	18	12	12	12	12	9	9	9	9	9	6	6	6	6	6	6	x	x	x
				60 (psf)	24	18	18	12	12	12	9	9	9	9	9	6	6	6	6	6	x	x	x	x	x
				70 (psf)	24	18	12	12	12	9	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x
				90 (psf)	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x
				110 (psf)	18	12	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x
3/8"	Female Lag Anchor SS (303/316 SS) B,F / 14 — AS # 141556 	3"	3/4"	40 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6	6
				50 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				60 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6
				70 (psf)	24	24	18	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6	x
				90 (psf)	24	18	18	12	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x
				110 (psf)	24	18	12	12	12	12	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x
				130 (psf)	18	12	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
1/2"	Female Lag Anchor SS (303/316 SS) D,F / 14 — AS # 141272	3 1/2"	3/4"	40 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12	9
				50 (psf)	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				60 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				70 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	6	6	6	6
				90 (psf)	24	24	24	18	18	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6
				110 (psf)	24	24	24	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6	6
				130 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
3/8"	Hex Lag Screw SS or Hanger Bolt with Threaded Coupler (All 303/316 SS) A,D,I / 14 — AS # 141516 or AS # 141538 with AS # 141100 	3"	3/4"	40 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6	6
				50 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				60 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6
				70 (psf)	24	24	18	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6	x
				90 (psf)	24	18	18	12	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x
				110 (psf)	24	18	12	12	12	12	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x
				130 (psf)	18	12	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
1/2"	Hex Lag Screw SS or Hanger Bolt (All 303/316 SS) A,D,I / 14 — AS # 141516 or AS # 141538 with AS # 141100 	3 3/4"	3/4"	40 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12	9
				50 (psf)	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				60 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				70 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	6	6	6	6
				90 (psf)	24	24	24	18	18	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6
				110 (psf)	24	24	24	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6	6
				130 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x

NOTES:
1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Lag Anchor to be fully embedded.
3. Caulk or sealant is recommended all penetrations into a wood substrate.
4. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
5. Design as per NDS 2005.
6. Douglas Fir - Larch is an acceptable alternate.
7. Anchor spacing subject to rational analysis.
8. All anchors to be as specified or equal.

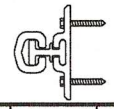
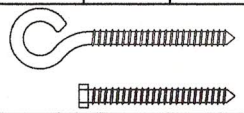
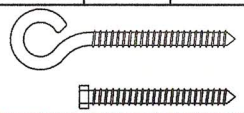
Engineering Review By:
5/2/10
Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:
Scale: Not to Scale |

WOOD SYP #2 (0.55 SG) ANCHOR SPACING IN INCHES

Dia.	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' 48"	5' 60"	6' 72"	7' 84"	8' 96"	9' 108"	10' 120"	11' 132"	12' 144"	13' 156"	14' 168"	15' 180"	16' 192"	17' 204"	18' 216"	19' 228"	20' 240"	21' 252"	22' 264"	23' 276"	24' 288"
¼"	I-Track with two (2) ¼" Hex Lag Screws SS per bracket C,H 14 	2"	1"	40 (psf)	24	24	18	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x
				50 (psf)	24	18	18	12	12	12	9	9	6	6	6	6	6	6	6	x	x	x	x	x	x
				60 (psf)	18	18	12	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x
				70 (psf)	18	12	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
				90 (psf)	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	12	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
⅜"	I-Track with two (2) ⅜" Hex Lag Screws SS per bracket C,H 14 	2"	1 ½"	40 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9
				50 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				60 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6
				70 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6	6
				90 (psf)	24	18	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x
				110 (psf)	18	18	12	12	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x
				130 (psf)	18	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
⅜"	Eye Lag, 304 SS Hex Lag Screw, 304 SS Face Mounted A,I 14 AS # 141500 	1 ¾"	¾"	40 (psf)	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				50 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6
				60 (psf)	24	24	18	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6	x	x
				70 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				90 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x
				110 (psf)	18	18	12	12	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x	x	x
				130 (psf)	18	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
½"	Eye Lag, 304 SS Hex Lag Screw, 304 SS Face Mounted A,I 14 AS # 141192 	2 ½"	⅜"	40 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	12	9	9	9
				50 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9	9	6
				60 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6	6
				70 (psf)	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	6	6	6	6	6
				90 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6
				110 (psf)	24	24	18	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6	x	x
				130 (psf)	24	18	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x

NOTES:
1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Lag Anchor to be fully embedded.
3. Caulk or sealant is recommended all penetrations into a wood substrate.
4. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
5. Design as per NDS 2005.
6. Douglas Fir - Larch is an acceptable alternate.
7. Anchor spacing subject to rational analysis.
8. All anchors to be as specified or equal.

Engineering Review By:
4/26/10
Gary D. Foreman PE
FL PE 57343

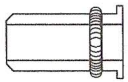
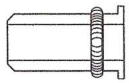
ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

STEEL ANCHOR SPACING IN INCHES

SIZE	Anchor Description / Manufacturer Part Number	Min. Spacing	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
¼" & 5/16" STEEL	⅜" Rivet Nuts Internally Threaded B,C,D,E 15 	2"	1 ¼"	40 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	9	6	6
				50 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				60 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
				70 (psf)	24	24	24	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6	x
				90 (psf)	24	18	18	12	12	12	9	9	9	9	6	6	6	6	6	6	x	x	x	x	x
				110 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x
				130 (psf)	18	18	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
¼" & 5/16" STEEL	½" Rivet Nuts Internally Threaded B,C,D,E 15 	3"	1 ½"	40 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12
				50 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9
				60 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				70 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9
				90 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				110 (psf)	24	24	24	18	18	18	12	12	12	12	9	9	9	9	9	6	6	6	6	6	6
				130 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x
⅜" STEEL	⅜"-16 Drill and Tap D,F 15 SS Bolts	1 ½"	¾"	40 (psf)	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9
				50 (psf)	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9
				60 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	9	6	6
				70 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				90 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6
				110 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x
				130 (psf)	24	18	18	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x	x
⅜" STEEL	½"-13 Drill and Tap SS Bolts D,F 15 SS Bolts	2"	1"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	18	12	12
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12	12	12
				70 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12	12	12	12
				90 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9
				110 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				130 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6

NOTES:
1. (15) Refers to anchor detail on pages 15 - 20.
2. Anchor spacing subject to rational analysis.
3. All anchors to be as specified or equal.

Engineering Review By:

4/29/10

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

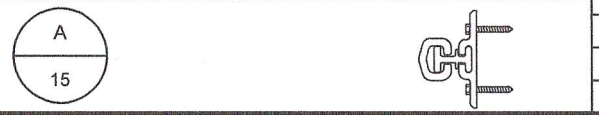
ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

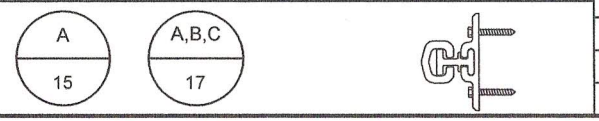
Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

STEEL ANCHOR SPACING IN INCHES

	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' 48"	5' 60"	6' 72"	7' 84"	8' 96"	9' 108"	10' 120"	11' 132"	12' 144"	13' 156"	14' 168"	15' 180"	16' 192"	17' 204"	18' 216"	19' 228"	20' 240"	21' 252"	22' 264"	23' 276"	24' 288"
18 GA METAL STUDS	I-Track with two (2) ¼"-14 TEKS Self Tapping Screws per bracket	x	½"	40 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6
				50 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6	x
				60 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				70 (psf)	18	18	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x
				90 (psf)	18	18	12	12	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x	x
				110 (psf)	18	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	12	9	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x
⅛" (11 GA) STEEL	I-Track with two (2) ¼"-14 TEKS Self Tapping Screws per bracket	x	½"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	18	12	12	12
				50 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12
				60 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12	9
				70 (psf)	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	12	9	9	9
				90 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				110 (psf)	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6
				130 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
¼" STEEL	I-Track with two (2) ¼"-14 TEKS Self Tapping Screws per bracket	x	½"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	18
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	18	12	12
				90 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12
				110 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12
				130 (psf)	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9	9
5/16" STEEL	I-Track with two (2) ¼"-14 TEKS Self Tapping Screws per bracket	x	½"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	18
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	18	12	12
				90 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12
				110 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12
				130 (psf)	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9	9





NOTES:
1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Anchor spacing subject to rational analysis.
3. All anchors to be as specified or equal.

Engineering Review By:

5/2/10

Gary D Foreman PE
FL PE 57343

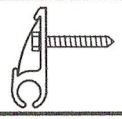
ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

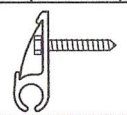
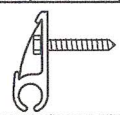
Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

STEEL — ANCHOR SPACING IN INCHES

	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
18 GA METAL STUDS	C-Channel with ¼"-14 TEKS Self Tapping Screw A / 17 	Note 5.	½"	40 (psf)	12	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x
				50 (psf)	12	12	9	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				60 (psf)	12	9	9	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				70 (psf)	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				90 (psf)	9	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	9	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
⅛" (11 GA) STEEL	C-Channel with ¼"-14 TEKS Self Tapping Screw A / 17 	Note 5.	½"	40 (psf)	24	24	18	18	12	12	12	12	9	9	9	9	9	6	6	6	6	6	6	6	x
				50 (psf)	24	18	18	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				60 (psf)	24	18	12	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x
				70 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x
				90 (psf)	18	12	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	12	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	12	12	9	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x

ALUMINUM — ANCHOR SPACING IN INCHES

	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
⅛" ALUMINUM T6063-T6	C-Channel with ¼"-14 TEKS Self Tapping Screw A / 17 	Note 5.	½"	40 (psf)	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x	x
				50 (psf)	18	18	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x	x
				60 (psf)	18	12	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
				70 (psf)	12	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x
				90 (psf)	12	12	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
¼" ALUMINUM T6063-T6	C-Channel with ¼"-14 TEKS Self Tapping Screw A / 17 	Note 5.	½"	40 (psf)	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x	x
				50 (psf)	18	18	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x	x
				60 (psf)	18	12	12	9	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x
				70 (psf)	12	12	12	9	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x
				90 (psf)	12	12	9	6	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				110 (psf)	12	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
				130 (psf)	9	6	6	6	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

NOTES:

1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Anchor spacing subject to rational analysis.
3. All anchors to be as specified or equal.
4. Provide longer fasteners, if required, to allow for thickness of non-structural finishes such as stucco, plaster, brick, stone, siding, etc.
5. Screws shall extend past metal at least ¼"
6. Edge distances and embedments are minimums.

Engineering Review By:

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

ALUMINUM ANCHOR SPACING IN INCHES

	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Edge Dist.	Pressure (psf)	Span 4' 48"	5' 60"	6' 72"	7' 84"	8' 96"	9' 108"	10' 120"	11' 132"	12' 144"	13' 156"	14' 168"	15' 180"	16' 192"	17' 204"	18' 216"	19' 228"	20' 240"	21' 252"	22' 264"	23' 276"	24' 288"
1/8" ALUMINUM T6063-T6	3/8" Rivet Nuts Internally Threaded	x	1"	40 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6
				50 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				60 (psf)	24	24	24	18	18	12	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6
				70 (psf)	24	24	18	18	12	12	12	12	12	9	9	9	6	6	6	6	6	6	6	6	6
				90 (psf)	24	18	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				110 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x	x	x
				130 (psf)	18	12	12	12	9	9	9	6	6	6	6	6	x	x	x	x	x	x	x	x	x
1/4" ALUMINUM T6063-T6	1/2" Rivet Nuts Internally Threaded	x	1 1/2"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12
				50 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12
				60 (psf)	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9	9
				70 (psf)	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9	9	9
				90 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6
				110 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				130 (psf)	24	24	24	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	6
1/8" ALUMINUM T6063-T6	I-Track with two (2) 1/4" - 20 Bolts SS per bracket in 1/4" Rivet Nuts or with Locking Nuts	x	1/2"	40 (psf)	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	9	9	9	9	9
				50 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	12	9	9	9	9	9	6	6	6
				60 (psf)	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	6	6	6	6	6
				70 (psf)	24	24	24	18	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6
				90 (psf)	24	24	24	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6	x	x
				110 (psf)	24	24	18	12	12	12	12	9	9	9	6	6	6	6	6	6	6	x	x	x	x
				130 (psf)	24	18	12	12	12	9	9	9	6	6	6	6	6	6	x	x	x	x	x	x	x
1/4" ALUMINUM T6063-T6	I-Track with two (2) 5/16"-18 Bolts SS per bracket in 1/4" Rivet Nuts or with Locking Nuts	x	3/8"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12
				50 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12
				60 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12	9
				70 (psf)	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	9	9	9
				90 (psf)	24	24	24	24	24	18	18	18	12	12	12	12	12	12	9	9	9	9	9	9	6
				110 (psf)	24	24	24	24	24	18	18	12	12	12	12	12	9	9	9	9	9	9	6	6	6
				130 (psf)	24	24	24	18	18	18	12	12	12	12	9	9	9	9	6	6	6	6	6	6	6

B,C,D,E / 15 — B / 15 — A,B,C / 17

NOTES:
1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Anchor spacing subject to rational analysis.
3. All anchors to be as specified or equal.

Engineering Review By:

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |

EARTH ANCHOR SPACING IN INCHES

	Anchor Description / Manufacturer Part Number	Min. Embed.	Min. Spacing	Pressure (psf)	Span 4' (48")	5' (60")	6' (72")	7' (84")	8' (96")	9' (108")	10' (120")	11' (132")	12' (144")	13' (156")	14' (168")	15' (180")	16' (192")	17' (204")	18' (216")	19' (228")	20' (240")	21' (252")	22' (264")	23' (276")	24' (288")
EARTH	½" x 30" Stabilized Steel Shaft with 4" Helix and Welded Eye	28"	12"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18
				90 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	x	x	x
				110 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	x	x	x	x	x
	G,H / 15 — AS # 141564			130 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	18	x	x	x	x	x	x	x	x
PAVER	½" x 30" Steel Shaft with 4" Helix, ½" Threaded Coupler and ½" Eyebolt	28"	12"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18
				90 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	x	x	x
				110 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	x	x	x	x	x
	G,H / 15 — AS # 141559, 141100, 141108			130 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	18	x	x	x	x	x	x	x	x
ROCK	Epoxy System: ½" Threaded Rod with ½" Coupler and Eyebolt, (All 303/316 SS)	6"	12"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12
				60 (psf)	24	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	12	12
				70 (psf)	24	24	24	24	24	24	24	24	18	18	18	12	12	12	12	12	12	12	12	12	x
				90 (psf)	24	24	24	24	24	24	24	18	18	12	12	12	12	12	12	12	x	x	x	x	x
				110 (psf)	24	24	24	24	24	24	24	12	12	12	12	12	12	x	x	x	x	x	x	x	x
	J / 15 — AS # 141140, 141100, 141108			130 (psf)	24	24	24	24	24	18	18	12	12	12	12	x	x	x	x	x	x	x	x	x	x
ROCK	Epoxy System: ½" Threaded Rod with ½" Coupler and Eyebolt, (All 303/316 SS)	12 ½"	12"	40 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
				50 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18
				60 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18
				70 (psf)	24	24	24	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	18	12	12
				90 (psf)	24	24	24	24	24	24	24	24	24	24	18	18	18	18	18	12	12	12	12	12	12
				110 (psf)	24	24	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	12	12	x
	J / 15 — AS # 141140, 141100, 141108			130 (psf)	24	24	24	24	24	24	18	18	18	18	12	12	12	12	12	12	x	x	x	x	x

NOTES:

1. ⊖ Refers to anchor detail on pages 15 - 20.
2. Earth Anchor values based on Class 3, 4, and 5 Soil (Medium Dense Course Sand) Working Load 3150 lbs.
3. Rock Epoxy System equal to Adhesive Technologies Ultrabond
4. Earth anchor stabilizer equal to 4" x 6" minimum schedule 40 PVC.
5. The paver acts as the stabilizer for the paver anchor.
6. Anchor spacing subject to rational analysis.
7. All anchors to be as specified or equal.

Engineering Review By:

Gary D Foreman PE
FL PE 57343

ARMOR SCREEN
SERIES 2000
HURRICANE PROTECTION

ARMOR SCREEN CORP.
1881 Old Okeechobee Road
West Palm Beach, FL 33409
(561) 841-8890 www.armorscreen.com

Date: 04/26/10 | Rev. Date: | Rev. Date:

Scale: Not to Scale |