ARMOR SCREEN INSTALLATION INSTRUCTIONS:

Armor Screen is a flexible wind abatement and impact protection system utilizing a woven monofilament geotextile that fulfills the 2023 Florida Building Code 8th edition (2023) requirement for opening protection. This system is for use outside the high hurricane zone(HVHZ- Miami-Dade & Broward Counties). For information on use of this system within the HVHZ, refer to Armor Screen's Miami-Dade Notice of Acceptance (NOA) available on the Miami-Dade Product Control website. Separation from glass is required when system is installed within wind zone 4, within the HVHZ and on essential facilities.

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 Tensile Strength	(ASTM D4632)	425 x 325 LBS
Puncture Strength	(ASTM D4833)	130 LBS
Mullen Burst	(ASTM D3786)	675 PSI
Trapezoidal Tear	(ASTM D4533)	150 x 125 LBS
Wide Width Tensile Strength	(ASTM D4595)	225 x 205 LBS/IN
Wide Width Elongation	(ASTM D4595)	22 x 21%
Apparent Opening Size		30 US STD SIEVE.
Percentage of Open Area		5%

The pores in Armor Screen are small enough that the surface tension of water causes the barrier screen to become solid in the presence of rain, and prevents damaging voluminous water intrusion, even from torrential rains.

In dry conditions, the pores remain open, and based on testing, allow approximately 3% of the wind to pass through.

Barrier can be mounted with opposing primary anchored perimeters in vertical, horizontal or any alignment appropriate to the structure being protected.

Design loads calculated to ASCE 7-22 as required by the prevailing building code.

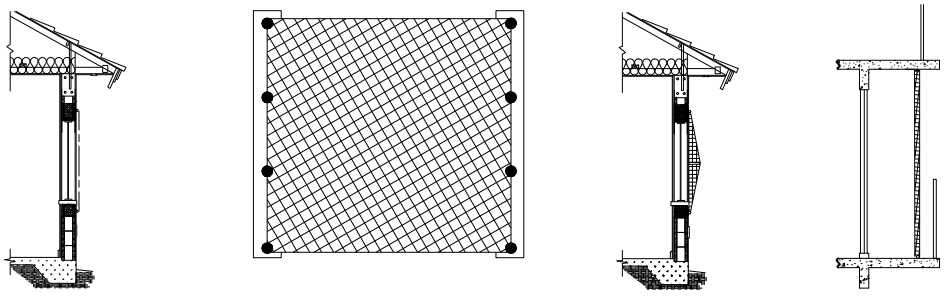
Product marking - a label shall be affixed to the barrier with the following statement: "Armor Screen Corporation, Florida Building Code Approved"

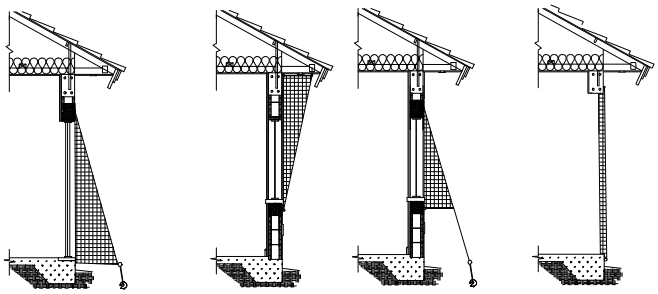
Testing meets Florida Building Code 8th Edition; TAS 201; TAS 202; TAS 203; ASTM E 330-02; ASTM E 1996-17 Level D; and ASTM E 1886-12 per Sections 1620 and 1626 and fulfills its requirement for opening protection.

- ASTM G155
- ASTM D638
- ASTM C158
- ASTM D635 - C1
- ASTM D1929
- ASTM D2843

ALL GEOSYNTHETIC HURRICANE SCREEN ASSEMBLY INSTALLATION DETAILS DEPICTED WITHIN THESE DRAWINGS ARE TYPICAL FOR THE INSTALLATION OF THIS WIND ABATEMENT AND IMPACT PROTECTION SYSTEM ONLY. ALL OTHER BUILDING COMPONENTS SHOWN HEREIN ARE DEPICTED AS EXISTING, AND NOT CONSTRUCTED BY THE SCREEN COMPANY.

EXAMPLES OF TYPICAL INSTALLATIONS





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GORDON DIBATTISTO P.E. No. 82328 (FL)

10/23/2023

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DOP ENGINEERING

1505 SW 147TH AVE.
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OFFICE@DOPENGINEERING.COM
REGISTRY No. 34110

Armor Screen Corp.
2744 Hillsboro Road
West Palm Beach, FL
ArmorScreen.com
(561) 841-8890

TITLE:

ARMOR SCREEN SERIES 2000 FLEXIBLE WIND ABATEMENT/IMPACT PROTECTION SYSTEM

FL #

FL 812 - R10

DATE: 04/23/2015

REVISION DATE: 10/23/2023

SCALE: N.T.S.

Table 1

		Anchor Spacing		Anchor Choices *			
Span	**Deflection**	**1' O/C**	**2' O/C**	**1***	**2***	**3***	**4***
in feet	in inches	Design pressure **		3/8" open eye	3/8" bolt	1/2" open eye	1/2" bolt
4'	5.5"	130	65	X	X	X	X
6'	6.7"	130	65		X	X	X
6'	6.7"	92.75	46	X	X	X	X
8'	8.5"	130	90				X
8'	8.5"	130	65			X	X
8'	8.5"	115	58		X	X	X
8'	8.5"	68.75	34	X	X	X	X
10'	16"	130	90				X
10'	16"	130	65		X	X	X
10'	16"	94.75	47	X	X	X	X
12'	21"	130	90				X
12'	21"	130	65			X	X
12'	21"	120	60		X	X	X
12'	21"	69.75	35	X	X	X	X
14'	30"	130	80				X
14'	30"	130	65			X	X
14'	30"	120	60		X	X	X
14'	30"	64.75	32	X	X	X	X
16'	39"	130	75				X
16'	39"	130	65			X	X
16'	39"	110	55		X	X	X
16'	39"	60	34.25	X	X	X	X
20'	40"	58.00	29.00			X	X
24'	41"	48.00	24.00			X	X

CONCRETE: *Table is intended for drop-in and LDT anchors in concrete.
WOOD: Lag anchoring (incl. LDT) into wood as follows
Column 1*: 3/8" thread, 1.75" penetration into SYP (0.55sg)
Column 2*: 3/8" thread, 3.1" penetration into SYP
Column 3*: 1/2" thread, 3.0" penetration into SYP
Column 4*: 1/2" thread, 3.7" penetration into SYP
EARTH: * Specified earth anchor may be used with any of table choices.
HOLLOW BLOCK: Column 1*, approved epoxy anchoring system for 3/8" & 1/2" thread.
NOTE: **Design pressure may be increased by 5% for negative loads.
TRACK SYSTEM: Table applies to track system, anchored with two 5/16" fasteners per cleat, as follows:
- into hollow block, min. 1 1/4" embed can be installed as in column 1*
- into concrete, min. 1 3/4" embed can be installed as in column 3*
- into concrete, min. 2" embed can be installed as in column 4*
- into wood (SYP. sg. 0.55), min. 1" embed can be installed as in column 1*
- into wood (SYP. sg. 0.55), min. 2" embed installed as in column 3*

NOTES:
Anchor Spacing: varies inversely with pressure and is subject to rational analysis, Max 24"/ Min 6" O.C.
Span: is measured anchor to anchor and is subject to rational analysis.
Deflection: is minimum glass separation measured at mid-span of screen and is subject to rational analysis.
ANCHOR SPECIFICATION:
Lag Anchors: 3/8" Lag Anchor
1/2" Lag Anchor
Tapcon 5/16", 3/8", or 1/2" LDT can anchor in both wood and concrete
Drop-in Anchor: 3/8" Steel Drop-in anchor in 3000 PSI (min.) concrete, 1 1/2" min. embedment, 4 " min. edge distance (Dewalt or equal)
1/2" Steel Drop-in anchor in 3000 PSI (min.) concrete, 2" min. embedment, 5" min. edge distance (Dewalt or equal)
Earth Anchor: Proprietary System: Stabilized 1/2" x 30" Shaft with 4" helix
Working Load of Earth Anchor is 3150 LBS.
Soil Class: 5 (medium dense coarse sand)
Epoxy Anchor: Equal to Red Head umbrella inserts and screens with Dewalt pure 50+ Epoxy.

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ArmorScreen.com
(561) 841-8890

TITLE:
ARMOR SCREEN SERIES 2000 BUCKLE & STRAP SYSTEM

FL #
FL 812 - R10

DATE: 04/23/2015
REVISION DATE: 10/23/2023

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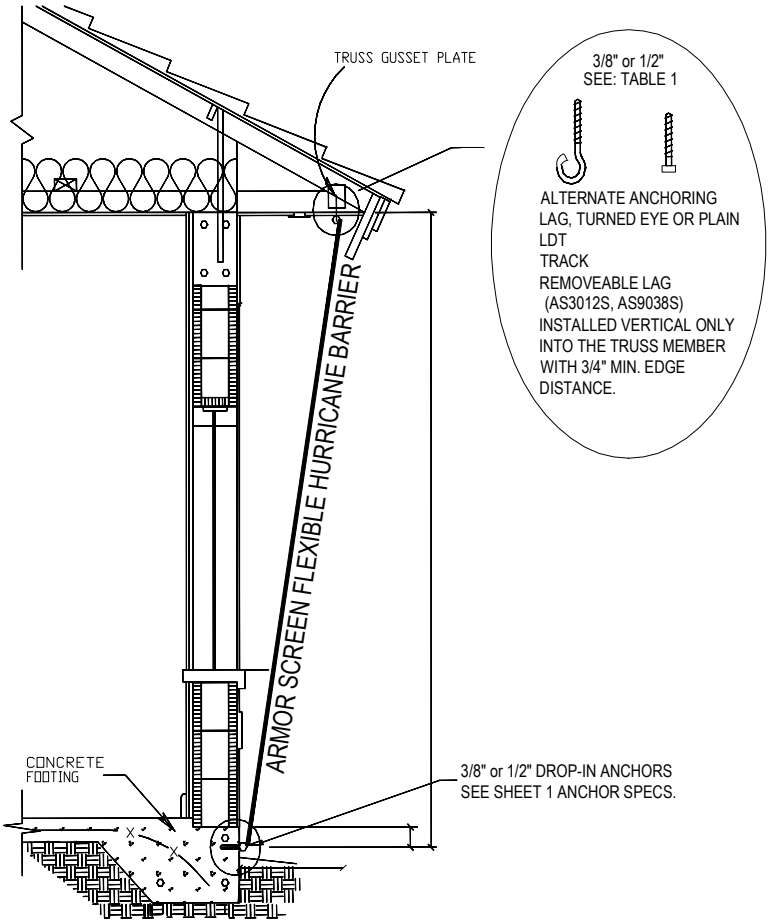
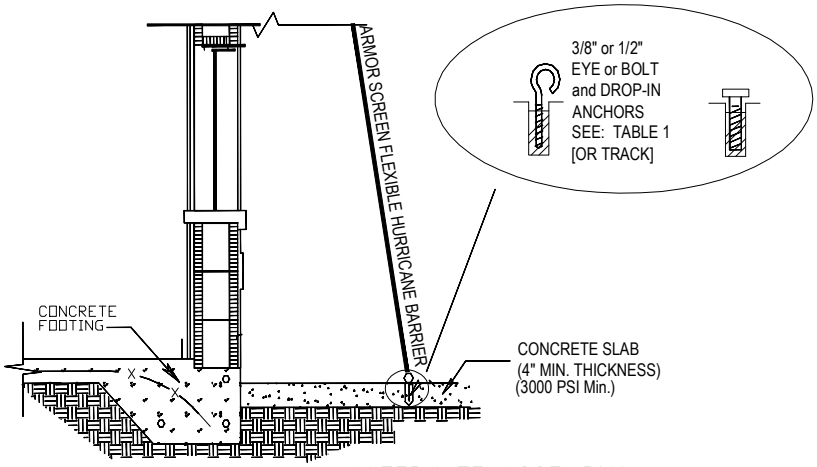


TYPICAL ONE STORY ASSEMBLY INSTALLATION



ALTERNATE ASSEMBLY INSTALLATION AT EXTERIOR SLAB

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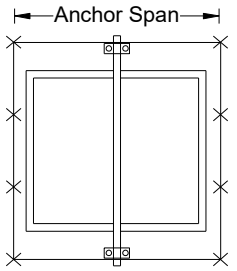
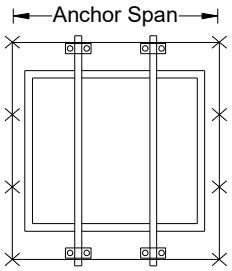
STORM BAR

MAX. STORM BAR SPAN	4'	5'	6'	8'	9' 9"	12'	14'
MAX. PSF	130	86	60	130	60	130	130
SYP 2"x6"	X	X	X				
ALUM. TUBE 2"x6"x⅛" 6063-T6				X			
SYP 4"x8"					X		
ALUM. TUBE 2"x6"x¼" 6061-T6						X	
ALUM. TUBE 2"x8"x¼" 6061-T6							X

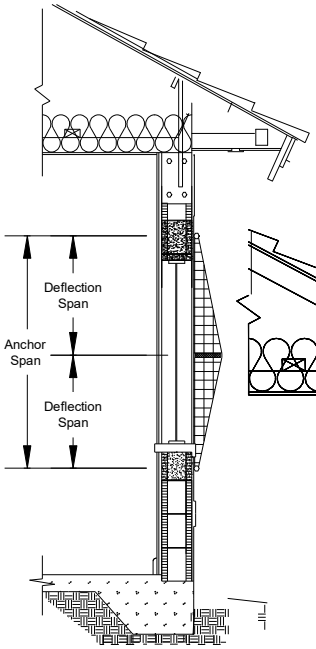
- STORM BAR SPAN IS MEASURED BRACKET TO BRACKET.
- DEFLECTION; ACHIEVED BY ONE OR MORE STORM BARS AND MAY BE INCREASED WITH BLOCKING
- MAX. DEFLECTION TO BE PER NOA AS RELATES TO SPAN. SPAN PROPORTIONATELY REDUCED BY INTERMEDIATE RESTS, SUCH AS STORM BARS OR MULLIONS, AND MEASURED FROM ANCHOR TO PROXIMATE STORM BAR OR BETWEEN PROXIMATE STORM BARS
- THE STORM BAR SPLITS THE ANCHOR / SCREEN SPAN INTO MULTIPLE SPANS, EACH OF WHICH IS USED TO DETERMINE THE MINIMUM DEFLECTION.
- ANCHOR ENDS WITH MINIMUM ¼" HARDWARE
- STORM BAR MAY BE ATTACHED WITH PERMANENT OR REMOVABLE STORM BAR BRACKET, OR BY ATTACHING THE STORM BAR DIRECTLY TO THE WALL.
- ALTERNATE: CUSTOM BRACKET COMPRISED OF 2" X 2" X 1 ½" X ⅛" ALUMINUM ANGLES ON EACH SIDE OF STORM BAR.
- SUBJECT TO RATIONAL ANALYSIS



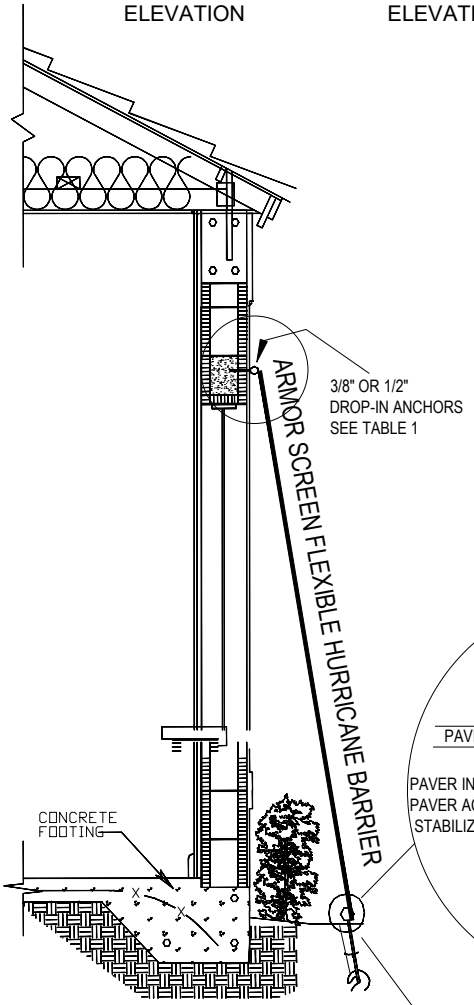
SINGE STORM BAR HORIZONTAL SCREEN ELEVATION



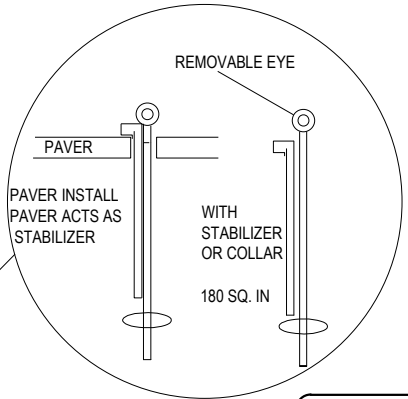
MULTIPLE STORM BAR HORIZONTAL SCREEN ELEVATION



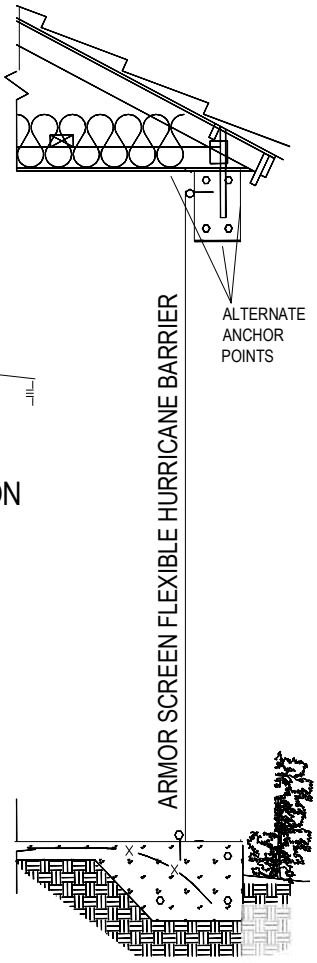
STORM BAR CONFIGURATION



INTO EARTH
ALTERNATE ASSEMBLY INSTALLATION



EARTH ANCHOR, 4" DIAM. HELIX HORIZONTALLY STABILIZED 24" O.C. SEE: TABLE 1



PORCH INSTALLATION

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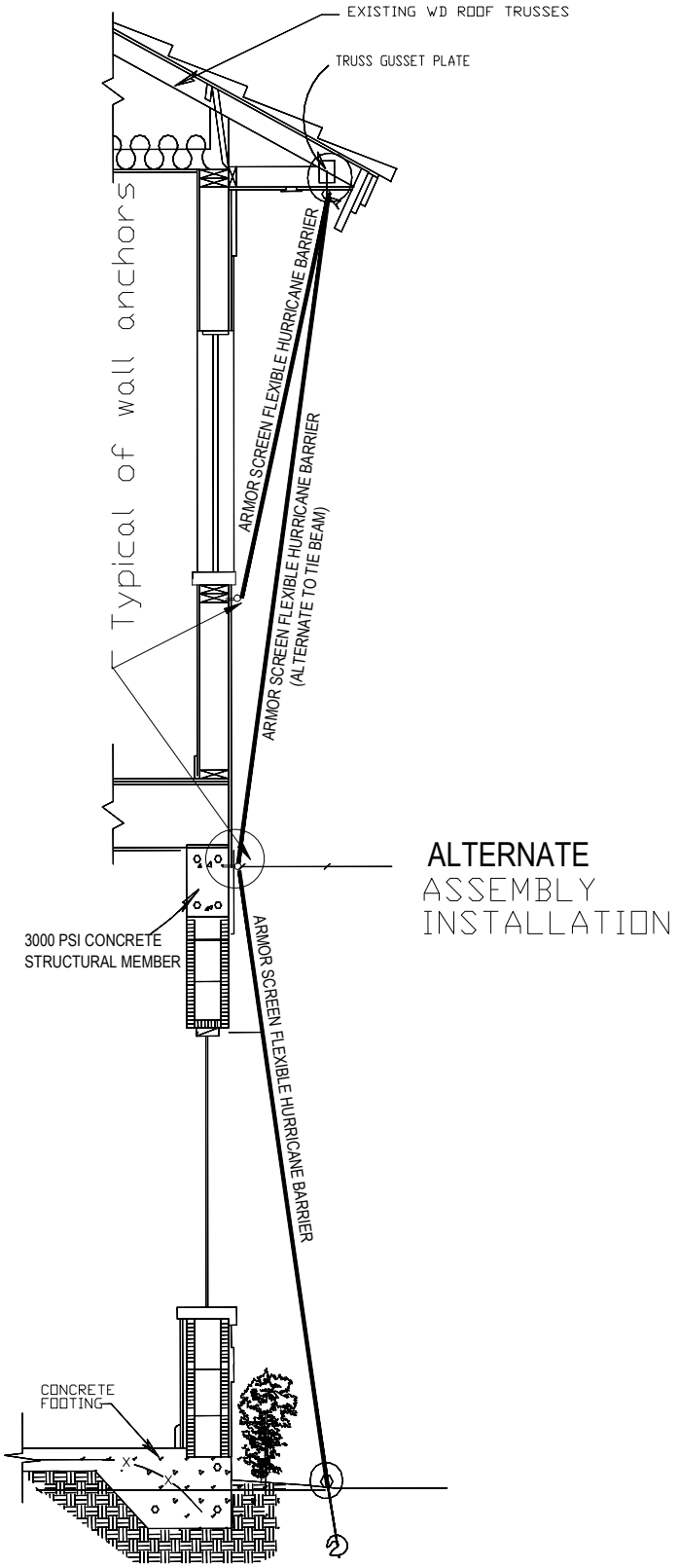
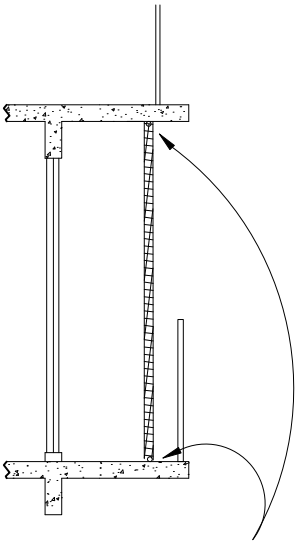
SCALE: N.T.S.

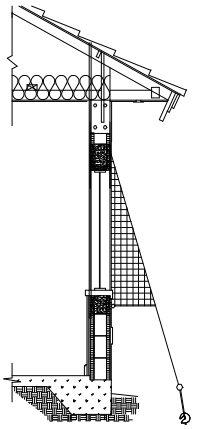


ALTERNATE
ASSEMBLY
INSTALLATION



FOR ANCHOR INSTALLATION
MAINTAIN AT LEAST MIN.
EDGE DISTANCE AND FULL
CAPACITY SPACING FROM
HANDRAIL ANCHORS

BALCONY SCREEN



CLOSED ON SIDES AND
BOTTOM
ANCHORED AT LOWER CORNERS

WINDOW SCREEN

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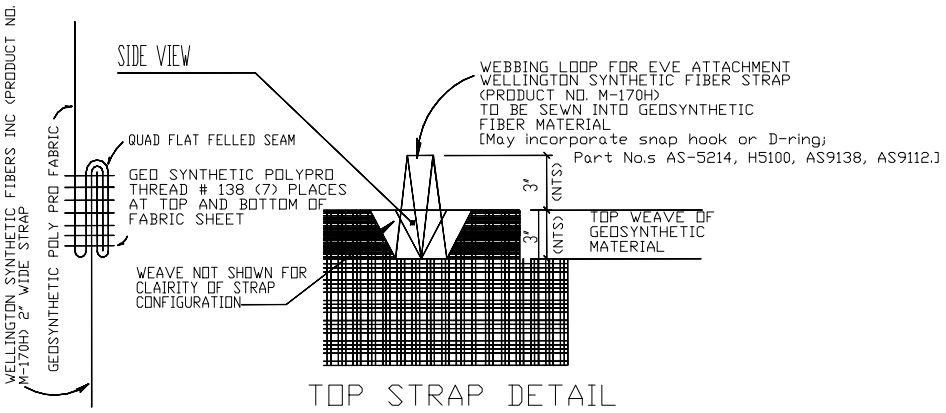
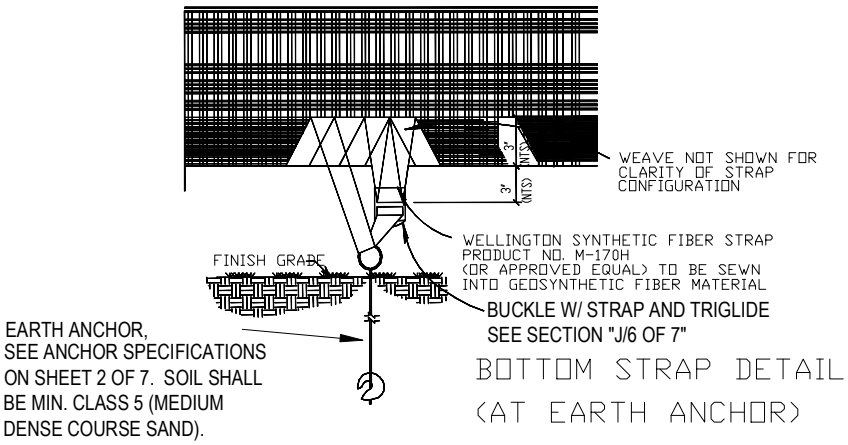
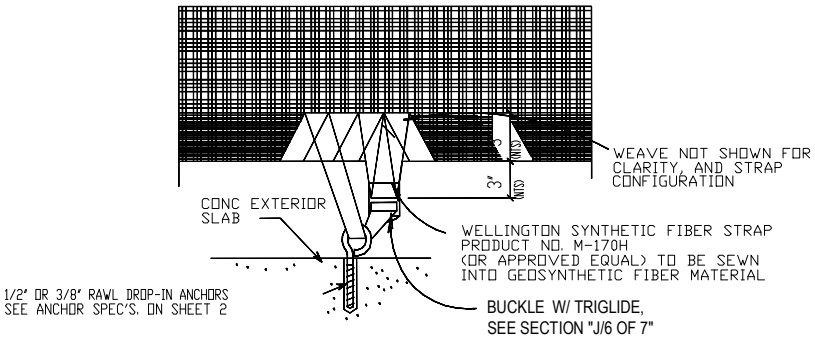


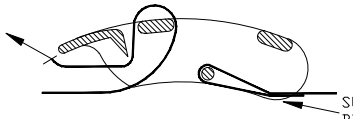
TOP STRAP DETAIL



BOTTOM STRAP DETAIL
(AT EARTH ANCHOR)



BOTTOM STRAP DETAIL
(AT ANCHORAGE INTO CONCRETE)



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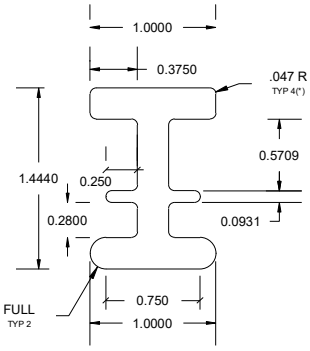
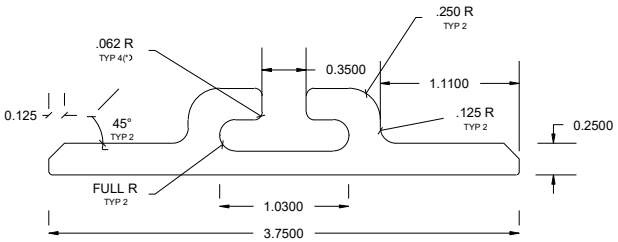
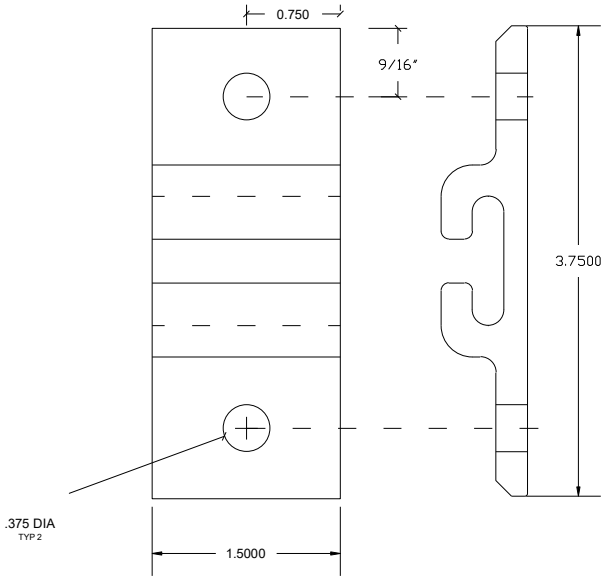


"I" TRACK ALUMINUM
ALLOY 6005-T5



BRACKET (PART # AST-1100)
ALUMINUM ALLOY
6005-T5



D-RING

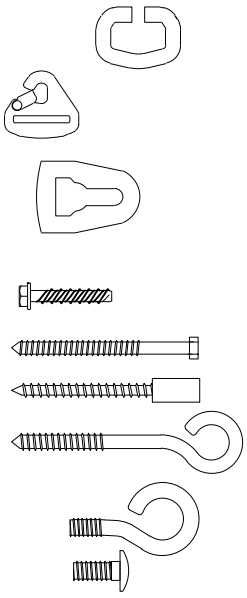
SNAKE HOOKS

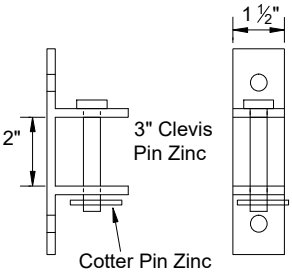
3/8" KEYHOLE CLIPS
1/2" KEYHOLE CLIPS

5/16" TAPCONS
3/8" TAPCONS
1/2" TAPCONS

3/8" LAG ANCHOR
3/8" CARRIAGE BOLT
3/8" EYEBOLT

1/2" LAG ANCHOR
1/2" CARRIAGE BOLT
1/2" EYEBOLT





STORM BAR BRACKET
Type 6063-T6

IMAGES ARE REPRESENTATIVE AND NOT TO SCALE

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SERIES 2000
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SYSTEM

FL #

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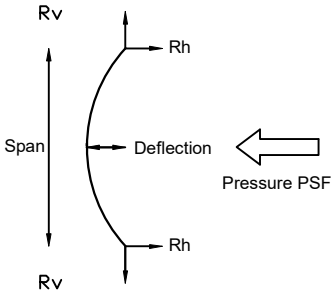
SCALE: N.T.S.

LOADS ON EXISTING STRUCTURE FROM SCREEN SYSTEM Rh= PERPENDICULAR LOADS (PSF)									
Span in feet	Span in inches	PRESSURE (PSF)							
		30 psf	40 psf	50 psf	60 psf	70 psf	90 psf	110 psf	130 psf
3 ft.	38 in.	45	60	75	90	105	135	165	195
4 ft.	48 in.	60	80	100	120	140	180	220	260
5 ft.	60 in.	75	100	125	150	175	225	275	325
6 ft.	72 in.	90	120	150	180	210	270	330	390
7 ft.	84 in.	105	140	175	210	245	315	385	455
8 ft.	96 in.	120	160	200	240	280	360	440	520
9 ft.	108 in.	135	180	225	270	315	405	495	585
10 ft.	120 in.	150	200	250	300	350	450	550	650
11 ft.	132 in.	165	220	275	330	385	495	605	715
12 ft.	144 in.	180	240	300	360	420	540	660	780
13 ft.	156 in.	195	260	325	390	455	585	715	845
14 ft.	168 in.	210	280	350	420	490	630	770	910
15 ft.	180 in.	225	300	375	450	525	675	825	975
16 ft.	192 in.	240	320	400	480	560	720	880	1040
17 ft.	204 in.	255	340	425	510	595	765	935	1105
18 ft.	216 in.	270	360	450	540	630	810	990	1170
19 ft.	228 in.	285	380	475	570	665	855	1045	1235
20 ft.	240 in.	300	400	500	600	700	900	1100	1300
21 ft.	252 in.	315	420	525	630	735	945	1155	1365
22 ft.	264 in.	330	440	550	660	770	990	1210	1430
23 ft.	276 in.	345	460	575	690	805	1035	1265	1495
24 ft.	288 in.	360	480	600	720	840	1080	1320	1560



LOADS ON EXISTING STRUCTURE FROM SCREEN SYSTEM Rv= PARALLEL LOADS (PLF)									
Span in feet	Span in inches	PRESSURE (PSF)							
		30 psf	40 psf	50 psf	60 psf	70 psf	90 psf	110 psf	130 psf
3 ft.	38 in.	59	76	92	109	126	129	127	128
4 ft.	48 in.	78	101	123	145	168	172	169	171
5 ft.	60 in.	98	126	154	182	369	215	211	214
6 ft.	72 in.	118	151	185	218	251	258	253	257
7 ft.	84 in.	137	176	215	254	293	301	296	299
8 ft.	96 in.	157	201	246	291	335	344	338	342
9 ft.	108 in.	177	227	277	327	377	387	380	385
10 ft.	120 in.	196	252	308	363	419	430	422	428
11 ft.	132 in.	216	277	338	400	461	474	464	470
12 ft.	144 in.	235	302	369	436	503	517	507	513
13 ft.	156 in.	255	327	400	472	545	560	549	556
14 ft.	168 in.	275	353	431	509	587	603	591	599
15 ft.	180 in.	294	378	461	545	629	646	633	641
16 ft.	192 in.	314	403	492	581	670	689	676	684
17 ft.	204 in.	333	428	523	618	712	732	718	727
18 ft.	216 in.	353	453	554	654	754	775	760	770
19 ft.	228 in.	373	479	584	690	796	818	802	812
20 ft.	240 in.	392	504	615	727	838	861	844	855
21 ft.	252 in.	412	529	646	763	880	904	887	898
22 ft.	264 in.	431	554	677	799	922	947	929	941
23 ft.	276 in.	451	579	707	836	964	990	971	984
24 ft.	288 in.	471	604	738	872	1006	1033	1013	1026

NOTES:

1. Deflections are delivered from test results.
2. Deflection is the minimum glass separation measured at mid span of the screen and subject to rational analysis.
3. Reaction Rh can be positive (towards structure) or negative (away from structure).
4. Rv is always tension as shown.

Armor Screen Corp.
2744 Hillsboro Road
West Palm Beach, FL
ArmorScreen.com
(561) 841-8890

TITLE:

ARMOR SCREEN SERIES 2000 BUCKLE & STRAP SYSTEM

FL #

FL 812

DATE: 04/23/2015

REVISION DATE: 10/23/2023

SCALE: N.T.S.