

**HURRICANE PAD - FLORIDA  
H - CLASS  
ALL COUNTIES WITH A MAXIMUM WIND SPEED UP TO 150 MPH**

5523 WEST CYPRESS STREET  
SUITE 200  
TAMPA, FLORIDA 33607

CA: 8426

JAMES R. MEHLTRETTER, P.E.  
FL # 33860

February 17, 2014

CLIENT: DIVERSITECH  
PROJECT: WIND ANALYSIS OF 4" HURRICANE PADS MAX. WIND SPEED UP TO 150 MPH  
CODES: FLORIDA BUILDING CODE 2010  
ASCE 7-10  
RISK CATEGORY = II  
BASIC WIND SPEED = 150 MPH

Kz= 0.85 Exposure C ; Table 28.3-1  
Kd= 0.85 Table 26.6-1  
Kzt= 1.00 Figure 26.8-1

Wind Speed V= 150.00 MPH  
qz= 0.00256\*Kz\*Kzt\*Kd\*V<sup>2</sup>  
F= qz\*G\*Cl\*Af (Eq. 29.5-2)  
G= 0.85  
Cl= (Figure 29.5-1) 1.30

1/4" DIA. TAPCON SCREW 1" EMB

PULLOUT = 1140# ULT  
PULLOUT = 285# SERVICE

INSTALL SCREWS THROUGH UNIT BASE 22 GAGE  
MINIMUM USING HC-1 HURRICANE CLIPS (8 TOTAL)

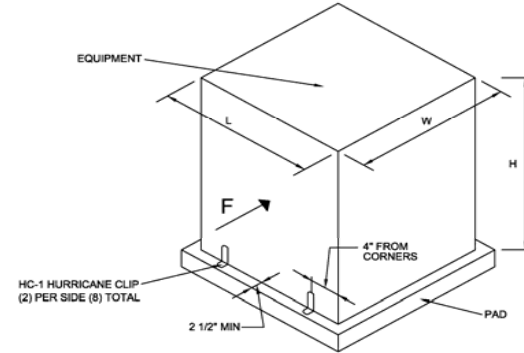
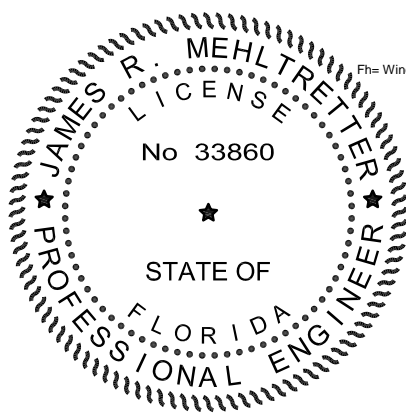
Wind Pressure 45.93 PSF  
Fh= Wind Pressure \*Ah  
Ah = L x H

HURRICANE PAD 4 INCHES THICK

MODEL #	WEIGHT	L	W
H1840-4	92	18	40
H2424-4	50	24	24
H2436-4	70	24	36
H3030-4	70	30	30
H3060-4	135	30	60
H3232-4	87	32	32
H3345-4	125	33	45
H3434-4	87	34	34
H3636-4	100	36	36
H3642-4	117	36	42
H3648-4	133	36	48
H3652-4	140	36	52
H3852-4	145	38	52
H3672-4	190	36	72
H3842-4	158	38	42
H3865-4	170	38	65
H4040-4	140	40	40
H4242-4	145	42	42
H4558-4	180	45	58
H5557-4	240	55	57

WIND SPEED 150 MPH

Pressure 45.93 PSF



**NOTES:**

- LOAD COMBINATION ASD PER 2.4.1 ASCE 7-10  
0.6 x DEAD + 0.6 x WIND (ASCE 7-10; 2.4.1)
- DESIGN IS BASED ON SECTION 29.5 OF ASCE 7-10 "OTHER STRUCTURES"  
UNITS ARE TO BE LOCATED ON THE GROUND.
- ALL OTHER UNITS NOT SHOWN MUST BE DESIGNED ON A CASE BY CASE BASIS.
- LARGER HURRICANE PAD USED IN SOME COMBINATIONS TO SATISFY DESIGN CHECK.
- WIND PRESSURE ON UNITS IN ACCORDANCE WITH ASCE 7-10 FIGURE 29.5-1
- ORIGINAL EQUIPMENT MANUFACTURER INSTALLATION INSTRUCTIONS SUPERSEDE HURRICANE PAD INSTALLATION INSTRUCTIONS IF MORE STRINGENT.



MAXIMUM UNIT DIMENSIONS			MINIMUM WEIGHT	PAD WEIGHT	.6(UNIT + PAD) WEIGHT	.6xDEAD ASD DEAD LOAD MOMENT FT-#	F #	.6xWIND ASD DESIGN WIND MOMENT FT-#	SF OVERTURN	DESIGN CHECK	REMARKS	Allowable Pressure qz PSF	Allowable Wind Speed V MPH	
W	L	H	POUNDS	MODEL NUMBER	#									
23.125	23.125	25.313	100	H3030-4	70	102	127.50	186.69	118.14	1.08	OK	OK FOR 150 MPH	49.6	156
23.125	23.125	25.313	110	H3030-4	70	108	135.00	186.69	118.14	1.14	OK	OK FOR 150 MPH	52.5	160
23.125	23.125	28.660	100	H3636-4	100	120	180.00	211.38	151.45	1.19	OK	OK FOR 150 MPH	54.6	163
25.750	25.750	32.330	141	H3636-4	100	145	216.90	265.51	214.60	1.01	OK	OK FOR 150 MPH	46.4	151
31.200	31.200	32.333	150	H4040-4	140	174	290.00	321.74	260.07	1.12	OK	OK FOR 150 MPH	51.2	158
31.200	31.200	35.750	186	H4040-4	140	196	326.00	355.74	317.94	1.03	OK	OK FOR 150 MPH	47.1	152
31.200	31.200	30.000	170	H3636-4	100	162	243.00	298.52	223.89	1.09	OK	OK FOR 150 MPH	49.8	156
25.750	25.750	28.666	100	H3636-4	100	120	180.00	235.42	168.71	1.07	OK	OK FOR 150 MPH	49.0	155
31.200	31.200	30.000	90	H4040-4	140	138	230.00	298.52	223.89	1.03	OK	OK FOR 150 MPH	47.2	152
31.200	31.200	32.330	153	H4040-4	140	176	293.00	321.71	260.02	1.13	OK	OK FOR 150 MPH	51.8	159
35.000	35.000	28.333	120	H4040-4	140	156	260.00	316.27	224.02	1.16	OK	OK FOR 150 MPH	53.3	161
35.000	35.000	39.125	213	H4558-4	180	236	442.13	436.74	427.18	1.03	OK	OK FOR 150 MPH	47.5	153
35.000	35.000	39.125	205	H4558-4	180	231	433.13	436.74	427.18	1.01	OK	OK FOR 150 MPH	46.6	151
35.000	35.000	42.375	272	H4558-4	180	271	508.50	473.02	501.10	1.01	OK	OK FOR 150 MPH	46.6	151
35.000	35.000	45.938	370	H4558-4	180	330	618.75	512.78	588.90	1.05	OK	OK FOR 150 MPH	48.3	154
24.750	24.750	28.688	110	H3636-4	100	126	189.00	226.45	162.40	1.16	OK	OK FOR 150 MPH	53.4	162
31.200	31.200	28.313	150	H3636-4	100	150	225.00	281.73	199.41	1.13	OK	OK FOR 150 MPH	51.8	159
31.200	31.200	32.313	150	H4040-4	140	174	290.00	321.53	259.74	1.12	OK	OK FOR 150 MPH	51.3	158
31.200	35.000	28.313	150	H3642-4	117	160	240.30	316.04	223.70	1.07	OK	OK FOR 150 MPH	49.3	155
35.000	35.000	39.125	215	H4558-4	180	237	444.38	436.74	427.18	1.04	OK	OK FOR 150 MPH	47.8	153
35.000	35.000	32.333	186	H4040-4	140	196	326.00	360.92	291.75	1.12	OK	OK FOR 150 MPH	51.3	158
35.000	35.000	44.500	337	H4558-4	180	310	581.63	496.74	552.62	1.05	OK	OK FOR 150 MPH	48.3	154
35.000	35.000	45.938	370	H4558-4	180	330	618.75	512.78	588.90	1.05	OK	OK FOR 150 MPH	48.3	154

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Kz= 0.85 Exposure C ; Table 28.3-1  
Kd= 0.85 Table 26.6-1  
Kzt= 1.00 Figure 26.8-1

Wind Speed V= 150.00 MPH  
qz= 0.00256\*Kz\*Kzt\*Kd\*V<sup>2</sup>  
F= qz\*G\*Cl\*Af (Eq. 29.5-2)  
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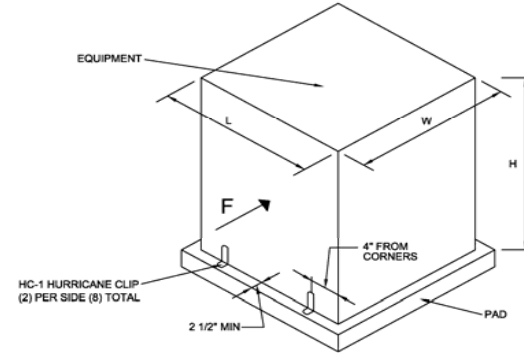
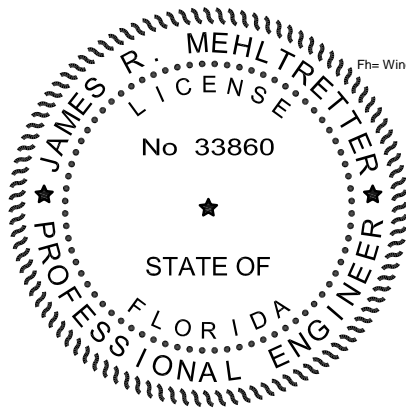
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MINIMUM USING HC-1 HURRICANE CLIPS (8 TOTAL)

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Fh= Wind Pressure \*Ah  
Ah = L x H

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MODEL #	WEIGHT	L	W
H1840-4	92	18	40
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H2436-4	70	24	36
H3030-4	70	30	30
H3060-4	135	30	60
H3232-4	87	32	32
H3345-4	125	33	45
H3434-4	87	34	34
H3636-4	100	36	36
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H3852-4	145	38	52
H3672-4	190	36	72
H3842-4	158	38	42
H3865-4	170	38	65
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H4242-4	145	42	42
H4558-4	180	45	58
H5557-4	240	55	57

WIND SPEED 150 MPH  
Pressure 45.93 PSF



**NOTES:**

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MAXIMUM UNIT DIMENSIONS			MINIMUM WEIGHT	PAD WEIGHT	.6(UNIT + PAD) WEIGHT	.6xDEAD ASD DEAD LOAD MOMENT	F	.6xWIND ASD DESIGN WIND MOMENT	SF OVERTURN	DESIGN CHECK	REMARKS	Allowable Pressure qz PSF	Allowable Wind Speed V MPH
W	L	H	POUNDS	MODEL #	#	FT-#	#	FT-#					
31.200	31.200	39.125	204	H4558-4	180	230	432.00	389.32	1.13	OK	OK FOR 150 MPH	52.1	160
31.200	31.200	39.125	204	H4558-4	180	230	432.00	389.32	1.13	OK	OK FOR 150 MPH	52.1	160
35.000	35.000	39.125	250	H4558-4	180	258	483.75	436.74	1.13	OK	OK FOR 150 MPH	52.0	160
35.000	35.000	42.500	316	H4558-4	180	298	558.00	474.41	1.11	OK	OK FOR 150 MPH	50.8	158
35.000	35.000	45.875	398	H4558-4	180	347	650.25	512.08	1.11	OK	OK FOR 150 MPH	50.8	158
29.250	33.000	39.750	197	H4558-4	180	226	424.13	418.36	1.02	OK	OK FOR 150 MPH	46.9	151
29.250	33.000	39.750	198	H4558-4	180	227	425.25	418.36	1.02	OK	OK FOR 150 MPH	47.0	152
35.500	40.000	37.125	248	H4558-4	180	257	481.50	473.61	1.10	OK	OK FOR 150 MPH	50.3	157
35.500	40.000	37.125	240	H4558-4	180	252	472.50	473.61	1.07	OK	OK FOR 150 MPH	49.4	155
35.500	40.000	45.500	410	H4558-4	180	354	663.75	580.46	1.01	OK	OK FOR 150 MPH	46.2	150
35.500	40.000	47.333	460	H4558-4	180	384	720.00	603.84	1.01	OK	OK FOR 150 MPH	46.3	150
35.500	40.000	46.000	440	H4558-4	180	372	697.50	586.83	1.03	OK	OK FOR 150 MPH	47.5	152
31.200	31.200	39.125	204	H4558-4	180	230	432.00	389.32	1.13	OK	OK FOR 150 MPH	52.1	160
35.000	35.000	39.125	306	H4558-4	180	292	546.75	436.74	1.28	OK	OK FOR 150 MPH	58.8	170
35.000	35.000	45.875	350	H4558-4	180	318	596.25	512.08	1.02	OK	OK FOR 150 MPH	46.6	151
38.000	40.000	45.000	395	H4558-4	180	345	646.88	574.08	1.00	OK	OK FOR 150 MPH	46.0	150
38.000	40.000	47.313	460	H4558-4	180	384	720.00	603.58	1.01	OK	OK FOR 150 MPH	46.3	151
25.750	25.750	25.313	127	H3030-4	70	118	147.75	207.88	1.12	OK	OK FOR 150 MPH	51.6	159
25.750	25.750	32.313	110	H4040-4	140	150	250.00	265.37	1.17	OK	OK FOR 150 MPH	53.6	162
31.200	31.200	25.333	110	H3636-4	100	126	189.00	252.08	1.18	OK	OK FOR 150 MPH	54.4	163
31.200	31.200	32.313	152	H4040-4	140	175	292.00	321.53	1.12	OK	OK FOR 150 MPH	51.6	159
31.200	31.200	25.333	110	H3636-4	100	126	189.00	252.08	1.18	OK	OK FOR 150 MPH	54.4	163
31.200	31.200	35.750	216	H4040-4	140	214	356.00	355.74	1.12	OK	OK FOR 150 MPH	51.4	159
35.000	35.000	28.313	120	H4040-4	140	156	260.00	316.04	1.16	OK	OK FOR 150 MPH	53.4	162

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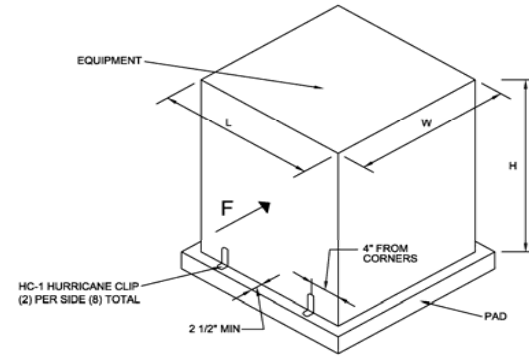
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G= 0.85  
Cl= (Figure 29.5-1) 1.30

Wind Speed V=	150.00	MPH
	41.56	PSF
Wind Pressure	45.93	PSF
Fh= Wind Pressure *Ah		
Ah = L x H		
WIND SPEED	150	MPH
Pressure	45.93	PSF

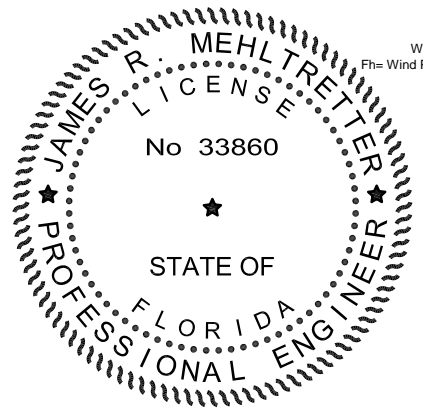
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H3030-4	70	30	30
H3060-4	135	30	60
H3232-4	87	32	32
H3345-4	125	33	45
H3434-4	87	34	34
H3636-4	100	36	36
H3642-4	117	36	42
H3648-4	133	36	48
H3652-4	140	36	52
H3852-4	145	38	52
H3672-4	190	36	72
H3842-4	158	38	42
H3865-4	170	38	65
H4040-4	140	40	40
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- NOTES:**
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W	L	H	POUNDS	MODEL NUMBER	#		#							
31.200	31.200	28.938	169	H3636-4	100	161	242.10	287.95	208.31	1.16	OK	OK FOR 150 MPH	53.4	162
35.000	35.000	32.313	200	H4040-4	140	204	340.00	360.69	291.37	1.17	OK	OK FOR 150 MPH	53.6	162
35.000	35.000	32.313	196	H4040-4	140	202	336.00	360.69	291.37	1.15	OK	OK FOR 150 MPH	53.0	161
35.000	35.000	35.750	220	H4040-4	140	216	360.00	399.06	356.66	1.01	OK	OK FOR 150 MPH	46.4	151
35.000	35.000	28.938	120	H4040-4	140	156	260.00	323.02	233.68	1.11	OK	OK FOR 150 MPH	51.1	158
35.000	35.000	39.125	294	H4040-4	140	260	434.00	436.74	427.18	1.02	OK	OK FOR 150 MPH	46.7	151
31.200	31.200	28.938	174	H3636-4	100	164	246.60	287.95	208.31	1.18	OK	OK FOR 150 MPH	54.4	163
31.200	31.200	28.938	183	H3636-4	100	170	254.70	287.95	208.31	1.22	OK	OK FOR 150 MPH	56.2	166
31.200	31.200	39.125	220	H4242-4	145	219	383.25	389.32	380.80	1.01	OK	OK FOR 150 MPH	46.2	150
35.000	35.000	32.333	188	H4040-4	140	197	328.00	360.92	291.74	1.12	OK	OK FOR 150 MPH	51.6	159
35.000	35.000	39.125	295	H4040-4	140	261	435.00	436.74	427.18	1.02	OK	OK FOR 150 MPH	46.8	151
35.000	35.000	32.333	180	H4040-4	140	192	320.00	360.92	291.75	1.10	OK	OK FOR 150 MPH	50.4	157
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35.000	35.000	35.750	220	H4040-4	140	216	360.00	399.06	356.66	1.01	OK	OK FOR 150 MPH	46.4	151
35.000	35.000	28.938	168	H4040-4	140	185	308.00	323.02	233.68	1.32	OK	OK FOR 150 MPH	60.5	172
35.000	35.000	28.938	160	H4040-4	140	180	300.00	323.02	233.68	1.28	OK	OK FOR 150 MPH	59.0	170
35.000	35.000	39.125	294	H4040-4	140	260	434.00	436.74	427.18	1.02	OK	OK FOR 150 MPH	46.7	151

