STEP 1: DETERMINE WIND VELOCITY PER LOCATION, RISK, AND EXPOSURE

ASCE 7-10 & 7-16 ULT WIND VELOCITY TO ASD DESIGN PRESSURE AT GRADE CONVERSION CHART - HVHZ OR NON HVHZ											
EXAMPLE COUNTY	RISK	EXPOSURE		RISK	EXPOSURE			RISK EXPO		SURE	
	Ì	С	D	II	С	D	I	III, IV	С	D	
FORT MYERS	145 MPH	29.4 PSF	35.6 PSF	160 MPH	35.8 PSF	43.4 PSF		175 MPH	42.8 PSF	51.9 PSF	
PALM BEACH	150 MPH	31.5 PSF	38.1 PSF	170 MPH	40.4 PSF	49.0 PSF	Π	180 MPH	45.3 PSF	54.9 PSF	
BROWARD	156 MPH	34.0 PSF	41.2 PSF	170 MPH	40.4 PSF	49.0 PSF		180 MPH	45.3 PSF	54.9 PSF	
MIAMI-DADE	165 MPH	38.1 PSF	46.1 PSF	175 MPH	42.8 PSF	51.9 PSF		186 MPH	48.4 PSF	58.6 PSF	
MONROE	175 MPH	42.8 PSF	51.9 PSF	180 MPH	45.3 PSF	54.9 PSF		200 MPH	55.9 PSF	67.8 PSF	
Kz (Exp C/D) (Table 26.10-1) = 0.85 1		1.03	Kd (Table 26.6-1) =		0.9		G (Section 26.1)		0.85		
	Kzt (Section 26.8.2) = 1.0			Ke (Section 26.9) = 1				Cf (Tab	e 29.4-1) =	1.4	

NOTE: TABLE ABOVE INCLUDES A QUICK REFERENCE OF COMMON FLORIDA CONDITIONS (AT ULTIMATE DESIGN WIND VELOCITIES) FOR SITE-SPECIFIC CONDITIONS, CONSULT LOCAL BUILDING MUNICIPALITY. MAXIMUM DESIGN WIND PRESSURES AT GRADE PER SPECIFIED EXPOSURE REMAIN CONSTANT FOR ANY MAX WIND VELOCITY. FOR SITE-SPECIFIC WIND VELOCITY AND PRESSURE CONVERSIONS, SEE QR LINK PROVIDED BELOW.

STEP 2: DETERMINE ALLOWABLE WIND PRESSURE PER CONCRETE PAD & UNIT

TABLE 2: ALLOWABLE LATERAL ASD PRESSURE FOR PAD / GENERATOR COMBINATION												
PAD & BASE GENERATOR UNIT DESIGN ALLOWANCES												
PAD + BASE BASE REQ'D		PAD + RASE			OR SECURIOR DESCRIPTION	power.	ALLOWABLE	EQUIVALENT WIND				
HEIGHT, IN		WEIGHT, LB	L, IN	W, IN	H, IN	WT, LB	ASD PRESSURE	EXP C	EXP D			
12 in	36 in	1174 lbs	25	48	29	350	46.1 PSF	180 MPH	160 MPH			
			25	48	29	400	47.6 PSF	180 MPH	165 MPH			
			25	48	29	450	49.1 PSF	186 MPH	170 MPH			
			25	48	29	500	50.6 PSF	190 MPH	170 MPH			
			25	48	29	550	52.1 PSF	190 MPH	175 MPH			
			25	48	29	600	53.6 PSF	195 MPH	175 MPH			
18 in		1372 lbs	25	48	29	350	36.2 PSF	160 MPH	145 MPH			
			25	48	29	400	37.3 PSF	160 MPH	145 MPH			
	36 in		25	48	29	450	38.3 PSF	165 MPH	150 MPH			
			25	48	29	500	39.4 PSF	165 MPH	150 MPH			
			25	48	29	550	40.5 PSF		150 MPH			
			25	48	29	600	41.5 PSF		156 MPH			
			25	48	29	350	34.6 PSF		140 MPH			
			25	48	29	400	35.4 PSF		140 MPH			
24 in	40 in	1654 lbs	25	48	29	450	36.3 PSF		145 MPH			
			25	48	29	500	37.1 PSF	1.0000000000000000000000000000000000000	145 MPH			
			25	48	29	550	38.0 PSF		145 MPH			
			25	48	29	600	97 NASCHOOLEN CODE NACHOO		150 MPH			
	40 in	\	25	48	29	350	29.2 PSF		130 MPH			
		1851 lbs	25	48	29	400	29.8 PSF		130 MPH			
30 in			25 25	48 48	29	450	30.5 PSF		130 MPH			
			25	48	29 29	500 550	31.1 PSF 31.8 PSF		135 MPH 135 MPH			
			25	48	29	600	32.5 PSF		135 MPH			
			25	48	29	350		1	130 MPH			
	44 in	2133 lbs	25	48	29	400			130 MPH			
36 in			25	48	29	450			130 MPH			
			25	48	29	500			130 MPH			
			25	48	29	550			135 MPH			
			25	48	29	600			135 MPH			
			25	48	29	350	25.2 PSF	130 MPH				
	44 in	2330 lbs	25	48	29	400	2-400000-0000-0000	135 MPH	DOMESTING IS			
200			25	48	29	450	26.1 PSF	135 MPH				
42 in			25	48	29	500	26.6 PSF	135 MPH				
			25	48	29	550	27.0 PSF	135 MPH				
			25	48	29	600	27.5 PSF	140 MPH	# 10			
48 in	48 in	2612 lbs	25	48	29	350	25.1 PSF	130 MPH				
			25	48	29	400	25.6 PSF	135 MPH	#5279064.00 # 000			
			25	48	29	450	26.0 PSF	135 MPH	#N/A			
			25	48	29	500	26.4 PSF	135 MPH	#N/A			
			25	48	29	550	26.8 PSF	135 MPH	#N/A			
			25	48	29	600	27.3 PSF	135 MPH	#N/A			

AMERICAST GENERATOR FOAM CORE, 12" TO 48" **ELEVATED CONCRETE PAD**

(ON-GRADE APPLICATIONS ONLY)

GENERATOR

FOAM CORE

ELEVATED PAD

CONCRETE BASE

PAD LENGTH

BASE LENGTH

WIDTH-

PAO WIDTH

COPIES NOT VALID FOR PERMIT

COPIES NOT VALID FOR PERMIT

DESIGN NOTES

- THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE OF THE FLORIDA BUILDING CODE SIXTH & SEVENTH
- POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE.
 MAXIMUM DIMENSIONS AND WEIGHT OF GENERATORS
- UNIT SHALL CONFORM TO SPECIFICATIONS STATED
 - THE AREA UNDER CONCRETE SLAB ON GROUND SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO INSTALLATION ON COMPACTED SOIL AS VERIFIED BY OTHERS. THESE CONCRETE PADS HAVE BEEN DESIGNED FOR A MINIMUM BEARING CAPACITY OF 2,000 PSF AND MINIMUM SUBGRADE MODULUS = 100 PCI. SHOULD OTHER CONDITIONS OR MATERIALS BE ENCOUNTERED, THE ENGINEER OF RECORD SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE WORK.
 SLIDING IS ASSUMED RESISTED BY 2" EMBEDMENT OF
- PAD IN GROUND ALONG WITH RESISTANCE FROM CONNECTED CABLING. NOMIAL SLIDING IS NOT ASSUMED A FAILURE CASE IN THIS DESIGN

GENERAL NOTES

- ELECTRICAL GROUND, WHEN REQUIRED, TO BE DESIGNED & INSTALLED BY OTHERS. ALL MECHANICAL SPECIFICATIONS (CLEAR SPACE, TONNAGE, ETC.) SHALL BE AS PER MANUFACTURER RECOMMENDATIONS AND ARE THE EXPRESS RESPONSIBILITY OF THE CONTRACTOR.

 7. ENGINEER SEAL AFFIXED HERETO VALIDATES
- STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.15.
- NO FLOOD OR WATERPROOFING RATINGS OR
- CERTIFICATIONS ARE INTENDED HOLLOW PADS FOR USE WHERE APPLICABLE BY CODE. USE OF PADS MAY BE SUBJECT TO BUILDING DEPT
- 10. WATER-TIGHTNESS OF EXISTING FINISHES SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR. CONTRACTOR SHALL ENSURE THAT ANY REMOVED OR ALTERED WATERPROOFING MEMBRANE IS RESTORED AFTER FABRICATION AND INSTALLATION OF STRUCTURE PROPOSED HEREIN. THIS ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY WATERPROOFING OR LEAKAGE ISSUES WHICH MAY OCCUR AS WATER-TIGHTNESS SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
- THE ROLE OF THIS ENGINEER FOR THIS PROJECT IS THAT OF SPECIALTY ENGINEER AND NOT THE ENGINEER OF RECORD. CONSEQUENTLY, THE ARCHITECT/ENGINEER OF RECORD SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.

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- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE

BASE TO BE SOLID CONCRETE 6" HOOK TOP & BOT **EPS FOAM CORE** 3"X4" CONCRETE NOTCHES AS SHOWN FQ 0 FQ 0 FQ

PAD SECTION &

REINFORCEMENT PLAN VIEW

AMERICAST

GENERATOR UNIT

PAD DIMENSIONS: PLAN VIEW

HEIGHT

PAD EIGH

ISOMETRIC VIEW

UNIT

GENERATOR UNIT BY

SEPARATE SUBMITTAL

(SEE SCHEDULE FOR SIZE & WEIGHT)

BASE LENGTH: 58

-PAD LENGTH: 54"

HEIGHT

- TABLE 2 NOTES: 1- PAD + BASE WEIGHT CALCULATED BASED ON 107 PCF MIN LIGHTWEIGHT CONCRETE & 1.25 PCF EPS FOAM CORE.
- 2- LIGHTWEIGHT CONCRETE MIN COMPRESSIVE STRENGTH TO BE f'c=2.700 PSI AT 28 DAYS. 3- CONCRETE PAD + BASE HEIGHT ARE MAXIMUMS FOR RATINGS PROVIDED. (EX: RATINGS
- FOR 18 IN PAD ARE ALSO APPLICABLE FOR 13 IN TO 17 IN PADS GIVEN IDENTICAL CONSTRUCTION & MATERIALS). 4- GENERATOR UNIT SIZE TO MATCH INFO SHOWN IN TABLE 2 (+/- 0.5 IN TOLERANCE).
- 5- GENERATOR UNIT WEIGHT TO BE EQUAL OR GREATER THAN SHOWN FOR EACH RATING. (EX: 450 LB UNIT RATING APPLICABLE FOR UNITS 450 TO 499 LBS). 6- GENERATOR'S MANUFACTURER SPECS TO BE PROVIDED WITH THIS MASTER PLAN SHEET
- FOR SUBMISSION & CERTIFICATION. 7- FOR UNITS OR CONDITIONS REQUIRING GREATER ALLOWABLE PRESSURE, ADDITIONAL
- ENGINEERING MAY BE REQUIRED.

ALLOWABLE DESIGN PRESSURE REQUIRED WIND LOAD DESIGN PRESSURES

CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED UNDER SEPARATE CERTIFICATION ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE-SPECIFIC LOAD REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE SHALL BE LESS. THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE "ASD" CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.

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MASTERFIBER MAC 100

EPS FOAM CORE

FACH WAY

#3 BARS @ 12"

W6 X W6 / 6ga X 6ga MESH MIN

GFRC CONCRETE MIX

2. X DISTANCE 3" FROM UNIT EDGE TO CLIP.

ANCHOR REQUIREMENTS

1. Y DISTANCE DEPEND ON GENERATOR BASE LENGTH, NO LESS THAN 2".

Z DISTANCE DEPEND ON GENERATOR BASE WIDTH, NO LESS THAN

COPIES NOT VALID FOR PERMIT

- THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE SIXTH & SEVENTH
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- ENSURE MINIMUM EDGE DISTANCE AS NOTED IN ANCHOR SCHEDULE.
- **ENSURE MINIMUM SPACING TO** ANY ADJACENT ANCHORS.

-3"---

VARIES PER

- INSTALLATION INSTRUCTIONS TO INSTALL ANCHORS
- EXCLUDES FINISHES, IF APPLICABLE.
 - FOLLOW MANUFACTURER'S