

# AMERICAST GENERATOR CONCRETE PAD

(ON-GRADE APPLICATIONS ONLY)



## WIND DESIGN REQUIREMENTS:

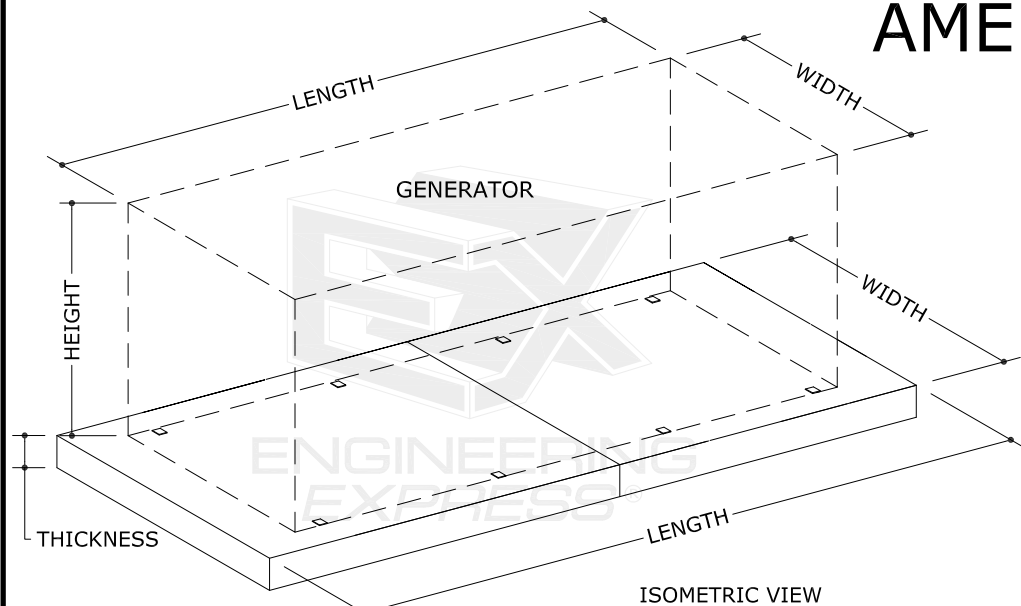
(BASED ON ASCE 7-10 & FLORIDA BUILDING CODE SIXTH EDITION (2017))  
AT-GRADE SIGN METHOD  
ULTIMATE DESIGN WIND SPEED  $V_{ult} = 186$  mph  
NOMINAL DESIGN WIND SPEED  $V_{asd} = 144$  mph  
RISK CATEGORY = III INTERNAL PRESSURE COEF = N/A  
EXPOSURE CATEGORY = D WIND DIRECTIONALITY FACTOR  $K_d = 0.85$   
ENCLOSURE CATEGORY = N/A HEIGHT  $H =$  AT GROUND  
GUST EFFECT FACTOR = 0.85 PRESSURE AT HEIGHT  $q_h = 77.56$  lb/ft<sup>2</sup>  
FORCE COEFFICIENT  $C_f = 1.53$

## WIND PRESSURE:

$P = q_h G C_f = 60.52$  lb/ft<sup>2</sup> (ASD) (SEE TABLE)

## GENERAL NOTES

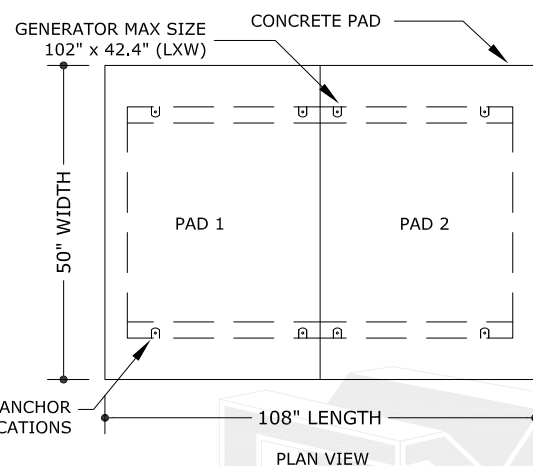
- THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE SIXTH EDITION (2017).
- REQUIRED WIND LOAD DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED UNDER SEPARATE CERTIFICATION ON A JOB-SPECIFIC BASIS IN ACCORDANCE 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 DESIGN PRESSURE "ASD" CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
- DIMENSIONS AND WEIGHT OF GENERATOR SHALL CONFORM TO SPECIFICATIONS STATED HEREIN, OTHERWISE SPECIFIC EVALUATION SHALL BE PERFORMED.
- UNITS MUST BE CENTERED ON PAD WITH OPPOSITE SIDES HAVING EQUAL CLEARANCE. A MINIMUM DISTANCE FROM UNIT TO PAD EDGE IS SPECIFIED.
- 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.
- CONCRETE SLAB ASSUMES LIGHTWEIGHT CONCRETE 115 LB/FT<sup>3</sup> RESISTANCE TO SLIDING OF THE PAD ON THE GROUND IS NOT PART OF THIS DOCUMENT AS SOIL CHARACTERISTICS AND PAD PLACEMENT VARIES.
- 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.
- 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.
- 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.
- THIS DOCUMENT IS GENERIC AND DOES NOT PERTAIN TO ANY SPECIFIC PROJECT SITE. INFORMATION CONTAINED HEREIN IS BASED ON CONTRACTOR-SUPPLIED DATA AND MEASUREMENTS. ENGINEERING EXPRESS SHALL NOT BE HELD RESPONSIBLE OR LIABLE IN ANY WAY FOR ERRONEOUS OR INACCURATE DATA OR MEASUREMENTS. DIMENSIONS ARE SHOWN TO ILLUSTRATE DESIGN FORCES AND OTHER DESIGN CRITERIA. THEY MAY VARY SLIGHTLY, BUT MUST REMAIN WITHIN THE LIMITATIONS SPECIFIED HEREIN. WORK SHALL BE FIELD VERIFIED BY OTHERS PRIOR TO CONSTRUCTION. ENGINEERING EXPRESS SHALL BE NOTIFIED AND GIVEN AN OPPORTUNITY TO REEVALUATE OUR WORK UPON DISCOVERY OF ANY INACCURATE INFORMATION PRIOR TO MODIFICATION OF EXISTING FIELD CONDITIONS AND FABRICATION AND INSTALLATION OF MATERIALS. ALTERATIONS OR ADDITIONS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE OUR CERTIFICATION.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.



COUNTY	HVHZ OR NON-HVHZ			
	RISK I	EXPOSURE C	RISK D	EXPOSURE D
P. BEACH	150 MPH	32.43 Psf	39.33 Psf	56.67 Psf
BROWARD	156 MPH	35.08 Psf	42.57 Psf	56.67 Psf
MIAMI-DADE	165 MPH	39.24 Psf	47.62 Psf	60.52 Psf

## PAD DIMENSIONS:

## GENERATOR TABLE:



BRAND	MODELS	CAPACITY	LENGTH	WIDTH	HEIGHT	WEIGHT	ALLOWABLE PRESSURE	COMMENTS
Generac	QT07068	70KW	96.5 in	37.0 in	48.0 in	2040 lb	45.55 Psf	EXP C 175 & EXP D 156
	SD080	80KW	92.9 in	40.0 in	55.1 in	2900 lb	48.00 Psf	EXP C 180 & EXP D 165
Kohler	80REOZIF OPEN	80KW	92.0 in	34.0 in	48.0 in	2480 lb	55.45 Psf	EXP C 186 & EXP D 175
	60ERESB	60KW	102.0 in	42.4 in	59.6 in	2283 lb	32.43 Psf	EXP C 150
Cummins	DGCG	80KW	83.0 in	40.0 in	48.5 in	2018 lb	51.30 Psf	EXP C 186 & EXP D 170
	RS40 A046F576	40KW	94.0 in	34.0 in	45.5 in	1356 lb	39.50 Psf	EXP C 165
B&S	60 KW	60KW	83.0 in	40.0 in	48.5 in	2520 lb	60.52 Psf	UP TO EXP D 186 MPH
	076000	45KW	84.5 in	39.5 in	44.0 in	1800 lb	55.50 Psf	EXP C 186 & EXP D175

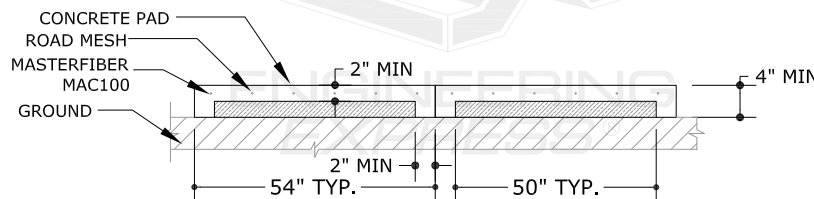
## ANCHOR TO PAD SCHEDULE:

SUBSTRATE	DESCRIPTION
CONCRETE: (6000 PSI MIN.)	(4)-3/8"Ø TITEN HD OR EQUIVALENT, 2" FULL EMBED TO CONCRETE, 3" MIN. EDGE DISTANCE, 6" MIN. SPACING TO ANY ADJACENT ANCHOR.

## NOTES:

- ANCHOR QUANTITY PER LONG SIDE
- EMBEDMENT AND EDGE DISTANCE EXCLUDES FINISHES, IF APPLICABLE.
- ENSURE MINIMUM EDGE DISTANCE AS NOTED IN ANCHOR SCHEDULE.
- ENSURE MINIMUM SPACING TO ANY ADJACENT ANCHORS.
- FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS TO INSTALL ANCHORS.

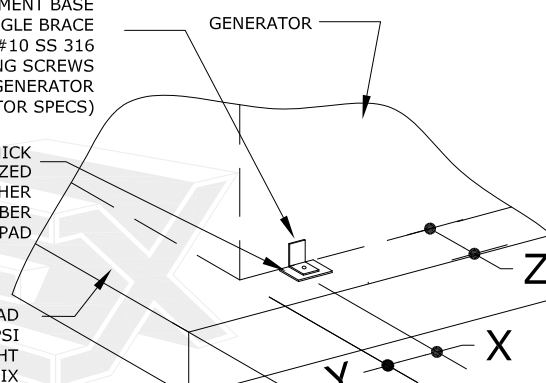
## GENERATOR MOUNTING CONFIGURATION:



GENERATOR ATTACHMENT BASE OR SIMPSON A24 ANGLE BRACE W/ (4) #10 SS 316 SELF-DRILLING SCREWS TO GENERATOR (SEE GENERATOR SPECS)

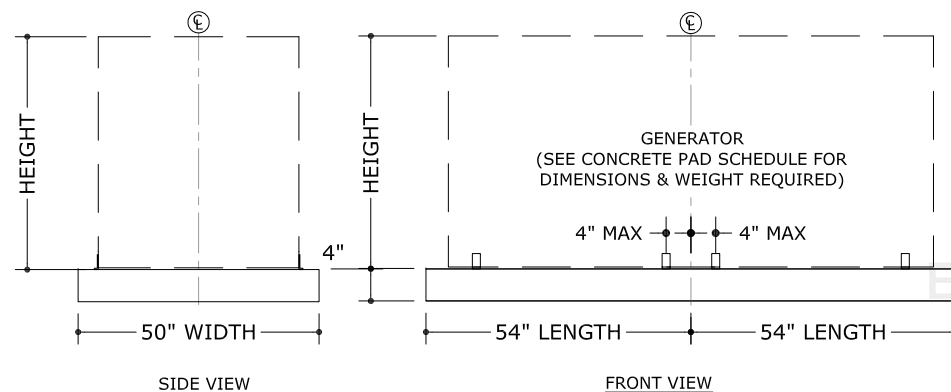
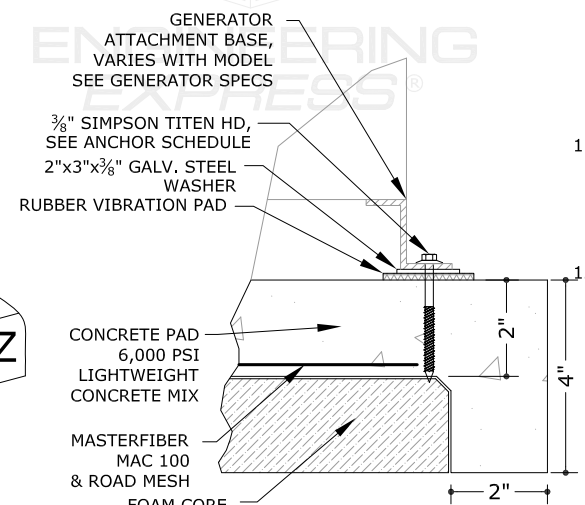
3/8" THICK GALVANIZED WASHER & RUBBER VIBRATION PAD

CONCRETE PAD 6,000 PSI LIGHTWEIGHT CONCRETE MIX



## NOTES:

- Y DISTANCE DEPEND ON GENERATOR BASE LENGTH, NO LESS THAN 2" OR ANCHOR REQUIREMENT.
- X DISTANCE 3" FROM UNIT EDGE TO CLIP.
- Z DISTANCE DEPEND ON GENERATOR BASE WIDTH, NO LESS THAN ANCHOR REQUIREMENTS



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03/30/2018

IF CHECKED, CERTIFYING P.E. APPEARS BELOW  
GORDON DIBATTISTO, P.E.  
PE# 82328

VALID FOR 1 PERMIT ONLY U.N.O.

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DOUBLE PAD 54"X50"  
MASTER PLAN SHEET DOUBLE PAD  
FLORIDA BUILDING CODE SIXTH EDITION (2017)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	LAO	FLB	11/17/17
2017 FBC UPDATE	LAO	FLB	02/16/18

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SCALE: NTS UNLESS NOTED

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