

SolarStrap™

Patented

PV Panel & Racking Information	NOTE: All cells in blue require user input.	ASCE 7-16				
Panel Name =						
Panel Length, l_{panel} =	65.28-in.					
Panel Width, w_{panel} =	39.-in.					
Panel Area, A_{panel} =						
Panel Weight, W_{PV} =	41.88-lb					
Panel Distributed Weight, $W_{PV,dist}$ =	2.37-psf					
Racking Distributed Weight, $W_{racking,dist}$ =	5.0-lb					
Inter Row Spacing	13.-in.					
Panel Tilt Angle	5.°	For elevated racking select 15.1°				
System Distributed Weight, $W_{sys,dist}$ =	1.99-psf					
Array Height Harray=	.92-ft					
Number of Panels in array	12					
Building Geometry						
Building Height, h =	40.0-ft					
Parapet Height, h_{pt} =	.0-ft					
Building Width on Longest Side, W_L =	200.0-ft					
Max Set Back Dist =	20.0-ft	If setback is greater than factor of 1.5 must apply to first two rows all directions				
Is array greater than 500sqft?	No					
Total Array sqft	283 SQ-FT					
L_b =	35.78-ft					
Wind Load Criteria (per ASCE 7-16 Chapters 26 & 30)		Code Section				
Basic Wind Speed*, V =	95-mph	ATC Hazards 26.5.1				
Exposure Category =	C	26.7				
Risk Category* =	II	1.5.1				
Velocity Pressure Coefficient, K_z =	1.04	26.10-1				
Topographic Factor, K_{zt} =	1.00	26.8.2				
Directionality Factor, K_d =	0.85	26.6				
Velocity Pressure, $q_z = 0.00256K_zK_{zt}K_dV^2 =$	20.49-psf	30.3.2				
Load Combos	aW 0.6					
Load Combos	aD 1					
	qZ 20.49-psf					
	M 46.88-lb					
	fn					
	A uplift 17.613 SQ-FT					
	A drag					
	Parapet Factor 1					
	Building Factor 1.11					
Wind uplift Calculation Per RWDI# 1803163						
	Area	1x1	2x1	1x2	2x2	DownForce
North Corner	1	133.42-lb	97.36-lb	109.38-lb	73.32-lb	169.70-lb
North Leading Edge	2	97.36-lb	61.30-lb	73.32-lb	49.28-lb	169.70-lb
East & West Edges	3	121.40-lb	85.34-lb	97.36-lb	73.32-lb	104.72-lb
Field	4	97.36-lb	61.30-lb	73.32-lb	49.28-lb	93.89-lb
South Corner	5	145.44-lb	97.36-lb	109.38-lb	85.34-lb	104.72-lb
South Leading Edge	6	88.74-lb	97.36-lb	85.34-lb	61.30-lb	93.89-lb
Fully Attached large array reduced loads 145.44-lb Reduction per 4.3 of RWDI#1803163						
If set back exceeds "Max set back distance," loads on first 2 rows and columns= 128.01-ft						