

# Project Report

re: 120 Upper A Street  
Installation of 16 panel solar array, rooftop  
installed into existing rafters at 4'0" on center



## Project Details

**Name** Yasi 16  
**Module** Solarworld: Plus SW 280 mono (21.2 kg)  
**Dimensions** 39.4" x 65.9" x 1.2"  
**Tilt** 35°

**Date** 2015-04-01  
**Total Modules** 16  
**Total Watts** 4,480  
**Attachment Pts** 28

## Load Assumptions

**Wind Exposure** B  
**Wind Speed** 100 mph  
**Ground Snow Load** 70 psf  
**Attachment Spacing** 4.0 ft

## Building Details

**Building Height:** 20'  
**Roof Slope** 35 °  
**Risk Category** I

## Engineering Validation

RAILS	XR10	XR100	XR1000
TOTAL PROJECT COST		\$1,436	
MAX SPAN [portrait]			
<b>Zone 1</b>	3' 1"	4' 7"	5' 11"
<b>Zone 2</b>	3' 1"	4' 7"	5' 11"
<b>Zone 3</b>	3' 1"	4' 7"	5' 11"
MAX CANTILEVER [portrait]			
<b>Zone 1</b>	1' 3"	1' 10"	2' 4"
<b>Zone 2</b>	1' 3"	1' 10"	2' 4"
<b>Zone 3</b>	1' 3"	1' 10"	2' 4"

LOADS	DOWN ↓ (lbs)	UPLIFT ↑ (lbs)	LATERAL ↔ (lbs)
ZONES (portrait)			
<b>Zone 1</b>	278.0	-92.0	177.0
<b>Zone 2</b>	278.0	-106.0	177.0
<b>Zone 3</b>	278.0	-106.0	177.0

## SubArray Information

Columns	Rows	Orientation	Required Rail	Provided Rail	Attach Pts	Clamps	Splices
8	2	Portrait	26' 8"	2 sets of 28.0' [2 x 14']	28	8 End Clamps 28 Mid Clamps	4

## Weight Details

Total Weight	Weight / Attachment	Distributed Weight
871 lbs	31.1 lbs	3.0 psf