



**Building Permit Application**  
Howard County Maryland  
Department of Inspections, Licenses and Permits  
3430 Court House Drive  
Permits: 410-313-2455  
[www.howardcountymd.gov](http://www.howardcountymd.gov)

Date Received: 10/27/14  
Permit No.: B14003913

Building Address: 7158 BROOKS ROAD  
City: HIGHLAND State: MD Zip Code: 20777  
Suite/Apt. #: \_\_\_\_\_ SDP/WP/BA #: \_\_\_\_\_  
Census Tract: \_\_\_\_\_ Subdivision: \_\_\_\_\_  
Section: \_\_\_\_\_ Area: \_\_\_\_\_ Lot: \_\_\_\_\_  
Tax Map: \_\_\_\_\_ Parcel: \_\_\_\_\_ Grid: \_\_\_\_\_  
Zoning: \_\_\_\_\_ Map Coordinates: \_\_\_\_\_ Lot Size: \_\_\_\_\_

Existing Use: SFD

Proposed Use: SFD

Estimated Construction Cost: \$ 61,500.00

Description of Work: INSTALLATION OF (120) SOLAR PANELS

MOUNTED FLUSH TO ROOF OF EXISTING SFD ~~XXXX~~

GROUND MOUNTED PANELS PER

Occupant or Tenant: SPECS

Was tenant space previously occupied? ☐ Yes ☐ No

Contact Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Commercial Building Characteristics	Residential Building Characteristics
Height:	<input checked="" type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse
No. of stories:	<b>Depth</b> <b>Width</b>
Gross area, sq. ft./floor:	1 <sup>st</sup> floor:
	2 <sup>nd</sup> floor:
Area of construction (sq. ft.):	Basement:
	<input type="checkbox"/> Finished Basement
Use group:	<input type="checkbox"/> Unfinished Basement
	<input type="checkbox"/> Crawl Space
<b>Construction type:</b>	<input type="checkbox"/> Slab on Grade
<input type="checkbox"/> Reinforced Concrete	No. of Bedrooms:
<input type="checkbox"/> Structural Steel	<b>Multi-family Dwelling</b>
<input type="checkbox"/> Masonry	No. of efficiency units:
<input type="checkbox"/> Wood Frame	No. of 1 BR units:
<input type="checkbox"/> State Certified Modular	No. of 2 BR units:
	No. of 3 BR units:
	Other Structure:
	Dimensions:
<input checked="" type="checkbox"/> <b>Roadside Tree Project Permit</b>	Footings:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Roof:
<b>Roadside Tree Project Permit #</b>	<input type="checkbox"/> State Certified Modular
	<input type="checkbox"/> Manufactured Home

Property Owner's Name: CLIFF BABCOCK  
Address: 7158 BROOKS ROAD  
City: HIGHLAND State: MD Zip Code: 20777  
Phone: 301-512-9307 Fax: \_\_\_\_\_  
Email: \_\_\_\_\_

Applicant's Name & Mailing Address, (If other than stated herein)

Applicant's Name: FEMI ADEGBITE  
Address: 9000 VIRGINIA MANOR ROAD, STE 250  
City: BELTSVILLE State: MD Zip Code: 20705  
Phone: 443-451-3519 Fax: \_\_\_\_\_  
Email: BADEGBITE@SOLARCITY.COM

Contractor Company: SOLARCITY CORPORATION  
Contact Person: FEMI ADEGBITE  
Address: 9000 VIRGINIA MANOR ROAD, STE 250  
City: BELTSVILLE State: MD Zip Code: 20705  
License No.: MHIC 128948  
Phone: 443-451-3519 Fax: \_\_\_\_\_  
Email: BADEGBITE@SOLARCITY.COM

Engineer/Architect Company: SOLARCITY CORPORATION  
Responsible Design Prof.: \_\_\_\_\_  
Address: 9000 VIRGINIA MANOR ROAD, STE 250  
City: BELTSVILLE State: MD Zip Code: 20705  
Phone: 443-451-3519 Fax: \_\_\_\_\_  
Email: \_\_\_\_\_

Utilities	
<b>Water Supply</b>	
<input checked="" type="checkbox"/> Public	
<input type="checkbox"/> Private	
<b>Sewage Disposal</b>	
<input checked="" type="checkbox"/> Public	
<input type="checkbox"/> Private	
Electric: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Gas: <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Heating System</b>	
<input type="checkbox"/> Electric <input type="checkbox"/> Oil	
<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas	
<input type="checkbox"/> Other:	
<b>Sprinkler System:</b>	
<input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Grading Permit Number:</b>	
<b>Building Shell Permit Number:</b>	

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: FEMI ADEGBITE

BADEGBITE@SOLARCITY.COM

Email Address

Jr. Permit Coordinator

Title/Company

FEMI ADEGBITE  
Print Name

10/14/2014

Date

RECEIVED

OCT 27 2014

LICENSES & PERMITS  
DIVISION

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

\*\*PLEASE WRITE NEATLY & LEGIBLY\*\*

FOR OFFICE USE ONLY

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA ( Zoning )		
PSZA ( Engineering )		
Health	12/8/14	H. OSWALD

Is Sediment Control approval required for issuance? ☐ Yes ☐ No  
☐ CONTINGENCY CONSTRUCTION START

DPZ SETBACK INFORMATION
Front:
Rear:
Side:
Side St.:
All minimum setbacks met? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is Entrance Permit Required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Historic District? <input type="checkbox"/> Yes <input type="checkbox"/> No
Lot Coverage for New Town Zone:
SDP/Red-line approval date:

Filing Fee	\$
Permit Fee	\$ 50.00
Tech Fee	\$ 5.00
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$
Add'l per Fee	\$
Total Fees	\$ 55.00
Sub- Total Paid	\$
Balance Due	\$
Check	# 752067

tribution of Copies: White: Building Officials Green: PSZA,Zoning

Yellow: PSZA,Engineering

Pink: Health

Gold: SHA

Operations\Updated Forms\Building applmp 8.2012.docx

14SET1065

## Oswald, Hank

---

**From:** Oswald, Hank  
**Sent:** Wednesday, November 19, 2014 3:47 PM  
**To:** 'Femi Adegbite'  
**Subject:** RE: B14003913

Femi Adegbite:

Yes this looks fine. You will need to submit the revised plans through Permits. Please be sure to let them know that the Health Department will need a copy.

Regards,

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well and Septic Program  
(410) 313 - 1786

---

**From:** Femi Adegbite [<mailto:badegbite@solarcity.com>]  
**Sent:** Wednesday, November 19, 2014 2:15 PM  
**To:** Oswald, Hank  
**Subject:** RE: B14003913

Hello Mr. Oswald,

I have attached a revised set of drawings for the project that addresses the concerns you raised in your previous email/letter. Please review and let me know if it meets your requirements. Also please let me know if this digital copy is sufficient or if you need me to FedEx you a hard copy.

Thanks for your help and I look forward to hearing from you.

Respectfully,

Femi Adegbite | Permit Coordinator | SolarCity | T: (443) 451-3519 | [badegbite@solarcity.com](mailto:badegbite@solarcity.com) | [www.solarcity.com](http://www.solarcity.com)

---

**From:** Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]  
**Sent:** Monday, November 10, 2014 2:00 PM  
**To:** Femi Adegbite  
**Subject:** B14003913

Femi Adegbite:



This letter is in response to building permit B14003913. The application describes the construction of a (120) solar panel ground mounted system. Upon review of the submittal, the site plan did not include the well and all septic components. This is needed to ensure all setbacks are met. Please refer to the attachment for the locations of the well and septic system components.

Please revise your plan to scale and show the well plus all septic components meeting required setbacks to the proposed system.

Building permit approval is being withheld until a revised site plan has been forwarded to the Health Department. I may be reached at (410) 313-1786 if you would like to discuss the project.

Respectfully,

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well and Septic Program  
(410) 313 - 1786

## Oswald, Hank

---

**From:** Oswald, Hank  
**Sent:** Monday, November 10, 2014 2:00 PM  
**To:** 'badegbite@solarcity.com'  
**Subject:** B14003913  
**Attachments:** WS\_BrooksRoad\_7158\_PercApp-2002-Repair.pdf

Femi Adegbite:

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Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well and Septic Program  
(410) 313 - 1786



B14003913

REVISED per Health request  
11-21-14

November 20, 2014

RECEIVED

NOV 21 2014

LICENSES & PERMITS  
DIVISION

Howard County Government  
Department of Inspections, Licenses, and Permits  
3430 Court House Drive  
Ellicott City, MD 21043

Re: Residential Solar Permit Revised Drawings:  
Permit No. B14003913  
7158 BROOKS ROAD

Attn: Ms. Debbie Whalen,

I respectfully submit the enclosed revised drawings of a residential solar electric project in your county. Per Mr. Oswald, of the Health Department, the previous drawings that were submitted "did not include the well and all septic components" (copy of email enclosed). These revised drawings meet addresses those concerns.

Also, per Mr. Oswald's request, please send a copy of these revised drawings to the Health Department.

Once the permits have been approved, please send all permits and receipts to my attention. Thank you for your assistance with this matter, and again, please feel free to contact me with any questions. I can be reached at (443) 451-3519 or [badegbite@solarcity.com](mailto:badegbite@solarcity.com). I look forward to hearing from you soon.

Sincerely,

Femi Adegbite  
Permits Coordinator

**From:** [Oswald, Hank](#)  
**To:** [Femi Adegbite](#)  
**Subject:** RE: B14003913  
**Date:** Wednesday, November 19, 2014 4:14:33 PM

---

Femi Adegbite:

Yes this looks fine. You will need to submit the revised plans through Permits. Please be sure to let them know that the Health Department will need a copy.

Regards,

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well and Septic Program  
(410) 313 - 1786

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**From:** Femi Adegbite [<mailto:badegbite@solarcity.com>]  
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**Subject:** RE: B14003913

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Respectfully,

Femi Adegbite | Permit Coordinator | SolarCity | T: (443) 451-3519 | [badegbite@solarcity.com](mailto:badegbite@solarcity.com) | [www.solarcity.com](http://www.solarcity.com)

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**Sent:** Monday, November 10, 2014 2:00 PM  
**To:** Femi Adegbite  
**Subject:** B14003913

Femi Adegbite:

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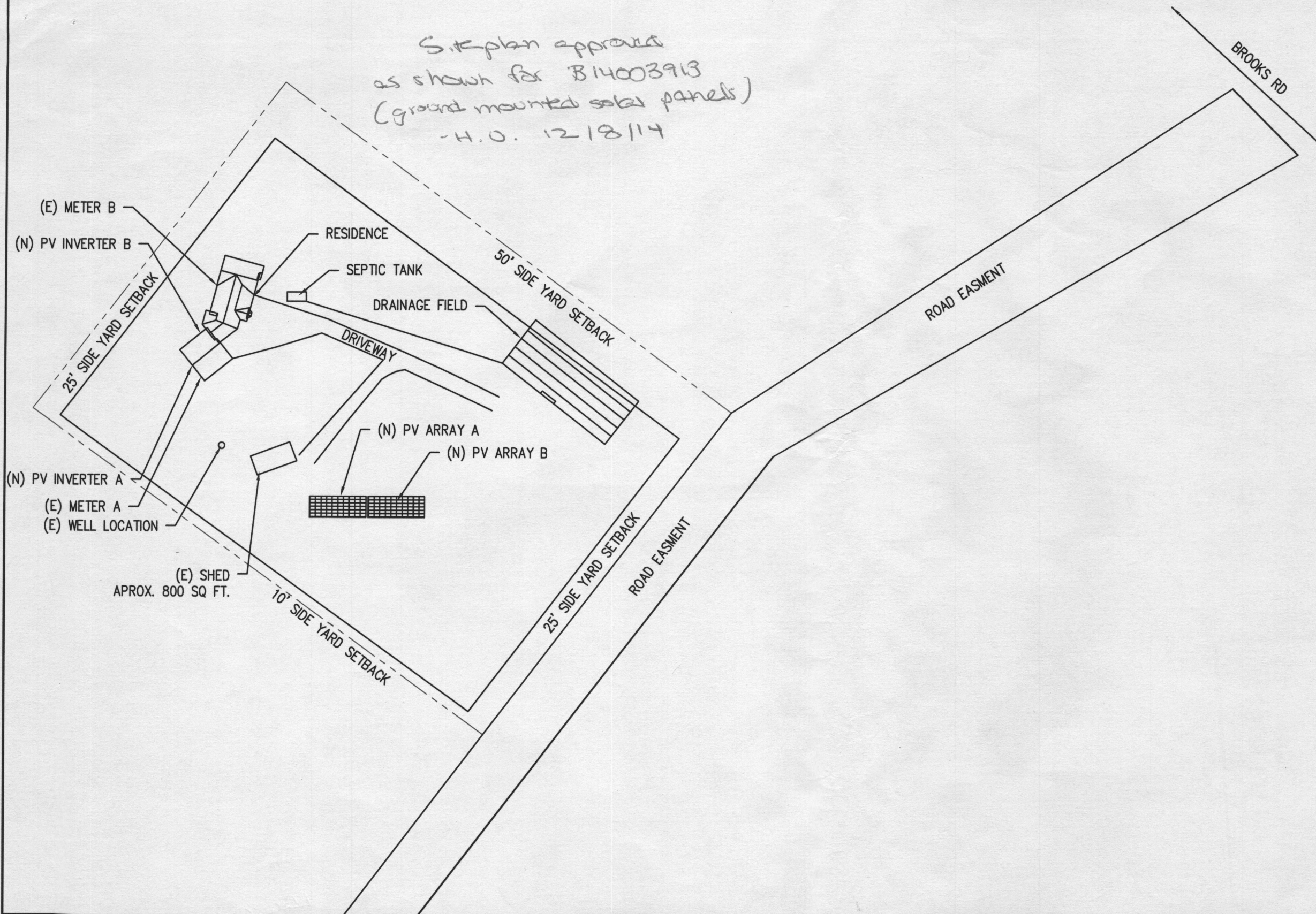
Respectfully,

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well and Septic Program  
(410) 313 - 1786

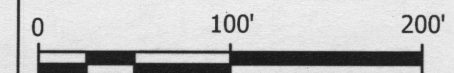


S.K. plan approved  
as shown for B14003913  
(ground mounted solar panels)  
-H.O. 12/8/14



## PROPERTY PLAN

Scale: 1" = 100'-0"



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JOB NUMBER: JB-207832 / JB-207833

MOUNTING SYSTEM:  
SFUSA - SOLAR FOUNDATIONS

MODULES:  
(120) YINGLI # YL250P-29b

INVERTER:  
(4) SOLAREEDGE #SE6000A-US000SNR2

PREMISE OWNER:

BABCOCK, CLIFF  
7158 BROOKS RD  
HIGHLAND, MD 20777

(301) 512-9307

DESCRIPTION:

BABCOCK RESIDENCE  
30kW GROUND MOUNT PV SYSTEM

PAGE NAME:

PROPERTY PLAN

DESIGN:

Dimas-Daniel Urbieto

SHEET:


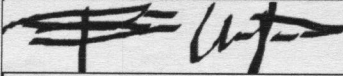

PV 2 B 11/17/2014

REV: DATE:

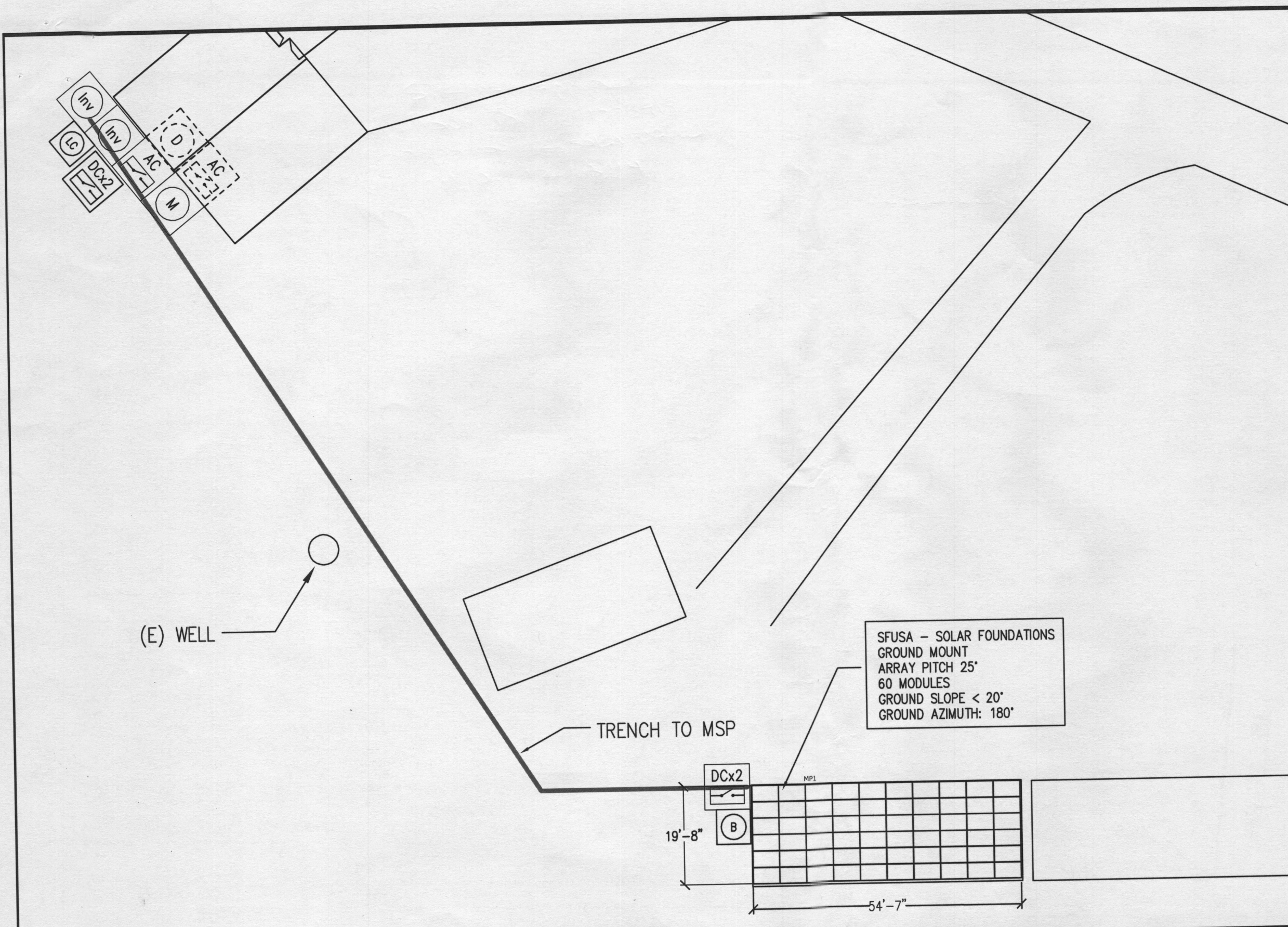


3055 Clearview Way San Mateo, CA 94402  
T: (650) 638-1028 F: (650) 638-1029  
(888)-SOL-CITY (765-2489) www.solarcity.com

















ABBREVIATIONS		ELECTRICAL NOTES		JURISDICTION NOTES	
<div><div>A AMPERE</div><div>AC ALTERNATING CURRENT</div><div>BLDG BUILDING</div><div>CONC CONCRETE</div><div>DC DIRECT CURRENT</div><div>EGC EQUIPMENT GROUNDING CONDUCTOR</div><div>(E) EXISTING</div><div>EMT ELECTRICAL METALLIC TUBING</div><div>FSB FIRE SET-BACK</div><div>GALV GALVANIZED</div><div>GEC GROUNDING ELECTRODE CONDUCTOR</div><div>GND GROUND</div><div>HDG HOT DIPPED GALVANIZED</div><div>I CURRENT</div><div>Imp CURRENT AT MAX POWER</div><div>Isc SHORT CIRCUIT CURRENT</div><div>kVA KILOVOLT AMPERE</div><div>kW KILOWATT</div><div>LBW LOAD BEARING WALL</div><div>MIN MINIMUM</div><div>(N) NEW</div><div>NEUT NEUTRAL</div><div>NTS NOT TO SCALE</div><div>OC ON CENTER</div><div>PL PROPERTY LINE</div><div>POI POINT OF INTERCONNECTION</div><div>PV PHOTOVOLTAIC</div><div>SCH SCHEDULE</div><div>S STAINLESS STEEL</div><div>STC STANDARD TESTING CONDITIONS</div><div>TYP TYPICAL</div><div>UPS UNINTERRUPTIBLE POWER SUPPLY</div><div>V VOLT</div><div>Vmp VOLTAGE AT MAX POWER</div><div>Voc VOLTAGE AT OPEN CIRCUIT</div><div>W WATT</div><div>3R NEMA 3R, RAIN TIGHT</div></div>		<div><div>1. THIS SYSTEM IS GRID-INTERTIED VIA A UL-LISTED POWER-CONDITIONING INVERTER.</div><div>2. THIS SYSTEM HAS NO BATTERIES, NO UPS.</div><div>3. A NATIONALLY-RECOGNIZED TESTING LABORATORY SHALL LIST ALL EQUIPMENT IN COMPLIANCE WITH ART. 110.3.</div><div>4. WHERE ALL TERMINALS OF THE DISCONNECTING MEANS MAY BE ENERGIZED IN THE OPEN POSITION, A SIGN WILL BE PROVIDED WARNING OF THE HAZARDS PER ART. 690.17.</div><div>5. EACH UNGROUNDED CONDUCTOR OF THE MULTI-WIRE BRANCH CIRCUIT WILL BE IDENTIFIED BY PHASE AND SYSTEM PER ART. 210.5.</div><div>6. CIRCUITS OVER 250V TO GROUND SHALL COMPLY WITH ART. 250.97, 250.92(B).</div><div>7. DC CONDUCTORS EITHER DO NOT ENTER BUILDING OR ARE RUN IN METALLIC RACEWAYS OR ENCLOSURES TO THE FIRST ACCESSIBLE DC DISCONNECTING MEANS PER ART. 690.31(E).</div><div>8. ALL WIRES SHALL BE PROVIDED WITH STRAIN RELIEF AT ALL ENTRY INTO BOXES AS REQUIRED BY UL LISTING.</div><div>9. MODULE FRAMES SHALL BE GROUNDED AT THE UL-LISTED LOCATION PROVIDED BY THE MANUFACTURER USING UL LISTED GROUNDING HARDWARE.</div><div>10. MODULE FRAMES, RAIL, AND POSTS SHALL BE BONDED WITH EQUIPMENT GROUND CONDUCTORS.</div></div>		<div>REVISED</div>	
LICENSE		GENERAL NOTES		VICINITY MAP	
<div>#11805 MASTER ELECTRICIAN Nicholaus Meyers</div> <div>MODULE GROUNDING METHOD: WEEB</div> <div>AHJ: Howard County</div> <div>UTILITY: BGE (Baltimore Gas and Electric)</div>		<div><div>1. ALL WORK SHALL COMPLY WITH THE 2012 IBC AND 2012 IRC.</div><div>2. ALL ELECTRICAL WORK SHALL COMPLY WITH THE 2008 NATIONAL ELECTRIC CODE.</div></div>		<div></div>	
INDEX					
<div>PV1 COVER SHEET</div> <div>PV2 PROPERTY PLAN</div> <div>PV3 SITE PLAN A</div> <div>PV4 SITE PLAN B</div> <div>PV5 STRUCTURAL VIEWS</div> <div>PV6 THREE LINE DIAGRAM FOR ARRAY A</div> <div>PV7 THREE LINE DIAGRAM FOR ARRAY B</div> <div>CUTSHEETS ATTACHED</div>					
REV BY DATE COMMENTS					
<div><div>REV A</div><div>DURB</div><div>9/30/14</div><div>Upsized system per customer request</div></div> <div><div>REVB</div><div>DURB</div><div>11/17/14</div><div>Added Plot info from county and changed array location</div></div> <div><div>*</div><div>*</div><div>*</div><div>*</div></div> <div><div>*</div><div>*</div><div>*</div><div>*</div></div> <div><div>*</div><div>*</div><div>*</div><div>*</div></div>					
CONFIDENTIAL - THE INFORMATION HEREIN CONTAINED SHALL NOT BE USED FOR THE BENEFIT OF ANYONE EXCEPT SOLARCITY INC., NOR SHALL IT BE DISCLOSED IN WHOLE OR IN PART TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE SOLARCITY EQUIPMENT, WITHOUT THE WRITTEN PERMISSION OF SOLARCITY INC.		JOB NUMBER: JB-207832 / JB-207833		PREMISE OWNER: BABCOCK, CLIFF 7158 BROOKS RD HIGHLAND, MD 20777  (301) 512-9307	
MOUNTING SYSTEM: SFUSA - SOLAR FOUNDATIONS		MODULES: (120) YINGLI # YL250P-29b		INVERTER: (4) SOLAREDGE #SE6000A-US000SNR2	
DESCRIPTION: BABCOCK RESIDENCE 30kW GROUND MOUNT PV SYSTEM		DESIGN: Dimas-Daniel Urbieto		SHEET: PV 1 B 9/30/2014	
PAGE NAME: COVER SHEET		DESIGN: 		 3055 Clearview Way San Mateo, CA 94402 T: (650) 638-1028 F: (650) 638-1029 (888)-SOL-CITY (765-2489) www.solarcity.com	

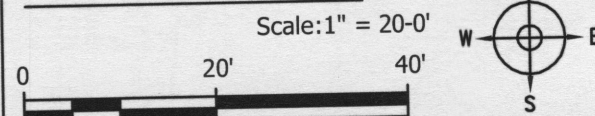




## LEGEND

-  (E) UTILITY METER & WARNING LABEL
-  INVERTER W/ INTEGRATED DC DISCO & WARNING LABELS
-  DC DISCONNECT & WARNING LABELS
-  AC DISCONNECT & WARNING LABELS
-  DC JUNCTION/COMBINER BOX & LABELS
-  DISTRIBUTION PANEL & LABELS
-  LOAD CENTER & WARNING LABELS
-  DEDICATED PV SYSTEM METER
-  STANDOFF LOCATIONS
-  CONDUIT RUN ON EXTERIOR
-  CONDUIT RUN ON INTERIOR
-  GATE/FENCE
-  HEAT PRODUCING VENTS ARE RED
-  INTERIOR EQUIPMENT IS DASHED

## SITE PLAN



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SFUSA - SOLAR FOUNDATIONS

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PREMISE OWNER:  
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(301) 512-9307

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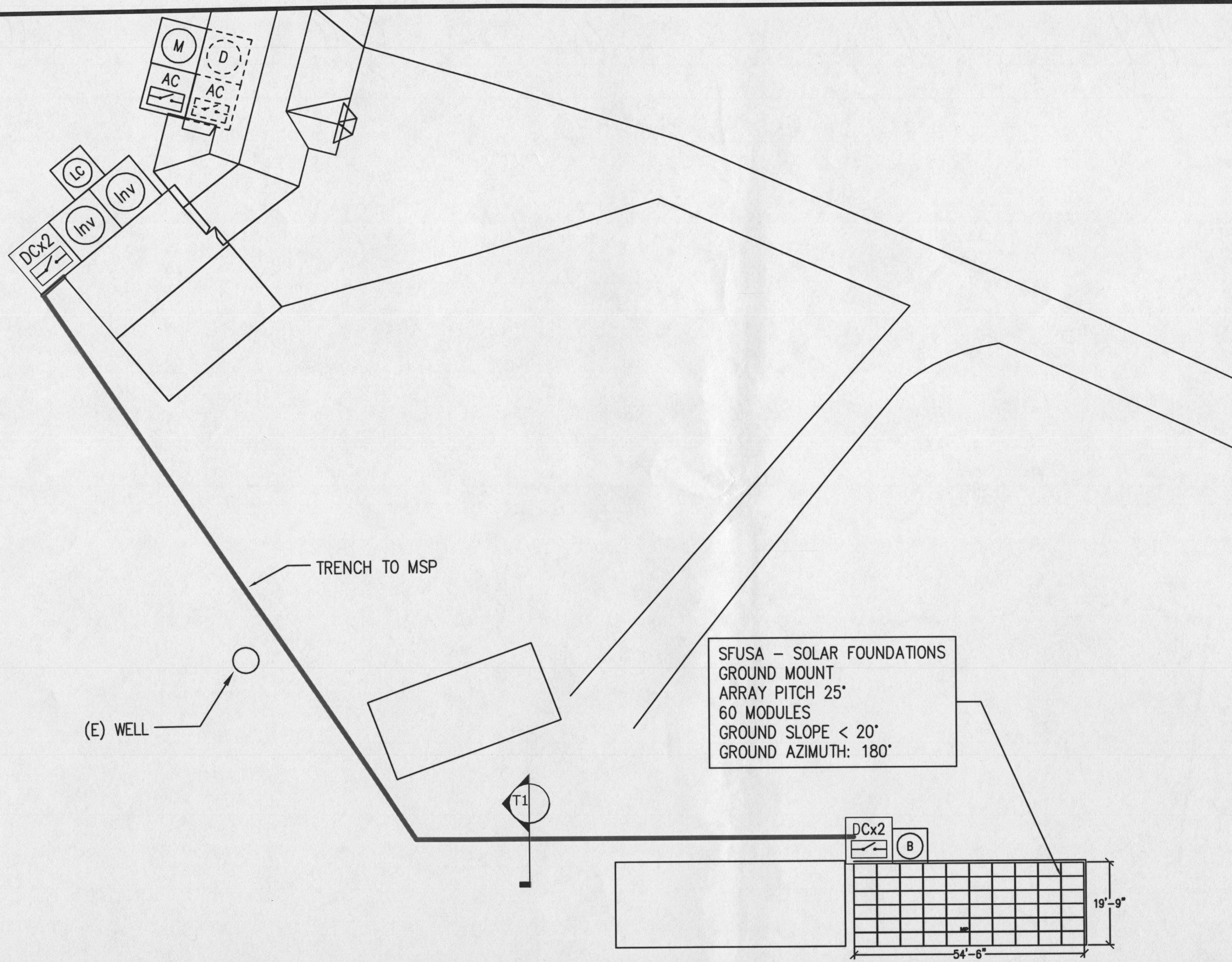
PAGE NAME:  
SITE PLAN A

DESIGN:  
Dimas-Daniel Urbieto

SHEET: PV 3 REV: B DATE: 11/17/2014

  
3055 Clearview Way San Mateo, CA 94402  
T: (650) 638-1028 F: (650) 638-1029  
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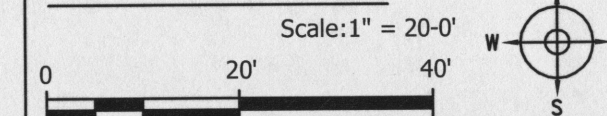




## LEGEND

- (M) (E) UTILITY METER & WARNING LABEL
- (Inv) INVERTER W/ INTEGRATED DC DISCO & WARNING LABELS
- (DCx2) DC DISCONNECT & WARNING LABELS
- (AC) AC DISCONNECT & WARNING LABELS
- (B) DC JUNCTION/COMBINER BOX & LABELS
- (D) DISTRIBUTION PANEL & LABELS
- (LC) LOAD CENTER & WARNING LABELS
- (M) DEDICATED PV SYSTEM METER
- STANDOFF LOCATIONS
- CONDUIT RUN ON EXTERIOR
- - - CONDUIT RUN ON INTERIOR
- GATE/FENCE
- HEAT PRODUCING VENTS ARE RED
- [ ] INTERIOR EQUIPMENT IS DASHED

## SITE PLAN



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JOB NUMBER: JB-207832 / JB-207833

MOUNTING SYSTEM:  
SFUSA - SOLAR FOUNDATIONS

MODULES:  
(120) YINGLI # YL250P-29b

INVERTER:  
(4) SOLAREGE #SE6000A-US000SNR2

PREMISE OWNER:  
BABCOCK, CLIFF  
7158 BROOKS RD  
HIGHLAND, MD 20777

(301) 512-9307

DESCRIPTION:  
BABCOCK RESIDENCE  
30kW GROUND MOUNT PV SYSTEM

PAGE NAME:  
SITE PLAN B

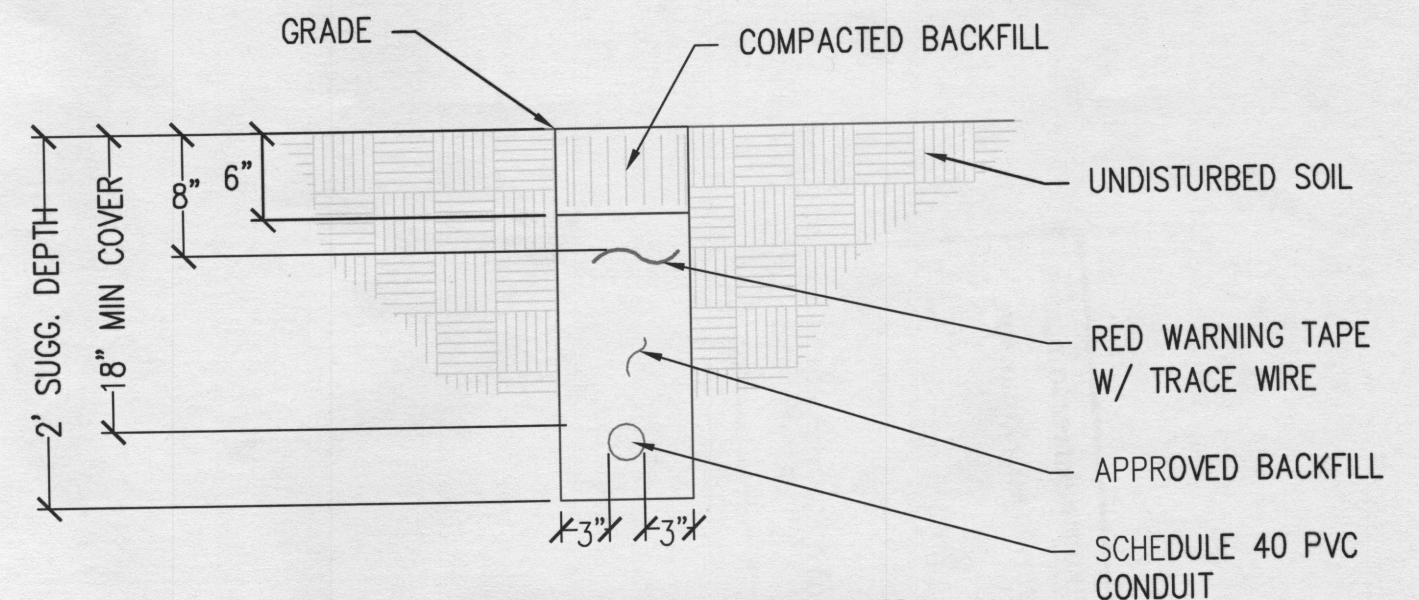
DESIGN:  
Dimas-Daniel Urbieto

SHEET: PV 4 B REV: DATE: 11/17/2014

**SolarCity**

3055 Clearview Way San Mateo, CA 94402  
T: (650) 638-1028 F: (650) 638-1029  
(888)-SOL-CITY (765-2489) www.solarcity.com





**T1 TRENCH DETAIL**  
Scale: 3/4"=1'-0"

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JOB NUMBER: JB-207832 / JB-207833

MOUNTING SYSTEM:  
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MODULES:  
(120) YINGLI # YL250P-29b

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PREMISE OWNER:  
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HIGHLAND, MD 20777

(301) 512-9307

DESCRIPTION:  
BABCOCK RESIDENCE  
30kW GROUND MOUNT PV SYSTEM

PAGE NAME:  
STRUCTURAL VIEWS

DESIGN:  
Dimas-Daniel Urbieto

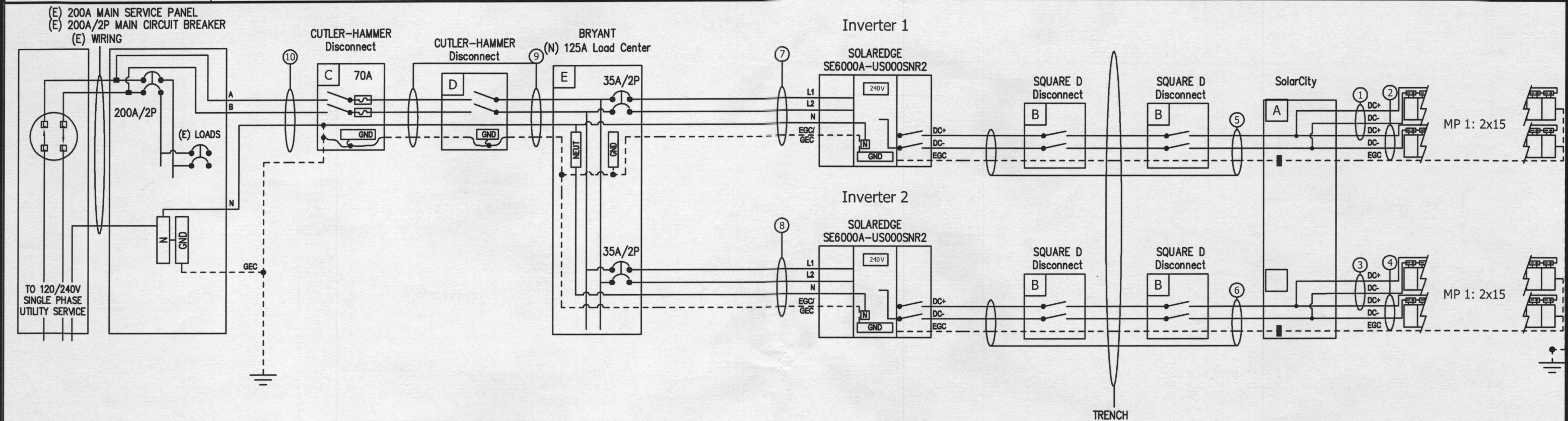
SHEET: PV 5 B 11/17/2014

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GROUND SPECS	MAIN PANEL SPECS	GENERAL NOTES	INVERTER SPECS	MODULE SPECS	LICENSE
BOND (N) #8 GEC TO (E) GROUND ROD AT PANEL WITH IRREVERSIBLE CRIMP	Panel Number: Meter Number: Underground Service Entrance	Inv 1: DC Ungrounded Inv 2: DC Ungrounded Tie-In: Supply Side Connection	INV 1 - (1) SOLAREGE #SE6000A-US000SNR2 Inverter; 6000W, 240V, 97.5% w/Unified Disco and ZB,RGM,AFCI INV 2 - (1) SOLAREGE #SE6000A-US000SNR2 Inverter; 6000W, 240V, 97.5% w/Unified Disco and ZB,RGM,AFCI INV 3	(60) YINGLI # YL250P-29b PV Module; 250W, 226.2W PTC, H4, 40mm, YGE-Z 60, Black Frame, ZEP Voc: 37.6 Vpmax: 29.8 Isc AND Imp ARE SHOWN IN THE DC STRINGS IDENTIFIER	#11805 MASTER ELECTRICIAN EnabledNicholaus Meyers



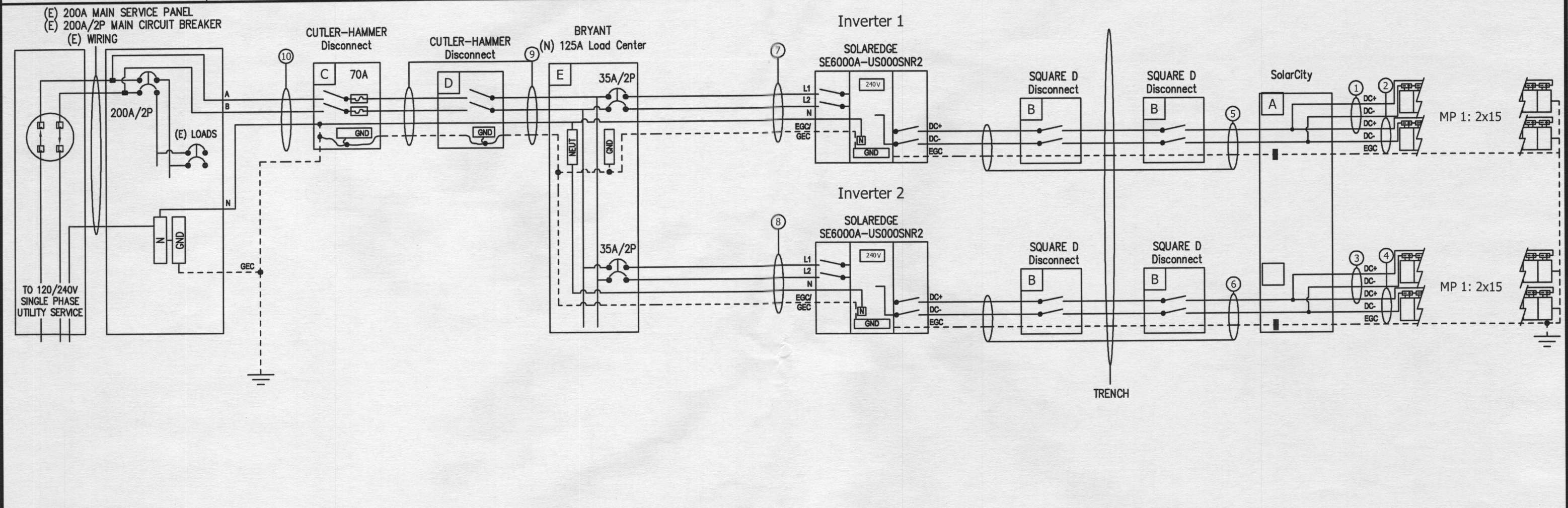
Voc\* = MAX VOC AT MIN TEMP

POI	AC	B	A	DC
(2) ILSCO # IPC 4/0-#6 Insulation Piercing Connector; Main 4/0-4, Tap 6-14	(1) CUTLER-HAMMER # DG223NRB Disconnect; 100A, 240Vac, Fusible, NEMA 3R (1) CUTLER-HAMMER # DG100NB Ground/Neutral Kit; 60-100A, General Duty (DG) (1) CUTLER-HAMMER # DS16FK Class R Fuse Kit (2) FERRAZ SHAWMUT # TR70R Fuse; 70A, 250V, Class RK5 PV BACKFEED OCP	(4) SQUARE D # HU362RB Disconnect; 60A, 600V, NEMA 3R	(1) SolarCity # 4 STRING JUNCTION BOX 2x2 STRINGS, UNFUSED, GROUNDED (60) SOLAREGE #P300-2NA4AZS PowerBox Optimizer, 300W, H4, DC to DC, ZEP (1) AWG #6, Solid Bare Copper (1) Ground Rod; 5/8" x 8', Copper	
(1) BRYANT # BR816L125RP Load Center; 125A, 120/240V, NEMA 3R (2) CUTLER-HAMMER # BR235 Breaker; 35A/2P, 2 Spaces	(1) CUTLER-HAMMER # DG323URB Disconnect; 100A, 240Vac, Non-Fusible, NEMA 3R (1) CUTLER-HAMMER # DG100NB Ground/Neutral Kit; 60-100A, General Duty (DG)		(N) ARRAY GROUND PER 690.47(D). NOTE: PER EXCEPTION NO. 2, ADDITIONAL ELECTRODE MAY NOT BE REQUIRED DEPENDING ON LOCATION OF (E) ELECTRODE	
SSC - SUPPLY SIDE CONNECTION. DISCONNECTING MEANS SHALL BE SUITABLE AS SERVICE EQUIPMENT AND SHALL BE RATED PER NEC.				
9 (1) AWG #6, THWN-2, Black (1) AWG #6, THWN-2, Red (1) AWG #6, THWN-2, White (1) AWG #8, THWN-2, Green (1) AWG #6, THWN-2, Black NEUTRAL Vmp = 240 VAC Imp = 50 AAC EGC/GEC - (1) Conduit Kit; 3/4" EMT	7 (1) AWG #8, THWN-2, Black (1) AWG #8, THWN-2, Red (1) AWG #10, THWN-2, White (1) AWG #8, THWN-2, Green (1) AWG #6, THWN-2, Black NEUTRAL Vmp = 240 VAC Imp = 25 AAC EGC/GEC - (1) Conduit Kit; 3/4" EMT	5 (1) AWG #4, THWN-2, Black (1) AWG #4, THWN-2, Red (1) AWG #10, THWN-2, Green (1) AWG #4, THWN-2, Black (1) AWG #4, THWN-2, Red (1) AWG #10, THWN-2, Green Voc* = 500 VDC Isc = 30 ADC Vmp = 350 VDC Imp = 21.16 ADC (1) Conduit Kit; 3/4" EMT	1 (2) AWG #10, PV WIRE, Black (1) AWG #10, Solid Bare Copper EGC Voc* = 500 VDC Isc = 15 ADC Vmp = 350 VDC Imp = 10.58 ADC	
10 (1) AWG #6, THWN-2, Red (1) AWG #6, THWN-2, White (1) AWG #6, Solid Bare Copper NEUTRAL Vmp = 240 VAC Imp = 50 AAC GEC - (1) Conduit Kit; 3/4" EMT	8 (1) AWG #8, THWN-2, Red (1) AWG #10, THWN-2, White (1) AWG #8, THWN-2, Green NEUTRAL Vmp = 240 VAC Imp = 25 AAC EGC/GEC - (1) Conduit Kit; 3/4" EMT	6 (1) AWG #4, THWN-2, Black (1) AWG #4, THWN-2, Red (1) AWG #10, THWN-2, Green Voc* = 500 VDC Isc = 30 ADC Vmp = 350 VDC Imp = 21.16 ADC (1) Conduit Kit; 3/4" EMT	2 (2) AWG #10, PV WIRE, Black (1) AWG #10, Solid Bare Copper EGC Voc* = 500 VDC Isc = 15 ADC Vmp = 350 VDC Imp = 10.58 ADC	
			3 (2) AWG #10, PV WIRE, Black (1) AWG #10, Solid Bare Copper EGC Voc* = 500 VDC Isc = 15 ADC Vmp = 350 VDC Imp = 10.58 ADC	
			4 (2) AWG #10, PV WIRE, Black (1) AWG #10, Solid Bare Copper EGC Voc* = 500 VDC Isc = 15 ADC Vmp = 350 VDC Imp = 10.58 ADC	

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GROUND SPECS	MAIN PANEL SPECS	GENERAL NOTES	INVERTER SPECS	MODULE SPECS	LICENSE
BOND (N) #8 GEC TO (N) GROUND ROD AT PANEL WITH IRREVERSIBLE CRIMP	Panel Number: Meter Number: Underground Service Entrance	Inv 1: DC Ungrounded Inv 2: DC Ungrounded Tie-In: Supply Side Connection	INV 1 - (1) SOLAREGE #SE6000A-US000SNR2 LABEL: A Inverter; 6000W, 240V, 97.5% w/Unified Disco and ZB,RGM,AFCI INV 2 - (1) SOLAREGE #SE6000A-US000SNR2 LABEL: B Inverter; 6000W, 240V, 97.5% w/Unified Disco and ZB,RGM,AFCI INV 3	(60) YINGLI # YL250P-29b PV Module; 250W, 226.2W PTC, H4, 40mm, YGE-Z 60, Black Frame, ZEP Voc: 37.6 Vpmax: 29.8 Isc AND Imp ARE SHOWN IN THE DC STRINGS IDENTIFIER	#11805 MASTER ELECTRICIAN Enabled Nicholas Meyers



Voc\* = MAX VOC AT MIN TEMP

POI	E	SSC	C	D	AC	B	A	PV	Gnd	DC
(1) Ground Rod; 5/8" x 8', Copper (2) ILSCO # IPC 4/0-#6 Insulation Piercing Connector; Main 4/0-4, Tap 6-14	(1) BRYANT # BR816L125RP Load Center; 125A, 120/240V, NEMA 3R (2) CUTLER-HAMMER # BR235 Breaker; 35A/2P, 2 Spaces	SUPPLY SIDE CONNECTION. DISCONNECTING MEANS SHALL BE SUITABLE AS SERVICE EQUIPMENT AND SHALL BE RATED PER NEC.	(1) CUTLER-HAMMER # DG223NRB Disconnect; 100A, 240Vac, Fusible, NEMA 3R (1) CUTLER-HAMMER # DG100NB Ground/Neutral Kit; 60-100A, General Duty (DG) (1) CUTLER-HAMMER # DS16FK Class R Fuse Kit (2) FERRAZ SHAWMUT # TR70R Fuse; 70A, 250V, Class RK5 PV BACKFEED OCP	(1) CUTLER-HAMMER # DG323URB Disconnect; 100A, 240Vac, Non-Fusible, NEMA 3R (1) CUTLER-HAMMER # DG100NB Ground/Neutral Kit; 60-100A, General Duty (DG)		(4) SQUARE D # HU362RB Disconnect; 60A, 600V, NEMA 3R	(1) SolarCity # 4 STRING JUNCTION BOX 2x2 STRINGS, UNFUSED, GROUNDED (60) SOLAREGE #P300-2NA4AZS PowerBox Optimizer, 300W, H4, DC to DC, ZEP (1) AWG #6, Solid Bare Copper (1) Ground Rod; 5/8" x 8', Copper			(N) ARRAY GROUND PER 690.47(D). NOTE: PER EXCEPTION NO. 2, ADDITIONAL ELECTRODE MAY NOT BE REQUIRED DEPENDING ON LOCATION OF (E) ELECTRODE
(9) 15ft (1) AWG #8, THWN-2, Black (1) AWG #8, THWN-2, Red (1) AWG #6, THWN-2, White NEUTRAL Vmp = 240 VAC Imp = 50 AAC (1) AWG #8, THWN-2, Green EGC/GEC - (1) Conduit Kit; 3/4" EMT (1) AWG #6, THWN-2, Black	(10) 5ft (1) AWG #8, THWN-2, Red (1) AWG #8, THWN-2, White NEUTRAL Vmp = 240 VAC Imp = 50 AAC (1) AWG #6, Solid Bare Copper GEC - (1) Conduit Kit; 3/4" EMT		(7) 10ft (1) AWG #8, THWN-2, Black (1) AWG #8, THWN-2, Red (1) AWG #10, THWN-2, White NEUTRAL Vmp = 240 VAC Imp = 25 AAC (1) AWG #8, THWN-2, Green EGC/GEC - (1) Conduit Kit; 3/4" EMT (1) AWG #8, THWN-2, Black (1) AWG #8, THWN-2, Red (1) AWG #10, THWN-2, White NEUTRAL Vmp = 240 VAC Imp = 25 AAC (1) AWG #8, THWN-2, Green EGC/GEC - (1) Conduit Kit; 3/4" EMT	(8) 10ft (1) AWG #8, THWN-2, Black (1) AWG #8, THWN-2, Red (1) AWG #10, THWN-2, White NEUTRAL Vmp = 240 VAC Imp = 25 AAC (1) AWG #8, THWN-2, Green EGC/GEC - (1) Conduit Kit; 3/4" EMT		(5) 10ft (1) AWG #4, THWN-2, Black (1) AWG #4, THWN-2, Red (1) AWG #10, THWN-2, Green EGC (1) AWG #4, THWN-2, Black (1) AWG #4, THWN-2, Red (1) AWG #10, THWN-2, Green EGC Voc* = 500 VDC Isc = 30 ADC Vmp = 350 VDC Imp = 21.16 ADC (1) Conduit Kit; 3/4" EMT (6) 10ft (1) AWG #4, THWN-2, Black (1) AWG #4, THWN-2, Red (1) AWG #10, THWN-2, Green EGC Voc* = 500 VDC Isc = 30 ADC Vmp = 350 VDC Imp = 21.16 ADC (1) Conduit Kit; 3/4" EMT (1) Conduit Kit; 1-1/2" PVC, Sch. 40	(1) 4ft (2) AWG #10, PV WIRE, Black (1) AWG #10, Solid Bare Copper EGC Voc* = 500 VDC Isc = 15 ADC Vmp = 350 VDC Imp = 10.58 ADC (2) 4ft (2) AWG #10, PV WIRE, Black (1) AWG #10, Solid Bare Copper EGC Voc* = 500 VDC Isc = 15 ADC Vmp = 350 VDC Imp = 10.58 ADC (3) 4ft (2) AWG #10, PV WIRE, Black (1) AWG #10, Solid Bare Copper EGC Voc* = 500 VDC Isc = 15 ADC Vmp = 350 VDC Imp = 10.58 ADC (4) 4ft (2) AWG #10, PV WIRE, Black (1) AWG #10, Solid Bare Copper EGC Voc* = 500 VDC Isc = 15 ADC Vmp = 350 VDC Imp = 10.58 ADC			

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WARNING: PHOTOVOLTAIC POWER SOURCE

PHOTOVOLTAIC DC  
DISCONNECT

MAXIMUM POWER- POINT CURRENT (I <sub>mp</sub> )	<input type="text"/>	A
MAXIMUM POWER- POINT VOLTAGE (V <sub>mp</sub> )	<input type="text"/>	V
MAXIMUM SYSTEM VOLTAGE (V <sub>oc</sub> )	<input type="text"/>	V
SHORT-CIRCUIT CURRENT (I <sub>sc</sub> )	<input type="text"/>	A

**WARNING**  
ELECTRICAL SHOCK HAZARD  
DO NOT TOUCH TERMINALS  
TERMINALS ON BOTH LINE AND  
LOAD SIDES MAY BE ENERGIZED  
IN THE OPEN POSITION  
DC VOLTAGE IS  
ALWAYS PRESENT WHEN  
SOLAR MODULES ARE  
EXPOSED TO SUNLIGHT

**WARNING**  
ELECTRIC SHOCK HAZARD  
IF A GROUND FAULT IS INDICATED  
NORMALLY GROUNDED  
CONDUCTORS MAY BE  
UNGROUND AND ENERGIZED

PHOTOVOLTAIC AC  
DISCONNECT

MAXIMUM AC OPERATING CURRENT	<input type="text"/>	A
MAXIMUM AC OPERATING VOLTAGE	<input type="text"/>	V

Label Location:  
(C)(CB)  
Per Code:  
NEC 690.31.G.3  
Label Location:  
(DC) (INV)  
Per Code:  
NEC 690.14.C.2

Label Location:  
(DC) (INV)  
Per Code:  
NEC 690.53

Label Location:  
(DC) (CB)  
Per Code:  
NEC 690.17(4)

Label Location:  
(DC) (INV)  
Per Code:  
NEC 690.5(C)

Label Location:  
(AC) (POI)  
Per Code:  
NEC 690.14.C.2

Label Location:  
(AC) (POI)  
Per Code:  
NEC 690.54

**WARNING**  
ELECTRIC SHOCK HAZARD  
DO NOT TOUCH TERMINALS  
TERMINALS ON BOTH LINE AND  
LOAD SIDES MAY BE ENERGIZED  
IN THE OPEN POSITION

**WARNING**  
INVERTER OUTPUT  
CONNECTION  
DO NOT RELOCATE  
THIS OVERCURRENT  
DEVICE

PHOTOVOLTAIC POINT OF  
INTERCONNECTION  
WARNING: ELECTRIC SHOCK  
HAZARD. DO NOT TOUCH  
TERMINALS. TERMINALS ON  
BOTH THE LINE AND LOAD SIDE  
MAY BE ENERGIZED IN THE OPEN  
POSITION. FOR SERVICE  
DE-ENERGIZE BOTH SOURCE  
AND MAIN BREAKER.  
PV POWER SOURCE  
MAXIMUM AC  A  
OPERATING CURRENT  
MAXIMUM AC  V  
OPERATING VOLTAGE

**CAUTION**  
PHOTOVOLTAIC SYSTEM  
CIRCUIT IS BACKFED

**CAUTION**  
DUAL POWER SOURCE  
SECOND SOURCE IS  
PHOTOVOLTAIC SYSTEM

Label Location:  
(AC)(POI)  
Per Code:  
NEC 690.17.E

Label Location:  
(POI)  
Per Code:  
NEC 690.64.B.7

Label Location:  
(POI)  
Per Code:  
NEC 690.17.4; NEC 690.54

Label Location:  
(D) (POI)  
Per Code:  
NEC 690.64.B.4

Label Location:  
(POI)  
Per Code:  
NEC 690.64.B.4

**WARNING**  
ELECTRIC SHOCK HAZARD  
THE DC CONDUCTORS OF THIS  
PHOTOVOLTAIC SYSTEM ARE  
UNGROUND AND  
MAY BE ENERGIZED

Label Location:  
(DC) (INV)  
Per Code:  
NEC 690.35(F)  
TO BE USED WHEN  
INVERTER IS  
UNGROUND

- (AC): AC Disconnect  
(C): Conduit  
(CB): Combiner Box  
(D): Distribution Panel  
(DC): DC Disconnect  
(IC): Interior Run Conduit  
(INV): Inverter With Integrated DC Disconnect  
(LC): Load Center  
(M): Utility Meter  
(POI): Point of Interconnection

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SC Label Set

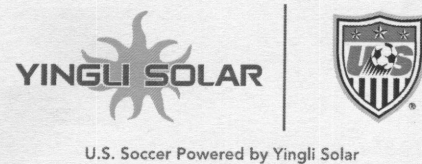


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# YGE-Z 60 CELL SERIES

YL260P-29b  
YL255P-29b  
YL250P-29b  
YL245P-29b  
YL240P-29b



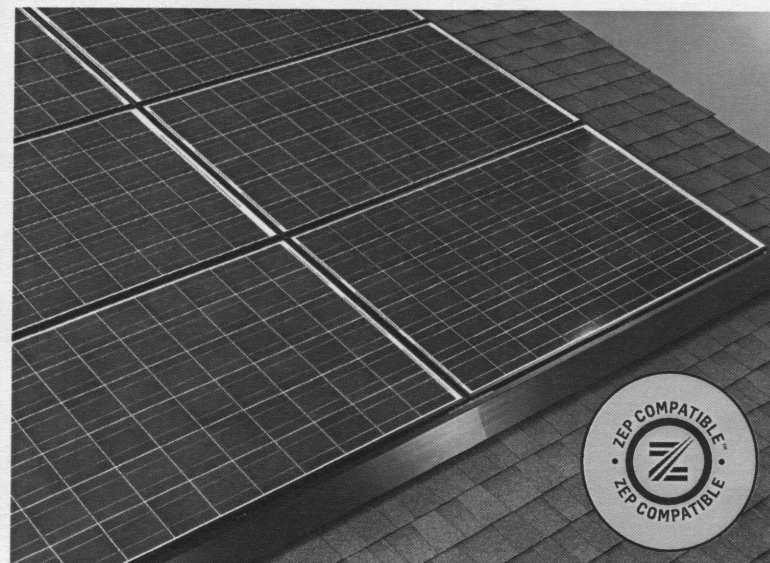
**YINGLI SOLAR Z SERIES** Ideal for residential and commercial applications where cost savings, installation time, and aesthetics matter most.

## Best Choice for INSTALLERS

- Lower balance-of-system costs with Zep Compatible™ frame.
- Reduce on-roof labor costs by more than 25%.
- Leverage the built-in grounding system – if it's mounted, it's grounded.
- Decrease your parts count – eliminate screws, rails, mounting clips, and grounding hardware.

## Best Choice for HOMEOWNERS

- Minimize roof penetrations while maintaining the system's structural integrity.
- Invest in an attractive solar array that includes a black frame, low mounting profile, and aesthetic array skirt.
- Increase energy output with flexible module layouts (portrait or landscape).
- Trust in the reliability and theft-resistance of the Zep Compatible™ system.



## AC SOLUTION OPTION

The YGE-Z Series is now available as

an **Enphase Energized™** AC Solution. This solution delivers optimum performance and integrated intelligence. The Enphase M215-Z Zep Compatible Microinverter is designed to connect directly into the Z Series module groove, eliminating the need for tools or fasteners – all with one easy step.



Intelligent real-time monitoring at the system and module level with Enlighten.

## WARRANTIES

Leading limited power warranty\* ensures 91.2% of rated power for 10 years, and 80.7% of rated power for 25 years.

10-year limited product warranty.

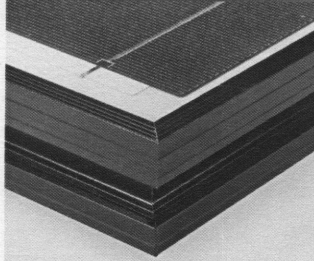
\* In compliance with our warranty terms and conditions.

## QUALIFICATIONS & CERTIFICATES

UL 1703 and ULC 1703, CEC, FSEC, ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007, SA8000



## ZEP COMPATIBLE FRAME



## U.S. TARIFF-COMPLIANT



If you buy from Yingli Americas, Yingli Americas acts as the importer and complies with all applicable tariffs. Customers can buy from Yingli Americas with no worry that they will be liable for any import tariffs.

# YGE-Z 60 CELL SERIES

Powered by **YINGLI**

## ELECTRICAL PERFORMANCE

### Electrical parameters at Standard Test Conditions (STC)

Module type		YL260P-29b	YL255P-29b	YL250P-29b	YL245P-29b	YL240P-29b
Power output	$P_{max}$ W	260	255	250	245	240
Power output tolerances	$\Delta P_{max}$ %			-0 / +3		
Module efficiency	$\eta_m$ %	15.9	15.6	15.3	15.0	14.7
Voltage at $P_{max}$	$V_{mpp}$ V	30.3	30.0	29.8	29.6	29.3
Current at $P_{max}$	$I_{mpp}$ A	8.59	8.49	8.39	8.28	8.18
Open-circuit voltage	$V_{oc}$ V	37.7	37.7	37.6	37.5	37.5
Short-circuit current	$I_{sc}$ A	9.09	9.01	8.92	8.83	8.75

STC: 1000W/m<sup>2</sup> irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3  
Average relative efficiency reduction of 3.3% at 200W/m<sup>2</sup> according to EN 60904-1

### Electrical parameters at Nominal Operating Cell Temperature (NOCT)

Power output	$P_{max}$ W	189.7	186.0	182.4	178.7	175.1
Voltage at $P_{max}$	$V_{mpp}$ V	27.6	27.4	27.2	27.0	26.8
Current at $P_{max}$	$I_{mpp}$ A	6.87	6.79	6.71	6.62	6.54
Open-circuit voltage	$V_{oc}$ V	34.8	34.8	34.7	34.6	34.6
Short-circuit current	$I_{sc}$ A	7.35	7.28	7.21	7.14	7.07

NOCT: open-circuit module operation temperature at 800W/m<sup>2</sup> irradiance, 20°C ambient temperature, 1m/s wind speed

## THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	46 +/- 2
Temperature coefficient of $P_{max}$	$\gamma$	%/°C	-0.42
Temperature coefficient of $V_{oc}$	$\beta_{voc}$	%/°C	-0.32
Temperature coefficient of $I_{sc}$	$\alpha_{isc}$	%/°C	0.05
Temperature coefficient of $V_{mpp}$	$\beta_{vmpp}$	%/°C	-0.42

## OPERATING CONDITIONS

Max. system voltage	1000V <sub>oc</sub>
Max. series fuse rating	15A
Limiting reverse current	15A
Operating temperature range	-40 to 185°F (-40 to 85°C)
Max. static load	2400Pa
Max. hailstone impact (diameter / velocity)	25mm / 23m/s

## CONSTRUCTION MATERIALS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Cell (quantity / material / dimensions / number of busbars)	60 / multicrystalline silicon / 156mm x 156mm / 2 or 3
Encapsulant (material)	ethylene vinyl acetate (EVA)
Frame (material / color / edge sealing)	anodized aluminum alloy / black / silicone or tape
Junction box (ingress protection rating)	≥IP65
Cable (length / cross-sectional area)	1200mm / 4mm <sup>2</sup>
Connector (type / ingress protection rating)	Amphenol H4 / ≥IP67

The specifications in this datasheet are not guaranteed and are subject to change without prior notice. This datasheet complies with EN 50380:2003 requirements.

Yingli Green Energy Americas, Inc.  
info@yingliamericas.com  
Tel: +1 (888) 686-8820

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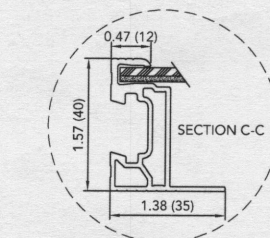
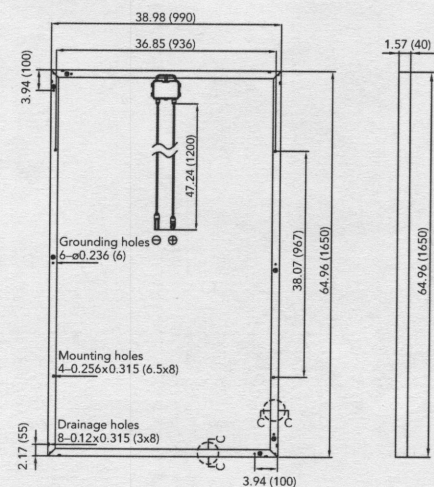
## GENERAL CHARACTERISTICS

Dimensions (L / W / H)	64.96in (1650mm) / 38.98in (990mm) / 1.57in (40mm)
Weight	43.4lbs (19.7kg)

## PACKAGING SPECIFICATIONS

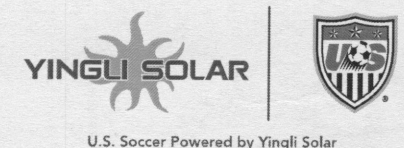
Number of modules per pallet	26
Number of pallets per 40' container	28
Packaging box dimensions (L / W / H)	67.32in (1710mm) / 45.67in (1160mm) / 46.38in (1178mm)
Box weight	1202lbs (545kg)

Units: inch (mm)



Warning: Read the Installation and User Manual in its entirety before handling, installing, and operating Yingli modules.

Our Partners

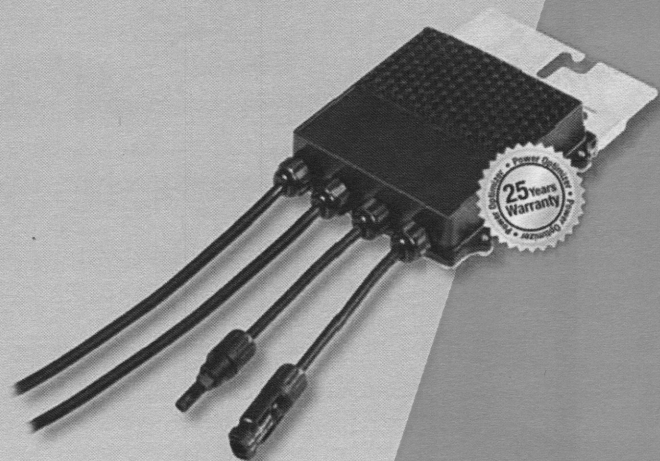






SolarEdge Power Optimizer  
Module Add-On For North America

P300 / P350 / P400



POWER OPTIMIZER

PV power optimization at the module-level

- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Fast installation with a single bolt
- Next generation maintenance with module-level monitoring
- Module-level voltage shutdown for installer and firefighter safety

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SolarEdge Power Optimizer  
Module Add-On for North America  
P300 / P350 / P400

	P300 (for 60-cell PV modules)	P350 (for 72-cell PV modules)	P400 (for 96-cell PV modules)	
INPUT				
Rated Input DC Power <sup>(1)</sup>	300	350	400	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	48	60	80	Vdc
MPPT Operating Range	8 - 48	8 - 60	8 - 80	Vdc
Maximum Short Circuit Current (Isc)		10		Adc
Maximum DC Input Current		12.5		Adc
Maximum Efficiency		99.5		%
Weighted Efficiency		98.8		%
Overvoltage Category		II		
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING INVERTER)				
Maximum Output Current		15		Adc
Maximum Output Voltage		60		Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)				
Safety Output Voltage per Power Optimizer		1		Vdc
STANDARD COMPLIANCE				
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3			
Safety	IEC62109-1 (class II safety), UL1741			
RoHS	Yes			
INSTALLATION SPECIFICATIONS				
Maximum Allowed System Voltage		1000		Vdc
Dimensions (W x L x H)		141 x 212 x 40.5 / 5.55 x 8.34 x 1.59		mm / in
Weight (including cables)		950 / 2.1		gr / lb
Input Connector		MC4 / Amphenol / Tyco		
Output Wire Type / Connector		Double Insulated; Amphenol		
Output Wire Length	0.95 / 3.0	1.2 / 3.9		m / ft
Operating Temperature Range		-40 - +85 / -40 - +185		°C / °F
Protection Rating		IP65 / NEMA4		
Relative Humidity		0 - 100		%

<sup>(1)</sup> Rated STC power of the module. Module of up to +5% power tolerance allowed.

PV SYSTEM DESIGN USING A SOLAREEDGE INVERTER	SINGLE PHASE	THREE PHASE 208V	THREE PHASE 480V	
Minimum String Length (Power Optimizers)	8	10	18	
Maximum String Length (Power Optimizers)	25	25	50	
Maximum Power per String	5250	6000	12750	W
Parallel Strings of Different Lengths or Orientations		Yes		



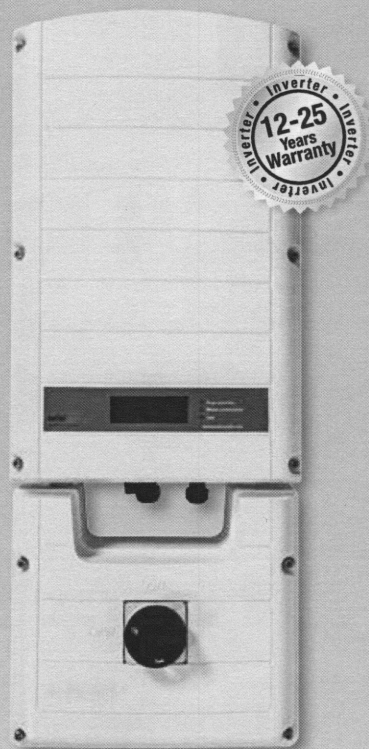
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## SolarEdge Single Phase Inverters For North America

SE3000A-US / SE3800A-US / SE5000A-US / SE6000A-US /  
SE7600A-US / SE10000A-US / SE11400A-US



### The best choice for SolarEdge enabled systems

- Integrated arc fault protection (Type 1) for NEC 2011 690.11 compliance
- Superior efficiency (98%)
- Small, lightweight and easy to install on provided bracket
- Built-in module-level monitoring
- Internet connection through Ethernet or Wireless
- Outdoor and indoor installation
- Fixed voltage inverter, DC/AC conversion only
- Pre-assembled AC/DC Safety Switch for faster installation
- Optional – revenue grade data, ANSI C12.1

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[www.solaredge.us](http://www.solaredge.us)

INVERTERS



## Single Phase Inverters for North America

SE3000A-US / SE3800A-US / SE5000A-US / SE6000A-US /  
SE7600A-US / SE10000A-US / SE11400A-US

	SE3000A-US	SE3800A-US	SE5000A-US	SE6000A-US	SE7600A-US	SE10000A-US	SE11400A-US		
OUTPUT									
Nominal AC Power Output	3000	3800	5000	6000	7600	9980 @ 208V 10000 @ 240V	11400	VA	
Max. AC Power Output	3300	4150	5400 @ 208V 5450 @ 240V	6000	8350	10800 @ 208V 10950 @ 240V	12000	VA	
AC Output Voltage Min.-Nom.-Max.* 183 - 208 - 229 Vac	-	-	✓	-	-	✓	-		
AC Output Voltage Min.-Nom.-Max.* 211 - 240 - 264 Vac	✓	✓	✓	✓	✓	✓	✓		
AC Frequency Min.-Nom.-Max.*	59.3 - 60 - 60.5 (with HI country setting 57 - 60 - 60.5)							Hz	
Max. Continuous Output Current	12.5	16	24 @ 208V 21 @ 240V	25	32	48 @ 208V 42 @ 240V	47.5	A	
GFDI	1							A	
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes								
INPUT									
Recommended Max. DC Power** (STC)	3750	4750	6250	7500	9500	12400	14250	W	
Transformer-less, Ungrounded	Yes								
Max. Input Voltage	500							Vdc	
Nom. DC Input Voltage	325 @ 208V / 350 @ 240V							Vdc	
Max. Input Current***	9.5	13	16.5 @ 208V 15.5 @ 240V	18	23	33 @ 208V 30.5 @ 240V	34.5	Adc	
Max. Input Short Circuit Current	30							Adc	
Reverse-Polarity Protection	Yes								
Ground-Fault Isolation Detection	600k $\Omega$ Sensitivity								
Maximum Inverter Efficiency	97.7	98.2	98.3	98.3	98	98	98	%	
CEC Weighted Efficiency	97.5	98	97.5 @ 208V 98 @ 240V	97.5	97.5	97 @ 208V 97.5 @ 240V	97.5	%	
Nighttime Power Consumption	< 2.5							W	
ADDITIONAL FEATURES									
Supported Communication Interfaces	RS485, RS232, Ethernet, ZigBee (optional)								
Revenue Grade Data, ANSI C12.1	Optional								
STANDARD COMPLIANCE									
Safety	UL1741, UL1699B, UL1998, CSA 22.2								
Grid Connection Standards	IEEE1547								
Emissions	FCC part15 class B								
INSTALLATION SPECIFICATIONS									
AC output conduit size / AWG range	3/4" minimum / 24-6 AWG				3/4" minimum / 8-3 AWG				
DC input conduit size / # of strings / AWG range	3/4" minimum / 1-2 strings / 24-6 AWG				3/4" minimum / 1-2 strings / 14-6 AWG				
Dimensions with AC/DC Safety Switch (HxWxD)	30.5 x 12.5 x 7 / 775 x 315 x 172		30.5 x 12.5 x 7.5 / 775 x 315 x 191		30.5 x 12.5 x 10.5 / 775 x 315 x 260		in / mm		
Weight with AC/DC Safety Switch	51.2 / 23.2		54.7 / 24.7		88.4 / 40.1		lb / kg		
Cooling	Natural Convection				Fans (user replaceable)				
Noise	< 25				< 50				dBA
Min.-Max. Operating Temperature Range	-13 to +140 / -25 to +60 (CAN version**** -40 to +60)							°F / °C	
Protection Rating	NEMA 3R								

\* For other regional settings please contact SolarEdge support.

\*\* Limited to 125% for locations where the yearly average high temperature is above 77°F/25°C and to 135% for locations where it is below 77°F/25°C.

For detailed information, refer to [http://www.solaredge.us/files/pdfs/inverter\\_dc\\_oversizing\\_guide.pdf](http://www.solaredge.us/files/pdfs/inverter_dc_oversizing_guide.pdf).

\*\*\* A higher current source may be used; the inverter will limit its input current to the values stated.

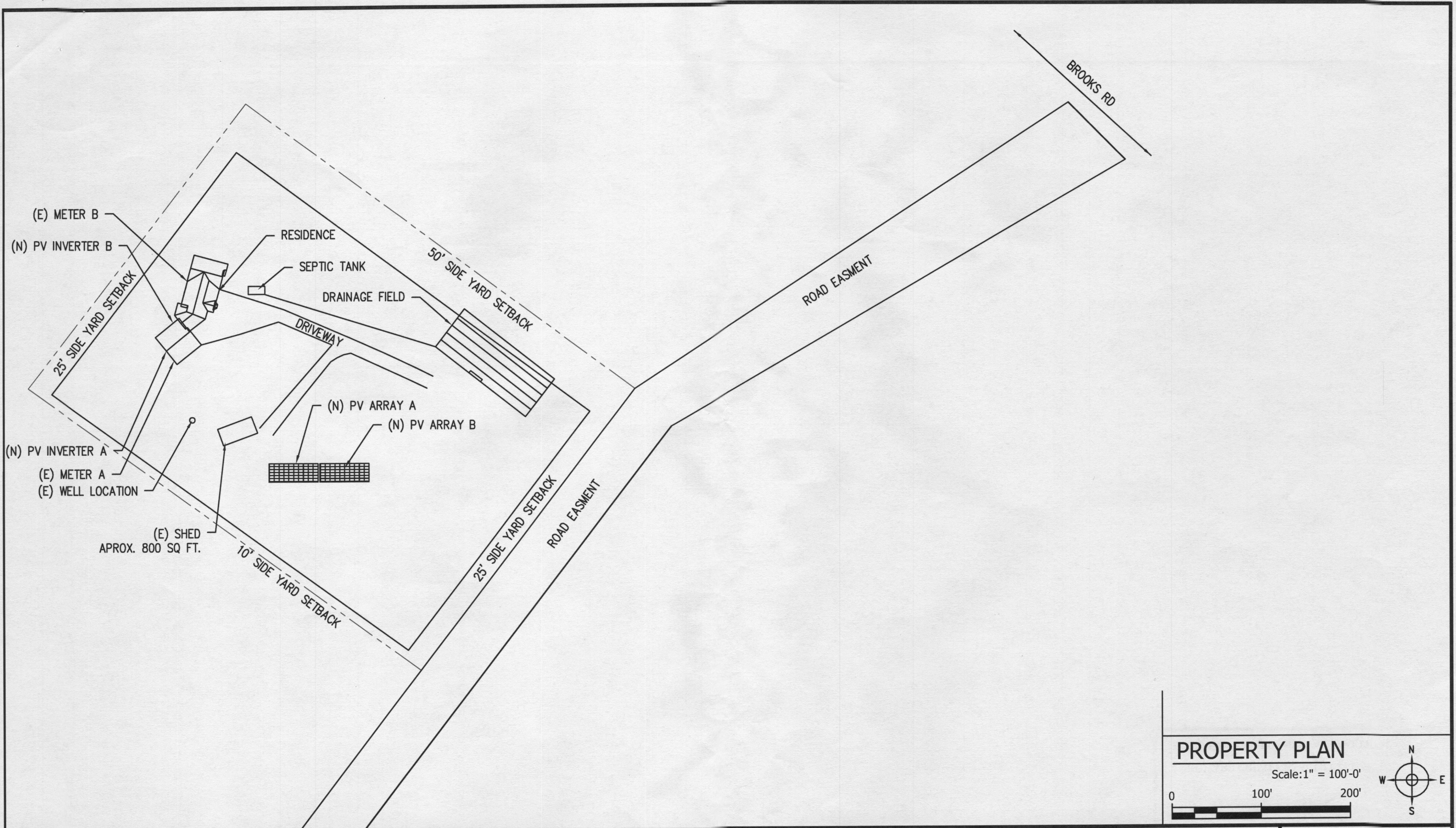
\*\*\*\* CAN P/Ns are eligible for the Ontario FIT and microFIT (microFIT exc. SE11400A-US-CAN).



RoHS

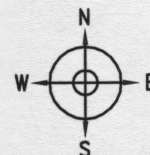
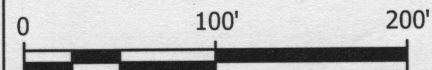
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# PROPERTY PLAN

Scale: 1" = 100'-0"



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JOB NUMBER: JB-207832 / JB-207833

MOUNTING SYSTEM:  
SFUSA - SOLAR FOUNDATIONS

MODULES:  
(120) YINGLI # YL250P-29b

INVERTER:  
(4) SOLAREGE #SE6000A-US000SNR2

PREMISE OWNER:  
BABCOCK, CLIFF  
7158 BROOKS RD  
HIGHLAND, MD 20777

(301) 512-9307

DESCRIPTION:  
BABCOCK RESIDENCE  
30kW GROUND MOUNT PV SYSTEM

PAGE NAME:  
PROPERTY PLAN

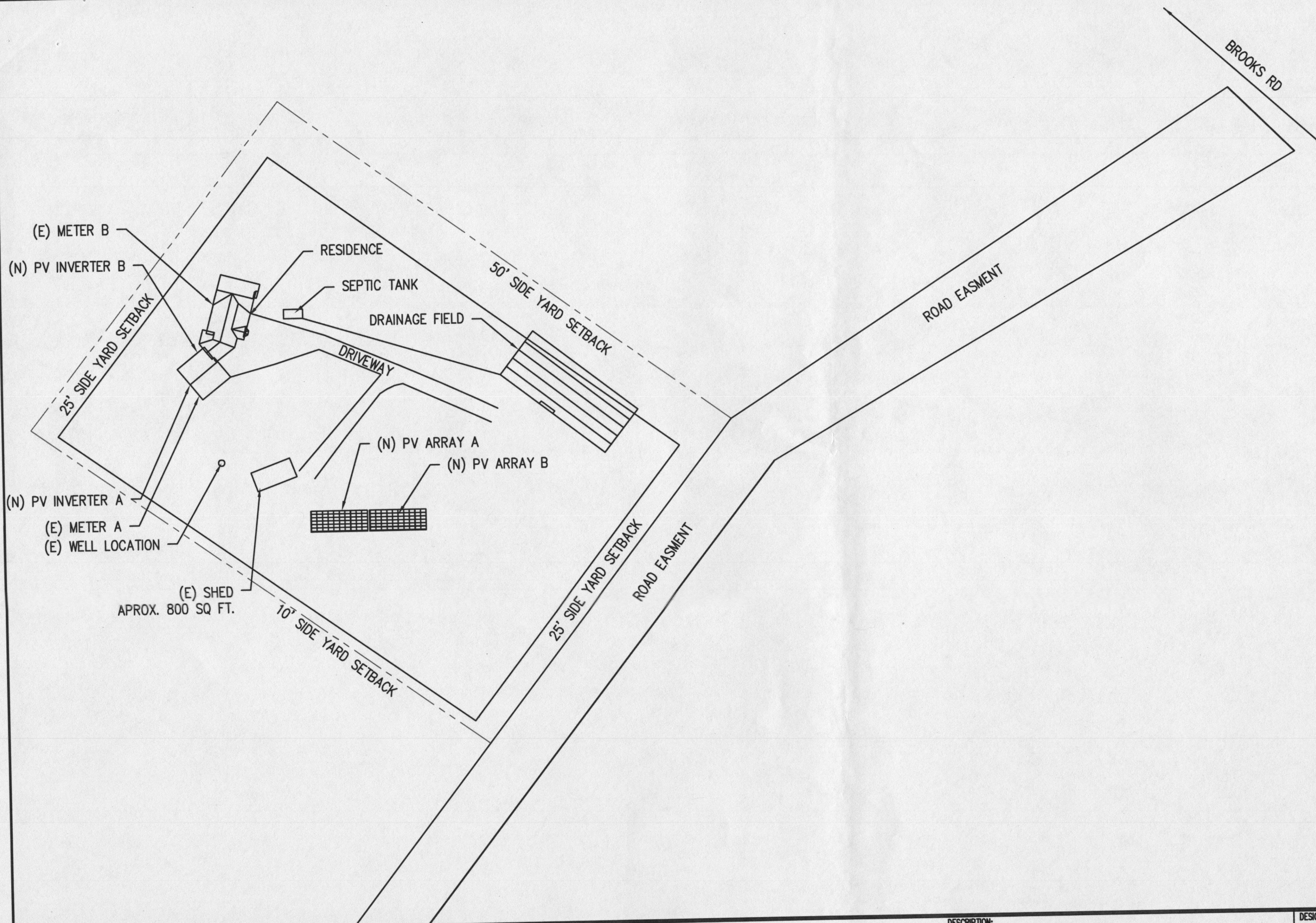
DESIGN:  
Dimas-Daniel Urbieto

SHEET: PV 2 B 11/17/2014



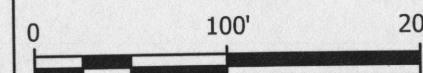
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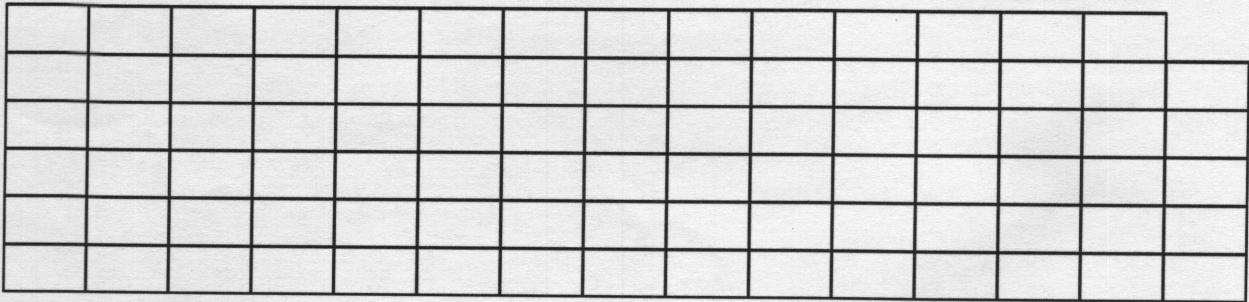
DESIGN:  
Dimas-Daniel Urbieto

SHEET: PV 2 B  
REV: 11/17/2014  
DATE:

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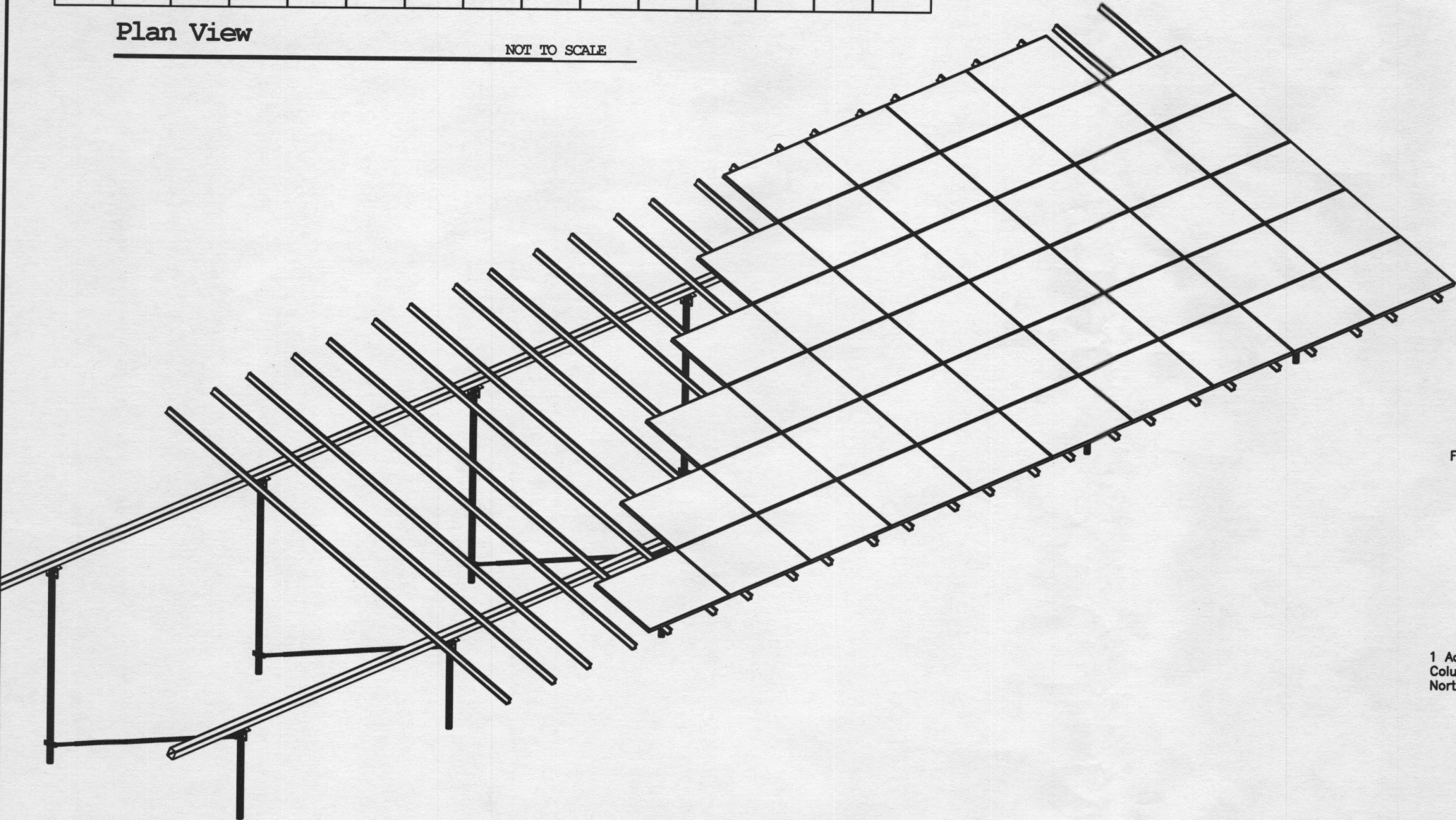
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Plan View

NOT TO SCALE



Site Design Conditions

Basic Wind Speed: 90 MPH	Max. Leg Axial Bearing: 4,265 lbs.
Ground Snow Load: 30 PSF	Max. Leg Uplift: 2,770 lbs.
Exposure Category: C	Max. Lateral Resistance: 2,045 lbs.
Site Contour: <1:100'	Top Rail Max. Loading: 99.5 plf
Helical Pile Depth: 66" Min	Lateral Resistance Plate Size: Not Req'd

Net design pressures were calculated in accordance with ASCE 7-05 section 6.5.13, "Design Wind Loads on Open Buildings with Monoslope, Pitched, or Troughed Roofs". All load cases were evaluated in determining the limiting design conditions. The data table above provides the results for the limiting load case. Maximum leg reaction forces represent the highest load condition seen by any leg in the structure. All legs in the structure are designed to meet the maximum load conditions.

6Lx15C Sub-Array Design Conditions

Front Leg Height: 40 1/4"	Array Tilt Angle: 25 Degrees
Rear Leg Height: 97"	Overall Array East-West Dim: 81'-6"
North-South Leg Spacing: 121 1/2"	Number of Modules/Sub-Array: 89
West Span Leg Spacing: 12'-0"	Number of Sub-Arrays: 1
East Span Leg Spacing: 12'-0"	Module Columns/Sub-Array: 15
Quantity Center Spans: 4	Number of Module Rows: 14 06, 1 05
Center Span Leg Spacing: 12'-0"	Module Orientation: Landscape
East & West Overhang: 4'-3"	Module Column Spacing 1/4"
Overall Beam Length: 80'-6"	Module Row Spacing 1/4"
Front Edge Ground Clearance: 28"	Module Model: YL250P-29b YGE-Z 60
Horizontal Rail Material: 5"x4"x1/8" HSS	Module Size: 38.98" x 64.96"
Top Rail Material: SF Rails	Individual Module Rating: 250 watt
Qty Rails per Panel: 2	Sub Array Power Rating: 22.25 kw
Top Rail Length: 242"	Total Power Rating: 22.25 kw
Top Rail Center Span: 134"	
Top Rail Overhangs: 54"	

1 Additional North Column is to be installed per field direction. The Column is to support equipment mounting needs. It is not required for North beam support.

Sheet 1 of 3

Date	Revision	Drawn By:	Review By:
07/20/2014	Original		MZ

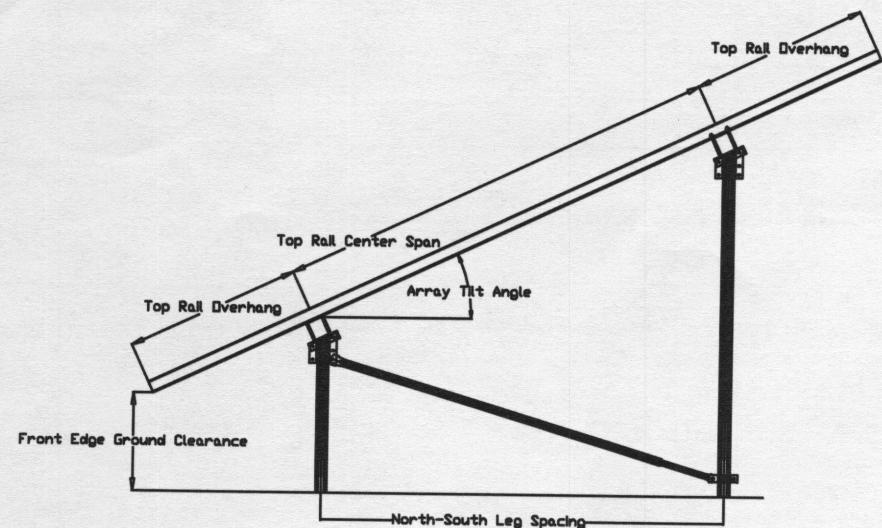
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Project:  
Babcock Residence  
7158 Brooks Road  
Highland, MD 20777

Solar Foundations USA

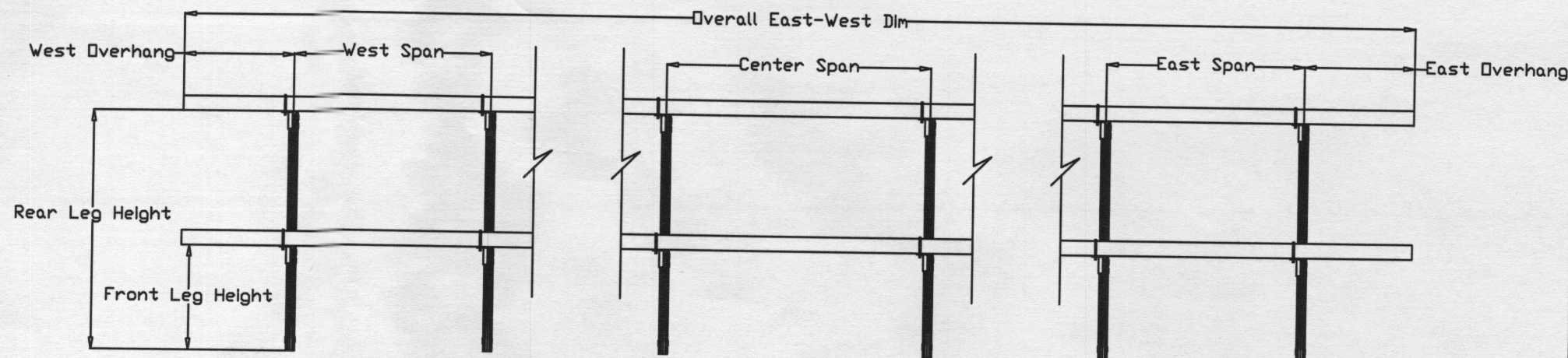
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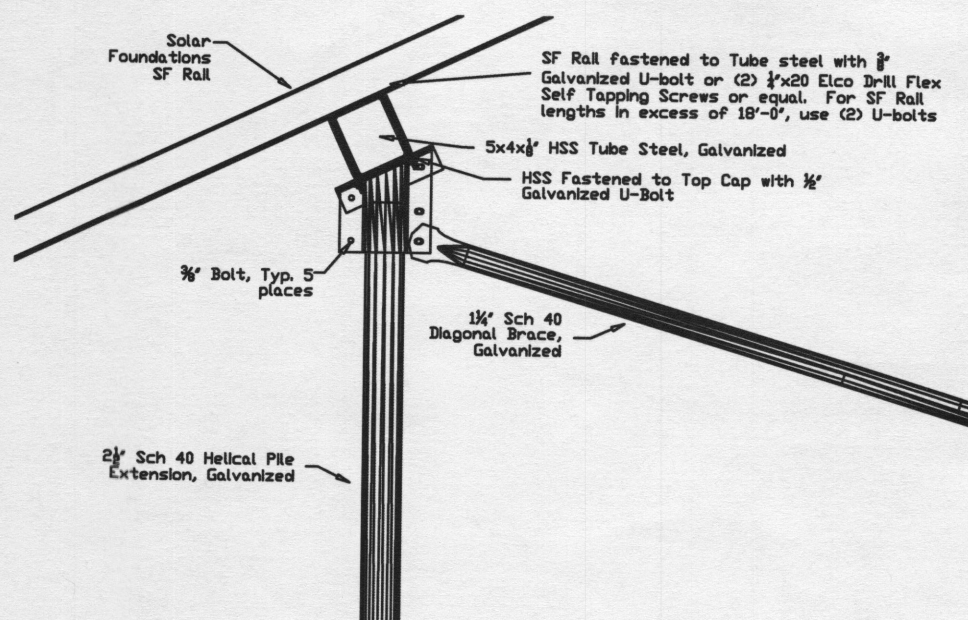
**SIDE ELEVATION DETAIL**

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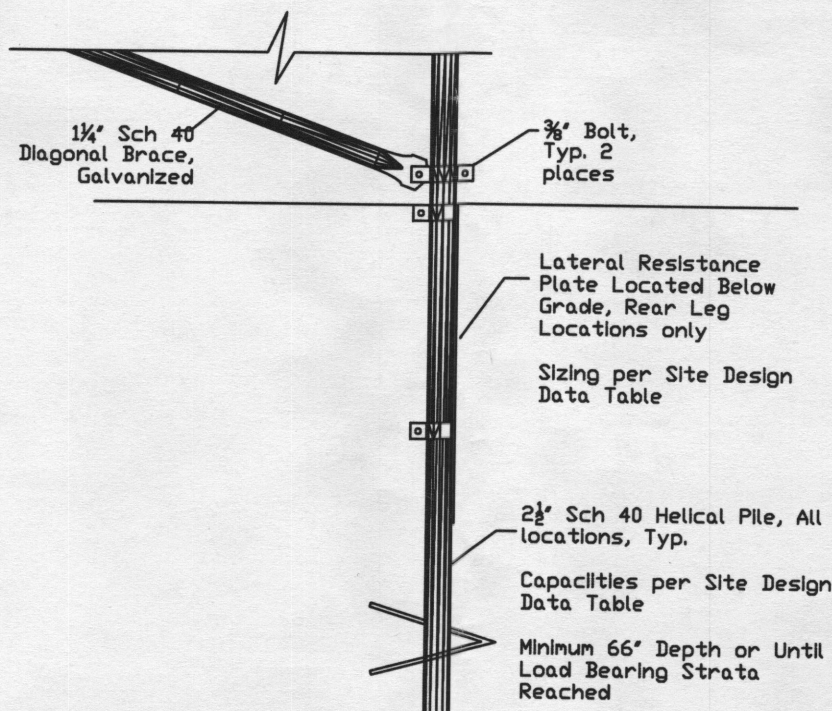
**POST SPACING ELEVATION DETAIL**

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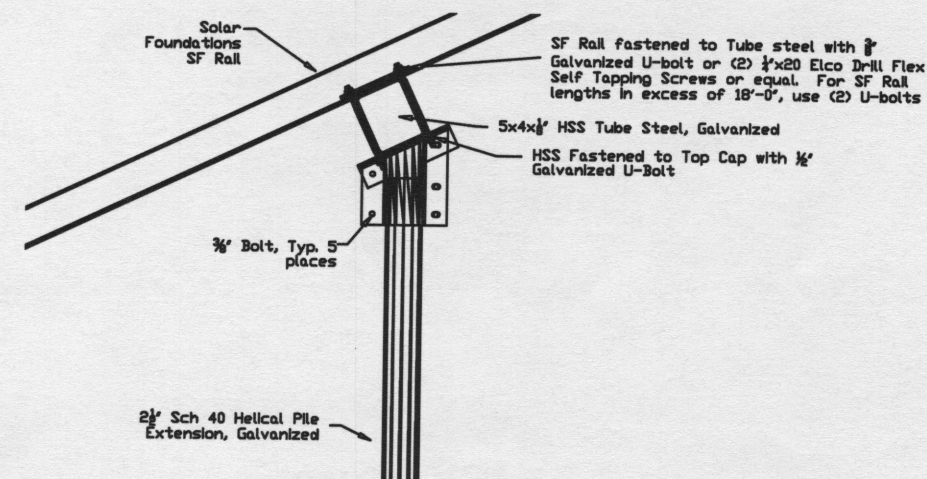
**LOWER CAP DETAIL**

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**HELICAL PILE AND LATERAL RESISTANCE PLATE DETAIL**

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**UPPER CAP DETAIL**

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Sheet 2 of 3

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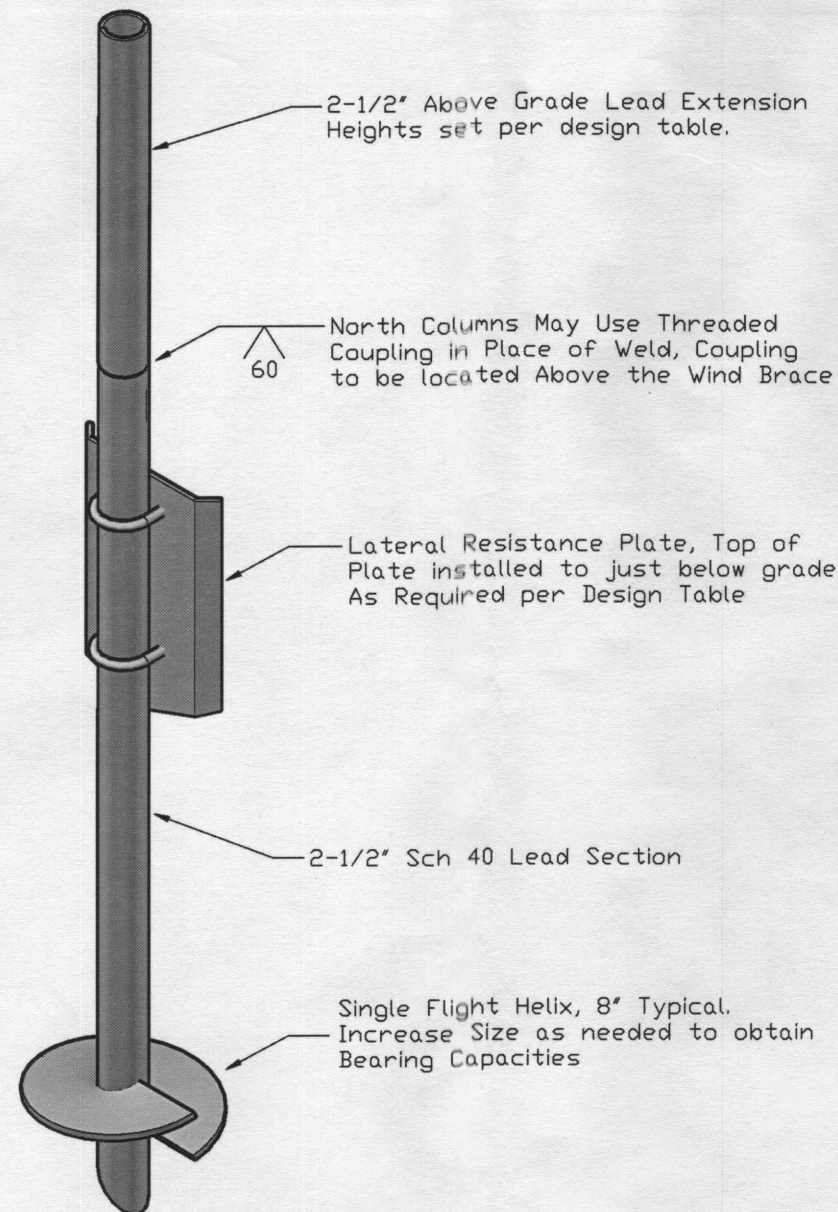
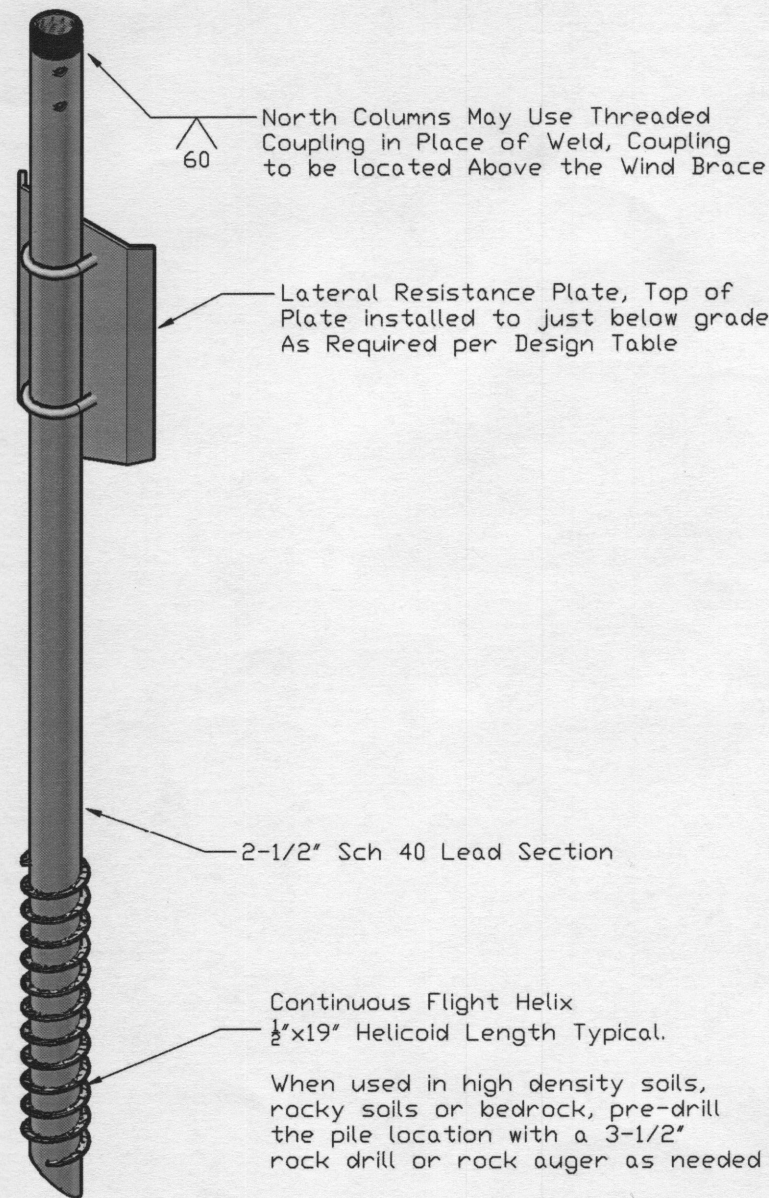
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**Helical Pile Detail**

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#### Installation Requirements

1. The minimum average installation torque required to obtain the required indicated capacities and the minimum installation depth shown on the plans shall be satisfied prior to termination of the installation. The installation torque shall be an average of the installation torques indicated during the last 1 foot of installation.
2. The torsional strength rating of the torque anchor shall not be exceeded during the installation. If the torsional strength limit of the anchor has been reached, but the anchor has not reached the target depth, perform the following:
  - 2.1. If the torsional strength limit is achieved prior to reaching the target depth, the installation may be acceptable if reviewed and approved by the engineer and/or owner.
  - 2.2. The installer may remove the torque anchor and install a new one with smaller diameter helical plate.
  - 2.3. If using a continuous flight pile, pre-drill the pile location with a 3-1/2" rock auger or rock drill as needed.
3. If the target depth is achieved, but the torsional requirement has not been met the installer may do one of the following:
  - 3.1. Install the torque anchor deeper to obtain the required capacity
  - 3.2. Remove the torque anchor and install a new one with a larger diameter helical plate or one with multiple helical plates.
  - 3.3. Reduce the load capacity on the individual torque anchor by providing additional torque anchors at a reduced spacing.

Sheet 3 of 3

Date	Revision	Drawn By:	Review By:
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