

Record Detail (This section is required.)

Permit Type	Permit Number	Opened Date
Building/Residential/Misc/Solar Panel	B25001450	04/15/2025
Description of Work		
SFD/ INSTALL (40) GROUND MOUNT SOLAR PANELS**SUBJECT TO FIELD INSPECTION**		

[check spelling](#)

ON HOLD, site visit required. g/l 4/29/25

Address (This section is required.)

Search Reset Clear Get Parcel & Owner

Street #	Street Name	Street Type
545	RT 32	--Select--
Unit Type	Unit #	X Coordinate
--Select--		-76.96727
		Y Coordinate
		39.35628
City	State	Zip Code
SYKESVILLE	MD	21784
		Primary
		Yes

site visit conducted, well & septic OK. see drawing of plot plan.
BP Approved. g/l 5/27/25

Parcel (This section is required.)

Search Reset Clear Get Address & Owner

GIS ID	Parcel	Parcel Area	Land Value	Improved Value	Exemption Value	Plan Area
830000	15	1.79	229100	632500	403400	RURAL
Legal Description						
1.79 A []545 ROUTE 32 []SYKESVILLE						

[check spelling](#)

Block	Lot	Census Tract	Council Dist	Inspection Dist	Supervisor Dist	Map #	DAP Zone
		603000	5				
Plan Area	State Tax Id	Subdivision Name					
	1403290786						
Section	Area	Tax Map					
		4					
Grid	Zoning District	ADC Map					
4-22	RR-DEO	4693-F4					
SDP No.	Final Plan No.	WP File No.					
Record Plat No.	WS Contract No.	FDP No.	Primary				
7 87			Yes				
Owner Occupied	Year Built	Historic District					
<input type="radio"/> Yes <input type="radio"/> No	1970	<input type="radio"/> Yes <input checked="" type="radio"/> No					
Historic District Registry No.	Stat Area	Flood Plain					
	3-01	<input type="radio"/> Yes <input checked="" type="radio"/> No					
Building No							

Owner (This section is required.)

Search Reset Clear

Name
Abano

Address Line 1
545 ROUTE 32

Address Line 2

Address Line 3

Mail City
SYKESVILLE

Mail State
MD

Mail Zip Code
21784

Phone
667-324-9830

Primary
Yes

E-mail

Cell Number Fax Number

Professionals (This section is required.)

License # 08010117724
 License Type MHIC Ind
 Primary Yes
 Business Name STANDARD ENERGY SOLUTIONS LLC
 First Name ROBERT Middle Name Last Name YOUNG
 Address Line 1 9520 GERWIG LANE STES Q-T
 Address Line 2
 City COLUMBIA State MD ZIP Code 21046-0000
 Phone 1 4108443800 Phone 2 Fax
 E-mail ROBERT.YOUNG@STANDARDENERGYSOLUTION

Applicant (This section is required.)

Search As Owner As Lic. Prof As Contact

Type Applicant
 Relationship Applicant
 Primary Yes
 First Name ROBERT MI Last Name YOUNG
 Full Name ROBERT YOUNG
 Organization Name STANDARD ENERGY SOLUTIONS LLC
 Street Address 9520 GERWIG LANE STES Q-T
 Address Line 2
 City COLUMBIA State MD Zip Code 21046 000
 Phone 4108443800 Cell Fax
 E-mail permitting@STANDARDENERGYSOLUTION.com

Addtl Info

Est Construction Cost 56072.25
 Housing Units 0
 Number of Buildings 0
 Public Owned No
 Construction Type 434 - Additions, Alterations and Conversions - Residential

RESIDENTIAL SOLAR PANEL INFO

SOLAR PANEL INFORMATION

Capital Project-No Fee Yes No
 Type of Installation Solar Collector - Ground Mount
 Number of Panels 40
 Water Supply (Number) Private
 Sewage Disposal Private
 Expiration Date 11/23/2025
 Existing Use SFD
 Sprinkler System Yes No

PAYMENT INFORMATION

Related Records

Showing 1-2 of 2

Permit Number	Record Type Alias	Status	Number	Street Name	Opened Date	Description
B25001450	Residential Solar Panels	Review In Process	545	RT 32	04/15/2025	SFD/ INSTALL (40) GROUND MOUNT SOLAR PAN
E25001912	Residential Electrical Addition Alteration Permit	Issued	545	RT 32	04/15/2025	Installation of (40) q cell 405w ground mounted sola

SCOPE OF WORK REZKALLA, ABANOUB RESIDENCE 16.2kW DC PV SYSTEM

TO INSTALL A SOLAR PHOTOVOLTAIC SYSTEM AT THE REZKALLA, ABANOUB RESIDENCE, LOCATED AT 545 SYKESVILLE RD IN SYKESVILLE, MD. THE POWER GENERATED BY THE PV SYSTEM WILL BE INTERCONNECTED WITH THE UTILITY GRID THROUGH THE EXISTING ELECTRICAL SERVICE EQUIPMENT. THE PV SYSTEM DOES NOT INCLUDE STORAGE BATTERIES.

EQUIPMENT SUMMARY

PV MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ / T (405W)
 INVERTER: ENPHASE IQ8+
 MOUNTING SYSTEM: SOLARFOUNDATIONS GM

SHEET INDEX

- CS - COVER SHEET
- PV-1 - SITE PLAN
- PV-2A - GROUND MOUNT STRUCTURE DETAILS A
- PV-2B - GROUND MOUNT STRUCTURE DETAILS B
- PV-2C - GROUND MOUNT STRUCTURE DETAILS C
- E1 - THREE LINE WIRING DIAGRAM
- E2 - STRING DIAGRAM & LABELS
- S1 - SOLAR MODULE CUTSHEET
- S2 - MICRO-INVERTER CUTSHEET
- S3 - AC LOAD CENTER CUTSHEET

AHJ / UTILITY

AHJ: HOWARD COUNTY
 UTILITY: BGE

GOVERNING CODES

ALL WORK SHALL COMPLY WITH:
 BUILDING: IRC/IBC 2021
 ELECTRICAL: NEC 2023
 AND ALL APPLICABLE MUNICIPAL CODES
 AS AMENDED BY HOWARD COUNTY.



AERIAL VIEW



PROJECT LOCATION



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410-844-3800
 9520 GERWIG LN,
 SUITE Q-7
 COLUMBIA, MD 21046
 PHONE: 117724

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PROJECT TITLE
REZKALLA, ABANOUB RESIDENCE
 PROJECT ADDRESS
**545 SYKESVILLE RD
 SYKESVILLE, MD 21784**
 SHEET TITLE
Cover Sheet

LAT: ---
 LONG: ---

PROJECT NUMBER
ST-6310

DATE
4/2/2025

DESIGNED BY
RBM

APPROVED BY
DM

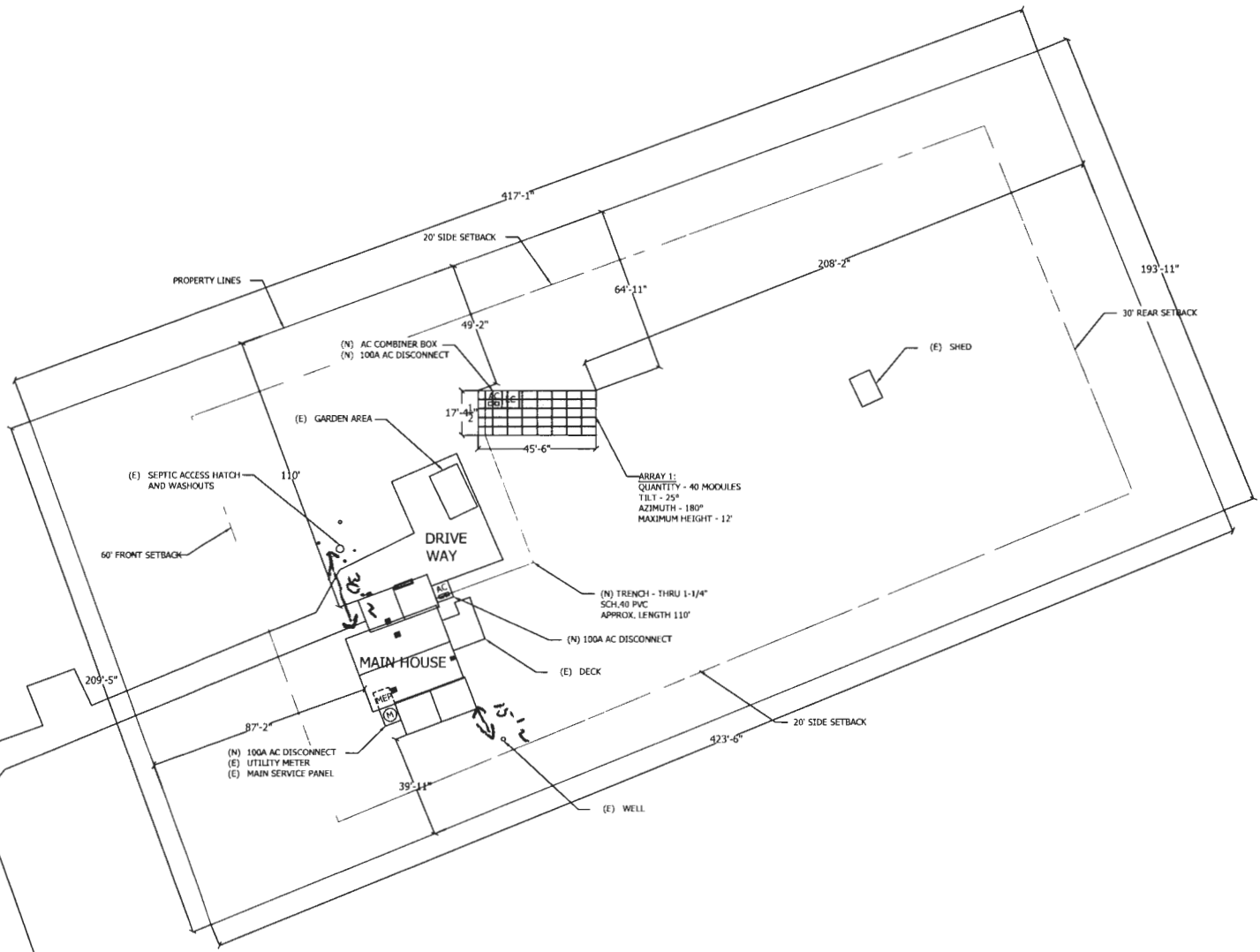
SCALE
AS SHOWN

SHEET

CS

PROJECT # ST-6310

*Drawing is accurate.
Both well & septic were in
adequate shape. DR. APPROVABLE. RB*



1 Site Plan
Scale: 1:500



410-844-3800
9520 GERWIG LN,
SUITES Q-T
COLUMBIA, MD 21046
MHIC#: 117724

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PROJECT TITLE
REZKALLA, ABANOUB RESIDENCE
PROJECT ADDRESS
545 SYKESVILLE RD
SYKESVILLE, MD 21784
SHEET TITLE
Plan View

LAT: ----
LONG: ----

PROJECT NUMBER
ST-6310

DATE
4/2/2025

DRAWN BY
RBM

APPROVED BY
DM

SCALE
AS SHOWN

SHEET
PV1



PANEL LAYOUT
N.T.S

5Lx8C SUB-ARRAY DESIGN DATA

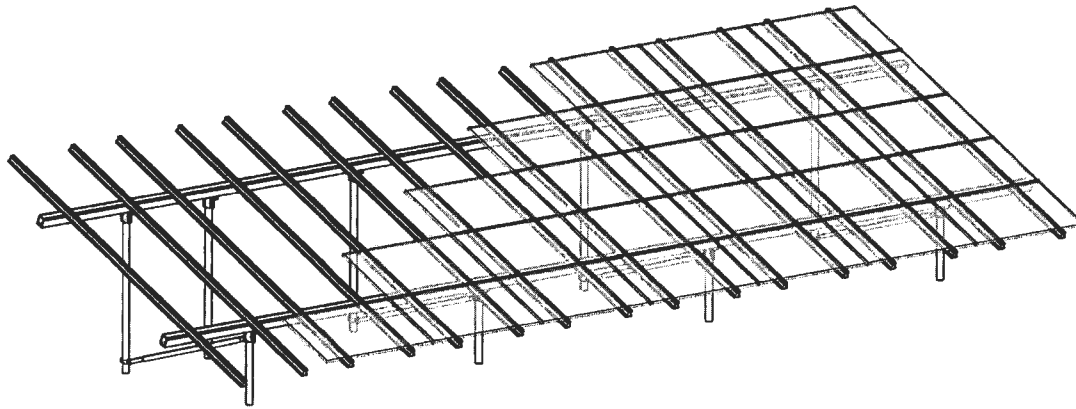
QTY OF MODULES/SUB-ARRAY:	40
QTY OF SUB-ARRAYS:	1
PANEL COLUMNS/SUB-ARRAY:	8
QTY OF PANEL ROWS:	5
PANEL ORIENTATION:	LANDSCAPE
PANEL COLUMN SPACING:	3/8"
PANEL ROW SPACING:	1/8"
PANEL MODEL:	Q.PEAK DUO BLK ML-G10+(T)
PANEL SIZE:	41.14" x 73.98"
PANEL POWER RATING:	405 WATTS
SUB ARRAY POWER RATING:	16.2 KW
TOTAL POWER RATING:	16.2 KW
QTY RAIL PER PANEL:	2

SITE DESIGN CONDITIONS

BASIC WIND SPEED: (RISK CATEGORY I)	115 MPH	MAXIMUM PILE AXIAL BEARING:	4,825 LBS
BASIC WIND SPEED: (RISK CATEGORY I)	N/A	MAXIMUM PILE UPLIFT:	3,090 LBS
EXPOSURE CATEGORY:	C	MAXIMUM LATERAL RESISTANCE:	2,215 LBS
GROUND SNOW LOAD:	40 PSF	TOP RAIL MAXIMUM LOADING:	133.6 PLF
FLAT ROOF SNOW LOAD:	N/A	GROUND SCREW DEPTH:	60" MIN
SITE CONTOUR:	<5 DEG SLOPE		

ALL DESIGN WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY BUILDING CODE INCLUDING, BUT NOT LIMITED TO, THE 2021 INTERNATIONAL BUILDING CODE WITH AMENDMENTS PER SECTION 3.101.

NET DESIGN PRESSURES WERE CALCULATED IN ACCORDANCE WITH ASCE 7-16 SECTION 27.3.2, "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 PILE REACTION FORCES REPRESENT THE HIGHEST LOAD CONDITION APPLIED TO ANY PILE IN THE STRUCTURE. ALL PILES IN THE STRUCTURE ARE DESIGNED TO MEET THE MAXIMUM LOAD CONDITIONS.



ISOMETRIC VIEW
N.T.S

NOTE:
1. (1) ADDITIONAL NORTH GROUND SCREW IS TO BE INSTALLED PER FIELD DIRECTION. THE GROUND SCREW IS TO SUPPORT EQUIPMENT MOUNTING NEEDS. IT IS NOT REQUIRED FOR NORTH BEAM SUPPORT.

Solar Foundations[®] USA
1142 River Road, New Castle, DE 19720
Ph: (855) 738-7200 Fax: (866) 644-5665

STANDARD ENERGY SOLUTIONS
-PROJECT-
REZKALLA, ABANOUH RESIDENCE
41 SYKESVILLE RD.
SYKESVILLE, MD 21784

James C Douglas
Digitally signed by James C Douglas
Date: 2025.02.14 16:57:56 -0500

DATE	REVISION	DRAWN BY:	REVIEW BY:
02/14/2025	ORIGINAL	JB	JD

S-1

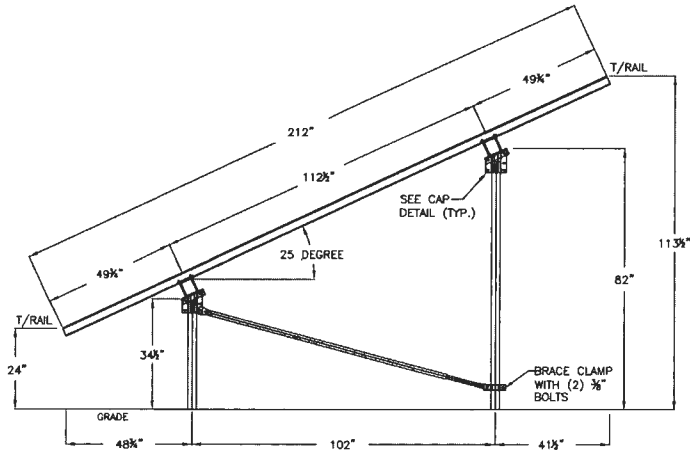
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9520 GERWIG LN,
SUITES Q-T
COLUMBIA, MD 21046
MHIC#: 117724

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PROJECT TITLE
REZKALLA, ABANOUH RESIDENCE
PROJECT ADDRESS
545 SYKESVILLE RD
SYKESVILLE, MD 21784
SHEET TITLE
Ground Mount Structure Detail A

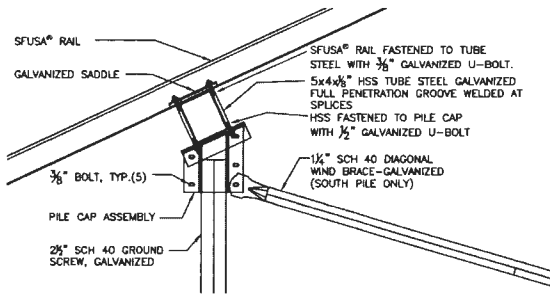
LAT: ----
LONG: ----

PROJECT NUMBER
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DATE
4/2/2025
DRAWN BY:
RBM
APPROVED BY:
DM
SCALE
AS SHOWN
SHEET
PV2A



EAST ELEVATION
N.T.S

NOTE:
1. ARRAY HEIGHT DIMENSIONS ASSUME LEVEL GRADE

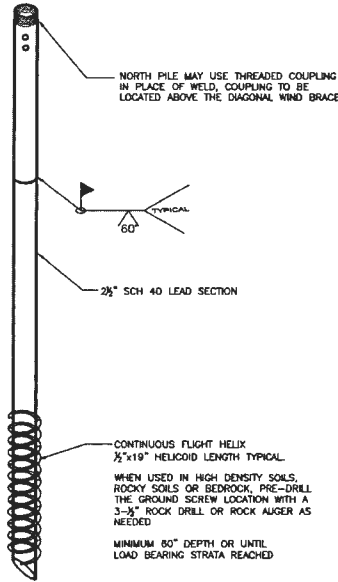


CAP DETAIL
N.T.S

SPECIFICATION REQUIREMENT NOTES:

THE FOLLOWING MATERIAL SPECIFICATION REQUIREMENTS PERTAIN TO THE FABRICATION OF THE SOLAR FOUNDATIONS USA® GROUND MOUNT SOLAR SUPPORT STRUCTURE AS INDICATED ON THESE DRAWINGS.

1. SFUSA® ALUMINUM RAILS SHALL CONFORM TO ASTM B221.
2. STRUCTURAL STEEL TUBING SHALL BE ASTM A500 HIGH YIELD (60 KSI).
3. STEEL PIPE FOR PILES SHALL CONFORM TO ASTM A500 GRADE C.
4. STEEL PILE EXTENSIONS SHALL BE ASTM A53 GRADE B.
5. STEEL PIPE FOR DIAGONAL BRACING SHALL BE ASTM A53 GRADE A.
6. FABRICATED STEEL PLATE FOR PILE CAP ASSEMBLIES, BRACING CLAMPS, ETC. SHALL BE ASTM A36 OR A1011.
7. STEEL BOLTS SHALL CONFORM TO SAE J428 GRADE 5 OR BETTER.
8. STEEL U-BOLTS SHALL CONFORM TO ASTM 1018.
9. USS FLAT STEEL WASHERS SHALL CONFORM TO ASTM FB44 AND NUTS FOR STEEL CONNECTIONS SHALL CONFORM TO ASTM A563 GRADE A.
10. ALL FIELD WELDING SHALL CONFORM TO AWS D1.1/D1.1M -STRUCTURAL WELDING CODE REQUIREMENTS.
11. ALL STEEL SHALL BE HOT-DIP GALVANIZED PER ASTM A123 OR A153 AFTER ALL FABRICATION HAS BEEN COMPLETED.



GROUND SCREW DETAIL
N.T.S

INSTALLATION REQUIREMENT NOTES:

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 GROUND SCREW INSTALLATION. THE INSTALLATION TORQUE SHALL BE AN AVERAGE OF THE INSTALLATION TORQUES INDICATED DURING THE LAST ONE FOOT OF INSTALLATION.
2. THE TORSIONAL STRENGTH RATING OF THE GROUND SCREW SHALL NOT BE EXCEEDED DURING THE INSTALLATION. IF THE TORSIONAL STRENGTH LIMIT OF THE GROUND SCREW HAS BEEN REACHED, BUT THE SCREW HAS NOT REACHED THE TARGET DEPTH, PERFORM THE FOLLOWING:
 - a. REVIEW DEVELOPED TORQUE AND GROUND SCREW DEPTH WITH ENGINEER OF RECORD TO DETERMINE IF ACCEPTABLE FOR THIS INSTALLATION BASED UPON MINIMUM FROST DEPTH REQUIREMENT.
 - b. FOR INSTALLATION INTO HIGHLY COMPACTED SOIL, CREW SHALL PRE-DRILL THE GROUND SCREW LOCATION WITH A 3/8" CARBIDE TIPPED ROCK AUGER TO FULL GROUND SCREW DEPTH PRIOR TO INSTALLATION OF THE GROUND SCREW.
 - c. FOR INSTALLATION INTO SOLID ROCK, CREW SHALL PRE-DRILL THE GROUND SCREW LOCATION WITH A 3/8" PNEUMATIC DRIVEN ROCK DRILL. DEPTH OF DRILLED HOLE INTO THE ROCK SHALL BE A MINIMUM OF 30" TO ALLOW THE GROUND SCREW TO BE INSTALLED A MINIMUM OF 24" INTO THE ROCK FOR FULL FLIGHT ENGAGEMENT.
3. IF THE TARGET DEPTH IS ACHIEVED, BUT THE TORSIONAL REQUIREMENT HAS NOT BEEN MET THE INSTALLER PERFORM ONE OF THE FOLLOWING:
 - a. INSTALL THE GROUND SCREW DEEPER TO OBTAIN THE REQUIRED CAPACITY.
 - b. REMOVE THE GROUND SCREW AND INSTALL AN APPROVED SINGLE FLIGHT PILE WITH A LARGER DIAMETER HELICAL PLATE OR ONE WITH MULTIPLE HELICAL PLATES.
 - c. REDUCE THE LOAD ON THE INDIVIDUAL GROUND SCREWS BY PROVIDING ADDITIONAL GROUND SCREWS AT A REDUCED SPACING. CONTACT ENGINEER OF RECORD FOR DETERMINATION OF MAXIMUM PILE SPACING BASED UPON DEVELOPED TORQUE.

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 40027, EXPIRATION DATE: 3/15/25.

James C Douglas
Digitally signed by James C Douglas
Date: 2025.02.14 16:58:23 -05'00'



DATE	REVISION	DRAWN BY	REVIEW BY:
02/14/2025	ORIGINAL	JB	JD

S-2

Solar Foundations® USA
11766 River Road, New Castle, DE 19720
Ph: (855) 750-7200 Fax: (856) 844-5685

STANDARD ENERGY SOLUTIONS
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545 SYKESVILLE RD
SYKESVILLE, MD 21784

800 Solar Foundations Support
410-844-3800
9520 GERWIG LN,
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SYKESVILLE, MD 21784
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Ground Mount Structure Detail B

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