

SCOPE OF WORK

TO INSTALL A ROOF MOUNTED SOLAR PHOTOVOLTAIC SYSTEM AT THE OWNER RESIDENCE LOCATED AT 1115 N 1100 W, FARMINGTON, UT 84025, USA.
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
12 BLUESUN SOLAR BSM415M10-54HPH MODULES
6 APTOS MAC 800R MICROINVERTERS

GENERAL NOTES

- THESE CONSTRUCTION DOCUMENTS HAVE BEEN BASED ON FIELD INSPECTIONS AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS
- CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT, TOOLS, OBTAIN ALL PERMITS, LICENSES AND PAY ALL REQUIRED FEES AND COMPLETE INSTALLATION.
- CONTRACTOR SHALL OBTAIN BULDING PERMIT. NO WORK TO START UNLESS BUILDING PERMIT IS PROPERLY DISPLAYED.
- ALL WORKMANSHIP AND MATERIALS SHALL BE OF FIRST QUALITY AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE, THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ALL PERTINENT AGENCIES.
- IT IS ESSENTIAL THAT ALL WORK PROCEED WITH THE MAXIMUM COOPERATION OF ALL PARTIES AND WITH MINIMUM INTERFERENCE TO THE OCCUPANTS WITHIN THE BUILDING. THE OWNER'S DIRECTIONS IN THIS REGARD SHALL BE FULLY COMPLIED WITH.
- THE CONTRACTOR SHALL PERFORM THE WORK IN STRICT CONFORMANCE WITH THE LOCAL LAWS, REGULATIONS AND THE NATIONAL ELECTRIC CODE.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS, APPROVALS, AFFIDAVITS, CERTIFICATIONS, ETC. AND PAY ALL FEES AS REQUIRED BY THE LOCAL AUTHORITIES.
- CONTRACTORS SHALL OBTAIN FIRE CERTIF. UPON COMPLETION OF WORK.

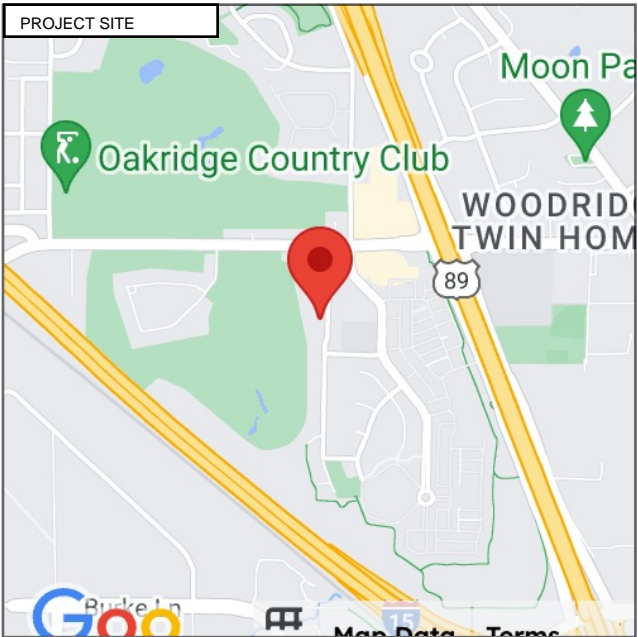
ELECTRICAL NOTES

- ALL EQUIPMENT TO BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION.
- ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 V AND 90 DEGREE C WET ENVIRONMENT.
- WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.
- WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26.
- WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
- ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND READILY VISIBLE.
- MODULE GROUNDING CLIPS TO BE INSTALLED BETWEEN MODULE FRAME AND MODULE SUPPORT RAIL, PER THE GROUNDING CLIP MANUFACTURERS INSTRUCTION.
- MODULE SUPPORT RAIL SHALL BE BONDED TO THE MODULE

GOVERNING CODES
2020 NATIONAL ELECTRICAL CODE 2021 INTERNATIONAL FIRE CODE 2021 INTERNATIONAL BUILDING CODE 2021 INTERNATIONAL RESIDENTIAL CODE
AHJ NAME : FARMINGTON CITY

WIRING AND CONDUIT NOTES

- ALL CONDUIT SIZES AND TYPES SHALL BE LISTED FOR ITS PURPOSE AND APPROVAL FOR THE SITE APPLICATIONS
- ALL PV CABLES AND HOMERUN WIRES BE #10AWG *USE-2, PV WIRE, OR PROPRIETARY SOLAR CABLING SPECIFIED BY MFR, OR EQUIVALENT; ROUTED TO SOURCE CIRCUIT COMBINER BOXES AS REQUIRED
- ALL PV DC CONDUCTORS IN CONDUIT EXPOSED TO SUNLIGHT SHALL BE DERATED ACCORDING TO AS PER LATEST NEC CODE.
- EXPOSED ROOF PV DC CONDUCTORS SHALL BE USE-2, 90°C RATED, WET AND UV RESISTANT, AND UL LISTED RATED FOR 600V, UV RATED SPIRAL WRAP SHALL BE USED TO PROTECT WIRE FROM SHARP EDGES
- PHASE AND NEUTRAL CONDUCTORS SHALL BE DUAL RATED THHN/THWN-2 INSULATED, 90°C RATED, WET AND UV RESISTANT, RATED FOR 1000V AS PER APPLICABLE NEC
- 4-WIRE DELTA CONNECTED SYSTEMS HAVE THE PHASE WITH THE HIGHER VOLTAGE TO GROUND MARKED ORANGE OR IDENTIFIED BY OTHER EFFECTIVE MEANS
- ALL SOURCE CIRCUITS SHALL HAVE INDIVIDUAL SOURCE CIRCUIT PROTECTION
- VOLTAGE DROP LIMITED TO 2%
- AC CONDUCTORS >4AWG COLOR CODED OR MARKED: PHASE A OR L1- BLACK, PHASE B OR L2- RED, PHASE C OR L3- BLUE, NEUTRAL- WHITE/GRAY



VICINITY MAP

SCALE: NTS



HOUSE PHOTO

SCALE: NTS

SYSTEM RATING	PHOTOVOLTAIC SYSTEM FIRE CLASSIFICATION LISTING IN ACCORDANCE WITH UL 1703 STANDARD.
4.980 kWDC	
4.800 kWAC	
SHEET INDEX	
PV1	COVER PAGE
PV2	SITE PLAN
PV3	ROOF PLAN
PV4	STRING LAYOUT & BOM
PV5-PV6	ATTACHMENT DETAILS
PV7	ELECTRICAL LINE & CALCS.
PV8	SPECIFICATIONS & NOTES
PV9-PV10	SIGNAGE
PV11-PV14	EQUIPMENT SPECIFICATIONS

H2 SOLAR
11 W LADY LN, BOUNTIFUL,
UT 84010, USA
PH# : (801) 859-2313
Contractor License
#13494061-5501

SYSTEM INFO
(12) BLUESUN SOLAR BSM415M10-54HPH
(6) APTOS MAC 800R
DC SYSTEM SIZE: 4.980 kWDC
AC SYSTEM SIZE: 4.800 kWAC
METER: 51 241 201

REVISIONS		
DESCRIPTION	DATE	REV

PROJECT NAME & ADDRESS
BRIAN GREE RESIDENCE 1115 N 1100 W, FARMINGTON, UT 84025, USA EMAIL ID: BPGREEN@GMAIL.COM PHONE NO. (801) 884-7127

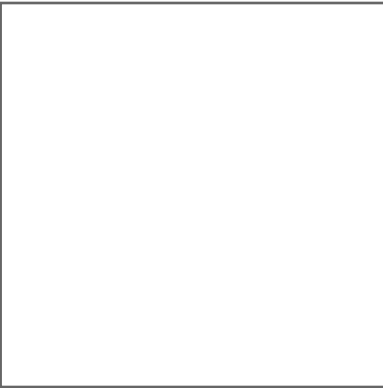
DATE: 8/22/2024
SHEET NAME COVER PAGE
SHEET SIZE ANSI B 11" X 17"
SHEET NUMBER PV-1

SOLAR MODULE SPECIFICATIONS	
MANUFACTURER / MODEL	BLUESUN SOLAR BSM415M10-54HPH
VMP	31.63 V
IMP	13.13 A
VOC	37.75 V
ISC	14.02 A
TEMP. COEFF. VOC	-0.26%/K
PTC RATING	387.2 W
MODULE DIMENSION	67.8"(L) x 44.65"(W)
PANEL WATTAGE	415 W

INVERTER SPECIFICATIONS	
MANUFACTURER / MODEL	APTOS MAC 800R
MAX DC SHORT CIRCUIT CURRENT	15 A
CONTINUOUS OUTPUT CURRENT	3.19 A

AMBIENT TEMPERATURE SPECS	
RECORD LOW TEMP	-16°C
AMBIENT TEMP (HIGH TEMP 2%)	39°C
CONDUIT HEIGHT	7/8"
ROOF TOP TEMP	58°C
CONDUCTOR TEMPERATURE RATE	90°C
MODULE TEMPERATURE COEFFICIENT OF VOC	-0.26%/K

PERCENT OF VALUES	NUMBER OF CURRENT CARRYING CONDUCTORS IN EMT
0.80	4-6
0.70	7-9
0.50	10-20



H2 SOLAR
11 W LADY LN, BOUNTIFUL,
UT 84010, USA
PH# : (801) 859-2313
Contractor License
#13494061-5501

SYSTEM INFO
(12) BLUESUN SOLAR BSM415M10-54HPH
(6) APTOS MAC 800R
DC SYSTEM SIZE: 4.980 kWDC
AC SYSTEM SIZE: 4.800 kWAC
METER: 51 241 201

REVISIONS		
DESCRIPTION	DATE	REV

PROJECT NAME & ADDRESS

BRIAN GREE
RESIDENCE

1115 N 1100 W, FARMINGTON, UT 84025, USA
EMAIL ID: BPGREEN@GMAIL.COM
PHONE NO. (801) 884-7127

DATE: 8/22/2024
SHEET NAME SPECIFICATIONS & NOTES
SHEET SIZE ANSI B 11" X 17"
SHEET NUMBER PV-8