

CONTRACTOR INFORMATION

CONTRACTOR'S NAME: _____ EMAIL: _____

CONTRACTOR'S BUSINESS NAME: _____

CONTRACTOR'S LICENSE #: _____ PHONE #: _____

PV CONTRACTOR'S NAME: _____ EMAIL: _____

PV CONTRACTOR'S BUSINESS NAME: _____

PV CONTRACTOR'S LICENSE #: _____ PHONE #: _____

ELECTRICAL CONTRACTOR'S NAME: _____ EMAIL: _____

ELECTRICAL CONTRACTOR'S BUSINESS NAME: _____

ELECTRICAL CONTRACTOR'S LICENSE #: _____ PHONE #: _____

BY SIGNING BELOW I HEREBY ACKNOWLEDGE THAT I HAVE READ THIS APPLICATION AND STATE THAT ALL INFORMATION IS CORRECT AND AGREE NOT TO START THIS PROJECT UNTIL THIS APPLICATION IS APPROVED BY MARINER'S VILLAGE III AND THE BUILDING PERMIT IS ISSUED. I ALSO AGREE TO COMPLY WITH THE LAWS OF THE STATE OF HAWAII AND TO THE ZONING REGULATIONS AND INTERNATIONAL BUILDING CODES AS ADOPTED BY THE CITY & COUNTY OF HONOLULU AS APPLICABLE. ANY VIOLATION OF THESE TERMS WILL BE CAUSE FOR IMMEDIATE REVOCATION OF THIS APPLICATION AND TERMINATION OF CONSTRUCTION AND INSTALLATION. CONTRACTOR AND OWNER RESPONSIBLE TO REMOVE ALL CONSTRUCTION DEBRIS AND REPAIR ALL BUILDING SURFACES OWNED BY THE MARINER'S VILLAGE III ASSOCIATION.

OWNER – PRINT NAME

OWNER SIGNATURE

DATE

CONTRACTOR – PRINT NAME

CONTRACTOR SIGNATURE

DATE

PV CONTRACTOR – PRINT NAME

CONTRACTOR SIGNATURE

DATE

ELEC. CONTRACTOR – PRINT NAME

ELEC. CONTRACTOR SIGNATURE

DATE

**MARINER'S VILLAGE III
SOLAR PHOTOVOLTAIC SYSTEMS PLAN SUBMITTAL REQUIREMENTS
ATTACHMENT B**

General Requirements

- Provide two hard copies of the Construction Documents stamped by a Hawaii licensed professional engineer and/or architect; including:
 - Site Plan – showing project location, address, and T.M.K. information
 - Roof Plan - locating all equipment and infrastructure on the drawing, conduit routing, clear delineation of equipment/conduit impacting adjacent neighbor's property, setback requirements should be dimensioned as well as all roof penetrations, mounting details, and waterproofing details.
 - Exterior Elevations - locating all equipment and any required backing on the drawing, conduit routing, clear delineation of equipment/conduit impacting adjacent neighbor's property, setback requirements should be dimensioned as well as all penetrations, waterproofing and fire stopping details.
 - Trenching – identify all trenching locations and ensure there is no conflict with existing underground utilities and irrigation systems.
 - Architectural/Structural/Electrical Details – provide all necessary details and one-line diagrams to ensure a code compliant set of buildable drawings.
- Provide one copy of the building permit application and approved permit.
- State the name of the product(s) being used and the product information. Identify where products are manufactured.
- Specify if the system is a stand-alone or interactive system.
- Roof mounted systems must be on permanent standoffs and provide the following:
 - 1) Type of existing roof structure, i.e. roof trusses or rafters the standoffs are anchored to.
 - 2) Method of locating roof framing members to ensure proper structural securing of the system is not just penetrating the roof sheathing and creating unnecessary roof penetrations.
 - 3) Provide mounting details. All permanent standoffs shall be mounted to structural members only and properly flashed to accommodate re-roofing.
 - 4) Identify existing roofing material, life of existing roofing system, remaining life of roofing system, and confirmation that the roofing warranty will not be voided/violated by the PV system installation.
 - Note: Keep in mind it is anticipated the PV system will be removed by Owner at Owner's cost when the MVIII Association needs to re-roof the buildings. Mounting systems and details need to take this into consideration during the design phase.

Wiring Requirements

- Provide a **one-line diagram** that includes the following information as applicable to micro inverter application:
 - Panel Schedule and information
 - Conductor size
 - Conductor insulation types
 - Conductor material, i.e. copper, aluminum
 - Main over-current device ratings
 - Existing and new panel busbar amperage ratings
 - Series and parallel configuration of the module connections
- Provide a schematic drawing that includes the following:
 - The location of all modules, inverters, disconnects, and service equipment
 - The location of all batteries
 - The location and connection of all grounding electrode conductors
 - The clearances around all equipment noted above
 - Conduit or cable type & size, i.e. nonmetallic, EMT, direct burial cable etc.
 - Provide all applicable warning and marking labels for AC and DC disconnects as required.

Equipment Requirements

- Provide the following equipment information as applicable to micro inverter application:
 - Module short circuit current ratings
 - Module open circuit voltage ratings
 - Module series fuse ratings
 - Micro Inverter maximum output current rating
 - Micro Inverter maximum over-current protection- output/input per manufacturer
 - All U.L. File number, listings and remaining specifications
- Provide all associated documentation/cut sheets, and installation instructions on equipment, i.e., micro inverters, disconnects, modules, charge controllers, over current devices, hardware specifications, etc.

Required Inspections:

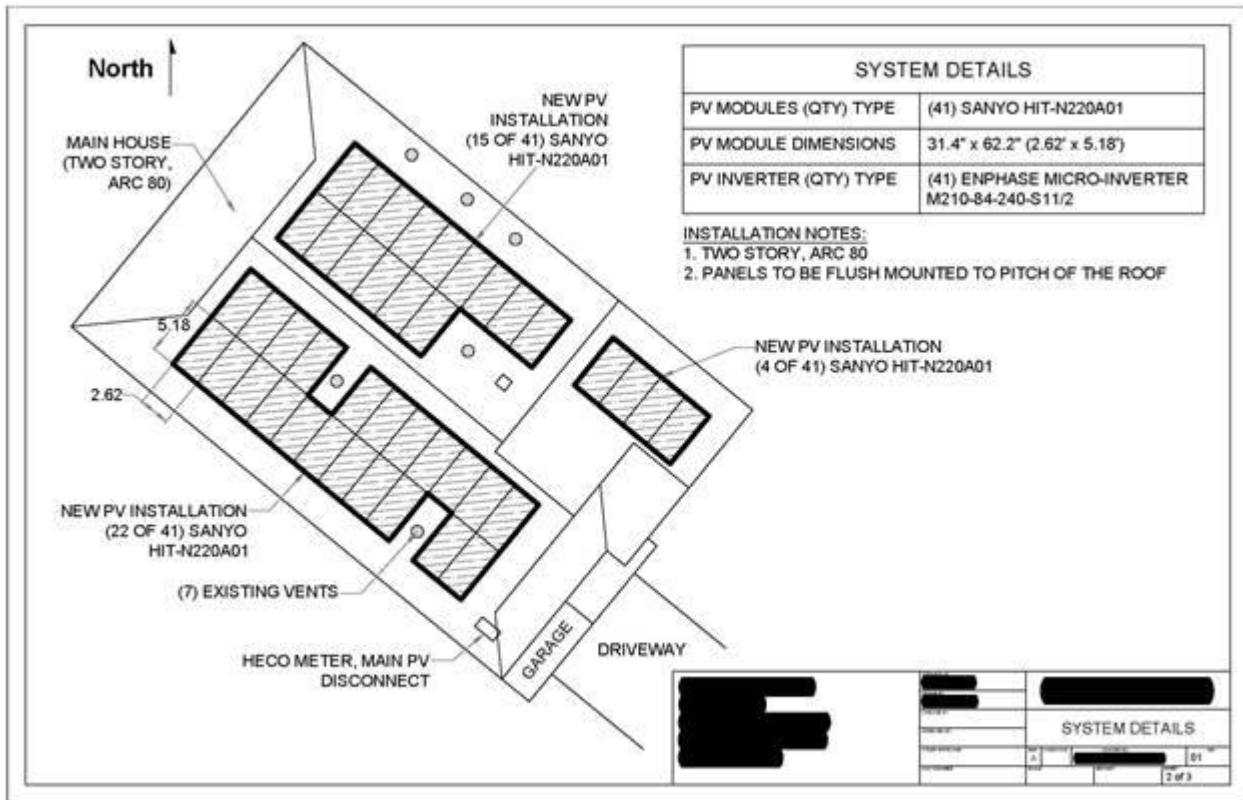
- Local code and current NEC code requirements before panels are set.
- Local code and current NEC code requirements after panels are set and before system is turned on.

REQUIRED PAPERWORK PRIOR TO STARTING ANY CONSTRUCTION

1. Mariner's Village III Application – By Owner
2. Construction Documents (Drawings) - By Licensed Engineer/Architect & Coordinated with Solar PV Contractor
3. Drawing of PV Panel Array(s) – By Solar PV Contractor
4. Building Elevation Drawings or Photographs Showing Conduit Runs – By Licensed Engineer/Architect & Coordinated with Solar PV Contractor
5. Location and Diagram of Micro Inverters/Shut Off Switch - By Licensed Engineer/Architect & Coordinated with Solar PV Contractor
6. Photographs of House – By Owner & Coordinated with Licensed Engineer/Architect & PV Contractor
7. Specification Sheets for Solar Panel - By Solar PV Contractor & Coordinated with Licensed Engineer/Architect
8. Specification Sheets for Inverter - By Solar PV Contractor & Coordinated with Licensed Engineer/Architect
9. Copy of Building Permit Application
10. Copy of Final Approved Building Permit
11. Document from Roofing Manufacturer Confirming Roof Warranty Not Voided by PV Installation

1. DIAGRAM OF PV PANEL ARRAY(S)

This diagram shall be a bird's eye view of the panels as they will be placed on the roof.



Include the following information on the diagram:

- The total number of modules
- Whether or not the house has a second story
- All existing roof penetrations and equipment, such as solar fans, VTR's, etc.
- The name of the homeowner and address with unit number
- Required to show outline of all units associated in the same building
- Location of existing electrical meters, new meters, and PV disconnect

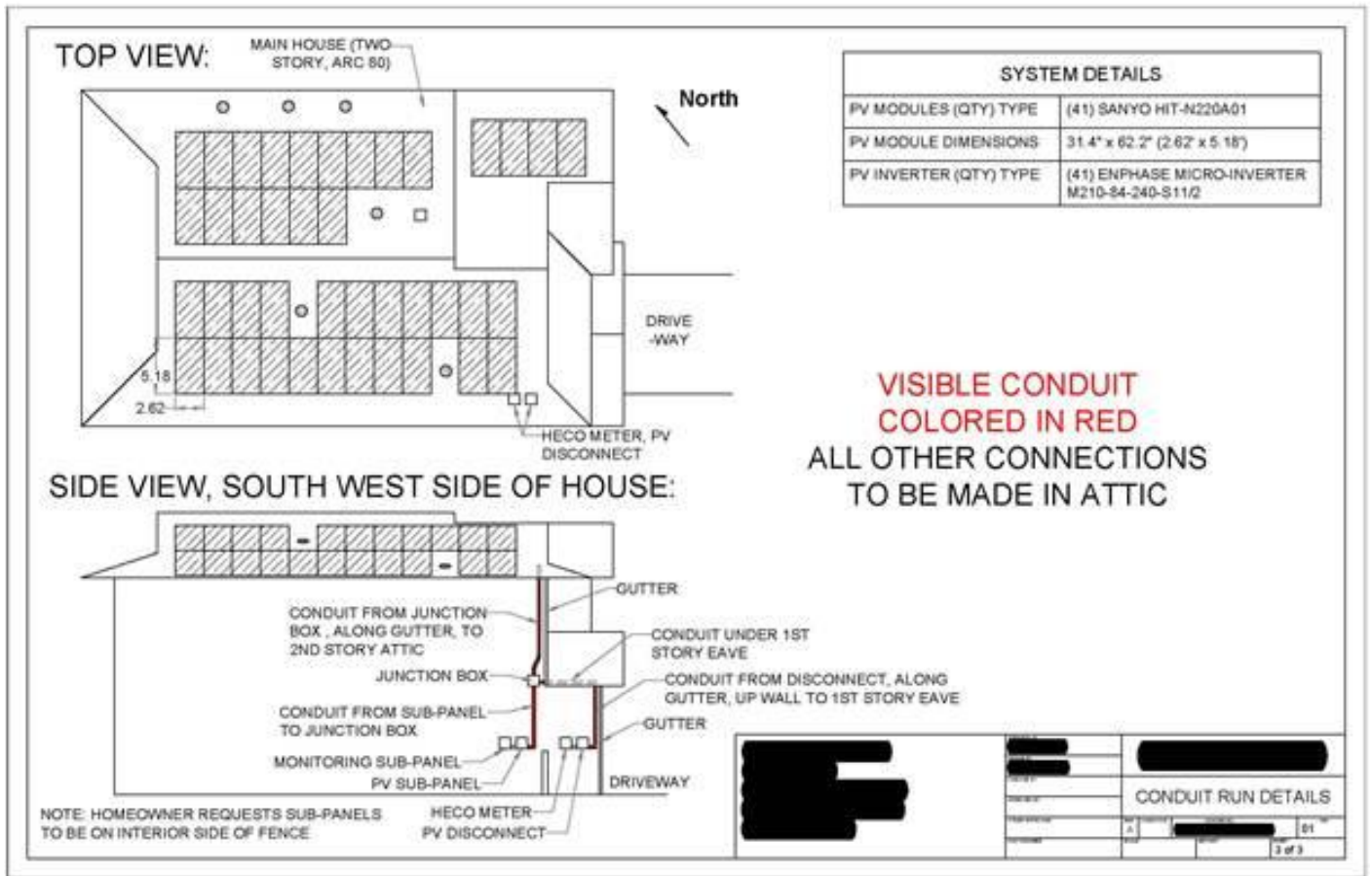
Note: You may include the conduit run on this diagram, or submit a separate diagram. Please ensure conduit runs across adjacent Owner(s) units are clearly identified.

2. DRAWINGS OR PHOTOGRAPHS SHOWING CONDUIT RUNS

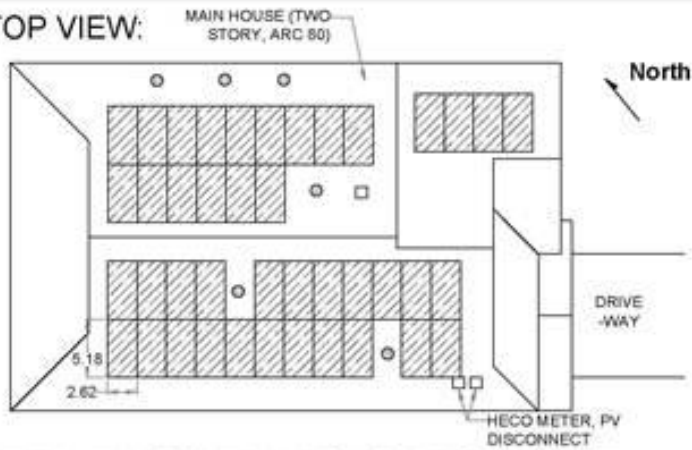
Solar companies have chosen various ways of submitting their applications. Some have chosen to take a photograph of the actual roof, some a satellite photograph, and others use CAD or hand drawings; we will accept any of the following, as long as they are legible and include conduit runs from above, and from all side elevations impacted.

Note: Conduit runs through neighboring party walls in attics will not be acceptable.

Conduit runs on the roof, make a notation on the diagram, and include the length run. Ensure all exposed conduits on the roof can be installed under the panels to minimize the heat exposure and heat gain within the conduits.



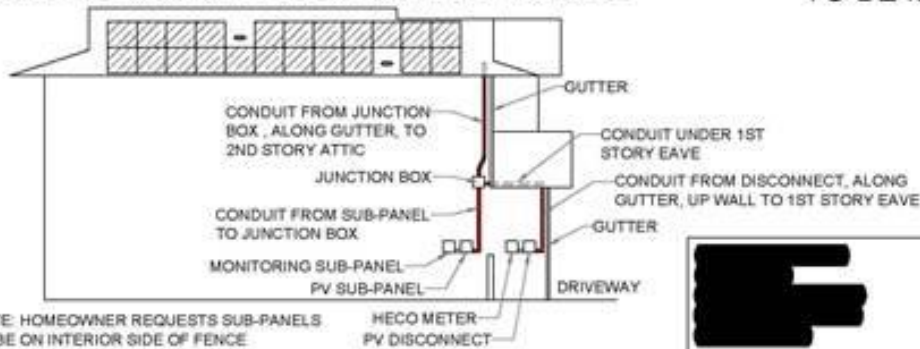
TOP VIEW:



SYSTEM DETAILS	
PV MODULES (QTY) TYPE	(41) SANYO HIT-N220A01
PV MODULE DIMENSIONS	31.4" x 62.2" (2.62' x 5.18')
PV INVERTER (QTY) TYPE	(41) ENPHASE MICRO-INVERTER M210-84-240-S11/2

**VISIBLE CONDUIT
COLORED IN RED**
ALL OTHER CONNECTIONS
TO BE MADE IN ATTIC

SIDE VIEW, SOUTH WEST SIDE OF HOUSE:

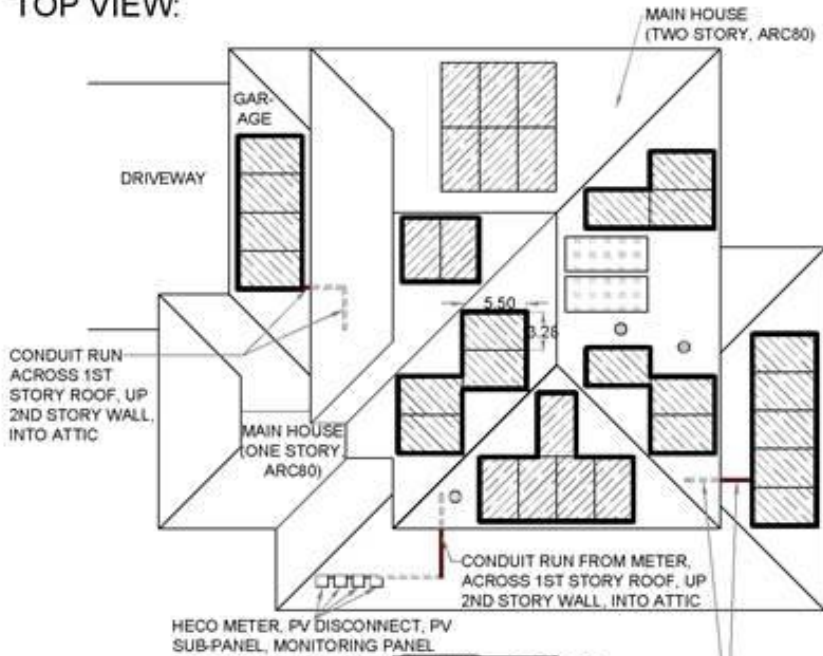
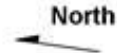


NOTE: HOMEOWNER REQUESTS SUB-PANELS TO BE ON INTERIOR SIDE OF FENCE

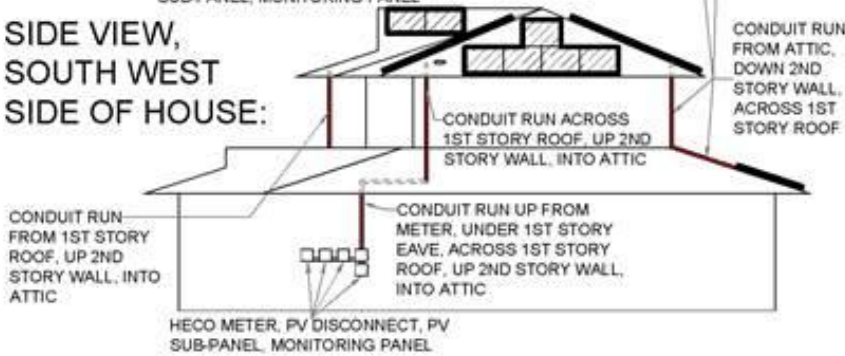
CONDUIT RUN DETAILS	
DATE	
PROJECT	
DESCRIPTION	
BY	01
CHECKED	

VISIBLE CONDUIT COLORED IN RED

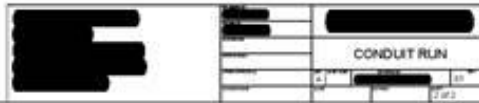
ALL OTHER CONNECTIONS TO BE MADE IN ATTIC
TOP VIEW:

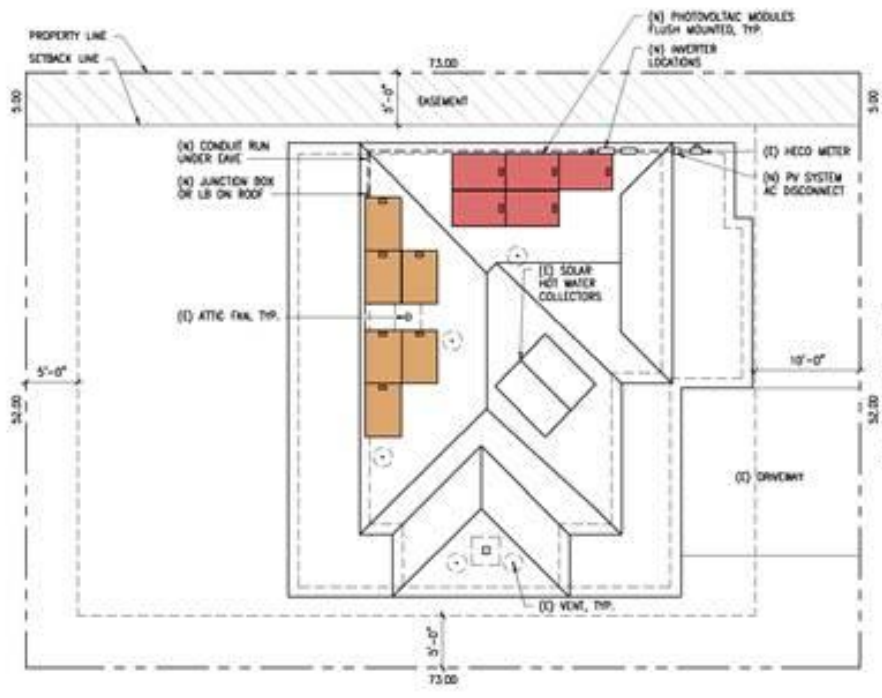


**SIDE VIEW,
 SOUTH WEST
 SIDE OF HOUSE:**



SYSTEM DETAILS	
PV MODULE (QTY) TYPE	(26) SOLARWORLD SUNMODULE PLUS 255 WATT MONO
PV MODULE DIMENSIONS	39.41" x 65.94" (3.28' x 5.50')
PV INVERTER (QTY) TYPE	(26) ENPHASE MICRO-INVERTER M215-60-2LL-S22/S23





PROJECT SPECIFICATIONS	
DATE	2-24-2020
WORKING INCLUDED	
REVISIONS	11-24-20
	07-2020-21 (RPT)
OWNER	L&L W. INC.
DATE	1-12-2020
DESIGNER	ART M. BRY
PROJECT NO.	1912-102
DRAWN BY	AM
REVIEWED BY	AM
SHEET NAME	PLOT AND ROOF PLAN
SHEET NO.	E1

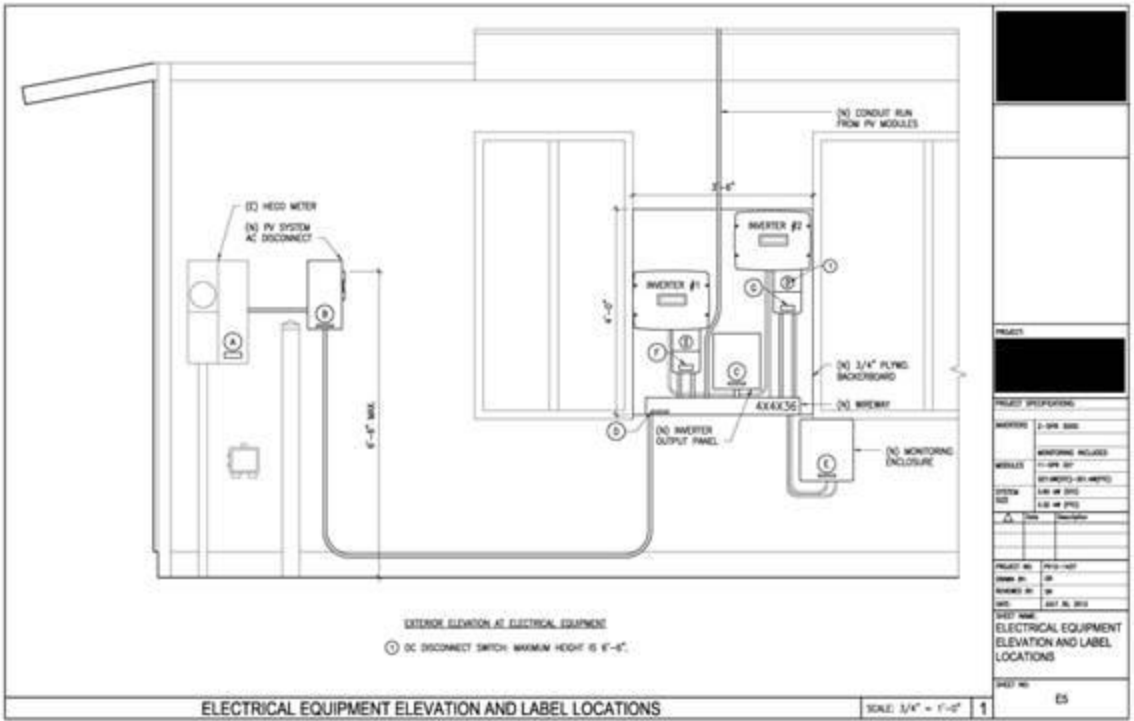
PLOT AND ROOF PLAN

SCALE: N.T.S.

3. LOCATION AND DIAGRAM OF INVERTERS/SHUT OFF SWITCH

Review the examples; either method is acceptable.





4. PHOTOGRAPH OF HOUSE

Include a photograph of the townhouse from the angle of where the HECO meter is located. This will give the Architectural Review Committee and Board of Directors a better idea of the installation they are reviewing.

Note: If you have any exposed conduit on the roof, it would be a good idea to take a photo of the area in which it will be located.

5. SPEC SHEETS FOR THE SOLAR PV PANELS AND THE INVERTERS

Include a copy of both in your submittal.

6. SUBMITTING APPLICATIONS AND SUPPORTING PAPERWORK

You may either mail in your documents, email them, or hand carry them to our Resident Manager’s office located at 1098D Wainiha Street, Honolulu, HI 96825. If you choose to email your application to the Resident Manager, please send it to Steve & Penny Rivas: rmmv3@hotmail.com. Include your contact information with your submittal. WE DO NOT ACCEPT FAXED COPIES.

7. REVIEW PROCESS

Your application will be considered at a Board meeting. Board meetings are currently held the last Thursday of the month.