



Butte County Department of Development Services

PERMIT CENTER

7 County Center Drive, Oroville, CA 95965

Main Phone (530)538-7601 Permit Center Phone (530)538-6861 Fax (530)538-7785

FORM NO

DBP-71

PERMIT APPLICATION REQUIREMENTS FOR RESIDENTIAL ROOF MOUNTED PHOTOVOLTAIC SYSTEMS

- 3 Roof-layout plans which include:
 - Proposed location of the photovoltaic panels on the roof
 - Proposed location of the inverter
 - Indicate flush mount or panel to roof plane angle

- 2 Copies of the manufacturer's specifications for the inverter and the photovoltaic panels (showing panel length, width and weight)

- 2 Copies of the manufacturer's installation instructions with details depicting connection to the roof framing.

- 2 Copies of single line electrical drawings

- If the system is to be installed on an agricultural building a letter from a California licensed engineer or architect is required, stating the building is structurally sound to support the photovoltaic system.

- Engineer or architect design is required if:
 - Panel and support framing exceeds 3.0 pounds per square foot.
 - Panel to roof plane angel exceeds 30 degrees or 40 degrees from horizontal.

Notes:

Engineered photovoltaic systems may take longer to plan check.

Installation shall conform to the National Electric Code (NEC) Article 690, Solar Photovoltaic Systems. All equipment and components shall be listed and labeled by Underwriters Laboratories or other recognized agency.



BUTTE COUNTY
DEPARTMENT OF DEVELOPMENT SERVICES
BUILDING PERMIT APPLICATION*
 Phone: (530) 538-7601 Fax (530) 538-7785
 Website: www.buttecounty.net/dds

PERMIT NO:	FORM NO
BIN NO:	DBP-1

Payment of Fees Required at Time of Application

PLEASE PRINT CLEARLY

PROPERTY OWNER INFORMATION		
Last Name	First Name	
Mailing Address		
City	State	Zip
Phone	Fax	
Email	Cell	

PROJECT LOCATION	
APN	
Property Address	
City	Location must not be in the city limits of Chico, Gridley, Oroville or Paradise, click below for parcel information
http://qismaps.buttecounty.net/flexviewer/bcdatasearch/index.html	

CONTRACTOR		
Name		
Mailing Address		
City	State	Zip
Phone	Fax	
Email	Cell	
License No.	Class	

WORKER'S COMPENSATION	
Policy Number	
Carrier	
If hiring other than a licensed contractor, a certificate of worker's compensation must be shown at the time of permit issuance	

LENDING AGENCY		
Name		
Mailing Address		
City	State	Zip

ARCHITECT/ENGINEER		
Name		
Mailing Address		
City	State	Zip
Phone	Fax	
Email	Cell	
CA State License No.		

DESCRIPTION OR SCOPE OF WORK	
Mobile Home permits (other than installation, foundation, utilities & non-attached structures) are issued by the State. Tell staff if this permit is for a Mobile Home. Click below to see Manufactured Home Alterations and Permit Guidelines at: http://www.hcd.ca.gov/codes/mhp/HCD Phone: (916) 255-2501 Is this a Manufactured/Mobile Home (circle one) Yes / No	

JOB VALUATION: (Enter value of labor, including non-contracted, plus materials charge)	\$
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Square Feet Detail	
Living Area:	Garage:
Open Area:	Covered Area:
<input type="checkbox"/> Structure Built without permits	TOTAL SQ:
<input type="checkbox"/> Proposed Change of Occupancy/Use - Note previous/current use below:	

APPLICANT		
Last Name	First Name	
Mailing Address		
City	State	Zip
Phone	Fax	
Email	Cell	

FOR OFFICE USE ONLY			
Zoning:	Flood Zone:		
SRA:	YES	NO	NPDES: YES NO
Code Enf:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Legal Lot: <input type="checkbox"/> YES <input type="checkbox"/> NO
Occupancy	Type Construction		

APPLICANT SIGNATURE AND DATE	
	Date:
Print Name:	

Permit Tech:	Date:
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APN:

*When filed, this application and all supporting material becomes subject to the California Public Records Act. All public information related to this application is subject to public inspection and will be posted on the County's website for electronic access



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FORM NO

DBP-72

JOB SITE REQUIREMENTS FOR RESIDENTIAL ROOF MOUNTED PHOTOVOLTAIC SYSTEMS

- 1 Roof-layout plan which include:
 - Proposed location of the photovoltaic panels on the roof
 - Proposed location of the inverter
 - Indicate flush mount or panel to roof plane angle
- 1 Copy of the manufacturer's specifications for the inverter and the photovoltaic panels (showing panel length, width and weight)
- 1 Copy of the manufacturer's installation instructions with details depicting connection to the roof framing.

Please note that it either of the following exists at the site:

- Panel and support framing exceeds 3.0 pounds per square foot.
- Panel to roof plane angel exceeds 30 degrees or 40 degrees from horizontal.

Engineer or architect design is required and the project is not eligible for online application.

Notes:

Engineered photovoltaic systems will require plan check review.

Installation shall conform to the California Electric Code (CEC) Article 690, Solar Photovoltaic Systems. All equipment and components shall be listed and labeled by Underwriters Laboratories or other recognized agency.



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BUILDING PERMIT SUBMITTAL REQUIREMENTS SITE PLAN REQUIREMENTS

GENERAL INFORMATION

Your site plan may be reviewed by various departments: Building, Planning, Environmental Health, Public Works, CDF, Agricultural Commission, etc. so you will need to include information to satisfy numerous agencies.

- **Please label all items as clearly and completely as possible.**
- **Site plans must be fully dimensioned and clearly drawn on clean paper.**
- **Size: 11" x 17"**

Blow-ups or insets may be used to provide more detail where required. (Note: A scaled site plan may be required, if necessary for septic system permit or other plan review.)

REQUIRED ITEMS

- Owner's name
- Assessor's Parcel Number
- North arrow
- Property lines with dimensions: As shown on assessors map or parcel map
- Distances between improvements **and** from property lines
- Setbacks
- Any features such as cliffs or areas of slope: Include direction & approximate degree of slope
- New buildings are required to meet Minimum Erosion and Sediment Controls
- Measures or Best Management Practices (BMP)

EXISTING AND PROPOSED ON-SITE IMPROVEMENTS INCLUDING:

- Buildings or other structures
- Pools
- Tanks
- Retaining walls
- Cuts and/or fills

ROAD FEATURES INCLUDING:

- Location and name of frontage road(s) serving property
- Location of driveway
- Right-of-way
- Easements

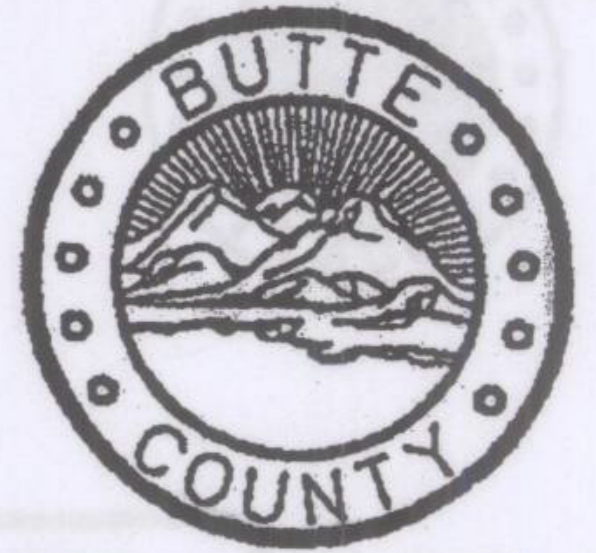
ALL WATER RELATED FEATURES INCLUDING:

- Flood zone
- Septic / Sewage disposal systems (original and replacement)
- Wells
- Waterlines
- Springs
- Creeks or Streams - Seasonal creeks and drainage ditches

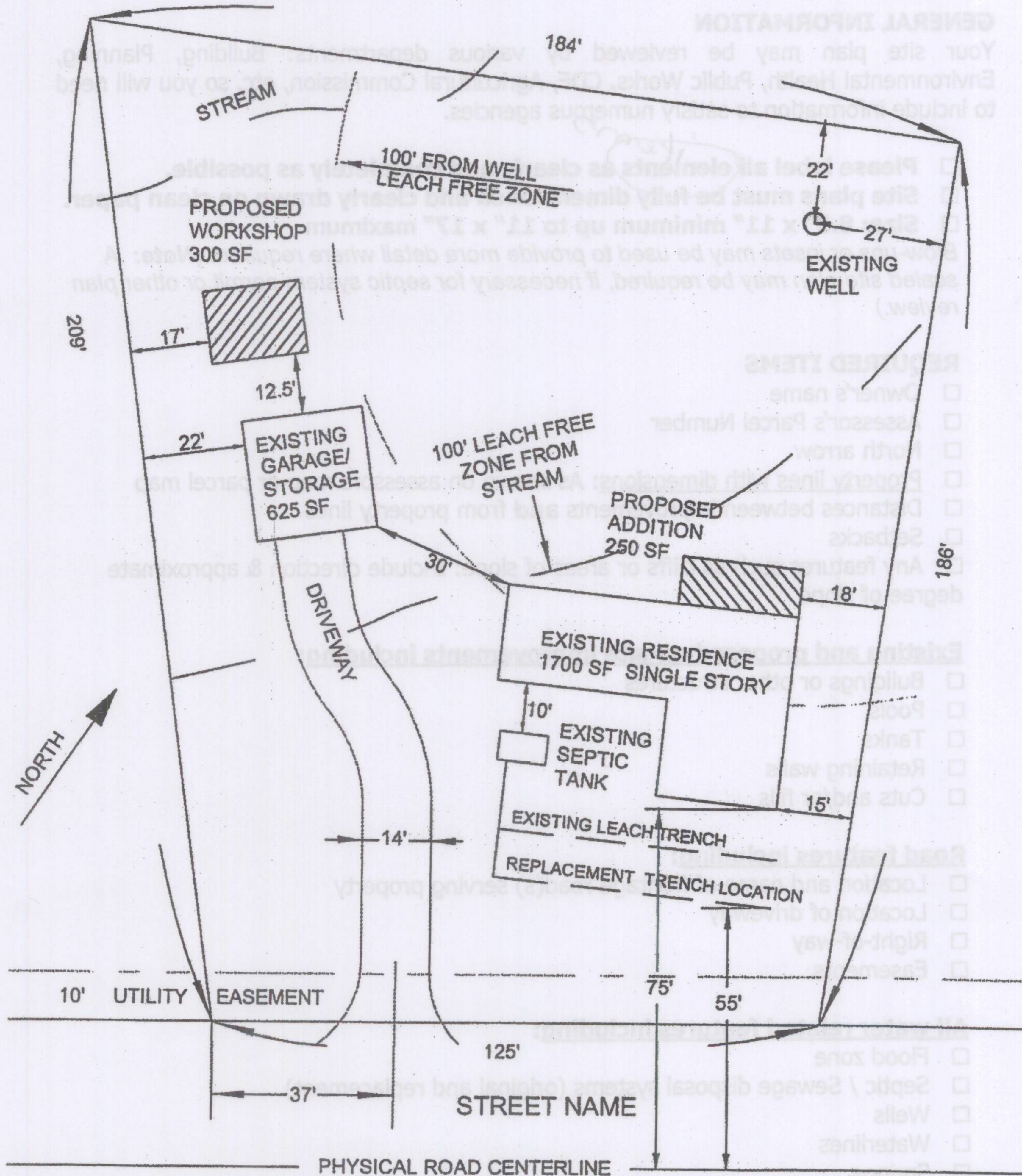
BUTTE COUNTY DEPARTMENT OF DEVELOPMENT SERVICES

Building Division
7 County Center Drive
Oroville, CA 95965

PH: 530-538-7541
FAX: 530-538-2140
www.buttecounty.net/dds



SITE PLAN REQUIREMENTS



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FORM NO

DBP-3

SITE PLAN

Assessor's Parcel Number: - -

Permit #: _____

Owner Name: _____ **Scale 1" =** _____

Address / Phone: _____

Site Location: _____

Contact Name: _____ **Phone:** _____



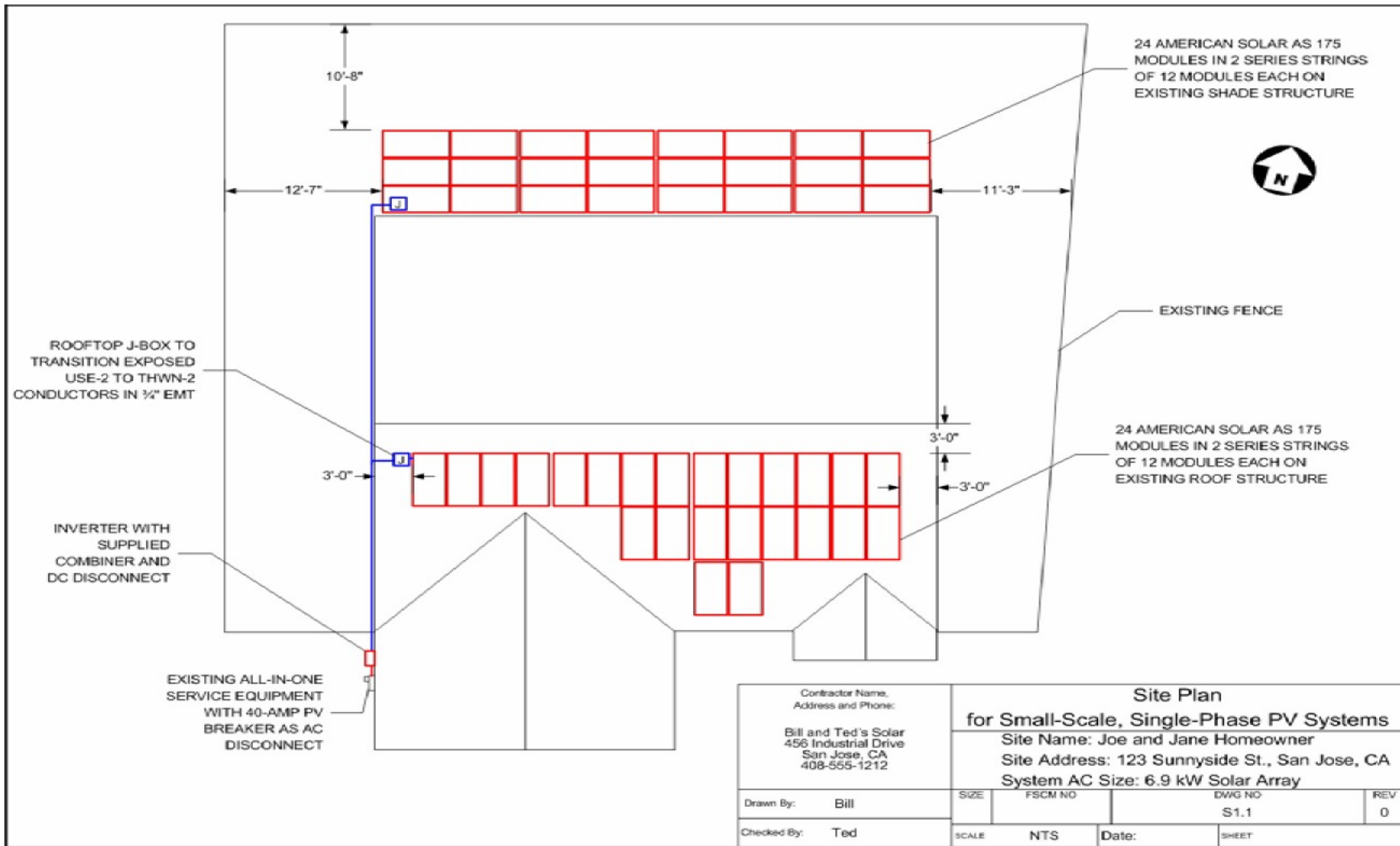


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FORM NO
DBP-74

SAMPLE ROOF MOUNT LAYOUT

This sample plan is for illustrative purposes only. All building applications must reflect site specific conditions.





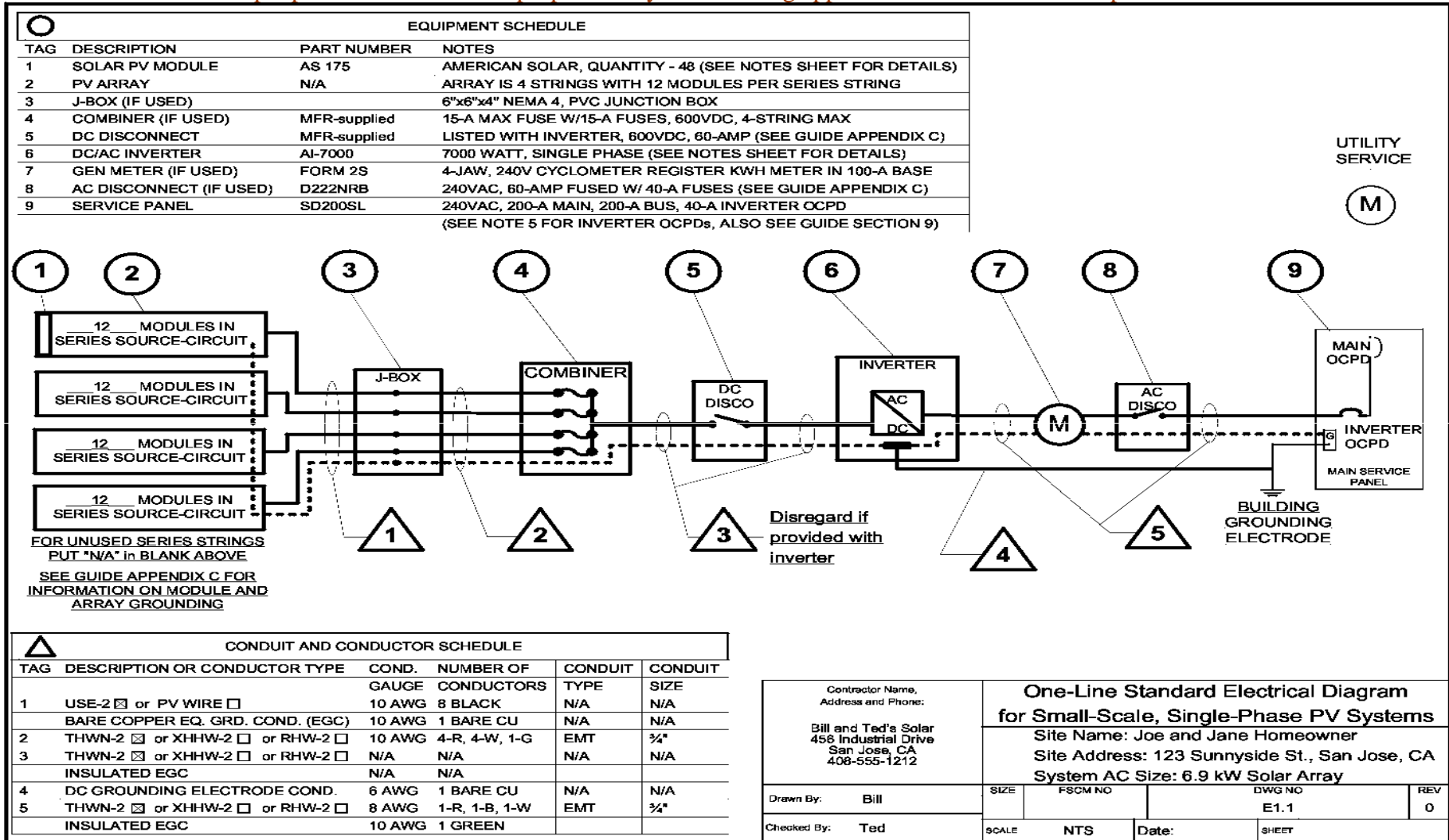
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FORM NO
DBP-75

SAMPLE ELECTRICAL DIAGRAM

This sample plan is for illustrative purposes only. All building applications must reflect site specific conditions.





Photovoltaic Inspection Guidelines

Residential Interactive Systems

In General

- Customer/Installer shall provide Approved Plans on site for inspector.
- Photovoltaic module number and location of installation must match Approved Site Plan.
- Customer/Installer shall provide access to all areas needed for inspection.
- On Roof, if Tile – Installer shall provide properly supported temporary walking surface to access all connections of all modules. If two story – Installer shall provide a proper and secured ladder(s) to access all areas.
- In House – If wiring in attic and/or garage area, the customer/installer shall ensure access to attic and/or garage.

On Roof

- Verify all structural supports are properly installed per listing and properly sealed.
- Verify all metallic raceways, J-boxes, supports and modules are properly grounded. Modules shall be grounded separately to allow removal of a single module and without disrupting the grounding of other modules by means of properly installed wires, lugs, screws, bolts or other listed methods. (Sheet Metal Screws are not allowed – 250.8). 2013 CEC, Article 690.43
- Verify all exposed wiring is listed Sunlight Resistant. 2013 CEC, Article 690.31
- Verify all module interconnections connectors require a tool for opening. 2013 CEC, Article 690.33

DC Disconnect

- Verify proper location. DC Disconnect shall be readily accessible, within sight of inverter, and properly listed for 600 volt DC power. 2013 CEC, Article 690.14
- If DC wiring is run through the building, a DC Disconnect shall be installed prior to the conductors entering the building or the conductors shall be installed in metallic raceways or metallic enclosures from the point of entrance to the DC Disconnect and all J-boxes shall be labeled "DC Source Circuits". 2013 CEC, Article 690.31(E)
- Verify proper and permanent labeling with the following information; "PHOTOVOLTAIC DC DISCONNECT" and "WARNING ELECTRIC SHOCK HAZARD – DO NOT TOUCH TERMINALS – TERMINALS ON BOTH THE LINE AND LOAD SIDE MAY BE ENERGIZED IN THE OPEN POSITION". 2013 CEC, Article 690.17
- The DC disconnect shall also be properly and permanently labeled with the following Installed System Information: (1) Rated Maximum Power-Point Current (2) Rated Maximum Power-Point Voltage (3) Maximum System Voltage & (4) Short Circuit Current. 2013 CEC, Article 690.53

Note: Rooftop Micro-Inverter Systems have no DC Disconnect Switches. AC Disconnect shall be installed on the roof or at the Utility panel and be capable of being locked OFF. Installed System Information shall be installed on Utility Service Panel.

Grounding

- ❑ Photovoltaic systems with voltage over 50 volts shall be solidly grounded. 2013 CEC, Article 690.41
- ❑ The Utility Service Panel shall have a grounding electrode system. 2013 CEC, Article 690.47(A)
- ❑ Both the DC system and the AC system shall have a minimum of a # 8 copper grounding electrode conductor and both electrode conductors shall be solidly bonded to the Utility Service Panel electrode system as well as any new grounding electrodes. 2013 CEC, Article 690.47(B,C)
- ❑ Additional electrode(s) shall be installed for all arrays and as close as possible. The electrode conductor(s) shall have no other use. 2013 CEC, Article 690.47(D)

AC Disconnect and Utility Panel

- ❑ The AC Disconnect shall be permanently identified with (1) Maximum AC Output, and (2) Operating AC Voltage. 2013 CEC, Article 690.50
- ❑ If DC Disconnect, Inverter, and/or AC Disconnect are not in the same location as the Utility Service Panel is located, a permanent Plaque shall be installed on the Utility Panel identifying the location(s) of the other equipment. 2013 CEC, Article 690.56
- ❑ Photovoltaic interconnection circuit breaker at the Utility Service Panel shall not exceed 20% of the bussing rating and **shall** be positioned at the opposite end of the bussing from the main input circuit location (i.e. 20 amp for 100 amp panel). 2013 CEC, Article 690.64

Testing

- ❑ Verify Installer has installed meter jumpers, if so equipped, at PV meter socket.
- ❑ Energize system and check display for output (wait time could be up to 5 min).
- ❑ Once output observed, turn off AC power at PV interconnection circuit breaker and verify inverter output drops to 0 watts. 2013 CEC, Article 690.61

Note: Rooftop Micro-inverter Systems have LED lights to show conditions or a Voltage tester can be used at load terminals of the circuit breaker/disconnect at the service panel.