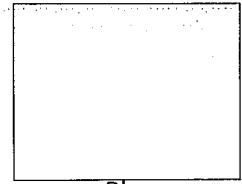


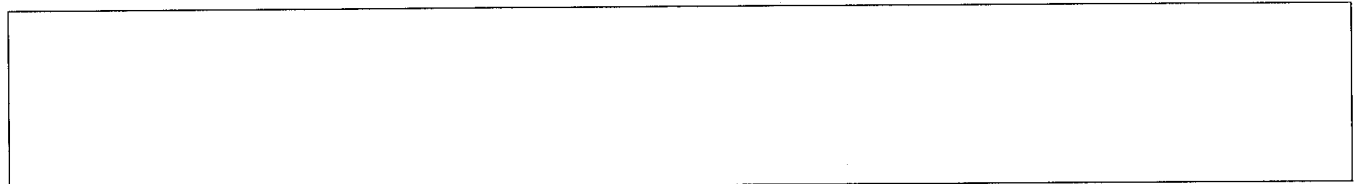
Type



Plans

BLD18-1774

Permit Number



Subdivision

10805

Street Number

MILL STATION RD

Street Name

GRA

Community Code

061-030-025

APN

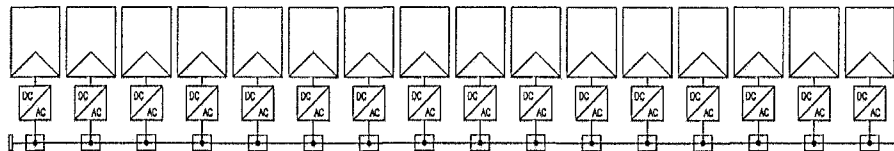
PRMD County of Sonoma

SF14222-1273

PHOTOVOLTAIC SYSTEM NOTES:

- 1.THE PHOTOVOLTAIC INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2013 EDITION OF THE CALIFORNIA ELECTRICAL CODE (CEC) ARTICLE 690 AND 250, AND LOCAL ELECTRICAL CODES CURRENTLY BEING ENFORCED BY THE AUTHORITY HAVING JURISDICTION (AHJ)
- 2.A GROUND FAULT DETECTION AND INTERRUPTION (GFDI) DEVICE IS INTEGRATED WITH THE INVERTER IN ACCORDANCE WITH NEC/CEC 690.5(A)
- 3.GROUNDING AND BONDING CONDUCTORS, IF INSULATED, SHALL BE COLORED CODED GREEN (OR MARKED GREEN IF #4 AWG OR GREATER)
- 4.WIRE SIZES AND CALCULATED VALUES ARE NOMINAL AND SHOULD BE VERIFIED OR RECALCULATED BASED ON FIELD INSTALLATIONS AND MEASURED CONDUIT RUN IN ACCORDANCE WITH REQUIREMENTS OF ARTICLE 310 OF THE NEC AND CEC 2016
- 5.MARKINGS OF THE PHOTOVOLTAIC SYSTEM DISCONNECTING MEANS SHALL BE PROVIDED IN ACCORDANCE WITH NEC/CEC 690.17.
- 6.MARKING OF THE DIRECT CURRENT PHOTOVOLTAIC POWER SOURCE SHALL BE PROVIDED IN ACCORDANCE WITH NEC/CEC 690.53.
- 7.MARKING OF THE INTERACTIVE SYSTEM POINT OF CONNECTION SHALL BE PROVIDED IN ACCORDANCE WITH NEC/CEC 690.54.
- 8.CONTRACTOR SHALL SEAL ALL PENETRATIONS/CORE DRILLS THROUGH WALLS AND FLOORS WITH FIRE RETARDANT MATERIALS. ALL PENETRATIONS TO BE SEALED AND PATCHED ACCORDINGLY.
- 9.USE UL APPROVED BONDING FITTINGS AT ALL CONDUIT/BOXES JUNCTIONS.
- 10.USE CONDUIT SIZES THAT SATISFY REQUIREMENTS PER CHAPTER 9, TABLE 1.0, ANNEX C (TABLE C.1), OF THE CEC. LARGER DIAMETER CONDUIT MAY BE USED TO FACILITATE EASE OF INSTALLATION.

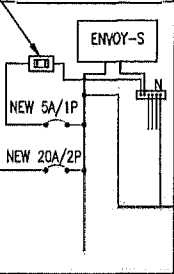
NEW BRANCH CIRCUIT #1:
16 LG 320W AND 16 ENPHASE
IQ6 (240V) MICRO-INVERTERS



2 # 10 THHN
1 # 6 GROUND
IN 3/4" EMT CONDUIT

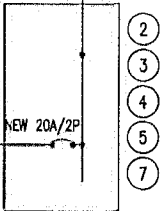
INTEGRATED
5A OUTLET

NEW ENPHASE IQ COMBINER
(X-IQ-AM1-240-B), SEE
SHEET PV-4.1 FOR
INFORMATION,
TO BE INSTALLED NEXT
TO MAIN SERVICE PANEL



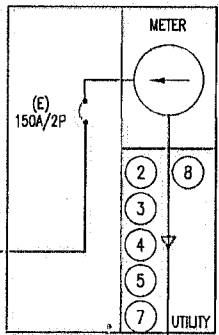
3 # 10 THHN
1 # 6 GROUND
IN 3/4" EMT CONDUIT

EXISTING FEEDERS
TO REMAIN



EXISTING SUB-PANEL
200A, 120/240V 1Ø
NEMA 3R
SEE SITE PLAN FOR
PANEL LOCATION

EXISTING MAIN SERVICE PANEL
200A, 120/240V 1Ø
W/ 150A MAIN
SEE SITE PLAN FOR PANEL LOCATION



LABEL: INSTALLED AT THE
MAIN SERVICE PANEL (CEC 690.54)

INTERACTIVE PHOTOVOLTAIC POWER SOURCE
RATED AC OUTPUT CURRENT: 15.36 A
NOMINAL OPERATING AC VOLTAGE: 240 V

BUILDING PLAN CHECK
★ APPROVED ★

MAR 29 2018

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT

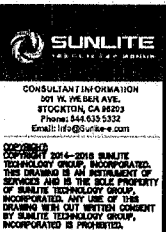
ELECTRICAL CALCULATIONS					
MAX Voc =(Voc * Vcorrection factor)	40.8	Voc *	1.12	=	45.70 Vmax
MAX Isc =(Isc * 125%)	10.19	Isc *	1.25	=	12.74 Isc max
BRANCH CIRCUIT #1 CURRENT	0.96	A	16	=	15.36 A
MAX. BRANCH CIRCUIT #1 CURRENT	15.36	A	1.25	=	19.20 Amax
BRANCH CIRCUITS #2 CURRENT	0.96	A	0	=	0.00 A
MAX. BRANCH CIRCUITS #2 CURRENT	0.0	A	1.25	=	0.00 A
PV SYSTEM OPERATING CURRENT	0.96	A	16	=	15.36 A
PV SYSTEM OPERATING VOLTAGE	240 V, 1-PHASE, 3 WIRES				

NEW ENPHASE IQ6-60-2-US (240V) RATING @ STC	
MAX DC VOLTAGE	48V
MAX POWER DC	330W
MAX. DC SHORT CIRCUIT INPUT CURRENT	15A
OPERATING DC VOLTAGE	22V-62V
RATED (CONTINUOUS) OUTPUT POWER	230W
NOMINAL AC CURRENT	0.96A
NOMINAL AC VOLTAGE	240V/211-264V
AC FREQUENCY MIN.-NOM.-MAX.	60.0/ 57-61Hz

LG ELECTRONICS INC. LG320N1K-A5 320W RATING @STC		
MAX POWER CURRENT	I _{mp}	9.62A
MAX POWER VOLTAGE	V _{mp}	33.3V
OPEN-CIRCUIT VOLTAGE	V _{oc}	40.8V
SHORT-CIRCUIT CURRENT	I _{sc}	10.19A
MAX POWER	P _{max}	320W
MODULE EFFICIENCY		19.5%
MAX. SERIES FUSE RATING		20A
OPERATING TEMPERATURE		-40°C + 90°C

NEW ARRAY SUMMARY	
TOTAL NUMBER OF MODULES	16
NUMBER OF MODULES PER BRANCH CIRCUIT #1	16
NUMBER OF MODULES PER BRANCH CIRCUIT #2	0
NUMBER OF MODULES PER INVERTER	1
TOTAL NUMBER OF INVERTERS	16
TOTAL NUMBER OF BRANCH CIRCUITS	1
NUMBER OF 20A SOLAR BREAKERS	1

ELECTRICAL ONE LINE

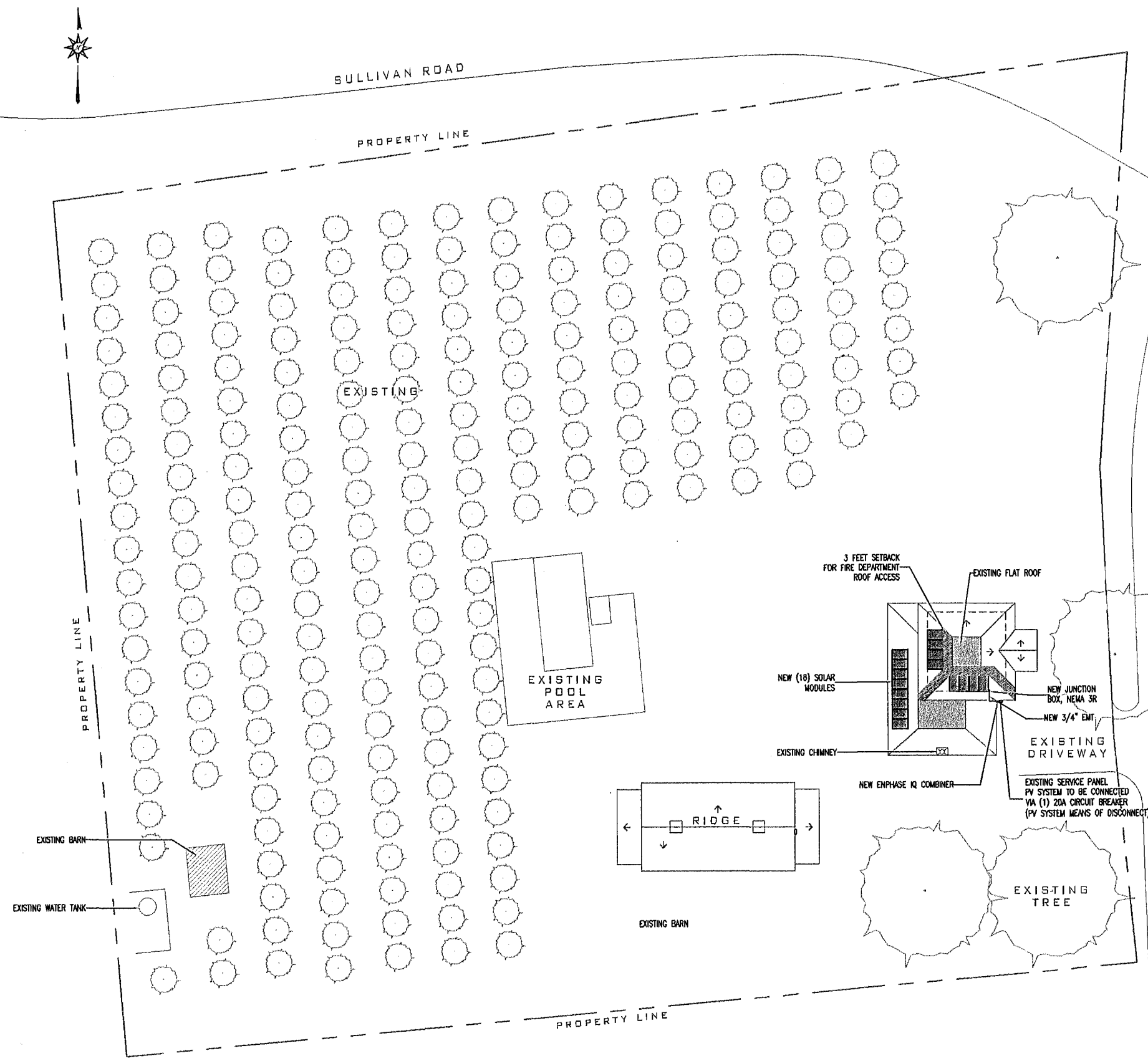


PROJECT:
CAROLYN YATES RESIDENCE
PV SYSTEM INSTALLATION
10807 MILL STATION ROAD, SEBASTOPOL, CA 95472

REVISION	DATE
△ REV-1	03-01-18

DRAWN BY	JZ
CHECKED BY	JP
DATE	01/11/2018
JOB NUMBER	NPPS00258
SHEET	

E1.1
AS NOTED



SITE PLAN

SCALE 1" = 40' - 0"

NOTES:

1. SOLAR PHOTOVOLTAIC SYSTEM WILL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 690 OF THE 2016 CEC.
2. WARNING LABELS SHALL COMPLY WITH LOCAL AUTHORITY HAVING JURISDICTION REQUIREMENTS.

(E) BUILDING INFORMATION:

- TWO STORY HOUSE
- ROOF COVER: COMPOSITION SHINGLES
- ROOF SLOPE: 35°
- ROOF SUPPORT: 2X6 SCISSOR TRUSS AT 24" O.C.

PV SYSTEM INFORMATION:

- (16) LG 320 BLACK SOLAR MODULES
- (16) ENPHASE IQ6 (240V) INVERTER
- (1) ENPHASE IQ COMBINER
- ARRAY: 35°
- AZIMUTH: 177°S AND 267°W
- PRE-ENGINEER RACKING SYSTEM - IRONRIDGE XR10

BUILDING PLAN CHECK

★ APPROVED ★

MAR 29 2018

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT

CONTRACTOR INFORMATION

NORTHERN PACIFIC POWER SYSTEMS

P.O. BOX 618
SANTA ROSA, CA 95406
707.538.7852
CA C-10 # 939082

CONSULTANT INFORMATION

SUNLITE TECHNOLOGY GROUP, INC.

361 W. WEBER AVE.
STOCKTON, CA 95203
Phone: 844.655.5222
Email: info@sunlite-tech.com

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PE SEAL

PROJECT:

CAROLYN YATES RESIDENCE
PV SYSTEM INSTALLATION

10807 MILL STATION ROAD, SEBASTOPOL, CA 95472

REVISION	DATE
REV-1	03-01-18

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JZ

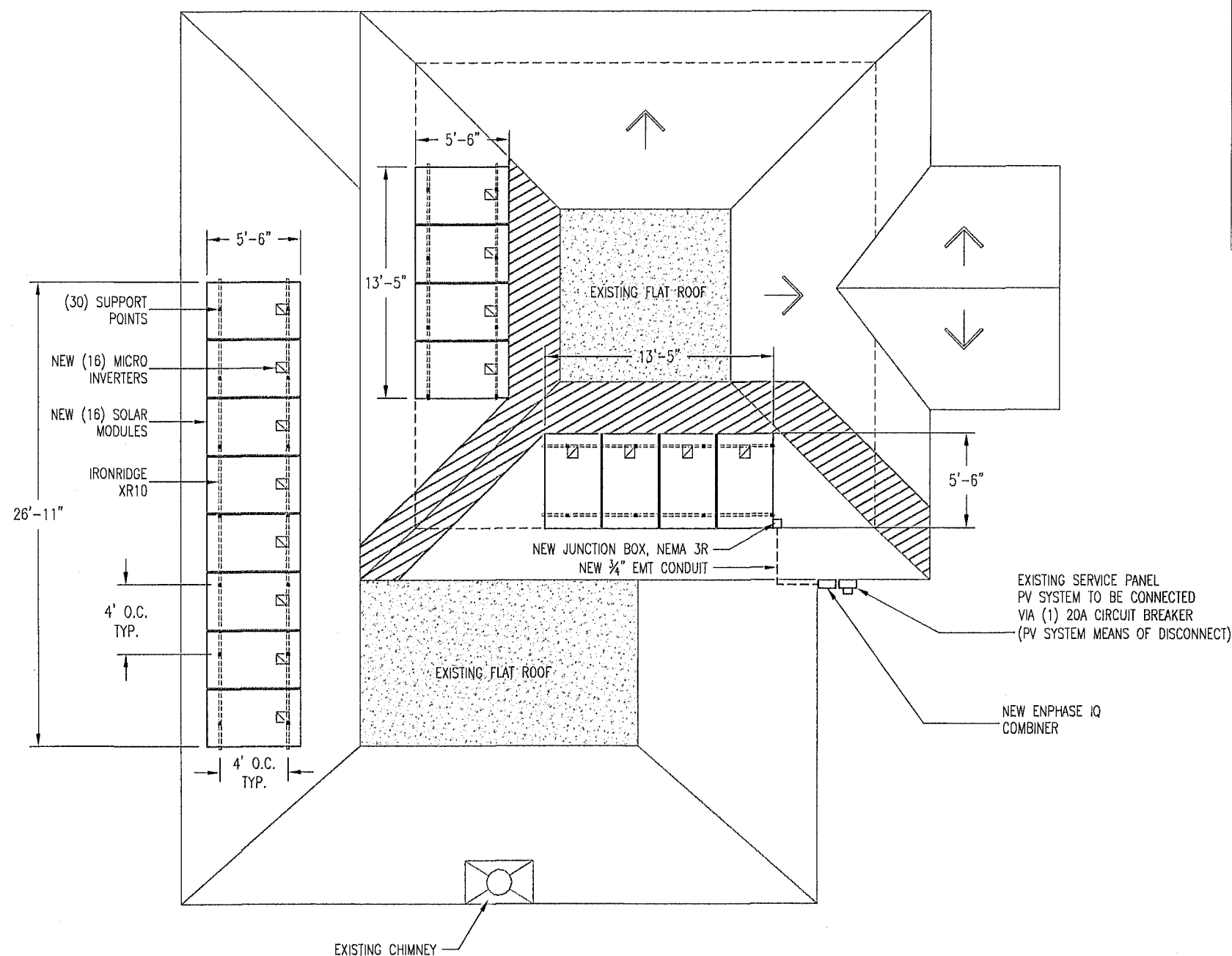
JP

01/11/2018

NPPS00256

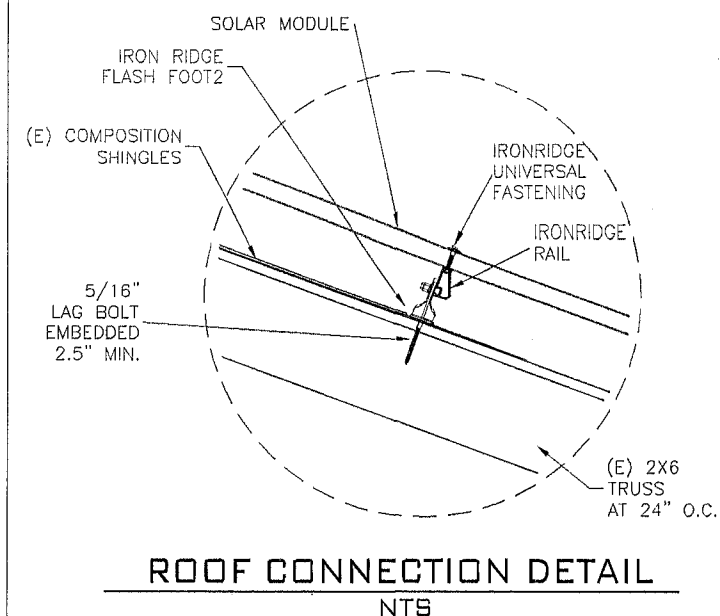
PV-1

AS NOTED



ROOF PLAN

SCALE 1/8" = 1' - 0"



ROOF CONNECTION DETAIL
NTS

NOTES:

1. CONTRACTOR SHALL VERIFY SITE CONDITIONS PRIOR TO STARTING THE INSTALLATION WORK.
2. INSTALL RAKING COMPONENTS PER MANUFACTURER SPECIFICATIONS.

(E) BUILDING INFORMATION:

- TWO STORY HOUSE
- ROOF COVER: COMPOSITION SHINGLES
- ROOF SLOPE: 35°
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PV SYSTEM INFORMATION:

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- ARRAY: 35°
- AZIMUTH: 177°S AND 267°W
- PRE-ENGINEER RACKING SYSTEM - IRONRIDGE XR10

NEW PV SYSTEM WEIGHT LOAD CALCULATION:

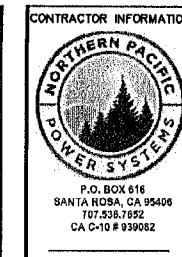
- MODULES WEIGHT = 640 LBS
- RAILS, AND HARDWARE = 107 LBS
- MICRO-INVERTERS WEIGHT = 52.8 LBS
- TOTAL WEIGHT = 779.8 LBS
- MODULES SURFACE AREA = 293 FT²
- DISTRIBUTED WEIGHT = 2.7 LBS / FT²

BUILDING PLAN CHECK

★ APPROVED ★

MAR 29 2018

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT



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△ REV-1	03-01-18

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PV-2
PLAN VIEW