



REC SOLAR
 810 FIERO LANE, SUITE 200
 SAN LUIS OBISPO, CA 93401
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 (844) REC SOLAR

DATE	11/14/2016
PROJECT NUMBER	VALV14580.EPC
PROJECT MANAGER	BOB FISHER
PROJECT ENGINEER	JESSICA KENRICK
ASSOCIATE ENGINEER	ZORAN IVANCEVIC
CHECKED BY	--

CLIENT
 OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
 Department of Veterans Affairs

REV	DATE	DESCRIPTION
14		
13		
12	11/14/16	RECORD SET
11	05/25/16	ADD SWB-5 TO XMF-4
10	3/04/16	2ND NV ENERGY COMMENT
9	02/24/16	RELOCATE XMF-3
8	1/26/16	NV ENERGY COMMENTS
7	8/25/15	STRUT SWAP
6	05/29/15	100% SET

PROJECT
 NORTH LAS VEGAS SOLAR PV PROJECT
 6900 NORTH PECOS RD
 NORTH LAS VEGAS, NV 89086

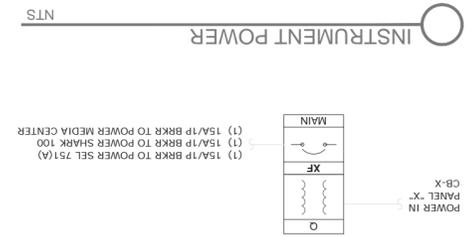
SHEET TITLE
 OVERALL POWER PLAN

SHEET NUMBER
 PV801

RECORD SET

PROTECTION ELEMENTS - SEL 751A

58.4 Hz @ 5.0 seconds
 57.0 Hz @ 10 cycles
 61.5 Hz @ 5.0 seconds
 61.7 Hz @ 10 cycles
 67.1 Hz @ 10 cycles
 27 (under voltage) element:
 80% of nominal @ 0.8 seconds
 Interlock with 52A to avoid a standing trip
 59 (overvoltage) element:
 110% of nominal @ 0.8 sec
 Close Interlock:
 PV Site: HOT NV Energy/DEAD PO (Point of Interconnection)
 With:
 HOT above 90% of nominal
 DEAD below 20%



ID	TYPE	MANUFACTURER	MODEL	QUANTITY	CURRENT AND VOLTAGE RATING	OCPD AT EACH	NOTES
G1	TRANSFORMER (XFM-1 & 2)	EQUIVALENT	1500KVA	2	12.47KV GND WYE / (3) OIL IMMERSED 80A CONFIGURATION PER VA SPECIFICATIONS		DEAD-FRONT RADIAL FEED CONFIGURATION PER VA SPECIFICATIONS
G2	TRANSFORMER (XFM-4)	EQUIVALENT	2000KVA	1	12.47KV GND WYE / (3) OIL IMMERSED 100A CONFIGURATION PER VA SPECIFICATIONS		DEAD-FRONT RADIAL FEED CONFIGURATION PER VA SPECIFICATIONS
G3	TRANSFORMER	CG POWER OR EQUIVALENT	225KVA	1	12.47KV GND WYE / (3) OIL IMMERSED 15A CONFIGURATION PER VA SPECIFICATIONS		DEAD-FRONT RADIAL FEED CONFIGURATION PER VA SPECIFICATIONS
M	EXISTING MANHOLE			3			MANHOLE FOR MV RUN
N	SWITCHGEAR	SQUARE D		1	15KV-RATED, 600A		NV ENERGY REQUIRES GENERATION METER VA DOES NOT INTEND TO DISCONNECT SWITCH RECOGNIZE REMOVABLE ENERGY CREDITS
O	PROTECTIVE RELAY	SEL	751A OPTION (73)	1			INSTALL P7s AT CUSTOMER'S SWITCHGEAR ON THE NV ENERGY SIDE OF THE BREAKER
P	EXISTING MAIN SWITCHGEAR	EATON	VACCLAD-W ASSEMBLY	1	12.47KV, 1200A		USE EXISTING DEDICATED SPARE BREAKER FOR PV INTERCONNECTION
Q	MINI POWER SQUARE D OR EQUIV.		TBD	1	480V-120VAC, 1KVA		MINI-POWER ZONE TO POWER MONITORING EQUIPMENT AND REVERSE POWER RELAY

CONDUIT	CONDUCTORS	NEUTRAL	GROUND	NOTES
1	(N) 2/0 AWG COPPER 15KV, (N) 1/0 AWG COPPER 15KV, (N) 1/2" PVC 40	(N) 2/0 AWG COPPER 15KV, (N) 1/0 AWG COPPER 15KV, (N) 1/2" PVC 40	(N) 2/0 AWG COPPER 15KV, (N) 1/0 AWG COPPER 15KV, (N) 1/2" PVC 40	
2	(E) 1" 6" SPARE	(E) 1" 6" SPARE	(E) 1" 6" SPARE	
3	(E) 1" 6" SPARE	(E) 1" 6" SPARE	(E) 1" 6" SPARE	
4	(N) 1" 4" PVC 40	(N) 1" 4" PVC 40	(N) 1" 4" PVC 40	
5	(N) 1" 5" PVC 40	(N) 1" 5" PVC 40	(N) 1" 5" PVC 40	
6	(N) 1" 4" PVC 40	(N) 1" 4" PVC 40	(N) 1" 4" PVC 40	
7	(E) 1" 6" PVC 40	(E) 1" 6" PVC 40	(E) 1" 6" PVC 40	

