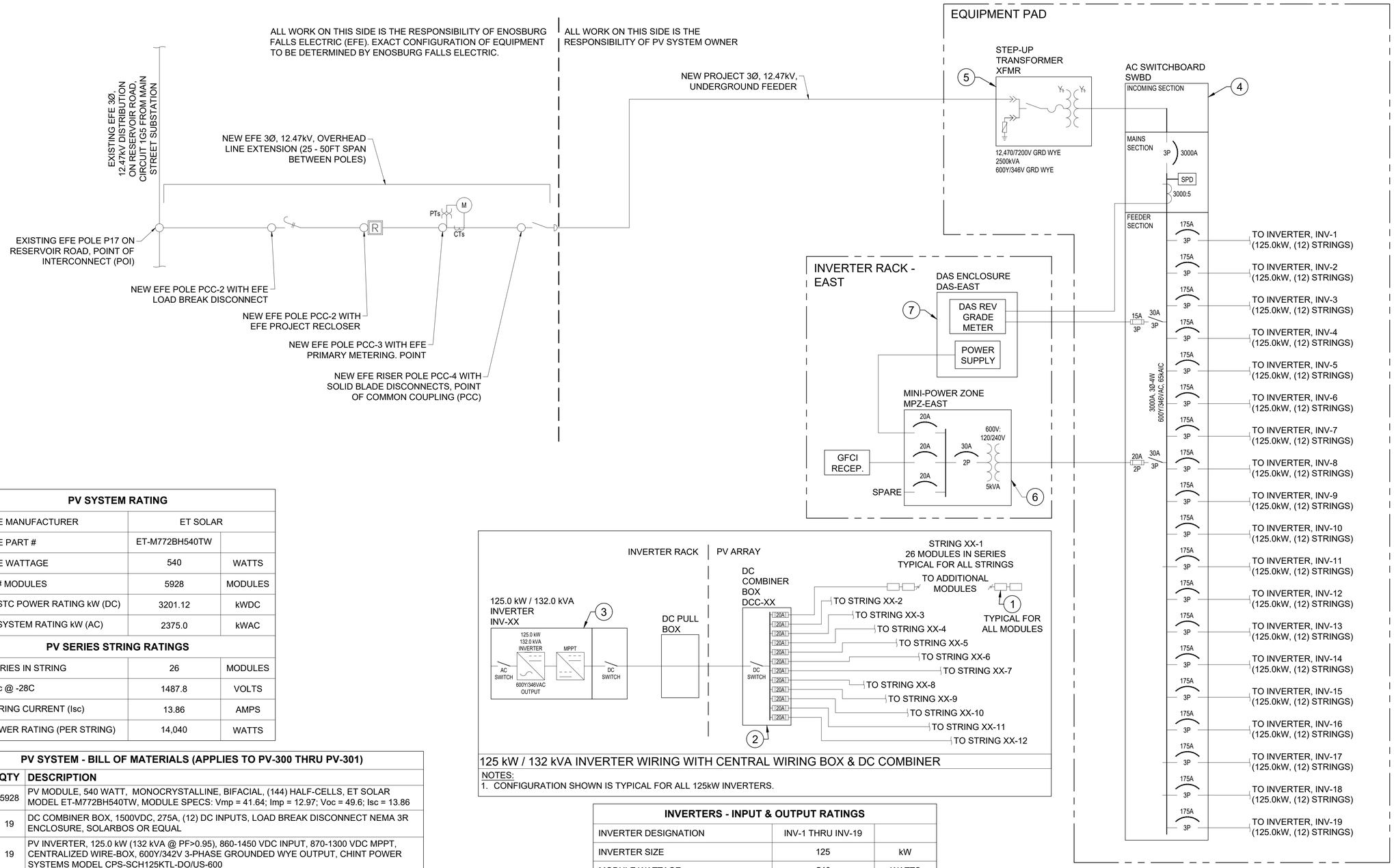

125 kW / 132 kVA INVERTER WIRING WITH CENTRAL WIRING BOX & DC COMBINER

NOTES:
1. CONFIGURATION SHOWN IS TYPICAL FOR ALL 125kW INVERTERS.

PV SYSTEM RATING		
MODULE MANUFACTURER	ET SOLAR	
MODULE PART #	ET-M772BH540TW	
MODULE WATTAGE	540	WATTS
TOTAL # MODULES	5928	MODULES
TOTAL STC POWER RATING kW (DC)	3201.12	kWDC
TOTAL SYSTEM RATING kW (AC)	2375.0	kWAC
PV SERIES STRING RATINGS		
# OF SERIES IN STRING	26	MODULES
MAX Voc @ -28C	1487.8	VOLTS
MAX STRING CURRENT (Isc)	13.86	AMPS
STC POWER RATING (PER STRING)	14,040	WATTS

PV SYSTEM - BILL OF MATERIALS (APPLIES TO PV-300 THRU PV-301)

ITEM	QTY	DESCRIPTION
1	5928	PV MODULE, 540 WATT, MONOCRYSTALLINE, BIFACIAL, (144) HALF-CELLS, ET SOLAR MODEL ET-M772BH540TW, MODULE SPECS: Vmp = 41.64; Imp = 12.97; Voc = 49.6; Isc = 13.86
2	19	DC COMBINER BOX, 1500VDC, 275A, (12) DC INPUTS, LOAD BREAK DISCONNECT NEMA 3R ENCLOSURE, SOLARBOS OR EQUAL
3	19	PV INVERTER, 125.0 kW (132 kVA @ PF>0.95), 860-1450 VDC INPUT, 870-1300 VDC MPPT, CENTRALIZED WIRE-BOX, 600Y/342V 3-PHASE GROUNDED WYE OUTPUT, CHINT POWER SYSTEMS MODEL CPS-SCH125KTL-DO/US-600
4	1	AC SWITCHBOARD: 600Y/346V; 3Ø-4W; 3000A RATED BUS; 65kAIC RATING; 3000A-3P MAGNUM SB MAIN BREAKER SBS-C30 (FIXED-MANUAL), 3000A TRIP, DIGITRIP 520MC LSIG, 100% RATED, ARMS; (20) 400A-3P FRAME, 175A-3P TRIP, MOLDED CASE TYPE KDC, 65kAIC, THERMAL MAG, MANUAL OPERATION, FIXED MOUNTING; (1) 30A/30A-3P FDPW FUSED BRANCH SWITCH; INTEGRATED SPD SURGE PROTECTION, 160kA PER PHASE WITH DISCONNECT; 10kV ELBOW MOUNTED ARRESTERS; NEMA 3R ENCLOSURE.
5	2	STEP-UP TRANSFORMER; SOLAR RATED; 2500kVA; 12,470Y/7,200V GRD WYE PRIMARY, 600Y/346V GRD WYE SECONDARY; LOOP-FEED, 200A RATED BUSHING WELLS; ELBOW MOUNTED 10kV LIGHTNING ARRESTORS ON THE WEST TRANSFORMER; 5.75% IMPEDANCE.
6	2	MINI-POWER ZONE, 600V PRIMARY, 120/240V 1Ø-3W SECONDARY, 5kVA, 12-CIRCUIT, NEMA 3R ENCLOSURE
7	2	DATA ACQUISITION SYSTEM (DAS), TO INCLUDE: INVERTER DIRECT MONITORING; POWER METER; WEATHER STATION WITH POA IRRADIANCE, CELL TEMP, AMBIENT TEMP SENSORS.

INVERTERS - INPUT & OUTPUT RATINGS		
INVERTER DESIGNATION	INV-1 THRU INV-19	
INVERTER SIZE	125	kW
MODULE WATTAGE	540	WATTS
MODULES PER STRING	26	MODULES
QTY OF PARALLEL STRINGS	12	STRINGS
DC OPERATING INPUT VOLTAGE	1082.6	DC VOLTS
DC OPERATING INPUT CURRENT	155.6	DC AMPS
MAXIMUM SYSTEM VOLTAGE @-28C	1487.8	DC VOLTS
MAXIMUM SHORT CIRCUIT CURRENT	207.9	DC AMPS
INVERTER OUTPUT VOLTAGE	600	AC VOLTS
INVERTER RATED OUTPUT CURRENT	127.0	AC AMPS

NOT FOR CONSTRUCTION

SOLAR POWER ENGINEERING
272 SPRING HOLLOW LANE
MONTPELIER, VT 05602
802.595.5510

encore RENEWABLE ENERGY®

STATE OF VERMONT BRIAN P. BROWNING No. 7013 PROFESSIONAL ENGINEER

RESERVOIR ROAD SOLAR, LLC 2.375 MWAC PV PROJECT

640 RESERVOIR ROAD
ENOSBURG FALLS, VERMONT 05450

DATE:	01/09/2024
PROJ NO. :	ERE_RRS_0123
SCALE:	NONE
DRAWN BY:	BPB

REVISIONS	
ISSUED FOR INTERCONNECT	01/19/2023
REMOVED PROJECT OWNED GOAB & METER	11/16/2023
ADDED EFE POLE NUMBERS	01/09/2024

ONE-LINE DIAGRAM

PV-300