



GENERAL NOTES:

1. FOR KEY NOTES (#) THIS SHEET, SEE SHELTER BUILDING KEYED NOTES, DRAWING E6102

CIRCUIT SCHEMATIC

S-470 CIRCUIT SCHEDULE (MICROWAVE TOWER)

NOTES	CIRCUIT NUMBER	DESCRIPTION	FROM	TO	CABLE SIZE	CONDUIT SIZE	CIRCUIT NUMBER
	P1	ELECTRIC SERVICE	SERVICE HAND HOLE	SERVICE METER	3-#4/0	2" RGC	P1
	P1A	ELECTRIC SERVICE	SERVICE DISCONNECT	SERVICE DISCONNECT	3-#4/0	2" RGC	P1A
	P2	ELECTRIC SERVICE	SERVICE DISCONNECT	ATS	3-#4/0 W/ #6 GRD	2" RGC	P2
	P3	SERVICE SPD	SERVICE DISCONNECT	TVSS 1 DISCONNECT	3-#4 W/#6 GRD	1" PVC	P3
	P3A	SERVICE SPD	TVSS 1 DISCONNECT	TVSS1	3-#4 W/#6 GRD	1" PVC	P3A
7	S3	SERVICE SPD	TVSS1	EQUIP RM SENSOR BOX	2-#18	3/4" RGC	S3
	P4	GEN FEEDER	GEN-SET	ATS	3-#4/0 W/ #6 GRD	2"	P4
4	C4	GEN CNTRL/SIGNAL	GEN-SET	ATS	6-#12, 6-#18	3/4"	C4
	C4A	GEN-SET	GEN-SET	GAS SHUTOFF VALVE	2-#12	3/4"	C4A
4	S4	GEN-SET STATUS	ATS	GEN-RM SENSOR BOX	14-#18	3/4"	S4
	P5	SERVICE FEEDER	ATS	MTS	3-#4/0 W/ #6 GRD	2"	P5
	P6	SERVICE	GEN-PLUG	MTS	3-#4/0 W/ #6 GRD	2"	P6
	P7	SERVICE FEEDER	MTS	DIST PNL DP1	3-#4/0 W/ #6 GRD	2"	P7
	P8	DP1 SPD	DIST PNL DP1	TVSS2	3-#6 W/ #10 GRD	1"	P8
7	S8	DIST PNL SPD	TVSS2	EQUIP RM SENSOR BOX	2-#18	3/4"	S8
	P9	PWR RELAY	DIST PNL DP1	PWR LOSS RELAY	3-#12	3/4"	P9
7	S9	BLDG ENTRANCE TERMINAL (BET)	LOSS OF PWR RELAY	EQUIP RM SENSOR BOX	2-#18	3/4"	S9
	P10	HVAC 1 FDR	DIST PNL DP1	HVAC 1	2-#6 W/ #10 GRD	1"	P10
	C10	HVAC 1 CONTROL	HVAC CONTROLLER	HVAC 1	8-#14	3/4"	C10
	C11	HVAC/GEN INTERLK	HVAC CONTROLLER	ATS	4-#14	3/4"	C11
	S11	THERMOSTAT	HVAC CONTROLLER	THERMOSTAT	FACTORY	3/4"	S11
7	S11A	BLDG ENTRANCE TERMINAL (BET)	HVAC CONTROLLER	EQUIP RM SENSOR BOX	6-#18	3/4"	S11A
	C12	HVAC 2 FDR	DIST PNL DP1	HVAC 2	2-#6 W/ #10 GRD	1"	C12
	C12	HVAC 2 CONTROL	HVAC CONTROLLER	HVAC 2	8-#14	3/4"	C12
	P13	FEEDER CIRCUIT	DIST PNL DP1	SURGE PROTECTOR	2-#12 W/#12 GRD	3/4"	P13
	P13A	FEEDER CIRCUIT	SURGE PROTECTOR	TOWER LIGHTS CONTROL	2-#12 W/#12 GRD	3/4"	P13A
11	P13B	TWR LIGHTS	TOWER LIGHTS CONTROL	TWR FLASHER	FACTORY CABLE	1" PVC	P13B
	C13	CONTROL	TOWER LIGHTS CONTROL	PHOTO DIODE	2-#14	1/2"	C13
7	S13	BLDG ENTRANCE TERMINAL (BET)	EQUIP RM SENSOR BOX	TWR LGHT SPD	10-#18	3/4"	S13
	S13A	BLDG ENTRANCE TERMINAL (BET)	TWR LGHT SPD	TOWER LIGHTS CONTROL	10-#18	3/4"	S13A
1	P14	FEEDER CIRCUIT	DIST PNL DP1	RECTIFIER 1,2	2-#6 W/ #10 GRD	1"	P14
1	P15	FEEDER CIRCUIT	DIST PNL DP1	RECTIFIER 3,4	2-#6 W/ #10 GRD	1"	P15
6	P16	FEEDER CIRCUIT	DIST PNL DP1	EXTERIOR LIGHT SW	2-#10 W/#12 GRD	3/4"	P16
	P16A	FEEDER CIRCUIT	EXTERIOR LIGHT SW	LIGHT FIXTURE	2-#12 W/#12 GRD	3/4"	P16A
6	P17	FEEDER CIRCUIT	DIST PNL DP1	INTERIOR LIGHT SW	2-#10 W/#12 GRD	3/4"	P17
	P17A	FEEDER CIRCUIT	INTERIOR LIGHT SW	LIGHT FIXTURE	2-#12 W/#12 GRD	3/4"	P17A
	P18	FEEDER CIRCUIT	DIST PNL DP1	COMM RM RECEPITS	2-#12 W/#12 GRD	3/4"	P18
6	P19	FEEDER CIRCUIT	DIST PNL DP1	COMM RM RECEPITS	2-#10 W/#12 GRD	3/4"	P19
	P19A	FEEDER CIRCUIT	POWER J-BOX	HVAC OUTLETS	2-#10 W/#12 GRD	3/4"	P19A
2	P20	FEEDER CIRCUIT	DIST PNL DP1	EQUIP RACK RECEIPT 1,2	2-#10 W/#10 GRD	1"	P20
2	P20A	FEEDER CIRCUIT	DIST PNL DP1	EQUIP RACK RECEIPT 3,4	2-#10 W/#10 GRD	1"	P20A
2	P20B	FEEDER CIRCUIT	DIST PNL DP1	EQUIP RACK RECEIPT 5,6	2-#10 W/#10 GRD	1"	P20B
2	P20C	FEEDER CIRCUIT	DIST PNL DP1	EQUIP RACK RECEIPT 7,8	2-#10 W/#10 GRD	1"	P20C
6	P20D	FEEDER CIRCUIT	DIST PNL DP1	EQUIP RACK RECEIPT 9,10	2-#10 W/#12 GRD	3/4"	P20D
	P21	FEEDER CIRCUIT	DIST PNL DP1	DEHYDRATOR	2-#12 W/#12 GRD	3/4"	P21
3	P22	DC FDR	RECTIFIER RACK	H2 DETECTOR	2-#12 W/#12 GRD	3/4"	P22
7	S22	BLDG ENTRANCE TERMINAL (BET)	H2 DETECTOR	EQUIP RM SENSOR BOX	2-#18	3/4"	S22
6	P23	FEEDER CIRCUIT	DIST PNL DP1	SMOKE DETECTOR	2-#12 W/#12 GRD	3/4"	P23
7	S23	BLDG ENTRANCE TERMINAL (BET)	SMOKE DETECTOR	EQUIP RM SENSOR BOX	2-#18	3/4"	S23
	S24	BLDG ENTRANCE TERMINAL (BET)	DOOR OPEN SENSOR	EQUIP RM SENSOR BOX	2-#18	3/4"	S24
	P30	FEEDER CIRCUIT	DIST PNL DP1	DIST PNL DP2	3-#2 W/#6 GRD	1-1/2"	P30
	P31	NUMBER NOT USED					P31
	P32	FEEDER CIRCUIT	DIST PNL DP2	GEN HTR RECEPT	2-#12 W/#12 GRD	3/4"	P32
5	S32	SENSOR	LP TK MONITOR	LP TANK	FACTORY CABLE	1"	S32
9	S32A	BLDG ENTRANCE TERMINAL (BET)	LP TK MONITOR	GEN RM SENSOR BOX	8-#18	3/4"	S32A
	S32B	SENSOR	LP TK MONITOR	LP TK SPD	3-#18	3/4"	S32B
9	S33	BLDG ENTRANCE TERMINAL (BET)	DOOR OPEN SENSOR	GEN RM SENSOR BOX	2-#18	3/4"	S33
8	P34	FEEDER CIRCUIT	DIST PNL DP2	EXTERIOR LIGHT SW	2-#10 W/#12 GRD	3/4"	P34
8	P35	FEEDER CIRCUIT	DIST PNL DP2	INTERIOR LIGHT SW	2-#10 W/#12 GRD	3/4"	P35
8	P36	FEEDER CIRCUIT	DIST PNL DP2	GEN RM PWR J-BOX	2-#10 W/#12 GRD	3/4"	P36
	P36A	FEEDER CIRCUIT	GEN RM PWR J-BOX	GEN RM OUTLET 1	2-#12 W/#12 GRD	3/4"	P36A
	P36B	FEEDER CIRCUIT	GEN RM PWR J-BOX	GEN RM OUTLET 2	2-#12 W/#12 GRD	3/4"	P36B
	P36C	FEEDER CIRCUIT	GEN RM OUTLET 2	GEN RM OUTLET 3	2-#12 W/#12 GRD	3/4"	P36C
	P36D	FEEDER CIRCUIT	GEN RM OUTLET 3	GEN RM OUTLET 4	2-#12 W/#12 GRD	3/4"	P36D
	P37	FEEDER CIRCUIT	DIST PNL DP2	GEN RM EX FAN	2-#12 W/#12 GRD	3/4"	P37
	P38	NUMBER NOT USED					P38
9	S39	BLDG ENTRANCE TERMINAL (BET)	SMOKE DETECTOR	GEN RM SENSOR BOX	2-#18	3/4"	S39
8	P39	SMOKE DETECTOR	DIST PNL DP2	SMOKE DETECTOR	2-#10 W/#12 GRD	3/4"	P39
	S40	BLDG ENTRANCE TERMINAL (BET)	GEN RM SENSOR BOX	EQUIP RM SENSOR BOX	1-25 PR COMM SCOPE 1010A CAT3 U/UTP	1"	S40
10	S40A	BLDG ENTRANCE TERMINAL (BET)	EQUIP RM SENSOR BOX	NET GUARDIAN PNL	1-50PR COMM SCOPE 1010A CAT3 U/UTP	1"	S40A
10	S40B	BLDG ENTRANCE TERMINAL (BET)	EQUIP RM SENSOR BOX	NET GUARDIAN PNL	SPARE	1"	S40B
12	P41	EXHAUST FAN	DIST PNL DP1	EX FAN RELAY BOX	2-#12 W/#12 GRD	3/4"	P41
12	P41A	EXHAUST FAN	EX FAN RELAY BOX	EX FAN MTR	2-#12 W/#12 GRD	3/4"	P41A
	P41C	EXHAUST FAN	EX FAN RELAY BOX	DAMPER MTR	2-#12 W/#12 GRD	3/4"	P41C
	C41	EXHAUST FAN	EX FAN RELAY BOX	H2 DETECTOR	2-#16	3/4"	C41

- NOTE 3: INSTALL DC POWER CIRCUIT FROM HYDROGEN DETECTOR TO RECTIFIER RACK USING CONDUIT AND CABLE TRAY. CONTRACTOR INSTALLS RACEWAY. DISTRICT INSTALLS WIRES.
- NOTE 4: A PORTION OF CIRCUIT C4 (8-#18 AWG WIRES) ROUTE FROM THE GEN-SET CONTROL PANEL TO THE GEN RM SENSOR BOX VIA THE ATS THROUGH CIRCUIT S4.
- NOTE 5: FOR CIRCUIT S32, USE RIGID CONDUIT ABOVE GROUND AND PVC FOR BURIED SECTION TO LP TANK. NOTE THAT THE S32 CABLE IS ORDERED TO LENGTH FROM FACTORY.
- NOTE 6: COMBINE CIRCUITS P16, P17, P19, P20D, AND P23 INTO COMMON 1" CONDUIT
- NOTE 7: COMBINE CIRCUITS S3, S8, S9, S11A, S13, S22, AND S23 INTO COMMON 1" CONDUIT
- NOTE 8: COMBINE CIRCUITS P34, P36, AND P39 INTO COMMON 1" CONDUIT FROM DP2 TO J-BOX.
- NOTE 9: COMBINE CIRCUITS S32A, S33, AND S39 FROM GEN RM SENSOR BOX TO GEN RM SENSOR J-BOX
- NOTE 10: INSTALL CONDUIT FROM THE EQUIP RM SENSOR BOX TO THE CABLE RUNWAY. INSTALL CABLE THROUGH CONDUIT AND RUNWAY TO NET GUARDIAN.
- NOTE 11: FLASHER CABLE IS FACTORY FURNISHED. USE PART NUMBER 4210000 (#10 AWG). INSTALL CABLE IN 1" SCH 40 PVC FROM CONTROLLER TO FLASH HEAD.
- NOTE 12: COMBINE SECTIONS OF CIRCUITS P41 AND P41A FROM PWR J-BOX TO EX FAN RELAY BOX

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CORRECTED FINAL/RTA SET

C43 WEST BASIN RESERVOIR PROJECT
S-470 PUMP STATION MICROWAVE TOWER
CIRCUIT SCHEMATIC AND CIRCUIT SCHEDULE

PROJECT ID NO.
100088
DRAWING NUMBER
E6601

SHEET
269 OF 296

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
OPERATIONS, ENGINEERING & CONSTRUCTION DIVISION
ENGINEERING & CONSTRUCTION BUREAU
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SCALE: AS SHOWN
DATE: 10/20/17
DRAWN: REF#

11/3/17

SPH

B

ADDENDUM NO. 5

ENGINEER: L. SMITH

DRAWN: S. HOOKMAN

CHECKED: PK PATEL

DATE: 10/20/17

SCALE: AS SHOWN

REVISION DESCRIPTION

DATE

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