

**VIRGIN ISLANDS WATER & POWER AUTHORITY
EAST END SUBSTATION
ST. THOMAS, USVI
13.2kV CABLE SCHEDULE**

10/17/19

Ckt No.	From	To	Routing	Cable	Description
DC CIRCUITS (BATTERY SYSTEM A)					
DC101	DC Panel 1A, ckt 9	RP5	TRAY	2/c 12	DC Supply D-T1 LS Relay / PM
DC102	DC Panel 1A, ckt 11	RP5	TRAY	2/c 12	DC Supply D-FRR Relay / PM
DC103	DC Panel 1A, ckt 12	RP5	TRAY	2/c 12	DC Supply D-F9 Relay / PM
DC104	DC Panel 1A, ckt 14	RP6	TRAY	2/c 12	DC Supply D-F7 Relay / PM
DC105	DC Panel 1A, ckt 13	RP6	TRAY	2/c 12	DC Supply D-Spare / PM
DC106	DC Panel 1A, ckt 16	RP6	TRAY	2/c 12	DC supply 13.2kV 87B / 86B
DC107	DC panel 1A, ckt 4	RP6	TRAY	2/c 12	DC Supply DPAC-2
DC108					RESERVED
DC109					RESERVED
DC110					RESERVED
DC111	DC Panel 2A, ckt 1	Bkr 110	DC8 & 3/4" RGS to GIS	2/c 12	DC Supply TC-1 & Close
DC112	DC Panel 2A, ckt 3	Bkr 101	DC8 & 3/4" RGS to GIS	2/c 12	DC Supply TC-1 & Close
DC113	DC Panel 2A, ckt 5	Bkr 103	DC8 & 3/4" RGS to GIS	2/c 12	DC Supply TC-1 & Close
DC114	DC Panel 2A, ckt 7	Bkr 105	DC8 & 3/4" RGS to GIS	2/c 12	DC Supply TC-1 & Close
DC115	DC Panel 2A, ckt 9	Bkr 107	DC8 & 3/4" RGS to GIS	2/c 12	DC Supply TC-1 & Close
DC116	DC Panel 2A, ckt 13	BKr 110	DC8 & 3/4" RGS to GIS	2/c 12	DC Supply DPAC-6

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Ckt No.	From	To	Routing	Cable	Description
DC CIRCUITS (BATTERY SYSTEM B)					
DC120	DC Panel 2B, ckt 1	Bkr 110	DC9 & 3/4" RGS to GIS	2/c 12	DC Supply TC-2
DC121	DC Panel 2B, ckt 3	Bkr 101	DC9 & 3/4" RGS to GIS	2/c 12	DC Supply TC-2
DC122	DC Panel 2B, ckt 5	Bkr 103	DC9 & 3/4" RGS to GIS	2/c 12	DC Supply TC-2
DC123	DC Panel 2B, ckt 7	Bkr 105	DC9 & 3/4" RGS to GIS	2/c 12	DC Supply TC-2
DC124	DC Panel 2B, ckt 9	Bkr 107	DC9 & 3/4" RGS to GIS	2/c 12	DC Supply TC-2

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Ckt No.	From	To	Routing	Cable	Description
AC CIRCUITS					
AC101	Panel LP1	RP5	Existing 3/4" EMT	2/c 12	AC power Relay Panel 5
AC102	RP5	RP6	Existing TRAY	2/C 12	AC power Relay Panel 6
AC103	Panel LP2	13.2kV Gear Cubicle 3	1" PVC & 3/4" RGS	2/c 12	GIS Heaters

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CONTROL CIRCUITS					
C101	Bkr 110	RP5	CT4/TRAY	4/c 10	Bkr 110 CT's 67LS/D-T1 & M/D-110
C102	PT Fuses	RP5	CT4/TRAY	4/c 14	Potential
C103	RP5	Bkr 110	PR4/TRAY	4/c 14	Bkr 110 Trip Coil 1/2 67LS/D-T1
C104	RP5	RP9	PR4/TRAY	2/c 14	BFI TO 87B (34.5kV)
C105	RP5	RP6	TRAY	2/c 14	86 BF /D-110 Trip 86B
C108	RP5	RP11	TRAY	4/c 14	50 BF/D-110 Trip 86T & 86TBU/D-T1
C109	Bkr 110	RP5	PR4/TRAY	2/c 14	Bkr 110 status to 67LS/D-T1
C110	Bkr 101	RP5	CT4/TRAY	4/c 10	Bkr 101 CT's 67/D-FRR
C111	Bkr 101	RP5	CT4/TRAY	4/c 10	Bkr 101 CT's M/D-101
C112	Bkr 110	RP5	CT4/TRAY	4/c 10	Bkr 110 CT's 87T/D-T1
C113	RP5	Bkr 101	PR4/TRAY	4/c 14	Bkr 101 Trip Coil 1/2 67/D-FRR
C114					RESERVED
C115	RP5	RP6	TRAY	2/c 14	86 BF/D-101 Trip 86B
C116	Bkr 101	RP5	PR4/TRAY	2/c 14	Bkr 101 status to 67/D-FRR
C117	Bkr 103	RP5	CT4/TRAY	4/c 10	Bkr 103 CT's 67/D-F9
C118	Bkr 103	RP5	CT4/TRAY	4/c 10	Bkr 103 CT's M/D-103
C119					RESERVED
C120	RP5	Bkr 103	PR4/TRAY	4/c 14	Bkr 103 Trip Coil 1/2 67/D-F9
C121	RP5	RP6	TRAY	4/c 14	Potential
C122	RP5	RP6	TRAY	2/c 14	86 BF/D-103 Trip 86B
C123	Bkr 103	RP5	PR4/TRAY	2/c 14	Bkr 103 Status to 67/D-F9
C124	Bkr 105	RP6	CT4/TRAY	4/c 10	Bkr 105 CT's 67/D-F7
C125	Bkr 105	RP6	CT4/TRAY	4/c 10	Bkr 105 Ct's M/D-105
C126					RESERVED
C127	RP6	Bkr 105	PR4/TRAY	4/c 14	Bkr 105 Trip Coil 1/2 67/D-F7
C128					RESERVED
C129	Bkr 105	RP6	PR4/TRAY	2/c 14	Bkr 105 Status to 67/D-F7
C130	Bkr 107	RP6	CT4/TRAY	4/c 10	Bkr 107 CT's 67/D-SP
C131	Bkr 107	RP6	CT4/TRAY	4/c 10	Bkr 107 CT's M/D-107
C132				4/c 10	RESERVED
C133	RP6	Bkr 107	PR4/TRAY	4/c 14	Bkr 107 Trip Coil 1/2 67/D-SP
C134					RESERVED
C135	Bkr 107	RP6	PR4/TRAY	2/c 14	Bkr 107 Status to 67/D-SP
C136	Bkr 110	RP6	CT4/TRAY	4/c 10	Bkr 110 Ct's 87B
C137	Bkr 101	RP6	CT4/TRAY	4/c 10	Bkr 101 Ct's B7B
C138	Bkr 103	RP6	CT4/TRAY	4/c 10	Bkr 103 Ct's B7B
C139	Bkr 105	RP6	CT4/TRAY	4/c 10	Bkr 105 Ct's B7B
C140	Bkr 107	RP6	CT4/TRAY	4/c 10	Bkr 107 Ct's B7B
C141	RP6	Bkr 110	PR4/TRAY	4/c 14	Bkr 110 Trip & Block Close from 86B
C142	RP6	Bkr 101	PR4/TRAY	4/c 14	Bkr 101 Trip & Block Close from 86B
C143	RP6	Bkr 103	PR4/TRAY	4/c 14	Bkr 103 Trip & Block Close from 86B

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Ckt No.	From	To	Routing	Cable	Description
CONTROL CIRCUITS					
C144	RP6	Bkr 105	PR4/TRAY	4/c 14	Bkr 105 Trip & Block Close from 86B
C145	RP6	Bkr 107	PR4/TRAY	4/c 14	Bkr 107 Trip & Block Close from 86B
C146	RP5	Bkr 110	PR4/TRAY	7/c 14	Open/Close Bkr 110 from remote C/S & SCADA
C147	RP5	Bkr 101	PR4/TRAY	7/c 14	Open/Close Bkr 101 from remote C/S & SCADA
C148	RP5	Bkr 103	PR4/TRAY	7/c 14	Open/Close Bkr 103 from remote C/S & SCADA
C149	RP6	Bkr 105	PR4/TRAY	7/c 14	Open/Close Bkr 105 from remote C/S & SCADA
C150	RP6	Bkr 107	PR4/TRAY	7/c 14	Open/Close Bkr 107 from remote C/S & SCADA
C151	BKR 110	RP11 (34.5kV)	PR4/TRAY	4C/10	Bkr 110 ct's to 87T/D-T1

Ckt No.	From	To	Routing	Cable	Description
SCADA CIRCUITS					
SC101	RP5	DPAC-2 (RP6)	TRAY	7/c 14	67 LS/D-T1 & 86BF/D-110 Alarms
SC102	RP5	DPAC-2 (RP6)	TRAY	7/c 14	67/D-FRR & 86BF/D-101 Alarms
SC103	RP5	DPAC-2 (RP6)	TRAY	7/c 14	67/D-F9 & 86BF/D-103 Alarms
SC104	DPAC-2 (RP6)	DPAC-3 (RP10)	TRAY	2/c 14	DPAC-2 Alarm
SC105	ATS	DPAC-2(RP6)	½" EMT	4/c 14	ATS not in auto, ATS on generator source
SC106	Battery Charger A	DPAC-2 (RP6)	½" EMT	4/c 14	Battery Charger A Summary Alarm
SC107	Battery Charger B	DPAC-2 (RP6)	½" EMT	4/c 14	Battery Charger B Summary Alarm
SC108	SCADA Panel	DPAC-2 (RP6)	TRAY	7/c 14	SCADA Device Alarms
SC109	Thermostat	DPAC-2 (RP6)	½" EMT	2/c 14	Control Building Temperature Alarm
SC110					Reserved
SC111					Reserved
SC112					Reserved
SC113					Reserved
SC114					Reserved
SC115					Reserved

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Ckt No.	From	To	Routing	Cable	Description
SCADA CIRCUITS					
SC116					Reserved
SC117	Bkr D-101	DPAC-6 (Bkr D-110)	GIS control Raceway	7/c 14	Bkr D-101 Alarms & Monitoring
SC118	Bkr D-103	DPAC-6 (Bkr D-110)	GIS control Raceway	7/c 14	Bkr D-103 Alarms & Monitoring
SC119	Bkr D-105	DPAC-6 (Bkr D-110)	GIS control Raceway	7/c 14	Bkr D-105 Alarms & Monitoring
SC120	Bkr D-107	DPAC-6 (Bkr D-110)	GIS control Raceway	7/c 14	Bkr D-107 Alarms & Monitoring
SC121	Thermostat	DPAC-6 (Bkr D-110)	½" EMT	2/c 14	GIS Building Temperature Alarm