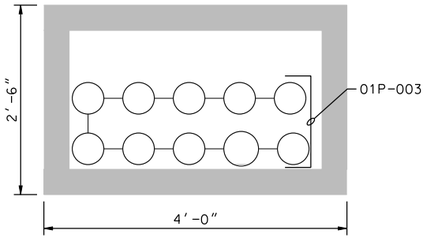
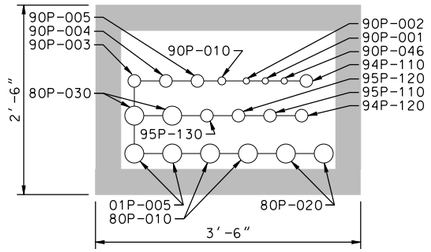
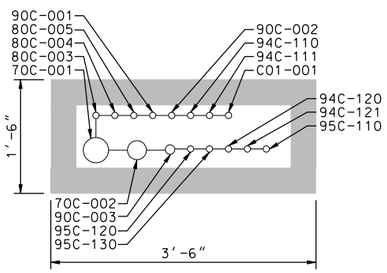


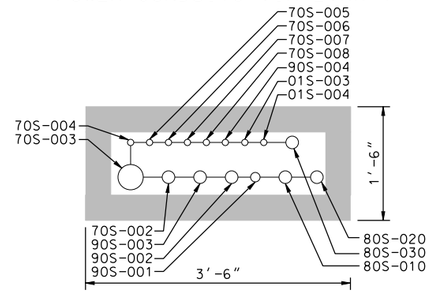
POWER CONDUITS FROM SB-DS1 TO SB-DS2 VIA LVHH-4



POWER CONDUITS VIA LVHH-1



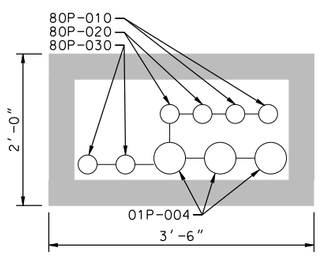
CONTROL CONDUITS VIA CHH-1



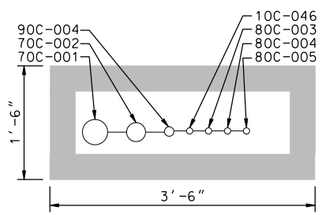
SIGNAL CONDUITS VIA SHH-1

TO RO BUILDING ELECTRICAL ROOM SECTION 1

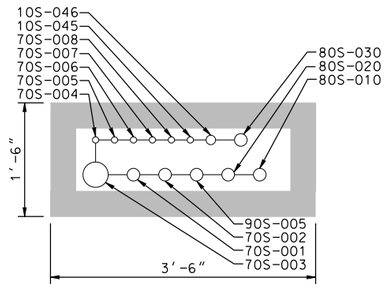
NTS E-1



POWER CONDUITS VIA LVHH-2



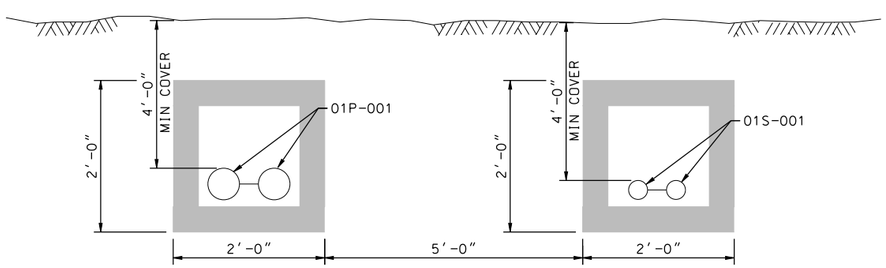
CONTROL CONDUITS VIA CHH-2



SIGNAL CONDUITS VIA SHH-2

TO FWPS ELECTRICAL ROOM SECTION 2

NTS E-1



MEDIUM VOLTAGE POWER CONDUITS FIBEROPTIC CONDUITS

TO PERRIS VALLEY WRF SECTION 3

NTS E-1, E-41

DUCTBANK RACEWAY SCHEDULE

CONDUIT ID	CONDUIT SIZE	CONDUCTORS	FROM	VIA	TO	REMARKS
SITE						
01P-001	2-5"	CONDUIT ONLY	PVRWRF 12kV	MVHH-1	PERRIS II XFMR	
01P-002	10-5"	3-600 KCMIL, 1#3/0G	PERRIS II XFMR	-	SB-DS1	
01P-003	10-5"	3-600 KCMIL, 1#3/0G	SB-DS1	LVHH-4	SB-DS2	
01P-004	3-5"	3-600 KCMIL, 1#3/0G	SB-DS1	LVHH-1 TO LVHH-2	SB-DS3	
01P-005	2-3"	3-350 KCMIL, 1#1G	SB-DS1	LVHH-1	MCC-3	
01C-001	3/4"	7#14, 1#14G	SB-DS1	CHH-1	RIO-200	SB-DS1 DOOR SWITCHES ZS-25001/25002/25003
01S-001	2-3"	FO CABLE	PVRWRF	FOHH-1	SCADA/ADMIN SWITCH	SWITCH LOCATED IN COMMUNICATION ROOM
01S-002	2-3"	TELCO CABLE	TELCO DROP	-	TTB	TTB LOCATED IN COMMUNICATION ROOM
01S-003	3/4"	RS-485 CABLE	RIO-200	SHH-1	SB-DS1	DAISY-CHAIN TO RIO-200, SEE DWG E-10
01S-004	3/4"	RS-485 CABLE	SB-DS1	SHH-1	MCC-3	DAISY-CHAIN TO MCC-3, SEE DWG E-10
FINISHED WATER PUMP STATION						
70C-001	4"	CONDUIT ONLY	RIO-250	CHH-2 TO CHH-1	LCP-200	STUB UP AND CAP
70C-002	3"	CONDUIT ONLY	RIO-250	CHH-2 TO CHH-1	LCP-200	STUB UP AND CAP
70S-001	2"	CONTROLNET CABLE	RIO-250	SHH-2 TO SHH-4	RIO-240	DAISY-CHAIN TO LCP-200, SEE DWG E-10
70S-002	2"	FO CABLE	RIO-250	SHH-2 TO SHH-1	LCP-200	
70S-003	4"	CONDUIT ONLY	RIO-250	SHH-2 TO SHH-1	LCP-200	STUB UP AND CAP
70S-004	3/4"	2-CAT 6	30101A	SHH-2 TO SHH-1	ADMIN SWITCH	SWITCH LOCATED IN COMMUNICATION ROOM
70S-005	3/4"	2-CAT 6	30102A	SHH-2 TO SHH-1	ADMIN SWITCH	SWITCH LOCATED IN COMMUNICATION ROOM
70S-006	3/4"	RS-485 CABLE	SB-DS3	SHH-2 TO SHH-1	MCC-2	DAISY-CHAIN TO RIO-200, SEE DWG E-10
70S-007	1"	CONDUIT ONLY	PBV30000/1	SHH-2 TO SHH-1	PBV20000/1	PBV20000/1 LOCATED IN RO PROCESS AREA
70S-008	1"	CONDUIT ONLY	PBS30000/1	SHH-2 TO SHH-1	PBS20000/1	PBS20000/1 LOCATED IN RO PROCESS AREA
CONCENTRATE PUMP STATION						
80P-001	1"	8#10, 1#10G	PBP-80500	LVHH-2	DP-6	
80P-002	1"	3#10, 1#10G	PBP-80503	LVHH-2	DP-7	CKT FOR LCP-41300
80P-003	3/4"	2#12, 1#12G	PBP-80500	LVHH-2	DP-7	CKT FOR CONCENTRATE TASK LIGHT
80P-004	1"	2#10, 1#10G	PBP-80503	LVHH-2	DP-6	
80P-005	1 1/2"	CONDUIT ONLY	PBP-80503	LVHH-2	DP-6	STUB UP AND CAP
80P-010	2-3"	3#1, 3#6G EA	P-80010	LVHH-2 TO LVHH-1	VFD-80010	VFD CABLE 2[VFD-7]
80P-020	2-3"	3#1, 3#6G EA	P-80020	LVHH-2 TO LVHH-1	VFD-80020	VFD CABLE 2[VFD-7]
80P-030	2-3"	3#1, 3#6G EA	P-80030	LVHH-2 TO LVHH-1	VFD-80030	VFD CABLE 2[VFD-7]
80C-001	1"	16#14, 1#14G	PBC-80501	CHH-2	RIO-250	
80C-002	1"	CONDUIT ONLY	PBC-80501	CHH-2	RIO-250	STUB UP AND CAP
80C-003	1"	5#14, 1#14G	PBC-80501	CHH-2 TO CHH-1	VFD-80010	
80C-004	1"	5#14, 1#14G	PBC-80501	CHH-2 TO CHH-1	VFD-80020	
80C-005	1"	5#14, 1#14G	PBC-80504	CHH-2 TO CHH-1	VFD-80030	
80C-006	1"	CONDUIT ONLY	PBC-80504	CHH-2	RIO-250	STUB UP AND CAP
80C-007	1"	6#14, 1#14G	PBC-80504	CHH-2	RIO-250	
80S-001	1"	3 TYPE 3	PBA-80502	SHH-2	RIO-250	
80S-002	1 1/2"	CONDUIT ONLY	PBA-80502	SHH-2	RIO-250	STUB UP AND CAP
80S-003	1 1/2"	CONDUIT ONLY	PBA-80505	SHH-2	RIO-250	STUB UP AND CAP
80S-010	2"	1 TYPE 6, 12 TR	PBA-80502	SHH-2 TO SHH-1	VFD-80010	
80S-020	2"	1 TYPE 6, 12 TR	PBA-80502	SHH-2 TO SHH-1	VFD-80020	
80S-030	2"	1 TYPE 6, 12 TR	PBA-80505	SHH-2 TO SHH-1	VFD-80030	
FE/MN REMOVAL SYSTEM						
90P-001	1 1/4"	3#2, 1#6G	MPC-1	LVHH-3 TO LVHH-1	MCC-3	
90P-002	3/4"	3#10, 1#10G	FV-94150	LVHH-3 TO LVHH-1	MCC-3	
90P-003	1 1/2"	CONDUIT ONLY	FE/MN CONC SLAB	LVHH-3 TO LVHH-1	MCC-3 (FUT)	STUB UP AND CAP
90P-004	1 1/2"	CONDUIT ONLY	FE/MN CONC SLAB	LVHH-3 TO LVHH-1	MCC-3 (FUT)	STUB UP AND CAP
90P-005	1 1/2"	CONDUIT ONLY	FE/MN CONC SLAB	LVHH-3 TO LVHH-1	MCC-2	STUB UP AND CAP
90P-010	3/4"	3#10, 1#10G	C-90010	LVHH-3 TO LVHH-1	MCC-3	
94P-110	1 1/2"	3#1/0, 1#6G	P-94110	LVHH-3 TO LVHH-1	MCC-3	
94P-120	1 1/2"	3#1/0, 1#6G	P-94120	LVHH-3 TO LVHH-1	MCC-3	
95P-110	2"	3#6, 1#6G EA	P-95110	LVHH-3 TO LVHH-1	VFD-95110 (MCC-3)	VFD CABLE [VFD-4]
95P-120	2"	3#6, 1#6G EA	P-95120	LVHH-3 TO LVHH-1	VFD-95120 (MCC-3)	VFD CABLE [VFD-4]
95P-130	2"	3#6, 1#6G EA	P-95130	LVHH-3 TO LVHH-1	VFD-95130 (MCC-3)	VFD CABLE [VFD-4]
10P-046	3/4"	3#10, 1#10G	FCV-10046	LVHH-3 TO LVHH-1	MCC-2	
90C-001	1"	24#14, 1#14G	MCP-900	CHH-3 TO CHH-1	MCC-3	
90C-002	1"	20#14, 1#14G	MCP-900	CHH-3 TO CHH-1	MCC-3	
90C-003	1 1/2"	CONDUIT ONLY	MCP-900	CHH-3 TO CHH-1	MCC-3 (FUT)	STUB UP AND CAP
90C-004	1 1/2"	CONDUIT ONLY	FE/MN CONC SLAB	CHH-3 TO CHH-2	RIO-250	STUB UP AND CAP
94C-110	3/4"	2#14, 1#14G	TSH-94110	CHH-3 TO CHH-1	MCC-3	
94C-111	3/4"	4#14, 1#14G	PBC-94111/4	CHH-3 TO CHH-1	MCC-3	
94C-120	3/4"	2#14, 1#14G	TSH-94110	CHH-3 TO CHH-1	MCC-3	
94C-121	3/4"	4#14, 1#14G	PBC-94121/4	CHH-3 TO CHH-1	MCC-3	
95C-110	3/4"	9#14, 1#14G	P-95110	CHH-3 TO CHH-1	VFD-95110 (MCC-3)	
95C-120	3/4"	9#14, 1#14G	P-95120	CHH-3 TO CHH-1	VFD-95120 (MCC-3)	
95C-130	3/4"	9#14, 1#14G	P-95130	CHH-3 TO CHH-1	VFD-95130 (MCC-3)	
10C-046	3/4"	8#14, 1#14G	FCV-10046	CHH-3 TO CHH-2	RIO-250	
90S-001	1 1/2"	8 TYPE 3	MCP-900	SHH-3 TO SHH-1	MCC-3	
90S-002	1 1/2"	CONDUIT ONLY	MCP-900	SHH-3 TO SHH-1	MCC-3 (FUT)	STUB UP AND CAP
90S-003	2"	FO CABLE	MCP-900	SHH-3 TO SHH-1	SCADA SWITCH	SWITCH LOCATED IN COMMUNICATION ROOM
90S-004	1"	TELCO CABLE	MCP-900	SHH-3 TO SHH-1	TTB	TTB LOCATED IN COMMUNICATION ROOM
90S-005	1 1/2"	CONDUIT ONLY	FE/MN CONC SLAB	SHH-3 TO SHH-2	RIO-250	STUB UP AND CAP
10S-045	3/4"	1 TYPE 3	FE/FIT-10045	SHH-3 TO SHH-2	RIO-250	
10S-046	1"	2 TYPE 3	FCV-10046	SHH-3 TO SHH-2	RIO-250	

NOTE:

1. ELECTRICAL DUCTBANK SECTION DRAWINGS ARE NOT REPRESENTATIVE OF THE COMPLETE UNDERGROUND CONDUIT REQUIREMENTS. CONTRACTOR SHALL ACCOUNT FOR ALL OTHER CONDUITS (NOT SHOWN ON THIS DRAWING) REQUIRED FOR THE PROJECT AND DESIGN CONDUIT DUCTBANK LAYOUT. COORDINATE WITH YARD PIPING AND STORM DRAIN PIPING.

REGISTERED PROFESSIONAL ENGINEER RANDALL S. DENTON No. 10438 Exp. 09/30/10 ELECTRICAL STATE OF CALIFORNIA

DATE: 10/05/09

SYMBOL	DESCRIPTIONS	DATE	APPROVAL

REVISIONS

EASTERN MUNICIPAL WATER DISTRICT
PERRIS II DESALINATION FACILITY
PERRIS, CALIFORNIA

DUCTBANK RACEWAY SCHEDULE

DESIGNED BY: A MATHEWS
DRAWN BY: J HAMMER
CHECKED BY: R DENTON

U.S. ARMY ENGINEER DISTRICT
LOS ANGELES
CORPS OF ENGINEERS

CH2MHILL

SUBMITTED BY: ART JUNG, P.E. CHIEF, DESIGN BRANCH

CADD FILE NAME: PDFe111d.dgn

SPEC. NO.: NOT APPLICABLE

L.A. DISTRICT FILE NO. XXX-XXXX

E-16

SHEET 161 OF 226 SHEETS

NDM-SCO:EMWD USACE PERRIS II/ PDFe111d.dgn PLOT DATE: 2/19/2010 PLOT TIME: 11:08:28 AM