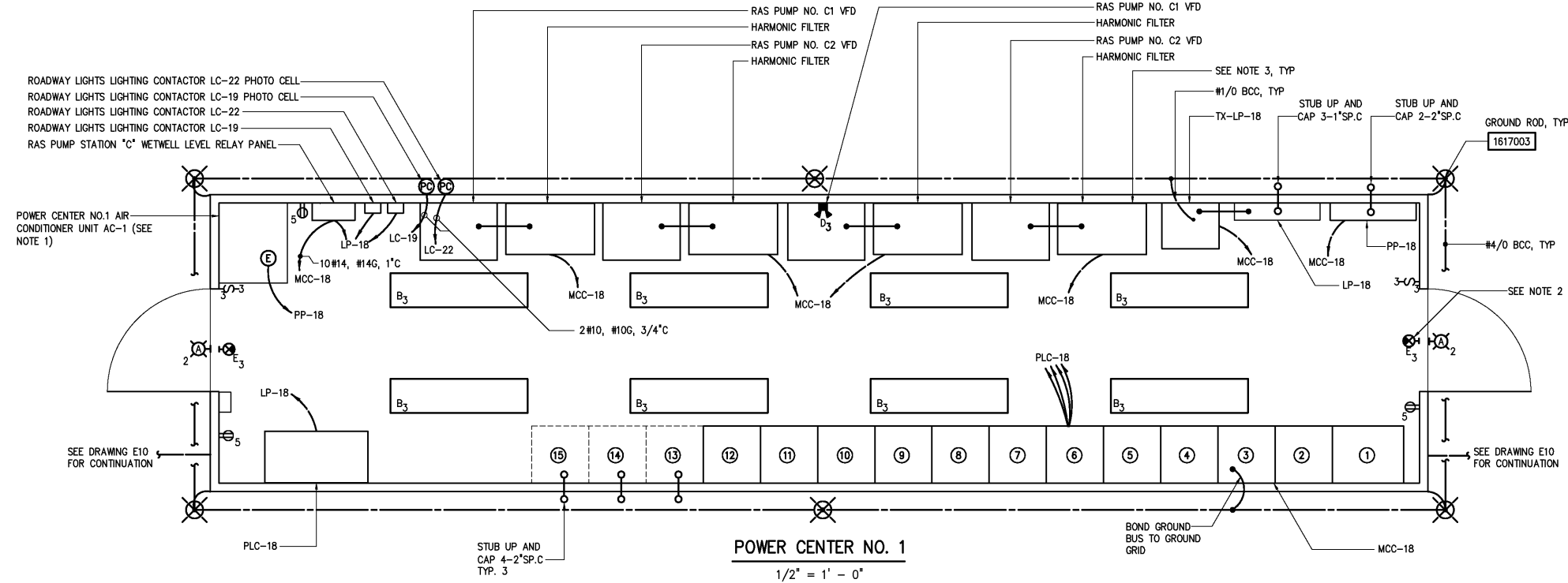
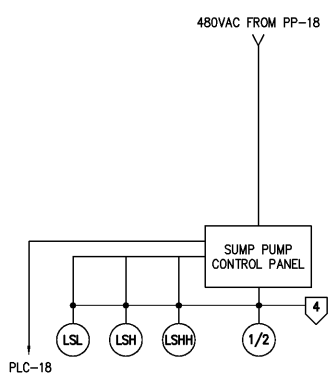


480 VOLTS											
3Ø, 3 WIRE											
PP-18											
TYPE: MOUNT: SURFACE											
MAIN BKR 225 A 3 P											
DESCRIPTION	WIRE	TRIP	POLE	NO	#A	#B	#C	#A	#B	#C	DESCRIPTION
MOV-42200, MOV-46205	2	20	3	1	500	500		1000	1000		EXISTING SECONDARY CLARIFIER 7-10 DRIVES
				3							
				5							
EXISTING SECONDARY CLARIFIER 7-10 SCUM PUMPS	3	30	3	7	3000	3000		3000	3000		AC-1 (SEE NOTE 1)
				9							
				11							
SPARE	2	20	3	13				500	500		PE VALVE AND METER VAULT SUMP PUMP CONTROL PANEL
				15							
				17							
SPARE	2	20	3	19							SPARE
				21							
				23							
SPARE	2	20	3	25							SPARE
				27							
				29							
SPARE	2	20	3	31							SPARE
				33							
				35							
SPARE	2	20	3	37							SPARE
				39							
				41							
TOTAL					3500	3500	3500	4500	4500	4500	TOTAL
PHASE TOTAL					8000	8000	8000	TOTAL LOAD			
								24000			
TVSS NEMA 12											

120/208 VOLTS											
3Ø, 4 WIRE											
LP-18											
TYPE: MOUNT: SURFACE											
MAIN BKR 100 A 3 P											
DESCRIPTION	WIRE	TRIP	POLE	NO	#A	#B	#C	#A	#B	#C	DESCRIPTION
RAS PUMPS A1 & A2 HEATERS	5	20	1	1	1800			400			OUTDOOR LIGHTS
POWER CENTER NO. 1 LIGHTS	2	20	1	3		500			500		PLC-18
POWER CENTER NO. 1 RECEPTACLES	2	20	1	5			600				SPARE
MANHOLE MH-1 SUMP PUMP	2	20	1	7	500						SPARE
RAS PUMPS A3 & A4 HEATERS	5	20	1	9		1800			500		EXISTING CLARIFIER 7-10 LIGHTS
RAS PUMPS A7 & A8 HEATERS	5	20	1	11		1800			1800		RAS PUMPS A5 & A6 HEATERS
RAS PUMPS A9 & A10 HEATERS	5	20	1	13	1800						SPARE
FIT-42401, 42402, 42403, 42404	2	20	1	15		400					
FIT-42405, FIT-42406	2	20	1	17		200			400		FIT-42407, 42408, 42409, 42410
ROADWAY LIGHTS LIGHTING CONTACTOR LC-19	6	50	2	19	1500			200			FIT-42400 & FIT-46405
				21		1500			2000		ROADWAY LIGHTS LIGHTING CONTACTOR LC-22
RAS PUMP STATION C RELAY PANEL	2	20	1	23		100					FIT-46401, 46402, 46403, & 46404
	2	20	1	25				400			
	2	20	1	27							
	2	20	1	29							
	2	20	1	31							
	2	20	1	33							
	2	20	1	35							
	2	20	1	37							
	2	20	1	39							
	2	20	1	41							
TOTAL					5600	4200	2700	1000	3000	4200	TOTAL
PHASE TOTAL					6700	7200	6800	TOTAL LOAD			
								20700			
NEMA 12 TVSS											

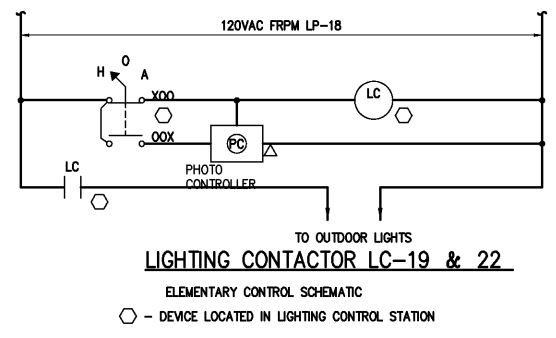


- NOTES:
- POWER CENTER NO.1 SHALL BE FURNISHED WITH HEATING AND AIR CONDITIONING UNIT(S), LIGHTS, AND RECEPTACLES AS SPECIFIED IN SPECIFICATION SECTION 16482. THE CONTRACTOR SHALL COORDINATE THE POWER REQUIREMENTS FOR THESE DEVICES AND WIRE THEM TO THE APPROPRIATE PANELBOARD(S) (IF DIFFERENT FROM THE PANELBOARD SHOWN ON THIS DRAWING) IF THEY ARE NOT PRE-WIRED AT THE FACTORY PRIOR TO SHIPPING.
 - EMERGENCY AND EXIT LIGHTS SHALL BE WIRED AHEAD OF SWITCH.
 - HARMONIC FILTERS SHALL BE MOUNTED ABOVE THE VFD'S FOR SECONDARY RAS PUMP NO. C1, C2, C3, AND C4. SUITABLE WELDED METAL FRAMES SHALL BE INSTALLED TO SUPPORT THE FILTERS.



PE VALVE AND METER VAULT
SUMP PUMP CONTROL
PANEL WIRING DIAGRAM

CONDUIT AND WIRE LEGEND (NUMBERS REFERENCE THIS SHEET ONLY)	
NO.	DESCRIPTION
1	2#12, #12GND, 3/4" C
2	3#12, #12GND, 3/4" C
3	3#10, #10GND, 3/4" C
4	CABLE BY PUMP SUPPLIER, 1" C
5	2#10, #10G, 3/4" C
6	2#6, #10G, 1" C



DESIGNED: BRL		RECORD DRAWING		CITY OF ROANOKE VIRGINIA		SECONDARY CLARIFIERS AND RAS PUMPING FACILITIES		DATE: MARCH 2004	
DRAWN: BRL		THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY ROBERT S. DIFIIORE, SEAL NO. 22769		HAZEN AND SAWYER Environmental Engineers & Scientists 4011 WestChase Blvd, Raleigh, North Carolina 27607		REGIONAL WATER POLLUTION CONTROL PLANT PROCESS TRAIN IMPROVEMENTS		H & S JOB NUMBER: 30788B	
CHECKED:		THIS DRAWING HAS BEEN MODIFIED TO REFLECT FIELD CHANGES REPORTED BY THE CONTRACTOR OR ANOTHER PARTY, BUT NOT VERIFIED BY THE CERTIFYING ENGINEER. THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY GERALD J. RATASKY, 026535. THIS MEDIA SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.						CONTRACT NUMBER: B	
PROJ. ENGR.: DAN								DRAWING NUMBER: E423	
APPROVED:									
NO.									
3		ADDITIONAL 1		APRIL 2004					
2		CONSTRUCTION		MAR 2004					
1		REGULATORY APPROVAL		NOV 2003					
NO.		ISSUED FOR		DATE					

POST DATE: 03/15/04 4:40pm FILE: H:\30788\30788B\VELEC\423 by BLSK XREF: H:\30788\30788B\30788B.dwg