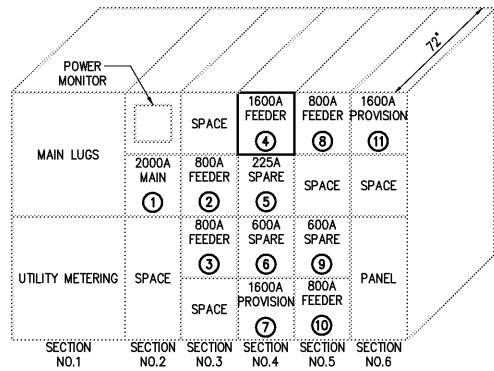


480V SWITCHGEAR SG-3 (SEE NOTES 1 & 2)

SINGLE LINE DIAGRAM

DUCTBANK CONDUIT AND WIRE	
NO.	DESCRIPTION
1	7(4#500kcmil, 4°C), & 3-4" SP.C.
2	5(3#500kcmil, #250kcmil, 4°C) 1-2" SP.C 2-4" SP.C
3	3(3#350kcmil, #3/0G, 3°C) 1-3" SP.C
4	4-5" SP.C (WIRE BY ELECTRIC UTILITY)



480V SWITCHGEAR SG-3 ELEVATION

NO SCALE

NOTES:

- 1 THE SWITCHGEAR SG-3 IS EXISTING AND SHALL BE INSTALLED BY THE CONTRACTOR AS INDICATED ON THESE DRAWINGS. THE EXISTING SG-3 SHALL BE REMOVED FROM ITS PRESENT LOCATION BY OTHERS AND RETURNED TO THE OWNER UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL OBTAIN SG-3 FROM THE OWNER AND INSTALL SG-3 AS INDICATED ON THESE DRAWINGS. SG-3 IS 2000A, BOTTOM FED, 3-PHASE, 3-WIRE, 65KAIC, DSI DRAWOUT CIRCUIT BREAKER SWITCHGEAR ASSEMBLY MANUFACTURED BY CUTLER-HAMMER AND IS MOUNTED INSIDE A NEMA 3R WALK-IN ENCLOSURE. THE OVERALL DIMENSIONS OF THE SWITCHGEAR IS 154" WIDE X 120" DEEP X 96" HIGH. THE SWITCHGEAR WEIGHS A MINIMUM OF 19,000 LBS. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO THE SWITCHGEAR DURING THE INSTALLATION.
- 2 THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A NETA CERTIFIED TESTING COMPANY TO TEST AND CONFIRM ALL CIRCUIT BREAKERS, BUS CONNECTIONS, TERMINATIONS, INSTRUMENT TRANSFORMERS, METERS, CONTROL POWER TRANSFORMERS, GROUND FAULT SYSTEM, CONTROL CIRCUIT WIRING, AND ALL OTHER COMPONENTS OF THE SWITCHGEAR ARE IN SATISFACTORY OPERATING CONDITION AFTER THE SWITCHGEAR IS RELOCATED. THE SWITCHGEAR SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE GENERAL CONDITIONS, DIVISION 1, SECTION 16000 - BASIC ELECTRICAL REQUIREMENTS, AND THE NETA TEST DOCUMENTS. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW LUGS IF NECESSARY TO TERMINATE THE NEW CONDUCTORS TO SG-3.
- 3 THE CONTRACTOR SHALL FURNISH AND INSTALL A NEW 1600AF/1600AT LSIG, CUTLER HAMMER DSI CIRCUIT BREAKER IN THE EXISTING SWITCHGEAR SG-3. THE EXISTING SWITCHGEAR SG-3 IS A 3-PHASE, 3-WIRE, 65KAIC, DSI DRAWOUT CIRCUIT BREAKER SWITCHGEAR ASSEMBLY MANUFACTURED BY CUTLER-HAMMER AND IS MOUNTED INSIDE A NEMA 3R WALK-IN ENCLOSURE. THE NEW CIRCUIT BREAKER ASSEMBLY SHALL COMPLY WITH ALL APPLICABLE ANSI AND UL STANDARDS. THE NEW CIRCUIT BREAKER SHALL BE FURNISHED WITH THE FOLLOWING MINIMUM RATINGS:
NOMINAL VOLTAGE: 480VAC
MAXIMUM VOLTAGE: 600VAC
LOW FREQUENCY WITHSTAND: 2.2KV
RATED INTERRUPTING TIME: 5 CYCLES
THE CIRCUIT BREAKER SHALL UL LISTED FOR USE A 100 PERCENT OF IT'S CONTINUOUS CURRENT RATING. THE NEW CIRCUIT BREAKER SHALL BE FURNISHED WITH A CUTLER HAMMER DIGITRIP RMS 910 TRIP UNIT.

				DESIGNED	BRL
				DRAWN	DAA
				CHECKED	
3	ADDITIONAL 1	APRIL 2004	RLT	PROJ. ENGR.	DAN
2	CONSTRUCTION	MAR 2004	RLT		
1	REGULATORY APPROVAL	NOV 2003	RLT		
NO.	ISSUED FOR	DATE	BY	APPROVED	

THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY ROBERT S. DIFIORE, SEAL NO. 22769

RECORD DRAWING

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.

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CITY OF ROANOKE
VIRGINIA

REGIONAL WATER POLLUTION CONTROL PLANT
PROCESS TRAIN IMPROVEMENTS

SECONDARY CLARIFIER NO.17 & NO.18

ELECTRICAL

SG-3 SINGLE LINE DIAGRAM AND ELEVATION

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE MARCH 2004	
	H & S JOB NUMBER	30788B
	CONTRACT NUMBER	B
	DRAWING NUMBER	E481