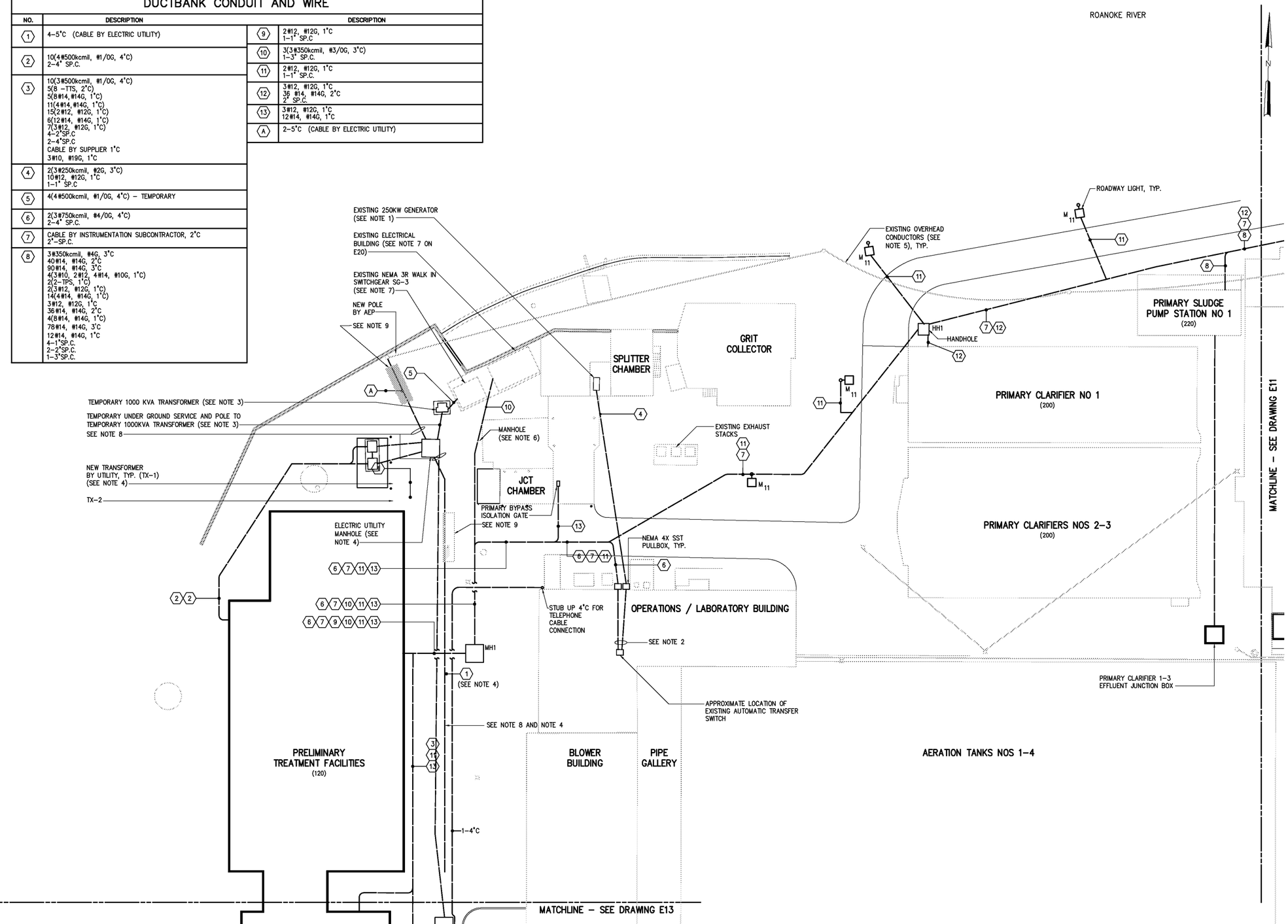
DUCTBANK CONDUIT AND WIRE

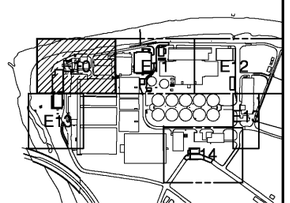
NO.	DESCRIPTION
1	4–5"C (CABLE BY ELECTRIC UTILITY)
2	10(4#500kcmil, #1/0G, 4"C) 2–4" SP.C.
3	10(3#500kcmil, #1/0G, 4"C) 5(8 –TTS, 2"C) 5(8#14, #14G, 1"C) 11(4#14, #14G, 1"C) 15(2#12, #12G, 1"C) 6(12#14, #14G, 1"C) 7(3#12, #12G, 1"C) 4–2"SP.C 2–4"SP.C CABLE BY SUPPLIER 1"C 3#10, #19G, 1"C
4	2(3#250kcmil, #2G, 3"C) 10#12, #12G, 1"C 1–1" SP.C
5	4(4#500kcmil, #1/0G, 4"C) – TEMPORARY
6	2(3#750kcmil, #4/0G, 4"C) 2–4" SP.C.
7	CABLE BY INSTRUMENTATION SUBCONTRACTOR, 2"C 2"–SP.C.
8	3#350kcmil, #4G, 3"C 40#14, #14G, 2"C 90#14, #14G, 3"C 4(3#10, 2#12, 4#14, #10G, 1"C) 2(2–TPS, 1"C) 2(3#12, #12G, 1"C) 14(4#14, #14G, 1"C) 3#12, #12G, 1"C 36#14, #14G, 2"C 4(8#14, #14G, 1"C) 78#14, #14G, 3"C 12#14, #14G, 1"C 4–1"SP.C. 2–2"SP.C. 1–3"SP.C.

NO.	DESCRIPTION
9	2#12, #12G, 1"C 1–1" SP.C
10	3(3#350kcmil, #3/0G, 3"C) 1–3" SP.C.
11	2#12, #12G, 1"C 1–1" SP.C.
12	3#12, #12G, 1"C 36 #14, #14G, 2"C 2" SP.C.
13	3#12, #12G, 1"C 12#14, #14G, 1"C
A	2–5"C (CABLE BY ELECTRIC UTILITY)



NOTES:

1. THE EXISTING 250KW GENERATOR IS LOCATED ON TOP OF THE EXISTING SPLITTER CHAMBER. NEW CONDUIT AND WIRE FROM THE EXISTING 250KW GENERATOR TO THE EXISTING AUTOMATIC TRANSFER SWITCH SHALL BE FURNISHED AND INSTALLED AS INDICATED ON THIS DRAWING. THE CONTRACTOR SHALL FIELD VERIFY THE CONTROL WIRING REQUIRED FROM THE EXISTING AUTOMATIC TRANSFER SWITCH. SEE DRAWING E20 FOR ADDITIONAL INFORMATION.
2. THE CONTRACTOR SHALL REUSE CONDUIT FROM THE EXISTING AUTOMATIC TRANSFER SWITCH TO THE POINT WHERE IT EXITS THE BUILDING. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING CONDUITS.
3. THE CONTRACTOR SHALL COORDINATE WITH THE ELECTRIC UTILITY TO PROVIDE A TEMPORARY SERVICE TO THE EXISTING SG–3 WHILE THE NEW PRELIMINARY TREATMENT FACILITY IS UNDER CONSTRUCTION. SEE DRAWING E20 FOR ADDITIONAL INFORMATION.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL DUCTBANKS AND MANHOLES FOR THE ELECTRIC UTILITY 15KV PRIMARY CONDUCTORS. THE CONTRACTOR SHALL ALSO FURNISH AND INSTALL CONCRETE TRANSFORMER PADS AS REQUIRED BY THE ELECTRIC UTILITY. THE CONTRACTOR SHALL COORDINATE THE INSTALLATIONS OF THE DUCTBANKS, MANHOLES AND TRANSFORMER PADS WITH THE ELECTRIC UTILITY. REFERENCE NOTE 1 ON DRAWING E2.
5. THESE EXISTING OVERHEAD CONDUCTORS IN THIS AREA MAY INTERFERE WITH THE INSTALLATION OF THE PTF EFFLUENT PIPING IN THIS AREA. THE ELECTRIC UTILITY CAN DE–ENERGIZE SEGMENTS OF THE OVERHEAD CONDUCTORS IF THEY POSE A SAFETY HAZARD DURING THE INSTALLATION OF THE PTF EFFLUENT PIPING. THE CONTRACTOR SHALL COORDINATE WITH THE ELECTRIC UTILITY IF ANY SEGMENTS OF THE OVERHEAD CONDUCTORS WILL BE REQUIRED TO BE TEMPORARILY DE–ENERGIZED. REFERENCE SECTION 01520 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
6. THE CONTRACTOR SHALL FURNISH AND INSTALL A SUMP PUMP IN MANHOLE MH1 AND 2" SUMP PUMP DISCHARGE PIPING TO JCT CHAMBER. REFERENCE STANDARD DETAIL 1611802.
7. THE EXISTING NEMA 3R WALK–IN SWITCHGEAR SG–3 SHALL REMAIN IN SERVICE DURING THE CONSTRUCTION OF THE PRELIMINARY TREATMENT FACILITY AND INFLUENT PUMP STATION. A TEMPORARY 1000KVA UTILITY TRANSFORMER SHALL BE FURNISHED AND INSTALLED TO SUPPLY POWER TO THE EXISTING SG–3 AS INDICATED ON DRAWING E10 WHILE THE PRELIMINARY TREATMENT FACILITY AND INFLUENT PUMPING STATION ARE UNDER CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE TEMPORARY 1000KVA TRANSFORMER WITH THE ELECTRIC UTILITY. THE CONTRACTOR SHALL FURNISH AND INSTALL A TEMPORARY STANDBY GENERATOR TO SUPPLY POWER TO THE EXISTING SG–3 AS DESCRIBED IN SECTION 01520. SEE SPECIFICATION SECTION 01520 FOR TEMPORARY STAND BY POWER REQUIREMENTS AND OTHER ADDITIONAL INFORMATION AND REQUIREMENTS.
8. LOCATION OF THE NEW DUCTBANK FOR THE NEW UTILITY OWNED CONDUCTORS. THIS DUCTBANK AND CONDUCTORS SHALL BE INSTALLED AND OPERATIONAL BEFORE ANY PORTIONS OF THE EXISTING OVERHEAD CONDUCTORS ARE DE–ENERGIZED AS DESCRIBED IN NOTE 5. REFERENCE SECTION 01520 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
9. CONTRACTOR SHALL INSTALL DUCTBANK SO THAT THE DUCTBANK WILL BE BELOW ANY PIPING TO BE INSTALLED IN THIS AREA. THE DUCTBANK SHALL BE FURNISHED, INSTALLED AND PLACED IN OPERATION BEFORE THE PRELIMINARY TREATMENT EFFLUENT PIPING IS INSTALLED. REFER TO SECTION 01520 FOR ADDITIONAL INFORMATION AND REQUIREMENTS REGARDING THE INSTALLATION OF THE PRELIMINARY TREATMENT EFFLUENT PIPING AND UNDERGROUND UTILITY OWNED PRIMARY CONDUCTORS.



KEY PLAN

1"=20'–0" 20 10 0 20'

NO.	ISSUED FOR	DATE	BY
	RECORD DRAWINGS	MAR 2005	RLT
	CONSTRUCTION	MAR 2004	RLT
	REGULATORY APPROVAL	NOV 2003	RLT
	PRELIMINARY DESIGN	NOV 2002	RLT

DESIGNED BRL
DRAWN BRL
CHECKED
PROJ. ENGR. DAN
APPROVED

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

THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY RONALD L. TAYLOR, SEAL NO. 024649

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.

HAZEN AND SAWYER
Environmental Engineers & Scientists
4011 WestChase Blvd, Raleigh, North Carolina 27607

CITY OF ROANOKE
VIRGINIA

REGIONAL WATER POLLUTION CONTROL PLANT
WET WEATHER IMPROVEMENTS

SITE PLAN
ELECTRICAL
PARTIAL SITE PLAN

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

DATE JULY 2003
H & S JOB NUMBER 30788A
CONTRACT NUMBER A
DRAWING NUMBER E10

PLOT DATE 07/09/03 1:36pm FILE= N:\30788\30788A\ELEC\p010 by RBATCHELOR XREF=30788b\misc\30788lb, 001\xp–st, 001\key plan, 001\xp–st–owrld–2002, 001\xlsc–site, 680\DYF–PT,