



CABLE SCHEDULE		
ID	DESCRIPTION	CABLE SIZE
WTF K1	WATER TREATMENT FACILITY KIOSK	3C #6 RWU90 + GND in 103mm CONDUIT 3C #3 RWU90 + GND in 103mm CONDUIT
DB-A CCT 36	STREET LIGHT POLES P1, P2, P3, P4, P5	2C #10 RWU90 + GND in 53mm CONDUIT
DB-A CCT 38	STREET LIGHT POLES P6, P7	2C #10 RWU90 + GND in 53mm CONDUIT
DB-A CCT 40	STREET LIGHT POLES P8, P9, P10, P11, P12, P13	2C #10 RWU90 + GND in 53mm CONDUIT
DB-A CCT 42	STREET LIGHT POLES P14	2C #10 RWU90 + GND in 53mm CONDUIT

3 PLAN
KIOSK BUILDING AND SWITCHING CUBICLE
GENERAL ARRANGEMENT PLAN

1 PLAN
ELECTRICAL SITE PLAN

2 PLAN
GENERATOR & WTF ARRANGEMENT PLAN

- NOTES:
- ALL CABLE TRENCHING TO FOLLOW WATER LINES AND SHARE TRENCH WHEREVER POSSIBLE. CONTRACTOR TO MINIMIZE SOIL DISTURBANCE. CONDUITS TO BE INSTALLED AT A DISTANCE OF 3.0m FROM WATER AND SEWER LINES.
 - CONTRACTOR TO PROVIDE 103mm DB2 CABLE DUCT FOR ALL NEW UNDERGROUND CABLE UNLESS IDENTIFIED OTHERWISE. UNDERGROUND POWER CABLE TO BE RW90U SIZED TO SUIT. PROVIDE 1 SPARE 103mm DB2 DUCT BURIED ALONGSIDE ABOVE CABLE DUCT.
 - MAXIMUM DISTANCE BETWEEN PULLBOXES TO BE 100 METERS.
 - AT CABLE JUNCTIONS PROVIDE DRAW PIT FOR ACCESS.
 - TWO (2) NEW FORTIS SUPPLIED 120/240V 1PH PAD MOUNTED TRANSFORMERS TO BE INSTALLED NEAR EMERGENCY GENERATOR. CONTRACTOR TO SUPPLY AND INSTALL CONCRETE PAD AND GROUNDING AS PER FORTIS STANDARDS. CONTRACTOR RESPONSIBLE FOR ALL COORDINATION WITH FORTIS FOR INSTALLATION OF NEW TRANSFORMERS AND TIE INTO WATER TREATMENT FACILITY AND CAMPGROUND ELECTRICAL KIOSK. INSTALLATION TO BE DONE BY FORTIS/ALBERTA PRE-REGISTERED CONTRACTOR.
 - PROVIDE NEW LIGHTING POLES AND LIGHT FITTINGS THROUGHOUT.
 - REFER TO DWG E-001 FOR SYMBOLS LEGEND.
 - SEE DWG C-504 FOR TRENCHING DETAIL.
 - SEE DWG C-133 FOR TRAFFIC CIRCLE DETAIL.
 - Q-FREE RS485 CONNECTIONS ARE TO BE WIRED IN BELDEN 9842 CABLE. USE 53mm DB2 CONDUIT DIRECT BURIED.
 - EXISTING PARKING DISPLAYS ARE TO BE RETAINED AND OFFERED TO PARKS CANADA FOR REUSE.
 - NEW BILINGUAL SIGNS TO BE WIRED BACK TO EXISTING Q-FREE CONTROLLER. POWER SUPPLY TO BE 120V. SUPPLY AND INSTALL FOUR ADDITIONAL TERMINAL BLOCKS AND FOUR 2A FUSES IN Q-FREE CONTROLLER TO WIRE POWER TO THE NEW SIGNS. FOR DETAILS ON SIGN LOCATION, REFER TO CIVIL DRAWINGS.
 - CONTRACTOR TO COORDINATE WITH Q-FREE FOR INSTALLATION OF ALL Q-FREE EQUIPMENT AND REPROGRAMMING OF PARKING EQUIPMENT. PROGRAMMING CHANGES NEEDED FOR NEW TRAFFIC LOOP CONFIGURATION AND DISPLAY MODIFICATIONS.
 - FOR LUMINAIRE AND POLE MODEL SEE LIGHTING SCHEDULE IN DRAWING E-106.
 - CONTRACTOR TO USE 38" x 26" x 36" HDPE JUNCTION BOXES AND ENSURE JUNCTION BOXES AVOID NEW AND EXISTING UTILITIES/EQUIPMENT. AVOID SWALE AND OTHER UTILITIES DURING CONSTRUCTION. USE SYNTECH MODEL 2436 OR APPROXIMATELY EQUAL.
 - ALL TREES TO BE PROTECTED DURING CONSTRUCTION. NO TREE OR SHRUB REMOVAL ALLOWED.
 - CONTRACTOR TO MOVE OVERHEAD TELUS PHONE LINE TO UNDERGROUND BURIED 103mm DB2 CONDUIT AND FOLLOW SAME PATH AS FORTIS POWER LINE. BURY TELUS LINE A MINIMUM OF 300mm FROM THE FORTIS POWER LINE. TERMINATE TELUS PHONE LINE IN WATER TREATMENT FACILITY AND KIOSK BUILDING. ALL ALARMING FROM WATER TREATMENT FACILITY TO BE DONE VIA TELUS PHONE LINE. WIRE PHONE LINE BILINGUAL SIGNS FOR KIOSK/STAFF ACCOMMODATION BUILDING.
 - CONTRACTOR TO SUPPLY AND INSTALL CONCRETE PAD FOR FORTIS SWITCHING CUBICLE. SEE FORTIS DRAWING NO. 755-0505. CONTRACTOR TO SUPPLY AND INSTALL FIVE (5) 103mm DB2 BURIED CONDUIT FROM SWITCHING CUBICLE TO THE FOLLOWING LOADS: (1) 75KVA TRANSFORMER FOR WTF, (2) 75KVA TRANSFORMER TO CAMPGROUND ELECTRICAL KIOSK, (3) TRANSFORMER FOR STAFF ACCOMMODATION BUILDING, (4) TRANSFORMER FOR DUA, (5) EXISTING POLE-MOUNTED TRANSFORMER ON POLE C7P2 BY COOKHOUSE 1. FOLLOW CONDUIT ROUTING AS SHOWN IN DRAWING. FOLLOW FORTIS AND PCA REQUIREMENTS. CONTRACTOR RESPONSIBLE FOR ALL COORDINATION WITH FORTIS AND PCA. SUPPLY AND INSTALL ONE (1) SPARE 103mm DB2 CONDUIT FROM SWITCHING CUBICLE TO EACH TRANSFORMER LOAD. FOUR (4) ADDITIONAL 103mm DB2 CONDUITS TOTAL. SUPPLY AND INSTALL SINGLE PHASE NON-TRAFFIC PULLBOXES FOR FORTIS AS PER FORTIS STANDARDS AND REQUIREMENTS. INSTALLATION TO BE DONE BY FORTIS/ALBERTA PRE-REGISTERED CONTRACTOR.
 - WEATHERPROOF SEAL ALL BUILDING PENETRATIONS. MINIMIZE IMPACT ON EXTERIOR FINISHES.
 - FORTIS TO SUPPLY AND INSTALL ONE (1) 25KVA PAD MOUNTED TRANSFORMER FOR THE STAFF ACCOMMODATION BUILDING. CONTRACTOR TO SUPPLY AND INSTALL CONCRETE PAD FOR TRANSFORMER AS PER FORTIS STANDARDS. CONTRACTOR TO COORDINATE WITH FORTIS FOR SUPPLY AND INSTALL OF CONDUIT AND PULL BOXES AS PER FORTIS STANDARDS AND REQUIREMENTS.
 - POWER AND CONTROL CABLE FROM WTF BUILDING TO GENERATOR: (2) #12 RWU90 + #14, 10 CORE RW90U IN 103mm DB2 CONDUIT BURIED.
 - CONTRACTOR RESPONSIBLE FOR PROVIDING ALL TEMPORARY POWER DURING CONSTRUCTION INCLUDING THE DAY USE AREA AND STAFF ACCOMMODATION BUILDING.
 - TERMINATE TELUS PHONE LINE IN WTF BUILDING. CONTINUE TELEPHONE LINE AND TERMINATE IN KIOSK BUILDING.
 - CONTRACTOR TO PROVIDE (1) 53mm DB2 CONDUIT FROM WTF TO SEPTIC TANK FOR FUTURE USE.
 - FORTIS DUCT CROSSING PARKS DUCT. BURY FORTIS DUCT 1.4m BELOW GROUND AND PARKS DUCT 1m BELOW GROUND.

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Project title/Titre du projet: **JOHNSTON CANYON UPGRADE BANFF NATIONAL PARK**

Drawing title/Titre du dessin: **ELECTRICAL POWER AND LIGHTING PLAN**

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