	PANEL:							
	LOCATION: PAD MOUNT ENCLOSURE							
	120/240V 1PH 3W 60AF							
DESCRIPTION	LOAD (W)	TRIP AMPS	BRK. NO.	PHASE	BRK. NO.	TRIP AMPS	LOAD (W)	DESCRIPTION
ENCLOSURE LUMINAIRES		15	1	A	2	20		MAINTENANCE RECEPTACLE
RTU PANEL HEATER		15	3	A	4	15		RTU PANEL
RTU PANEL RECEPTACLE		15	5	B	6	15		SPARE
SPARE		15	7	B	8	15		SPARE

NOTES:

1. THE CONDUIT AND CABLE SCHEDULE IS INTENDED TO SHOW THE MAJORITY OF THE POWER AND INSTRUMENTATION CABLE RUNS. INSTALL AND CONNECT ALL CABLES AND CONDUIT TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
2. SEE ELECTRICAL PANEL AND MECHANICAL EQUIPMENT SCHEDULES FOR ADDITIONAL WIRING REQUIREMENTS.
3. LIKE VOLTAGE WIRING CAN BE COMBINED IN COMMON CONDUIT PROVIDING MINIMUM 25% SPARE IN ACCOUNTED FOR IN ADD IN TO CEC CONDUIT FILL REQUIREMENTS. SEPARATE CONDUITS ARE REQUIRED FOR 120VAC, 24VDC, ANALOG SIGNALS, COMMUNICATION.
4. ALL IN CONCRETE SLAB RIGID ALUMINUM (ALUM) CONDUIT TO HAVE OUTSIDE OF CONDUIT COVERED WITH CORROSION PROTECTIVE COATING BITUMASTIC, ASPHALT BASED PAINT OR PVC COATING.
5. IN CONCRETE SLAB CONDUITS TO BE RPVC OR RIGID ALUMINUM.
6. SURFACE MOUNT CONDUITS TO BE RPVC AND ARE ONLY PERMITTED FOR VERTICAL RUNS INTO CEILING SPACE AND HORIZONTAL RUNS LESS THAN 600. INSTALL ALL CONDUITS IN WALLS, CEILINGS AND FLOORS UNLESS OTHERWISE INDICATED.
7. ALL CABLING SIZE BASED ON 75° TERMINATION TEMPERATURE.
8. PROVIDE AND INSTALL APPROPRIATELY SIZED GROUND CABLE FOR ALL CABLE RUNS.
9. ALL CABLES ARE TO BE COPPER UNLESS OTHERWISE NOTED.
10. RPVC = RIGID POLY VINYL CHLORIDE
    RA = RIGID ALUMINUM
    RA PVC = RIGID ALUMINIUM WITH PVC OUTER COATING

KEY NOTES:

1. ELECTRIC UTILITY RESPONSIBLE FOR SUPPLY AND INSTALLATION OF TRANSFORMER SECONDARY CONDUCTORS, CONDUIT AND TRENCHING.

CONDUIT AND CABLE SCHEDULE

	COND. NO.	COND. TAG	DESCRIPTION	CONDUIT SIZE AND TYPE	TAG / FROM	TO	WIRE TYPE	NO. OF WIRES	WIRE SIZE	REMARKS
1	1	A	UTILITY SECONDARY		UTILITY TRANSFORMER	METER BASE		4C		347/600VAC SERVICE BY MANITOBA HYDRO
	2	A	GROUNDING	21ϕ RPVC	GROUNDING PLATE	ELECTRICAL PEDESTAL	BARE	1C	6AWG	
	3	A	PUMP P101	FREE AIR	PIN AND SLEEVE CONNECTOR	PUMP	PRE-MANUFACTURED			600V POWER AND MONITORING
		B		TECK		PEDESTAL	R90	3C	12AWG	600V PUMP POWER
		C		TECK			R90	3C	12AWG	PUMP MONITORING
	4	A	LOW LEVEL SWITCH PUMP CHAMBER	1-21ϕ RA PVC	LSLL 101	RTU PANEL	PRE-MANUFACTURED			
	5	A	ULTRASONIC LEVEL TRANSMITTER	1-21ϕ RA PVC	LT 101	RTU PANEL	PRE-MANUFACTURED			
	6	A	FLAP GATE CHAMBER POSITION	TECK	ZS 101	RTU PANEL	R90	2C	14AWG	24VDC STATUS

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
MPE ENGINEERING
No. 5643

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.

2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.

SEE PROVINCIAL REGULATION 210/72 FOR DETAILS

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE — DATE

NOTE:

LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M.
ELEV.

NO.	REVISIONS	DATE	BY
1	ISSUED FOR TENDER	2019-09-10	M.J.B.

MPE Engineering Ltd.

DESIGNED BY	D.G.	CHECKED BY	D.J.H.
DRAWN BY	N.O.W.	APPROVED BY	P.P.G.
SCALE: HORIZONTAL		RELEASED FOR CONSTRUCTION	
VERTICAL			
DATE	2019-9-11	DATE	

PLOT DATE: 2019 09 16

ORIGINAL SEALED BY PETER GOERTZEN 2019-09-16

CONSULTANT DRAWING NUMBER
E1.3

Winnipeg

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

BURROWS OUTFALL GATE CHAMBER UPGRADES
SINGLE LINE DIAGRAM

CITY DRAWING NUMBER 1-03000-E0004-001 SHEET 16 OF 20

BID OPPORTUNITY: 913-2019

FILE PATH: \\mhdc02\data\84\00 City of Winnipeg\002 - Burrows Outfall Gate Chamberts Upgrades\Autodesk\ACAD\
FILE NAME: E1.3 Single Line.dwg