PUMP CONTROL SETPOINTS		
PUMP	START (NOTE 4)	STOP (NOTE 4)
	m	m
DUTY 1	0.710	0.450
DUTY 2	0.860	0.600
STANDBY	N/A	N/A

TYPE CLARIFICATION LEGEND:

HH – HIGH HIGH ALARM
H – HIGH ALARM
L – LOW ALARM

NOTES:

1. WASTEWATER PUMPS WILL BE EQUIPPED WITH BEARING TEMPERATURE AND VIBRATION SENSORS (PUMP DRIVE END AND MOTOR NON-DRIVE END BEARINGS ONLY).
2. REDUCING ELBOW SUPPLIED BY THE PUMP MANUFACTURER
3. SUMP PUMP SHALL BE OPERATED WITH A VERTICAL MECHANICAL FLOAT SWITCH (VMF).
4. CONTROL LEVELS ARE RELATIVE TO 221.620 WET WELL INVERT ELEVATION.
5. VIBRATION LOCKOUTS ARE DISABLED WITH A BYPASS JUMPER IN THE VFD.
6. PUMP HAS MOTOR (NON-DRIVE END) BEARING AND PUMP (DRIVE END) BEARING VIBRATION LOCKOUTS WIRED INTO THE READY CIRCUIT. THE VIBRATION LOCKOUTS ARE DISABLED AT THIS TIME.

NO.	DRAWING NUMBER	REFERENCE DRAWING TITLE
10		
9		
8		
7		
6		
5		
4		
3	1-0162L-P0001-003	PROCESS AND INSTRUMENTATION DIAGRAM – SHEET 3
2	1-0162L-P0001-002	PROCESS AND INSTRUMENTATION DIAGRAM – SHEET 2
1	1-0162L-P0002-001	PROCESS P&ID

REFERENCE DRAWINGS

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
KGS Group
No. 245

B.M.
ELEV.

NO.	REVISIONS	DATE YY/MM/DD	BY
0	ISSUED FOR CONSTRUCTION	2023 03 24	

KGS GROUP

DESIGNED BY K. RADTKE
CHECKED BY
DRAWN BY R. PERALTA
APPROVED BY
SCALE: AS SHOWN
HORIZONTAL
VERTICAL
RELEASED FOR CONSTRUCTION
DATE 2022 07 19
DATE
PLOT DATE: 2023 03 24

ENGINEER'S SEAL
PROVINCE OF MANITOBA
J.V. SMITH
2023-03-24
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT DRAWING NUMBER
22-0107-004_P01.01
BID OPPORTUNITY: 864-2022

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

METCALFE LIFT PUMPING STATION
2022 UPGRADES
PROCESS
WASTEWATER PUMPING
PROCESS AND INSTRUMENTATION DIAGRAM

CITY DRAWING NUMBER 1-0162L-P0001-001
SHEET 84 OF 109

FILE PATH: P:\Projects\2022\22-0107-004\Dwg\Process\P&ID\
FILE NAME: 1-0162L-P0001-001.dwg