INSTRUMENT FUNCTIONAL DESIGNATIONS

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
C	CONDUCTIVITY			CONTROL	CLOSE
E	VOLTAGE		SENSOR, PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			FAILURE/FAULT
H	HAND (MANUAL)				HIGH
I	CURRENT		INDICATE		
S	SPEED, FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMITTER	
Z	POSITION, DIMENSION	Z AXIS, SAFETY INSTRUMENTED SYSTEM		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

COMMON INSTRUMENT FIELD DEVICE IDENTIFIERS

IDENTIFIER	DEFINITION
EI	VOLTAGE INDICATOR
FV	FLOW VALVE
HS	HAND SWITCH
HSR	HAND SWITCH – START/RUN
HSS	HAND SWITCH – STOP
HV	HAND VALVE
IS	CURRENT SWITCH
LE	LEVEL ELEMENT
LI	LEVEL INDICATOR
LIC	LEVEL INDICATING CONTROLLER
LIT	LEVEL INDICATING TRANSMITTER
LSL	LEVEL SWITCH LOW
LSH	LEVEL SWITCH HIGH
LT	LEVEL TRANSMITTER
TE	TEMPERATURE ELEMENT
TI	TEMPERATURE INDICATOR
TIT	TEMPERATURE INDICATING TRANSMITTER
TS	TEMPERATURE SWITCH
TSH	TEMPERATURE SWITCH HIGH
TSL	TEMPERATURE SWITCH LOW
TT	TEMPERATURE TRANSMITTER
XV	ON/OFF VALVE (TYPICAL)
YL	STATE INDICATOR
ZT	POSITION TRANSMITTER

EQUIPMENT FUNCTIONAL DESIGNATIONS MECHANICAL AND PROCESS EQUIPMENT

IDENTIFIER	DEFINITION	NOTES
CHV	CHECK VALVE	
CIFG	CAST IRON FLAP GATE	
FG	FLAP GATE	
P	PUMP	
SGV	SLIDE GATE VALVE	
SLG	SLIDE GATE	
W	WEIR	
BAV	BALL VALVE	
GAV	GATE VALVE	

PIPE SPECIFICATION CODES

IDENTIFIER	DEFINITION
KB	CONCRETE
PD	HDPE (HIGH DENSITY POLYETHYLENE)
PV	PVC (POLYVINYL CHLORIDE)
SS	STAINLESS STEEL

INSTRUMENT TYPE CLARIFICATION

IDENTIFIER	DEFINITION
(N)	N MULTIPLE INSTRUMENTS
E/S	EMERGENCY STOP
HOA	HAND/OFF/AUTO
LCP	LOCAL CONTROL PANEL
RAD	RADAR
RST	RESET
SEL	SELECTOR
US	ULTRASONIC

FLUID COMMODITY CODES

IDENTIFIER	DEFINITION
CS	COMBINED SEWER
ES	ELECTRICAL SUPPLY
LDS	LAND DRAINAGE SEWER
SRS	STORM RELIEF SEWER
W	WATER
WWS	WASTE WATER SEWER

VALVE SYMBOLS

GENERIC/GATE VALVE

CHECK

GATE SYMBOLS

SLIDE GATE

FLAP GATE

INSTRUMENT SYMBOLS

DISCRETE INSTRUMENTS FIELD MOUNTED

DISCRETE INSTRUMENTS PRIMARY LOCATION (CONTROL ROOM) FRONT PANEL MOUNTED

PRIMARY CONTROL SYSTEM FUNCTION

SUBCOMPONENT OR DISCRETE INSTRUMENTS FIELD MOUNTED NO LOOP IDENTIFIER

R — PILOT LIGHT (FIELD)

W =
R = RED
G = GREEN
A = AMBER
B = BLUE
Y = YELLOW
WHITE

FC — HH, H, L, LL — PROCESS VARIABLE ALARMS

I — INTERLOCK

ACCESSORY DEVICE SYMBOLS

ORIFICE PLATE

FLANGE

PIPE REDUCER

PUMP

INSTRUMENT LINE SYMBOLS

INSTRUMENT SUPPLY OR CONNECTION TO PROCESS

ELECTRIC SIGNAL

DATA / SERIAL LINK (OPTIONAL)

PROCESS LINE DESIGNATION

NOMINAL LINE SIZE
FLUID COMMODITY CODE
PIPE SPECIFICATION CODE

200–WWS–SS

EQUIPMENT IDENTIFICATION

EQUIPMENT FUNCTIONAL DESIGNATION
PROCESS AREA
EQUIPMENT NUMBER

P – G 01

IMPERIAL PIPE SIZE CHART (METRIC EQUIVALENT)

4 = 100
4 1/2 = 112
5 = 125
6 = 150
7 = 175
8 = 200

INSTRUMENT IDENTIFICATION

HOA — TYPE CLARIFICATION
INSTRUMENT FUNCTIONAL DESIGNATION — HS
G1010 — LOOP NUMBER (4 DIGITS)
1 — SUFFIX (OPTIONAL)
PROCESS AREA (1 LETTER)

CONNECTING ARROWS

1–0240–PAAA–G101–001 — PROCESS/SIGNAL CONTINUATION ON INDICATED DRAWING

A — A — SIGNAL CONTINUATION ON SAME DRAWING

NOTES FOR INSTRUMENT FIELD DEVICE IDENTIFIERS:

1. THE LAST IDENTIFIER LETTER IS IN SOME CASES OPTIONAL (EG. FSL)
2. THIS TABLE IS DERIVED FROM THE INSTRUMENT & DEVICE IDENTIFICATION TABLE, AND IS NOT EXHAUSTIVE.

NOTES FOR INSTRUMENT AND DEVICE IDENTIFICATION TABLE:

1. THE LETTER X IS TO BE DEFINED AT THE TIME OF USE, AND MAY BE USED FOR MULTIPLE DEFINITIONS WHERE NO OTHER LETTER IS APPLICABLE.

NO.	DRAWING NUMBER	REFERENCE DRAWING TITLE
10		
9		
8		
7		
6		
5		
4		
3		
2	1–0131–PPID–L102–001	HVAC VENTILATION AND MISCELLANEOUS
1	1–0131–PPID–L101–002	WASTEWATER LIFT PUMPING

REFERENCE DRAWINGS

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
MPE, A DIVISION OF ENGLOBE CORP.
No. 4968

B.M.
ELEV.

NO.	REVISIONS	DATE	BY
0	ISSUED FOR CONSTRUCTION	2024.03.18	

MPE a division of Englobe

DESIGNED BY T. KLASSEN
CHECKED BY B. BAKER
DRAWN BY D. MCMILLAN
APPROVED BY M. STUSICK
SCALE: NOT TO SCALE
HORIZONTAL
VERTICAL
RELEASED FOR CONSTRUCTION
DATE 2024–03–18
DATE
PLOT DATE: 2024 03 18

PROVINCE OF MANITOBA — B.R. BAKER — Member 46231 — REGISTERED PROFESSIONAL ENGINEER
MARCH 18, 2024
CONSULTANT DRAWING NUMBER

Winnipeg

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

RENFREW OUTFALL GATE CHAMBER
2024 UPGRADES
PROCESS AND INSTRUMENTATION LEGEND

CITY DRAWING NUMBER 1–0240G–P0001–001–00 SHEET 11 OF 41

BID OPPORTUNITY: --

FILE PATH: M:\N-Data\84\00 City of Winnipeg\006 – Renfrew Outfall Gate Chamber Upgrades\AutoDesk\ACAD\
FILE NAME: P0.1–P0.3 Process Legends.dwg