

INSTRUMENT AND DEVICE IDENTIFICATION TABLE				
FIRST-LETTER		SUCCEEDING-LETTERS		
MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS OR SAMPLER		ALARM, TROUBLE	
B	BURNER FLAME			CLOSE, DECREASE
C	CONDUCTIVITY			CONTROL
D	DENSITY	DIFFERENTIAL		OPEN, INCREASE
E	VOLTAGE (EMF)		SENSOR (PRIMARY ELEMENT)	
F	FLOW RATE	RATIO (FRACTION)	FAILURE	
G	GAS		GLASS, VIEWING DEVICE	GENERATOR (ULTRASONIC)
H	HAND (MANUAL)			HIGH
I	CURRENT (ELECTRICAL)		INDICATE	
J	POWER	SCAN		
K	TIME	TIME RATE OF CHANGE		CONTROL STATION
L	LEVEL		LIGHT	LOW
M	MOTOR	MOMENTARY	OPERATE, ON/OFF	MIDDLE, INTERMEDIATE
N	MOISTURE			START
O	TORQUE		ORIFICE, RESTRICTION	STOP, OVERLOAD
P	PRESSURE, VACUUM		POINT (TEST CONNECTION)	
Q	COMMON, QUANTITY	INTEGRATE, TOTALIZE		
R	RADIOACTIVITY		RECORD	
S	SPEED, FREQUENCY	SAFETY		SWITCH
T	TEMPERATURE		TRANSMITTER	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS, VALVE, DAMPER (2)			VALVE, DAMPER, LOUVER
W	WEIGHT, FORCE		WELL	
X	UNCLASSIFIED (1)	X AXIS	UNCLASSIFIED (1)	UNCLASSIFIED (1)
Y	EVENT, STATE, OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT
Z	POSITION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT

NOTES FOR INSTRUMENT AND DEVICE IDENTIFICATION TABLE:

- 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.
- THE USE OF V AS AN INITIAL LETTER TO REPRESENT A VALVE OR A DAMPER DOES NOT MEET THE INTENT OF ISA STANDARD 5.1, AND ITS CURRENT USE SHOULD BE REVIEWED.

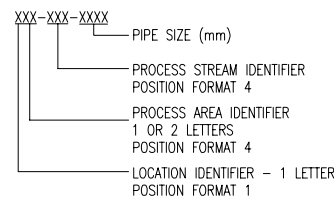
POSITION FORMATS

- LOCATION IDENTIFIER** - 1 LETTER  
 I INTAKE  
 D DEACON  
 T TACHE  
 C CENTRAL CONTROL - MCPHILLIPS  
 H HURST  
 L MACLEAN  
 P MCPHILLIPS  
 Q DISTRIBUTION SYSTEM  
 W WATER TREATMENT PLANT (FUTURE)  
 A AQUEDUCT  
 R RIVER
- PLC OR RTU IDENTIFIER** - 1 LETTER  
 - ASCENDING FROM A TO Z  
 - USE "M" FOR STATION MASTER  
 - USE A - G FOR STATION PUMPS 1 TO 7
- PROCESS AREA** - UP TO 2 LETTERS  
 C CHLORINE  
 S SUCTION  
 D DISCHARGE  
 R RESERVOIR  
 T TELEMETERING  
 E ELECTRIC DRIVE  
 G GAS DRIVE  
 H HVAC  
 Z GENERAL STATION FUNCTIONS (UTILITIES)  
 SA SARGENT AVENUE AND ST. JAMES STREET  
 RR ROUGE ROAD AND ASSINBOINE AVENUE  
 JB JOHN BLACK AVENUE AND MAIN STREET  
 IB INKSTER BOULEVARD AND BROOKSIDE BOULEVARD  
 GR GATEWAY ROAD AND SPRINGFIELD ROAD  
 PR PLESSIS ROAD AND DEVONSHIRE DRIVE  
 LB LAGIMODIERE BOULEVARD AT OFFTAKE TO SMUGGLER'S COVE  
 PC PADDINGTON ROAD AND CHARING CROSS CRESCENT  
 PH PEMBINA HIGHWAY AND CHANCELLOR MATHESON ROAD  
 RS REDONDA STREET AND KILDARE AVENUE  
 RV RUE DES TRAPPISTES AND VILLENEUVE BOULEVARD  
 FG FORT GARRY BRIDGE  
 JA JAMES AVENUE  
 KB KILDONAN BRIDGE
- PROCESS STREAM IDENTIFIER** - 3 DIGITS  
 001 TO 039 AQUEDUCT AND RESERVOIR PIPING  
 040 SUCTION HEADER  
 041 TO 049 PIPING AND EQUIPMENT BETWEEN SUCTION AND DISCHARGE HEADER  
 050 DISCHARGE HEADER  
 051 TO 059 BRANCHES OFF DISCHARGE  
 100 TO 599 EXTERIOR PIPING AND DISTRIBUTION SYSTEM  
 599 REMOTE PRESSURE POINTS  
 600 TO 699 HVAC  
 800 TO 899 CHEMICAL SYSTEMS  
 800 TO 829 CHLORINE  
 830 TO 839 AMMONIA  
 840 TO 849 FLOURIDE  
 850 TO 899 MISC.  
 900 TO 999 GENERAL UTILITIES  
 900 TO 909 AIR PRESSURE  
 910 TO 919 ELECTRICAL DISTRIBUTION  
 920 TO 929 BUILDING SAFETY AND SECURITY  
 930 TO 939 SUMPS  
 940 TO 949 FLOOD  
 950 TO 959 FLUSH WATER  
 960 TO 969 GAS (NATURAL)  
 970 TO 999 MISC.  
 999 RIVER MONITORING
- INSTRUMENT OR DEVICE IDENTIFICATION** - 2-4 LETTERS  
 - REFER TO TABLE AT LEFT
- EQUIPMENT DESIGNATION** - 2-4 LETTERS  
 - REFER TO EQUIPMENT LIST AT RIGHT
- PLC IDENTIFIER** - 1 LETTER  
 - FROM A TO Z IF APPLICABLE, IE. CONTROLLER, SETPOINT, OUTPUT, ETC.  
 - 0 IF THE INFORMATION IS NOT EXPLICITLY ASSOCIATED WITH A PARTICULAR PLC
- INTERNAL VALUE** - 1 LETTER  
 A - CONTROL VALUE  
 C - CALCULATION  
 E - OPERATOR ENTRY  
 M - MANUAL DATA
- SERIES NUMBER** - UP TO 3 DIGITS OR LETTERS  
 - ANY COMBINATION OF THREE LETTERS AND/OR NUMBERS

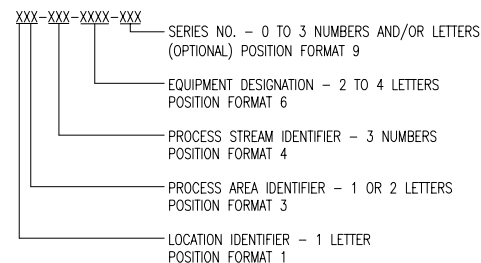
EQUIPMENT DESIGNATIONS

AC	AIR COMPRESSOR
AV	AQUEDUCT VALVE
CAR	COMPRESSED AIR RECEIVER
CL (CL2)	CHLORINE VALVE
CLR	CHLORINATOR
DHV	DISCHARGE HEADER VALVE
DV	DISCHARGE VALVE
GN	ELECTRIC GENERATOR
INJ	INJECTOR
PP	PUMP
RV	RESERVOIR VALVE
SHV	SUCTION HEADER VALVE
SV	SUCTION VALVE
VLV	VALVE (GENERAL)

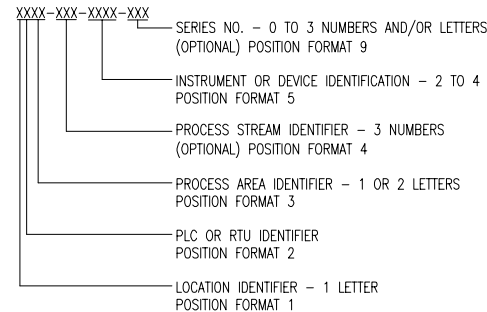
PROCESS LINE IDENTIFIERS



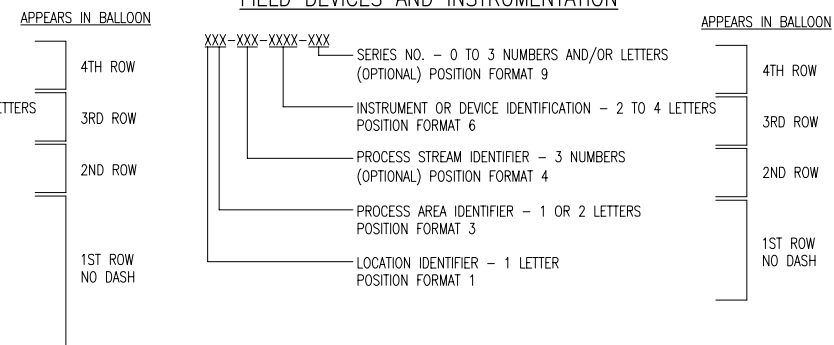
EQUIPMENT IDENTIFICATION



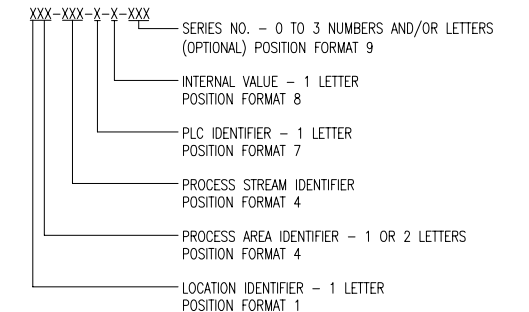
INPUT/OUTPUT (I/O) IDENTIFICATION



FIELD DEVICES AND INSTRUMENTATION



INTERNAL SOFTWARE POINT IDENTIFICATION



DRAWING NUMBER	REFERENCE DRAWINGS
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B.M. ELEV.	FIELD BOOK #:	SNC-LAVALIN INC. 148 Notre Dame Way Winnipeg, MB, Canada R3P 0X7 204-786-8080	
POSTED TO LBIS		DESIGNED BY	EXISTING
		CHECKED BY	CJR
		DRAWN BY	CJR
		APPROVED BY	CJR
		HOR. SCALE	NTS
		RELEASED FOR CONSTRUCTION	
01 REVISED DRAWING NUMBER	2008/02/13 AEO	VERTICAL	NTS
00 ISSUED FOR CITY USE	2007/08/28 Y.M	DATE	2005/09/19
NO. REVISIONS	DATE	BY	FILENAME: 1-0630M-A001-002-01.dwg

ENGINEER'S SEAL		THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT	
MACLEAN PUMPING STATION			
PROCESS & INSTRUMENTATION DIAGRAMS LEGEND & DETAILS			
CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0630M-A001	002	01	A1