

INSTRUMENT TYPE IDENTIFICATION LETTERS

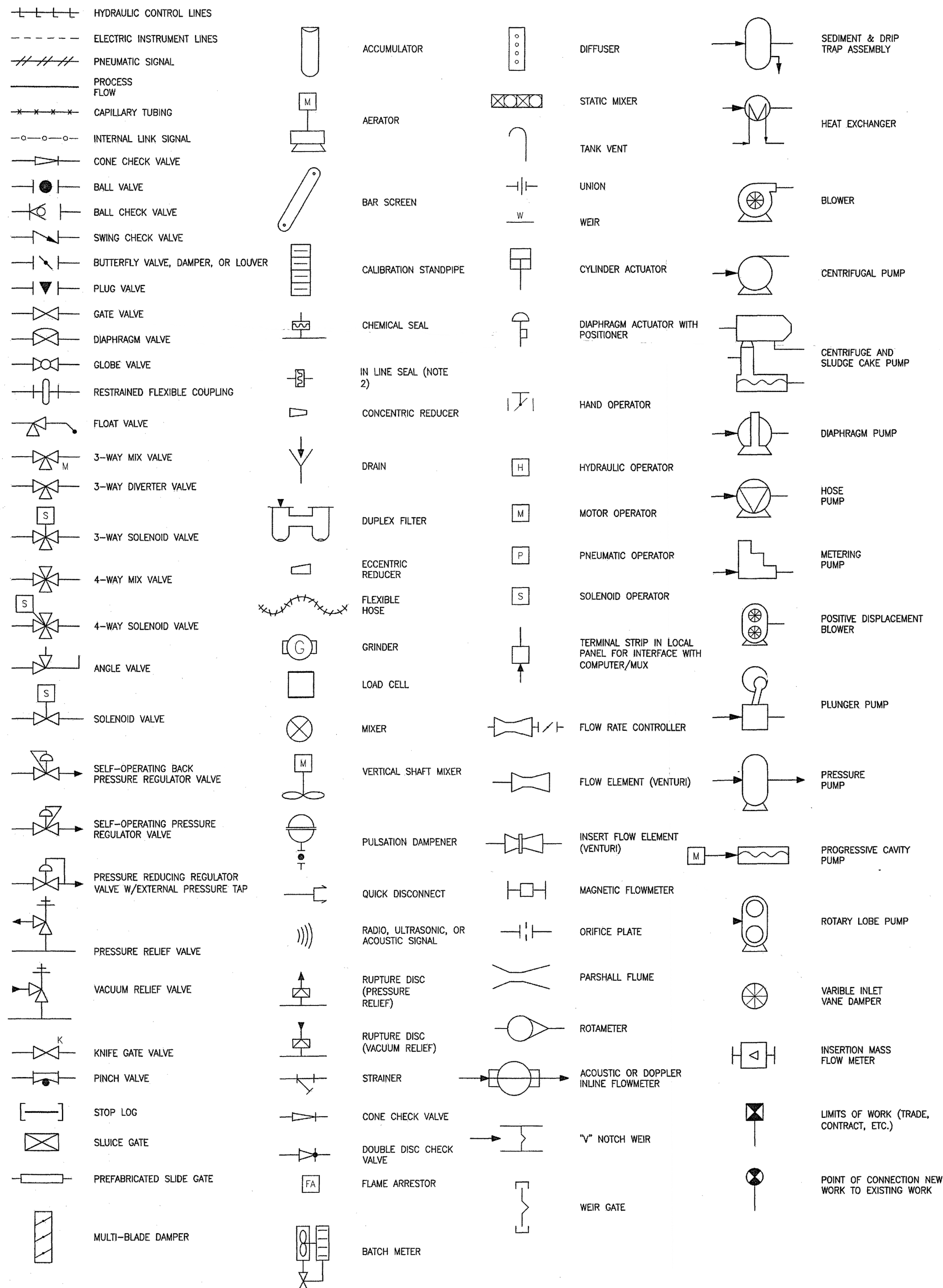
THIS TABLE APPLIES ONLY TO THE FUNCTIONAL IDENTIFICATION OF INSTRUMENTS

FIRST LETTER		SUCCEEDING LETTERS			
MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER	
A	ANALYSIS	ANALOG	ALARM		
B	BURNER FLAME		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	CONDUCTIVITY (ELECTRICAL)			CONTROL	
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL OR DIGITAL			
E	VOLTAGE (EMF)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FRACTION)			
G	GAGING (DIMENSIONAL)		GLASS		
H	HAND (MANUALLY INITIATED)				HIGH
I	CURRENT (ELECTRICAL)		INDICATE OR INPUT		
J	POWER	SCAN			
K	TIME OR TIME SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOISTURE OR HUMIDITY				MIDDLE OR INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE (RESTRICTION)		
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT	INTEGRATE OR TOTALIZE			
R	RADIOACTIVITY	RELIEF	RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION			VALVE, DAMPER OR LOUVER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED		UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE, OR PRESENCE			RELAY OR COMPUTE	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

MISCELLANEOUS ABBREVIATIONS

I/P	CURRENT TO PNEUMATIC CONVERTER	GBT	GRAVITY BELT THICKENER
E/I	VOLTAGE TO CURRENT CONVERTER	DO	DISSOLVED OXYGEN
Σ	ADD OR TOTALIZE	H ₂ S	HYDROGEN SULFIDE
$\sqrt{\quad}$	SQUARE ROOT	O ₂	OXYGEN
X	MULTIPLY	pH	HYDROGEN ION CONCENTRATION
$\frac{\square}{\square}$	DIVIDE	LP	LOCAL PANEL
>	HIGH SELECT	VFD	VARIABLE FREQUENCY DRIVE
MV	MEASURED VARIABLE	Δ	DIFFERENCE
<	LOW SELECT	I/O	INPUT/OUTPUT
S.P.	SET POINT	ER	ELECTRICAL ROOM
PLC	PROGRAMMABLE LOGIC CONTROLLER	LEL	LOWER EXPLOSIVE LIMIT
f(x)	CHARACTERISTIC	DW	DEWATERING
P	PROPORTIONAL CONTROL MODE	OC	ODOR CONTROL
D	DERIVATIVE	WW	WASTE WATER
$\int$	INTEGRAL CONTROL MODE	NIR	NOT IN REMOTE
		MIL	MOTOR INDICATING LIGHT

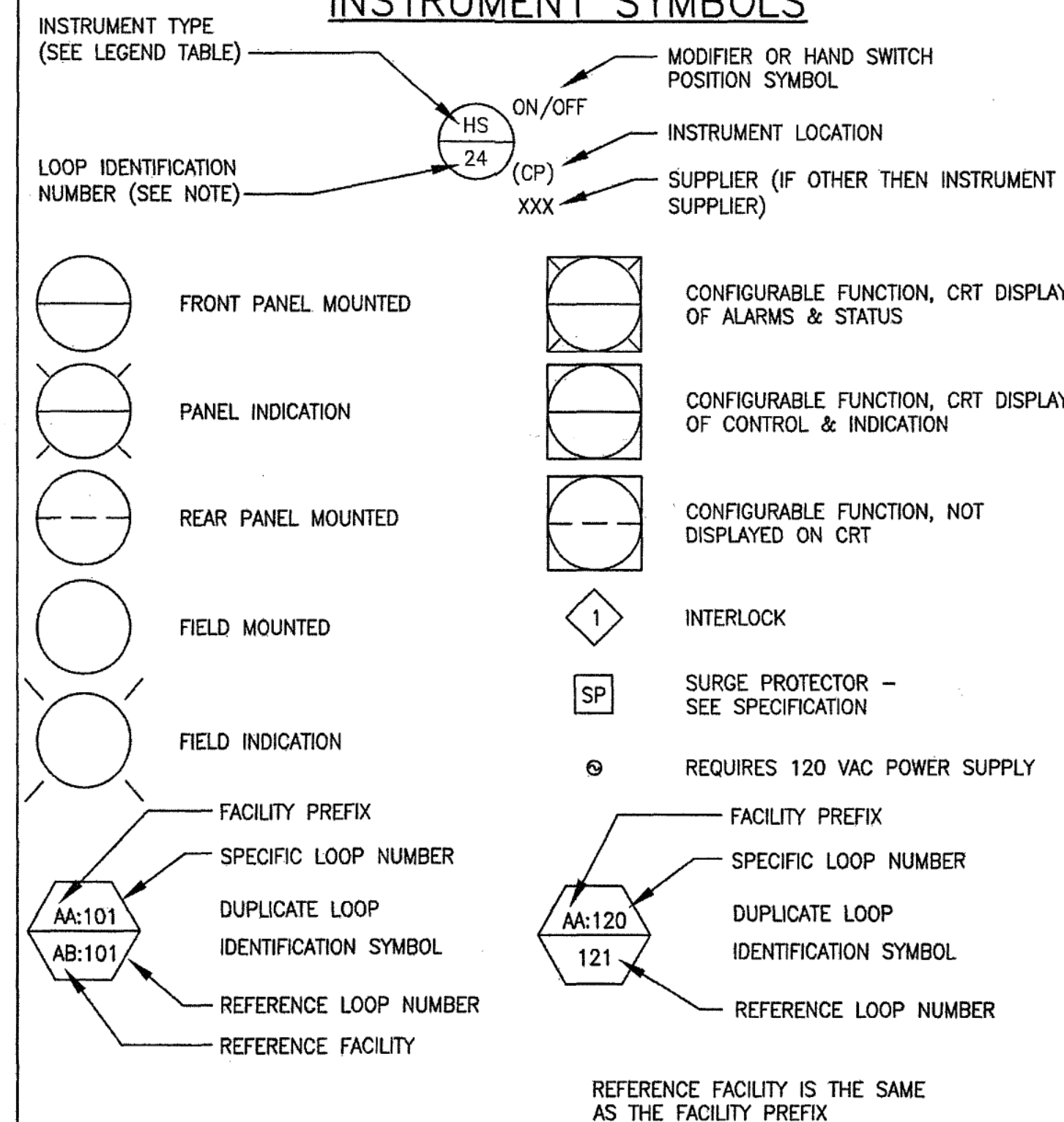
SYMBOLS



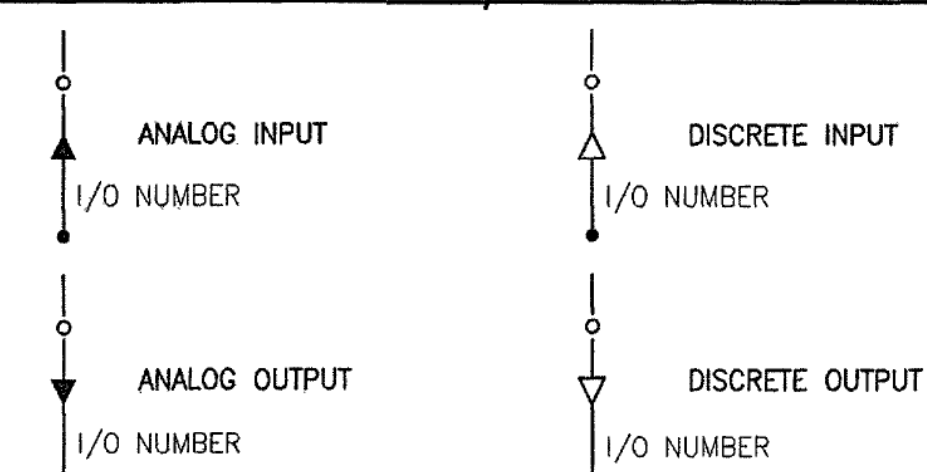
GENERAL NOTES

- WHEN "U" IS USED AS SUCCEEDING LETTER, IT MEANS THAT THE ANALOG INPUT SIGNAL NEEDS TO BE DISPLAYED, RECORDED, TOTALIZED (FOR FLOW) AND BE SET WITH HIGH, HIGH-HIGH, LOW, LOW-LOW LIMITS.
- INSTRUMENT SUFFIX:
NUMERIC SUFFIXES IDENTIFY INSTRUMENTS WITH DIFFERENT FUNCTIONS (E.G., A L/R AND A O/S/C SWITCH) ARE PRECEDED BY - (E.G., HS-102-1, AND HS-102-2)
ALPHABETIC SUFFIXES IDENTIFY MULTIPLE OCCURRENCES OF INSTRUMENTS WITH THE SAME FUNCTION (E.G., TWO L/R SWITCHES FOR DIFFERENT MOTORS IN SAME PANEL (E.G. HS-103-1A, HS-103-2A))

INSTRUMENT SYMBOLS



PLC OR DCS INPUT/OUTPUT SYMBOLS



HAND SWITCH POSITION SYMBOLS

(UNLABELLED SWITCHES ARE TO BE ON-OFF)

A	AUTOMATIC	SBY	STANDBY
ALT	ALTERNATE	F/R	FORWARD/REVERSE
C	CLOSE	L/R	LOCAL/REMOTE
F	FAST OR FORWARD	HOR	HAND-OFF-REMOTE
H	HAND	HOA	HAND-OFF-AUTO
J	JOG	D/R/A	DISCHARGE-RECIRCULATE-AUTO
L	LOCAL	OSC	OPEN/STOP/CLOSE
M	MANUAL	FSR	FORWARD/STOP/REVERSE
O	OPEN OR OFF	TSM	THRU/STOP/MIX
R	RUN OR REMOTE	OSF	OFF/SLOW/FAST
S/S	START/STOP	OTC	OPEN/TRAVEL/CLOSE
E/S	EMERGENCY STOP		

RENOVATION OF CLEARBROOK LIFT STATION

LEGEND, ABBREVIATIONS AND GENERAL NOTES

PROJECT NO:	60153682.0001
CAD DWG FILE:	N_001
DESIGNED BY:	IPC
DRAWN BY:	IPC
DEPT CHECK:	WCH
PROJ CHECK:	DMH
DATE:	SEPT. 17, 2014
SCALE:	NONE

1001