

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	0102.1 S	COOK	107	75
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SCHEMATIC SYMBOLS	
SYMBOL	DESCRIPTION
	CONDUCTOR CONNECTION
	NO CONNECTION
	TERMINAL ON A DEVICE
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	SINGLE POLE, SINGLE THROW SWITCH
	SINGLE POLE, DOUBLE THROW SWITCH
	DOUBLE POLE, SINGLE THROW SWITCH
	DOUBLE POLE, DOUBLE THROW SWITCH
	THREE WAY ROTARY SWITCH
	NORMALLY CLOSED MOMENTARY PUSH BUTTON SWITCH
	NORMALLY OPEN MOMENTARY PUSH BUTTON SWITCH
	2 POSITION PUSH BUTTON (EXTRA CONTACT BLOCK)
	NORMALLY OPEN DOUBLE BREAK SINGLE THROW CONTACT BLOCK
	NORMALLY CLOSE DOUBLE BREAK SINGLE THROW CONTACT BLOCK
	DOUBLE BREAK DOUBLE THROW CONTACT BLOCK
	MUSHROOM HEAD PUSH BUTTON
	MAINTAINED CONTACT PUSHBUTTON
	2 OR 3 POSITIONS SELECTOR SWITCH (CLOSED CONTACTS INDICATED BY "X")
	MULTI-POSITION, MULTI-CONTACT SELECTOR SWITCH (CLOSED CONTACTS INDICATED BY "X")
	TEMPERATURE SWITCH - CLOSSES ON RISING TEMPERATURE
	TEMPERATURE SWITCH - OPENS ON RISING TEMPERATURE
	PRESSURE SWITCH - CLOSSES ON RISING PRESSURE
	PRESSURE SWITCH - OPENS ON RISING PRESSURE
	DIFFERENTIAL PRESSURE SWITCH - CLOSSES WHEN THE DIFFERENTIAL IN PRESSURE BETWEEN TWO DIAPHRAGMS EXCEEDS A SET POINT
	DIFFERENTIAL PRESSURE SWITCH - OPENS WHEN THE DIFFERENTIAL IN PRESSURE BETWEEN TWO DIAPHRAGMS EXCEEDS A SET POINT
	TIME DELAY RELAY SWITCH - CLOSSES ON TIME DELAY AFTER ENERGIZATION OF RELAY COIL.
	TIME DELAY RELAY SWITCH - OPENS ON TIME DELAY AFTER ENERGIZATION OF RELAY COIL.
	TIME DELAY RELAY SWITCH - CLOSSES ON TIME DELAY AFTER DE-ENERGIZATION OF RELAY COIL.
	TIME DELAY RELAY SWITCH - OPENS ON TIME DELAY AFTER DE-ENERGIZATION OF RELAY COIL.
	LIMIT SWITCH - NORMALLY OPEN
	LIMIT SWITCH - NORMALLY CLOSED
	LIMIT SWITCH - NORMALLY OPEN HELD CLOSED



SCHEMATIC SYMBOLS	
SYMBOL	DESCRIPTION
	LIMIT SWITCH - NORMALLY CLOSED HELD OPEN
	LEVEL SWITCH - CLOSSES ON RISING LEVEL
	LEVEL SWITCH - OPENS ON RISING LEVEL
	FLOW SWITCH - CLOSSES ON FLOW
	FLOW SWITCH - OPENS ON FLOW
	TRANSFORMER - (TYPE AND RATING AS INDICATED)
	CONNECTION TO GROUND
	LIGHTNING OR SURGE ARRESTER
	THERMAL OVERLOAD ELEMENT
	FUSE
	CIRCUIT BREAKER
	HEATING ELEMENT
	SOLENOID VALVE
	COIL C - CLOSE CR - CONTROL RELAY F - FAST OR FORWARD M - MOTOR STARTER MX - MOTOR STARTER AUXILIARY RELAY N - NORMAL O - OPEN OL - OVERLOAD RELAY R - REVERSE S - SLOW TD - TIME DELAY RELAY TDAE - TIME DELAY AFTER ENERGIZATION TDAE - TIME DELAY AFTER DE-ENERGIZATION
	INDICATOR LIGHT (SEE SCHEMATIC DIAGRAM DEVICE TABLE FOR COLOR SYMBOLS)
	INDICATOR LIGHT (PUSH TO TEST TYPE)
	DEVICE ENCLOSURE
	ANNUNCIATOR
	COUNTER
	ELAPSED TIME METER
	ELECTRONIC TIMER
	TOTALIZER

[illegible]

ABBREVIATIONS	
SYMBOL	DESCRIPTION
AC	ALTERNATING CURRENT
ACK	ACKNOWLEDGE
A/C	AERIAL CABLE
AFG	ABOVE FINISHED GRADE
AFF	ABOVE FINISHED FLOOR
ANN	ANNUNCIATOR
ATS	AUTOMATIC TRANSFER SWITCH
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CM	CENTIMETER
CT	CURRENT TRANSFORMER
CP	CONTROL PANEL
DC	DIRECT CURRENT
DIA	DIAMETER
DP	DISTRIBUTION PANEL
EF	EXHAUST FAN
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
FT	FEET OR FOOT
FND CON	FOUNDATION CONCRETE
FU	FUSE
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFR	GROUND FAULT RELAY
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
IG	ISOLATED GROUND
JB	JUNCTION BOX
KVA	KILOVOLT AMPERE
KW	KILOWATTS
LP	LIGHTING PANEL
M	METER
MCC	MOTOR CONTROL CENTER
MM	MILLIMETER
MTG HT	MOUNTING HEIGHT
MTS	MANUAL TRANSFER SWITCH
NL	NIGHT LIGHT
NO, #	NUMBER
PB	PUSH BUTTON
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PT	POTENTIAL TRANSFORMER
RECP	RECEPTACLE
RGC	RIGID GALVANIZED CONDUIT
RVS	REDUCED VOLTAGE STARTER
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SEL SW	SELECTOR SWITCH
SF	SUPPLY FAN
SPARE	SPARE
SPACE	SPACE
SS	STAINLESS STEEL
STA	STATION
SWGR	SWITCHGEAR
TMP	TEMPORARY
TEMP	TEMPERATURE
T° STAT	THERMOSTAT
TEFC	FULLY ENCLOSED FAN COOLED
UH	UNIT HEATER
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER
XP	EXPLOSION-PROOF (CLASS 1, DIV 1, GROUP C & D UNLESS NOTED OTHERWISE)

EQUIPMENT AND VALVE TAG IDENTIFICATION

TAG NUMBER

W-001

W: EQUIPMENT OR SELF CONTAINED
VALVE ABBREVIATION

01: DEVICE NUMBER

** COMPONENT DESIGNATOR

EQUIPMENT ABBREVIATIONS

E	EJECTOR
G	GATE
M	MECHANICAL EQUIPMENT
P	PUMP
T	TANK
CP	LOCAL CONTROL PANEL
S	CONTROL STATION
TC	INTERCONNECTING TERMINATION CABINET
FD	ADJUSTABLE FREQUENCY DRIVE
P	ALARM PANEL

SELF-CONTAINED VALVE ABBREVIATIONS

RV	AIR RELEASE VALVE
VRV	AIR AND VACUUM RELIEF VALVE
CV	LEVEL CONTROL VALVE
CV	PRESSURE CONTROL VALVE
CV	TEMPERATURE CONTROL VALVE
SV	PRESSURE SAFETY (RELIEF) VALVE

PROCESS FLOW IDENTIFICATION

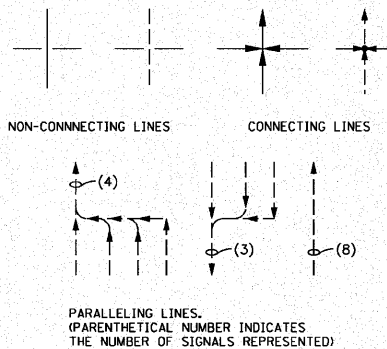
FLOW STREAM IDENTIFIERS	
— P1 →	NEW MAJOR PROCESS FLOW STREAM (CLOSED CONDUIT)
— RAS →	NEW INTERMEDIATE PROCESS FLOW STREAM (CLOSED CONDUIT)
— ALP →	NEW MINOR PROCESS FLOW STREAM (CLOSED CONDUIT)
— P1 →	EXISTING MAJOR PROCESS FLOW STREAM (CLOSED CONDUIT)
— RAS →	EXISTING INTERMEDIATE PROCESS FLOW STREAM (CLOSED CONDUIT)
— ALP →	EXISTING MINOR PROCESS FLOW STREAM (CLOSED CONDUIT)

STRUCTURE/EQUIPMENT IDENTIFICATION

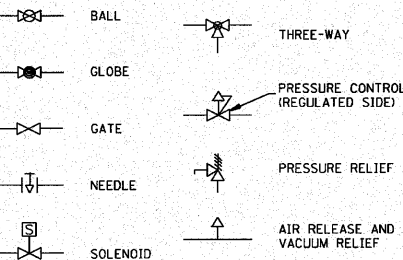
_____	NEW OR RELOCATED ITEM
_____	EXISTING ITEM
_____	NEW OR RELOCATED STRUCTURE
_____	EXISTING STRUCTURE

SIGNAL IDENTIFICATION

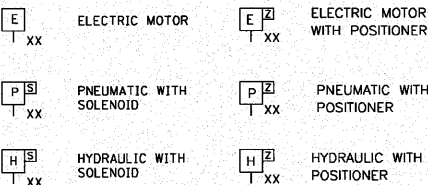
----- DISCRETE (ON/OFF ETC.)
-----A----- MODULATED (4 TO 20 mA DC ETC.)



VALVE SYMBOLS



VALVE AND GATE POWER ACTUATOR SYMBOLS



NOTE ON 'XX':
ON LOSS OF PRIMARY POWER
(PNEUMATIC OR ELECTRICAL)

XX:

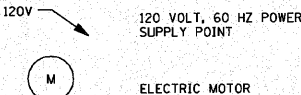
FC = FAIL CLOSED POSITION
FIP = FAIL INTERMEDIATE POSITION
FLP = FAIL LAST POSITION
FO = FAIL OPEN POSITION

COMPONENT DESIGNATORS

- ◆ PROVIDE COMPONENT IN ACCORDANCE WITH DIVISION 16D.
- PROVIDE COMPONENT IN ACCORDANCE WITH DIVISION 16C.

COMPONENT DESIGNATORS ARE NOT INTENDED TO ENCOMPASS PIPING, CONDUIT, WIRING OR CONCRETE STRUCTURES.

MISCELLANEOUS SYMBOLS



INTERFACE SYMBOLS

[illegible]

E2

ILLINOIS DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 24
RELOCATION

I & C SYMBOL LIST

SCALE: N/A
DATE: 11-22-10

DRAWN BY: MS
CHECKED BY: MS