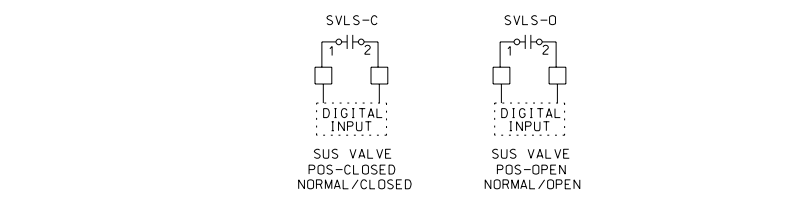


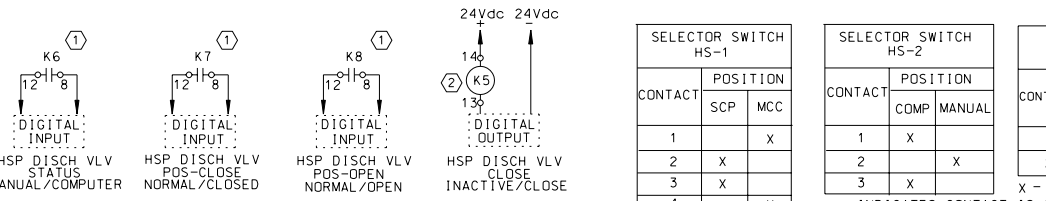
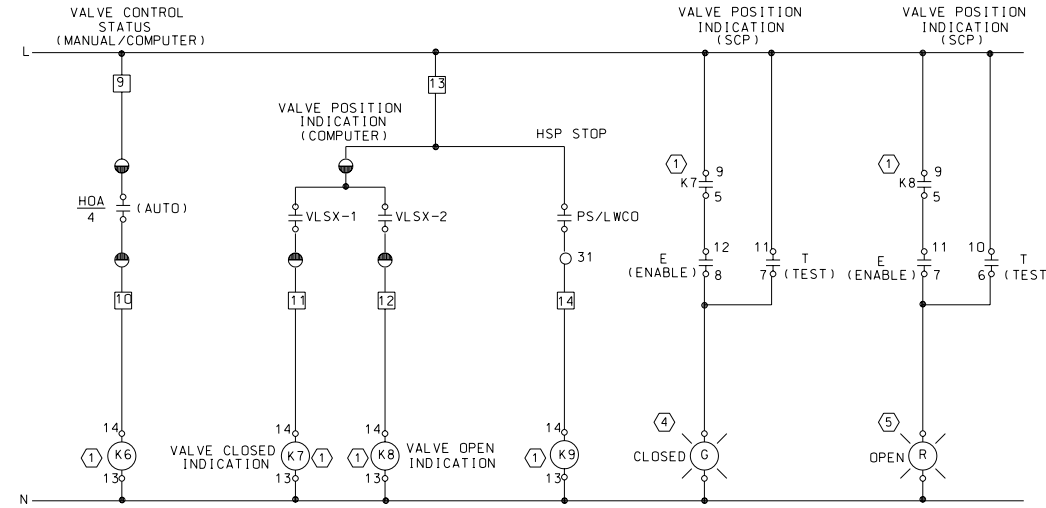
SUPERVISORY CONTROL PANEL (SCP) HSP CONTROL SCHEMATICS
(TYPICAL FOR HSP-1, 2, 3, & 4)

- TERMINAL POINT IN SUPERVISORY CONTROL PANEL
- ⊕ TERMINAL POINT IN MOV CONTROL CABINET AT VALVE. DARK SIDE INDICATES CONNECTION INTERNAL TO PANEL
- ◆ TERMINAL POINT IN HSP MOTOR STARTER/CONTROLLER SWITCHGEAR. DARK SIDE INDICATES CONNECTION INTERNAL TO PANEL



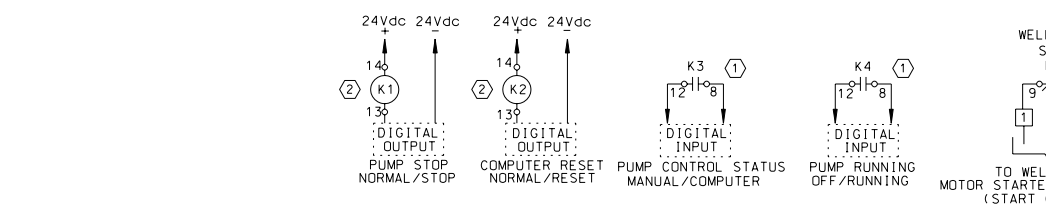
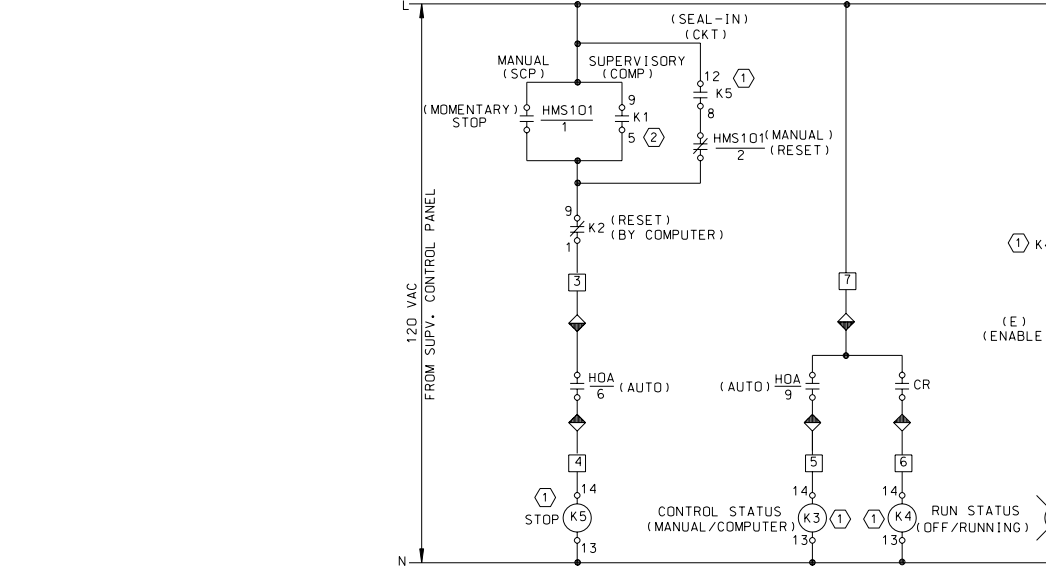
HSP4 SUSTAINING VALVE

- TERMINAL POINT IN SUPERVISORY CONTROL PANEL



SUPERVISORY CONTROL PANEL (SCP) HSP CONTROL SCHEMATICS
(TYPICAL FOR HSP-1, 2, 3, & 4)

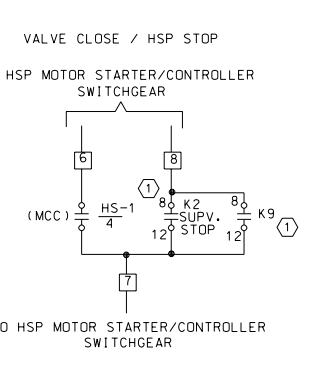
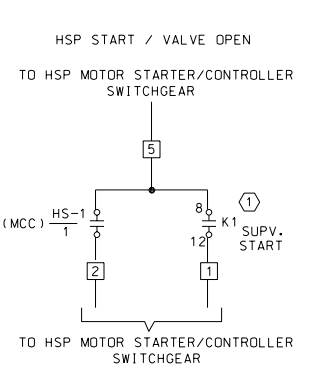
- TERMINAL POINT IN SUPERVISORY CONTROL PANEL
- ⊕ TERMINAL POINT IN MOV CONTROL CABINET AT VALVE. DARK SIDE INDICATES CONNECTION INTERNAL TO PANEL
- ◆ TERMINAL POINT IN HSP MOTOR STARTER/CONTROLLER SWITCHGEAR. DARK SIDE INDICATES CONNECTION INTERNAL TO PANEL



SUPERVISORY CONTROL PANEL (SCP) WELL PUMP CONTROL SCHEMATIC
(TYPICAL FOR WP-1, 2 & 3)

- TERMINAL POINT IN SUPERVISORY CONTROL PANEL
- ⊕ TERMINAL POINT IN WELL PUMP MOTOR STARTER/CONTROLLER SWITCHGEAR. DARK SIDE INDICATES CONNECTION INTERNAL TO PANEL

X - INDICATES CONTACT IS CLOSED



SELECTOR SWITCH HS-1		
CONTACT	POSITION	
	SCP	MCC
1		X
2	X	
3	X	
4		X

SELECTOR SWITCH HS-2		
CONTACT	POSITION	
	COMP	MANUAL
1	X	
2		X
3	X	

SELECTOR SWITCH HS-3			
CONTACT	POSITION		
	START	NORMAL AFTER START/STOP	STOP
1			X
2	X		

X - INDICATES CONTACT IS CLOSED

- LEGEND**
- COMP COMPUTER
 - DISCH DISCHARGE
 - G GREEN INDICATING LIGHT
 - HS HAND SWITCH (SELECTOR SWITCH)
 - MCC MOTOR CONTROL CENTER (HSP MOTOR STARTER/CONTROLLER SWITCHGEAR)
 - MOV MOTOR OPERATED VALVE (HSP DISCHARGE VALVE)
 - PB PUSHBUTTON
 - PRV PRESSURE REDUCING VALVE
 - R RED INDICATING LIGHT
 - SCP SUPERVISORY CONTROL PANEL
 - SUPV SUPERVISORY
 - SV1 SOLENOID VALVE NO.1 (AT PRV-1)
 - SV2 SOLENOID VALVE NO.2 (AT PRV-2)
 - SVX SOLENOID VALVE AUXILIARY RELAY
 - VLSX VALVE LIMIT SWITCH AUXILIARY RELAY
 - VLV VALVE
 - PS/LWCO PRESSURE SWITCH / LOW WATER CUTOFF

SELECTOR SWITCH HMS101			
CONTACT	POSITION		
	STOP	NORMAL AFTER STOP/RESET	RESET
1	X		
2	X	X	

X - INDICATES CONTACT IS CLOSED

No.	Revision	Drawn	Approved	Date

DESIGN STANDARDS
PUMP STATION
SUPERVISORY CONTROL PANEL
CONTROL SCHEMATICS

Developer SAN ANTONIO WATER SYSTEM
Cont. Budget Proj.

SUBMITTED GRUBB ENGINEERING, INC.
APPROVED _____

Map No. _____ Sheet
Section No. _____
Dr. Rdcj|Ch Job No. _____ E09