



- NOTES:**
- ALL TB# AND WIRE LABELS ARE SHOWN ON LOOP DRAWINGS.
  - ALL HARD WIRED INTERLOCK TO BE IN SERIES WITH GENERAL FAILURE RELAY. ALL INTERLOCKS ARE PROCESS FAIL SAFE. SITE SPECIFIC & FUTURE INPUTS & RELATED RELAYS. (TO BE JUMPERED IF NOT USED)
  - L/R SWITCH IS 2 POSITION MAKE BEFORE BREAK.
  - ALL LIGHTS ARE PUSH TO TEST.
  - RELAY IS ON BACKUP LEVEL CONTROL SCHEMATIC.
  - INCLUDE FOR SUBMERSIBLE PUMPS WITH TEMPERATURE AND LEAK DETECTION CAPABILITIES. FOR MOTORS LARGER THAN 30HP, WHERE PROTECTION MODULES ARE USED, ALL THERMAL PROTECTION IS TO BE DONE THROUGH MOTOR PROTECTION DEVICE; WHEN/IF POSSIBLE WIRE LEAKAGE SENSOR TO MOTOR PROTECTION RELAY.
  - INCLUDE FOR MOTORS GREATER THAN OR EQUAL TO 30HP. VIBRATION AND HIGH TEMPERATURE ALARMS TO BE HARDWIRED TO PLC AS TWO DIFFERENT SIGNALS.
  - ACTUAL NUMBER OF RTD'S TO SUIT SPECIFIC MOTOR.
  - DISPLAY TO BE MOUNTED ON PANEL/MCC DOOR.
  - INCLUDE FOR PUMPS 50 HP AND ABOVE.
  - INCLUDE FOR PUMPS UP TO 49HP.
  - THERMAL PROTECTION TO BE PROVIDED THROUGH MOTOR PROTECTION RELAY AND ASSOCIATED CR-T2 CONTROL RELAY. CR-T1 TO BE USED INSTEAD WHEN NO MOTOR PROTECTION RELAY IS PRESENT.
  - MOTOR PROTECTION AND LEAK DETECTION SYSTEM MUST NOT RELY ON ANY PLC/PROGRAMMABLE CONTROLLER.
  - PHYSICAL CONFIGURATION PORT TYPE TO BE DETERMINED DURING DESIGN STAGE.
  - WHEN VFD IS NOT IN REMOTE OR WHEN BACKUP FLOAT IS ACTIVE LOCAL SPEED SETPOINTS ARE TO BE USED FOR CONTROLLING THE DRIVE.



**PUBLIC WORKS  
STANDARD DRAWING**

**PUMP X VFD CONTROL  
SCHEMATIC 1**

REV. DATE: MAY 2022	
APPROVED BY TM	DRAWN BY ERAMOSA
STD. DWG. NUMBER SPS-205	SCALE Not to Scale