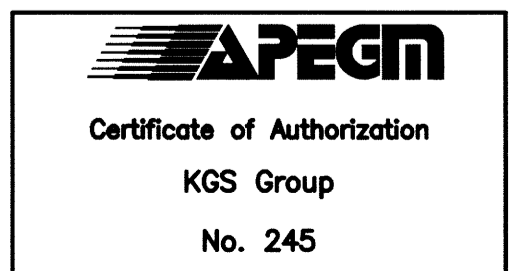
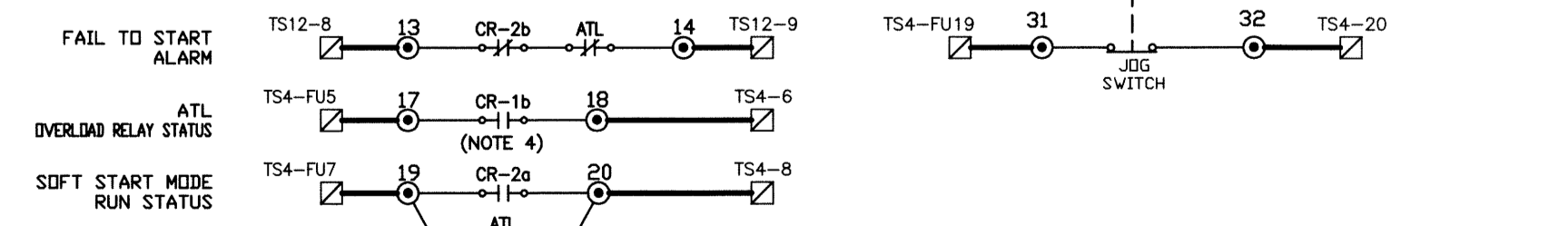
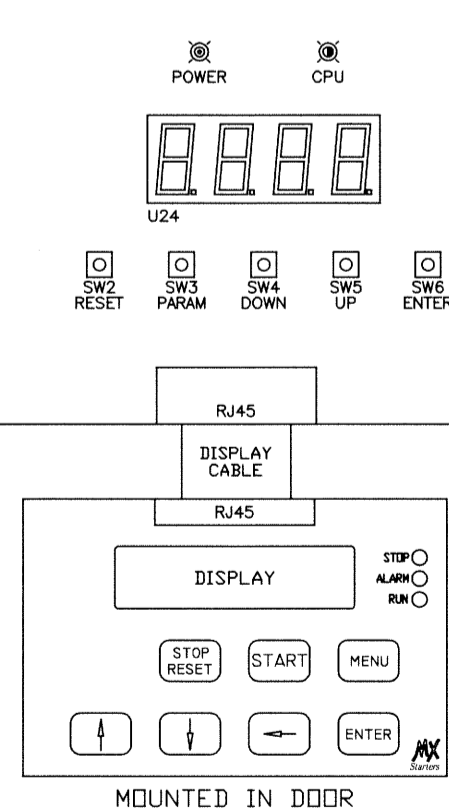
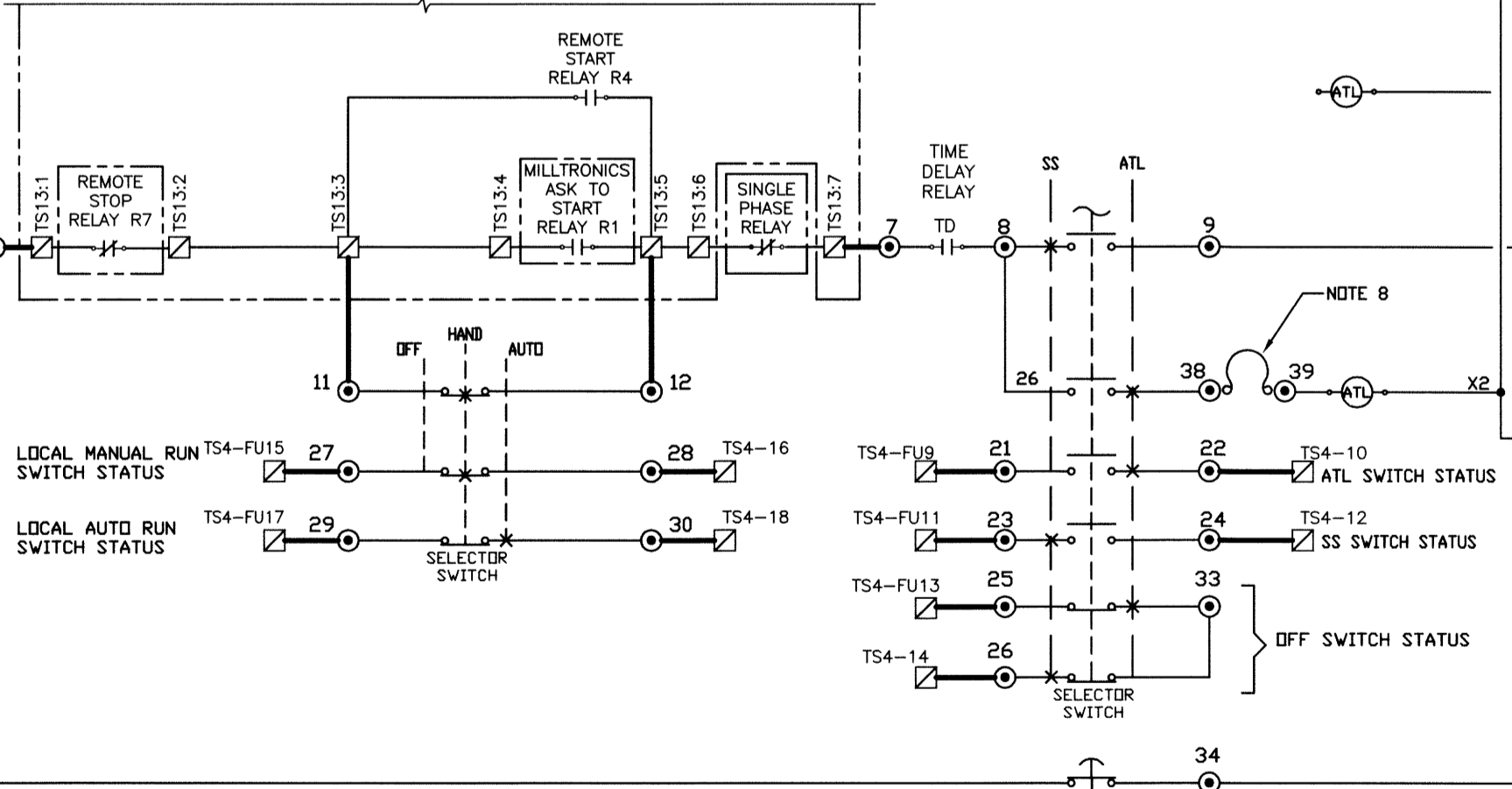


- ⊕ WIRE NODE SYMBOL MAY HAVE TERMINAL BLOCK
- POWER TERMINAL
- CUSTOMER TERMINAL
- BENSCHAW TERMINAL
- ⊠ DEVICE TERMINAL
- Ⓜ ELAPSED TIME METER
- PC BOARD TERMINALS
- ⊗ TWISTED PAIR
- FIELD WIRING
- PANEL WIRING
- ⊞ CONNECTOR
- SHIELDED WIRE
- CR-X CONTROL RELAYS

***** IMPORTANT ***** CUSTOMER TERMINALS
 PASSCODE # - - - -
 L1 L2 L3
 T1 T2 T3

- NOTES:**
1. INCOMING POWER THROUGH CT'S. SEE CT FASTENING DIAGRAM IN INSTRUCTION MANUAL FOR DETAILS.
 2. SOLID-STATE TIMER WITH PROGRAMMABLE ON-DELAY TIME RANGE SETABLE FROM 0.05 sec TO 300 HOURS.
 3. MAXIMUM RAMP DOWN TIME SHALL BE 10 SECONDS AND THE VOLTAGE SHALL NOT BE ALLOWED TO RAMP BELOW 60% OF FULL VOLTAGE BEFORE SOFT START IS DEACTIVATED TO ALLOW PUMP MOTOR TO COME TO A COMPLETE STOP. VERIFY DECELERATION SETTINGS WITH PUMP MANUFACTURER.
 4. THIS CONTACT IS NORMALLY OPEN AND CLOSURES ON AN ACROSS THE LINE OVERLOAD FAULT WHEN THE STARTER IS IN ACROSS THE LINE MODE.
 5. PROGRAMMABLE RELAY R1 IS ENERGIZED WHEN SOFT START IS FUNCTIONING AND DE-ENERGIZED WHEN SOFT START HAS A FAULT.
 6. PROGRAMMABLE RELAY R2 & R3 IS ENERGIZED WHEN PUMP IS ON AND DE-ENERGIZED WHEN PUMP IS OFF. CONTACTS CLOSE TO INDICATE PUMP RUNNING.
 7. ANALOG OUTPUT TO BE PROGRAMMED TO PROVIDE A 4-20mA SIGNAL FOR LOAD CURRENT DRAW TO THE CITY SCADA PANEL.
 8. PROVIDE JUMPER CABLE TO ENABLE ATL MODE.



FIELD BOOK #		DESIGNED BY DDW/MAM		CHECKED BY	
POSTED TO LBSIS		DRAWN BY GCN		APPROVED BY	
0	ISSUED FOR CONSTRUCTION	14/08/18	AP	RELEASSED FOR CONSTRUCTION	
NO.	REVISIONS	DATE	BY	DATE	2014 01 13

ENGINEER'S SEAL

 M-E04.1

THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT
 FLOOD PUMPING STATION UPGRADES
 MARION STATION
ELECTRICAL
 FLOOD PUMP P-F01
 SCHEMATIC/WIRING DIAGRAM

SHEET 1 OF 2
 CITY DRAWING NUMBER
 1-0159F-E0006-001