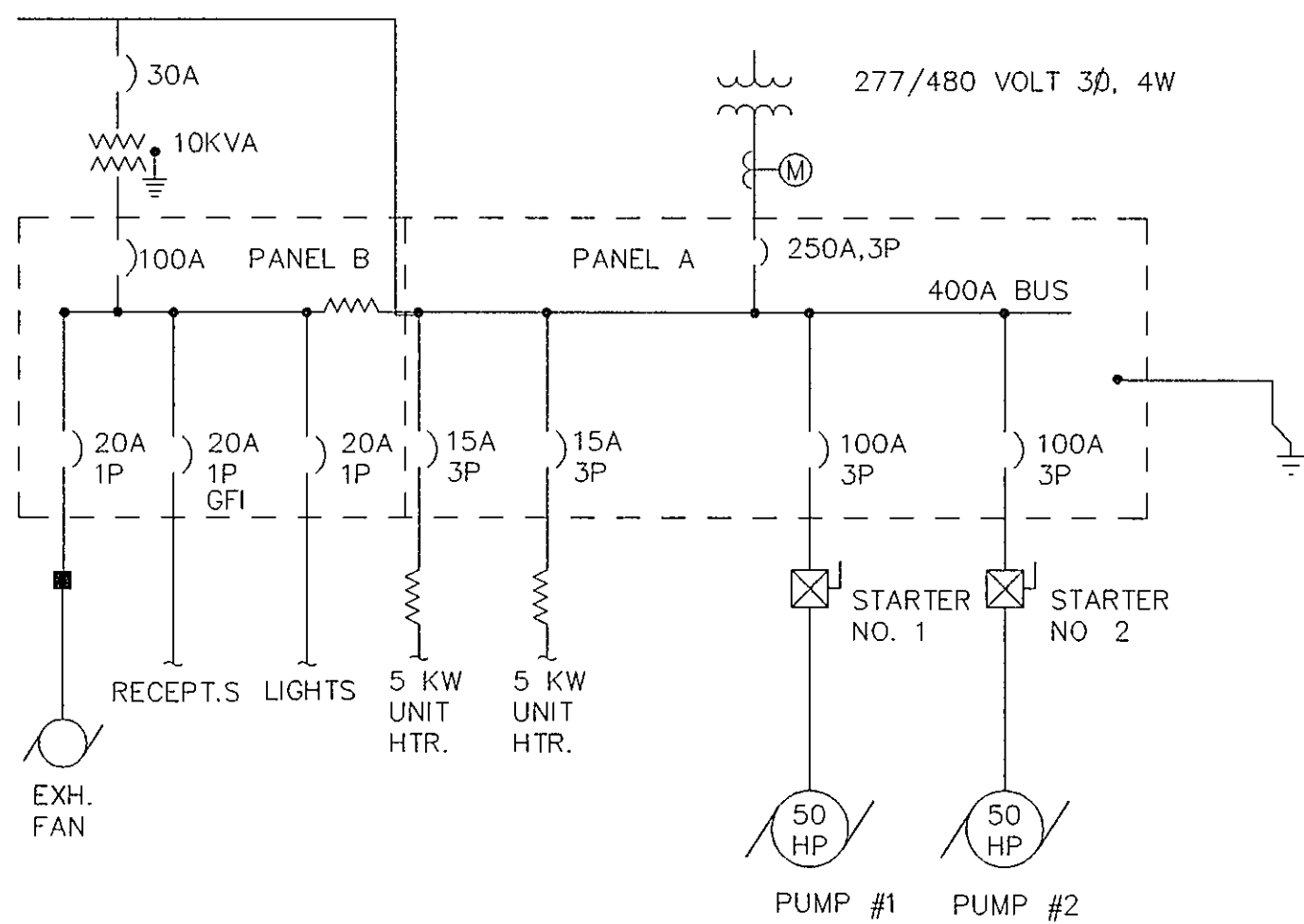


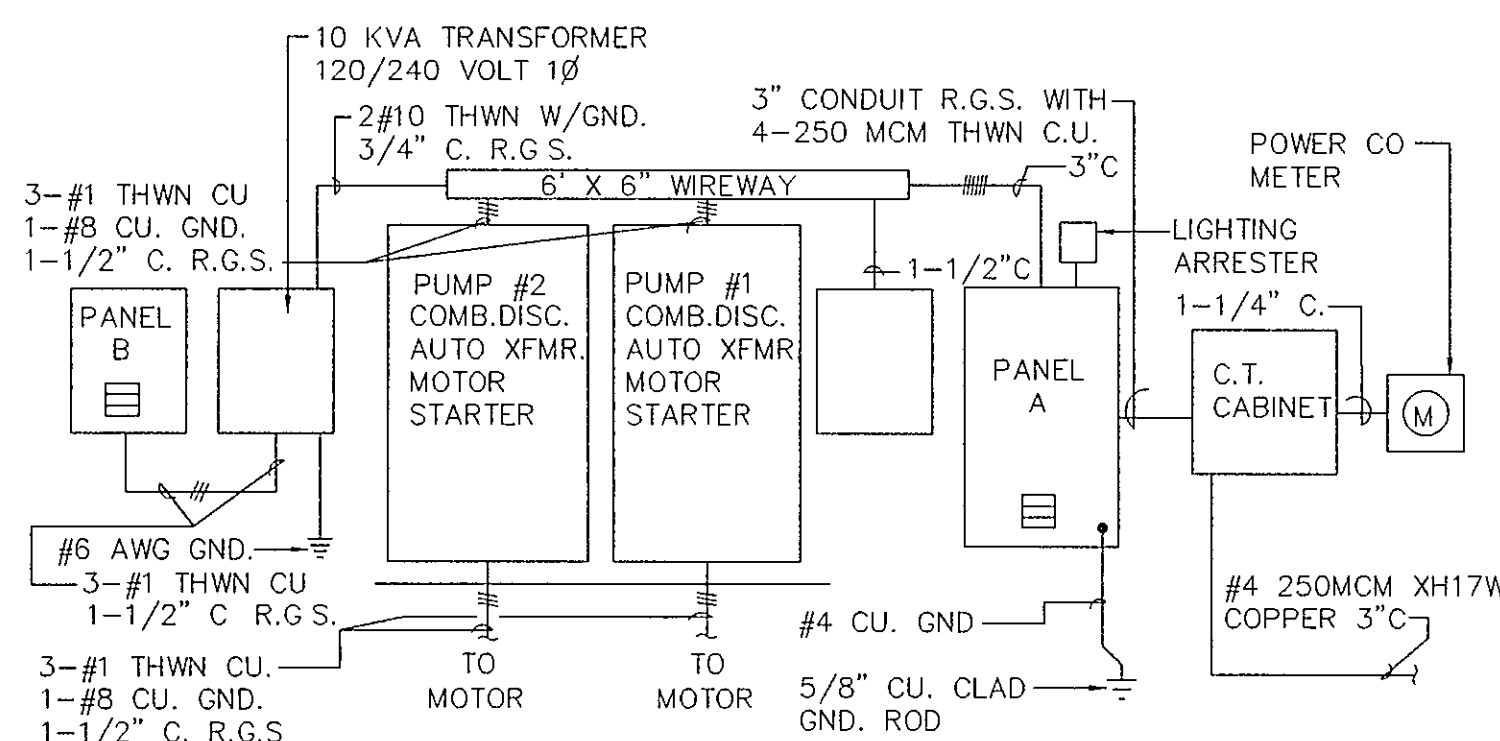
ELECTRICAL SYMBOLS

- A CEILING MOUNT OUTLET WITH FLUORESCENT FIXTURE TYPE AS INDICATED.
- WALL OUTLET WITH INCANDESCENT FIXTURE.
- 120 VOLT, 3 WIRE, 1Ø, 20 A DUPLEX CONVENIENCE RECEPTACLE, SURFACE MOUNT, WEATHERPROOF, NEMA 5-20R, BROWN COLOR. MOUNT @ 4'-0" AFF.
- LIGHTING SWITCH SINGLE POLE, TOGGLE TYPE, BROWN HANDLE, 20 AMP, SURFACE MOUNT. MOUNT @ 4'-0" AFF.
- ELECTRIC MOTOR, HP, VOLTAGE, AND PHASE AS INDICATED.
- COMBINATION DISCONNECT AUTO-TRANSFORMER REDUCED VOLTAGE MOTOR STARTER WITH OVERLOAD PROTECTION.
- MANUAL MOTOR STARTER, SURFACE MOUNT WITH RUN PILOT AND OVERLOAD PROTECTION.
- CIRCUIT RUN AND CONNECTION TO DEVICE. HASH MARKS INDICATE NUMBER OF CONDUCTORS EXCEPT GROUNDS. ARROWHEADS INDICATED NUMBER OF CIRCUITS. PANEL DESIGNATION AAS INDICATED. BRANCH CIRCUIT CONDUCTORS ARE #12 AWG COPPER UNLESS OTHERWISE INDICATED.
- WALL MOUNTED THERMOSTAT
- CHECK VALVE CONTROL PANEL, PANEL.



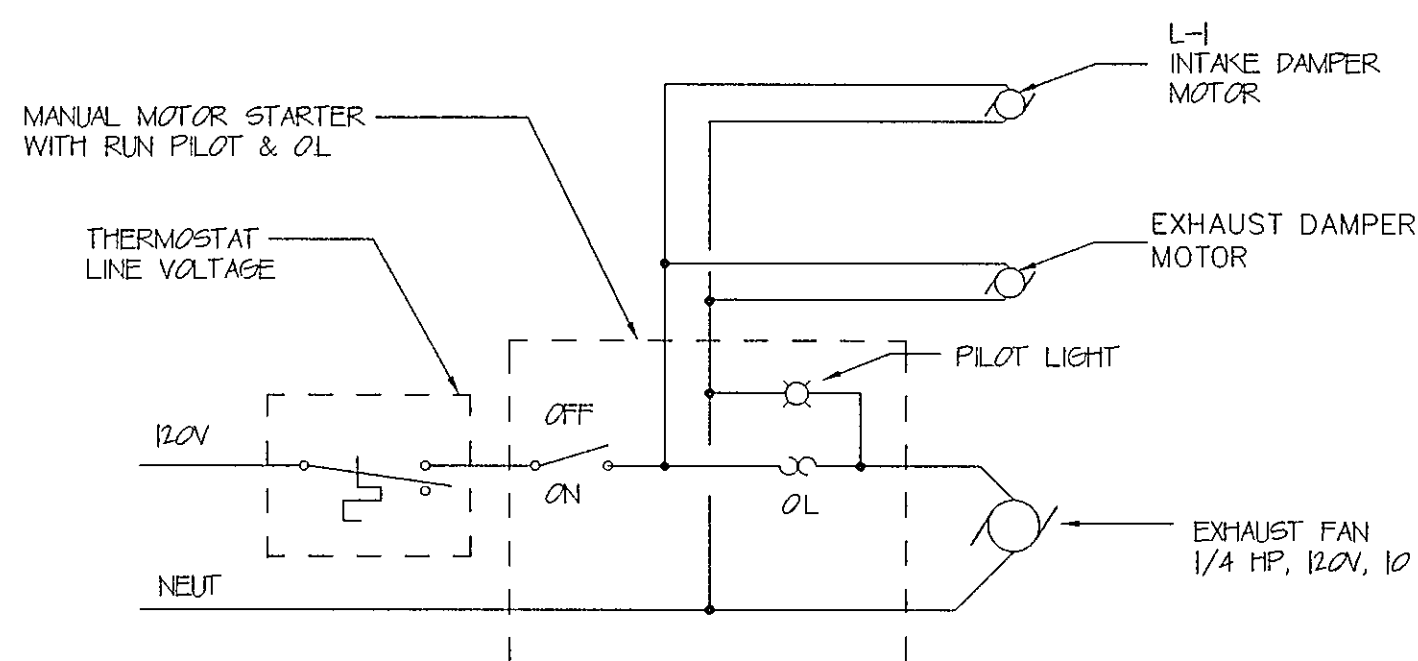
ELECTRICAL ONE-LINE DIAGRAM

NOT TO SCALE



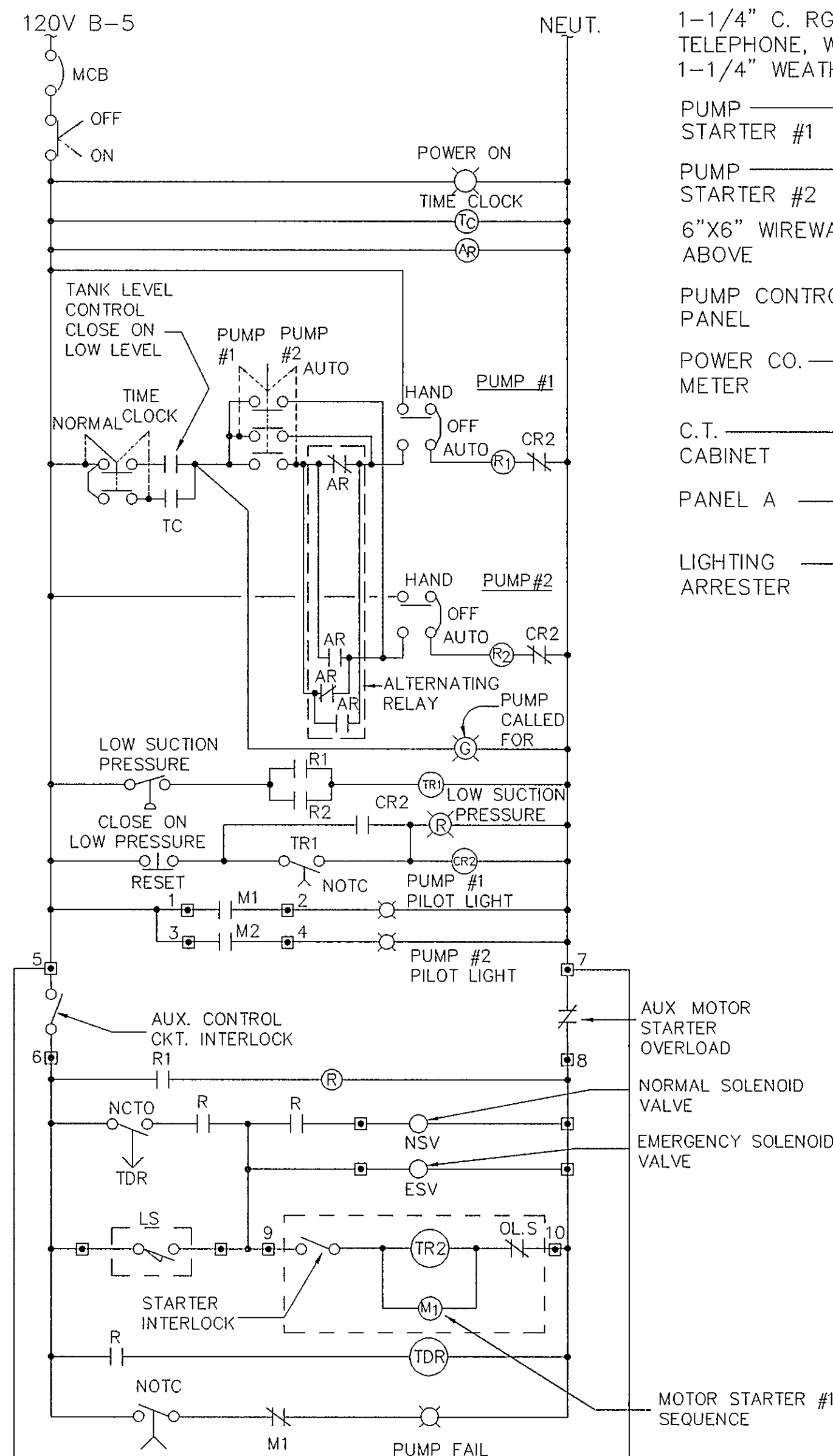
ELECTRICAL RISER DIAGRAM

NOT TO SCALE

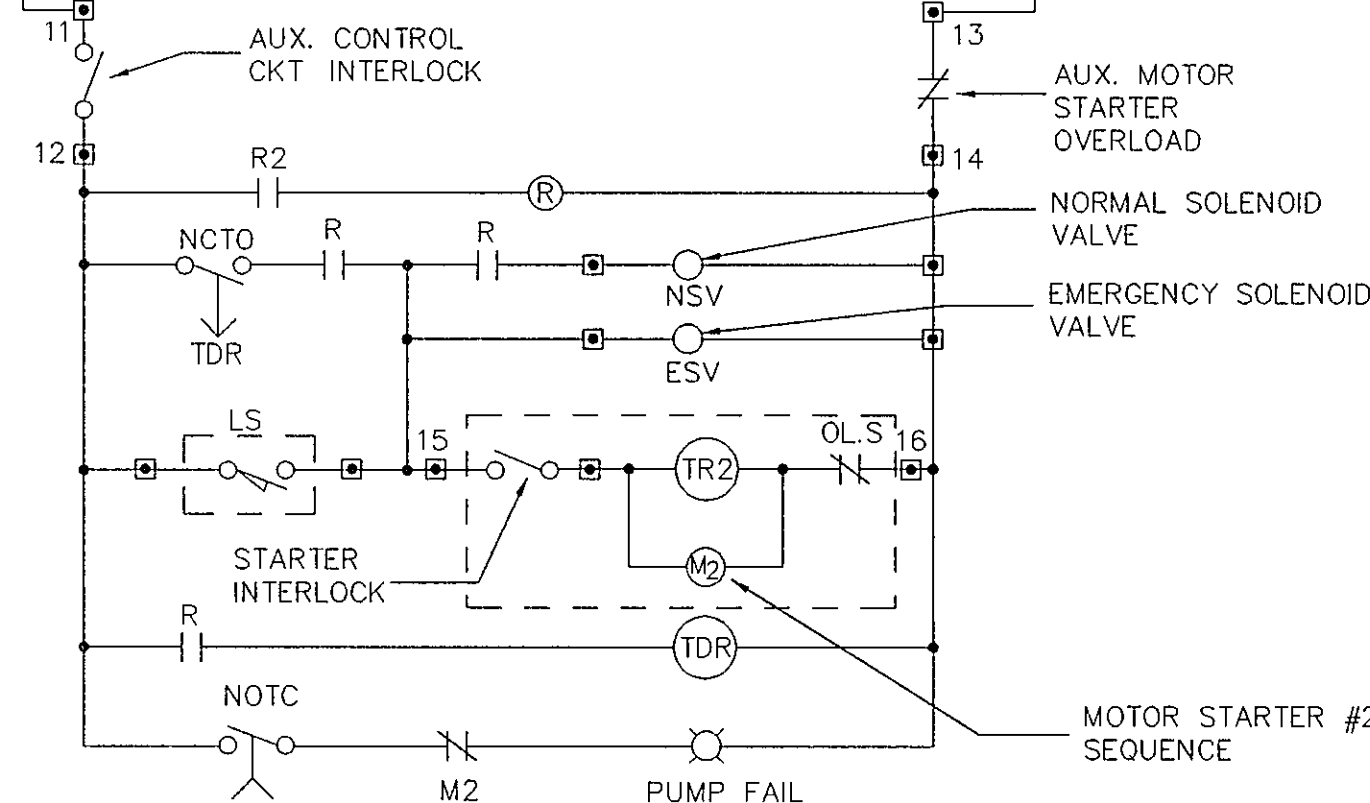


EXHAUST FAN WIRING DIAGRAM

NOT TO SCALE



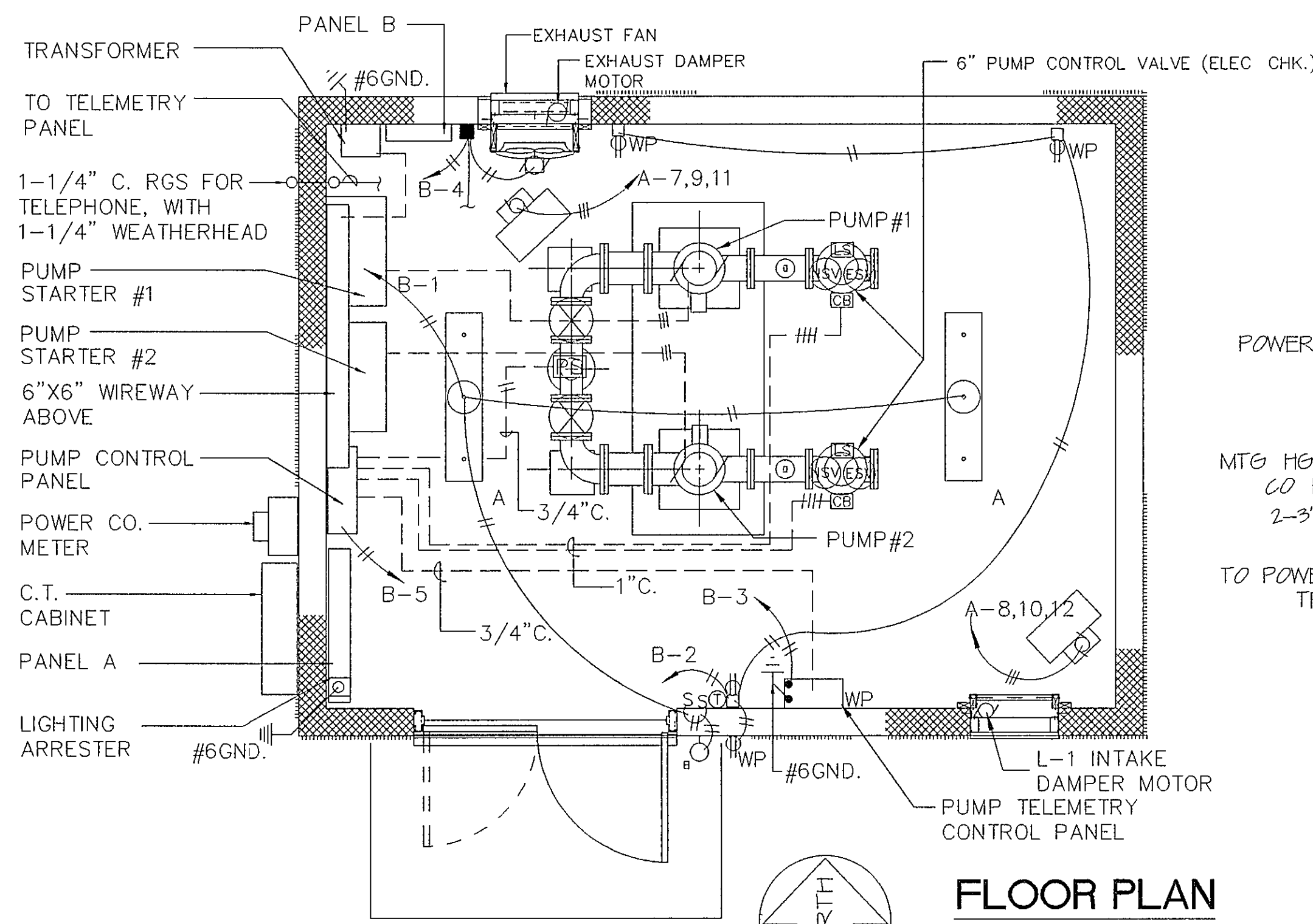
CONTROL VALVE #1 PANEL



CONTROL VALVE #2 PANEL

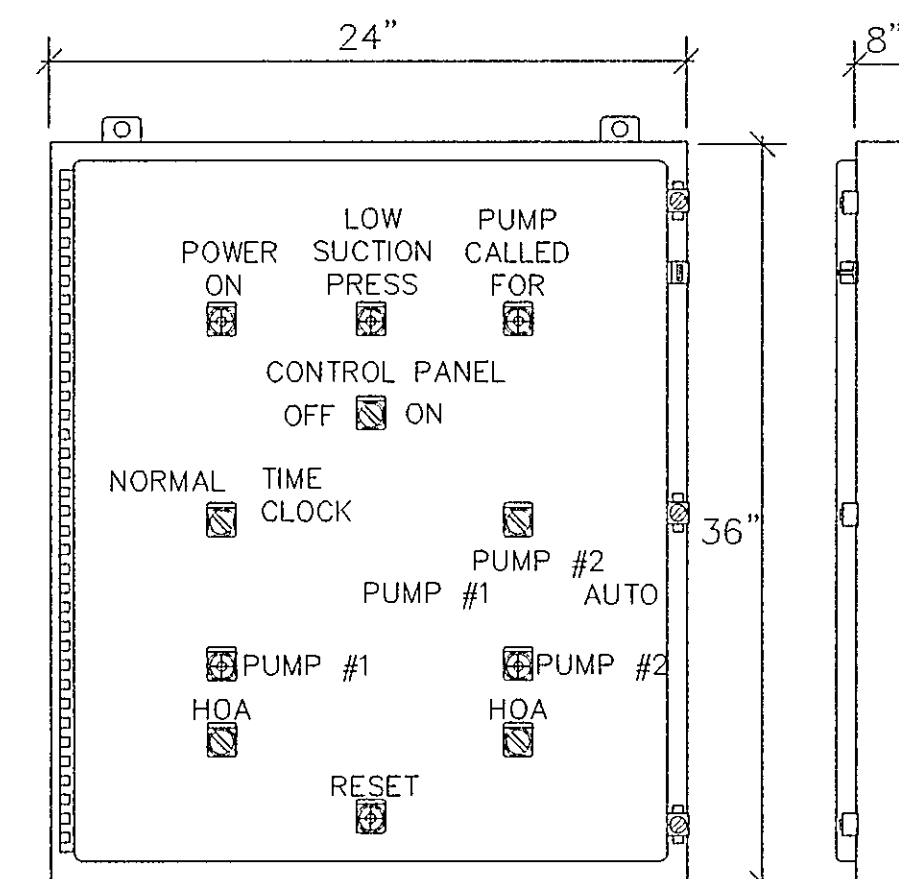
PUMP CONTROL WIRING DIAGRAM

SCHEMATIC



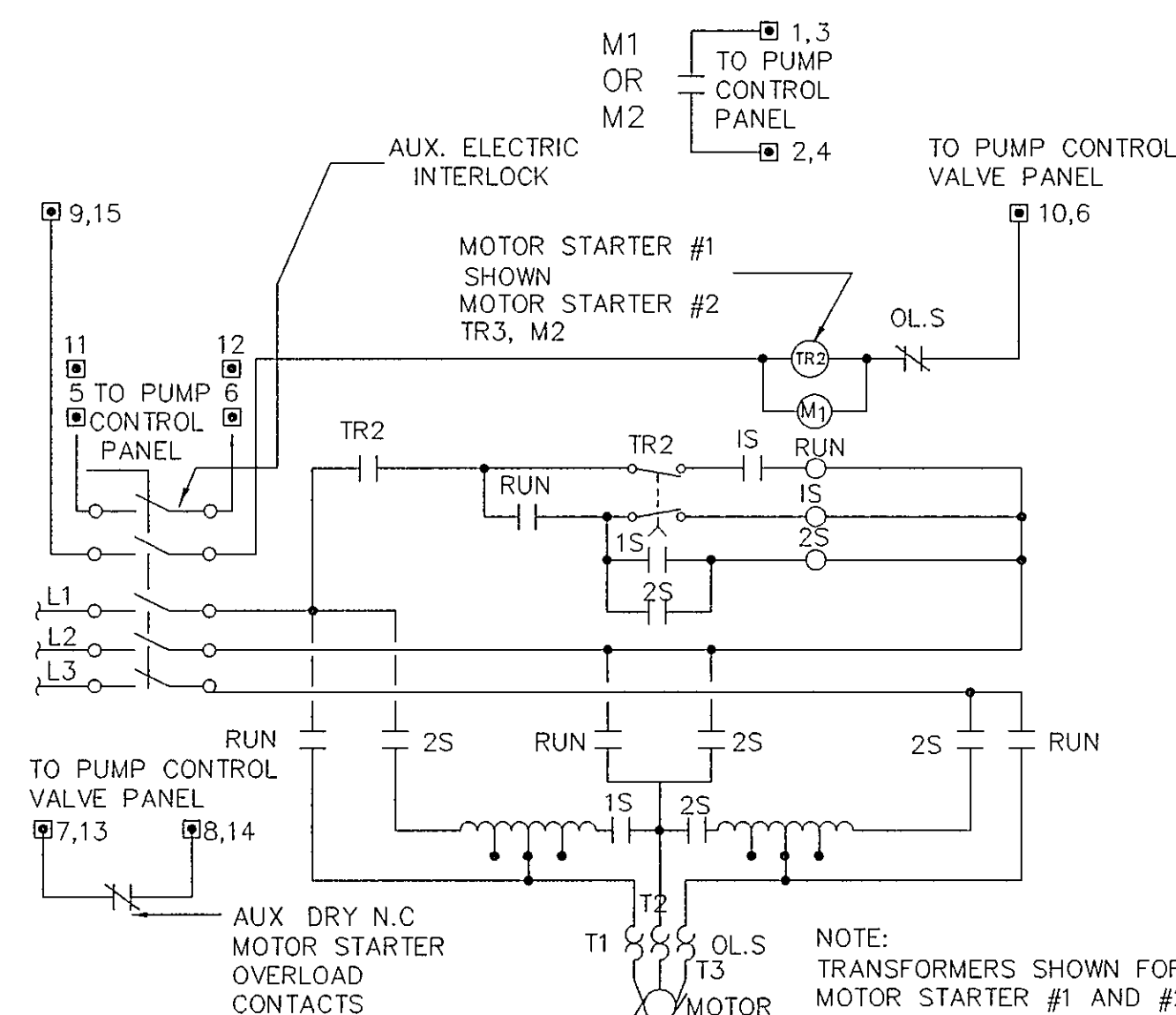
FLOOR PLAN

3/8" = 1'-0"



CONTROL CABINET DETAIL

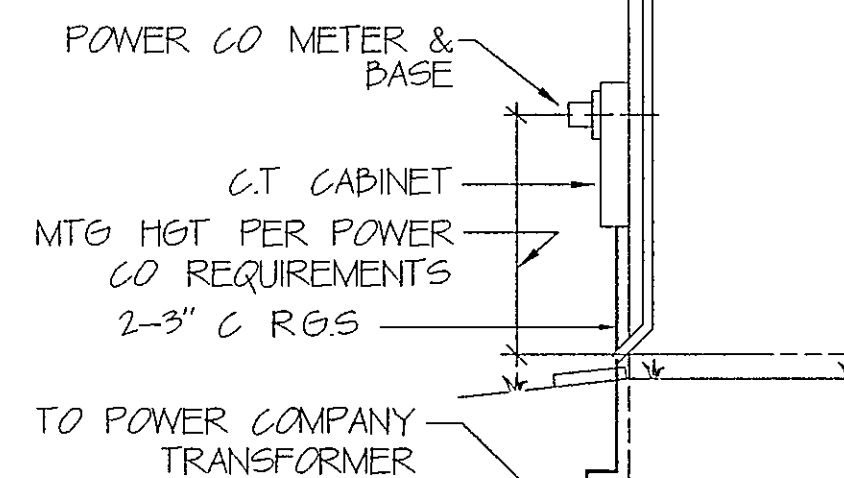
NOT TO SCALE



AUTO-TRANSFORMER MOTOR STARTER

WIRING DIAGRAM

NOT TO SCALE



FRONT VIEW

ELEVATIONS

1/4" = 1'-0"

LIGHT FIXTURE SCHEDULE

TYPE A - LITHONIA DL240A, 120 VOLT-40 WATT FLUORESCENT 100 WATT, PENDANT, 1'X4' FLUORESCENT FIXTURE, ACRYLIC PRISMATIC LENS, U.L. LISTED WET LOCATION.

TYPE B - BENJAMINE 11W-150-GX, 120 VOLT, 1 LAMP, 100 WATT, INCANDESCENT, GLASS GLOBE AND GUARD.

ELECTRICAL EQUIPMENT LIST

PANEL A 277/480 VOLT, THREE PHASE, 4 WIRE, 400 AMP RATING, 250 AMP MAIN CIRCUIT BREAKER, 14,000 AMP INTEGRATED SHORT CIRCUIT RATING, NEMA 1 ENCLOSURE, SURFACE MOUNT, 36 INCHES OF MOUNTING SPACE U.L. LISTED AS SERVICE ENTRANCE EQUIPMENT, EQUAL TO SQUARE D I-LINE TYPE HCM, G.E., OR WESTINGHOUSE.

PANEL B - 120/240 VOLT, SINGLE PHASE, 3 WIRE 100 AMP BUS, 100 AMP MAIN CIRCUIT BREAKER 10,000 AIC RATING, NEMA-1 ENCLOSURE, WITH DOOR AND PANEL DOOR DIRECTORY, EQUAL TO SQUARE-D NQOD, BOLT ON CIRCUIT BREAKERS.

STARTERS 480 VOLT, 3PHASE, COMBINATION NON-FUSIBLE DISCONNECT, REDUCED VOLTAGE AUTO-TRANSFORMER MOTOR STARTER, 120 VOLT COIL, NEMA SIZE 3 STARTER, NEMA-1 ENCLOSURE, AUXILIARY CONTROL CIRCUIT ELECTRIC INTERLOCK AUXILIARY 1 N.O./N.C. OVERLOAD RELAY CONTACTS, SUITABLE FOR A 50 HP PUMP MOTOR, EQUAL TO SQUARE D CLASS 8606 WESTINGHOUSE OR G.E. (QTY. 2).

UNIT HEATER 5KW 480V, THREE PHASE, 17,060 BTU/HR, 350CFM, HEAVY GAUGE STEEL CABINET, BAKED ENAMEL FINISH, THERMALLY PROTECTED FAN MOTOR, SHEATHED HEATING ELEMENTS, THERMAL SAFETY CUTOFF, PROVIDE W/INTEGRAL THERMOSTAT (ADJUSTABLE) AND WALL MOUNTING HARDWARE, UNIT HEATER SHALL BE BERKO HUH MODINE OR CHROMALOX Q-MARK.

EXHAUST FAN SIDE WALL PROPELLER TYPE 534 CFM, @ .25 INCHES OF WATER STATIC PRESSURE, 1/8 HP FAN MOTOR, 120 VOLT, 860 RPM, 3150 FPM TIP SPEED (MAX.) PROVIDE WITH MOUNTING COLLAR. GREENHECK MODEL SDE-16-24-C, ACME OR COOK.

EXHAUST LOUVER AND INTAKE LOUVER 24"X24" EXTRUDED ALUMINIUM, DRAINABLE COMBINATION TYPE, 6" DEPTH, 3/4" MESH ALUMINIUM BIRD SCREEN, BLADE AND JAMB SEALS, LOUVER QUADRANT W/ELECTRIC OPERATOR. FINISH SELECTED BY ENGINEER. RUSKIN MODEL ELC-6375, CONTRUCTION SPECIALITIES, OR KRUEGER.

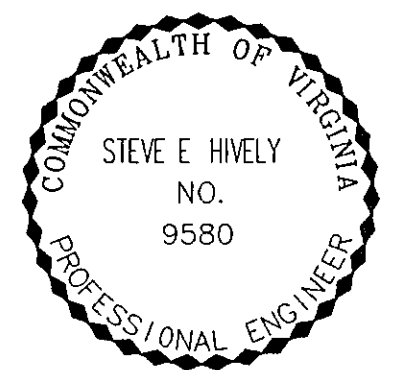
THERMOSTAT (FOR EXHAUST FAN) WALL MOUNTED, LINE VOLTAGE TYPE SPDT SWITCH ACTION 30-100 DEG. F RANGE ADJUSTABLE, 16 AMP RATING @ 120 VOLT AC, JOHNSON CONTROLS #A19BAC-1, HONEYWELL OR CHROMALOX (Q-MARK).

MANUAL MOTOR STARTER FRACTIONAL HP TYPE, 1230 VOLT, SINGLE POLE TOGGLE OPERATOR, MELTING ALLOY THERMAL OVERLOAD RELAY, PILOT LIGHT, NEMA-1 ENCLOSURE, SQUARE D MODEL 2510, ALLEN BRADLEY OR CUTLER HAMMER.

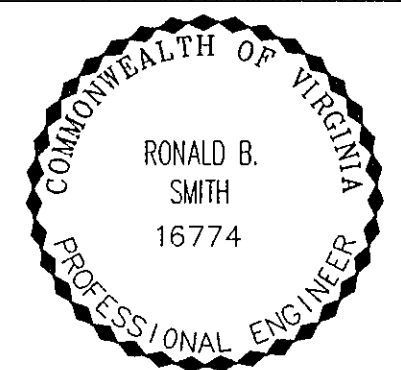
TRANSFORMER - 10KVA-480 VOLT PRIMARY, 120/240 VOLT SINGLE PHASE SECONDARY, 115°C TEMPERATURE RISE, WALL MOUNT EQUAL TO SQUARE-D 10S40F CLASS 7410, 2 TAPS AT 5% FCBN.

LIGHTING - 650 VAC PHASE TO GROUND DUTY, FOR 30-4W SYSTEM, EQUAL TO SQUARE-D CLASS 6671-SP3650, G.E. THYRISTE SERIES.

WATER DEP'T. # 93-25



ENGINEER'S SEAL



ENGINEER'S SEAL

AS BUILT

Architects
Engineers
Planners
Surveyors

Dewberry & Davis

5238 Valleypointe Parkway, Suite One-B
Roanoke, Virginia 24019
703 362-7725

Carvins Cove, Phase II

City of Roanoke
Roanoke, Virginia

CONTRACT "C2"
MOUNT PLEASANT
PUMPING STATION
ELECTRICAL DIAGRAMS
ELECTRICAL DETAILS

Drawn By REH

Designed By RBS

Checked By SEH

Date

MARCH 93

Scale

V: 1" = 5'

H: 1" = 50'

Plan Number

MTP-E1

Zoned

NONE

Sheet

E1 of 2

File Number

C1160