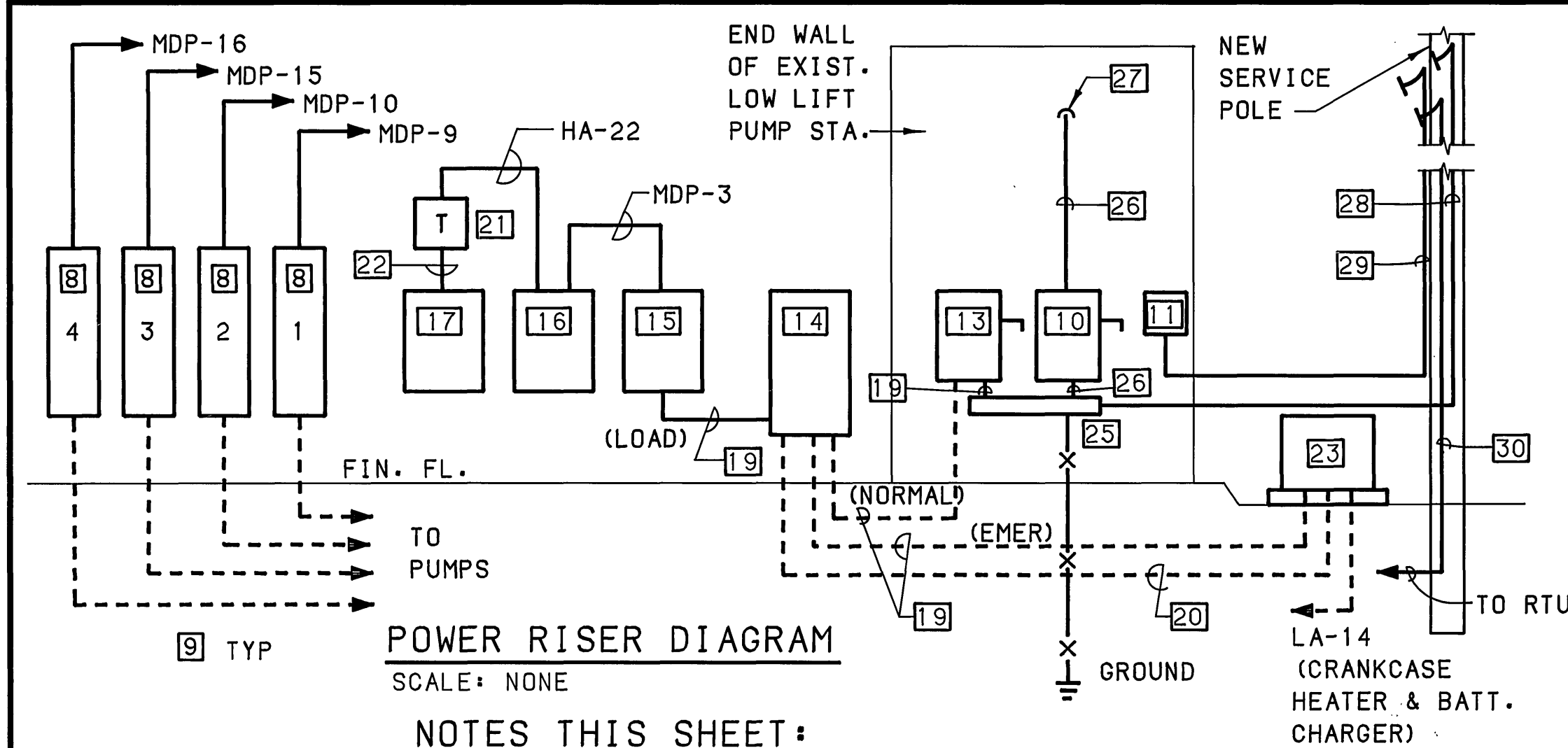




POWER RISER DIAGRAM

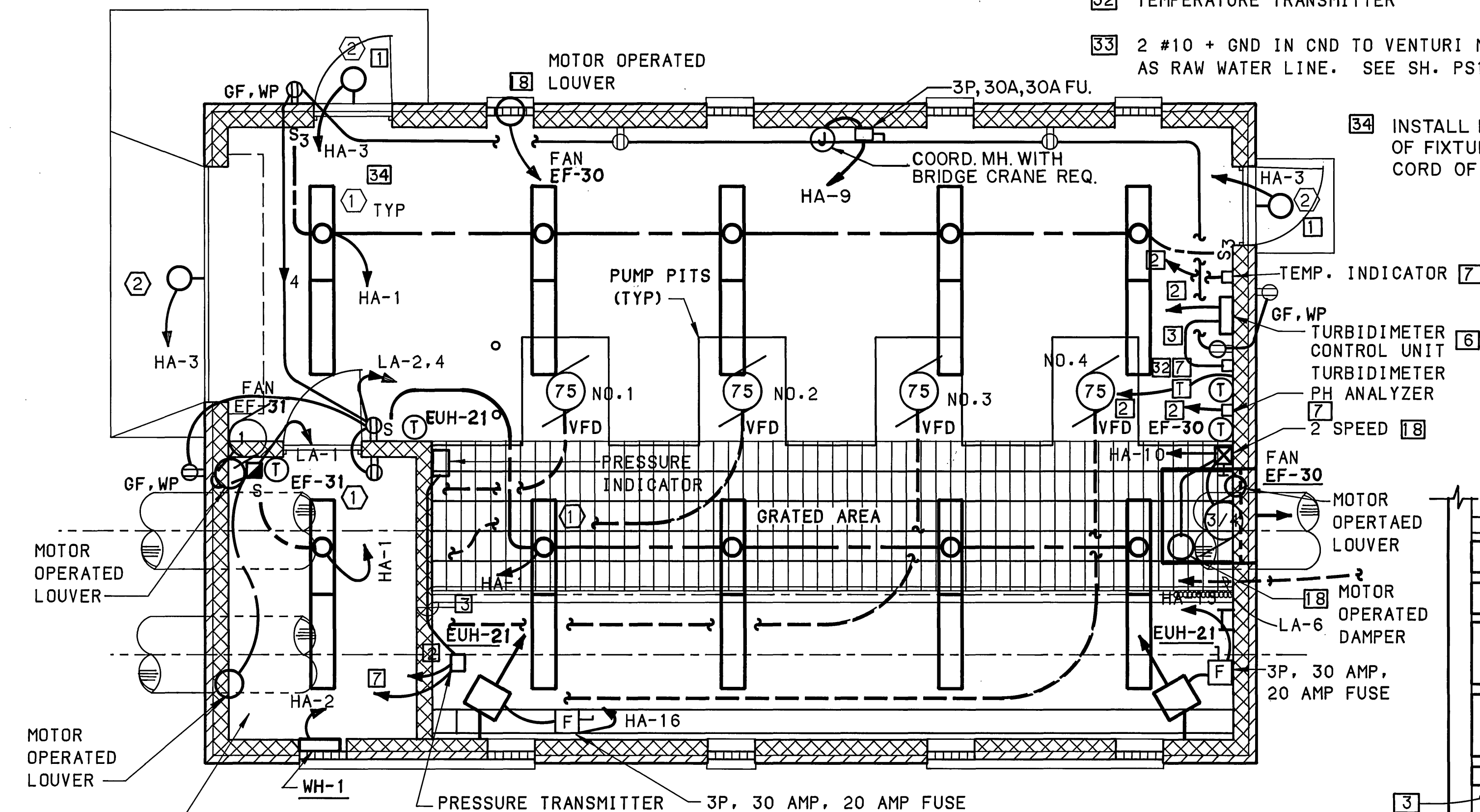
SCALE: NONE

NOTES THIS SHEET:

- 1 MOUNTING HEIGHT 9'-0" TO TOP.
- 2 CONTROL WIRING IN CONDUIT AS REQ'D TO RTU.
- 3 CONTROL WIRING IN CONDUIT AS REQ'D.
- 4 CONTROL WIRING IN CONDUIT AS REQ'D TO FLOW TRANSMITTER.
- 5 CONNECT TO CKT. LA-3 (2 #12 + 1 #12 GND IN 3/4" CND).
- 6 CONNECT TO CKT. LA-5 (2 #12 + 1 #12 GND IN 3/4" CND).
- 7 CONNECT TO CKT. LA-13 (3 #12 + 1 #12 GND IN 3/4" CND).
- 8 VARIABLE SPEED STARTER, MH=7'-0" TO TOP.
- 9 3 #2/0 + 1 #6 GND IN 2" CND.
- 10 400 AMP, 600 VOLT, 3 POLE, 4 WIRE WITH GROUND, FUSED DISC. SWITCH(400 AMP FUSES) IN NEMA 4 ENCLOSURE, MH=6'-0" TO TOP.
- 11 METER CABINET, FURNISHED BY APCO (POWER CO.), INSTALLED BY CONTRACTOR, MH=6'-0" TO TOP.
- 12 1 1/4" EMPTY CND. BY CONTRACTOR, CONDUCTORS BY APCO.

- 13 600 AMP, 600 VOLT, 3 POLE, 4 WIRE, WITH GROUND, FUSED DISC. SWITCH(600 AMP FUSES) IN NEMA 4 ENCLOSURE, MH=6'-0" TO TOP.
- 14 600 AMP, 600 VOLT, 3 POLE, 4 WIRE, AUTOMATIC TRANSFER SWITCH IN NEMA 1 ENCLOSURE, MH=6'-0" TO TOP.
- 15 MAIN DISTRIBUTION PANEL.
- 16 PANEL HA.
- 17 PANEL LA.
- 18 PROVIDE CONTROL POWER TRANSFORMER IN COMBINATION STARTER FOR POWER TO MOTOR OPERATOR LOUVERS.
- 19 2 RUNS, EACH RUN 4 #350 MCM + #1 GND IN 3" CND.
- 20 CONTROL WIRING AS REQ'D IN CONDUIT.
- 21 15 KVA, DRY TYPE TRANSFORMER, 480-120/208 VOLTS, 3 PHASE, 4 WIRE, WALL MOUNTED ABOVE PANEL LA.
- 22 4 #6 + 1 #8 GND IN 1 1/4" CND.
- 23 EMERGENCY GENERATOR, 300 KW STANDBY, 450 HP, 480 VOLT, 3 PHASE, 4 WIRE.
- 24 SEE SHEET IS8 FOR ELECTRICAL LEGEND.
- 25 12"x12" WIREWAY, NEMA 4, SCREW COVER, LENGTH AS REQUIRED.
- 26 4 #500 MCM + 1 #2 GND. IN 3 1/2" CND.
- 27 INSTALL CONDUIT ACROSS CEILING OF EXIST. BLDG. AND CONNECT TO EXIST. SERVICE CONDUCTORS IN EXIST. CT CAB. REMOVE EXIST. CTS AND TURN OVER TO APCO. REMOVE EXIST. CONDUCTORS AND CONDUIT BACK TO AND UP EXIST. SERVICE POLE.
- 28 2 RUNS, EACH RUN 4 #350 MCM IN 3" CND. PROVIDE SERVICE HEADS AND LEAVE 3' OF CONDUCTORS FOR APCO CONNECTIONS.
- 29 1 1/4" CND. WITH SERVICE HEAD, METERING CONDUCTORS BY APCO.
- 30 1" CND. WITH SERVICE HEAD FOR INCOMING TELEPHONE CABLES.
- 31 SEE SH. IS8 FOR LIGHTING FIXTURE SCHEDULE & LEGEND.
- 32 TEMPERATURE TRANSMITTER
- 33 2 #10 + GND IN CND TO VENTURI METER VAULTS. IN SAME TRENCH AS RAW WATER LINE. SEE SH. PS1 FOR ROUTING & LOCATION.

- 34 INSTALL LIGHTING FIXTURES WITH BOTTOM OF FIXTURE AT SAME ELEVATION AS BOTTOM CORD OF ROOF TRUSSES.



LOW LIFT PUMP STATION PLAN - ELECTRICAL

SCALE: 1/4"=1'-0"

POWER PLAN - ELECTRICAL ROOM

SCALE: 1/4"=1'-0"

| SCHEDULE-PANELBOARD LA |     |      |      |                  |          |    |    |    |   |        |     |      |
|------------------------|-----|------|------|------------------|----------|----|----|----|---|--------|-----|------|
| CKT NO                 | BKR | WIRE | CND  | LOAD DESCRIPTION | LOAD KVA | PH | PH | PH | 3 | CKT NO | BKR | WIRE |
| P                      | AMP | NO   | SIZE |                  | A        | B  | C  | PH |   | P      | AMP | NO   |
| 1                      | 1   | 20   | 2    | 12               | 3/4      |    |    |    |   | 2      | 1   | 20   |
| 3                      | 1   | 20   | 2    | 12               | 3/4      |    |    |    |   | 4      | 1   | 20   |
| 5                      | 1   | 20   | 2    | 12               | 3/4      |    |    |    |   | 6      | 1   | 20   |
| 7                      | 1   |      |      |                  |          |    |    |    |   | 8      | 1   |      |
| 9                      | 1   |      |      |                  |          |    |    |    |   | 10     | 1   |      |
| 11                     | 1   |      |      |                  |          |    |    |    |   | 12     | 1   |      |
| 13                     | 2   | 20   | 3    | 12               | 3/4      |    |    |    |   | 14     | 2   | 20   |
| 15                     |     |      |      |                  |          |    |    |    |   | 16     |     |      |

VOLTAGE 120/208 3 PHASE 4 WIRE MOUNTING SURFACE

BUS AMPS 100 MAIN BREAKER AMPS 70 SUBFEED LUGS N/A

| SCHEDULE-PANELBOARD HA |     |      |      |                  |          |    |    |    |   |        |     |      |
|------------------------|-----|------|------|------------------|----------|----|----|----|---|--------|-----|------|
| CKT NO                 | BKR | WIRE | CND  | LOAD DESCRIPTION | LOAD KVA | PH | PH | PH | 3 | CKT NO | BKR | WIRE |
| P                      | AMP | NO   | SIZE |                  | A        | B  | C  | PH |   | P      | AMP | NO   |
| 1                      | 1   | 20   | 2    | 12               | 3/4      |    |    |    |   | 2      | 1   | 20   |
| 3                      | 1   | 20   | 2    | 12               | 3/4      |    |    |    |   | 4      | 1   | 20   |
| 5                      | 1   |      |      |                  |          |    |    |    |   | 6      | 1   |      |
| 7                      | 1   |      |      |                  |          |    |    |    |   | 8      | 1   |      |
| 9                      | 3   | 30   | 2    | 10               | 3/4      |    |    |    |   | 10     | 3   | 30   |
| 11                     |     |      |      |                  |          |    |    |    |   | 12     |     |      |
| 13                     |     |      |      |                  |          |    |    |    |   | 14     |     |      |
| 15                     | 3   | 20   | 4    | 12               | 3/4      |    |    |    |   | 16     | 3   | 20   |
| 17                     |     |      |      |                  |          |    |    |    |   | 18     |     |      |
| 19                     | 1   |      |      |                  |          |    |    |    |   | 20     |     |      |
| 21                     | 1   |      |      |                  |          |    |    |    |   | 22     | 3   | 30   |
| 23                     | 1   |      |      |                  |          |    |    |    |   | 24     |     |      |

VOLTAGE 480Y/277 3 PHASE 4 WIRE MOUNTING SURFACE

BUS AMPS 100 MAIN BREAKER AMPS N/A SUBFEED LUGS NO

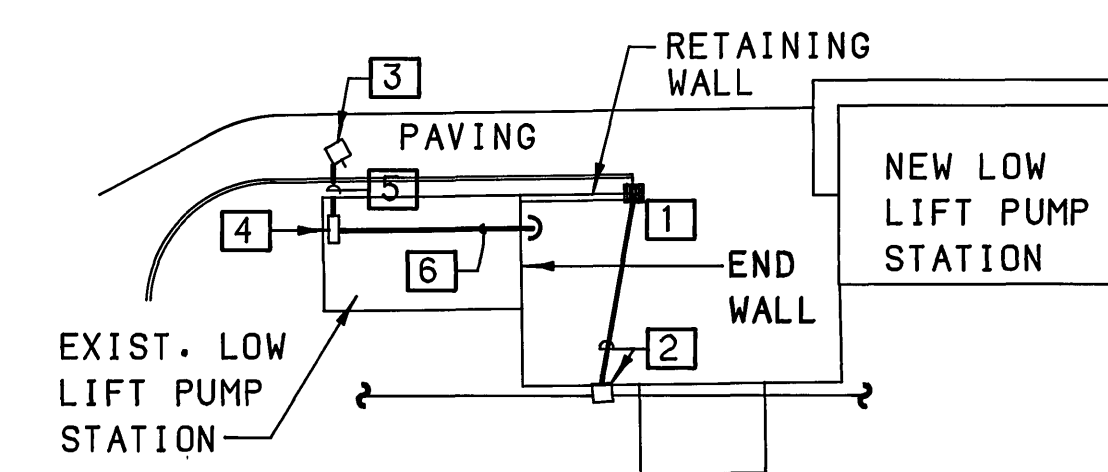
| SCHEDULE-PANELBOARD MDP |     |      |      |                  |          |    |    |    |   |        |     |      |
|-------------------------|-----|------|------|------------------|----------|----|----|----|---|--------|-----|------|
| CKT NO                  | BKR | WIRE | CND  | LOAD DESCRIPTION | LOAD KVA | PH | PH | PH | 3 | CKT NO | BKR | WIRE |
| P                       | AMP | NO   | SIZE |                  | A        | B  | C  | PH |   | P      | AMP | NO   |
| 1                       | 3   | 100  | 4    | 2                | 1 1/2    |    |    |    |   | 4      | 3   | 100  |
| 3                       | 3   | 100  | 4    | 2                | 1 1/2    |    |    |    |   | 5      | 3   | 100  |
| 5                       | 3   | 175  | 3    | 2/0              | 2        |    |    |    |   | 6      | 3   | 175  |
| 7                       | 3   | 175  | 3    | 2/0              | 2        |    |    |    |   | 8      | 3   | 175  |
| 9                       | 3   | 175  | 3    | 2/0              | 2        |    |    |    |   | 10     | 3   | 175  |
| 11                      | 3   | 175  | 3    | 2/0              | 2        |    |    |    |   | 12     | 3   | 175  |
| 13                      | 3   | 175  | 3    | 2/0              | 2        |    |    |    |   | 14     | 3   | 175  |
| 15                      | 3   | 175  | 3    | 2/0              | 2        |    |    |    |   | 16     | 3   | 175  |
| 17                      |     |      |      |                  |          |    |    |    |   | 18     |     |      |

VOLTAGE 480Y/277 3 PHASE 4 WIRE MOUNTING SURFACE

BUS AMPS 600 MAIN BREAKER AMPS N/A SUBFEED LUGS NO

SITE ELECTRICAL PLAN-LOW LIFT PUMP STATION

SCALE: 1"=30'



RECORD DRAWING

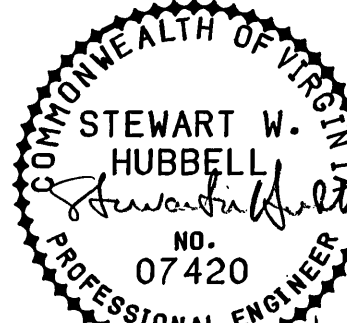
NOTES FOR SITE ELECT. PLAN:

- 1 NEW SERVICE POLE BY CONTRACTOR, 30' CLASS 2, TREATED, SEE POWER RISER DIAGRAM.
- 2 NEW POLE AND SERVICE DROP BY APCO.
- 3 EXIST. SERVICE POLE SHALL BE REMOVED.
- 4 APPROX. LOCATION OF EXIST. CT CAB.
- 5 EXIST. SERVICE SHALL BE REMOVED.
- 6 NEW SERVICE.

MATTERN & CRAIG  
CONSULTING ENGINEERS • SURVEYORS  
ROANOKE VIRGINIA

ALVORD, BURDICK & HOWSON  
ENGINEERS CHICAGO

DESIGNED: JBO  
DRAWN: DSG/FMP  
CHECKED: SWH



| REV | DATE | DESCRIPTION   | BY  | APP. |
|-----|------|---------------|-----|------|
| 1   | 8/92 | MISCELLANEOUS | DSG | RWB  |

CARVINS COVE FILTER PLANT IMPROVEMENTS - PHASE I  
ROANOKE, VIRGINIA  
LOW LIFT PUMP STATION  
ELECTRICAL

DATE  
MARCH 1992  
COMM. NO.  
1138  
SHEET  
PS7