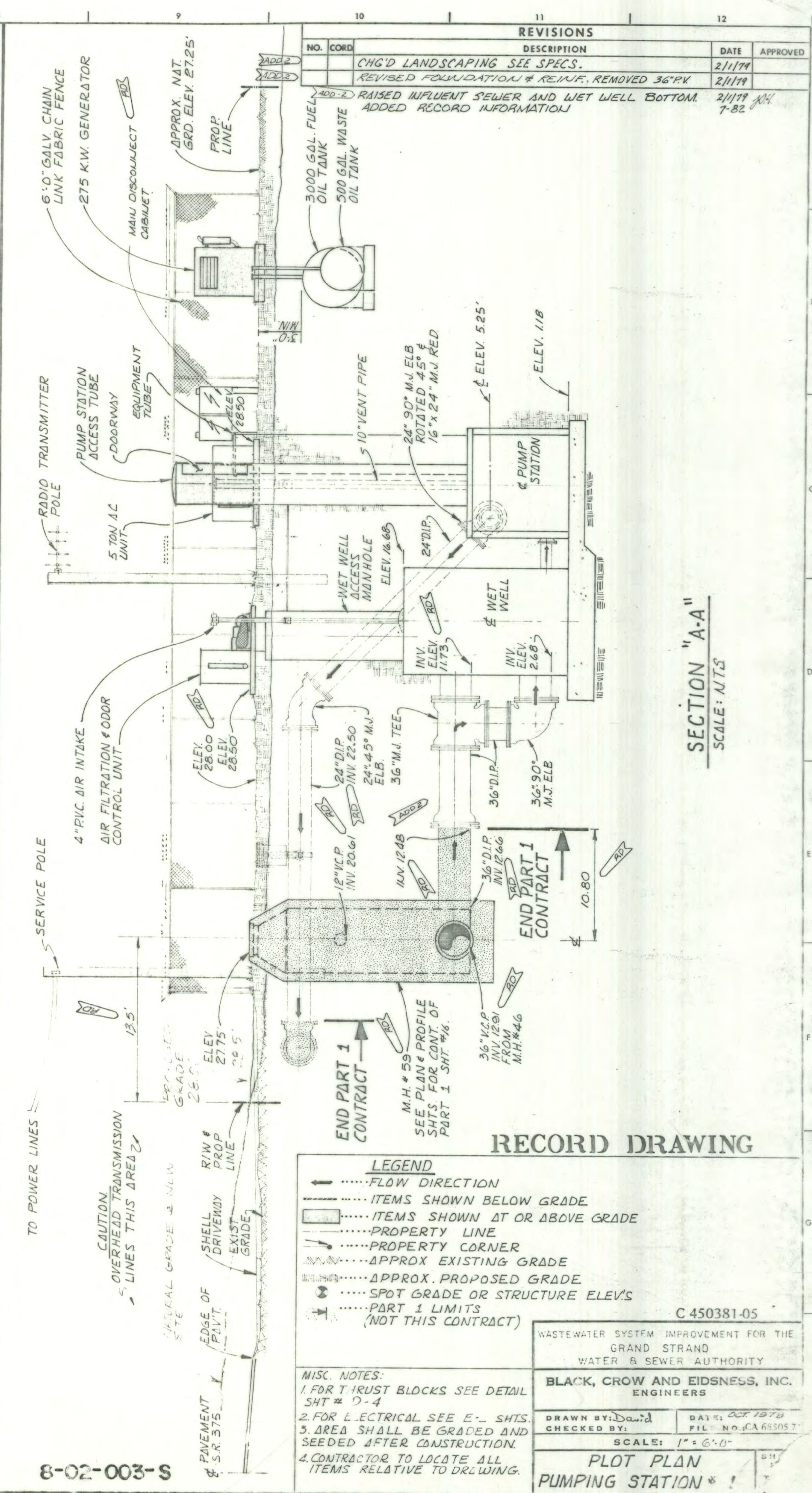
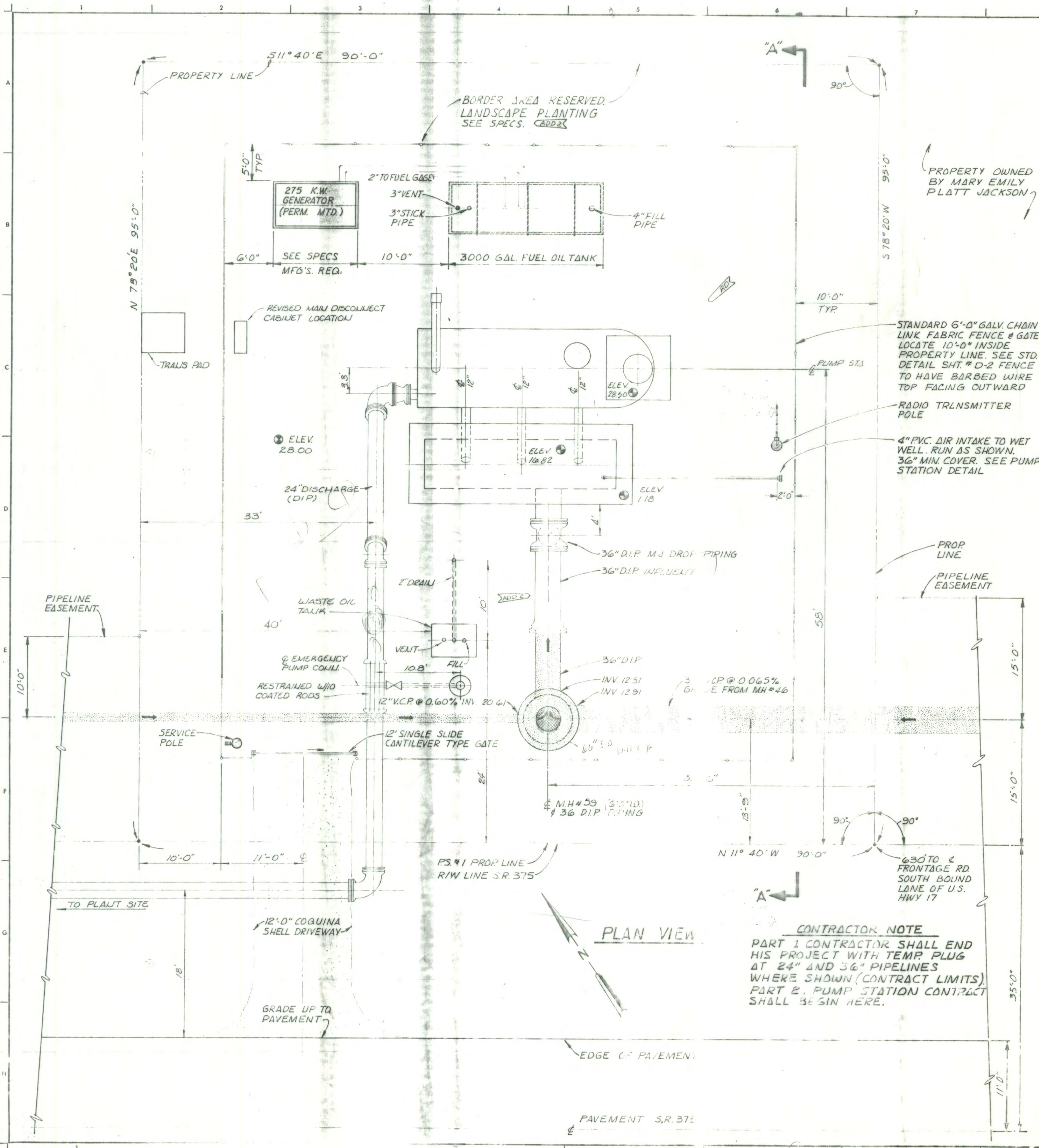
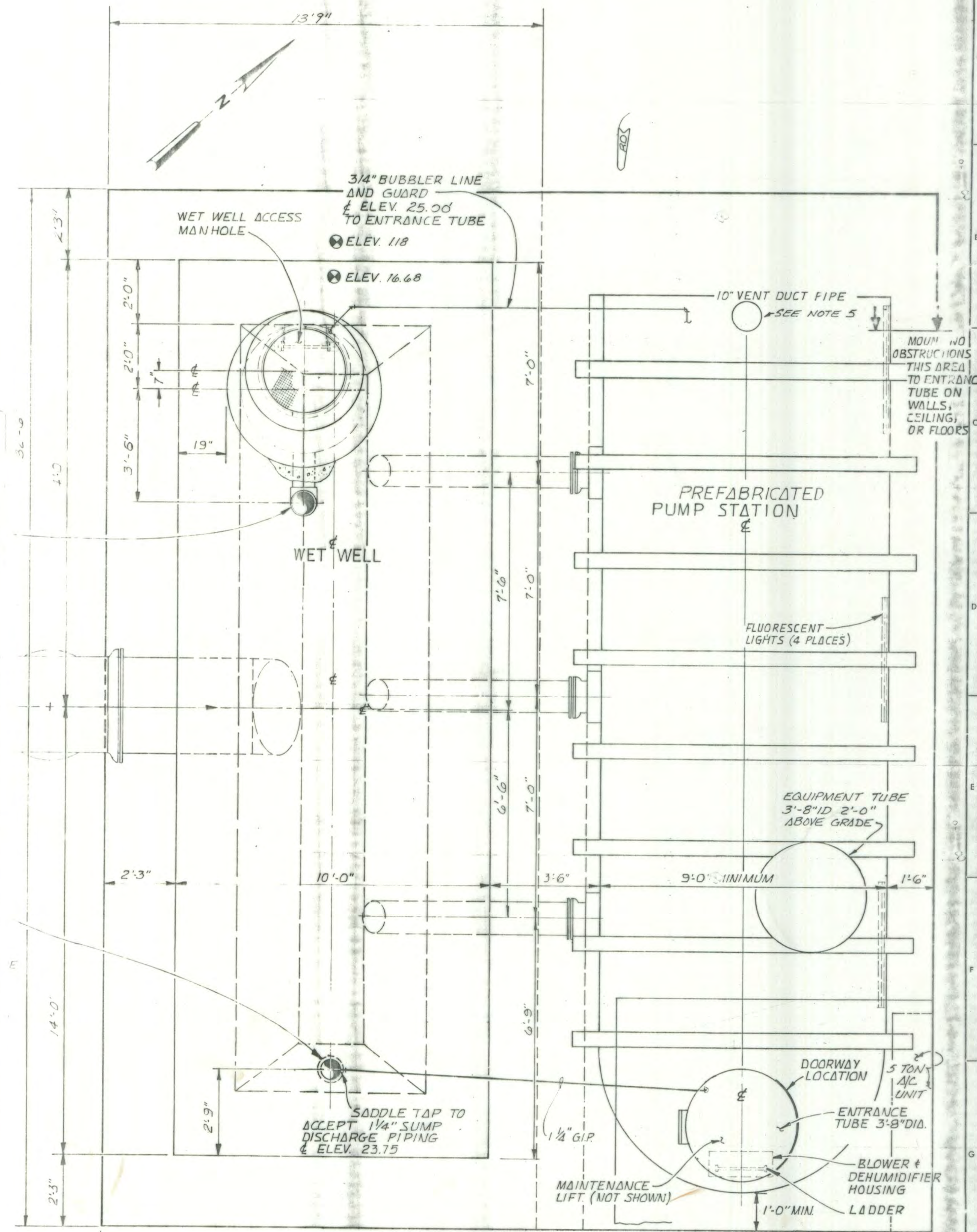












PLAN VIEW

- 1) USE A NON-SHRINK TYPE 3 GROUT  
AT ALL THRU WALL FITTINGS.
- 2) SEE SHT P.1 FOR PUMP STATION  
SITE PLAN AND ORIENTATION DETAILS
- 3) ALL INTERIOR WALLS OF WETWELL TO  
HAVE TWO COATS OF BITUMASTIC TYPE  
SEALING COMPOUND (PER SPECS)
- 4) USE ST. STL. HARDWARE, CLAMPS ETC. IN  
WET WELL SCHED. PIPING. DO NOT USE DL. OR PLAIN STL.
5. 10" VENT DUCT PIPE  
ON P.S. SHALL BE  
RUN PER PLOT PLAN  
SHT. # P.1
- C 450381-04
- 8-02-004-S

WASTEWATER SYSTEM IMPROVEMENTS FOR THE  
GRAND STRAND  
WATER & SEWER AUTHORITY

**BLACK, CROW AND EIDSNES, INC.**  
ENGINEERS

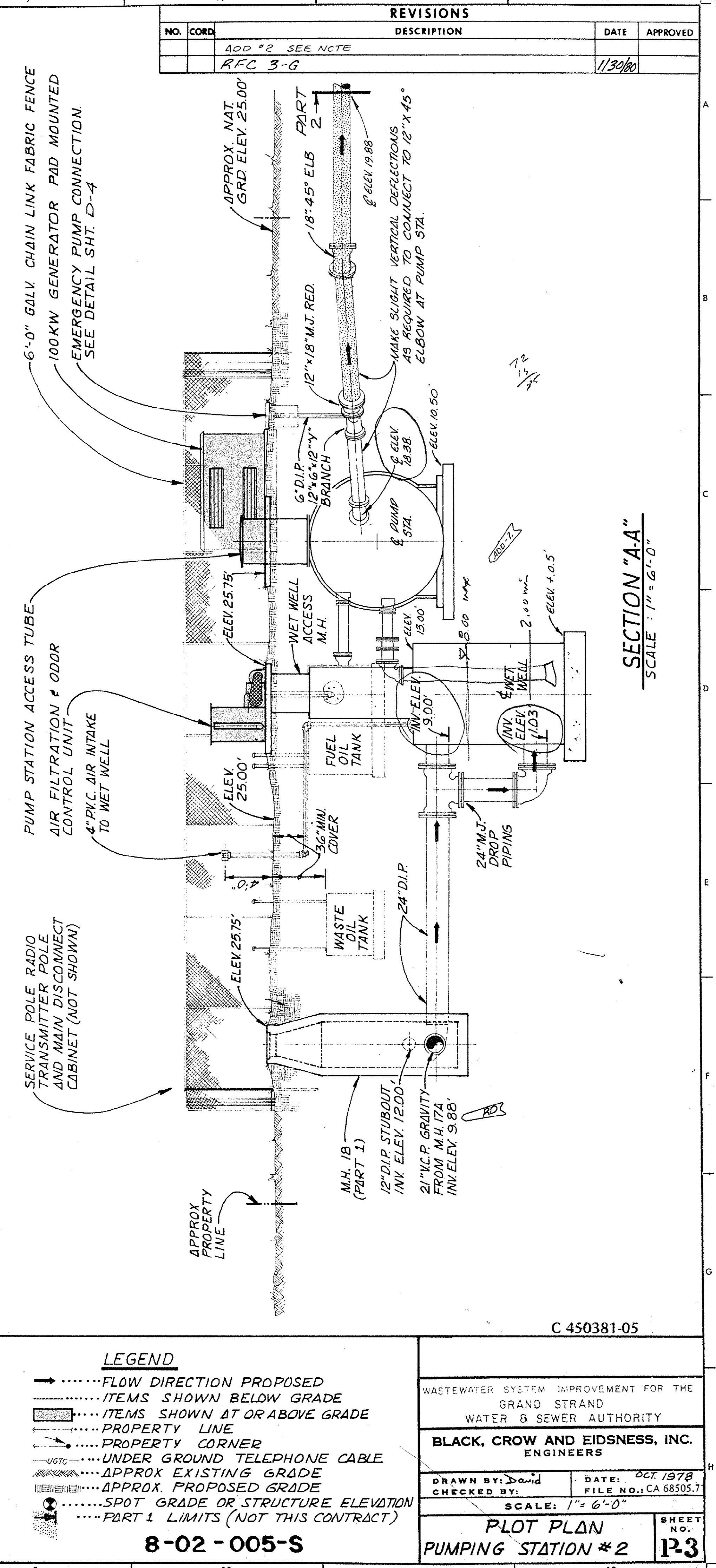
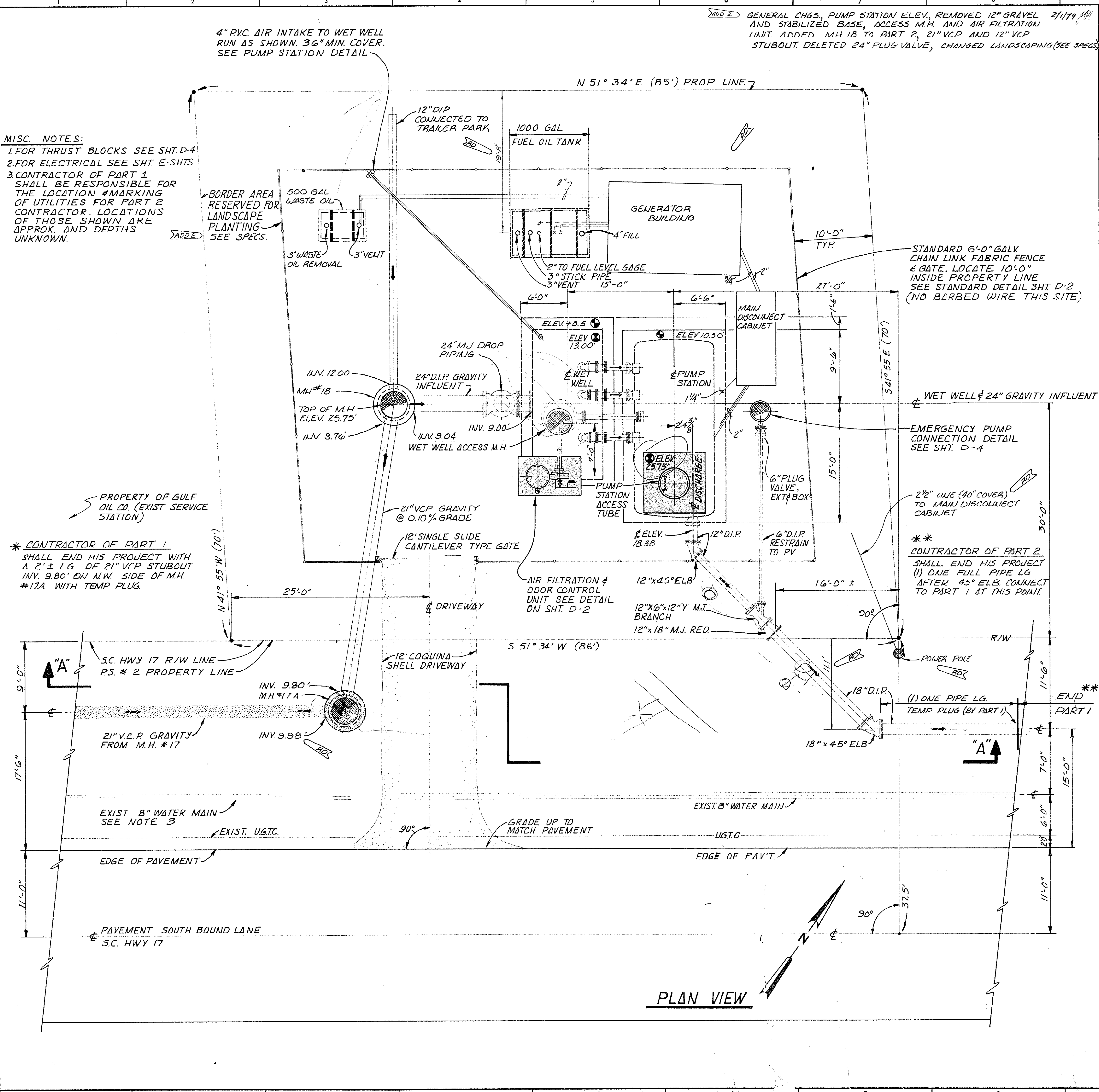
|                         |                     |
|-------------------------|---------------------|
| DRAWN BY: David         | DATE: OCT. 1978     |
| CHECKED BY: [Signature] | FILE NO. CA 68505.7 |
| SCALE: 1/2" = 1'-0"     |                     |

PUMPING STATION #1

## RECORD DRAWING

8-02-004-S





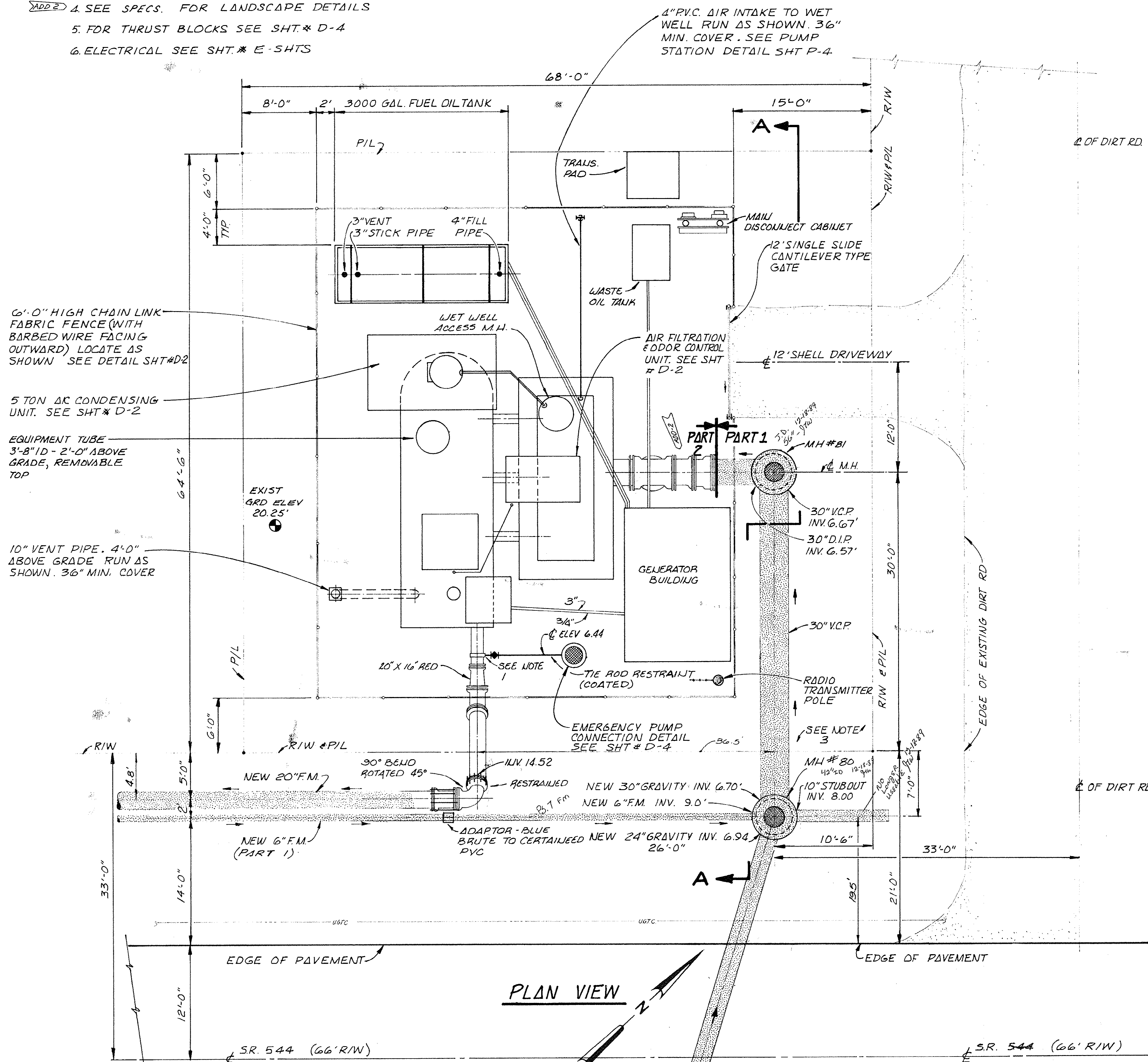




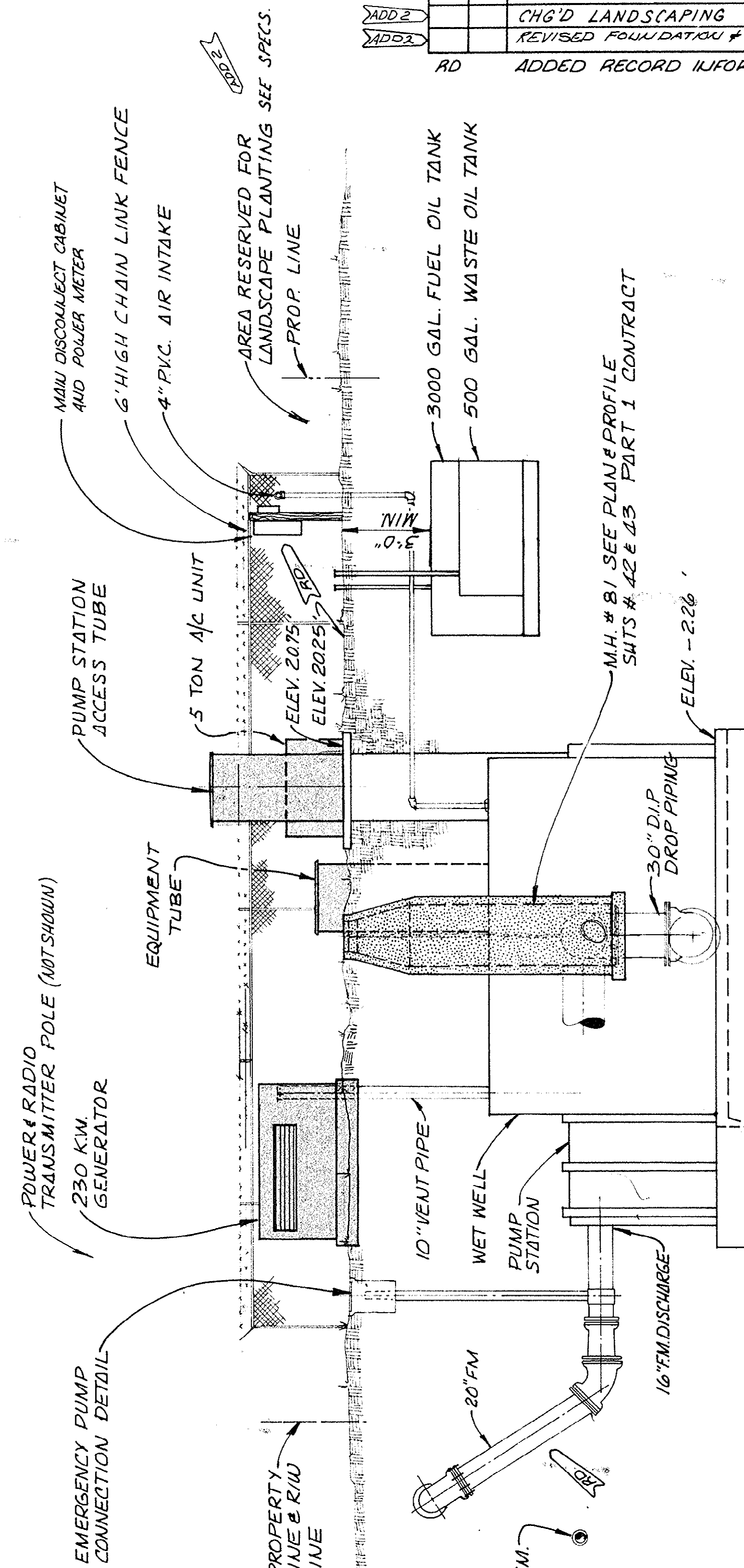


# MISC. NOTES:

1. CONTRACTOR SHALL PROVIDE SADDLE TAP WITH THD. HOLE IN 24"D.I.P. FOR 6" THD NIPPLE (NO BURN HOLE ALLOWED)
2. CONTRACTOR SHALL CONNECT PART 2 TO PART 1 @ 90° BEND (20"FM) AND TO 5' LG OF 30"D.I.P. STUBOUT WITH 30" PLUG VALVE ETC.
3. NOTE: OVERHEAD HV. UTILITY LINES EXIST IN AREA OF 30" GRAVITY PIPING. USE EXTREME CAUTION DURING CONSTRUCTION.
- ADD 2 4. SEE SPECS. FOR LANDSCAPE DETAILS
5. FOR THRUST BLOCKS SEE SHT. # D-4
6. ELECTRICAL SEE SHT. # E-SHTS



| REVISIONS |       |                                                    |        |
|-----------|-------|----------------------------------------------------|--------|
| NO.       | CORD. | DESCRIPTION                                        | DATE   |
| ADD 2     |       | CHG'D LANDSCAPING SEE SPECS.                       | 2/1/79 |
| ADD 3     |       | REVISED FOUNDATION & REINF. REMOVED 20" PLUG VALVE | 2/1/79 |
| AD        |       |                                                    | 7-82   |



SECTION A-A'  
1"=6'-0"

## RECORD DRAWING

- LEGEND**
- ..... FLOW DIRECTION
  - ..... ITEMS SHOWN BELOW GRADE
  - ..... ITEMS SHOWN AT OR ABOVE GRADE
  - ..... PROPERTY LINE
  - ..... PROPERTY CORNER
  - ..... SPOT GRADE OR STRUCTURE ELEV'S
  - ..... PART 1 LIMITS (NOT THIS CONTRACT)

C 450381-05

WASTEWATER SYSTEM IMPROVEMENT FOR THE  
GRAND STRAND  
WATER & SEWER AUTHORITY

BLACK, CROW AND EIDNESS, INC.  
ENGINEERS

DRAWN BY: DAW  
CHECKED BY: [Signature]  
DATE: OCT 1978  
FILE NO.: CA 68505.77

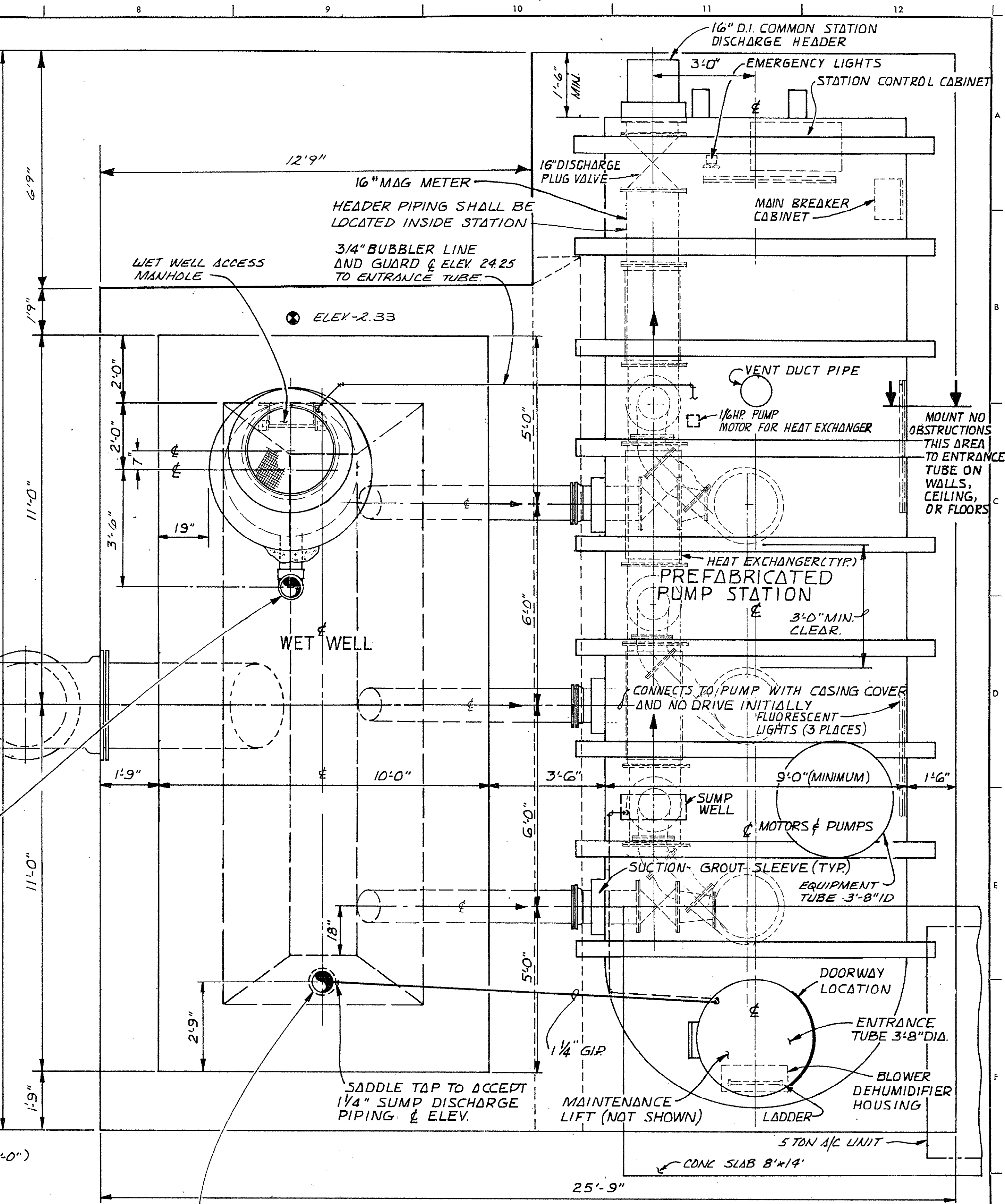
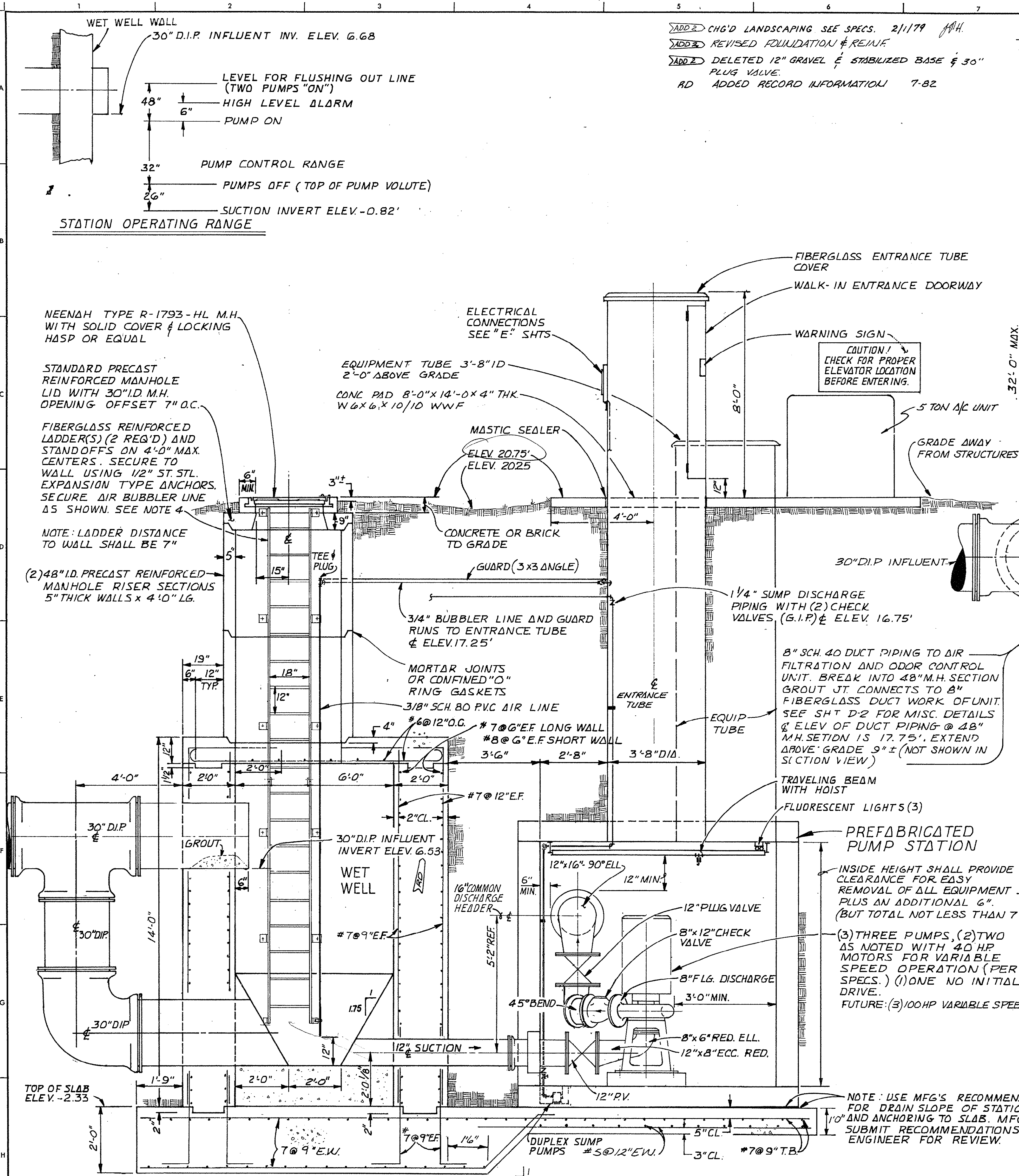
SCALE: 1"=6'-0"

PLOT PLAN  
PUMPING STATION # 3

SHEET  
NO. P-5

8-02-007-S





- NOTES:**
- 1) USE A NON-SHRINK TYPE 3 GROUT AT ALL THRU WALL FITTINGS.
  - 2) SEE SHT P-5 FOR PUMP STATION SITE PLAN AND ORIENTATION DETAILS.
  - 3) ALL INTERIOR WALLS OF WETWELL TO HAVE TWO COATS OF BITUMASTIC TYPE SEALING COMPOUND (PER SPECS.)
  - 4) USE ST.STL. HARDWARE, CLAMPS ETC. IN WET WELL & SCH 80 PVC PIPING. DO NOT USE DL. OR PLAIN STL.

SECTION (MISC. CUTS)

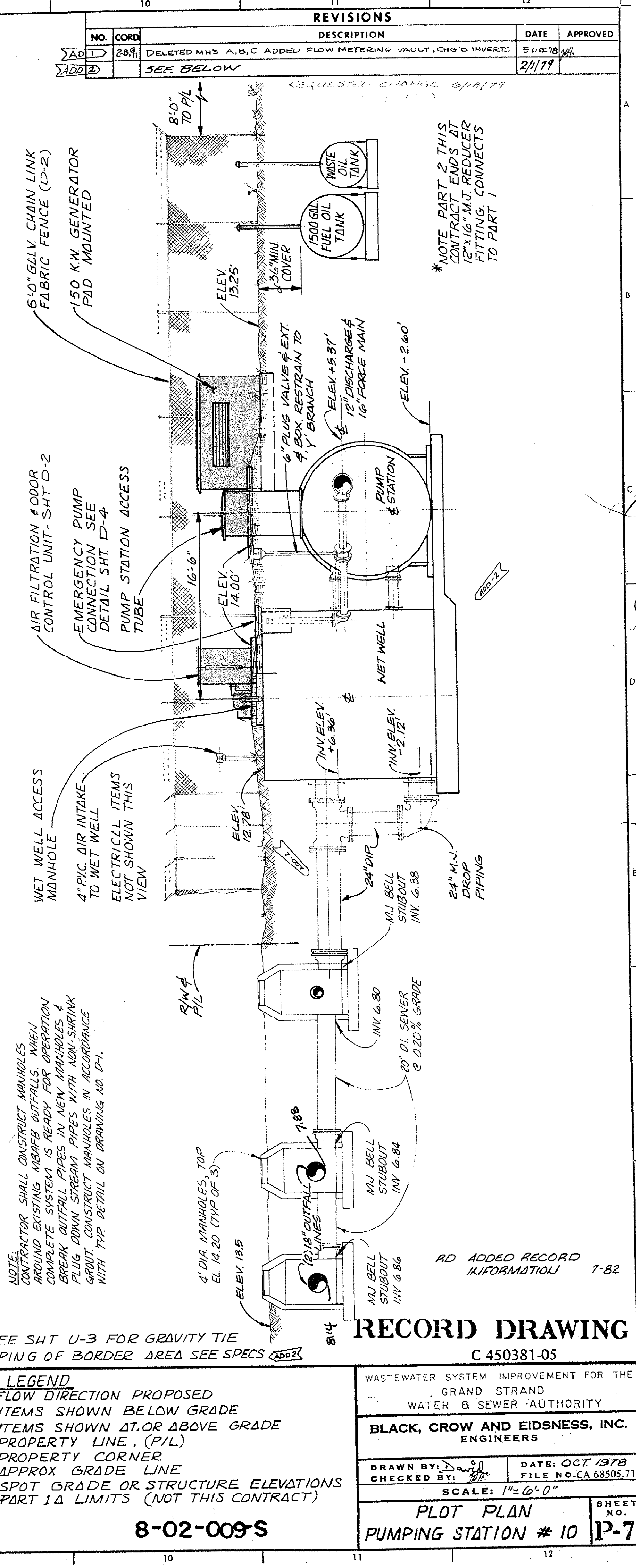
RECORD DRAWING

8-02-008-S

|                                                                                   |                      |
|-----------------------------------------------------------------------------------|----------------------|
| C 450381-05                                                                       |                      |
| WASTEWATER SYSTEM IMPROVEMENTS FOR THE<br>GRAND STRAND<br>WATER & SEWER AUTHORITY |                      |
| BLACK, CROW AND EIDNESS, INC.<br>ENGINEERS                                        |                      |
| DRAWN BY: David                                                                   | DATE: OCT 1978       |
| CHECKED BY: [Signature]                                                           | FILE NO. CA 68505.71 |
| SCALE: 1/2" = 1'-0"                                                               |                      |
| PUMPING STATION #3                                                                |                      |
| SHEET NO. 16                                                                      |                      |



PROPERTY OWNED BY MYRTLE BEACH FARMS



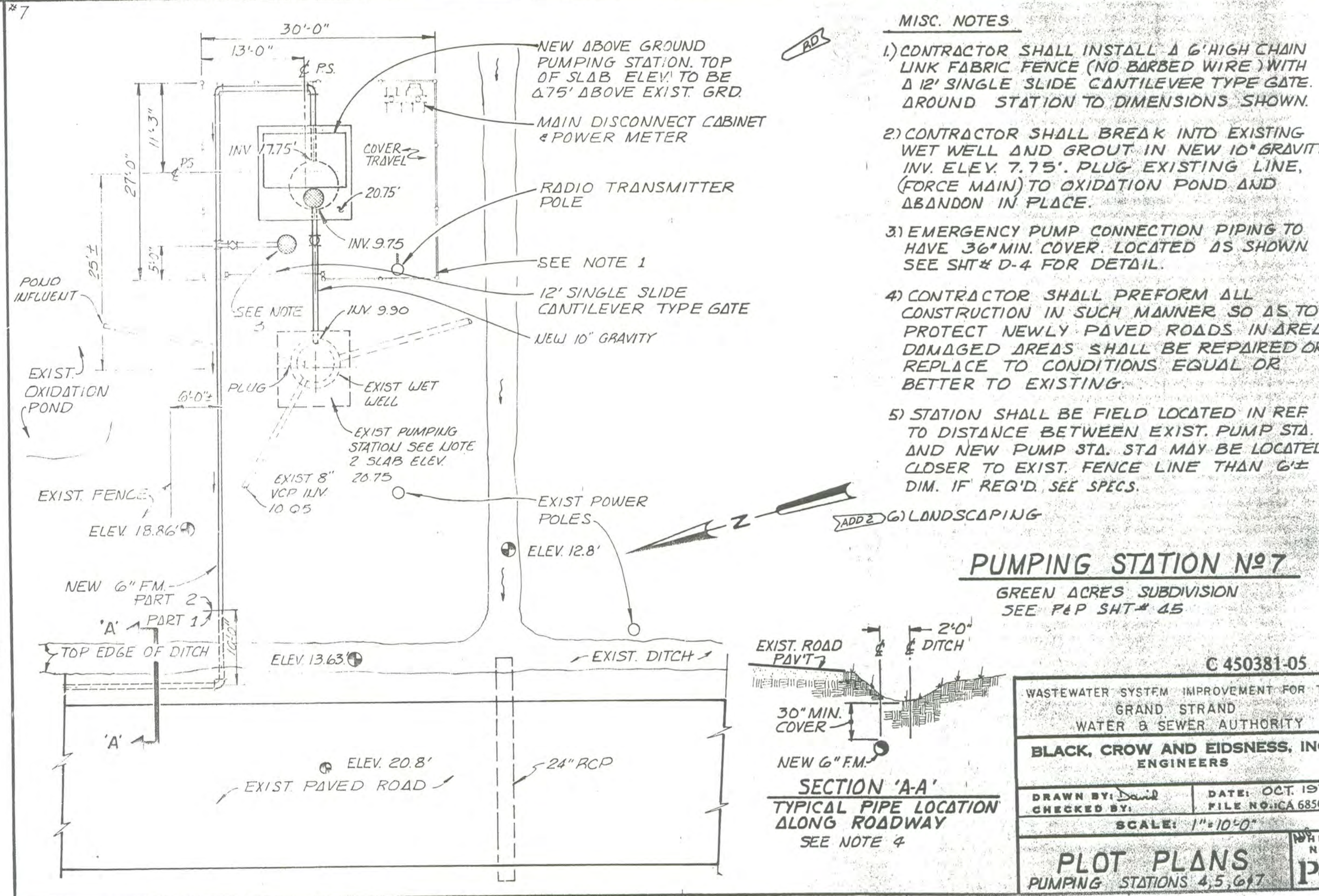
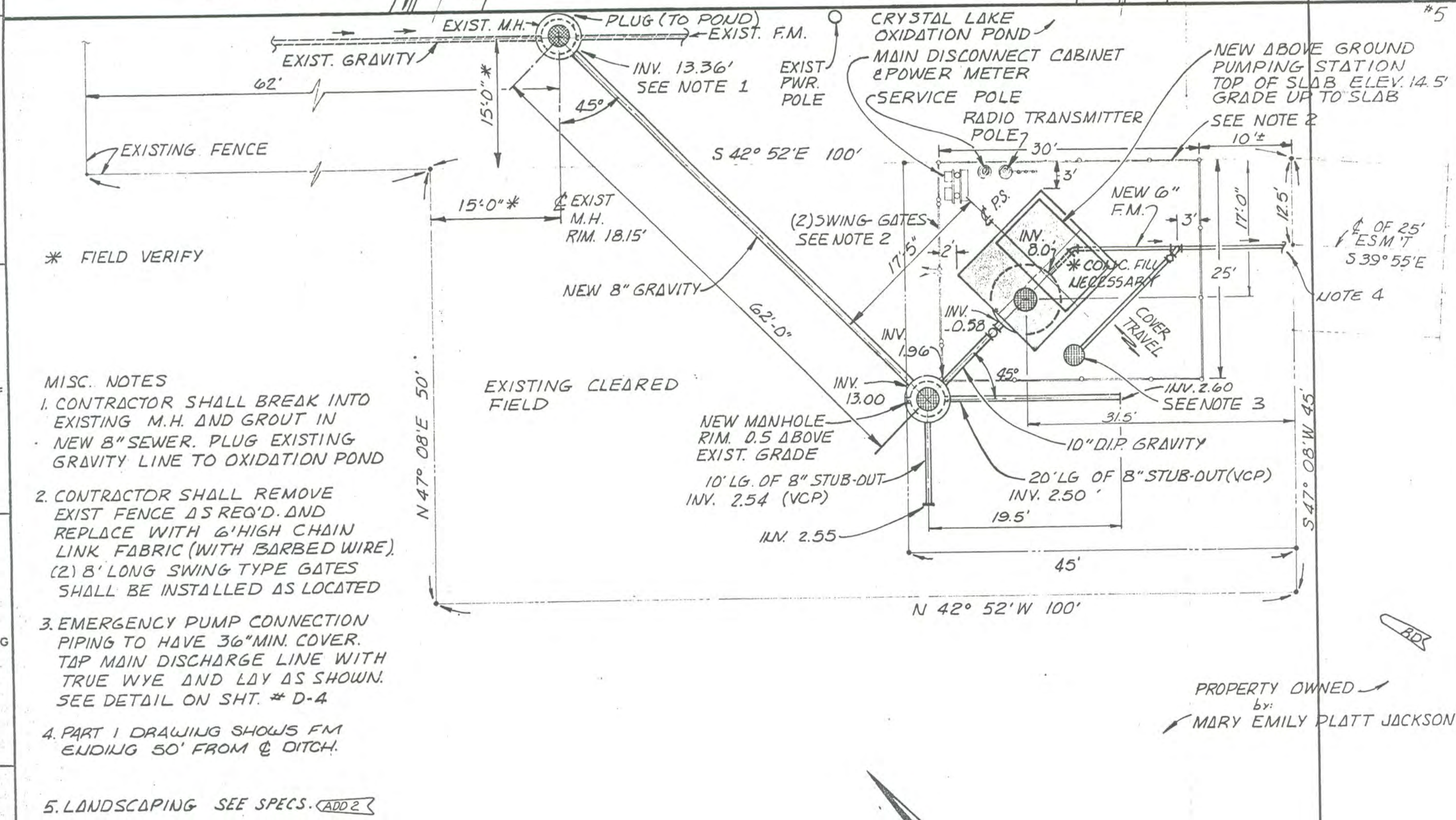
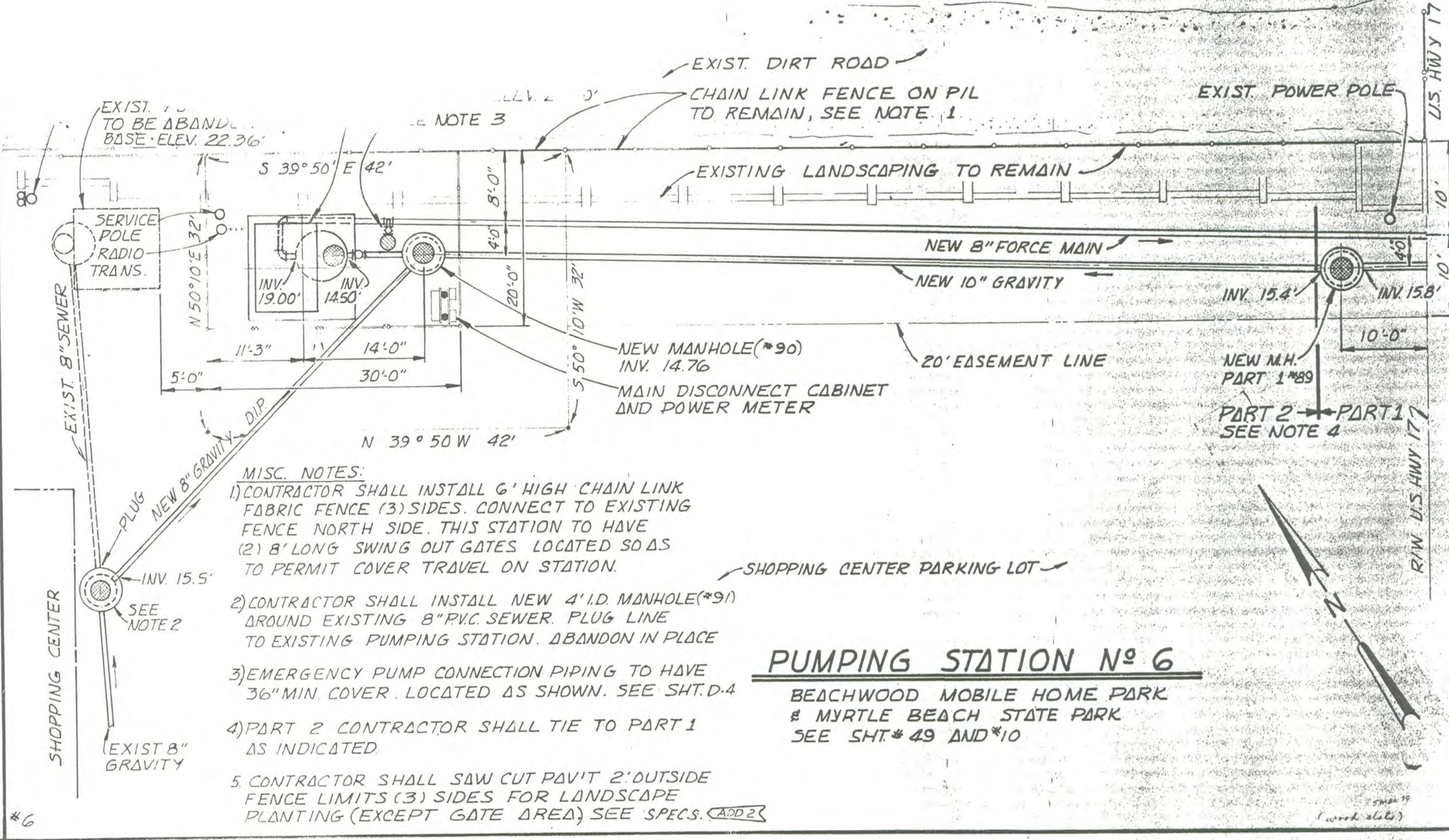
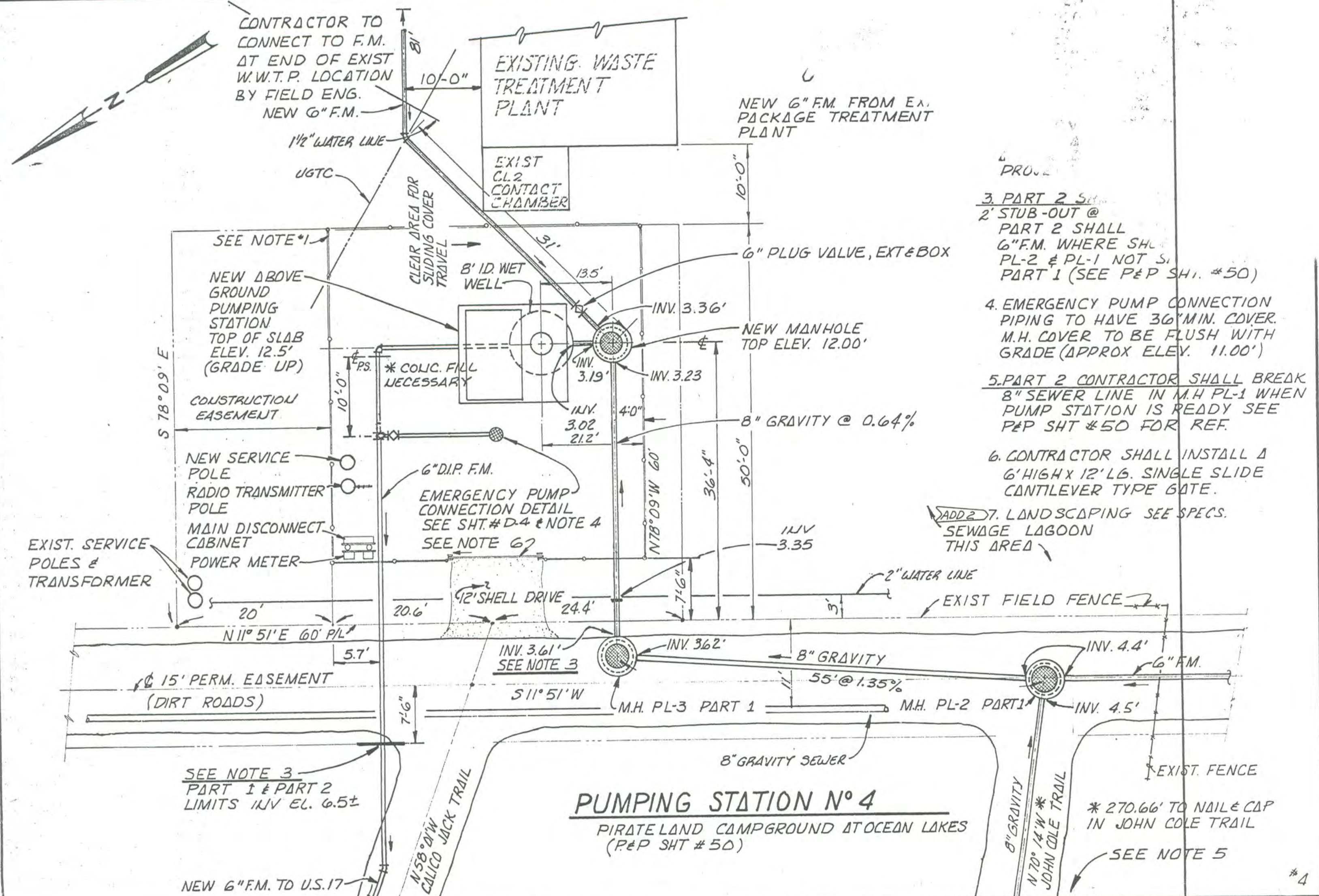
\*NOTE PART 2 THIS CONTRACT ENDS AT 12"x16" M.J. REDUCER FITTING, CONNECTS TO PART 1





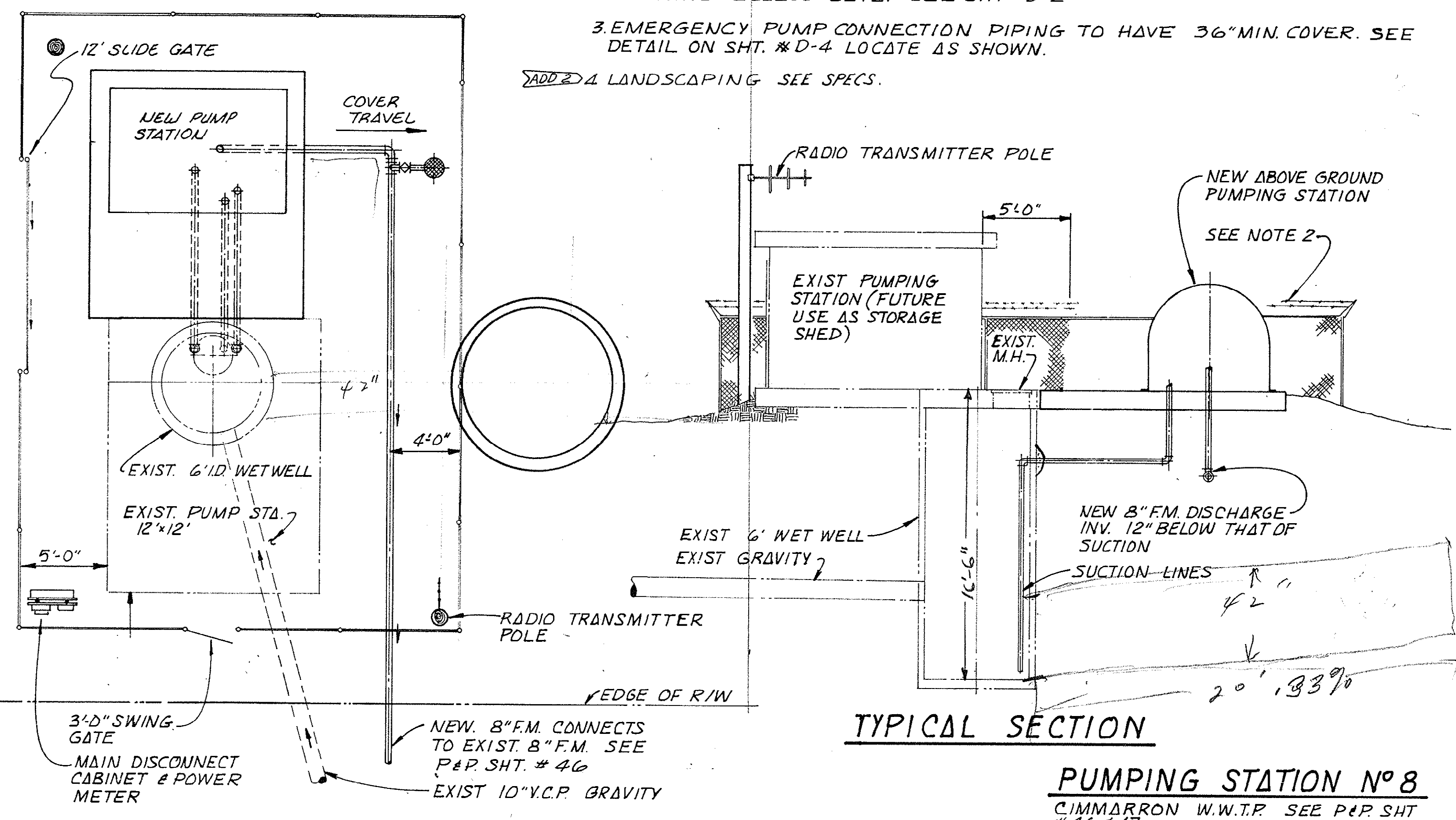


| NO. |  | CORD |  | DESCRIPTION                                   | DATE   | APPROVED |
|-----|--|------|--|-----------------------------------------------|--------|----------|
|     |  |      |  | CHGD LANDSCAPING SEE SPECS DELETED PLUG VALVE | 2-1-79 |          |
|     |  |      |  | ON-INFLUENT LINE ALL STATIONS                 |        |          |
|     |  |      |  | 1000' A-CORD INFORMATION                      | 7-82   |          |



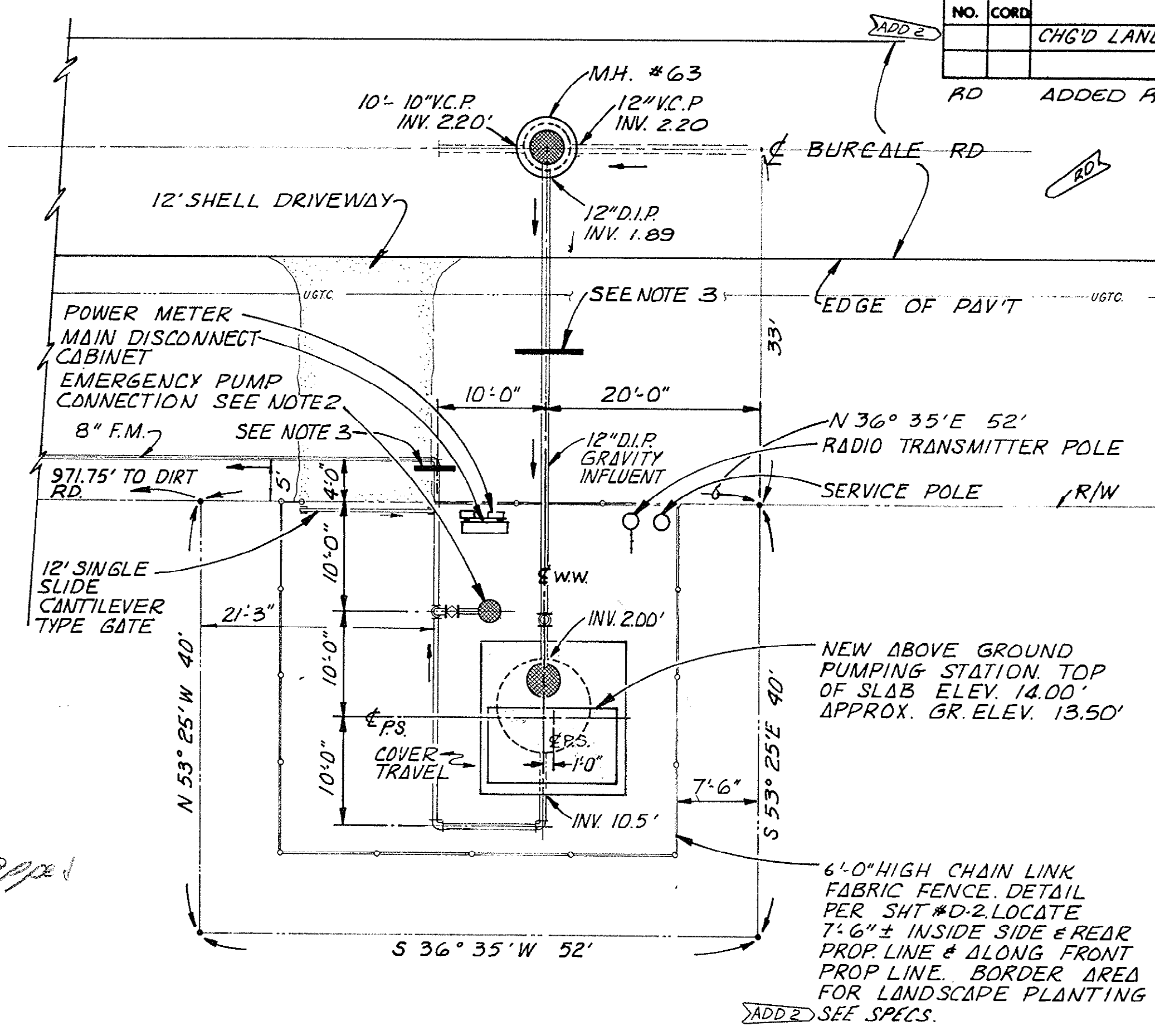


1. CONTRACTOR SHALL INSTALL NEW STATION AS REF. TO OLD STATION BELOW, DOWEL SLABS TOGETHER. GRADE UP AS REQ'D. BREAK INTO EXIST. WET WELL AND GROUT IN SUCTION & SERVICE LINES. INV. ELEV. INTO EXIST. WET WELL AS NOTED. PLUG F.M. TO W.W.T.P. OLD PUMP STATION BUILDING TO REMAIN IN PLACE
  2. CONTRACTOR SHALL INSTALL A 6' HIGH CHAIN LINK FABRIC FENCE (WITH BARBED WIRE) AND 12' SINGLE SLIDE CANTILEVER TYPE GATE WITH AN ADDITIONAL 3' SWING ACCESS GATE. SEE SHT D-2
  3. EMERGENCY PUMP CONNECTION PIPING TO HAVE 36" MIN. COVER. SEE DETAIL ON SHT. #D-4 LOCATE AS SHOWN.
- ADD 2 4 LANDSCAPING SEE SPECS.



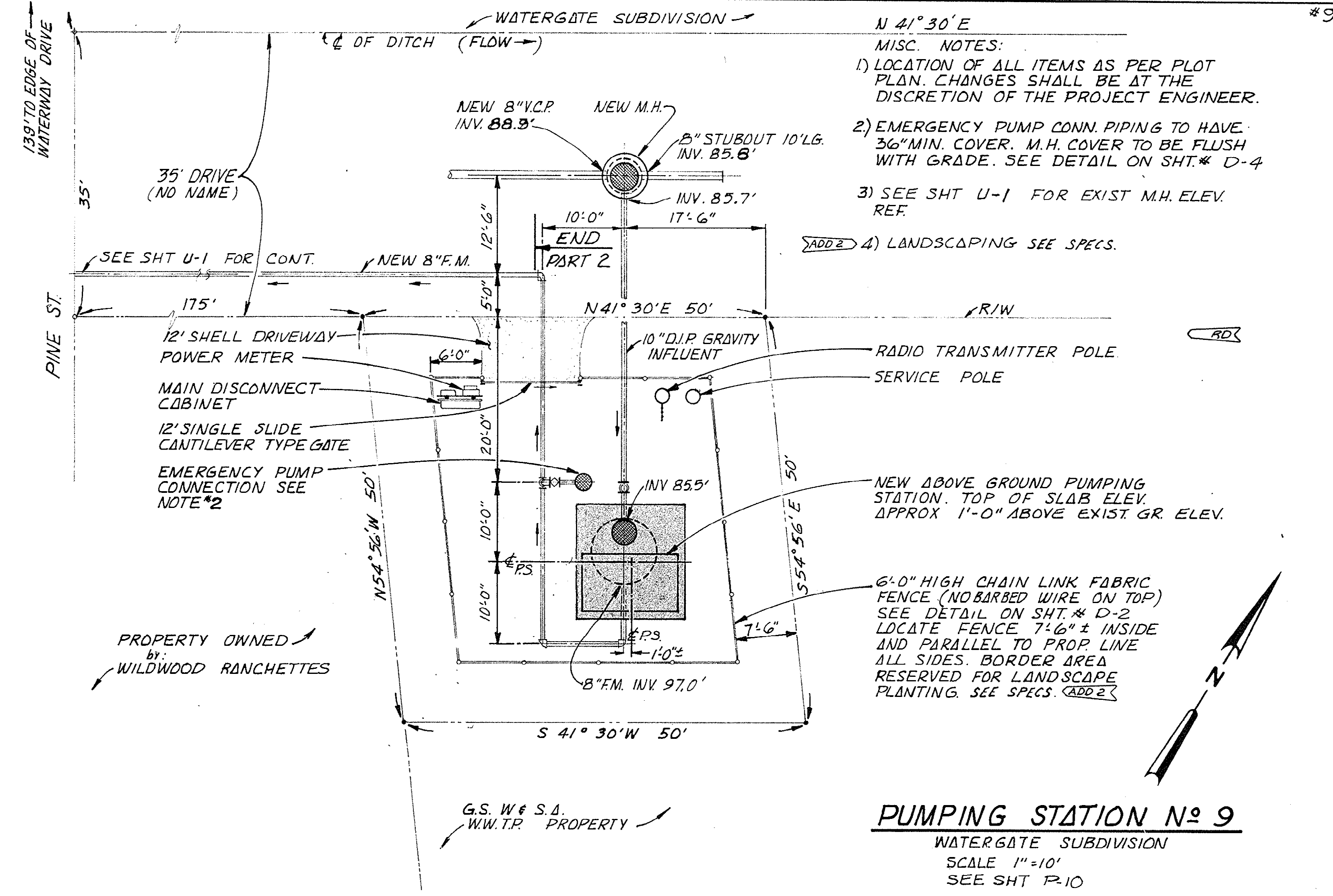
**TYPICAL SECTION**  
**PUMPING STATION No 8**  
 CIMMARRON W.W.T.P. SEE P&P SHT #46 & 47  
 1" = 5'-0"

| REVISIONS                |       |                              |        |
|--------------------------|-------|------------------------------|--------|
| NO.                      | CORD. | DESCRIPTION                  | DATE   |
| 1                        |       | CHG'D LANDSCAPING SEE SPECS. | 2-1-79 |
| ADDED RECORD INFORMATION |       |                              | 7-82   |

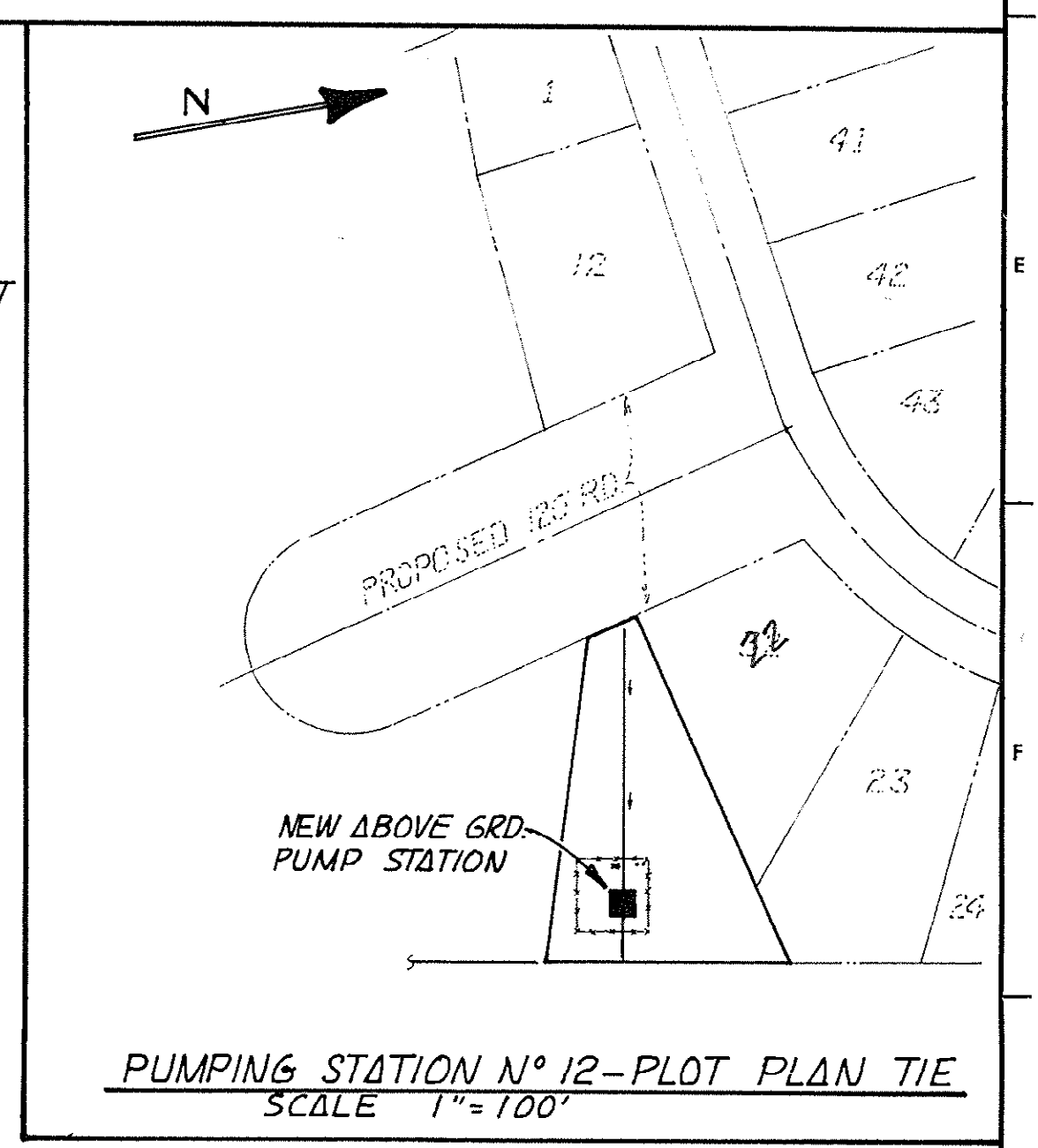
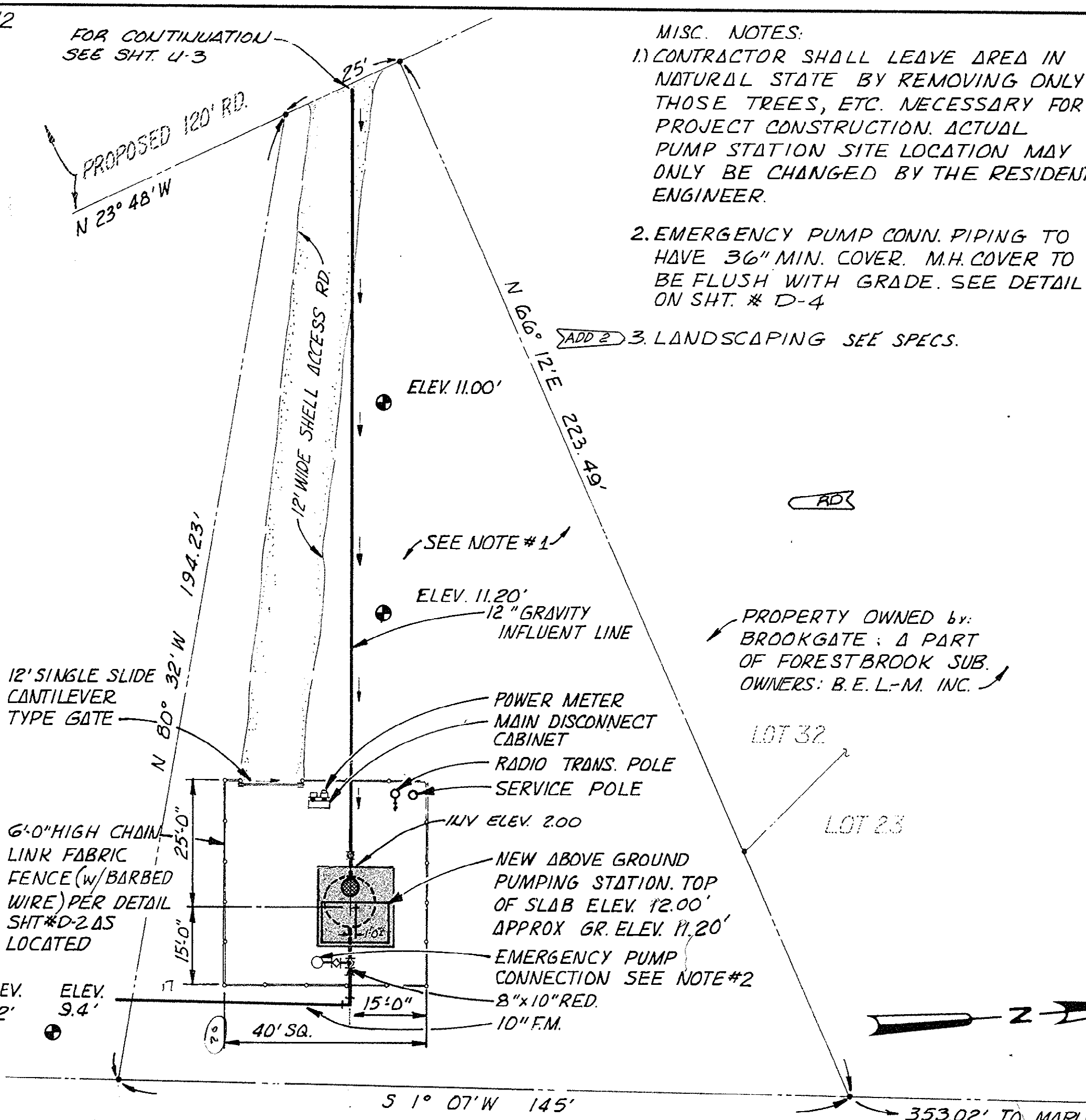


- MISC. NOTES:
1. LOCATION OF ALL ITEMS AS PER PLOT PLAN. CHANGES SHALL BE AT THE DISCRETION OF THE PROJECT ENGINEER.
  2. EMERGENCY PUMP CONN. PIPING TO HAVE 36" MIN. COVER. M.H. COVER TO BE FLUSH WITH GRADE. SEE DETAIL ON SHT #D-4
  3. PART 2 CONTRACTOR SHALL TIE INTO 12" D.I.P. APPROX 20' SE OF M.H. # 63 (M.H. # 63, PART 1) FOR INFLUENT LINE. EFFLUENT (8" F.M.) SHALL TIE INTO 8"-90° BEND LEFT BY PART 1 CONTRACTOR. SEE P&P SHT # 28
- ADD 2 4 LANDSCAPING SEE SPECS.

**PUMPING STATION No 11**  
 SEE P&P SHT. # 28  
 SCALE 1" = 10'-0"



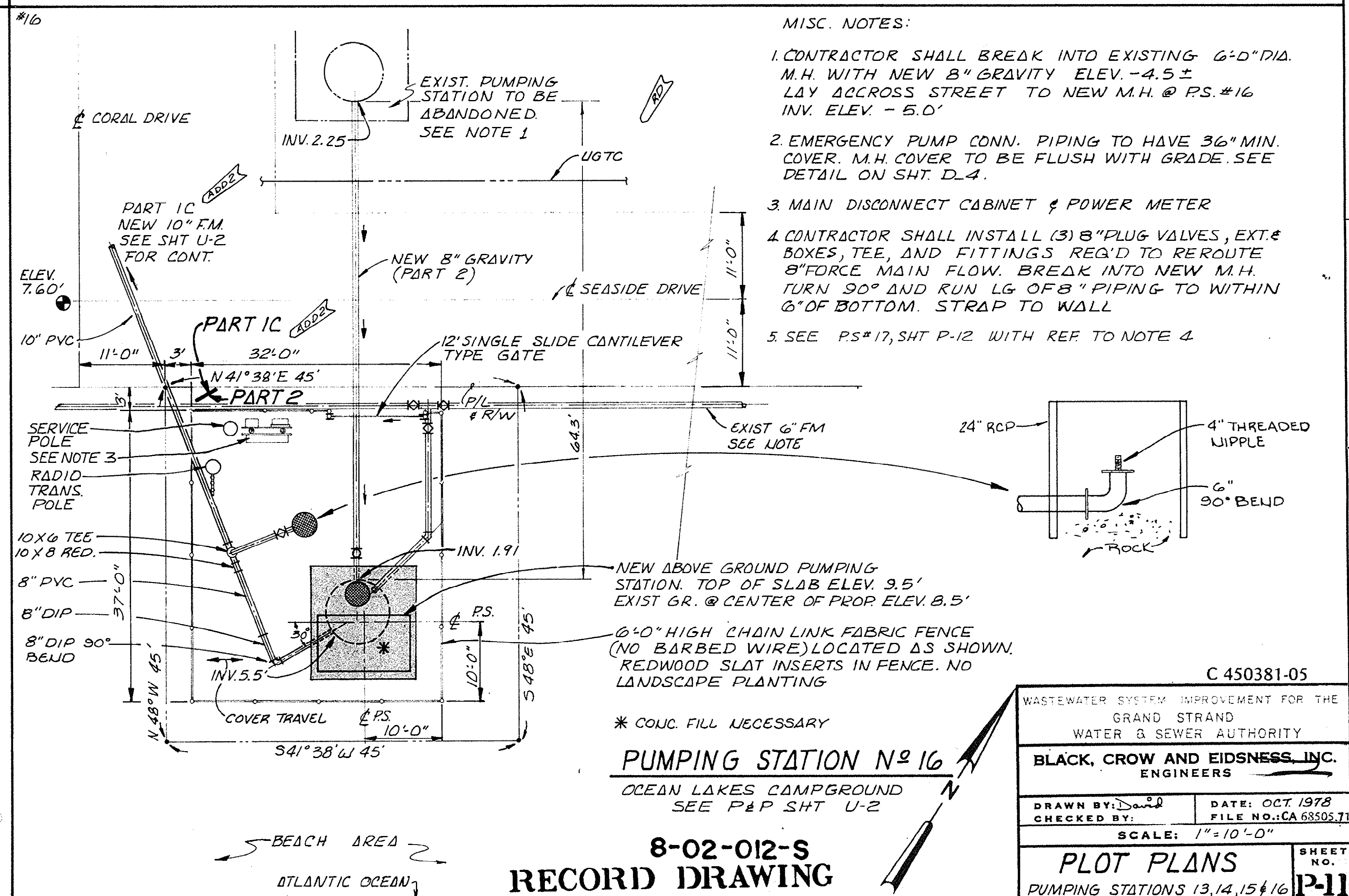
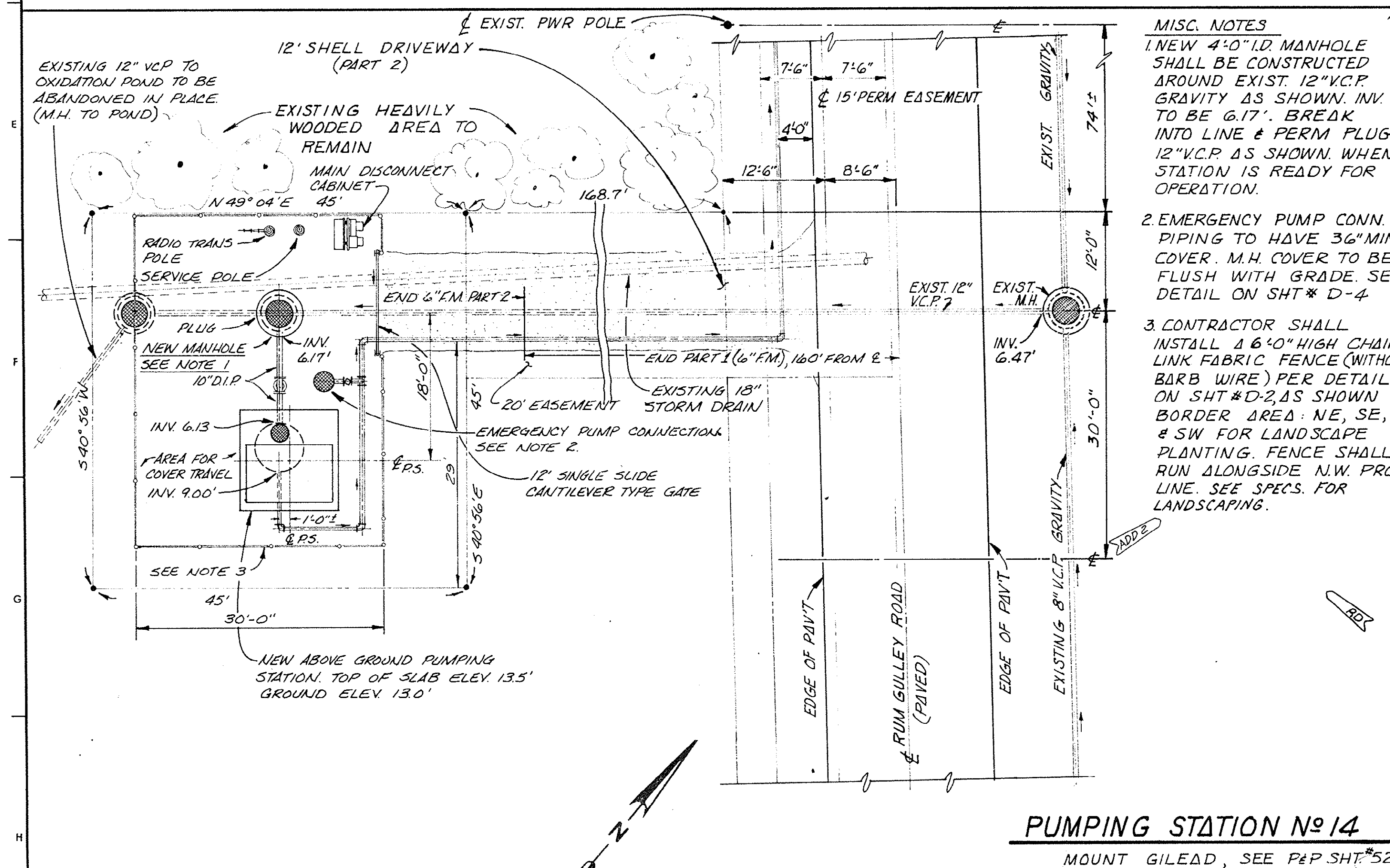
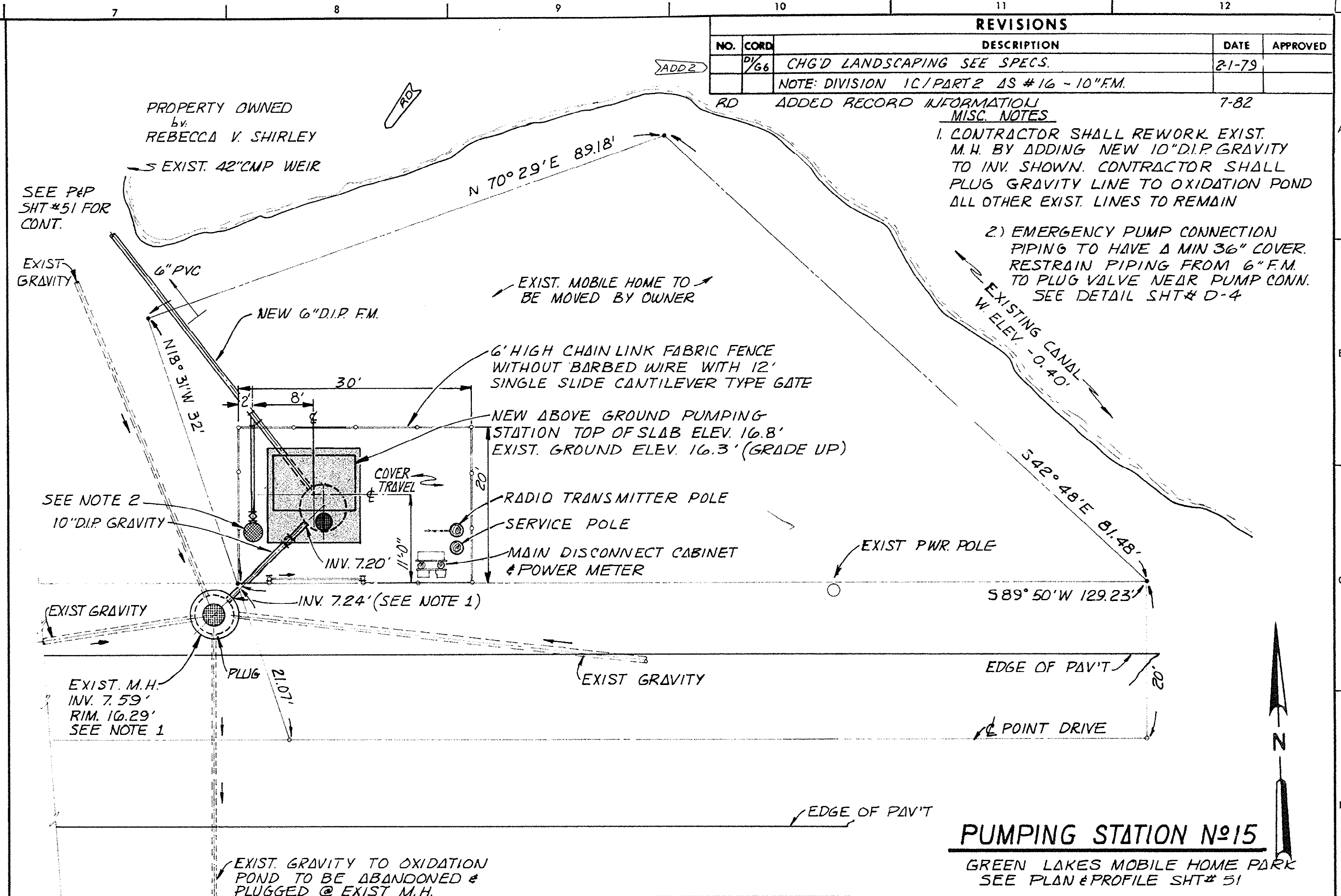
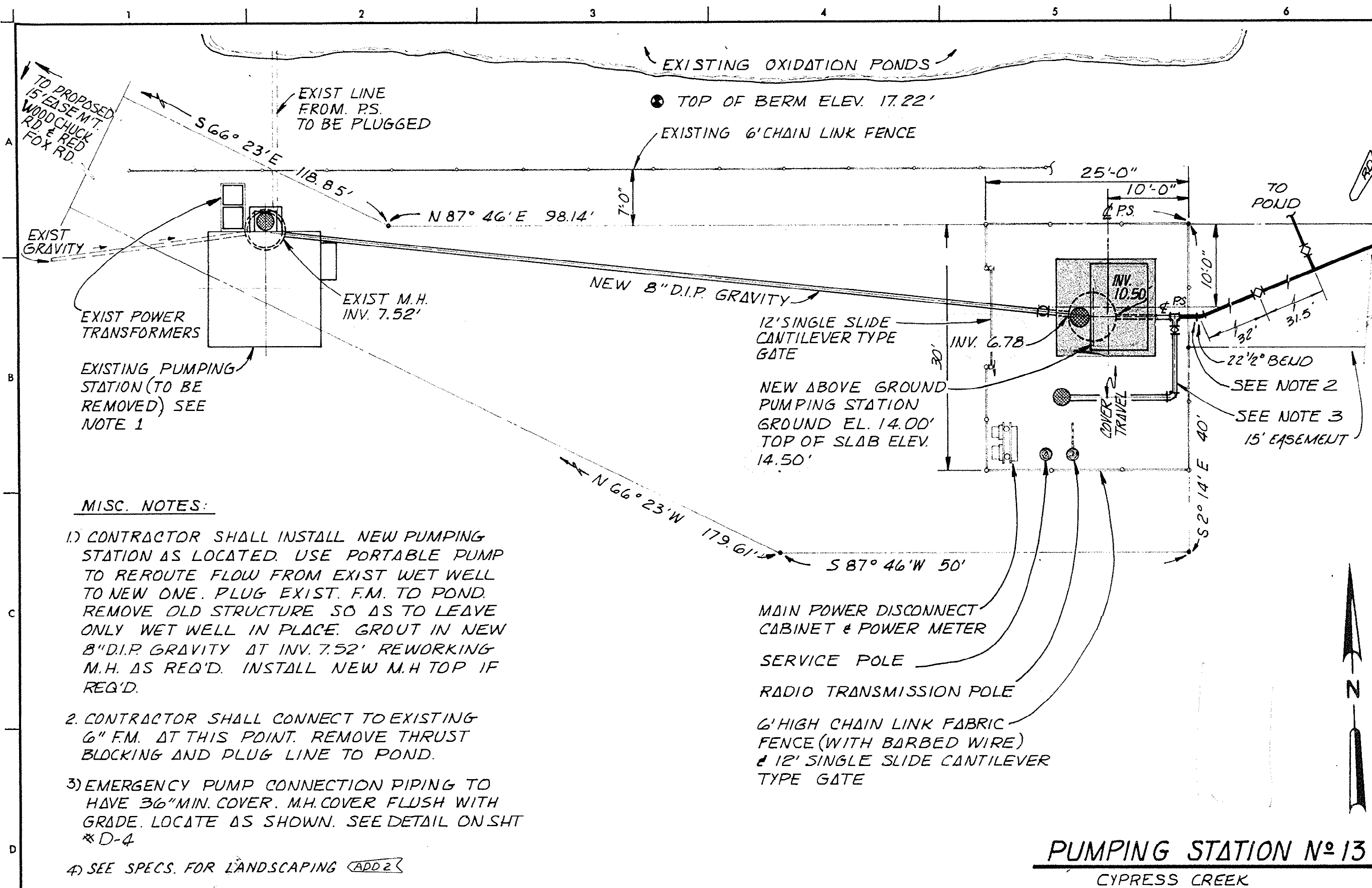
**PUMPING STATION No 9**  
 WATERGATE SUBDIVISION  
 SCALE 1" = 10'-0"  
 SEE SHT P-10



**RECORD DRAWING**  
**PUMPING STATION No 12**  
 BROOKGATE SUB. SEE SHT # 32  
 SCALE: 1" = 20'-0"  
 C 450381-05

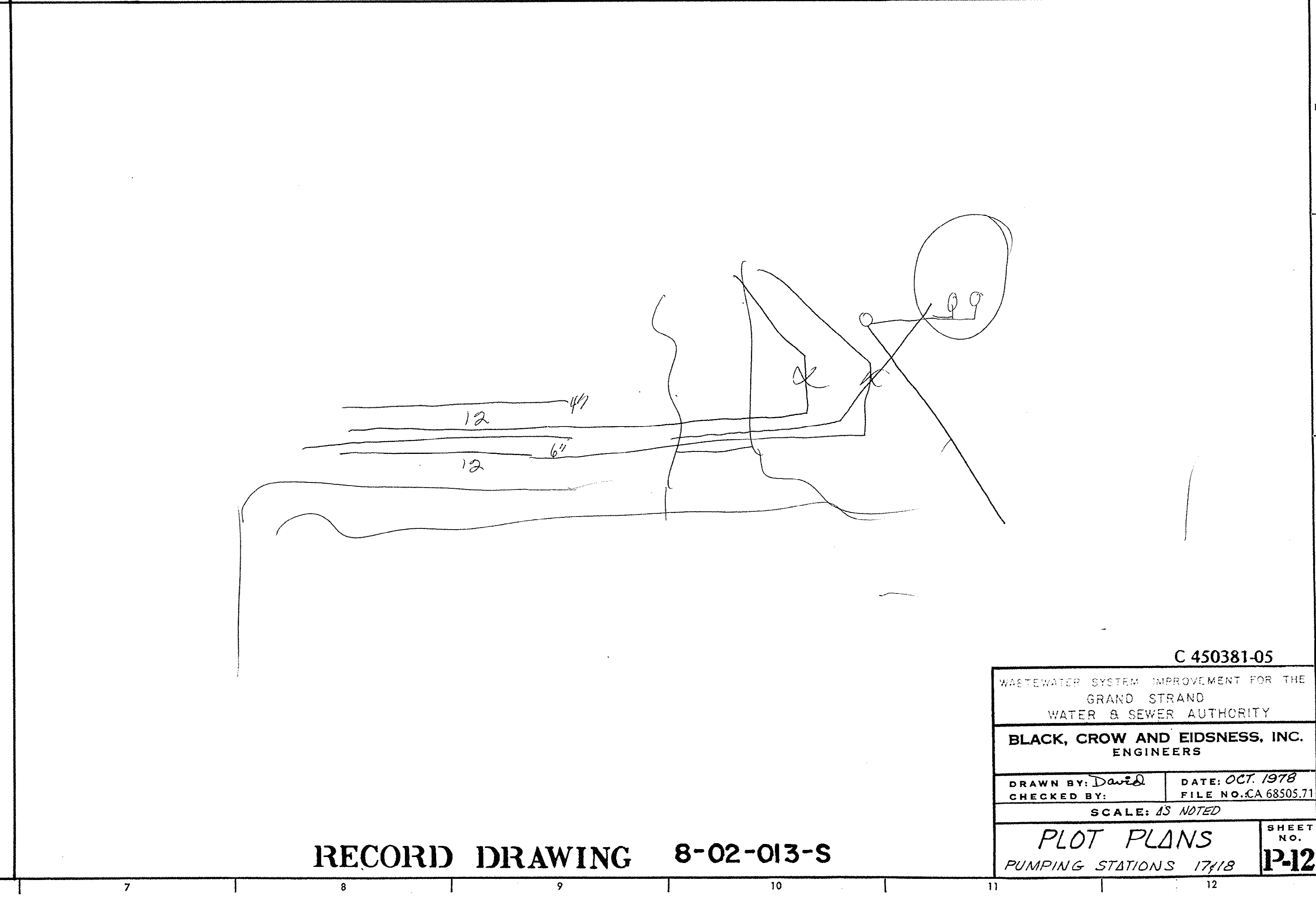
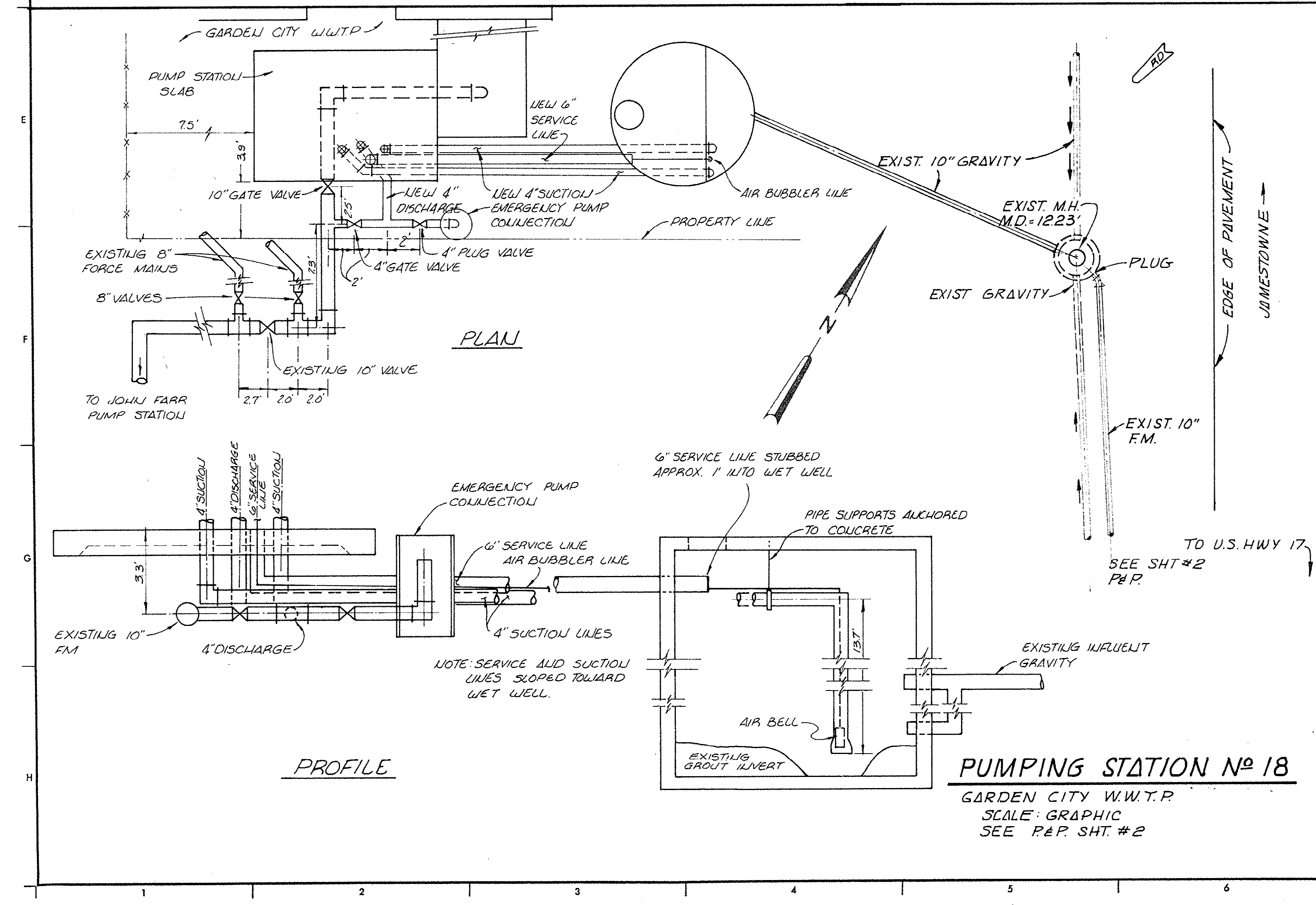
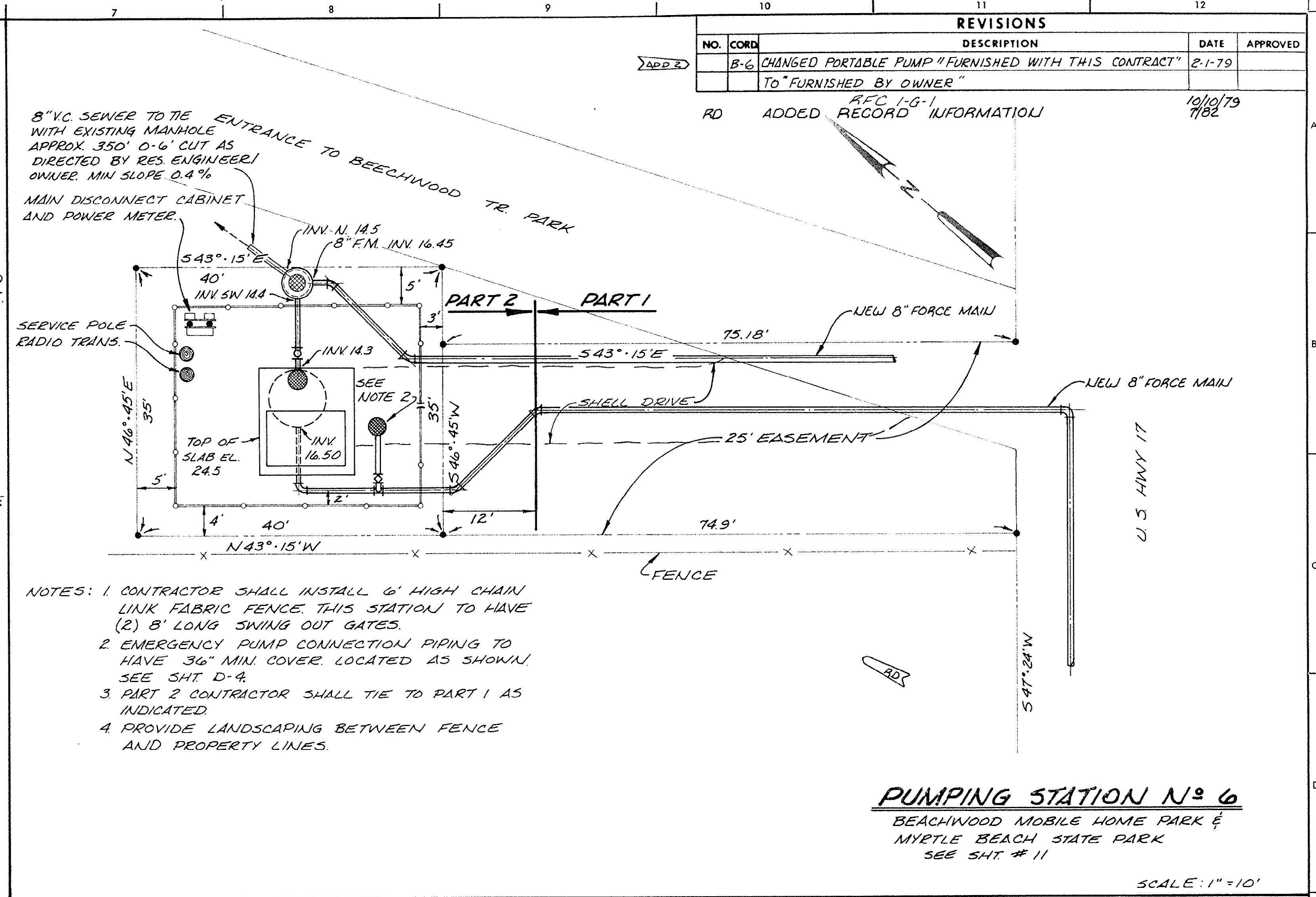
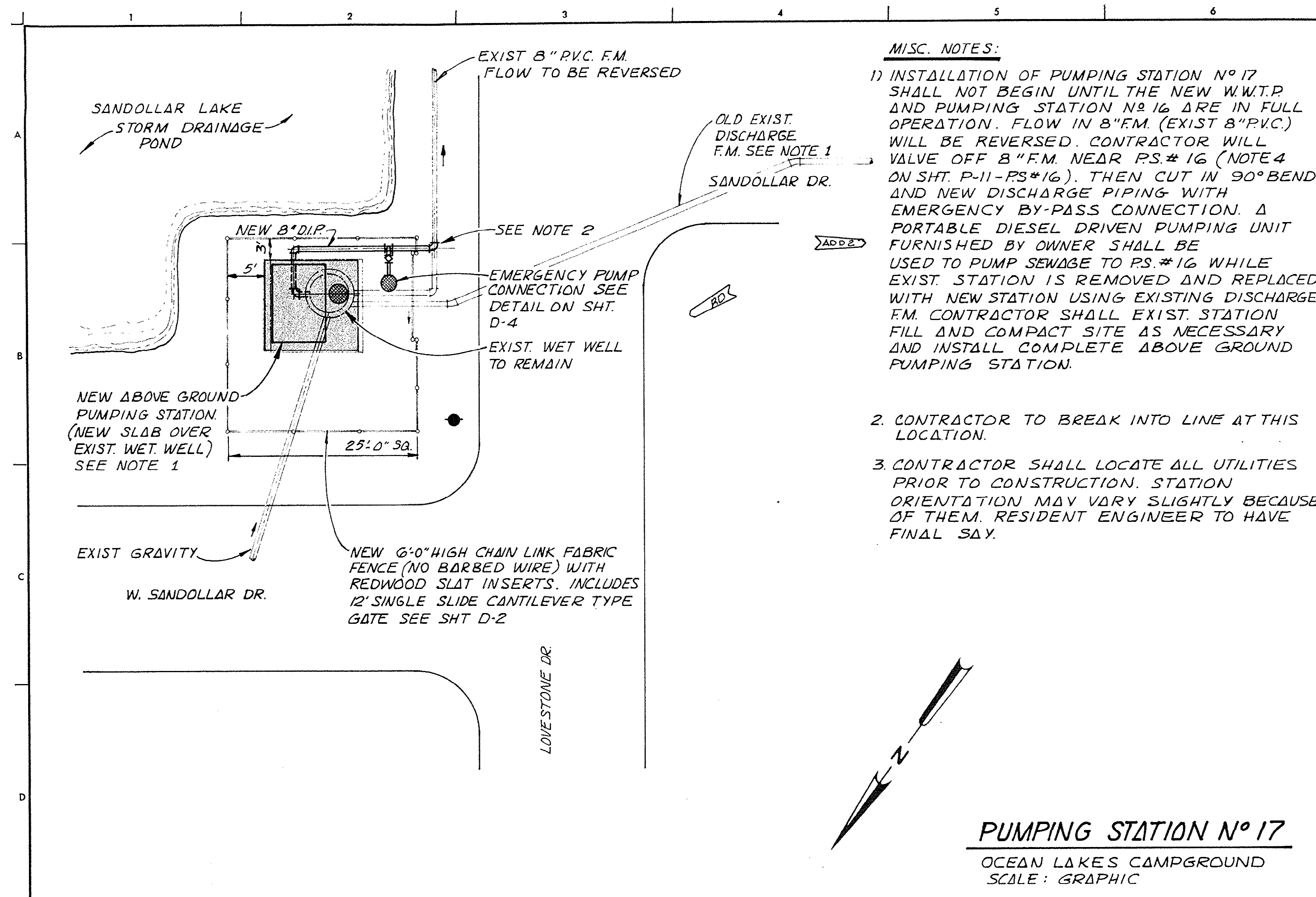
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| WASTEWATER SYSTEM IMPROVEMENT FOR THE GRAND STRAND WATER & SEWER AUTHORITY |                       |
| BLACK, CROW AND EIDNESS, INC. ENGINEERS                                    |                       |
| DRAWN BY: David                                                            | DATE: OCT 1978        |
| CHECKED BY:                                                                | FILE NO.: CA 68505.71 |
| SCALE: AS NOTED                                                            |                       |
| PLOT PLANS                                                                 |                       |
| PUMPING STATIONS 8, 9, 11, 12                                              |                       |
| SHEET NO. 1-10                                                             |                       |





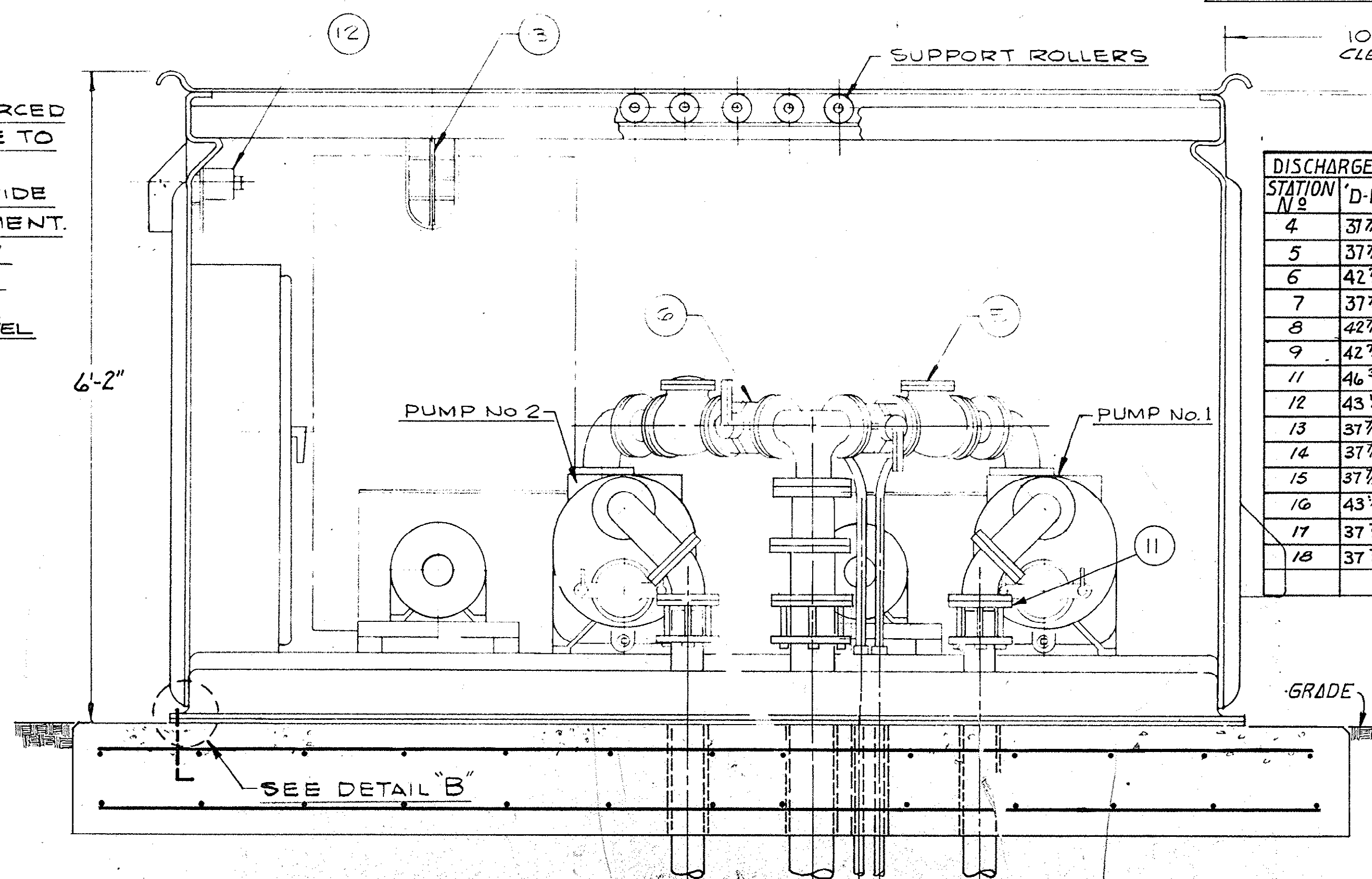
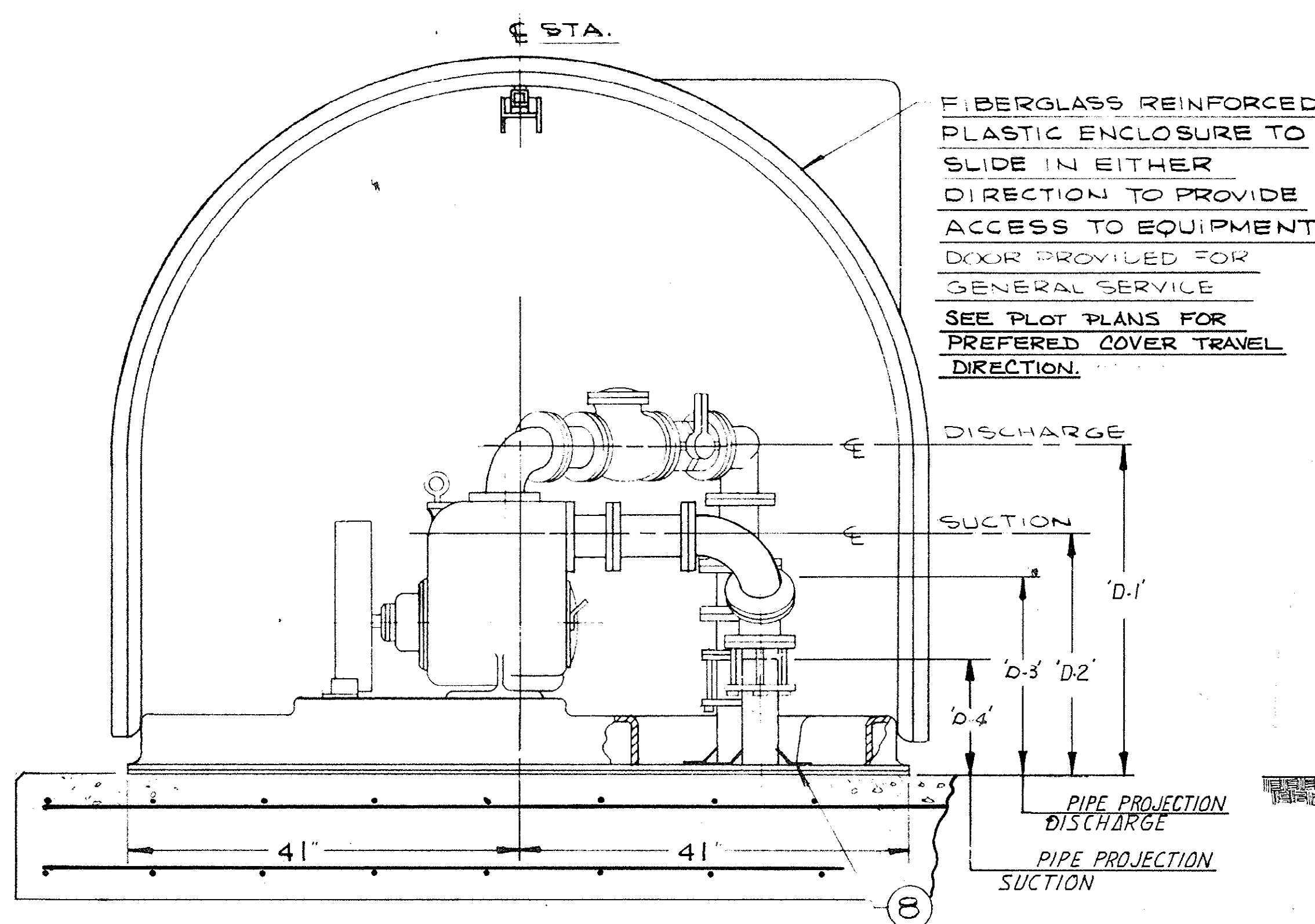
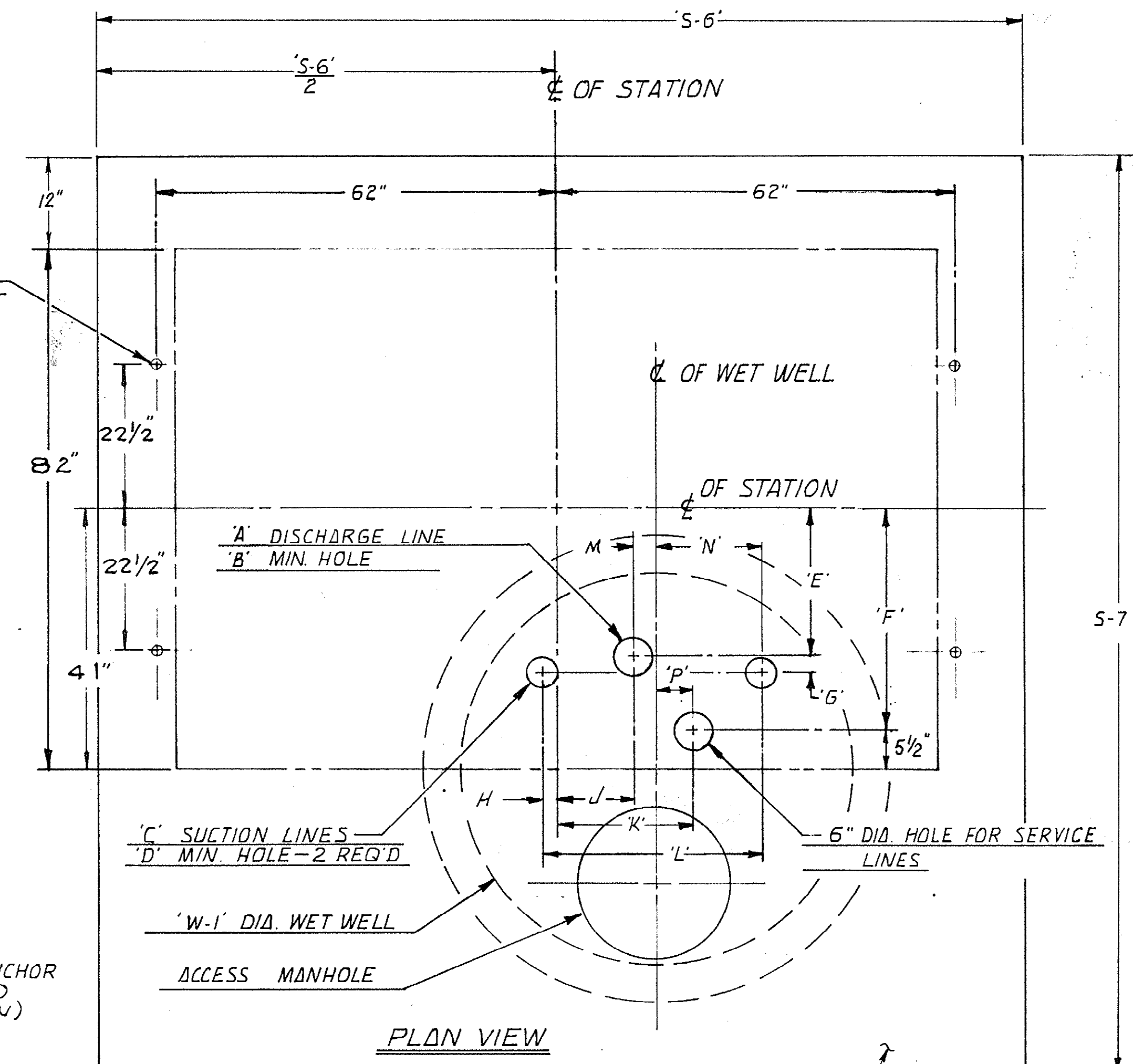
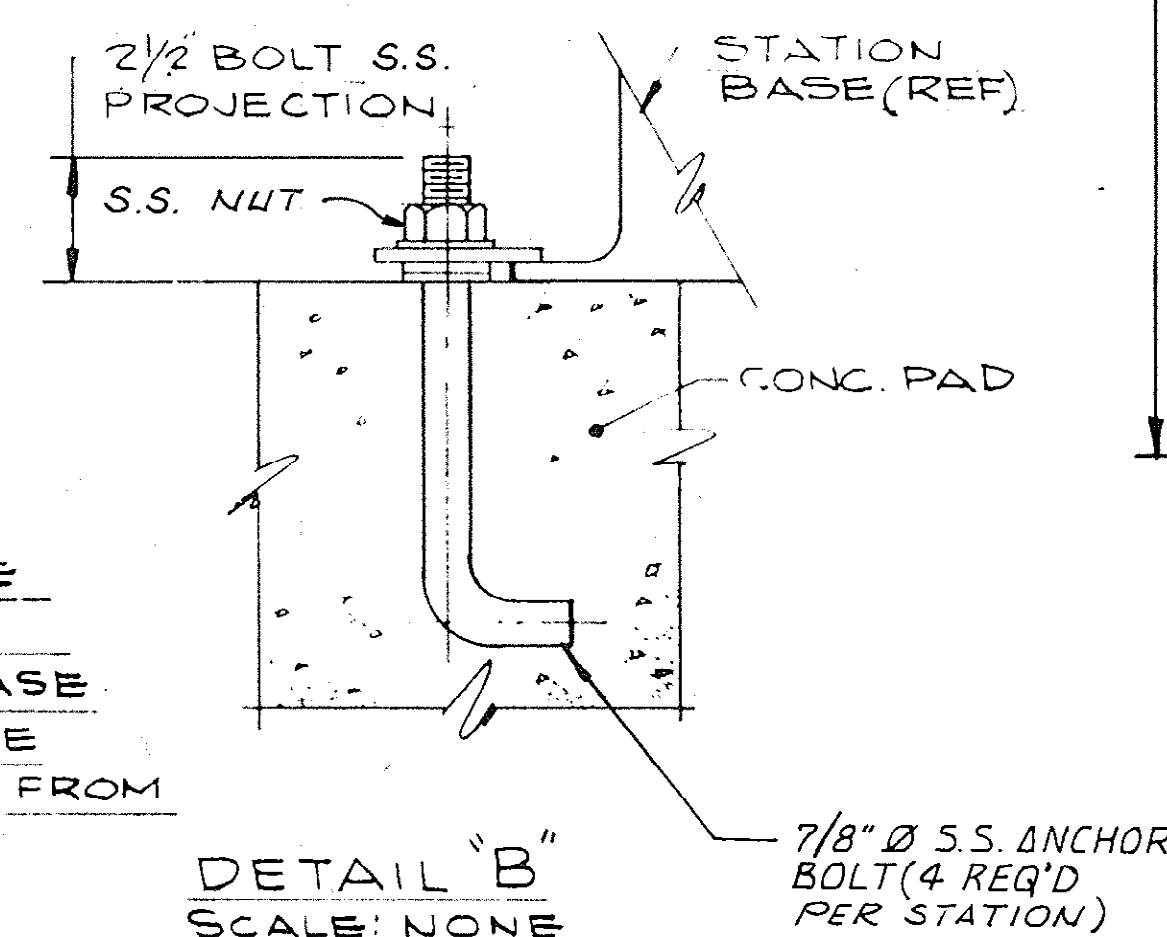
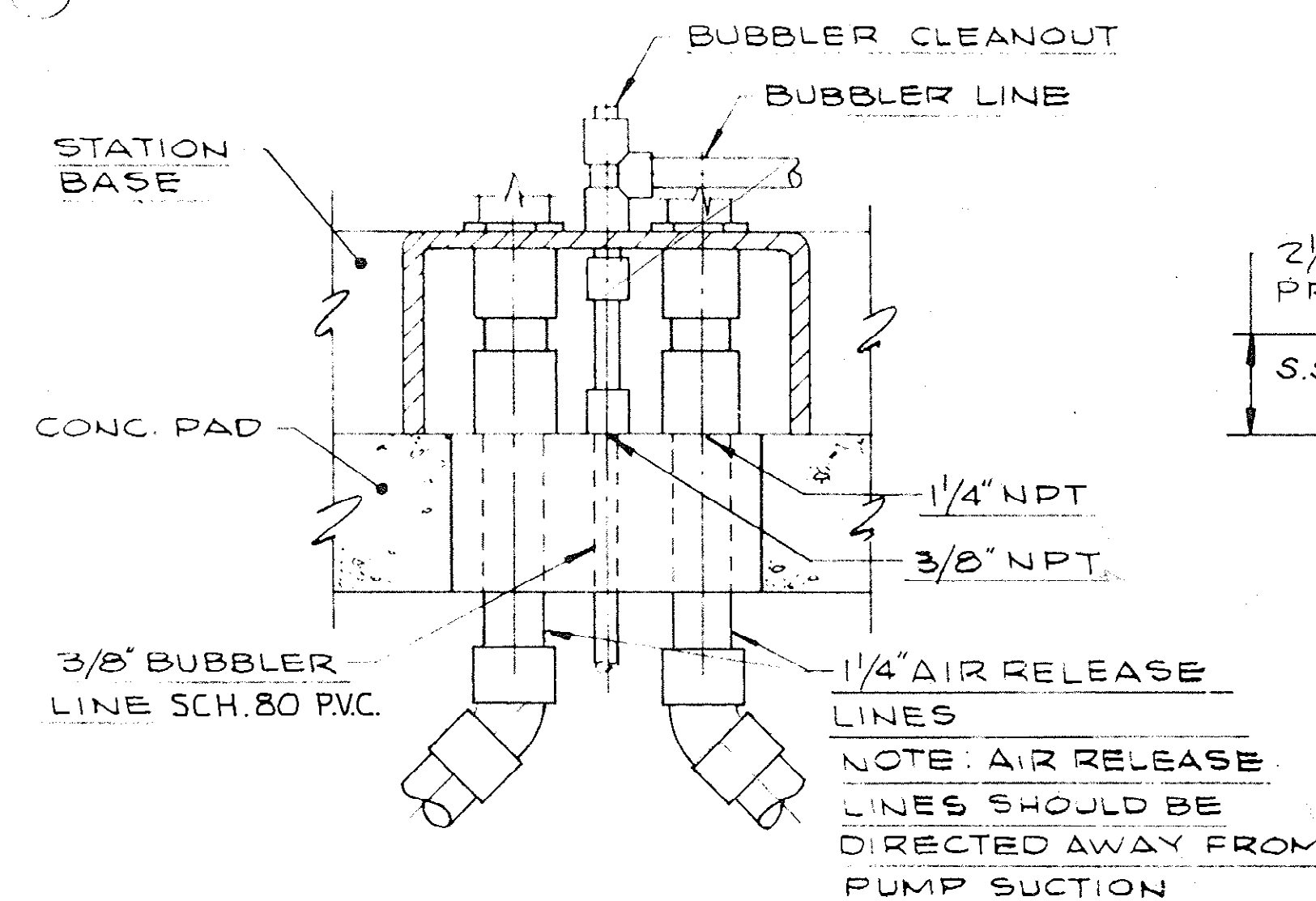
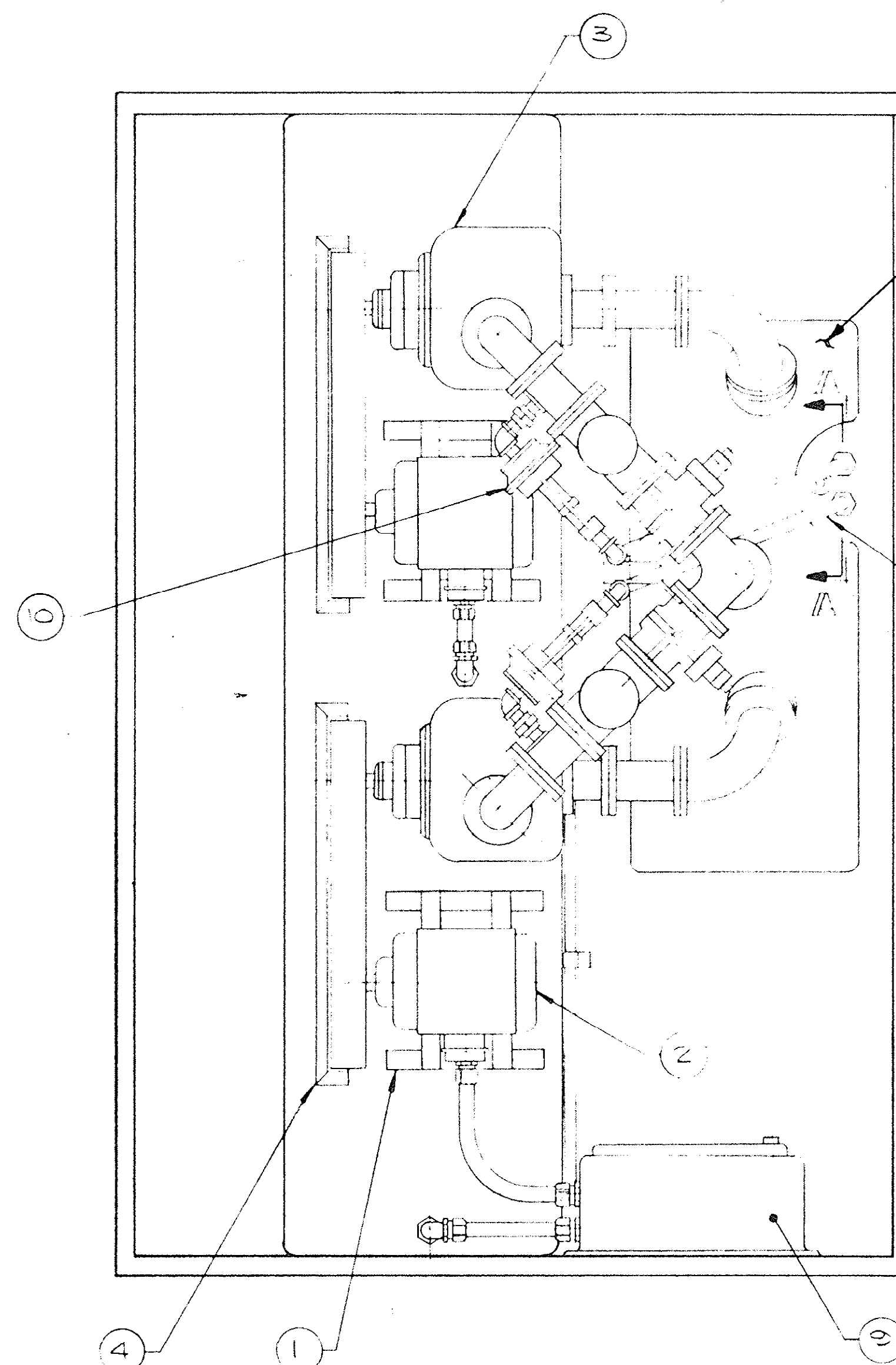
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| C 450381-05                                                                      |                       |
| WASTEWATER SYSTEM IMPROVEMENT FOR THE<br>GRAND STRAND<br>WATER & SEWER AUTHORITY |                       |
| BLACK, CROW AND EIDNESS, INC.<br>ENGINEERS                                       |                       |
| DRAWN BY: <i>[Signature]</i>                                                     | DATE: OCT. 1978       |
| CHECKED BY: <i>[Signature]</i>                                                   | FILE NO.: CA 63505.71 |
| SCALE: 1"=10'-0"                                                                 |                       |
| PLOT PLANS                                                                       |                       |
| PUMPING STATIONS 13, 14, 15 & 16                                                 |                       |
| SHEET NO. <b>P-11</b>                                                            |                       |







| ITEM | DESCRIPTION                | MATL          |
|------|----------------------------|---------------|
| 1    | MOTOR BASE                 | STEEL         |
| 2    | MOTOR                      |               |
| 3    | PUMP                       | C.I.          |
| 4    | BELT GUARD                 | STEEL         |
| 5    | DISCHARGE CHECK VALVE      | C.I.          |
| 6    | DISCHARGE PLUG VALVE       | C.I.          |
| 7    | AIR RELEASE LINE           | FLEXIBLE 1/4" |
| 8    | GROUT DAM                  | RUBBER        |
| 9    | CONTROL PANEL              | FRP           |
| 10   | AIR RELEASE VALVE          | C.I. 1"       |
| 11   | EXPANSION CLP. FLG. TO RE. | C.I.          |
| 12   | EXHAUST FAN                | SSOLCFM       |
| 13   | VAPOR TIGHT LIGHT          | COOW          |
| 14   | CONCENTRIC INCREASER       | C.I.          |



| STATION NO. | DISCHARGE & SUCTION DIM. |        |        |        | MISC. SLAB DIMENSIONS AND HOLE LOCATIONS (INCHES) |    |   |   |         |        |       |        |    |        |        |       |         |       |  |  |
|-------------|--------------------------|--------|--------|--------|---------------------------------------------------|----|---|---|---------|--------|-------|--------|----|--------|--------|-------|---------|-------|--|--|
|             | D-1                      | D-2    | D-3    | D-4    | A                                                 | B  | C | D | E       | F      | G     | H      | J  | K      | L      | M     | N       | P     |  |  |
| 4           | 37 7/8                   | 26 1/2 | 14 1/2 | 11     | 4                                                 | 6  | 4 | 6 | 23 1/16 | 35 1/2 | 3     | 2 5/8  | 12 | 21 1/4 | 34 3/4 | 2 3/4 | 17 3/8  | 6 1/2 |  |  |
| 5           | 37 7/8                   | 26 1/2 | 14 1/2 | 11     | 4                                                 | 6  | 4 | 6 | 23 1/16 | 35 1/2 | 3     | 2 5/8  | 12 | 21 1/4 | 34 3/4 | 2 3/4 | 17 3/8  | 6 1/2 |  |  |
| 6           | 42 7/8                   | 26 1/2 | 20     | 20     | 6                                                 | 8  | 4 | 6 | 22 1/2  | 35 1/2 | 4 1/4 | 2 1/4  | 12 | 21 1/4 | 28 1/2 | 2 3/4 | 11 1/2  | 6 1/2 |  |  |
| 7           | 37 7/8                   | 26 1/2 | 14 1/2 | 11     | 4                                                 | 6  | 4 | 6 | 23 1/16 | 35 1/2 | 3     | 2 5/8  | 12 | 21 1/4 | 34 3/4 | 2 3/4 | 17 3/8  | 6 1/2 |  |  |
| 8           | 42 7/8                   | 26 1/2 | 20     | 20     | 6                                                 | 8  | 4 | 6 | 22 1/2  | 35 1/2 | 4 1/4 | 2 1/4  | 12 | 21 1/4 | 28 1/2 | 2 3/4 | 11 1/2  | 6 1/2 |  |  |
| 9           | 42 7/8                   | 26 1/2 | 20     | 20     | 6                                                 | 8  | 4 | 6 | 22 1/2  | 35 1/2 | 4 1/4 | 2 1/4  | 12 | 21 1/4 | 28 1/2 | 2 3/4 | 11 1/2  | 6 1/2 |  |  |
| 11          | 46 3/4                   | 29 3/8 | 21     | 14 1/2 | 6                                                 | 8  | 6 | 8 | 22 1/2  | 35 1/2 | 5 1/4 | 1 3/16 | 12 | 21 1/4 | 31 7/8 | 2 3/4 | 15 1/16 | 6 1/2 |  |  |
| 12          | 43 1/4                   | 29 3/8 | 21     | 21     | 8                                                 | 10 | 6 | 8 | 22 1/2  | 35 1/2 | 5 1/8 | 1 3/16 | 12 | 21 1/4 | 31 7/8 | 2 3/4 | 15 1/16 | 6 1/2 |  |  |
| 13          | 37 7/8                   | 26 1/2 | 14 1/2 | 11     | 4                                                 | 6  | 4 | 6 | 23 1/16 | 35 1/2 | 3     | 2 5/8  | 12 | 21 1/4 | 34 3/4 | 2 3/4 | 17 3/8  | 6 1/2 |  |  |
| 14          | 37 7/8                   | 26 1/2 | 14 1/2 | 11     | 4                                                 | 6  | 4 | 6 | 23 1/16 | 35 1/2 | 3     | 2 5/8  | 12 | 21 1/4 | 34 3/4 | 2 3/4 | 17 3/8  | 6 1/2 |  |  |
| 15          | 37 7/8                   | 26 1/2 | 14 1/2 | 11     | 4                                                 | 6  | 4 | 6 | 23 1/16 | 35 1/2 | 3     | 2 5/8  | 12 | 21 1/4 | 34 3/4 | 2 3/4 | 17 3/8  | 6 1/2 |  |  |
| 16          | 43 1/4                   | 29 3/8 | 21     | 21     | 8                                                 | 10 | 6 | 8 | 22 1/2  | 35 1/2 | 5 1/8 | 1 3/16 | 12 | 21 1/4 | 31 7/8 | 2 3/4 | 15 1/16 | 6 1/2 |  |  |
| 17          | 37 7/8                   | 26 1/2 | 14 1/2 | 11     | 4                                                 | 6  | 4 | 6 | 23 1/16 | 35 1/2 | 3     | 2 5/8  | 12 | 21 1/4 | 34 3/4 | 2 3/4 | 17 3/8  | 6 1/2 |  |  |
| 18          | 37 7/8                   | 26 1/2 | 14 1/2 | 11     | 4                                                 | 6  | 4 | 6 | 23 1/16 | 35 1/2 | 3     | 2 5/8  | 12 | 21 1/4 | 34 3/4 | 2 3/4 | 17 3/8  | 6 1/2 |  |  |

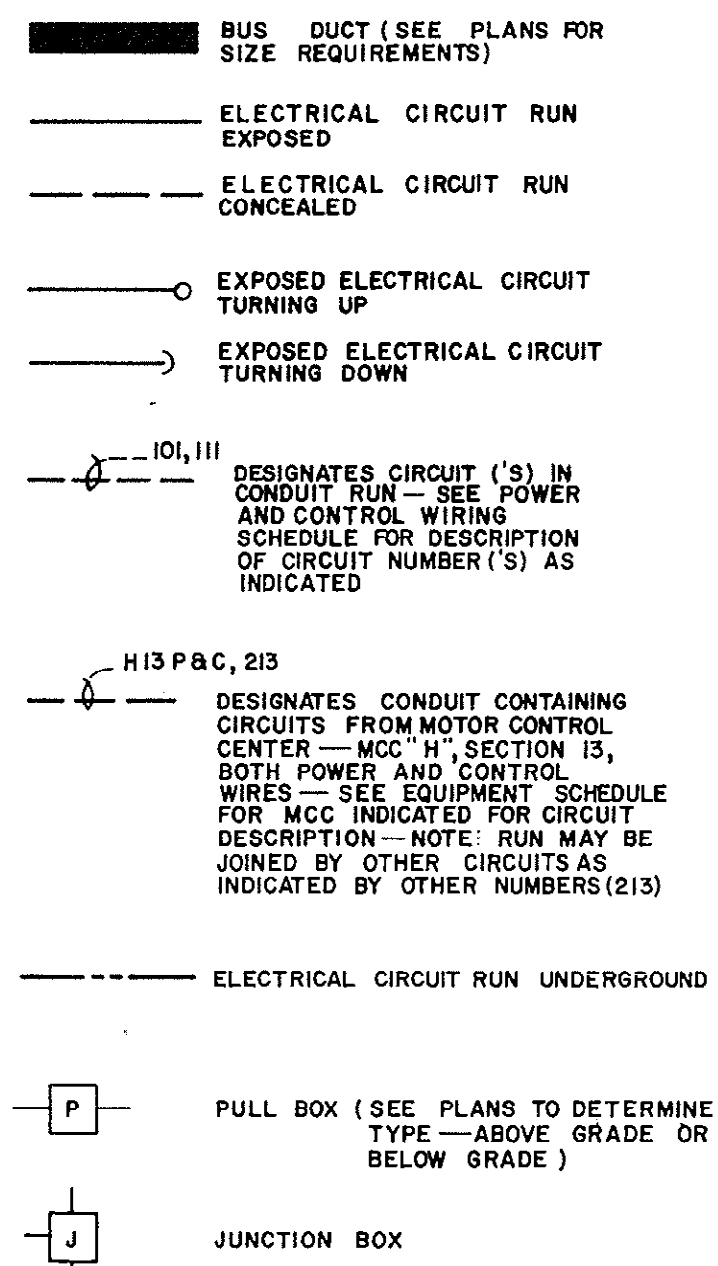
CONT FROM SHT P-13

8-02-014-S  
C 450381-05

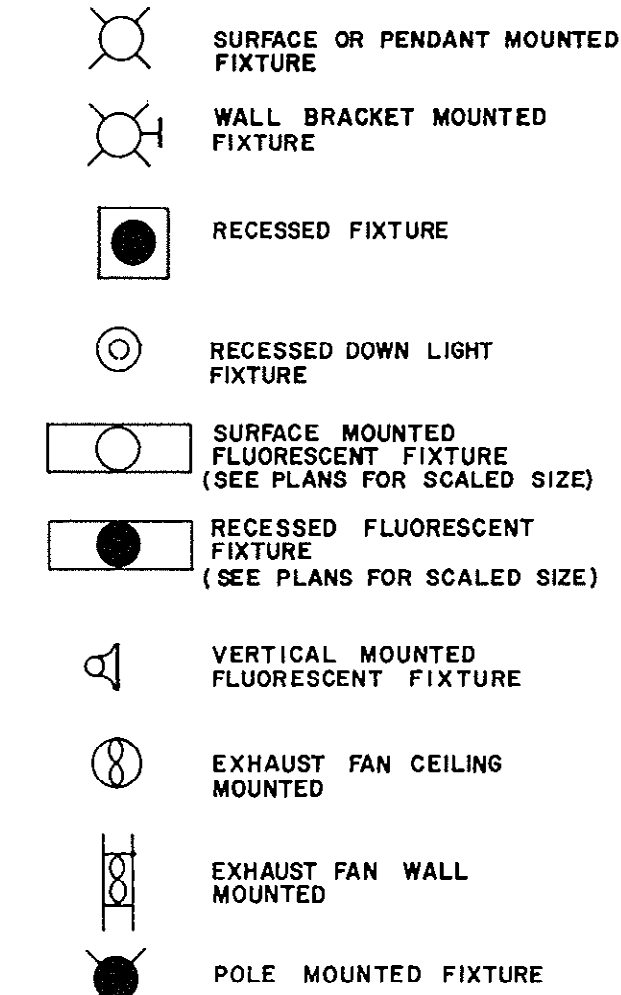
|                                                                                   |                       |
|-----------------------------------------------------------------------------------|-----------------------|
| WASTEWATER SYSTEM IMPROVEMENTS FOR THE<br>GRAND STRAND<br>WATER & SEWER AUTHORITY |                       |
| BLACK, CROW AND EIDNESS, INC.<br>ENGINEERS                                        |                       |
| DRAWN BY: J. B. B.                                                                | DATE: OCT. 1978       |
| CHECKED BY: J. B. B.                                                              | FILE NO.: CA 68305.71 |
| SCALE: NONE                                                                       |                       |
| PUMPING STATIONS                                                                  |                       |
| 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18                                  | SHEET NO. 14          |



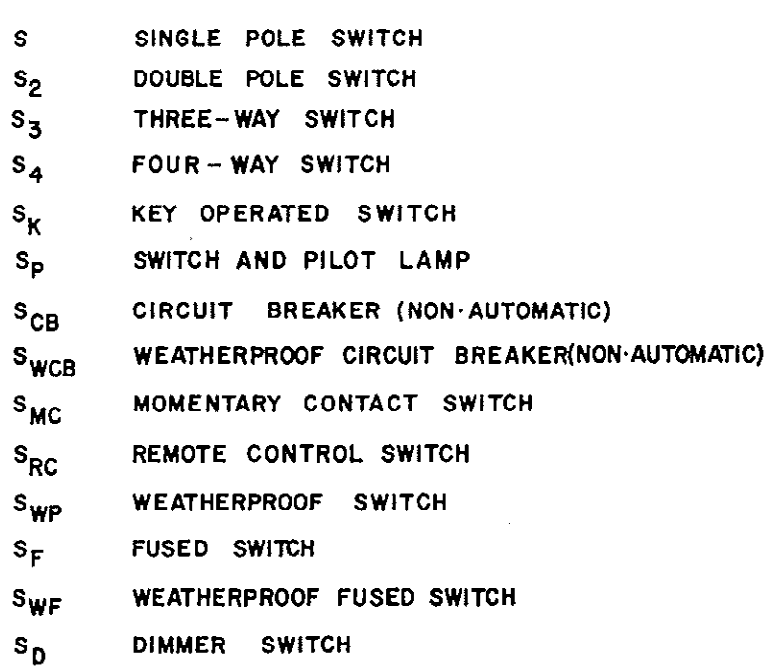
## CONDUIT RUNS



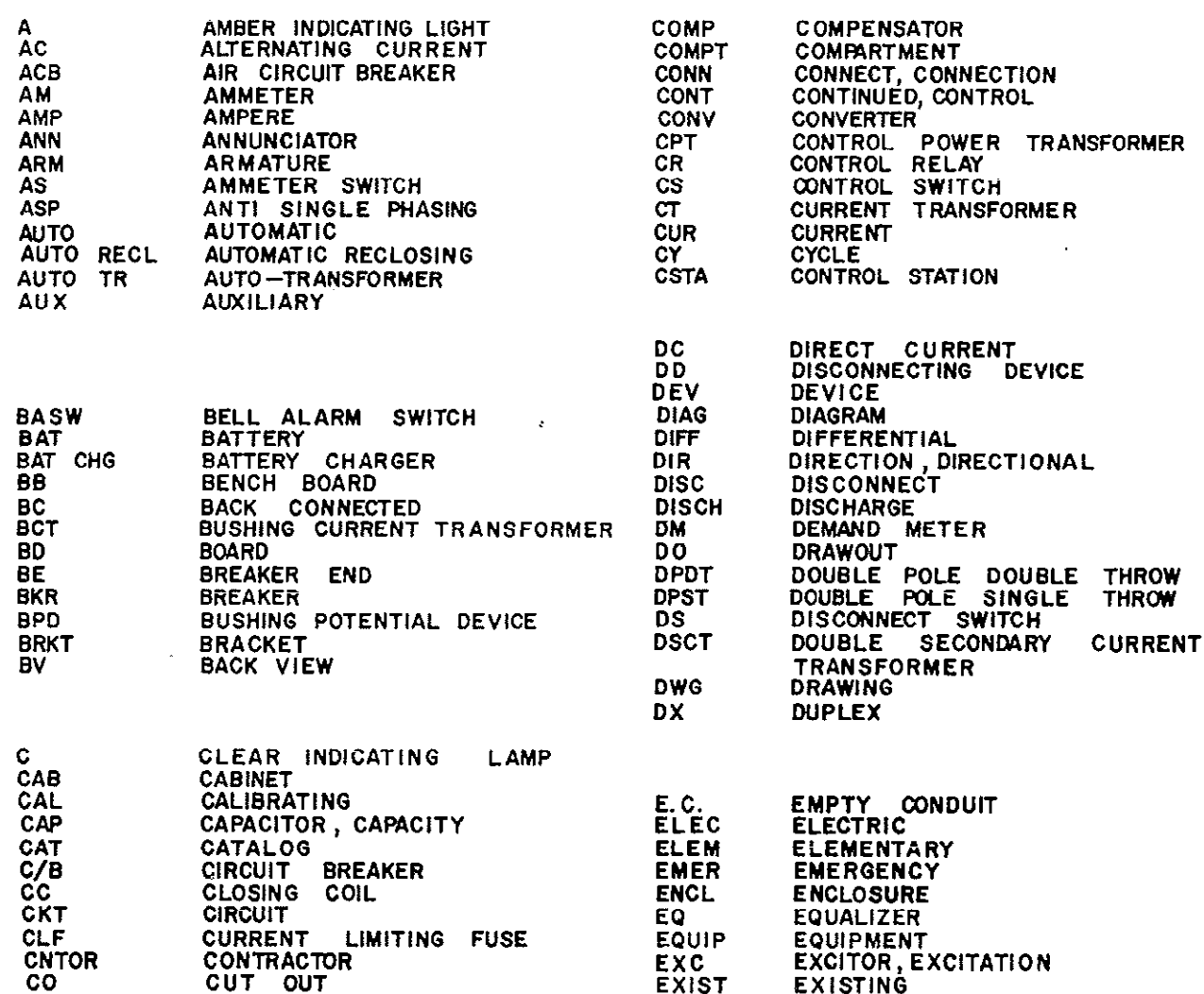
## LIGHTING



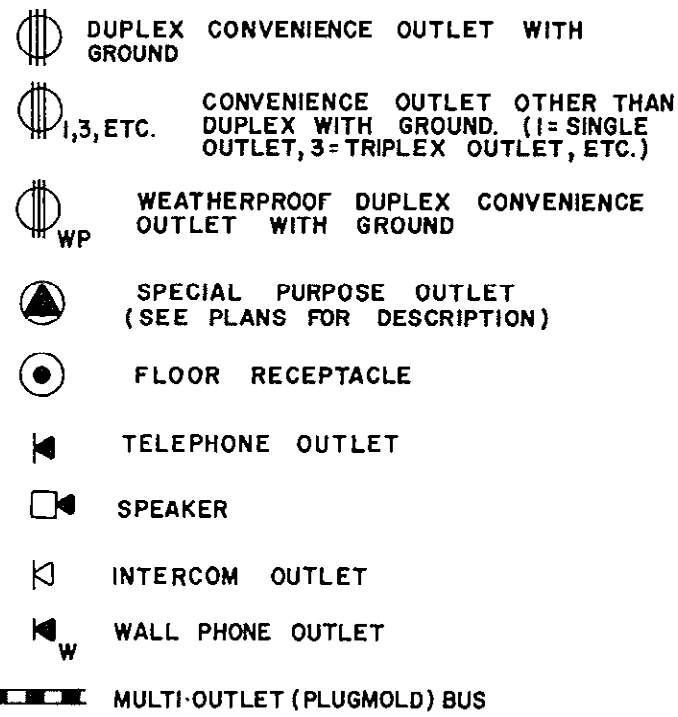
## SWITCHES



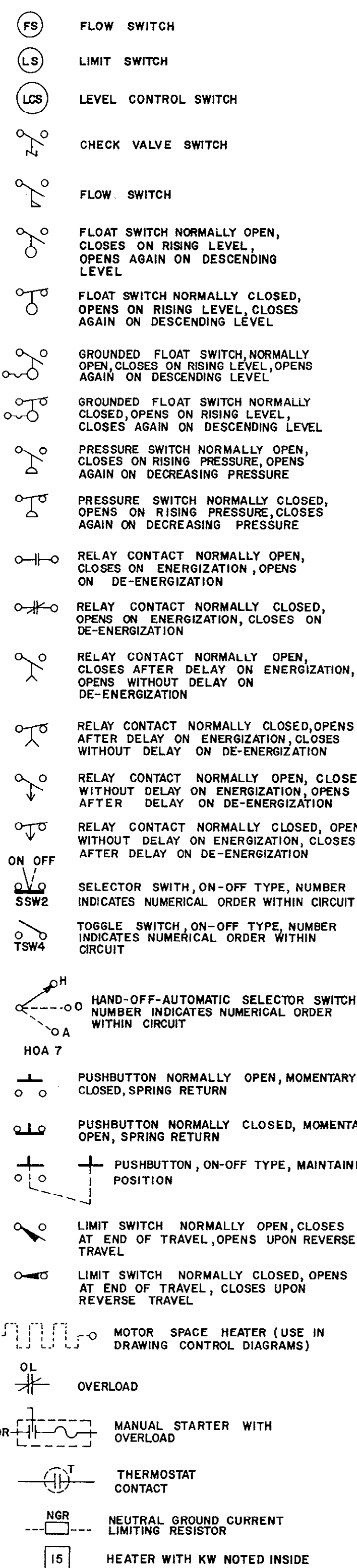
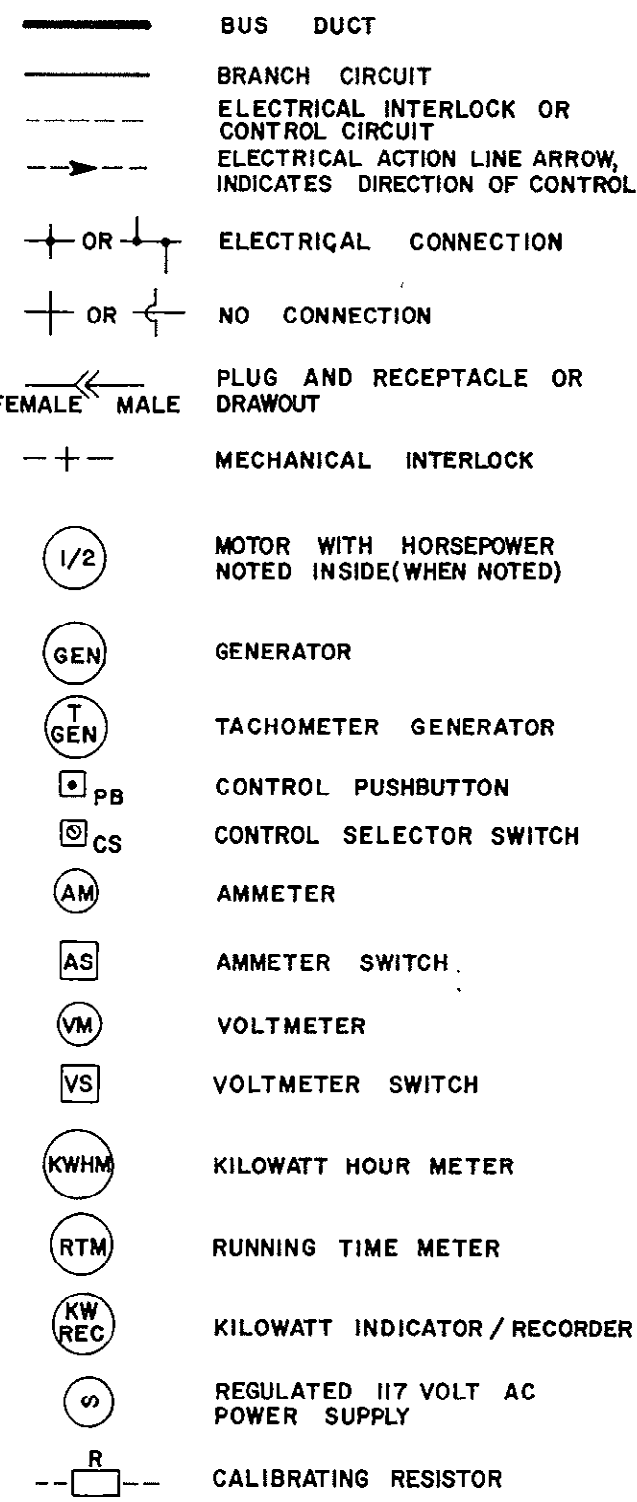
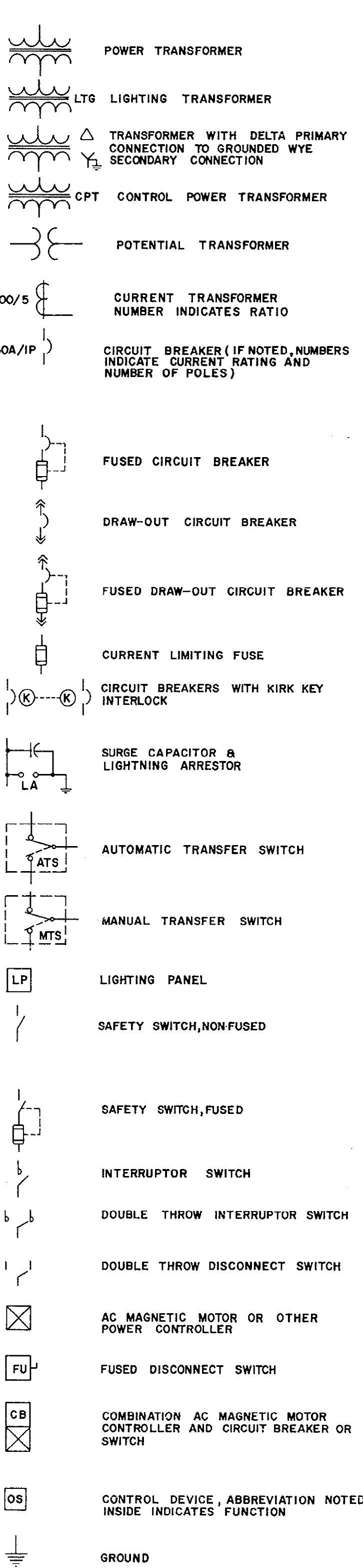
## DIAGRAM ABBREVIATIONS



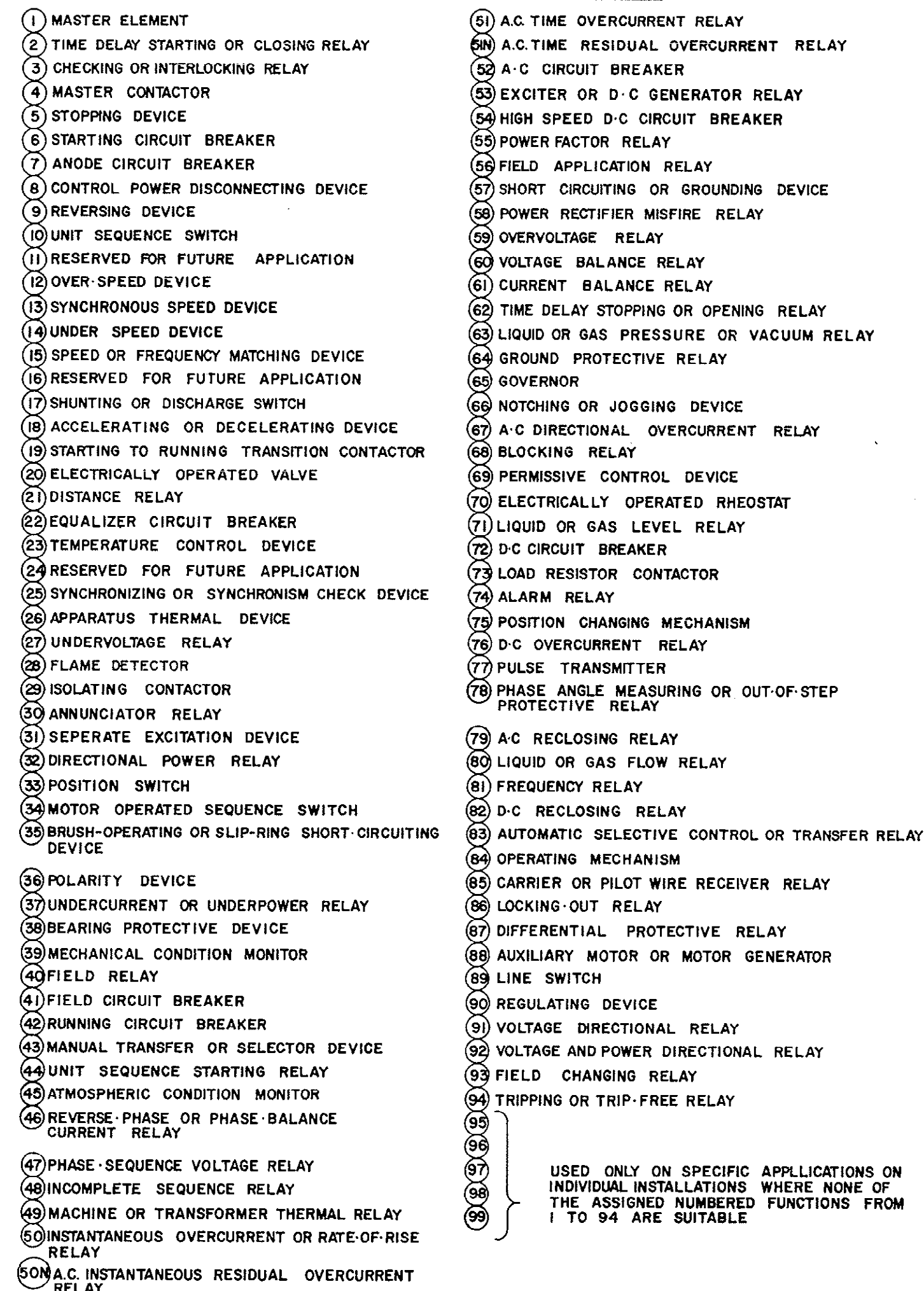
## CONVENIENCE OUTLETS



## SINGLE LINE DIAGRAMS



## STANDARD DEVICE FUNCTION NUMBERS



## NOTE

THIS DRAWING PREPARED AS AN INSTRUMENT OF COMMUNICATION BETWEEN BLACK, CROW & EIDNESS, ENGINEERS AND THEIR CLIENTS AND OTHER INDIVIDUALS THAT HAVE ACCESS TO THESE PLANS. NOT ALL OF THE SYMBOLS AND ABBREVIATIONS SHOWN WILL APPEAR WITHIN THESE PLANS; HOWEVER, WHERE THEY DO APPEAR, THEY SHALL BE DEFINED AS INDICATED BY THIS DRAWING.

C 450381-05

WASTEWATER SYSTEM IMPROVEMENTS FOR THE GRAND STRAND WATER & SEWER AUTHORITY

**BLACK, CROW & EIDNESS, INC. ENGINEERS**

DRAWN BY: TE. JOHNSON DATE: JULY 1977

CHECKED BY: P. MC FILE NO.: CA 68505.71

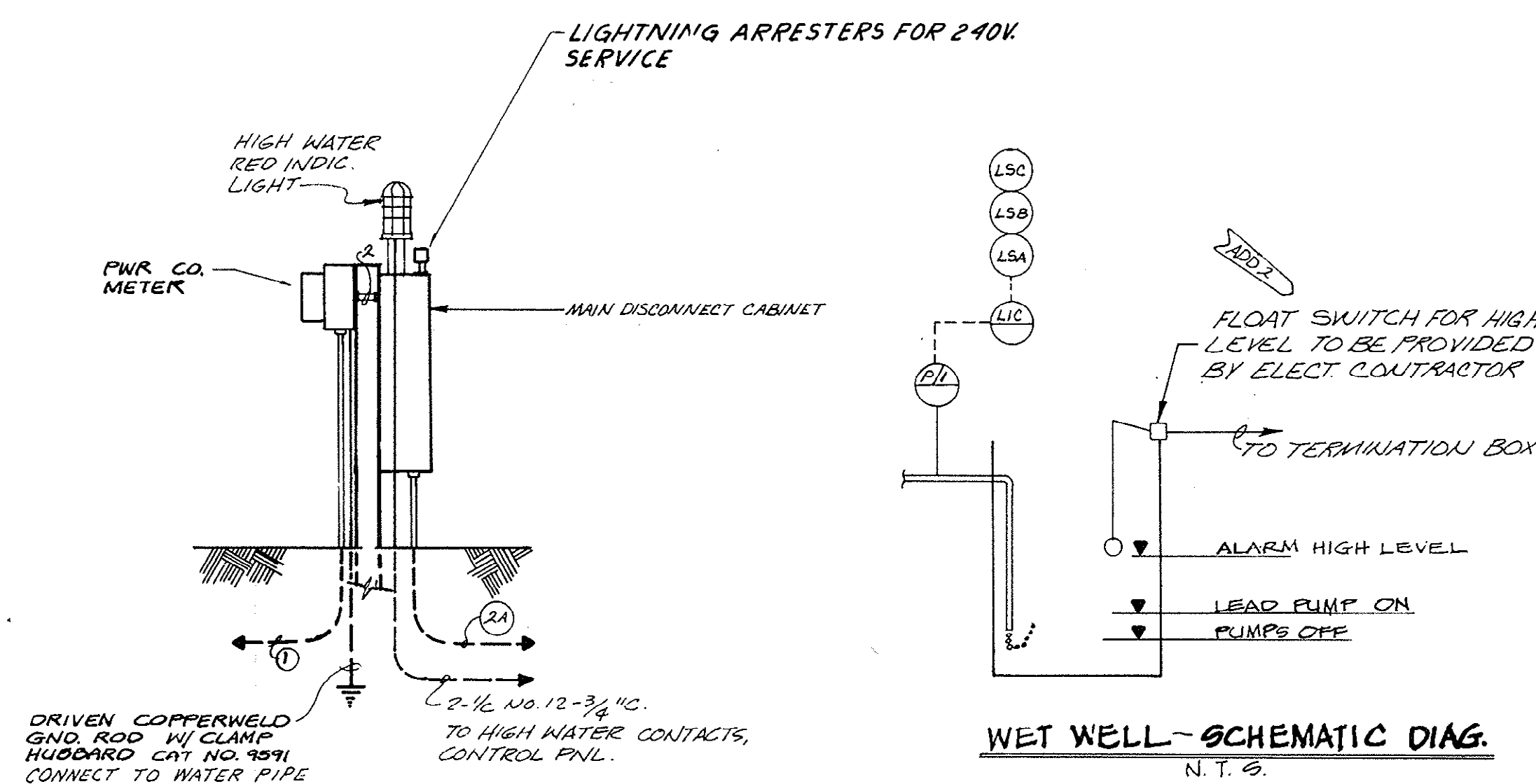
SCALE: NONE

STANDARD ELECTRICAL SYMBOLS

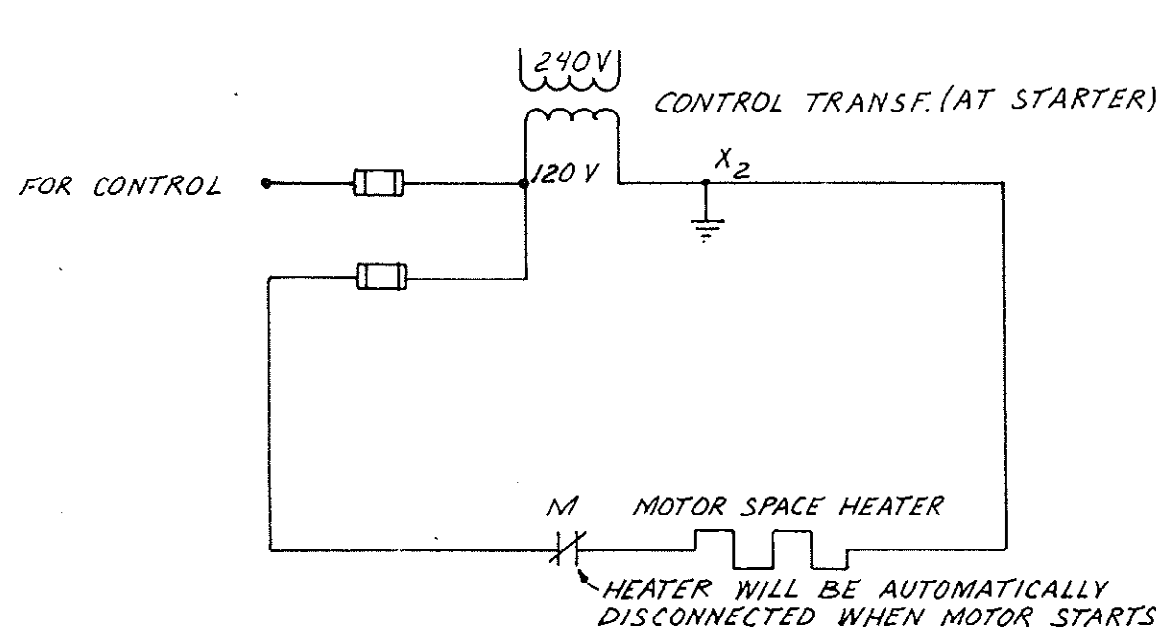
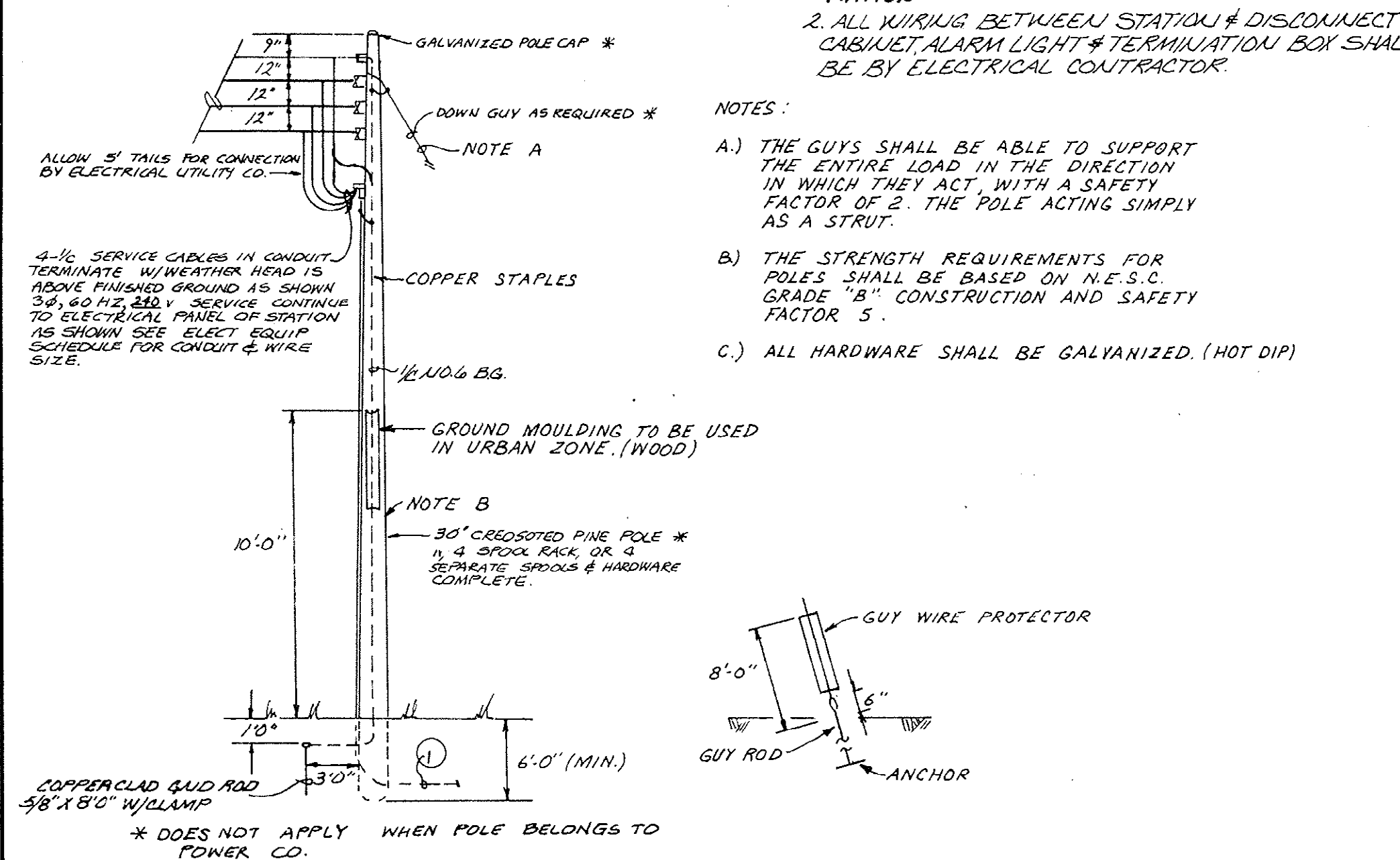
SHEET NO. E-1

8-02-015-S

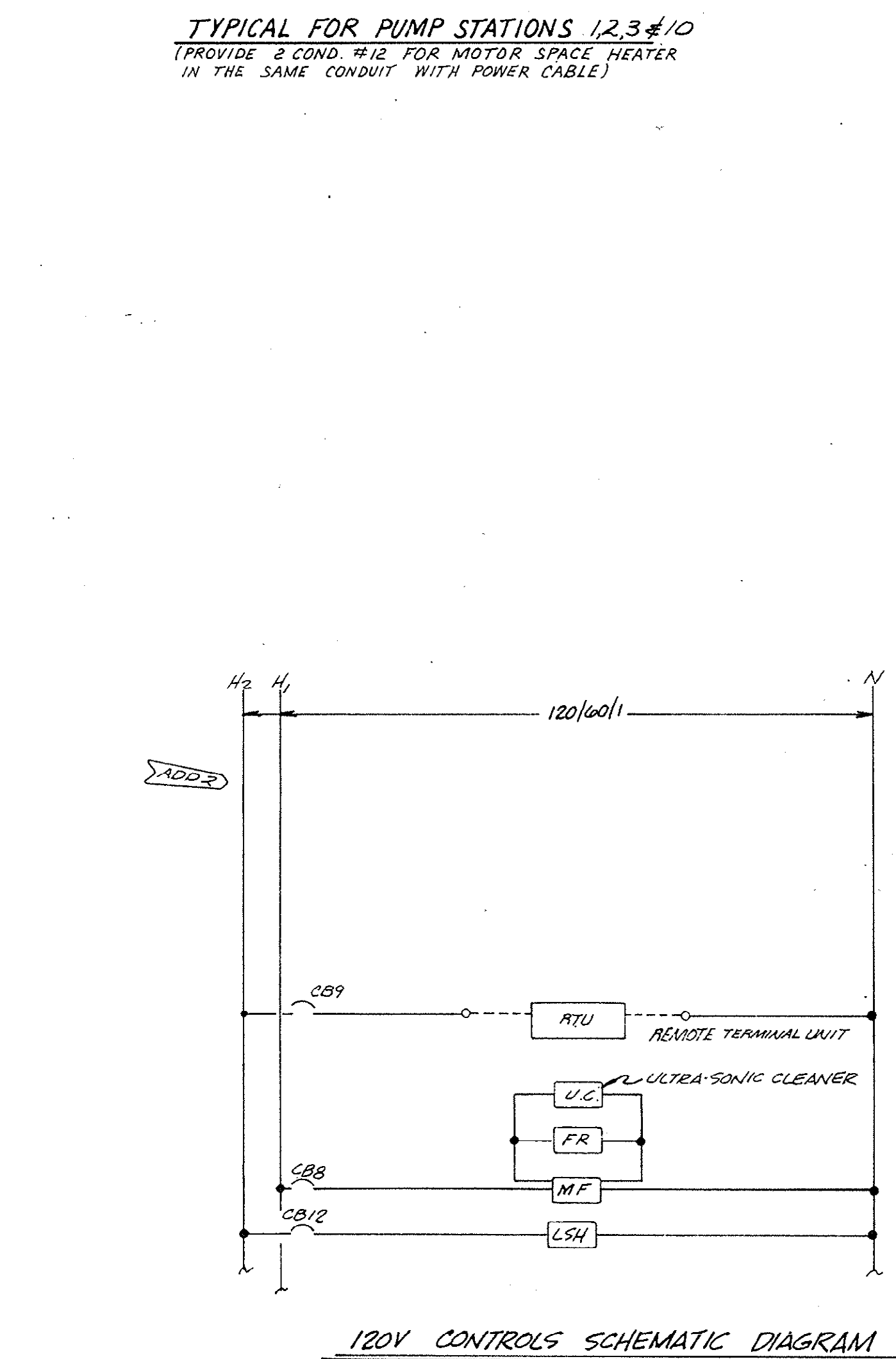
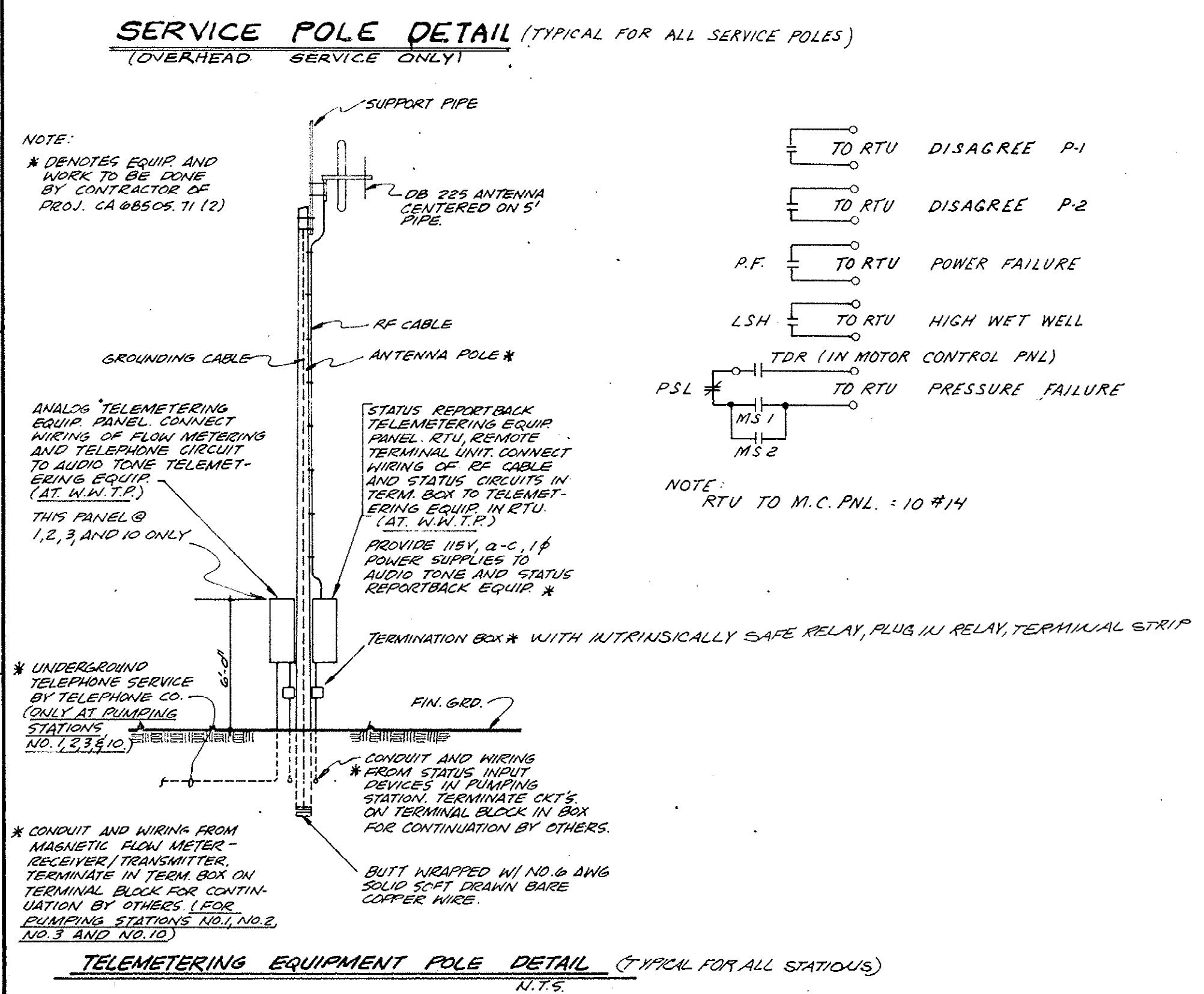




| NO. / CORD                           |                     | REVISIONS                                                      |           |            |       |                |                           |                           |                           |                           |                           |                           |                           |                           |                           | DATE / APPROVED           |         |                |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |             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| 1                                    |                     | DESCRIPTION                                                    |           |            |       |                |                           |                           |                           |                           |                           |                           |                           |                           |                           | 7/77 RLM                  |         |                |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |      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              |                           |
| 1                                    |                     | GENERAL REVISIONS                                              |           |            |       |                |                           |                           |                           |                           |                           |                           |                           |                           |                           | 1/79                      |         |                |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |      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              |                           |
| 1                                    |                     | REVISED SINGLE LINE DIAG., SCHEMATIC DIAG., ADDED FLOAT SWITCH |           |            |       |                |                           |                           |                           |                           |                           |                           |                           |                           |                           | 1/79                      |         |                |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |             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              |                           |
| ▲ APPLICABLE TO ALL PUMPING STATIONS |                     |                                                                |           |            |       |                |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |         |                |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |             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              |                           |
| EQUIPMENT SCHEDULE                   |                     |                                                                |           |            |       |                |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |         |                |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |             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              |                           |
| UNIT NO.                             | DESCRIPTION OF UNIT | VOLTAGE                                                        | AMPS LOAD | HORSEPOWER | POLES | WEG TIGHTENING | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | REMARKS |                |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |      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       |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |
|                                      |                     |                                                                |           |            |       |                |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |         | WEG TIGHTENING | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT 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SWITCH | CIRCUIT BREAKER OR SWITCH | CIRCUIT BREAKER OR SWITCH |



| POWER AND CONTROL WIRING SCHEDULE |                                |                           |           |       |      |                     |                     |         |             |
|-----------------------------------|--------------------------------|---------------------------|-----------|-------|------|---------------------|---------------------|---------|-------------|
| CIRCUIT NO.                       | FROM                           | TO                        | HOMEPANEL | VOLTS | AMPS | CABLE DATA          |                     | CONDUIT | REMARKS     |
|                                   |                                |                           |           |       |      | POWER CABLE (XMHWW) | GROUND CABLE (BARE) |         |             |
| FOR PS IV, V, VI, & VIII          |                                |                           |           |       |      |                     |                     |         |             |
| 1                                 | WEATHER HEAD AT POWER POLE     | POWER CO. METER           |           | 240   | 104  | 2-1/2" NO. 8        | 1/2" NO. 8          | 1 1/2"  | POWER       |
| 2                                 | MAIN DISCONNECT CABINET        | " " "                     |           | 240   | 104  | 2-1/2" NO. 8        | 1/2" NO. 8          | 1 1/2"  | "           |
| 3                                 | CONTROL PANEL                  | PUMP NO. 1 MOTOR          | 15        | 240   | 42   | 3-1/2" NO. 6        | 1/2" NO. 10         | 1"      | "           |
| 4                                 | " "                            | PUMP NO. 2 MOTOR          | 15        | 240   | 42   | 3-1/2" NO. 6        | 1/2" NO. 10         | 1"      | "           |
| 5                                 | " " "                          | L.S.H.                    |           | 120   | -    | 2-1/2" NO. 12       | 1/2" NO. 12         | 3/4"    | PWR         |
| 6                                 | " " "                          | RTU                       |           | 120   | -    | 2-1/2" NO. 12       | 1/2" NO. 12         | 1"      | PWR & ALARM |
| 241                               | " " "                          | MAIN DISCONNECT CABINET   |           | 240   | 104  | 2-1/2" NO. 8        | 1/2" NO. 8          | 1 1/2"  | POWER       |
| FOR PS #VII & IX                  |                                |                           |           |       |      |                     |                     |         |             |
| 1                                 | WEATHER HEAD AT POWER CO. POLE | POWER CO. METER           |           | 240   | 76   | 2-1/2" NO. 8        | 1/2" NO. 8          | 1 1/4"  | POWER       |
| 2                                 | MAIN DISCONNECT CABINET        | " " "                     |           | 240   | 76   | 2-1/2" NO. 8        | 1/2" NO. 8          | 1 1/4"  | "           |
| 3                                 | CONTROL PANEL                  | PUMP NO. 1 MOTOR          | 10        | 240   | 28   | 3-1/2" NO. 8        | 1/2" NO. 10         | 1"      | "           |
| 4                                 | " " "                          | " " 2 "                   | 10        | 240   | 28   | 3-1/2" NO. 8        | 1/2" NO. 10         | 1"      | "           |
| 5                                 | " " "                          | L.S.H.                    |           | 120   | -    | 2-1/2" NO. 12       | 1/2" NO. 12         | 3/4"    | PWR         |
| 6                                 | " " "                          | RTU                       |           | 120   | -    | 2-1/2" NO. 12       | 1/2" NO. 12         | 1"      | PWR & ALARM |
| 241                               | " " "                          | MAIN DISCONNECT CABINET   |           | 240   | 76   | 2-1/2" NO. 8        | 1/2" NO. 8          | 1 1/4"  | POWER       |
| FOR PS #XVII                      |                                |                           |           |       |      |                     |                     |         |             |
| 1                                 | WEATHER HEAD AT POWER CO. POLE | POWER CO. METER           |           | 240   | 95   | 2-1/2" NO. 8        | 1/2" NO. 8          | 1 1/4"  | POWER       |
| 2                                 | MAIN DISCONNECT CABINET        | " " "                     |           | 240   | 95   | 2-1/2" NO. 8        | 1/2" NO. 8          | 1 1/4"  | "           |
| 3                                 | CONTROL PANEL                  | PUMP NO. 1 MOTOR          | 3         | 240   | 26   | 3-1/2" NO. 12       | 1/2" NO. 12         | 3/4"    | "           |
| 4                                 | " " "                          | " " 2 "                   | 3         | 240   | 26   | 3-1/2" NO. 12       | 1/2" NO. 12         | 3/4"    | "           |
| 5                                 | " " "                          | L.S.H.                    |           | 120   | -    | 2-1/2" NO. 12       | 1/2" NO. 12         | 3/4"    | PWR         |
| 6                                 | " " "                          | RTU                       |           | 120   | -    | 2-1/2" NO. 12       | 1/2" NO. 12         | 1"      | PWR & ALARM |
| 241                               | " " "                          | MAIN DISCONNECT CABINET   |           | 240   | 95   | 2-1/2" NO. 8        | 1/2" NO. 8          | 1 1/4"  | POWER       |
| FOR ALL PUMP STATIONS             |                                |                           |           |       |      |                     |                     |         |             |
| 7                                 | CONT'L. PNL.                   | MIAG. FLOWMETER JUNC. BOX |           | 120   | -    | 2-1/2" NO. 12       | 1/2" NO. 12         | 3/4"    | POWER       |
| 8                                 | CONT'L. PNL.                   | FT-1 FLOWMETER            |           | DC    | -    | 1/2" SIGNAL         | SHIELDED            | 3/4"    | INDICATION  |
| 9                                 | MIAG. FLOWMETER JUNC. BOX      | ULTRA - CLEANER           |           | 120   | -    | 2-1/2" NO. 12       | 1/2" NO. 12         | 3/4"    | POWER       |
| 10                                | " " "                          | FLOW CONV. & RECORDER     |           | 120   | -    | 2-1/2" NO. 12       | 1/2" NO. 12         | 3/4"    | POWER       |



NOTE: IN NO CASE SHALL CIR. NO. 1 BE OVER 200FT.

WIRE SIZE TO START & CARRY LOAD. @ MIN 3/2

(ADP) FOR OVERHEAD SERVICE ONLY.

WHEN SHOWN ON EQUIPMENT SCHEDULE.

OVERALL RATING FOR 14 KA MIN. RMS

AULT CURRENT.

PAY FOR ALL HOOK UP CHARGES

RENTAL INCREMENT BETWEEN

W & 10 AND 12 DEG. IN 1/2" C AS MIN. TO EACH

1 LB 4-7 CONTRACTOR TO CONFIRM CONDUIT

UMP MANUFACT.

A) PS IV, IV III  
ASSUME 2-15 KVA TRANSF.

B) PS VII TX  
ASSUME 2-10 KVA TRANSF.

C) PS VIII  
ASSUME 2-5 KVA TRANSF.

C 450381-05

WASTEWATER SYSTEM IMPROVEMENTS FOR THE

GRAND STRAND

WATER & SEWER AUTHORITY

BLACK, CROW AND EIDNESS, INC.

ENGINEERS

DRAWN BY: D.K. HAYES

CHECKED BY: RMC

DATE: JULY, 1977

FILE NO.: CA 68505

SCALE: AS NOTED

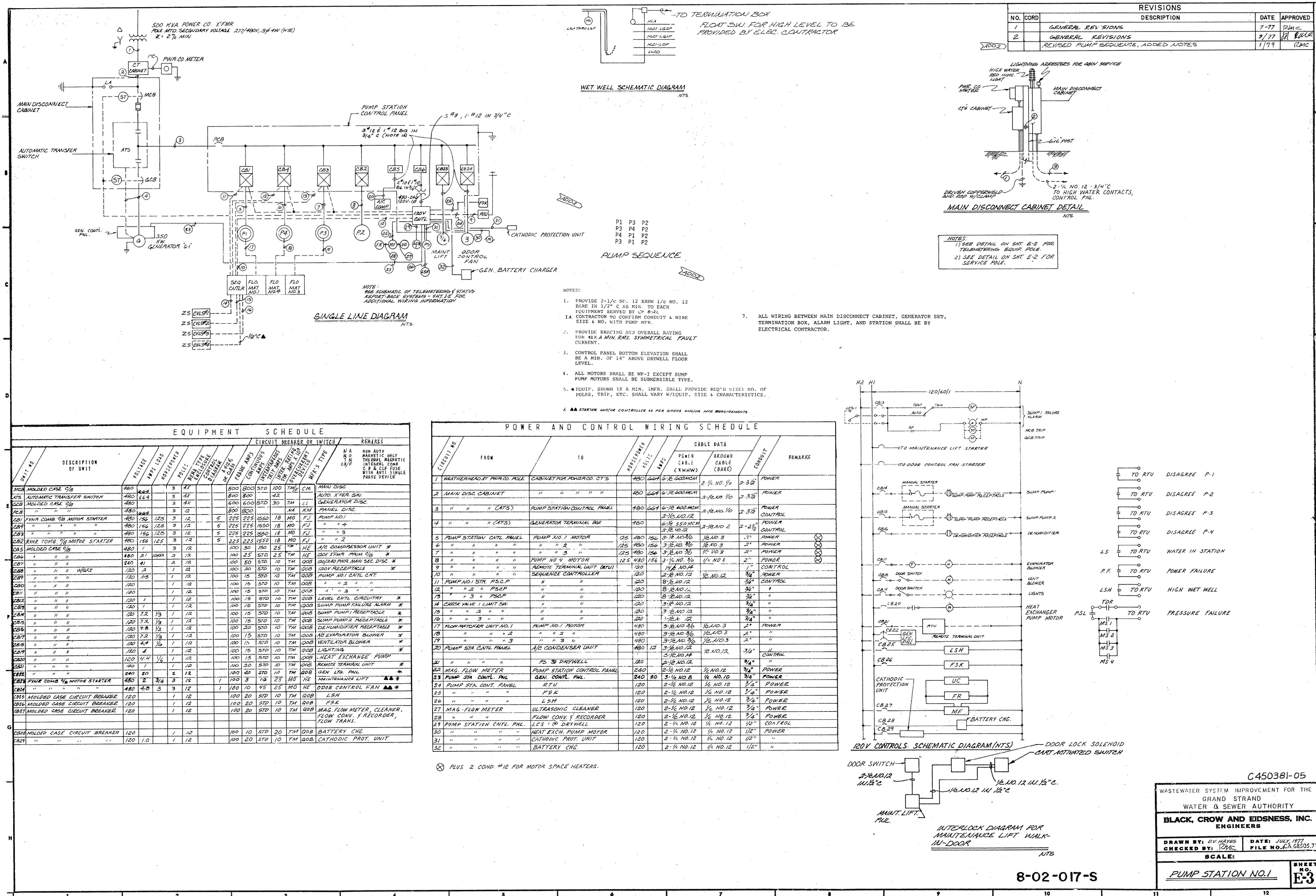
ABOVE GROUND PUMPING STATIONS

4, 5, 6, 7, 9, 18 ELECTRICAL DETAILS

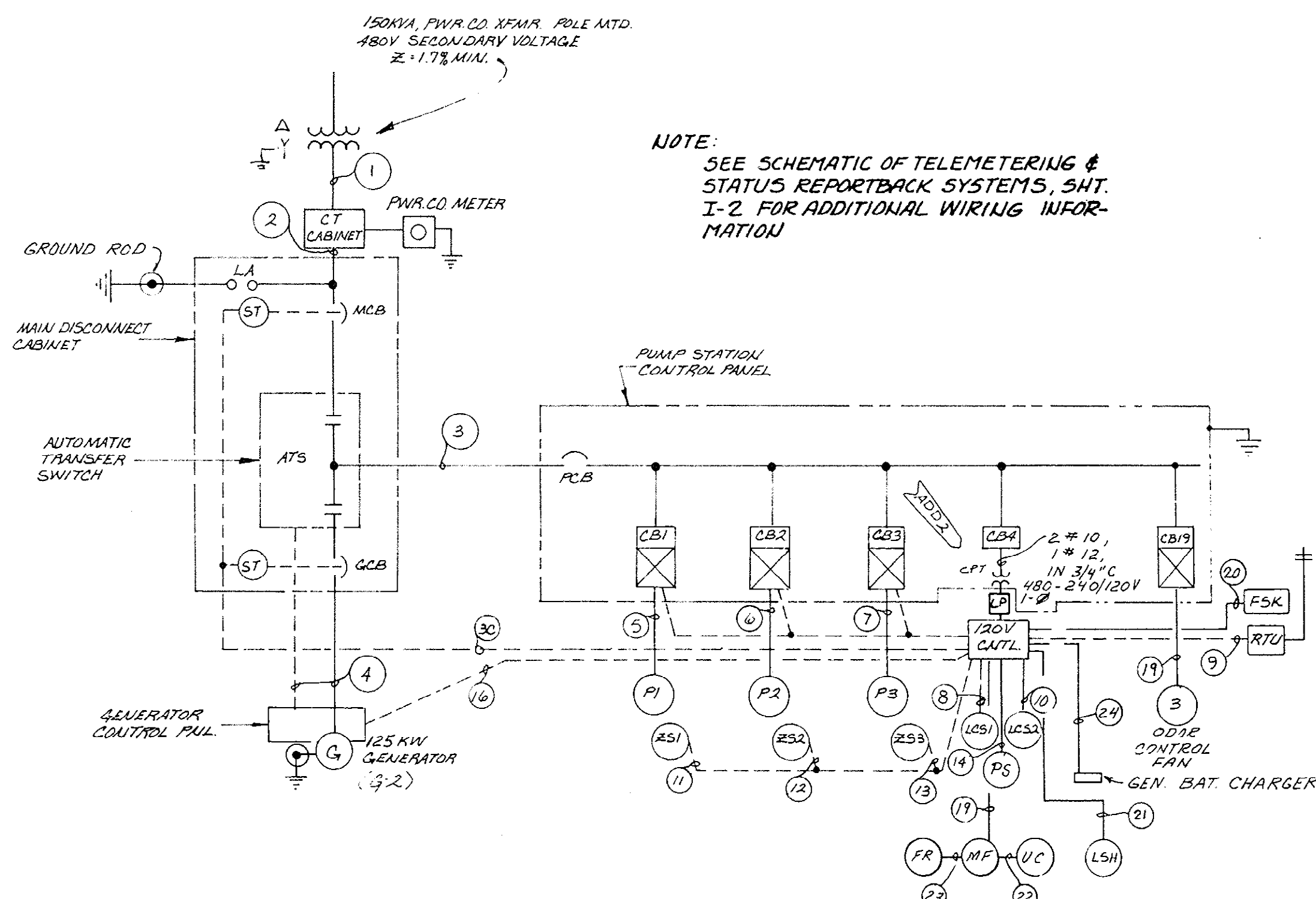
SHE NO

E-2









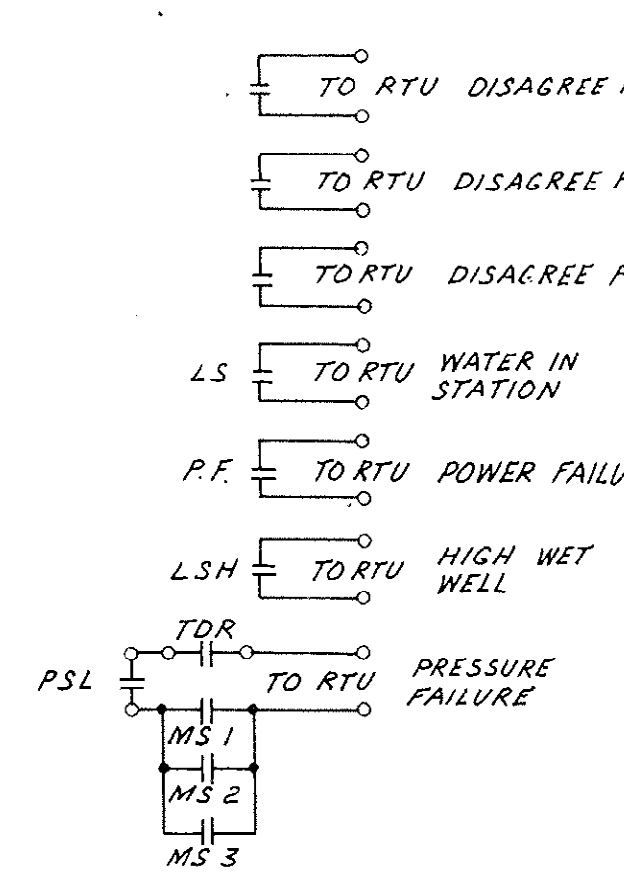
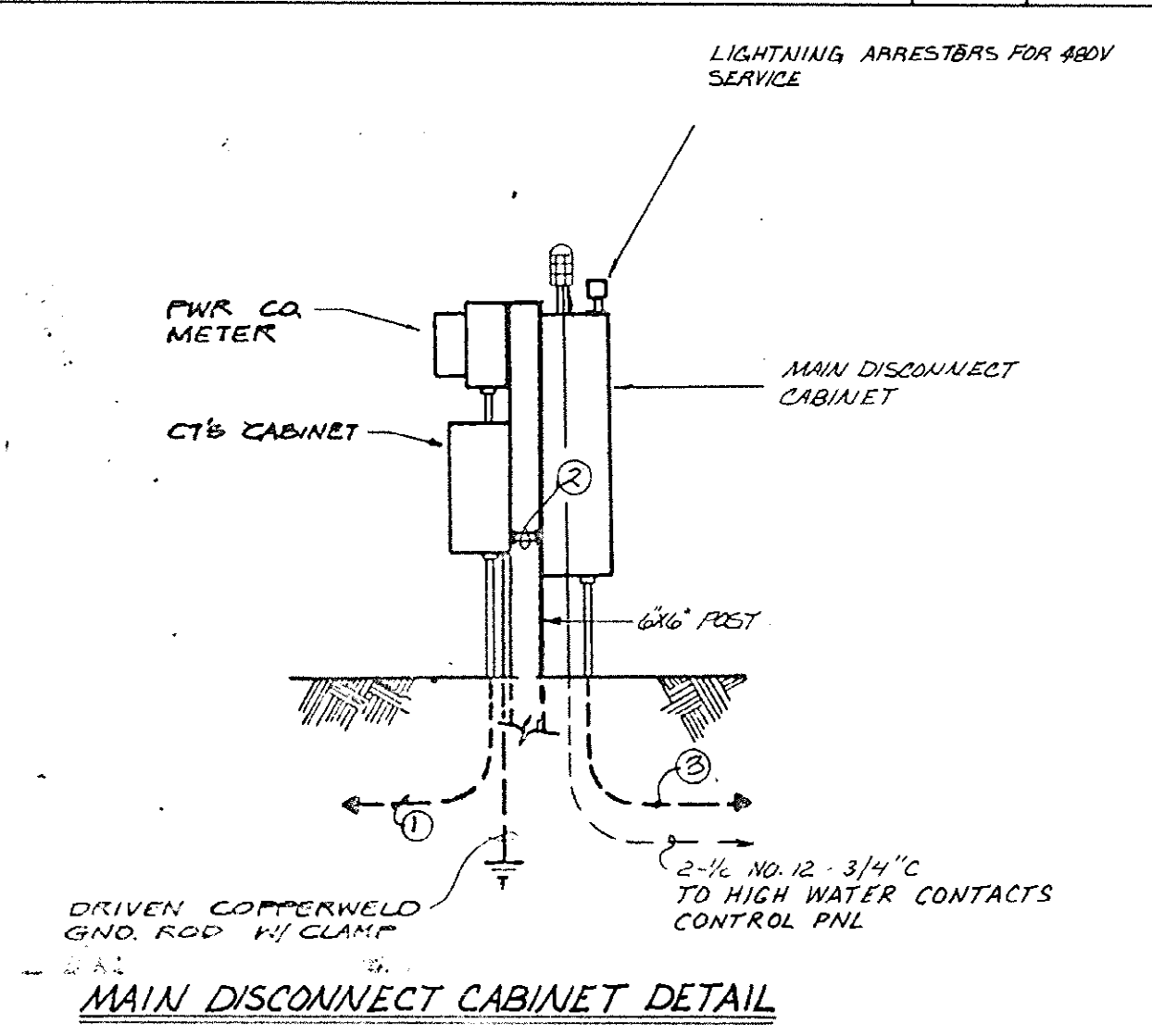
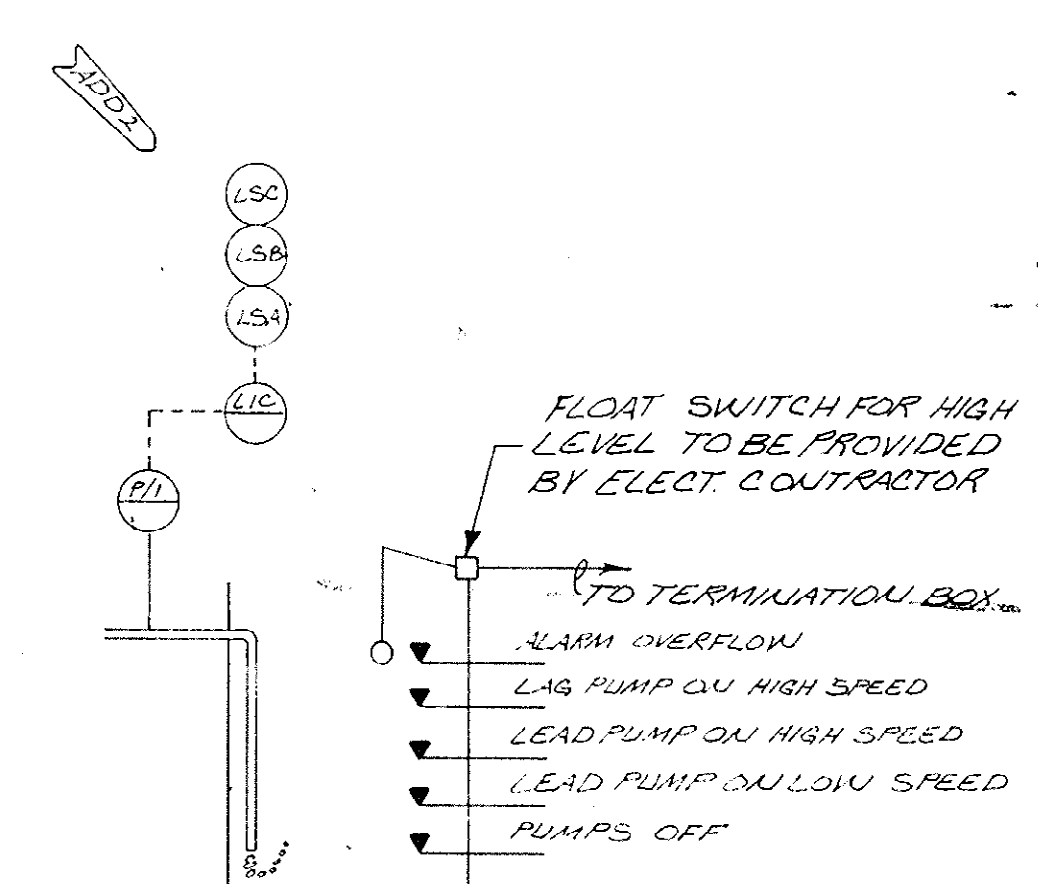
| EQUIPMENT SCHEDULE |                               |                           |           |             |       |             |         |             |          |             |          |             | REMARKS |                 |                                  |     |
|--------------------|-------------------------------|---------------------------|-----------|-------------|-------|-------------|---------|-------------|----------|-------------|----------|-------------|---------|-----------------|----------------------------------|-----|
|                    |                               | CIRCUIT BREAKER OR SWITCH |           |             |       |             |         |             |          |             |          |             |         |                 |                                  |     |
| UNIT NO.           | DESCRIPTION OF UNIT           | VOLTAGE                   | AMPS LOAD | MOTOR-POWER | POLES | WIRING TYPE | CONTROL | WIRING TYPE | TERMINAL | WIRING TYPE | TERMINAL | WIRING TYPE |         |                 |                                  |     |
| MCB                | MOLDED CASE C/B               | 480                       | 225       | 3           | 1X    |             |         | 400         | 250      | STD         | 30       | TM          | JL      | MAIN DISC       | *                                |     |
| ATS                | AUTOMATIC TRANSFER SWITCH     | 480                       | 225       | 3           | 1X    |             |         | 400         | 400      |             | 31       |             |         | AUTO X'FER SW.  | *                                |     |
| GCB                | MOLDED CASE C/B               | 480                       | 150       | 3           | 1X    |             |         | 225         | 225      | STD         | 18       | TM          | FJ      | GENERATOR DISC. | *                                |     |
| PCB                | " " " "                       | 480                       | 225       | 3           | 12    |             |         | 400         | 400      | 30          | TM       | JL          |         | PANEL DISC.     |                                  |     |
| CB1                | 2 SPEED SEPARATE WINDING      | 480                       | 65        | 50          | 3     | 12          |         | 3           | 100      | 100         | 750      | 14          | MO      | EF              | PUMP NO.1                        |     |
|                    | RVIVA COMB. C/B MOTOR STARTER |                           |           |             |       |             |         |             |          |             |          |             |         |                 |                                  |     |
| CB2                | 2 SPEED SEPARATE WINDING      | 480                       | 65        | 50          | 3     | 12          |         | 3           | 100      | 100         | 750      | 14          | MO      | EF              | PUMP NO.2                        |     |
|                    | RVIVA COMB. C/B MOTOR STARTER |                           |           |             |       |             |         |             |          |             |          |             |         |                 |                                  |     |
| CB3                | 2 SPEED SEPARATE WINDING      | 480                       | 65        | 50          | 3     | 12          |         | 3           | 100      | 100         | 750      | 14          | MO      | EF              | PUMP NO.3                        |     |
|                    | RVIVA COMB. C/B MOTOR STARTER |                           |           |             |       |             |         |             |          |             |          |             |         |                 |                                  |     |
| CB4                | MOLDED CASE C/B               | 480                       | 25        |             | 1X    | 2           | 12      |             | 100      | 25          | STD      | 14          | TM      | EF              | 120V PWR PWR C/B *               |     |
| CB5                | " " " "                       | 120                       | 50        |             | 1     | 12          |         |             | 100      | 50          | STD      | 10          | TM      | DOB             | 120V PWR PWR C/B MAIN SEC DISC * |     |
| CB6                | " " " " W/GFI                 | 120                       | 2         |             | 1     | 12          |         |             | 100      | 20          | STD      | 10          | TM      | DOB             | 120 RECEPTACLE                   | *   |
| CB7                | " " " " "                     | 120                       | 0.5       |             | 1     | 12          |         |             | 100      | 15          | STD      | 10          | TM      | DOB             | PUMP NO.1, CMTL CKT.             |     |
| CB8                | " " " " "                     | 120                       | 0.5       |             | 1     | 12          |         |             | 100      | 15          | STD      | 10          | TM      | DOB             | " " 2 " "                        |     |
| CB9                | " " " " "                     | 120                       | 0.5       |             | 1     | 12          |         |             | 100      | 15          | STD      | 10          | TM      | DOB             | " " 3 " "                        |     |
| CB10               | " " " " "                     | 120                       | 1         |             | 1     | 12          |         |             | 100      | 15          | STD      | 10          | TM      | DOB             | " " 3 " "                        |     |
| CB11               | " " " " "                     | 120                       | 7.2       | 1/3         | 1     | 12          |         |             | 100      | 15          | STD      | 10          | TM      | DOB             | LEVEL CMTL CIRCUITRY *           |     |
| CB12               | " " " " "                     | 120                       | 9.8       | 1/2         | 1     | 12          |         |             | 100      | 20          | STD      | 10          | TM      | DOB             | SUMP PUMP RECEPTACLE *           |     |
| CB13               | " " " " "                     | 120                       | 4.4       | 1/6         | 1     | 12          |         |             | 100      | 15          | STD      | 10          | TM      | DOB             | DEHUMIDIFIER RECEPTACLE *        |     |
| CB14               | " " " " "                     | 120                       | 1         |             | 1     | 12          |         |             | 100      | 15          | STD      | 10          | TM      | DOB             | VENTILATION BLOWER *             |     |
| CB15               | " " " " "                     | 120                       | 1         |             | 1     | 12          |         |             | 100      | 20          | STD      | 10          | TM      | DOB             | LIGHTING 1 *                     |     |
| CB16               | " " " " "                     | 120                       | 1         |             | 1     | 12          |         |             | 100      | 20          | STD      | 10          | TM      | DOB             | SPARE                            |     |
| CB17               | " " " " "                     | 240                       | 20        |             | 2     | 12          |         |             | 100      | 40          | STD      | 10          | TM      | DOB             | REMOTE TERMINAL UNIT             |     |
|                    |                               |                           |           |             |       |             |         |             | 1780     | 40          | STD      | 10          | TM      | DOB             | GEN. LTR. PANEL                  |     |
| CB18               | MOLDED CASE C/B               | 120                       | 1         |             | 1     | 12          |         |             | 100      | 20          | STD      | 10          | TM      | DOB             | LSH                              |     |
| CB19               | FIVE COMB. C/B MOTOR STARTER  | 480                       | 4.8       | 3           | 12    |             |         | 1           | 100      | 10          | 58       | 14          | MO      | EF              | ODOR CONTROL FAN                 | ▲▲* |
| CB20               | " " " " "                     | 120                       | --        | --          | 1     | 12          |         |             | 100      | 20          | STD      | 10          | TM      | DOB             | FSK                              |     |
| CB21               | " " " " "                     | 120                       | --        | --          | 1     | 12          |         |             | 100      | 20          | STD      | 10          | TM      | DOB             | RECORDER & CLEANER               |     |
| CB22               | MOLD. C/B                     | 120                       | --        | --          | 1     | 12          |         |             | 100      | 20          | STD      | 10          | TM      | DOB             | BATT. CHARGER                    |     |

\* EQUIPMENT SCHEDULE IS A MIN. MFR. SHALL PROVIDE REQD. SIZE. NO. OF POLES, TAP ETC. SHALL VARY WITH EQUIPMENT SIZE & CHARACTERISTICS

| POWER AND CONTROL WIRING SCHEDULE |                              |                             |       |      |                    |                     |         |               |  |
|-----------------------------------|------------------------------|-----------------------------|-------|------|--------------------|---------------------|---------|---------------|--|
| CIRCUIT NO.                       | FROM                         | TO                          | VOLTS | AMPS | POWER CABLE (XHHW) | GROUND CABLE (BARE) | CONDUIT | REMARKS       |  |
| 1                                 | WEATHERHEAD AT PWR. CO. POLE | CABINET FOR PWR. CO. CTS    | 480   | 225  | 3-1/2 NO. 3        | 1/2 NO. 3           | 2 1/2"  | POWER         |  |
| 2                                 | MAIN DISC. CABINET           | "                           | 480   | 225  | 3-1/2 NO. 3        | 1/2 NO. 3           | 2 1/2"  | "             |  |
| 3                                 | "                            | PUMP STA. CONTROL PANEL     | 480   | 225  | 3-1/2 NO. 3        | 1/2 NO. 3           | 2 1/2"  | "             |  |
| 4                                 | "                            | GENERATOR TERMINAL BOX      | 480   | 150  | 3-1/2 NO. 3        | 1/2 NO. 3           | 2"      | " CONTROL     |  |
| 5                                 | PUMP STA. CONTROL PANEL      | PUMP NO. 1 MOTOR            | 480   | 65   | 4-1/2 NO. 4        | 1/2 NO. 8           | 1 1/4"  | "             |  |
| 6                                 | "                            | "                           | 480   | 65   | 4-1/2 NO. 4        | 1/2 NO. 8           | 1 1/4"  | "             |  |
| 7                                 | "                            | "                           | 480   | 65   | 4-1/2 NO. 4        | 1/2 NO. 8           | 1 1/4"  | "             |  |
| 8                                 | "                            | LC51 @ WETWELL              | 120   | 14   | 1/2 NO. 14         | 3/4"                | 3/4"    | CONTROL       |  |
| 9                                 | "                            | REMOTE TERMINAL UNIT (RTU)  | 120   | 14   | 1/2 NO. 14         | 1/2 NO. 12          | 1 1/4"  | POWER         |  |
| 10                                | "                            | LC52 @ DRYWELL              | 120   | 2    | 1/2 NO. 12         | 3/4"                | 3/4"    | "             |  |
| 11                                | "                            | CHUCK VALVE NO. 1 LIMIT SW. | 120   | 2    | 1/2 NO. 12         | 3/4"                | 3/4"    | "             |  |
| 12                                | "                            | "                           | 120   | 2    | 1/2 NO. 12         | 3/4"                | 3/4"    | "             |  |
| 13                                | "                            | "                           | 120   | 2    | 1/2 NO. 12         | 3/4"                | 3/4"    | "             |  |
| 14                                | "                            | RS @ DRYWELL                | 120   | 2    | 1/2 NO. 12         | 3/4"                | 3/4"    | "             |  |
| 15                                | SPACE                        | "                           | "     | "    | "                  | "                   | "       | SPACE         |  |
| 16                                | PUMP STA. CONTROL PANEL      | GEN. CONTROL PANEL          | 240   | 3    | 1/2 NO. 8          | 1/2 NO. 10          | 3/4"    | POWER         |  |
| 17                                | "                            | MAINTENANCE LIFT MOTOR      | 480   | 2    | 3-1/2 NO. 12       | 1/2 NO. 12          | 3/4"    | (SEE NOTE 1A) |  |
| 18                                | "                            | ODOR CONTROL FAN            | 480   | 4.8  | 3-1/2 NO. 12       | 1/2 NO. 12          | 3/4"    | (SEE NOTE 1A) |  |
| 19                                | "                            | MAG. FLOW METER             | 120   | 2    | 1/2 NO. 12         | 1/2 NO. 12          | 3/4"    | POWER         |  |
| 20                                | "                            | FSK                         | 120   | 2    | 1/2 NO. 12         | 1/2 NO. 12          | 3/4"    | "             |  |
| 21                                | "                            | LSH                         | 120   | 2    | 1/2 NO. 12         | 1/2 NO. 12          | 3/4"    | "             |  |
| 22                                | "                            | MAG. FLOW METER             | 120   | 2    | 1/2 NO. 12         | 1/2 NO. 12          | 3/4"    | "             |  |
| 23                                | "                            | FLOW CONV. & RECORDER       | 120   | 2    | 1/2 NO. 12         | 1/2 NO. 12          | 3/4"    | "             |  |
| 24                                | "                            | BATT. CHARGER               | 120   | 2    | 1/2 NO. 12         | 1/2 NO. 12          | 3/4"    | "             |  |

⊗ PLUS 2 COND. #12 FOR MOTOR SPACE HEATERS.

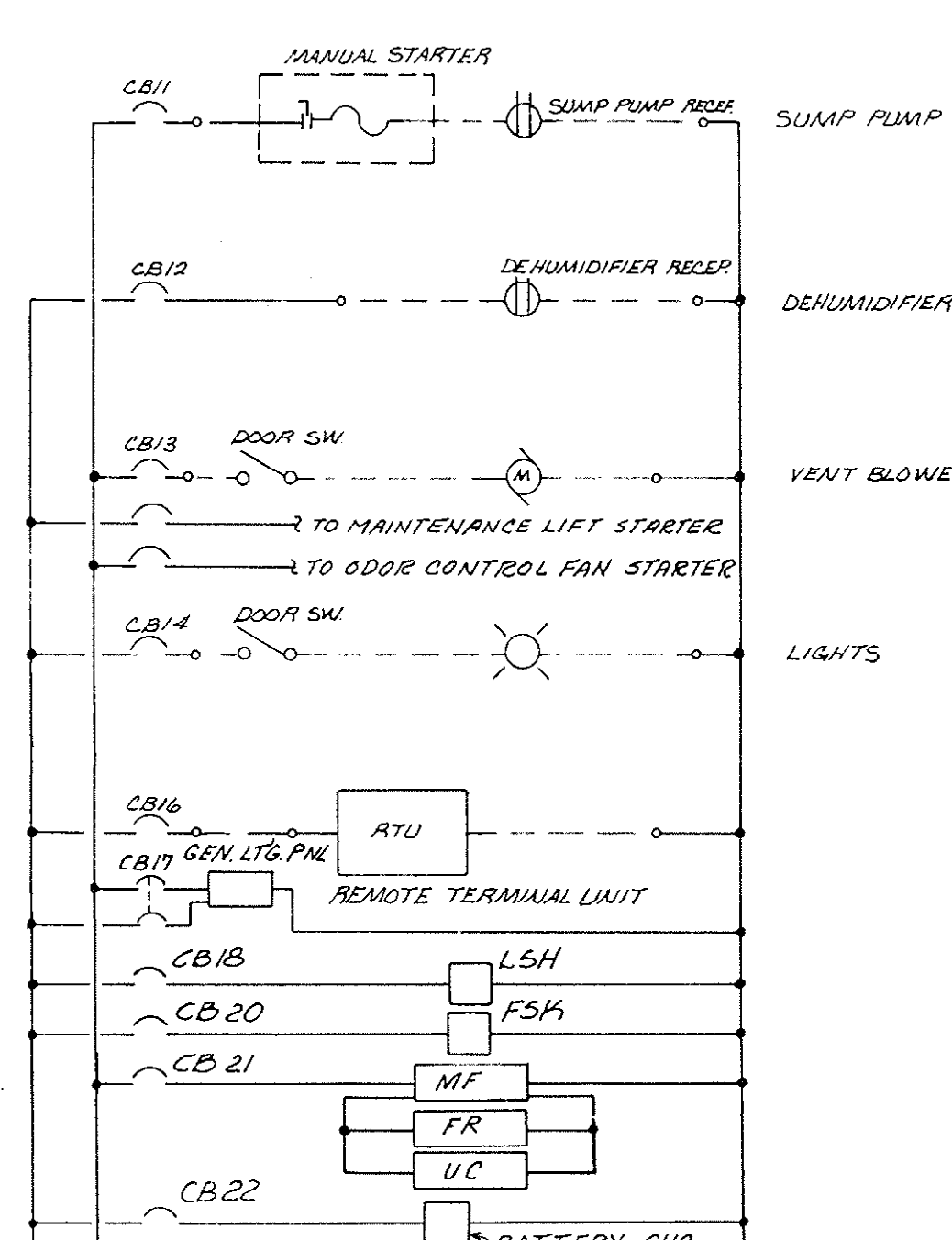
NOTES:  
1) SEE DETAIL ON SHEET E-2 FOR TELEMETERING EQUIP. PWR.  
2) SEE DETAIL ON SHEET E-2 FOR SERVICE POLE.



- NOTES:
- PROVIDE 2-1/2" NO. 12 XHHW 1/C NO. 12 BARE IN 1/2" C AS MIN. TO EACH EQUIPMENT SERVED BY CB6-16.
  - CONTRACTOR TO CONFIRM CONDUIT & WIRE SIZE & NO. WITH PUMP MFR.
  - CONTRACTOR TO CONFIRM CONDUIT SIZE.
  - PROVIDE BRACING AND OVERALL RATING FOR 22K AMIN. UNSYMMETRICAL FAULT CURRENT.
  - CONTROL PANEL BOTTOM ELEVATION SHALL BE A MIN. OF 14" ABOVE DRYWELL FLOOR LEVEL.
  - ALL MOTORS SHALL BE WP-1 EXCEPT SUMP PUMP MOTOR SHALL BE SUBMERSIBLE TYPE.
- ▲▲ STARTER AND/OR CONTROLLER AS PER SPECS AND/OR MFR. REQUIREMENTS

| STEP NO. | 1 | 2 | 3 |
|----------|---|---|---|
| 51       | X |   |   |
| 52       | X |   |   |
| 53       | X |   |   |
| 54       | X |   |   |
| 55       | X |   |   |
| 56       | X |   |   |
| 57       | X |   |   |
| 58       | X |   |   |
| 59       | X |   |   |

LPI HP1 HP2  
LP2 HP2 HP3  
LP3 HP3 HP1  
LPI HP1 HP2



PROGRAM TIMER CONTACT ARRANGEMENT

C 450381-05

WASTEWATER SYSTEM IMPROVEMENTS FOR THE GRAND STRAND WATER & SEWER AUTHORITY

BLACK, CROW AND EIDNESS, INC. ENGINEERS

DRAWN BY: QWAKES DATE: JULY, 1977  
CHECKED BY: J. W. K. FILE NO.: CA 68505.71

SCALE: NOT TO SCALE

PUMP STATION NO. 2

SHEET NO. E4

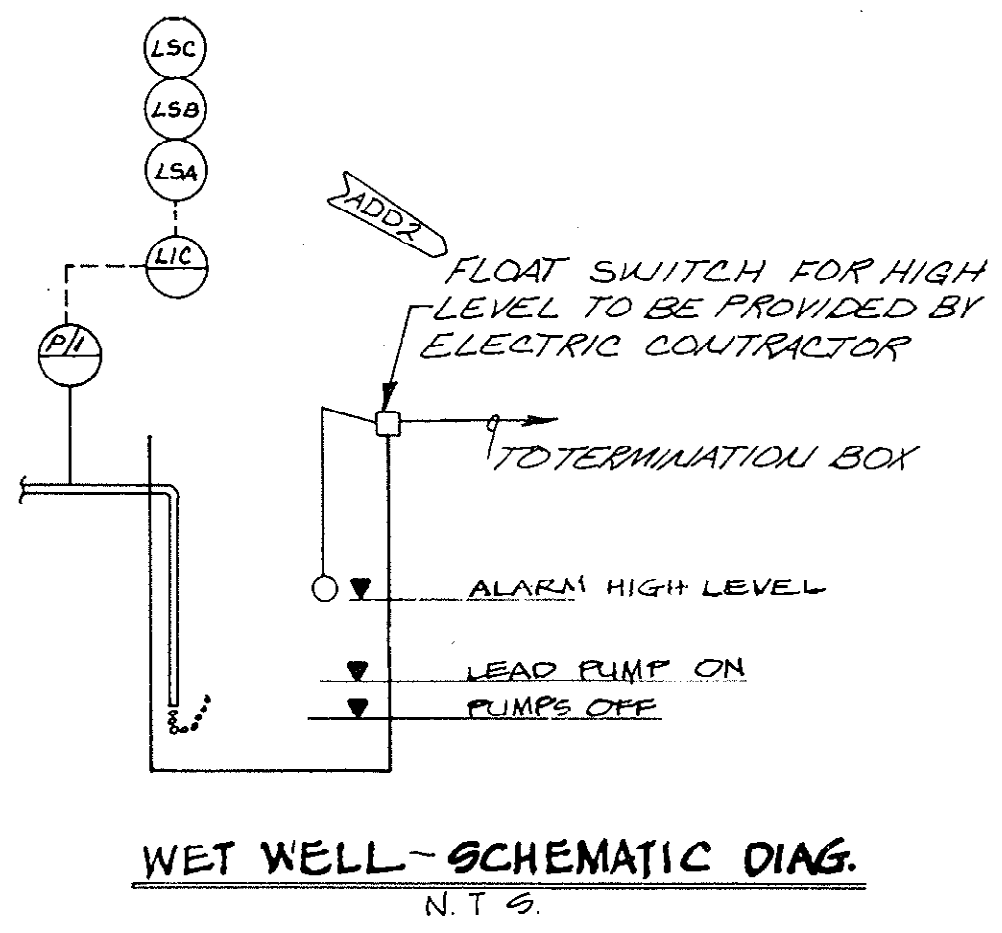
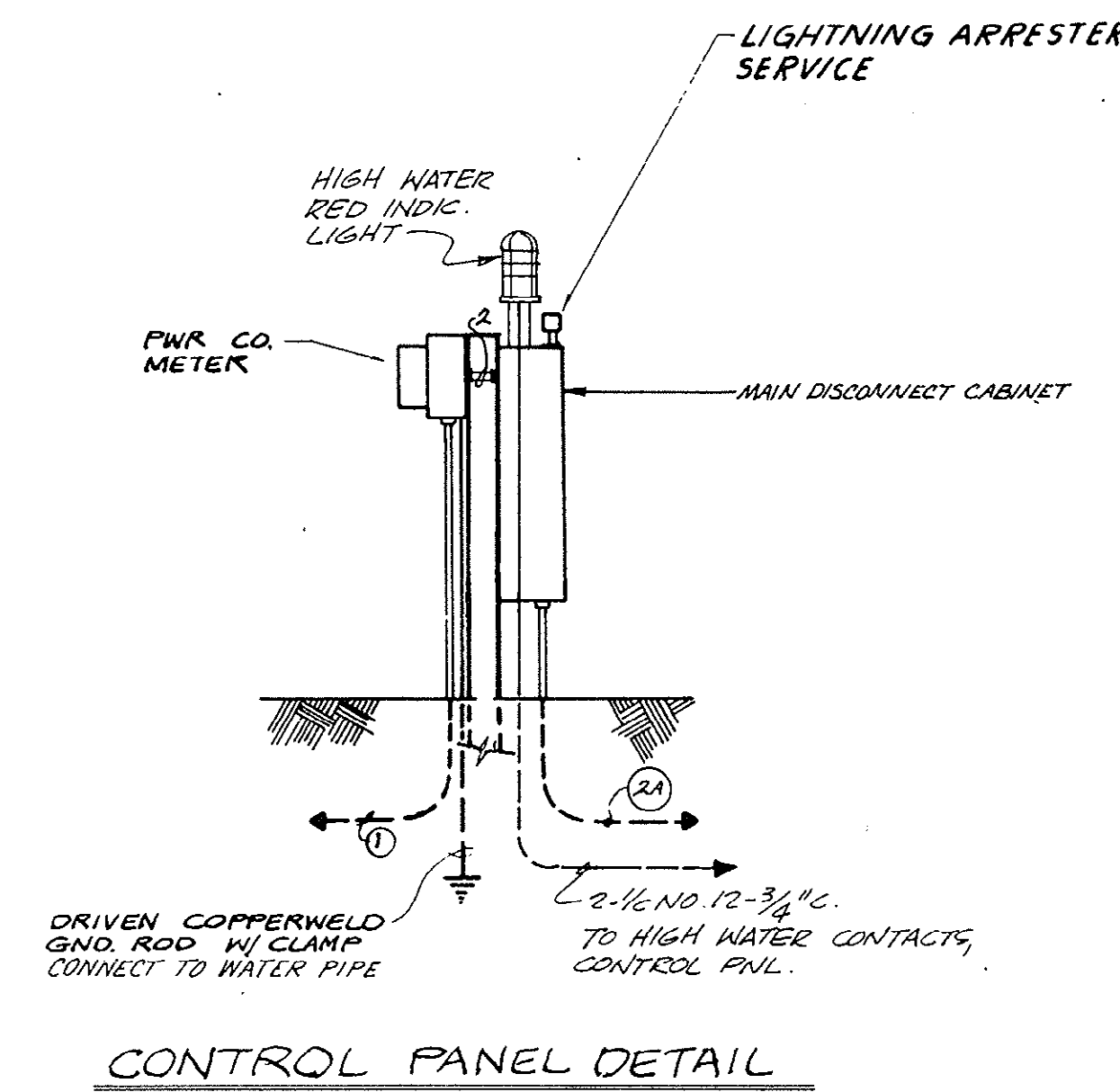
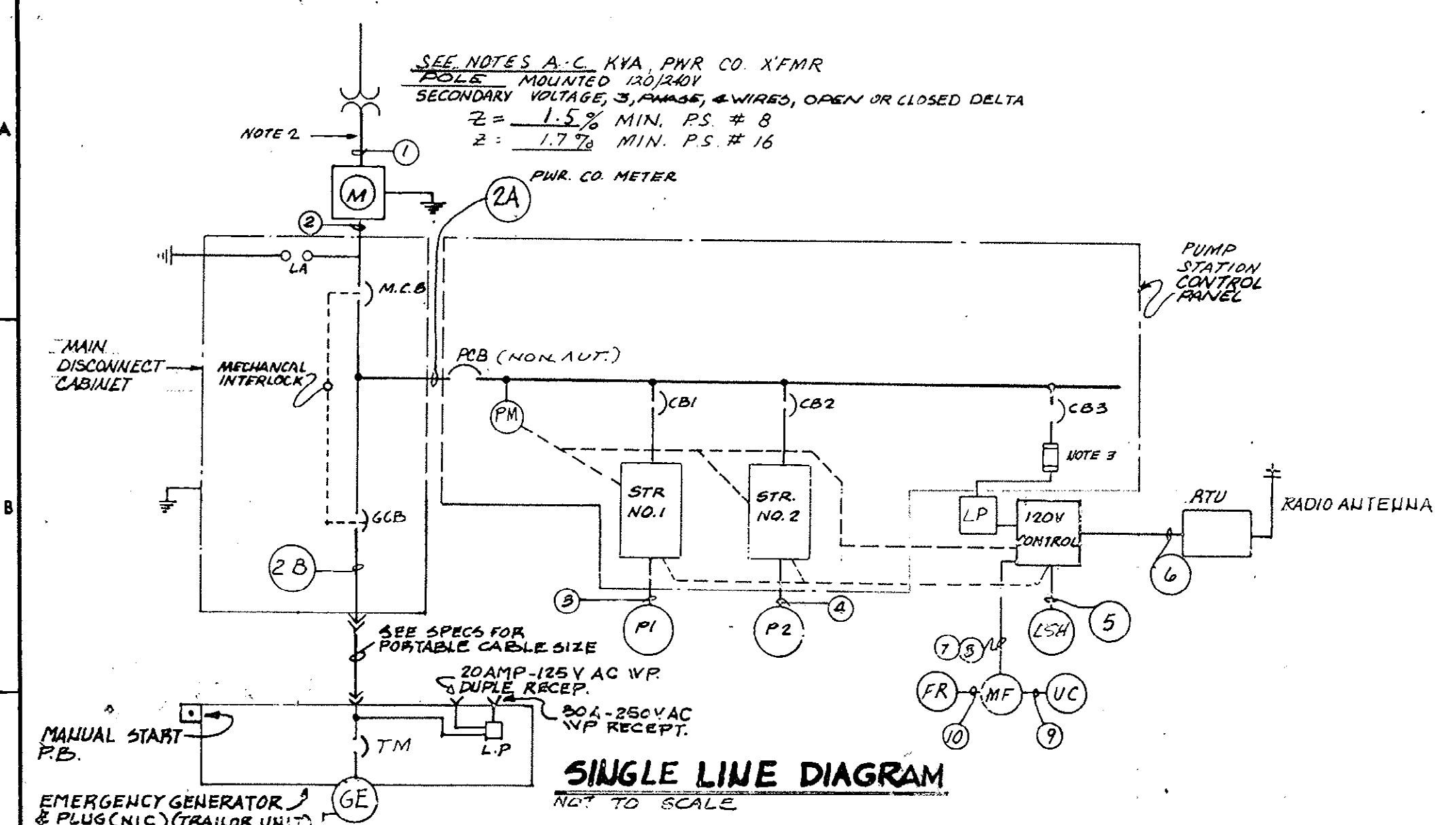
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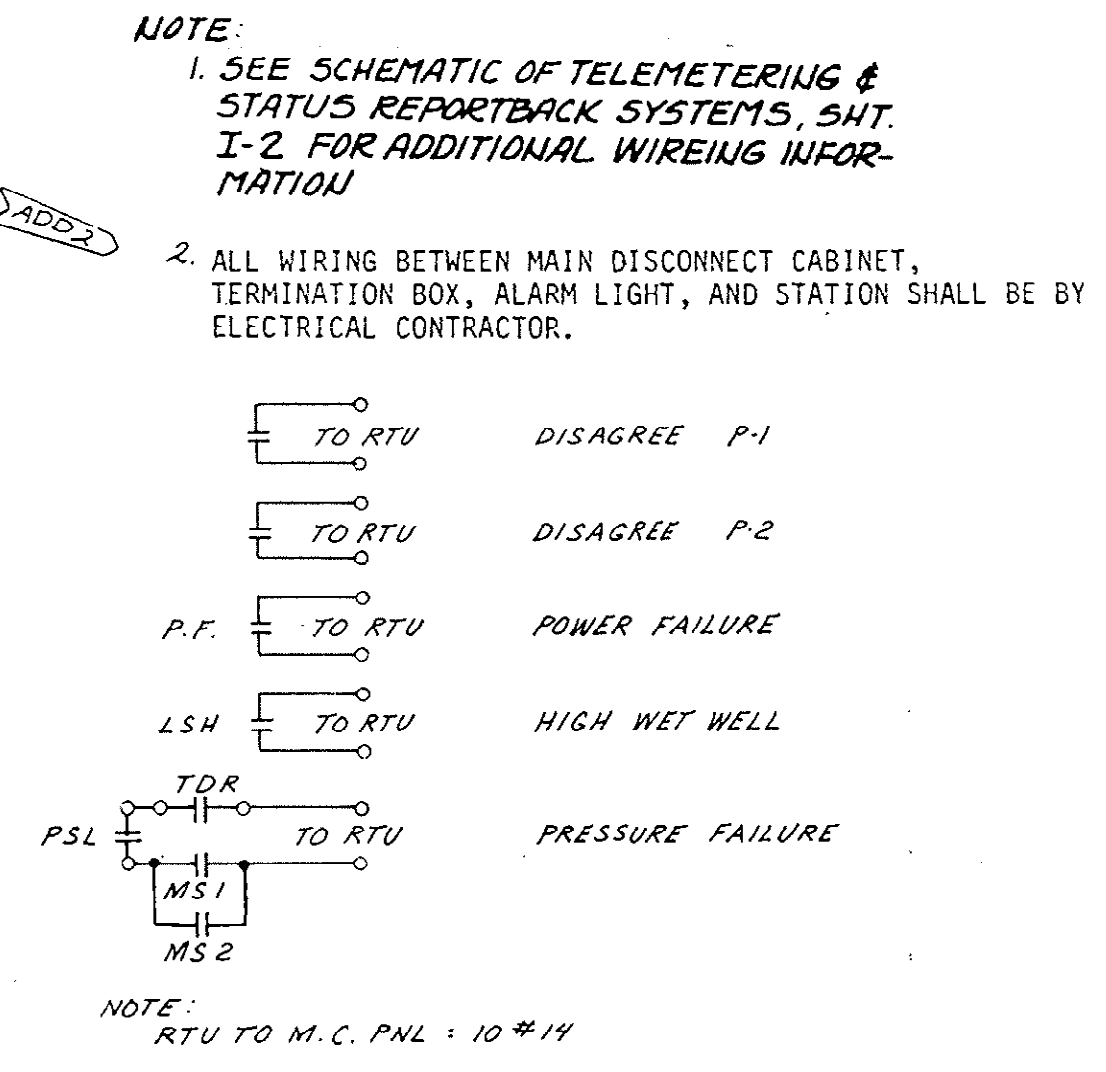




| REVISIONS |      |                                                         |      |          |
|-----------|------|---------------------------------------------------------|------|----------|
| NO.       | CORD | DESCRIPTION                                             | DATE | APPROVED |
| 1         |      | NEW SHEET                                               | 7/77 | RMC      |
| 2         |      | REVISED NOTES, SCHEMATIC DIAG, SINGLELINE DIAG, WETWELL | 1/79 | RMC      |



| EQUIPMENT SCHEDULE |                     |       |      |            |      |           |          |            |           |            |           |            |           |                             |
|--------------------|---------------------|-------|------|------------|------|-----------|----------|------------|-----------|------------|-----------|------------|-----------|-----------------------------|
| UNIT NO.           | DESCRIPTION OF UNIT | VOLTS | AMPS | WIRE GAUGE | POLE | WIRE TYPE | TERMINAL | WIRE GAUGE | WIRE TYPE | WIRE GAUGE | WIRE TYPE | WIRE GAUGE | WIRE TYPE | REMARKS                     |
| CB4                | " " C/B WEFT        | 120   | 2    | 1          | 1A   |           |          | 100        | 20        | 10         | TM        | BQ         |           | 120V RECEPTACLE             |
| CB5                | " " C/B             | 120   | 0.9  | 1          | 1A   |           |          | 100        | 15        | 10         | TM        |            |           | PUMP NO. 1 CNTRL. CKT.      |
| CB6                | " " " "             | 120   | 0.9  | 1          | 1A   |           |          | 100        | 15        | 10         | TM        |            |           | " " " "                     |
| CB7                | " " " "             | 120   | 1    | 1          | 1A   |           |          | 100        | 20        | 10         | TM        |            |           | SPARE                       |
| FOR PS. XVI        |                     |       |      |            |      |           |          |            |           |            |           |            |           |                             |
| MCB                | MOLDED CASE C/B     | 240   | 180  | 3          | 4    |           |          | 225        | 225       | 210        | 22        | TM         | FJ        | MAIN DISCONNECT             |
| CB1                | RYNR COMP. C/B STR. | 240   | 80   | 30         | 3    | 4         | 3        | 100        | 100       | 930        | 18        | MO         | EF        | PUMP NO. 1 MOTOR            |
| CB2                | " " " "             | 240   | 80   | 30         | 3    | 4         | 3        | 100        | 100       | 930        | 18        | MO         | EF        | " " " "                     |
| CB3                | MOLDED CASE C/B     | 240   | 100  | 3          | 4    |           |          | 150        | 125       | 570        | 18        | TM         | EH        | GENERATOR DISCONNECT        |
| CB3                | " " " "             | 240   | 20   | 2          | 1A   |           |          | 30         | 30        | 570        | 100       | TM         | CC        | 120V. CNTR. MAIN SEC. DISC. |
| FOR PS. XVII       |                     |       |      |            |      |           |          |            |           |            |           |            |           |                             |
| MCB                | MOLDED CASE C/B     | 240   | 104  | 3          | 4    |           |          | 150        | 125       | 570        | 18        | TM         | EH        | MAIN DISC.                  |
| CB1                | RYNR COMP. C/B STR. | 240   | 42   | 15         | 3    | 4         | 2        | 100        | 60        | 475        | 18        | MO         | EF        | PUMP NO. 1 MTR.             |
| CB2                | " " " "             | 240   | 42   | 15         | 3    | 4         | 2        | 100        | 60        | 475        | 18        | MO         | EF        | " " " "                     |
| CB3                | MOLDED CASE C/B     | 240   | 62   | 3          | 4    |           |          | 100        | 100       | 570        | 18        | TM         | EH        | GENERATOR DISCONNECT        |
| CB3                | " " " "             | 240   | 20   | 2          | 1A   |           |          | 30         | 30        | 570        | 100       | TM         | CC        | 120V. CNTR. MAIN SEC. DISC. |
| CB3                | " " " "             | 240   | 104  | 3          | 1A   |           |          | 150        | 150       | 570        | 18        | NA         | EH        | MAIN DISC. CAB.             |
| FOR PS. XVIII      |                     |       |      |            |      |           |          |            |           |            |           |            |           |                             |
| CB8                | MOLDED CASE C/B     | 120   |      | 1          | 1A   |           |          | 100        | 15        | 570        | 10        | TM         | BQ        | MAG. FLOW METER             |
| CB9                | " " " "             | 120   |      | 1          | 1A   |           |          | 100        | 15        | 570        | 10        | TM         | BQ        | REMOTE TERMINAL UNIT        |
| CB10               | " " " "             | 120   |      | 1          | 1A   |           |          | 100        | 15        | 570        | 10        | TM         | BQ        | LEVEL CONTROL CIRCUITRY     |
| CB11               | " " " "             | 120   |      | 1          | 1A   |           |          | 100        | 15        | 570        | 10        | TM         | BQ        | ENCLOSURE LPS. & FAN        |
| CB12               | " " " "             | 120   |      | 1          | 1A   |           |          | 100        | 15        | 570        | 10        | TM         | BQ        | LSH                         |
| FOR PS. XXII       |                     |       |      |            |      |           |          |            |           |            |           |            |           |                             |
| CB                 | MOLDED CASE C/B     | 240   | 180  | 3          | 1A   |           |          | 225        | 225       | 22         | NA        | FJ         |           | MAIN DISC. CAB.             |



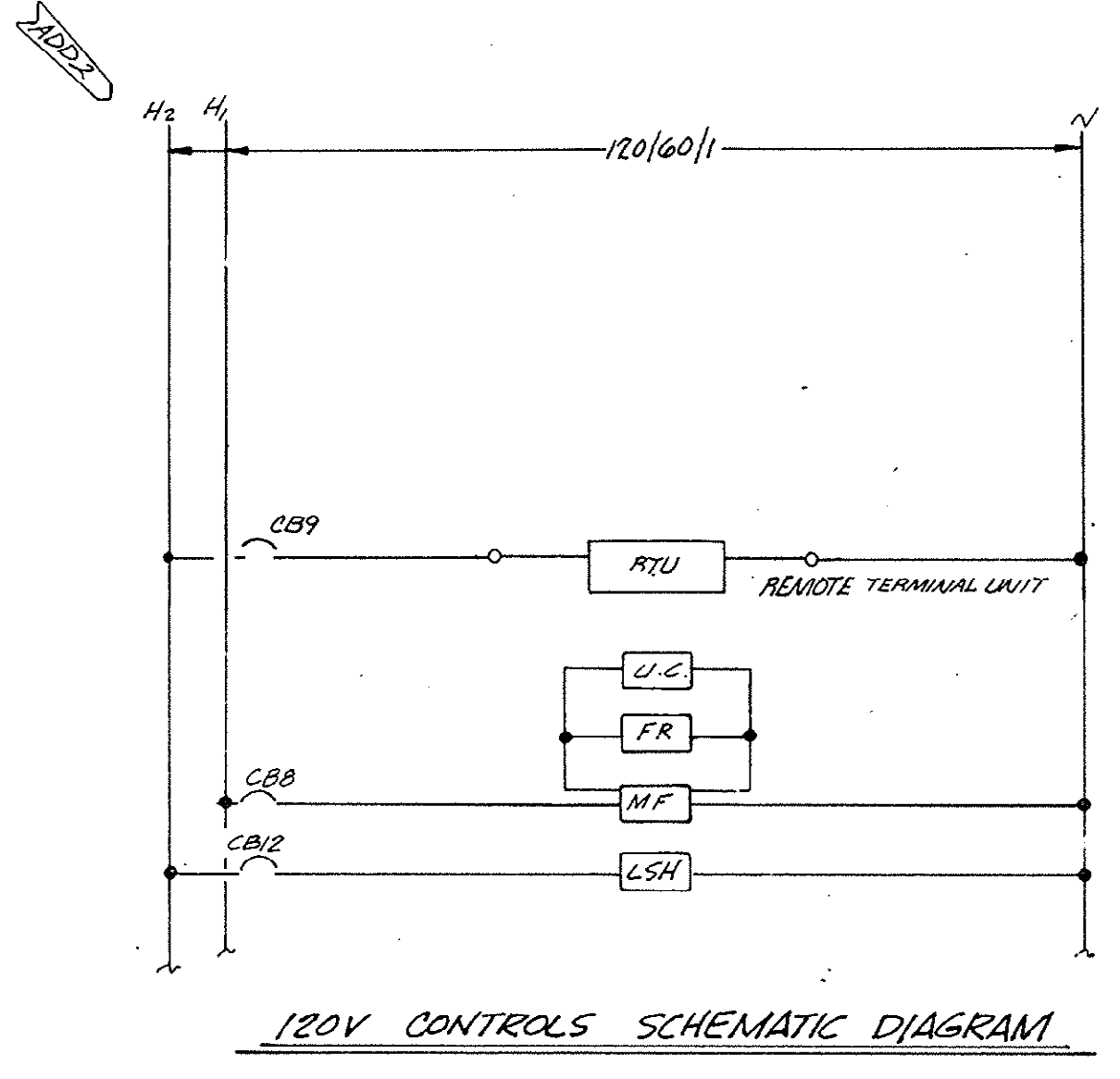
- LEGEND:
- CB - CIRCUIT BREAKER
  - SS - SELECT SWITCH, 3 POSITION
  - MS - MOTOR STARTER C.C.
  - TS - TEST SWITCH
  - LR - CONTACT RELAY
  - TR - TIME RELAY
  - A - ALTERNATOR, RATING RELAY
  - O - ALARM PANEL TERMINAL
  - D - CONTROL PANEL TERMINAL
  - OP - OVERLOAD RELAY
  - ET - ELAPSED TIME METER
  - FR - RECYCLING TIMER
  - LSH - LEVEL CONTROL SWITCH
  - NO - MAGNETIC ONLY
  - WP - WEATHER PROOF
  - PM - PHASE MONITOR RELAY
  - GR - GENERATOR RECEPTACLE
  - TS - TEMPERATURE SWITCH
  - FT - FLOW TRANSMITTER
  - LSH - LEVEL SW - HIGH
  - FR - FLOW RECORDER & CONV.
  - UC - ULTRA-SONIC CLEANER
  - PF - POWER FAILURE
  - FSK - ANALOG AUDIO TONE EQUIP
  - MF - MAGNETIC FLOW METER

\* CABLE TO BE PROVIDED BY PUMP MFR. CONTRACTOR TO CONFIRM CONDUIT SIZE

| POWER AND CONTROL WIRING SCHEDULE |                                |                                |            |           |            |           |            |           |              |
|-----------------------------------|--------------------------------|--------------------------------|------------|-----------|------------|-----------|------------|-----------|--------------|
| CIRCUIT NO.                       | FROM                           | TO                             | WIRE GAUGE | WIRE TYPE | WIRE GAUGE | WIRE TYPE | WIRE GAUGE | WIRE TYPE | REMARKS      |
| 1                                 | FOR PS. # VIII                 | WEATHER HEAD AT POWER CO. POLE | 240        | 104       | 3-1/2      | NO. 10    | 1-1/2      | NO. 10    | POWER        |
| 2                                 | MAIN DISCONNECT CABINET        | " " "                          | 240        | 104       | 3-1/2      | NO. 10    | 1-1/2      | NO. 10    | "            |
| 3                                 | CONTROL PANEL                  | PUMP NO. 1 MOTOR               | 15         | 240       | 42         | 3-1/2     | NO. 8      | 1-1/2     | "            |
| 4                                 | " " "                          | " " " "                        | 15         | 240       | 42         | 3-1/2     | NO. 8      | 1-1/2     | "            |
| 5                                 | " " "                          | LSH                            | 120        | 120       | 2-1/2      | NO. 14    | 3/4        | NO. 14    | CONTROL      |
| 6                                 | " " "                          | RTU                            | 120        | 120       | 2-1/2      | NO. 14    | 3/4        | NO. 14    | PWR. & ALARM |
| 2A                                | " " "                          | MAIN DISCONNECT CABINET        | 240        | 74        | 3-1/2      | NO. 6     | 1-1/2      | NO. 6     | POWER        |
| FOR PS. # XII                     |                                |                                |            |           |            |           |            |           |              |
| 1                                 | WEATHER HEAD AT POWER CO. POLE | POWER CO. METER                | 240        | 180       | 3-1/2      | NO. 10    | 1-1/2      | NO. 10    | POWER        |
| 2                                 | MAIN DISCONNECT CABINET        | " " "                          | 240        | 180       | 3-1/2      | NO. 10    | 1-1/2      | NO. 10    | "            |
| 3                                 | CONTROL PANEL                  | PUMP NO. 1 MOTOR               | 30         | 240       | 80         | 3-1/2     | NO. 8      | 1-1/2     | "            |
| 4                                 | " " "                          | " " " "                        | 30         | 240       | 80         | 3-1/2     | NO. 8      | 1-1/2     | "            |
| 5                                 | " " "                          | LSH                            | 120        | 120       | 2-1/2      | NO. 14    | 3/4        | NO. 14    | CNTR.        |
| 6                                 | " " "                          | RTU                            | 120        | 120       | 2-1/2      | NO. 14    | 3/4        | NO. 14    | PWR. & ALARM |
| 2A                                | " " "                          | MAIN DISCONNECT CABINET        | 240        | 180       | 3-1/2      | NO. 10    | 1-1/2      | NO. 10    | POWER        |
| 2B                                | " " "                          | " " "                          | 240        | 180       | 3-1/2      | NO. 10    | 1-1/2      | NO. 10    | POWER        |
| 7                                 | CONTROL PANEL                  | MAG. FLOW METER                | 120        | 120       | 2-1/2      | NO. 12    | 3/4        | NO. 12    | PWR.         |
| 8                                 | " " "                          | " " "                          | 120        | 120       | 2-1/2      | NO. 12    | 3/4        | NO. 12    | INDICATION   |
| 9                                 | MAG. FLOW METER                | ULTRA-CLEANER                  | 120        | 120       | 2-1/2      | NO. 12    | 3/4        | NO. 12    | POWER        |
| 10                                | " " "                          | FLOW RECORDER, CONV.           | 120        | 120       | 2-1/2      | NO. 12    | 3/4        | NO. 12    | POWER        |
| FOR PS. # XXII                    |                                |                                |            |           |            |           |            |           |              |
| 2B                                | CONTROL PANEL                  | MAIN DISCONNECT CAB            | 240        | 62        | 3-1/2      | NO. 8     | 1-1/2      | NO. 8     | POWER        |

NOTE: IN NO CASE SHALL CHT. #1 BE OVER 200 FT.

- NOTES:
- SEE DETAIL ON SHEET E-3 FOR TELEMETERING EQUIP. POLE
  - SEE DETAIL ON SHEET E-2 FOR SERVICE POLE.



- NOTES:
- ASSUMED MIN. TRANSFORMER SIZE TO START & CARRY LOAD @ MIN. %Z.
  - PROVIDE WEATHERHEADS FOR OVERHEAD SERVICE ONLY.
  - PROVIDE CLF ONLY WHEN SHOWN ON EQUIPMENT SCHEDULE.
  - PROVIDE BRACING & OVERALL RATING FOR 14K A MIN RMS SYMMETRICAL FAULT CURRENT.
  - CONTRACTOR TO PAY FOR ALL HOOK UP CHARGES INCLUDING DIFFERENTIAL INCREMENT BETWEEN 1" AND 3" COST.
  - PROVIDE 2-1/2" NO. 12 KHHW & 1/2" NO. 12 BQ. IN 1/2" AS MIN. TO EACH EQUIPMENT SERVED BY CB 4-7. CONTRACTOR TO CONFIRM CONDUIT & WIRE SIZE & NO. WITH PUMP MANUFACT.
- A) PS. XII ASSUME 3-25 KVA TRANSF  
B) PS. XXII ASSUME 2-15 KVA TRANSF

8-02-020-S

C 450381-05

WASTEWATER SYSTEM IMPROVEMENTS FOR THE  
GRAND STRAND  
WATER & SEWER AUTHORITY

**BLACK, CROW AND EIDNESS, INC.**  
ENGINEERS

DRAWN BY: D.V. HAYES DATE: JULY, 1977  
CHECKED BY: RMC FILE NO. CA 68505.71

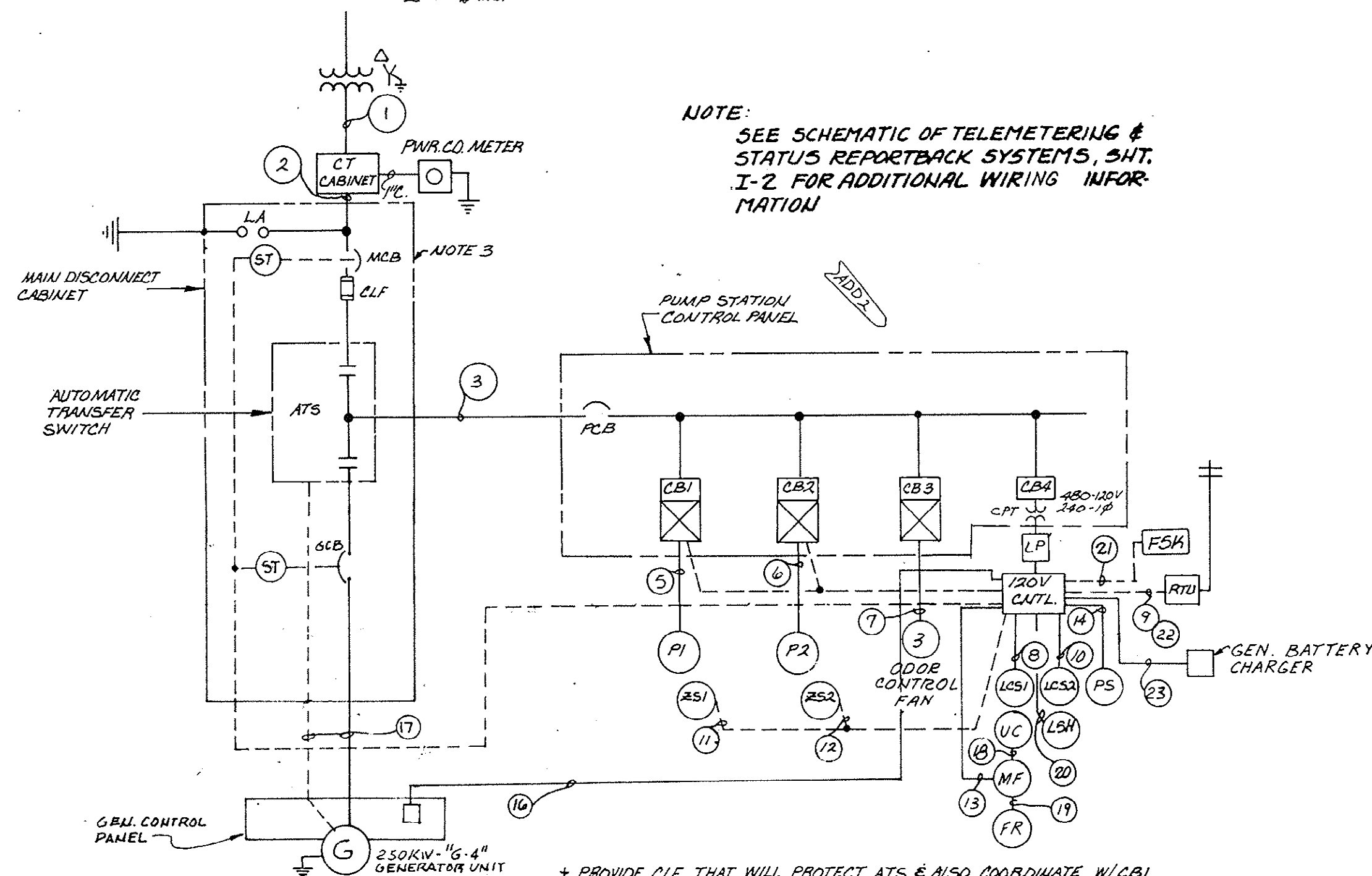
SCALE: AS NOTED

ABOVE GROUND PUMPING STATIONS  
8 & 16 ELECTRICAL DETAILS

SHEET NO. **E-6**



300 KVA, PWR CO. XFMR. POLE MTD.  
180V SECONDARY VOLTAGE 3-PHASE, 4W, WYE  
Z=1.12 MIN.



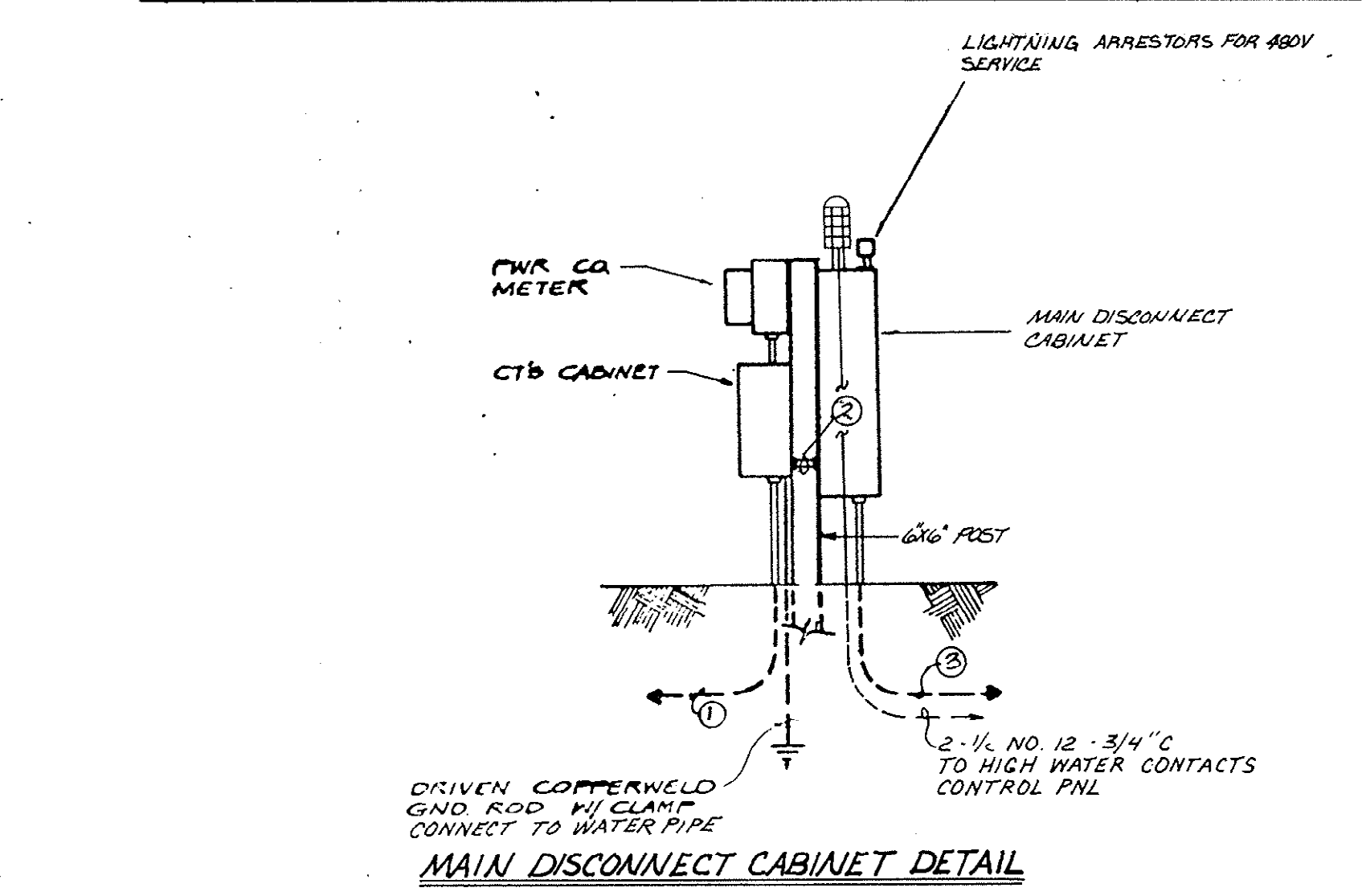
| EQUIPMENT SCHEDULE |                             |         |           |            |       |           |         |          |           |       |           |         |           | CIRCUIT BREAKER OR SWITCH |           | REMARKS                      |                  |
|--------------------|-----------------------------|---------|-----------|------------|-------|-----------|---------|----------|-----------|-------|-----------|---------|-----------|---------------------------|-----------|------------------------------|------------------|
| UNIT NO.           | DESCRIPTION OF UNIT         | VOLTAGE | AMPS LOAD | MORE POWER | POLES | WIRE TYPE | CONDUIT | TERMINAL | WIRE TYPE | POLES | WIRE TYPE | CONDUIT | WIRE TYPE | WIRE SIZE                 | WIRE TYPE | REMARKS                      |                  |
| MCB                | MOLDED CASE 5/8             | 480     | 338       |            | 3     | 4X        |         |          | 400       | 400   | 2700      | 200     | TMF       | CJ                        |           | MAIN DISC. +                 |                  |
| ATS                | AUTOMATIC TRANSFER SWITCH   | 480     | 338       |            | 3     | 4X        |         |          | 400       | 400   |           | 31      |           |                           |           | AUTO XFER SW.                |                  |
| CCB                | MOLDED CASE 5/8             | 480     |           |            | 3     | 4X        |         |          | 400       | 400   | 2000      | 30      | TM        | JL                        |           | SEPARATE DISC. +             |                  |
| PCB                | " " " "                     | 480     | 338       |            | 3     | 12        |         |          | 400       | 400   |           | 30      | NA        | JL                        |           | GENERAL DISC.                |                  |
| CB1                | AVIA COMB 5/8 MOTOR STARTER | 480     | 156       | 125        | 3     | 12        |         |          | 5         | 225   | 225       | 1550    | 18        | NO                        | FJ        |                              | PUMP NO.1        |
| CB2                | AVIA COMB 5/8 MOTOR STARTER | 480     | 156       | 125        | 3     | 12        |         |          | 5         | 225   | 225       | 1550    | 18        | NO                        | FJ        |                              | PUMP NO.2        |
| CB3                | FANR COMB 5/8 MOTOR STARTER | 480     | 4.8       | 3          | 3     | 12        |         |          | 1         | 100   | 10        | 58      | 14        | NO                        | EF        |                              | EDGE CONTROL FAN |
| CB4                | MOLDED CASE 5/8             | 480     | 21        | 10KVA      | 2     | 12        |         |          | 100       | 25    | STD       | 14      | TM        | EF                        |           | 120 XFER PWR 5/8 *           |                  |
| CB5                | " " " "                     | 120     | 41        | 2          | 12    |           |         |          | 100       | 50    | STD       | 10      | TM        | QOB                       |           | 120/240V PWR MAIN SEC DISC * |                  |
| CB6                | " " " " W/GFI               | 120     | 2         | 1          | 12    |           |         |          | 100       | 20    | STD       | 10      | TM        | QOB                       |           | 120 RECEPTACLE *             |                  |
| CB7                | " " " "                     | 120     | 0.5       | 1          | 12    |           |         |          | 100       | 15    | STD       | 10      | TM        | QOB                       |           | PUMP NO.1 CMTL CAT.          |                  |
| CB8                | " " " "                     | 120     | 0.5       | 1          | 12    |           |         |          | 100       | 15    | STD       | 10      | TM        | QOB                       |           | " " 2 " "                    |                  |
| CB9                | NOT USED                    |         |           |            |       |           |         |          |           |       |           |         |           |                           |           | NOT USED                     |                  |
| CB10               | MOLDED CASE 5/8             | 120     | 1         | 1          | 12    |           |         |          | 100       | 15    | STD       | 10      | TM        | QOB                       |           | LEVEL CMTL CIRCUITRY *       |                  |
| CB11               | " " " "                     | 120     | 7.2       | 1/3        | 1     | 12        |         |          | 100       | 15    | STD       | 10      | TM        | QOB                       |           | SUMP PUMP RECEPTACLE *       |                  |
| CB12               | " " " "                     | 120     | 9.5       | 1/2        | 1     | 12        |         |          | 100       | 20    | STD       | 10      | TM        | QOB                       |           | DEHUMIDIFIER RECEPTACLE *    |                  |
| CB13               | " " " "                     | 120     | 4.4       | 1/4        | 1     | 12        |         |          | 100       | 15    | STD       | 10      | TM        | QOB                       |           | VENTILATION BLOWER *         |                  |
| CB14               | " " " "                     | 120     | 1         | 1          | 12    |           |         |          | 100       | 15    | STD       | 10      | TM        | QOB                       |           | LIGHTING 1 *                 |                  |
| CB15               | " " " "                     | 120     | 1         | 1          | 12    |           |         |          | 100       | 20    | STD       | 10      | TM        | QOB                       |           | SPARE                        |                  |
| CB16               | " " " "                     | 240     | 20        | 2          | 12    |           |         |          | 100       | 30    | STD       | 10      | TM        | QOB                       |           | GEN. LTR. PANEL *            |                  |
| CB18               | " " " "                     | 120     | -         | -          | 1     | 12        |         |          | 100       | 20    | STD       | 10      | TM        | QOB                       |           | LSH                          |                  |
| CB19               | " " " "                     | 120     | -         | -          | 1     | 12        |         |          | 100       | 20    | STD       | 10      | TM        | QOB                       |           | FSK                          |                  |
| CB20               | " " " "                     | 120     | -         | -          | 1     | 12        |         |          | 100       | 20    | STD       | 10      | TM        | QOB                       |           | MAG. FLOW METER              |                  |
| CB21               | " " " "                     | 120     | 20        |            | 1     | 12        |         |          | 100       | 20    | STD       | 10      | TM        | QOB                       |           | BATTERY CHARGER              |                  |

\* EQUIPMENT SHOWN IS A MIN. MFR. SHALL PROVIDE REQ'D SIZE.  
NO. OF POLES, TRIP ETC. SHALL VARY WITH EQUIPMENT SIZE & CHARACTERISTICS.  
▲ INSTALL LARGER CONDUIT NOW SO FUTURE WIRES CAN BE PULLED TO LARGER MOTORS

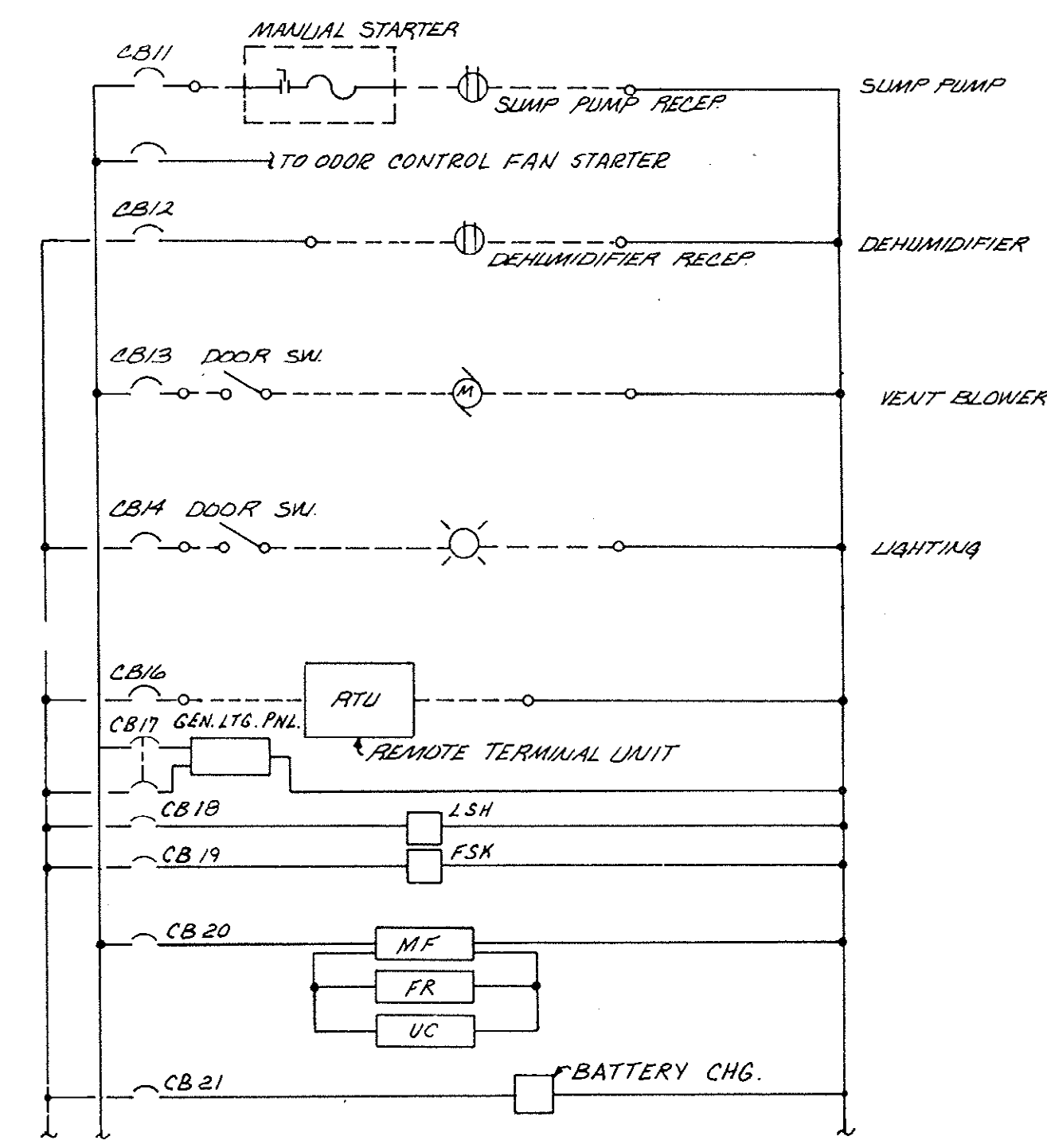
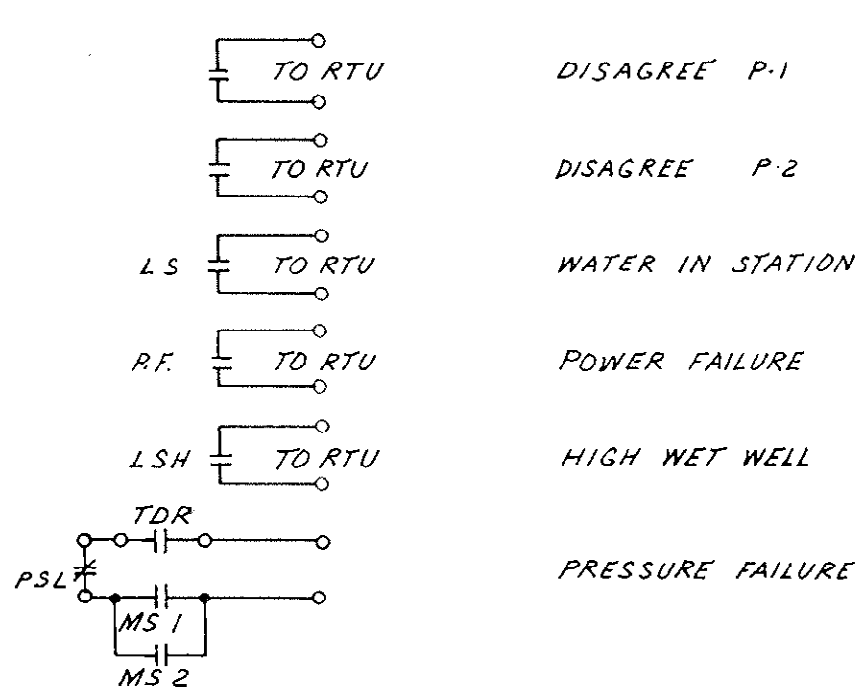
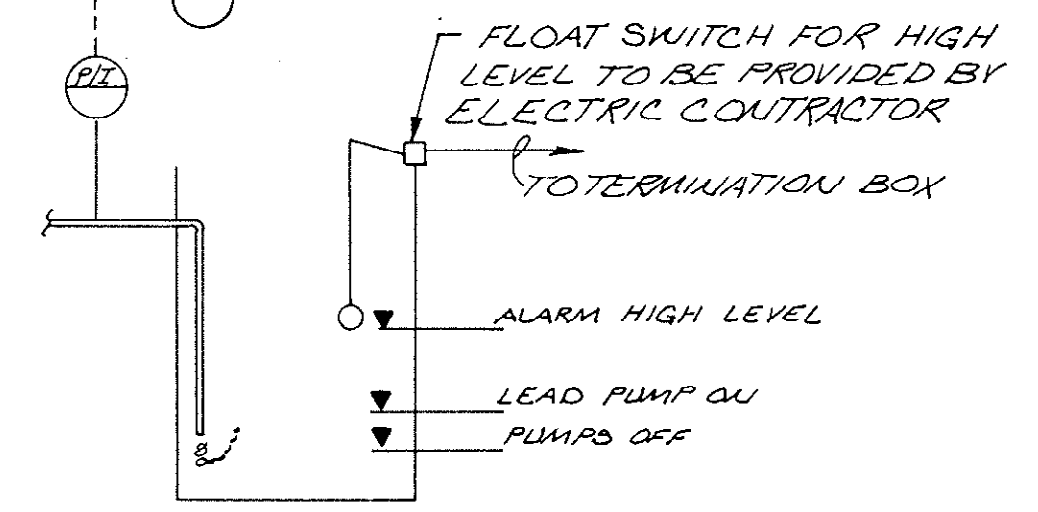
| POWER AND CONTROL WIRING SCHEDULE |                             |                            |            |       |       |                    |                     |         |                     |
|-----------------------------------|-----------------------------|----------------------------|------------|-------|-------|--------------------|---------------------|---------|---------------------|
| CONDUIT NO.                       | FROM                        | TO                         | WIRE POWER | VOLTS | AMPS  | POWER CABLE (XHHW) | GROUND CABLE (BARE) | CONDUIT | REMARKS             |
| 1                                 | WEATHERHEAD AT PWR CO. POLE | CABINET FOR PWR CO. CT'S   | 480        | 338   | 3-1/2 | 3-1/2              | 1/2 NO. 10          | 3/4"    | POWER               |
| 2                                 | MAIN DISC. CABINET          | " " " "                    | 480        | 338   | 3-1/2 | 3-1/2              | 1/2 NO. 10          | 3/4"    | "                   |
| 3                                 | " " "                       | PUMP STA. CONTROL PANEL    | 480        | 338   | 3-1/2 | 3-1/2              | 1/2 NO. 10          | 3/4"    | "                   |
| 4                                 | PUMP STA. CONTROL PANEL     | PUMP NO.1 MOTOR            | 480        | 156   | 3-1/2 | 3-1/2              | 1/2 NO. 3           | 2"      | SPACE               |
| 5                                 | " " " "                     | " " 2 "                    | 480        | 156   | 3-1/2 | 3-1/2              | 1/2 NO. 3           | 2"      | POWER               |
| 6                                 | " " " "                     | ODOE CONTROL FAN MOTOR     | 480        | 2     | 3-1/2 | 3-1/2              | 1/2 NO. 12          | 3/4"    | POWER (SEE NOTE 1A) |
| 7                                 | PUMP STA. CONTROL PANEL     | LS1 @ WETWELL              | 120        | 10    | 1/2   | 1/2                | 1/2 NO. 14          | 3/4"    | CONTROL             |
| 8                                 | " " " "                     | REMOTE TERMINAL UNIT (RTU) | 120        | 12    | 1/2   | 1/2                | 1/2 NO. 14          | 3/4"    | "                   |
| 9                                 | " " " "                     | LS2 @ DRYWELL              | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | "                   |
| 10                                | " " " "                     | CHUCK VALVE NO.1 LIMIT SW. | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | "                   |
| 11                                | " " " "                     | " " 2 "                    | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | "                   |
| 12                                | " " " "                     | MAG. FLOW METER            | 240        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | POWER               |
| 13                                | " " " "                     | RS @ DRYWELL               | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | CONTROL             |
| 14                                | FLOW RECORDER               | FLOWMETER X-MTR. FT-1      | 120        | 1/2   | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | INDICATION          |
| 15                                | MAIN DISC. CABINET          | RS. CMTL. PANEL            | 240        | 3/4   | 1/2   | 1/2                | 1/2 NO. 10          | 3/4"    | POWER               |
| 16                                | " " " "                     | GEN. CMTL. PANEL           | 240        | 3/4   | 1/2   | 1/2                | 1/2 NO. 10          | 3/4"    | POWER               |
| 17                                | MAIN DISC. CABINET          | GENERATOR                  | 480        | 3-1/2 | 3-1/2 | 3-1/2              | 1/2 NO. 10          | 3/4"    | "                   |
| 18                                | " " " "                     | " " " "                    | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | POWER & CONTROL     |
| 19                                | MAG. FLOW METER             | ULTRA-CLEANER              | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | POWER               |
| 20                                | " " " "                     | FLOW CONV. F RECORDER      | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | "                   |
| 21                                | " " " "                     | LSH                        | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | "                   |
| 22                                | " " " "                     | FSK                        | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | "                   |
| 23                                | PUMP STATION CONT. PNL      | RTU                        | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | "                   |
| 24                                | " " " "                     | BATTERY CHG.               | 120        | 2     | 1/2   | 1/2                | 1/2 NO. 12          | 3/4"    | "                   |

⊗ PLUS 2 WIRES #12 FOR MOTOR SPACE HEATER.

| REVISIONS |       |                                           |      |
|-----------|-------|-------------------------------------------|------|
| NO.       | CORD. | DESCRIPTION                               | DATE |
| 1         |       | NEW SHEET                                 | 7/77 |
| 2         |       | GENERAL REVISION                          | 9/77 |
|           |       | REVISED SINGLE LINE DIAG., WET WELL DIAG. | 1/79 |



NOTES:  
1) SEE DETAIL ON SHEET E-2 FOR TELEMETERING EQUIP. POLE.  
2) SEE DETAIL ON SHEET E-2 FOR SERVICE POLE DETAIL.



- NOTES
- PROVIDE 2-1/2 NO. 12 XHHW 1/2 NO. 12 BARE IN 1/2" C AS MIN. TO EACH EQUIPMENT SERVED BY CB6-16.
  - CONTRACTOR TO CONFIRM CONDUIT & WIRE SIZE & NO. WITH PUMP MFR.
  - CABLE TO BE PROVIDED BY PUMP MFR. CONTRACTOR TO CONFIRM CONDUIT SIZE.
  - PROVIDE BRACING AND OVERALL RATING FOR 22A MIN. RMS SYMMETRICAL FAULT CURRENT.
  - CONTROL PANEL BOTTOM ELEVATION SHALL BE A MIN. OF 14" ABOVE DRYWELL FLOOR LEVEL.
  - ALL MOTORS SHALL BE WP-1 EXCEPT SUMP PUMP MOTOR SHALL BE SUBMERSIBLE TYPE.
  - STARTER AND/OR CONTROLLER AS PER SPECS AND/OR MFR. REQUIREMENTS

8-02-021-S

C 450381-05

WASTEWATER SYSTEM IMPROVEMENTS FOR THE GRAND STRAND WATER & SEWER AUTHORITY

BLACK, CROW AND EIDNESS, INC. ENGINEERS

DRAWN BY: DVM/MS DATE: JULY, 1977  
CHECKED BY: RMC FILE NO.: CA 68505.71

SCALE: NOT TO SCALE

PUMP STATION NO. 10

SHEET NO. E7



ADD 2

TO A

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Q W E R

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SE PROV

100

ENT SCH

## CHARGE BETWEEN

U. TO EAC.  
NIFRAA CO

CHEN PUM



NOT TO SCALE

NOTE:  
15

N. T. S.

1. SEE DETAIL ON SHEET E-2 FOR  
TELEMETERING EQUIP. POLE.
2. SEE DETAIL ON SHEET E-2 FOR  
SERVICE POLE.



## TEST CONTROLS SCHEMATIC DIAGRAM

- CA= CIRCUIT BREAKER
- CS= SELECT SWITCH, 3 POSITION
- MS= MOTOR STARTER COIL
- TS= TEST SWITCH
- LR= CONTROL RELAY
- TR= TIME RELAY
- A= ALTERNATOR, RATCHET RELAY
- O= ALARM PANEL TERMINAL
- C= CONTROL PANEL TERMINAL
- OV= OVERVOLT RELAY
- ET= ELAPSED TIME METER
- PR= RECYCLING TIMER
- LCS= LEVEL CONTROL SWITCH
- MO= MAGNETIC ONLY
- WP= WEATHER PROOF
- PLAN= PLAN

TS—TEMPERATURE SWITCH  
FT—FLOW TRANSMITTER  
LSH—LEVEL SH—HIGH  
FR—FLOW CONV., RECEIVER  
UC—ULTRA-SONIC CLEANER  
PF—POWER FAILURE  
FSK—ANALOG AUDIO TONE EQUIP.  
MF—MAGNETIC FLOW  
METER

FOR ALL  
PUMP  
STATIONS

1. 4.35

2. PR

4 PR.

600

 $1\phi$ 

W.

1. DE

312  
INC

8

8-02-022-S

|                                                                      |                             |
|----------------------------------------------------------------------|-----------------------------|
| WASTEWATER SYSTEM IMPROVEMENTS FOR THE                               |                             |
| GRAND STRAND                                                         |                             |
| WATER & SEWER AUTHORITY                                              |                             |
| BLACK, CROW AND EIDSSNESS, INC.<br>ENGINEERS                         |                             |
| DRAWN BY: <i>DKM/KES</i>                                             | DATE: <i>JULY, 1977</i>     |
| CHECKED BY: <i>RMC</i>                                               | FILE NO.: <i>CA 68305.7</i> |
| SCALE: <i>AS NOTED</i>                                               |                             |
| ABOVE GROUND PUMPING STATIONS<br><i>11-15 917 ELECTRICAL DETAILS</i> |                             |
| SHEET NO.<br><b>E-8</b>                                              |                             |

MOVEMENTS FOR THE

WASTEWATER SYSTEM IMPROVEMENTS FOR THE  
GRAND STRAND  
WATER & SEWER AUTHORITY

**BLACK, CROW AND EIDSNES, INC.**  
**ENGINEERS**

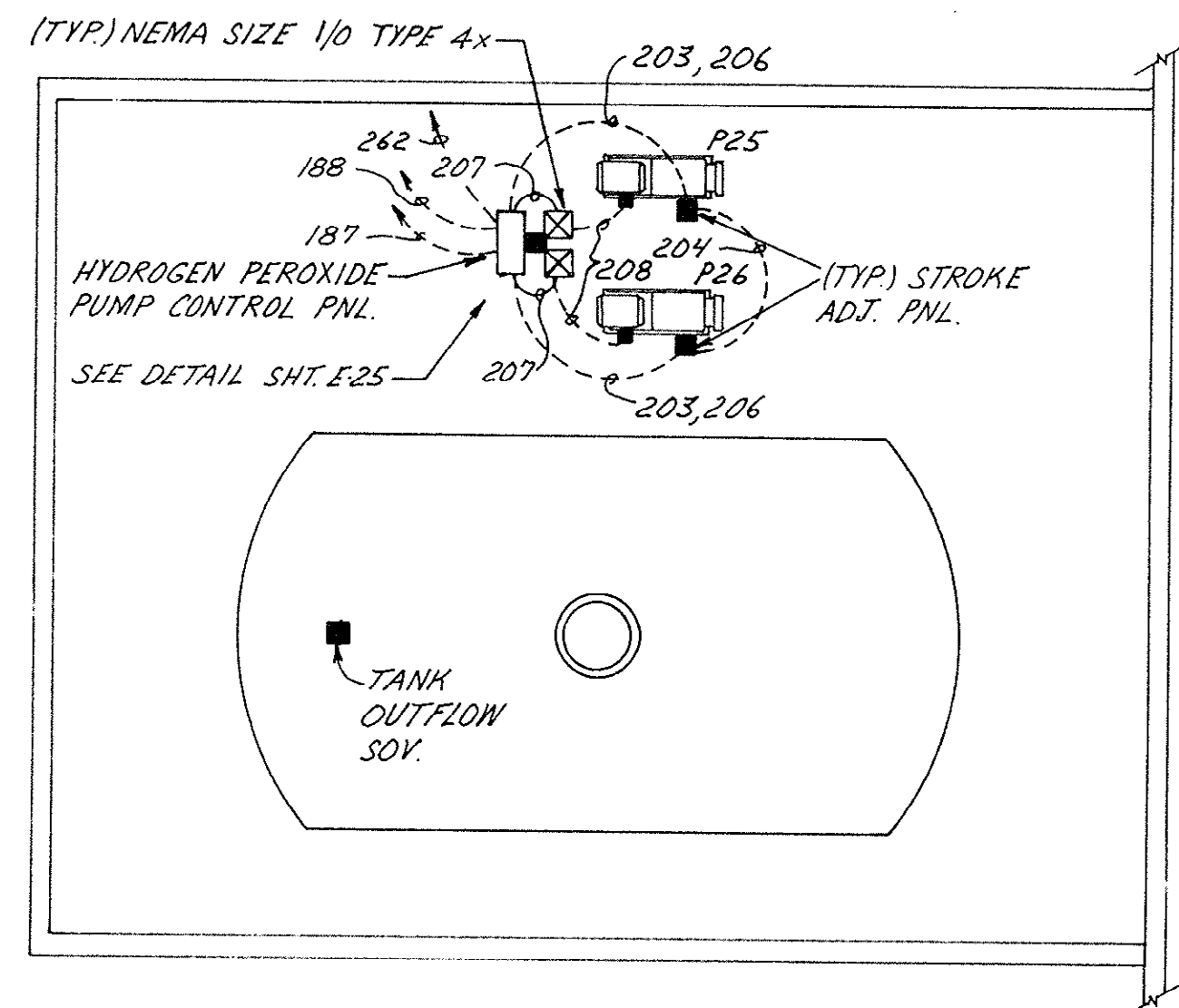
DRAWN BY: DR. HATES  
CHECKED BY: RMC  
DATE: JULY 1977  
FILE NO.: CA 68505.7  
SCALE: AS NOTED

11-15 & 17 ELECTRICAL DETAILS

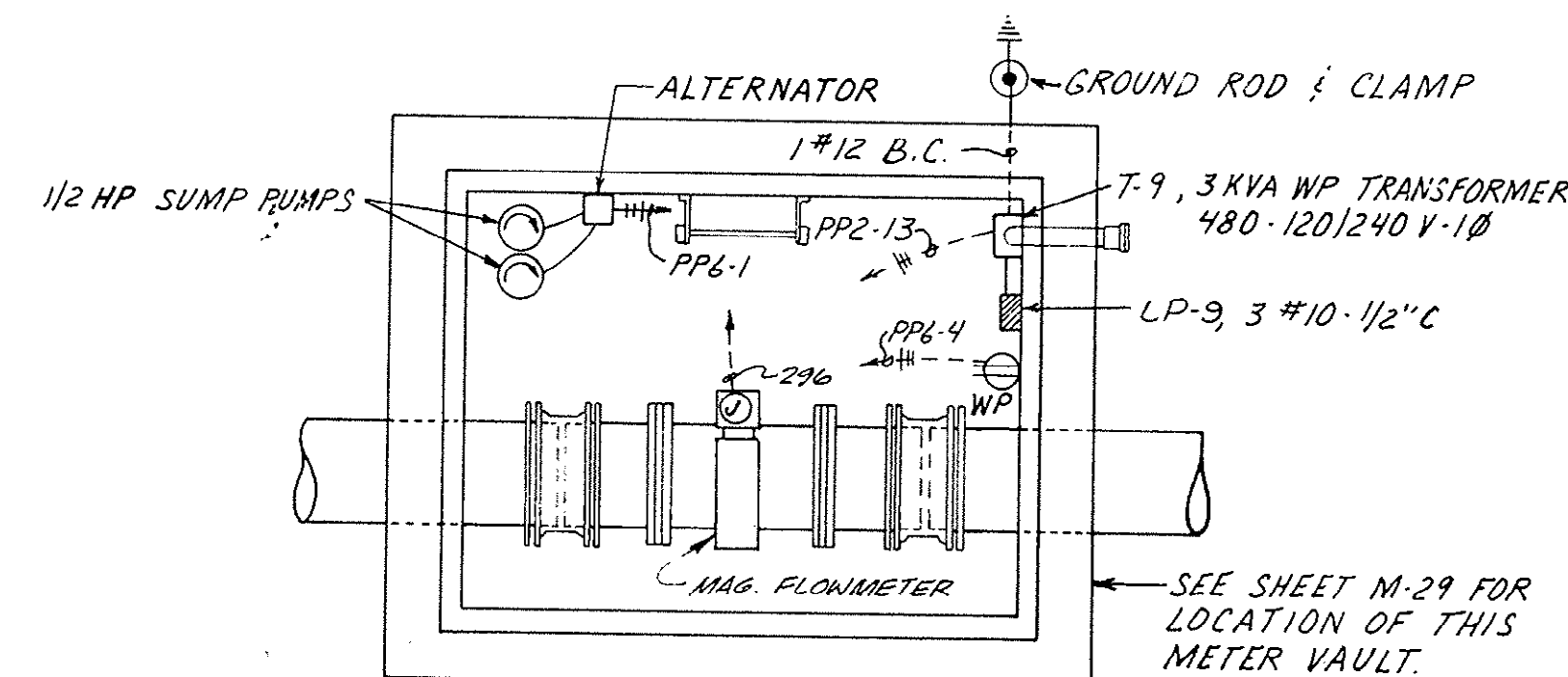
11 | 12



| REVISIONS |      |                          |      |
|-----------|------|--------------------------|------|
| NO.       | CORD | DESCRIPTION              | DATE |
| RD        |      | ADDED RECORD INFORMATION | 9-82 |
|           |      |                          |      |

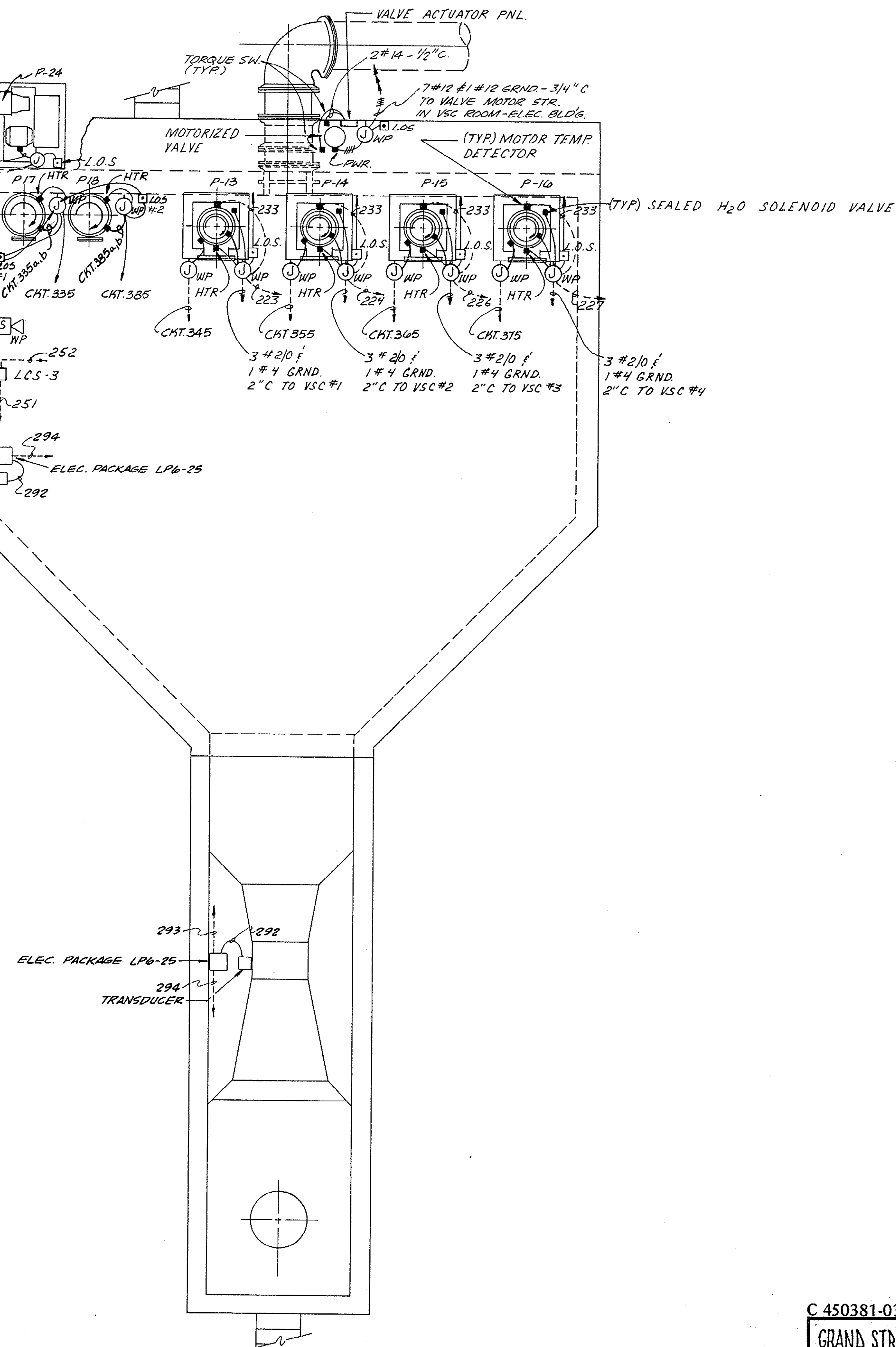


HYDROGEN PEROXIDE SYSTEM  
SCALE: 1/4"=1'-0"

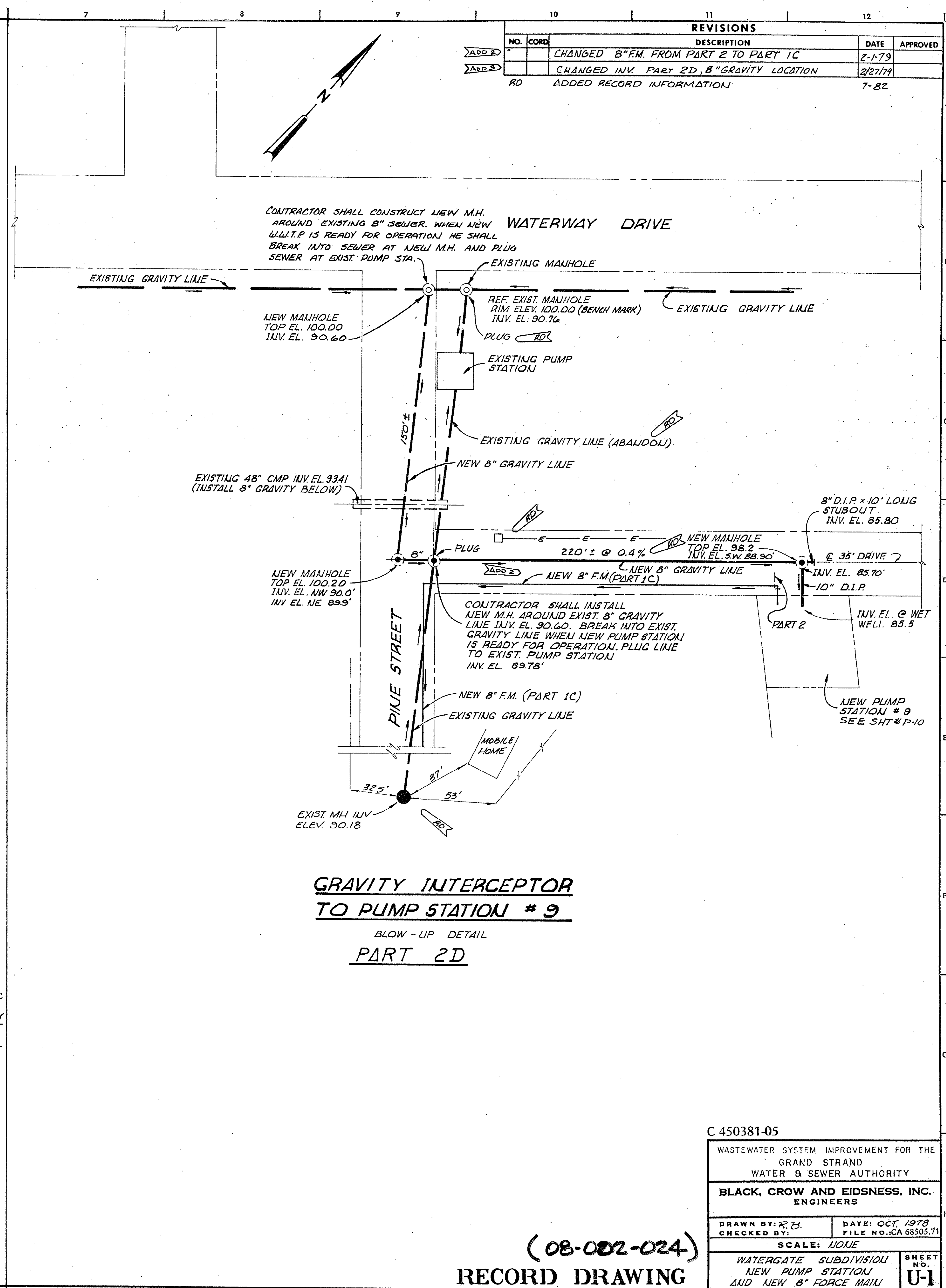
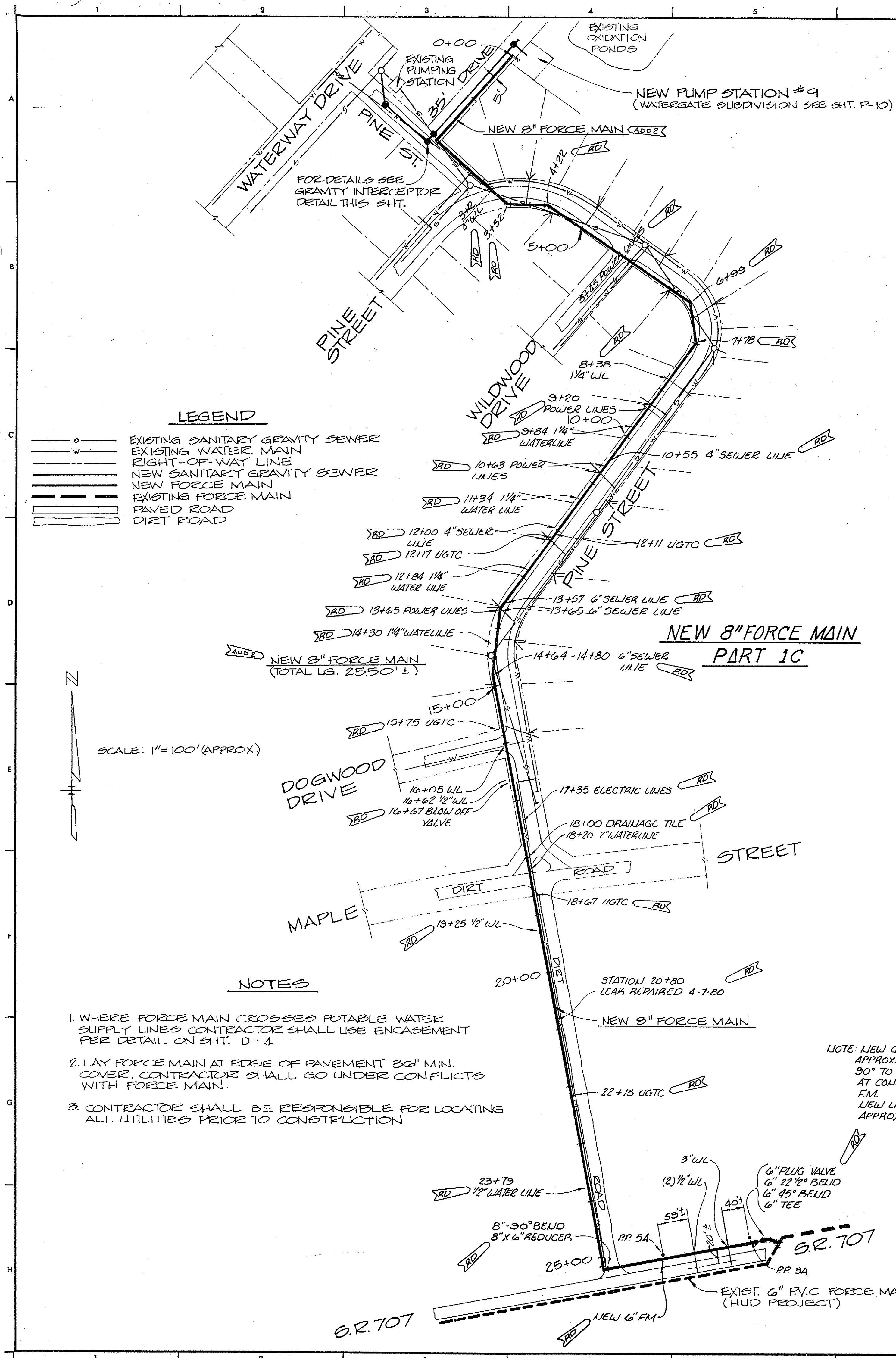


METER VAULT  
SCALE: 3/8"=1'-0"

| LIGHTING PANEL NO. 9 WIRING SCHEDULE |                   |                   |      |                   |                             |      |                          |                           |                |
|--------------------------------------|-------------------|-------------------|------|-------------------|-----------------------------|------|--------------------------|---------------------------|----------------|
| CIRCUIT NO.                          | BUS NO. 1<br>AMPS | BUS NO. 2<br>AMPS | ICFP | NUMBER<br>OUTLETS | CIRCUIT<br>BREAKER<br>POLES | AMPS | POWER<br>CABLE<br>(XHHW) | GROUND<br>CABLE<br>(BARE) | REMARKS        |
| 1                                    | 7.2               |                   |      | 1                 | 1                           | 20   | 2-1/2 NO. 12             | 1/2 NO. 12                | SUMP PUMP ALT. |
| 2                                    |                   |                   |      | 1                 | 1                           | 20   |                          |                           | FLOW METER     |
| 3                                    |                   |                   |      | 1                 | 1                           | 20   |                          |                           | SPARE          |
| 4                                    | 3.0               |                   |      | 1                 | 1                           | 20   | 2-1/2 NO. 12             | 1/2 NO. 12                | RECEPT.        |
| 5                                    |                   |                   |      | 1                 | 1                           | 20   |                          |                           | SPACE          |
| 6                                    |                   |                   |      | 1                 | 1                           | 20   |                          |                           | SPACE          |
| TOTAL                                | 7.2               | 3.0               |      |                   |                             |      | TYPE                     | NLAB                      | MAIN MLO       |
| TOTAL                                |                   |                   |      |                   |                             |      | ENCL.                    | NEMA 3R                   | BUS 100 A      |
| TOTAL                                |                   |                   |      |                   |                             |      | MTD.                     | SURE                      |                |









| REVISIONS |      |                                         |        |
|-----------|------|-----------------------------------------|--------|
| NO.       | CORD | DESCRIPTION                             | DATE   |
| 1         |      | CHANGED 10" F.M. FROM PART 2 TO PART 1C | 2-1-79 |
| 2         | AD   | ADDED RECORD INFORMATION                | 7-82   |

