


# HUNTINGTON EAST PRESSURE REDUCING VALVE

## CAPITAL PROJECT NO. W-8145

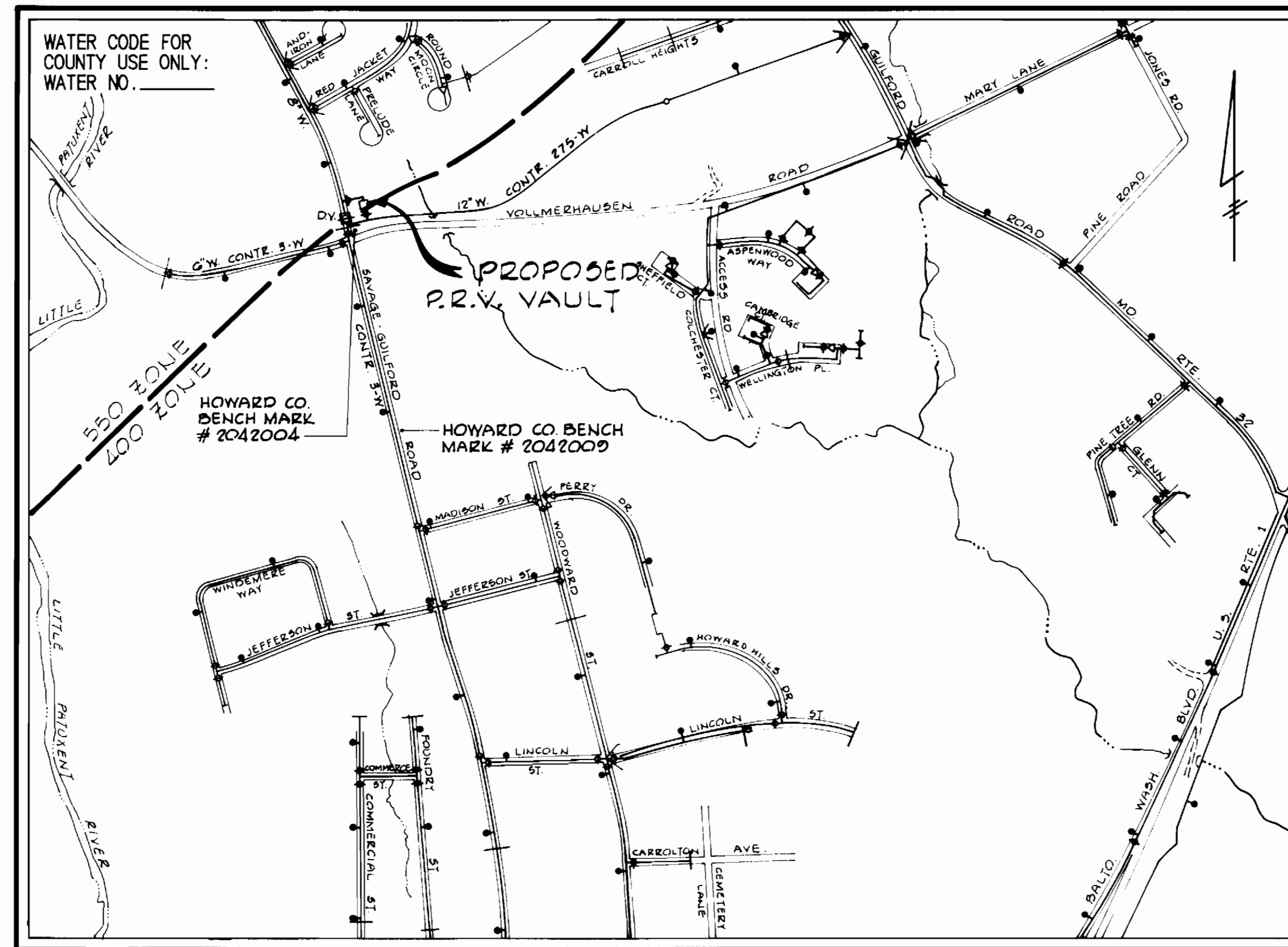
### CONTRACT NO. 44-1312

#### GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6".
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL  AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
  - STATE HIGHWAY ADMINISTRATION - 531-5533
  - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES 561-2585
  - BALTIMORE GAS & ELECTRIC CO. UNDER GROUND DAMAGE CONTROL - 234-5621
  - BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING - 298-9013
  - MISS UTILITY - 1-559-0100
  - COLONIAL PIPELINE CO. - 795-1390
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2366
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1003 THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.

#### SOIL EROSION AND SEDIMENT CONTROL NOTES

- THE CONTRACTOR WILL COMPLY WITH ALL REQUIREMENTS OF SEDIMENT AND EROSION CONTROL SET FORTH IN THE CONTRACT DRAWINGS, THE USDA SOIL CONSERVATION SERVICE MANUAL, "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS", AND VOLUME IV - ARTICLE 15 OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV.
- THE CONTRACTOR SHALL NOT PUMP FROM EXCAVATED AREAS DIRECTLY INTO THE HOWARD COUNTY STORM DRAINAGE SYSTEM OR ANY NATURAL WATER COURSE, WHERE GROUND WATER IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE PORTABLE OR EXCAVATED SEDIMENT TRAPS TO PREVENT SILTED TRENCH WATER FROM ENTERING STORM DRAINAGE SYSTEMS OR NATURAL WATERWAYS.
- ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH WATER WHENEVER POSSIBLE, AND CONFINED TO AN AREA WHERE IT WILL NOT OBSTRUCT THE NORMAL FLOW OR DRAINAGE COURSES.
- ALL SWALES SHALL BE EQUIPPED WITH A SEDIMENT RETENTION DEVICE TO TRAP SEDIMENT AND FILTER WATER LEAVING THE RIGHT-OF-WAY PRIOR TO ENTERING ANY RUNNING STREAMS.
- THE CONTRACTOR SHALL PROVIDE STRAW BALE DIKES NORMAL TO SURFACE WATER FLOW AND AROUND ALL VEHICLE AND EQUIPMENT STAGING AREAS AS SHOWN IN "DETAIL OF A STRAW BALE DIKE" ENCLOSED IN SPECIFICATIONS.
- ROADSIDE DITCHES AND DRAINAGE PIPES SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE ORIGINAL CONDITION FOLLOWING COMPLETION OF CONSTRUCTION.
- THE CONTRACTOR SHALL DISPOSE OF SPOILS IN ACCORDANCE WITH GOOD SOIL CONSERVATION PRACTICE AND IN SUCH A MANNER THAT NONE CAN BE CARRIED INTO ANY DRAINAGE FACILITY OR WATER COURSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL SPOIL OR EXCESS EXCAVATED MATERIAL ON A SITE APPROVED BY THE SOIL CONSERVATION DISTRICT. DOCUMENTATION OF APPROVAL AND SITE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO BEGINNING WORK.
- THE HOWARD COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED IN WRITING BY THE CONTRACTOR AS TO WHERE EXCESS MATERIAL WILL BE DISPOSED OR BORROW MATERIAL WILL BE OBTAINED. PRIOR TO BEGINNING ANY WORK ON THIS PROJECT, COPIES SHALL BE PROVIDED TO THE ENGINEER.
- CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL DEVICES WILL BE REQUIRED.
- THE CONTRACTOR SHALL PROVIDE ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL AS REQUIRED BY THE SEDIMENT CONTROL INSPECTOR, AS THE WORK PROGRESSES OR REQUIRES.
- THE CONTRACTOR SHALL NOTIFY IN WRITING A HOWARD COUNTY SEDIMENT CONTROL DIVISION REPRESENTATIVE AT LEAST THREE (3) DAYS PRIOR TO STARTING WORK. PLEASE CONTACT: HOWARD COUNTY - 992-2436. COPIES SHALL BE PROVIDED TO THE ENGINEER.
- SEDIMENT REMOVAL - ALL TRAPPED SEDIMENT IS TO BE REMOVED AND DISPOSED OF AT THE AUTHORIZED LANDFILLS PRIOR TO THE REMOVAL OF SEDIMENT CONTROL STRUCTURES.
- FOLLOWING INITIAL SOIL DISTURBANCE AND REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
  - SEVEN (7) CALANDER DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
  - FOURTEEN (14) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.



LOCATION MAP

SCALE: 1" = 600'

## SIXTH ELECTION DISTRICT HOWARD COUNTY MARYLAND

#### BENCH MARKS

- HOWARD COUNTY BENCH MARK #2042004 ON NORTHEAST CORNER OF INTERSECTION OF VOLLERHAUSEN ROAD AND SAVAGE-GUILFORD ROAD, ELEV. 288.845 COORDINATES: N 478896.576 E 848960.018
- HOWARD COUNTY BENCH MARK #2042009 ON EAST SIDE OF SAVAGE-GUILFORD ROAD, 1107 FEET SOUTH OF HOWARD CO. B.M. #2042004 ELEV. 291.001 COORDINATES: N477822.631, E849228.135

| QUANTITIES              |          |          |                   |
|-------------------------|----------|----------|-------------------|
| ITEM                    | ESTIMATE | AS BUILT | MATERIAL SUPPLIER |
| P.R.V. VAULT-COMplete   | LUMP SUM |          |                   |
| 6" WATER                | 56 L.F.  |          |                   |
| 12" TAPPING SL. & VALVE | 1        |          |                   |
| 6" TAPPING SL. & VALVE  | 1        |          |                   |

**DEVELOPER'S CERTIFICATION**  
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT."  
*Frederick Ward Assoc. Inc.* 6/19/85  
 BUREAU OF ENGINEERING DATE  
 DEPARTMENT OF PUBLIC WORKS

**ENGINEER'S CERTIFICATION**  
 I CERTIFY THAT THIS PLAN FOR EROSION & SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
*Edward J. Fosselman* 6/19/85  
 DATE  
 FREDERICK WARD ASSOC. INC.  
 5 SOUTH MAIN STREET  
 BELAIR, MARYLAND 21014

REVIEWED FOR HOWARD COUNTY S.C.D. AND MEETS TECHNICAL REQUIREMENTS.  
*Stephen L. Fuchs* 6/18/85  
 U.S. SOIL CONSERVATION SERVICE DATE  
 APPROVED DATE  
 HOWARD COUNTY S.C.D.

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works: *Robert M. Berman* 6-19-85  
 Chief, Bureau of Engineering: *David R. Hall* 6/19/85  
 Chief, Utility Division: *David R. Hall* 6/19/85

FREDERICK WARD ASSOC. INC.  
 ENGINEERS-ARCHITECTS-SURVEYORS.  
 5 SOUTH MAIN STREET  
 BEL AIR, MARYLAND 21014  
 838-7900 879-2090

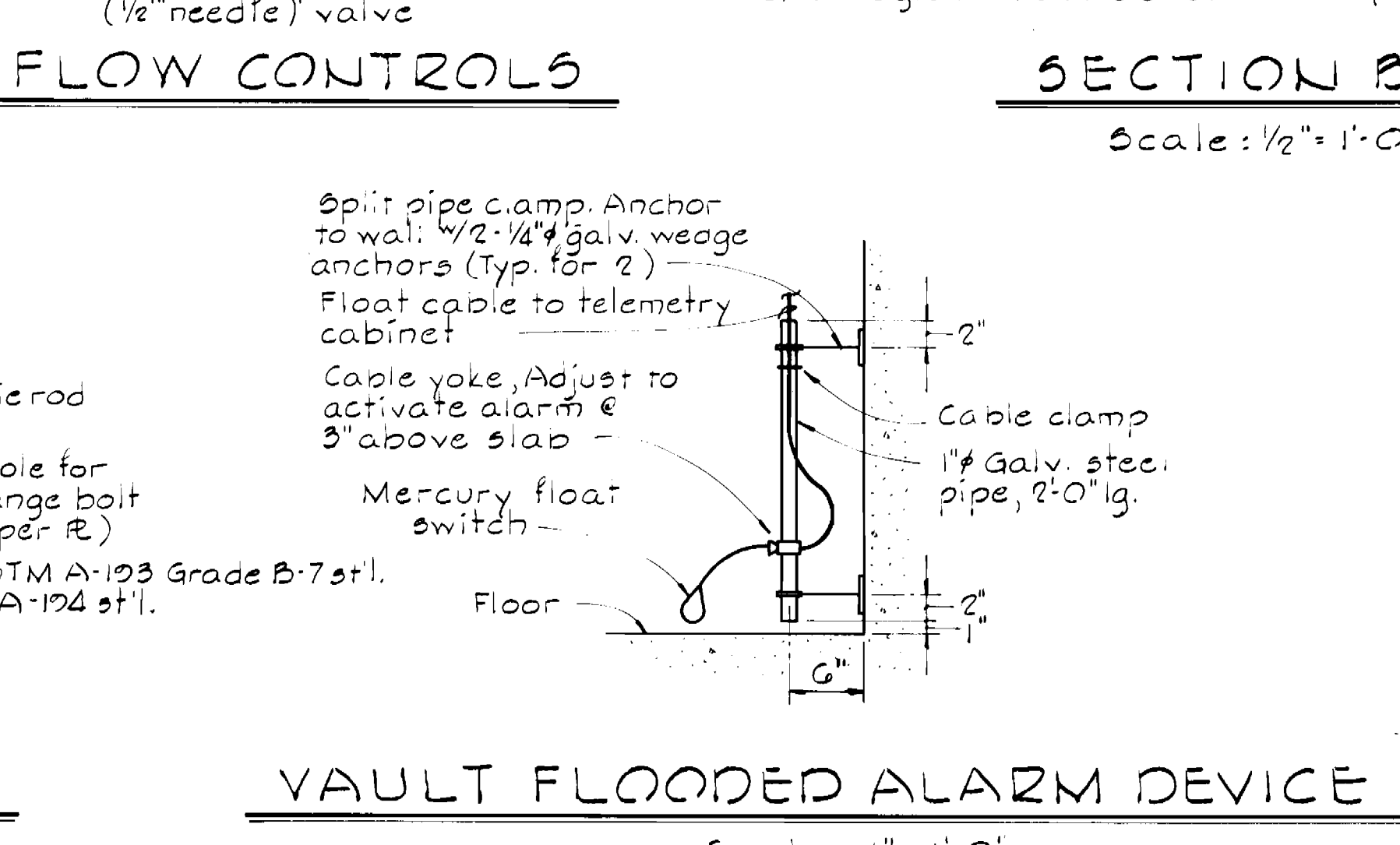
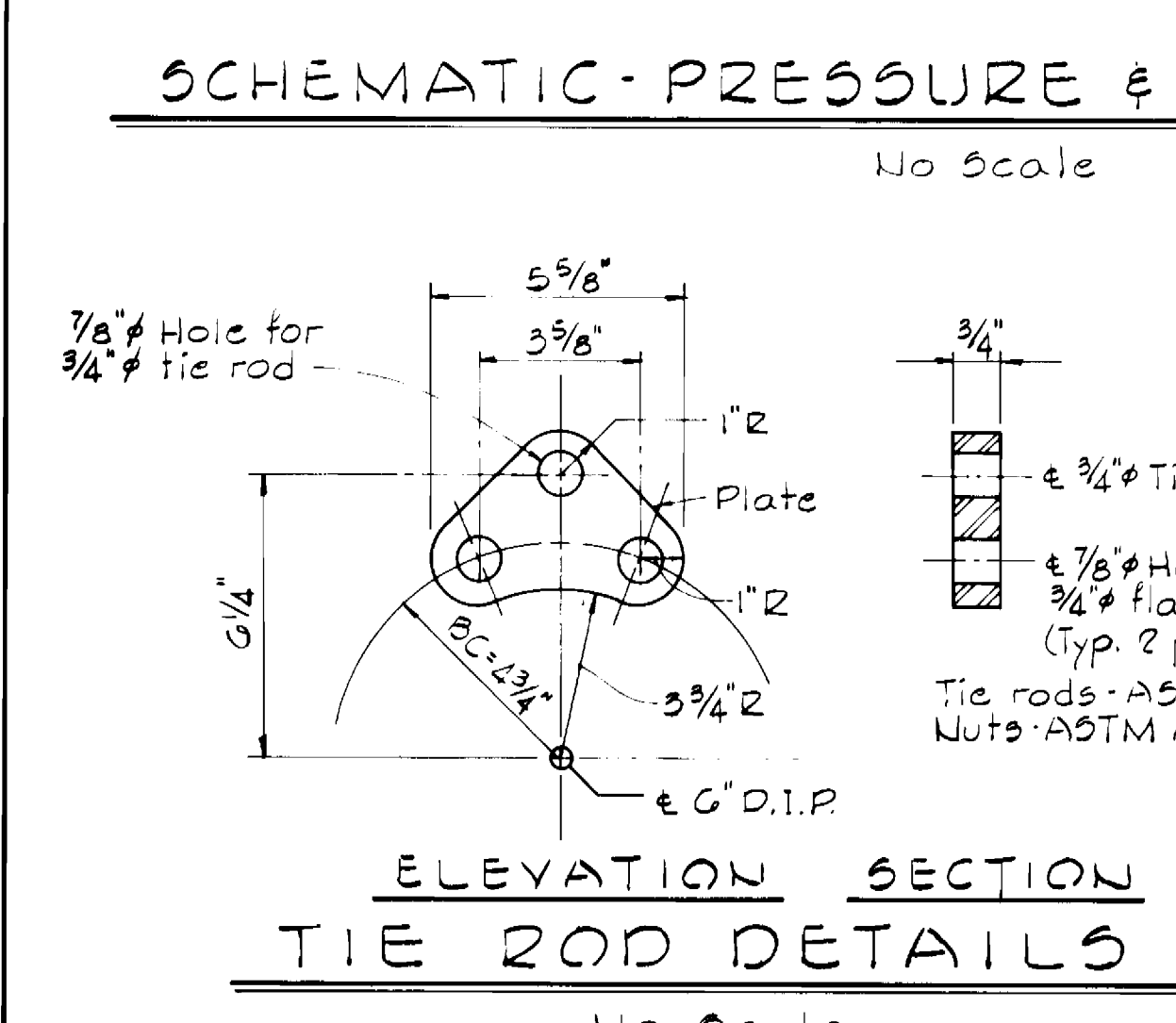
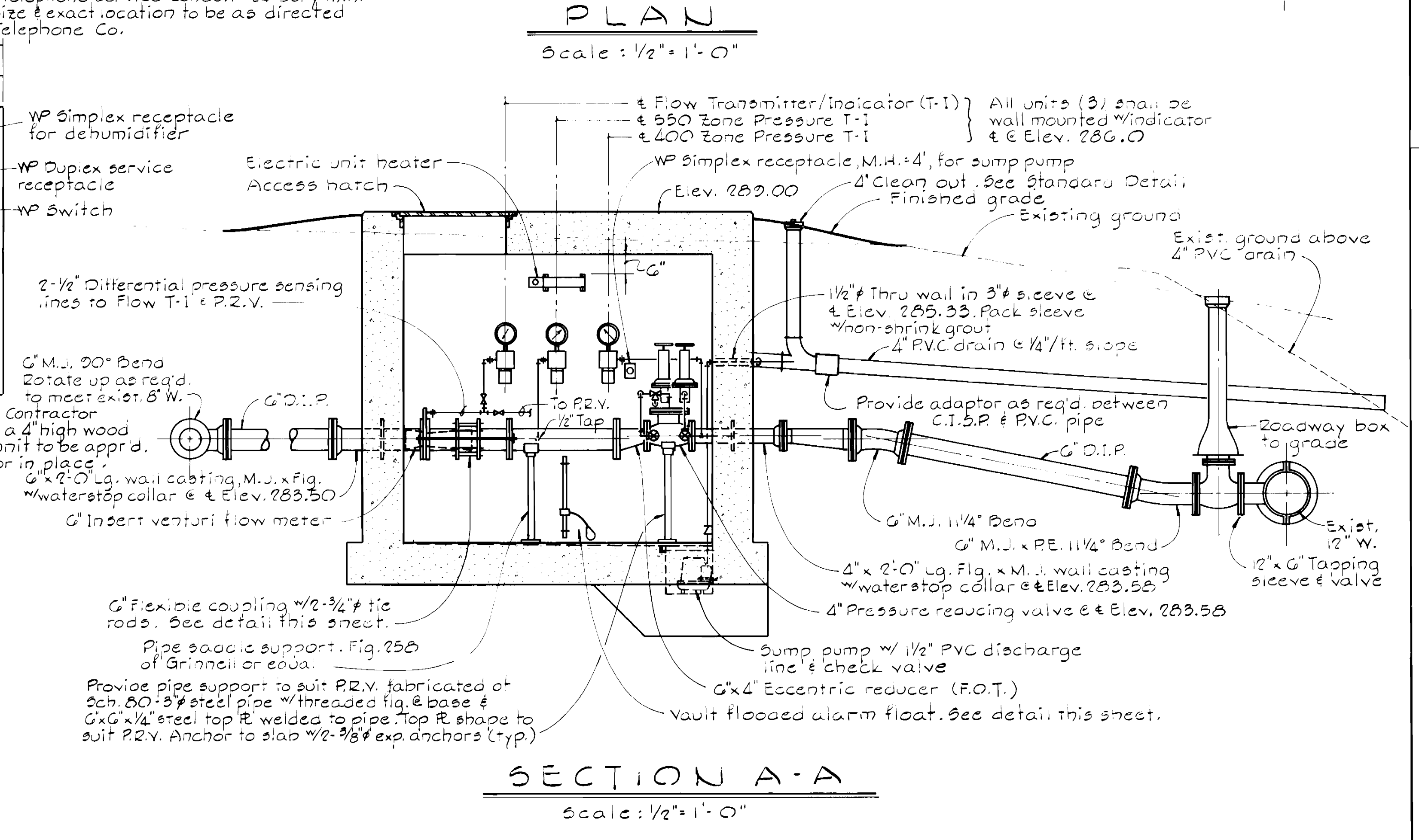
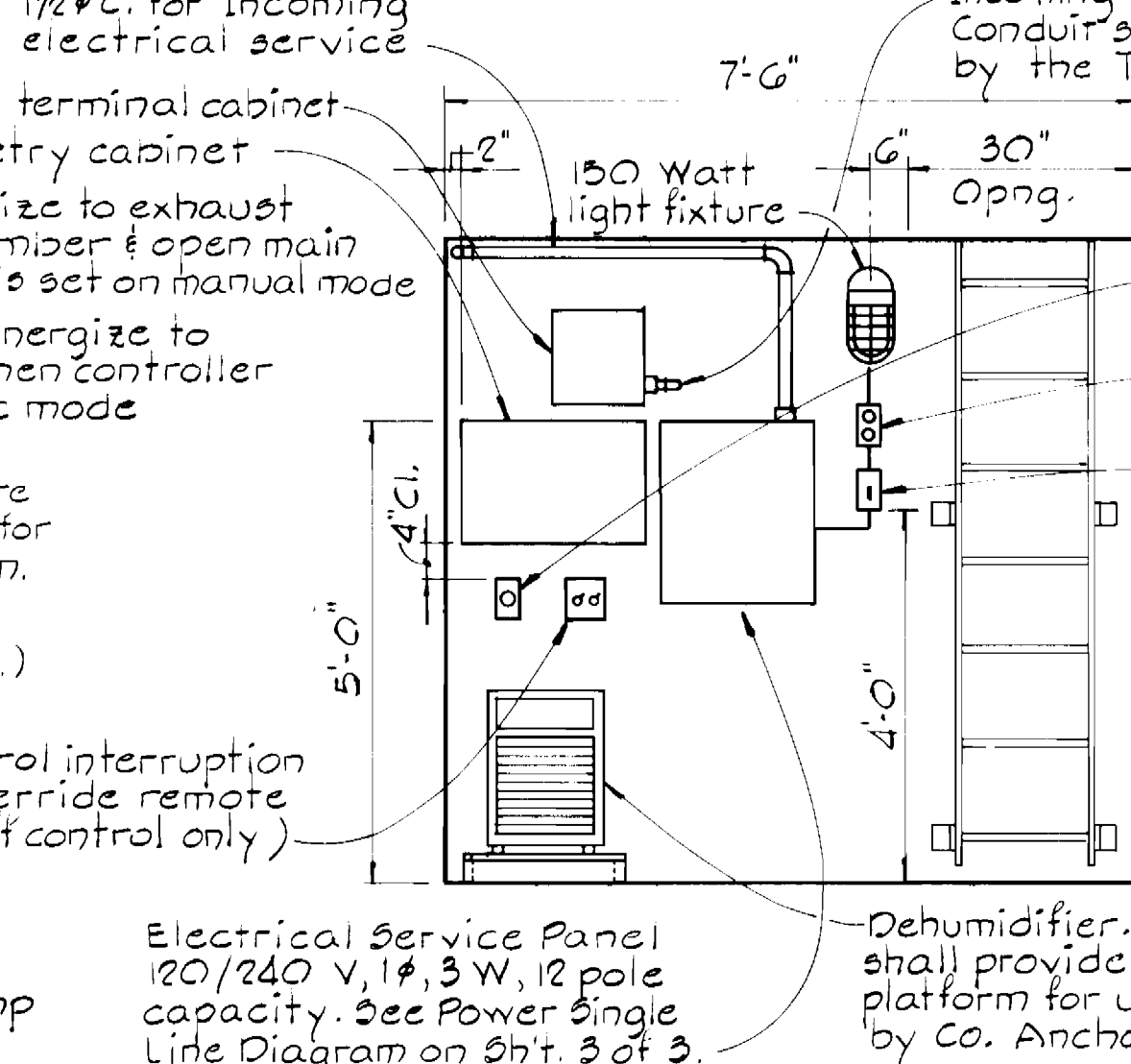
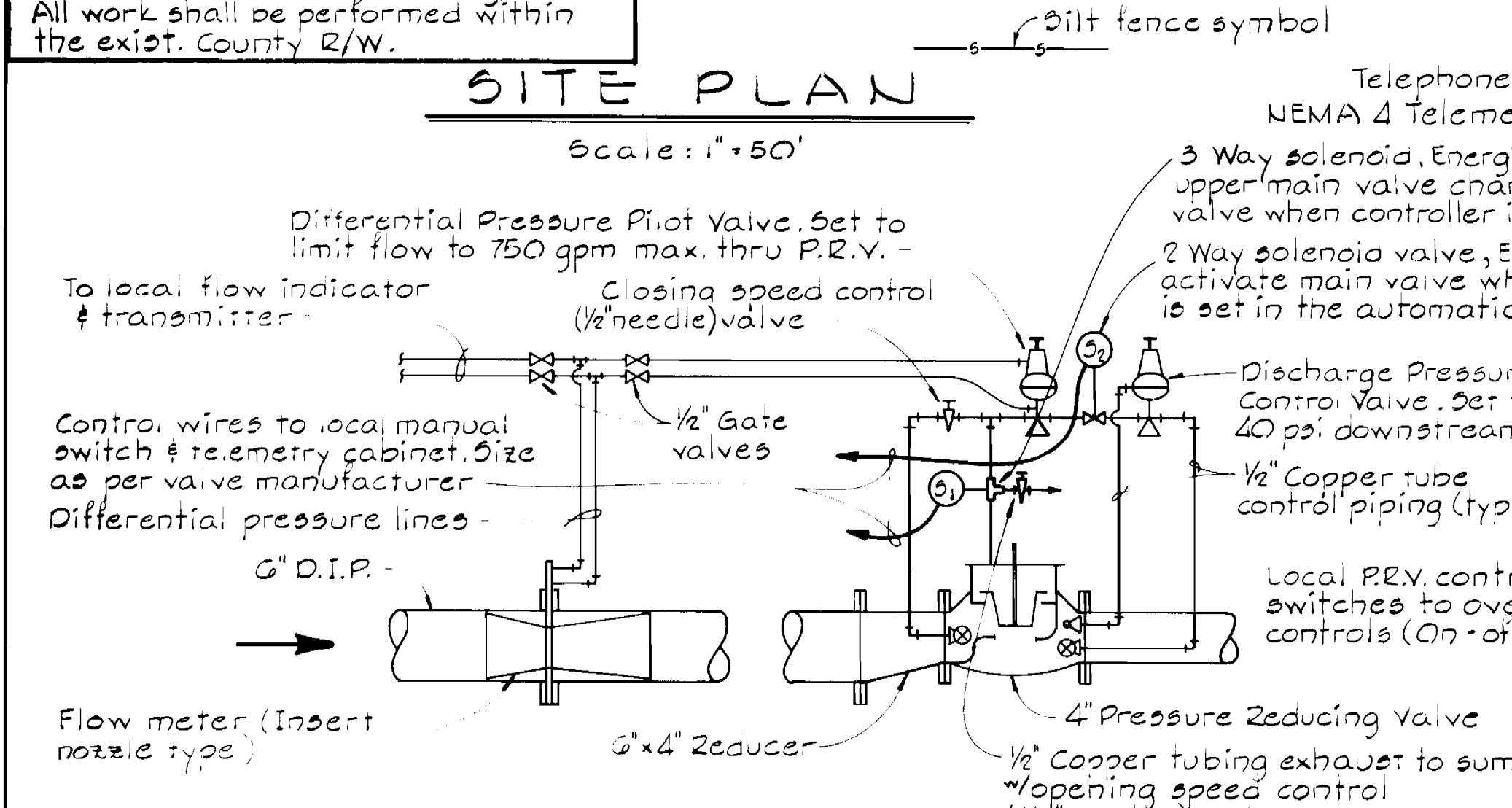
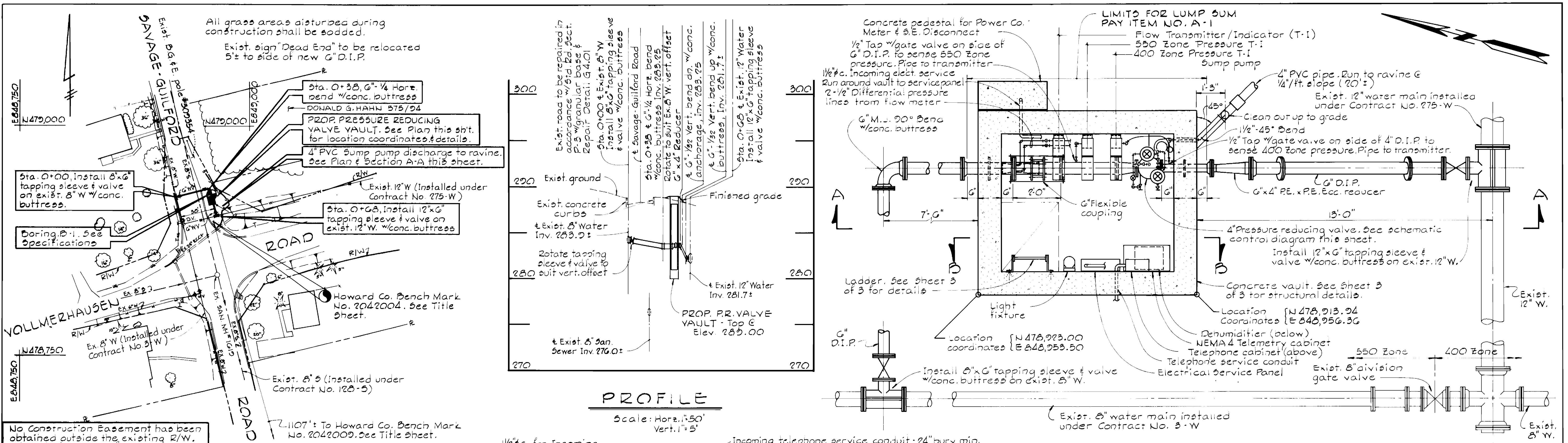
DAVID R. HALL

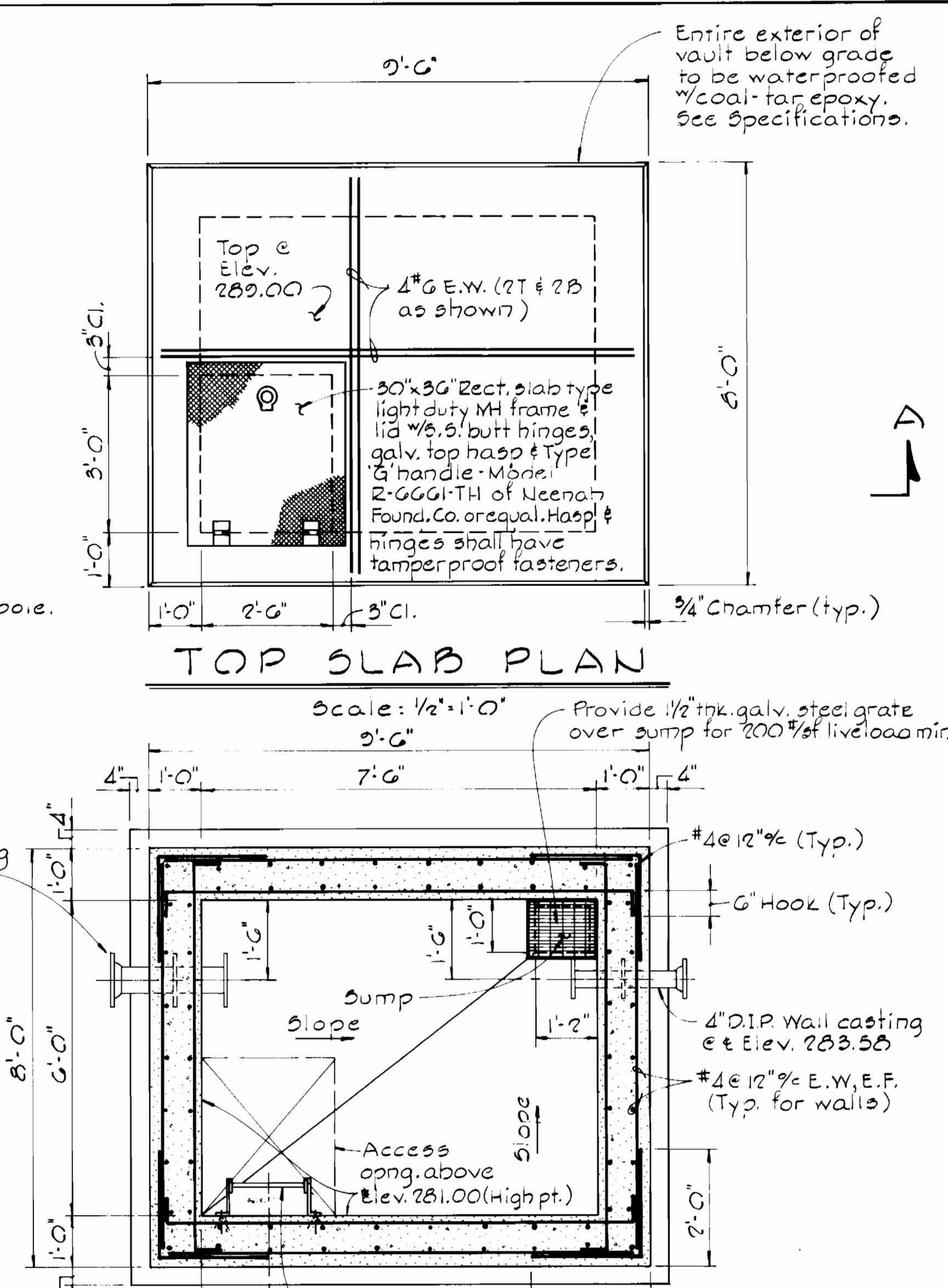
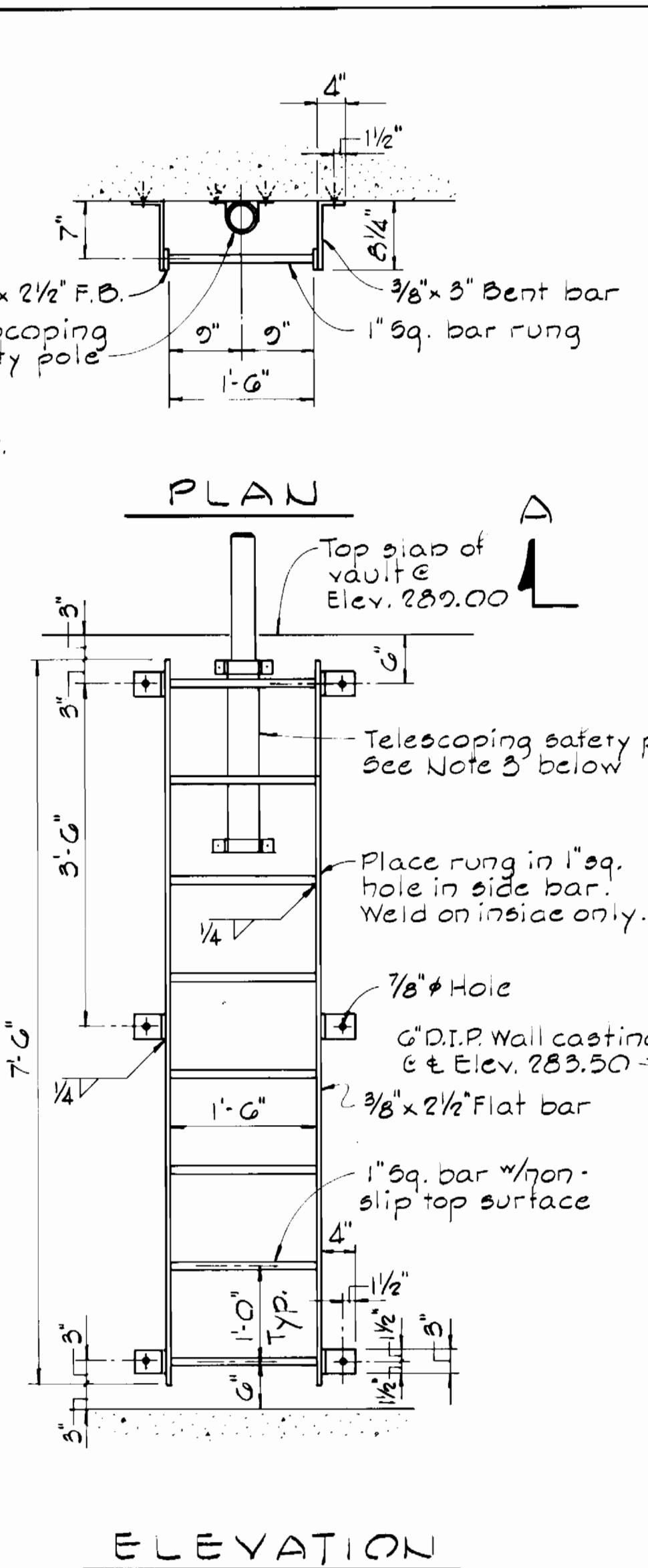
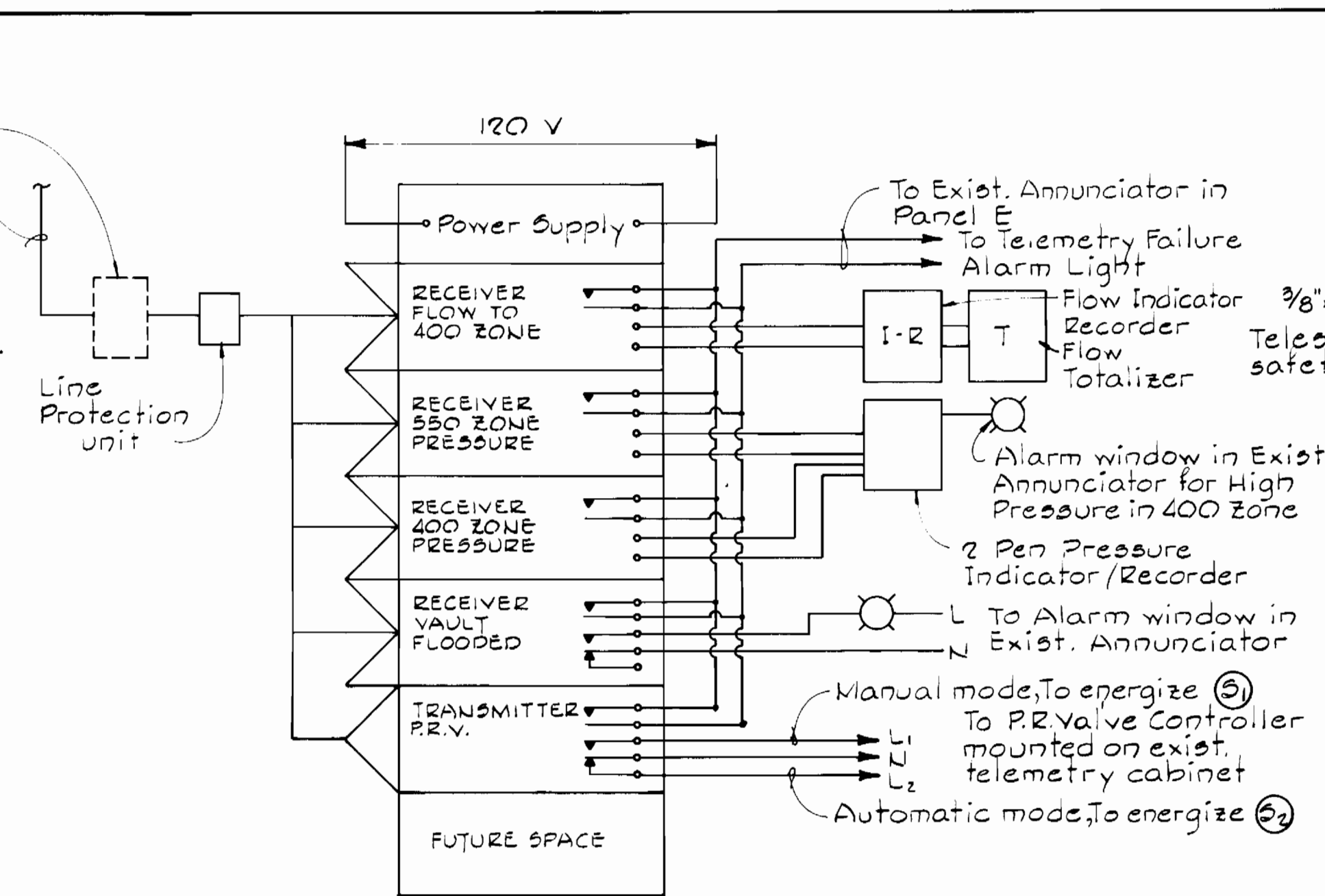
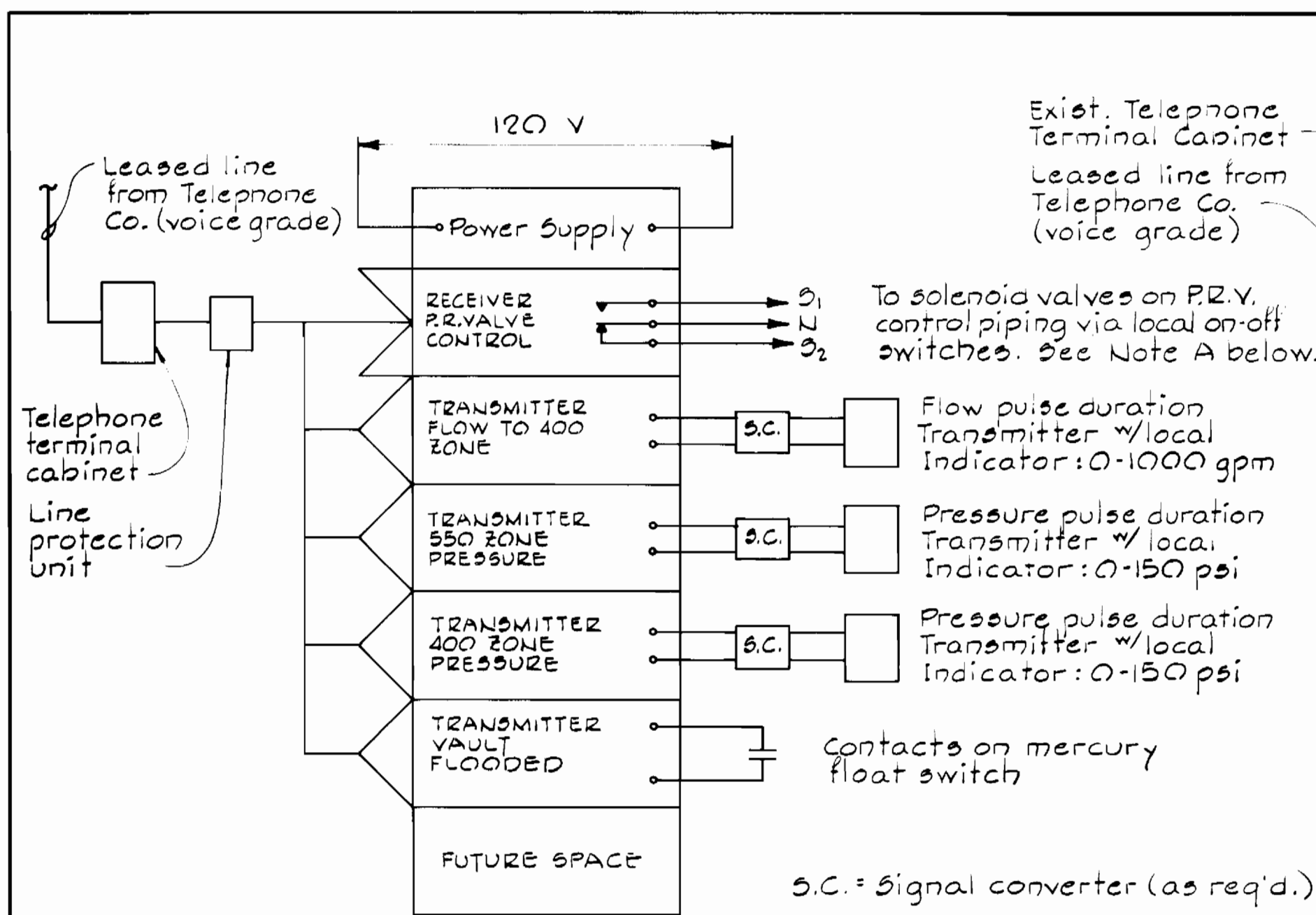
DES: E.D.L.  
 DRN: E.D.L.  
 CHK: D.W.  
 DATE: 6/19/85

**TITLE SHEET**  
 PRESSURE REDUCING VALVE  
 VAULT

HUNTINGTON EAST PRESSURE REDUCING VALVE  
 CAPITAL PROJECT NO. W-8145  
 CONTRACT NO. 44-1312  
 SIXTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 1 OF 3



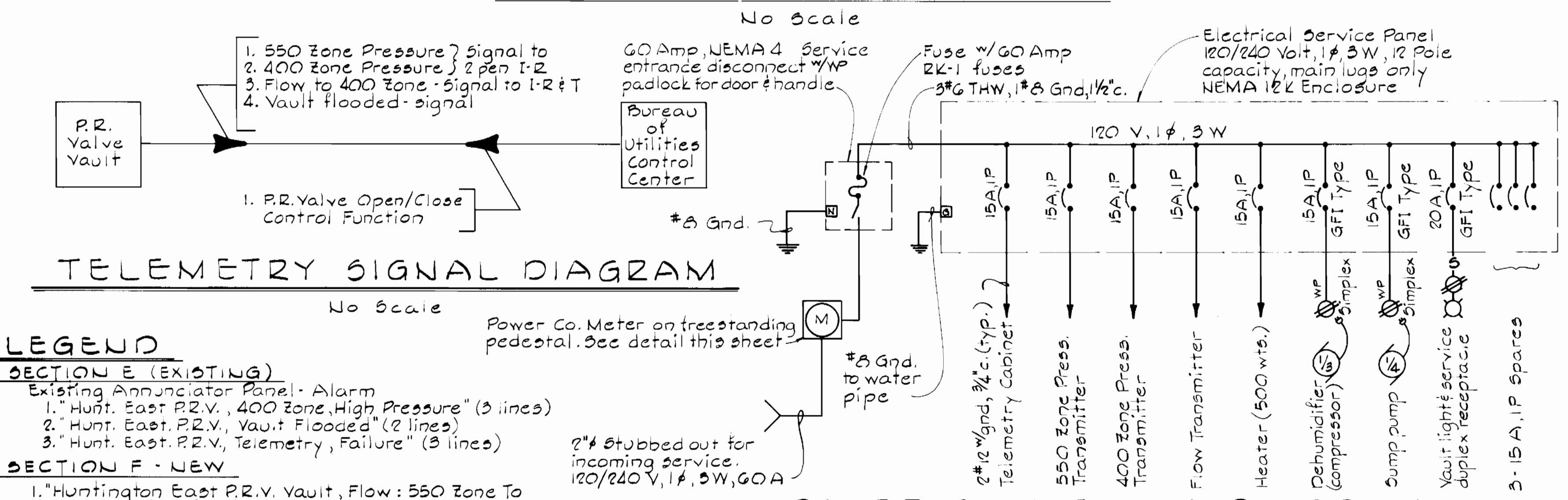


NOTE A: Solenoid S1 shall open to exhaust the main valve upper chamber & open main valve when energized when controller is set in manual mode (S2 closed). Solenoid S2 shall open when energized w/controller set on automatic mode & allow the main valve to operate off system conditions (S1 closed). When S1 & S2 are de-energized, the P.R.V. is not functional.

AT P.R. VALVE VAULT

AT B. OF U. CENTRAL CONTROL

TELEMETRY DIAGRAMS

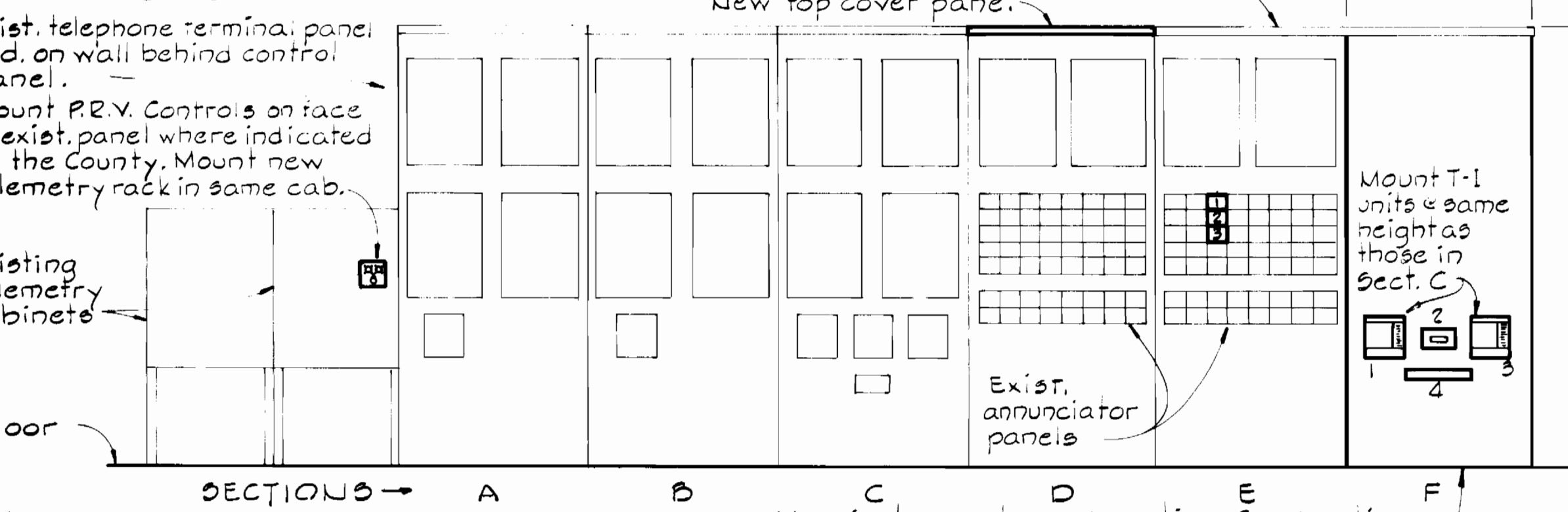
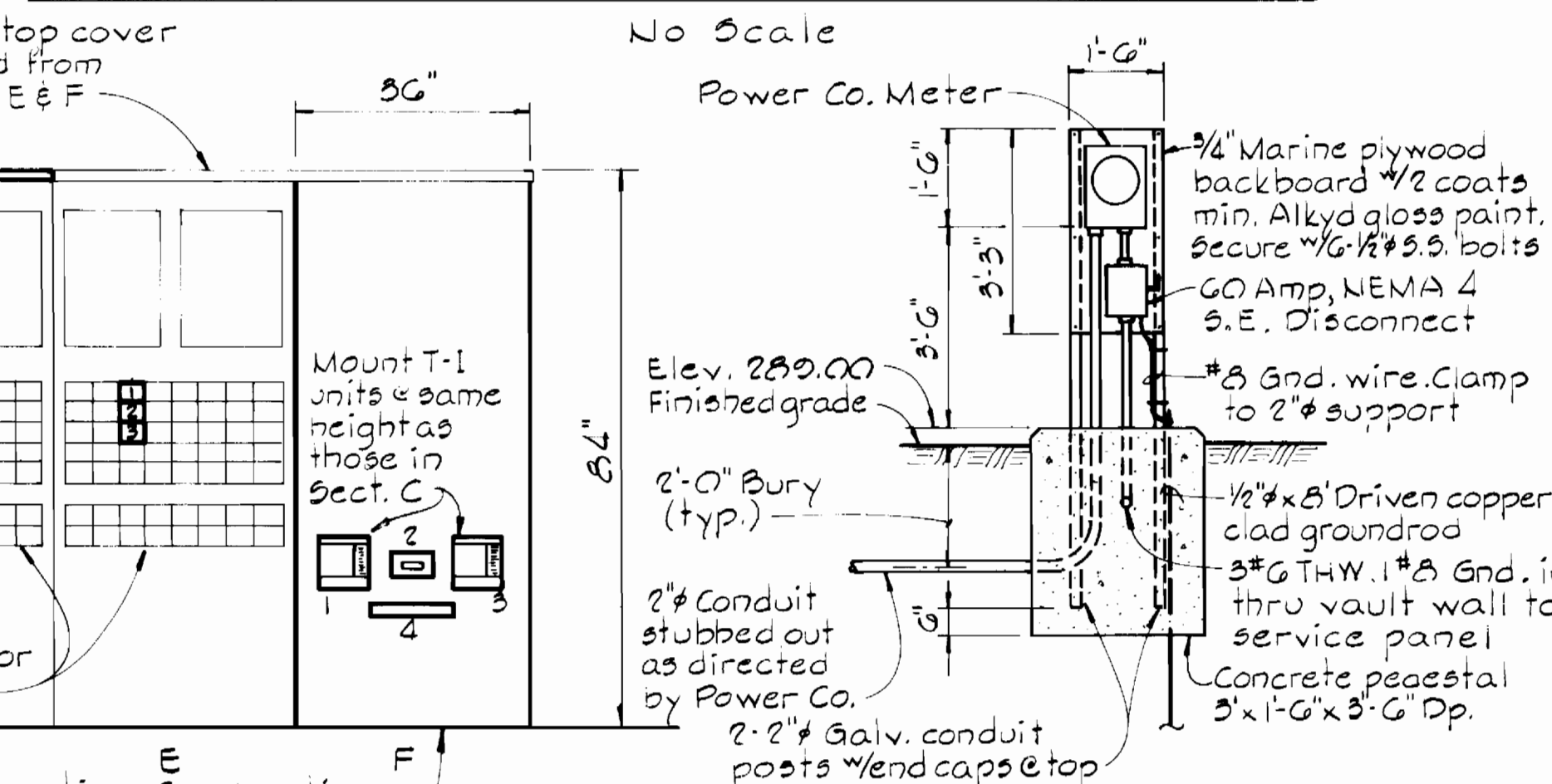


LEGEND

- SECTION E (EXISTING)
1. Hunt. East P.R.V., 400 Zone, High Pressure" (3 lines)
  2. Hunt. East P.R.V., Vault Flooded" (2 lines)
  3. Hunt. East P.R.V., Telemetry, Failure" (3 lines)

- SECTION F - NEW
1. "Huntington East P.R.V. Vault, Flow: 550 Zone To 400 Zone" (2 lines) I-2
  2. "Huntington East P.R.V. Vault, Total Flow" (2 lines)
  3. "Huntington East P.R.V. Vault, Pressure: 400 Zone & 550 Zone" (2 lines) 2 pen I-2
  4. Nameplate: "Huntington East Pressure Reducing Valve Vault"

POWER SINGLE LINE DIAGRAM



BUREAU OF UTILITIES CENTRAL CONTROL PANEL

Not to Scale

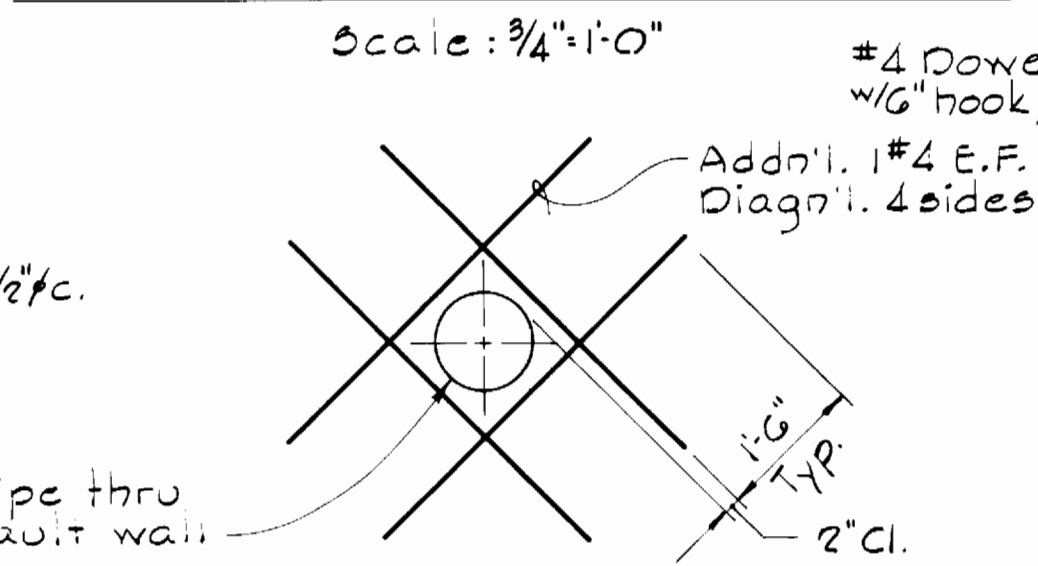
PEDESTAL DETAIL

Not to Scale

NOTES

1. Ladder shall be fabricated of 6061-T6 aluminum with standard mill finish.
2. Fasten ladder to wall with Phillips self-drilling anchors (5-34) & 3/4" x 1/2" S.S. hex head bolt (Type 18-8) G req'd.
3. Telescoping safety pole shall be telescoping tubular not dip galv. steel tube that automatically locks when fully extended. Pole shall be controlled by alloy spring balancing mechanism and shall be anchored to wall w/3/8" galv. exp. anchors. Safety pole shall be Bilco Ladder-up or equal.

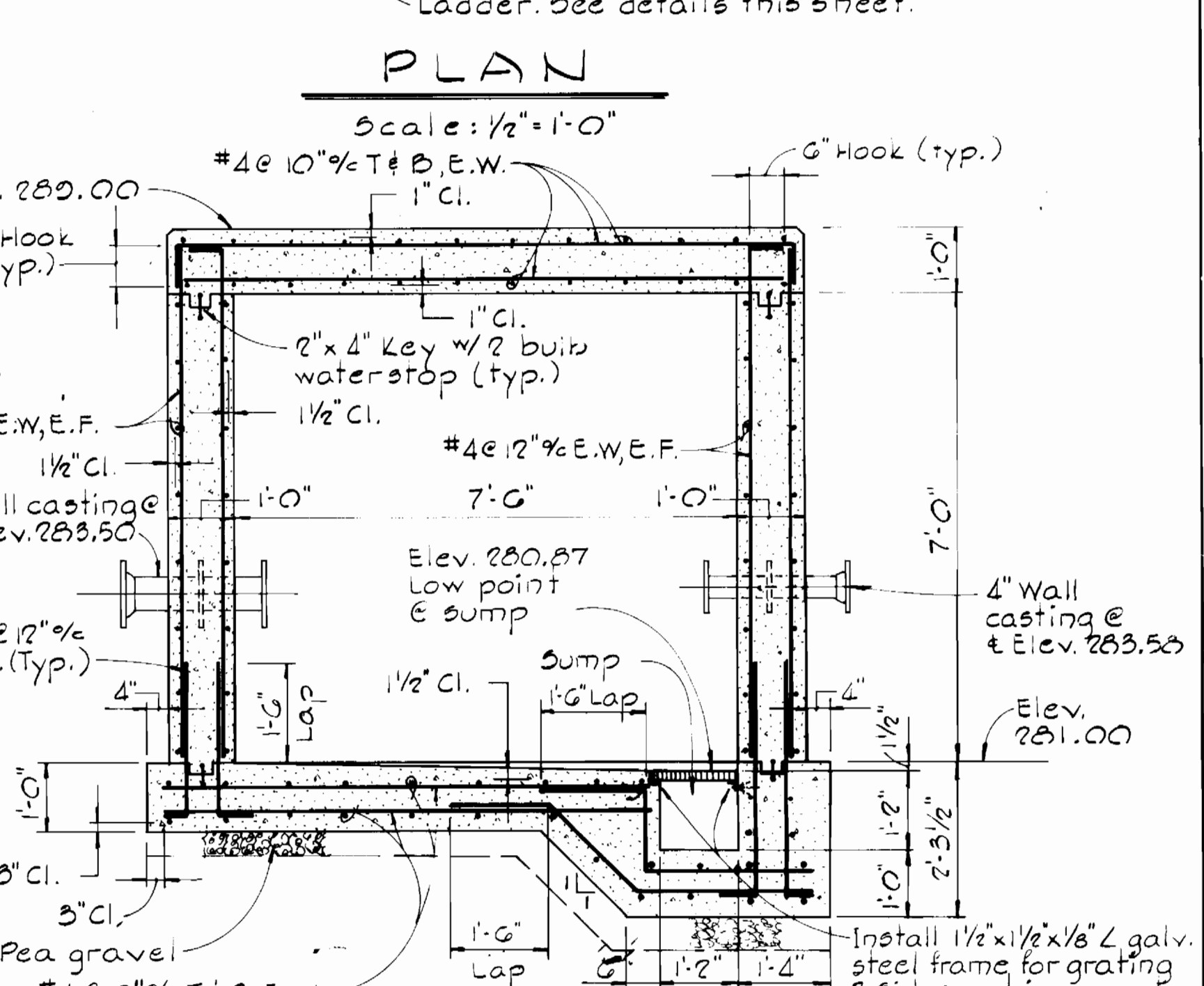
LADDER DETAILS



DETAIL-ADDNL. REINF. & OPNGS.

Not to Scale

SECTION A-A



SECTION A-A

Scale: 1/2" = 1'-0"

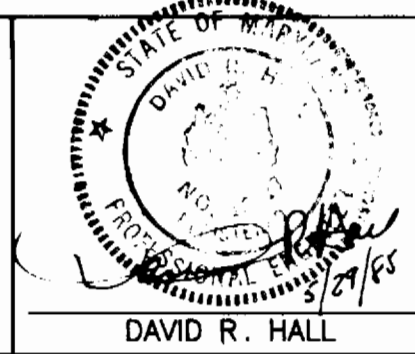
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

6-14-85  
DATE

6-14-85  
DATE

FREDERICK WARD ASSOC. INC.  
ENGINEERS-ARCHITECTS-SURVEYORS.  
5 SOUTH MAIN STREET  
BEL AIR, MARYLAND 21014  
838-7900 879-2090

6/11/85  
DATE



|               |        |
|---------------|--------|
| DES. E.D.L.   |        |
| DRN. E.D.L.   |        |
| CHK. D.W.     |        |
| DATE: 6/10/85 | BY NO. |
| REVISION      |        |

DETAILS  
PRESSURE REDUCING VALVE VAULT

600' SCALE MAP NO. W-47 BLOCK NO. 5

HUNTINGTON EAST PRESSURE REDUCING VALVE  
CAPITAL PROJECT NO. W-8145  
CONTRACT NO. 44-1312  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 3 OF 3