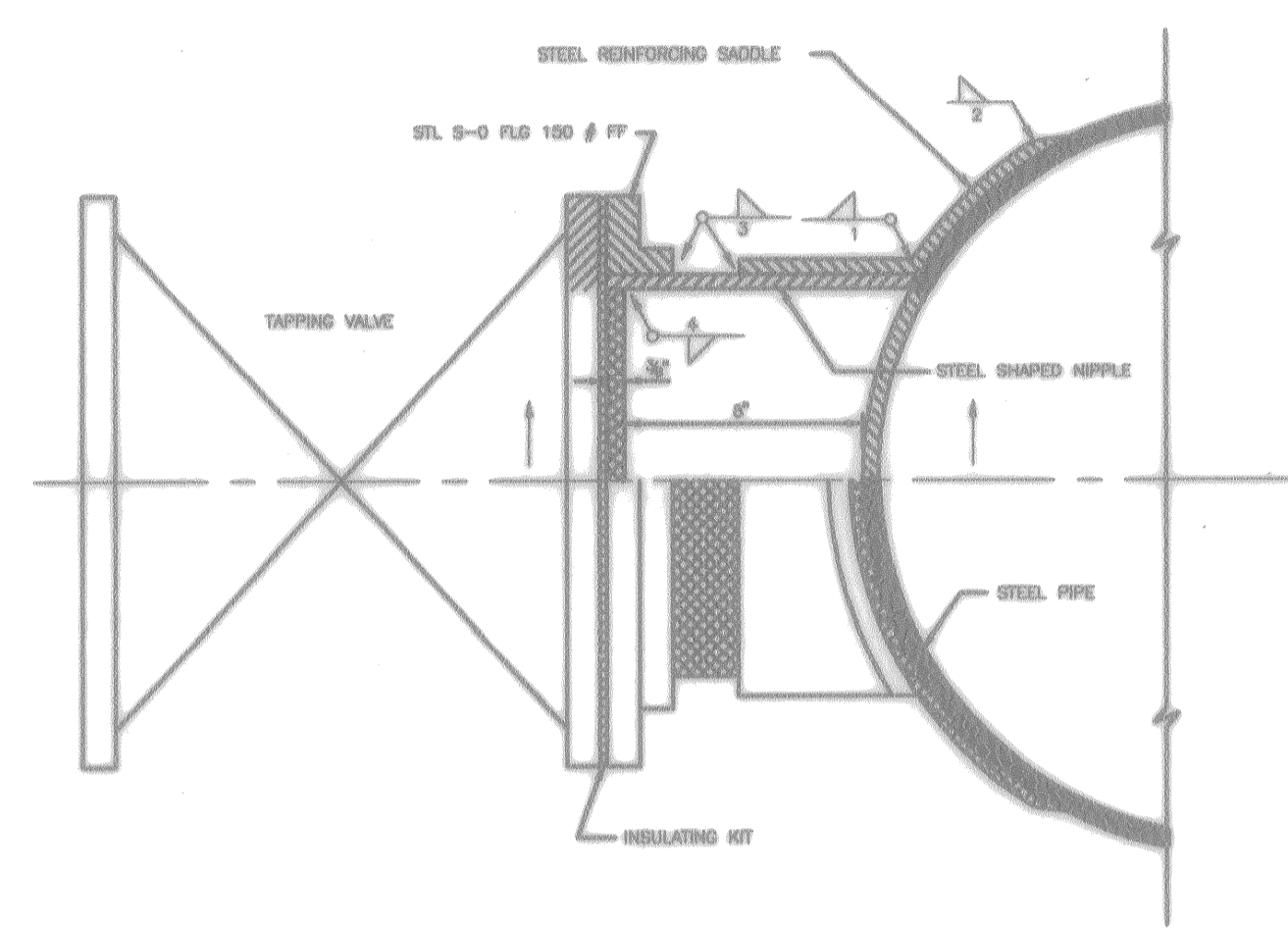


- NOTES:**
1. CHAPED WELDS SHALL BE CUT SQUARE TO THE AXIS OF THE PIPE TO A TOLERANCE OF 0.01" AND SHALL BE SHAPED TO FIT THE O.D. OF THE STEEL PIPE.
  2. WELDING SEQUENCE SHALL BE AS NOTED IN WELD SYMBOLS.
  3. WELDER SHALL USE CAUTION IN ASSURING THAT 150 # & 2-0 ALGS CORRECTLY LINED UP AND SECURELY TACKED PRIOR TO STARTING WELD.
  4. INSULATING KIT SHALL BE IN ACCORDANCE WITH WATER MAIN STANDARD SPECIFICATIONS.



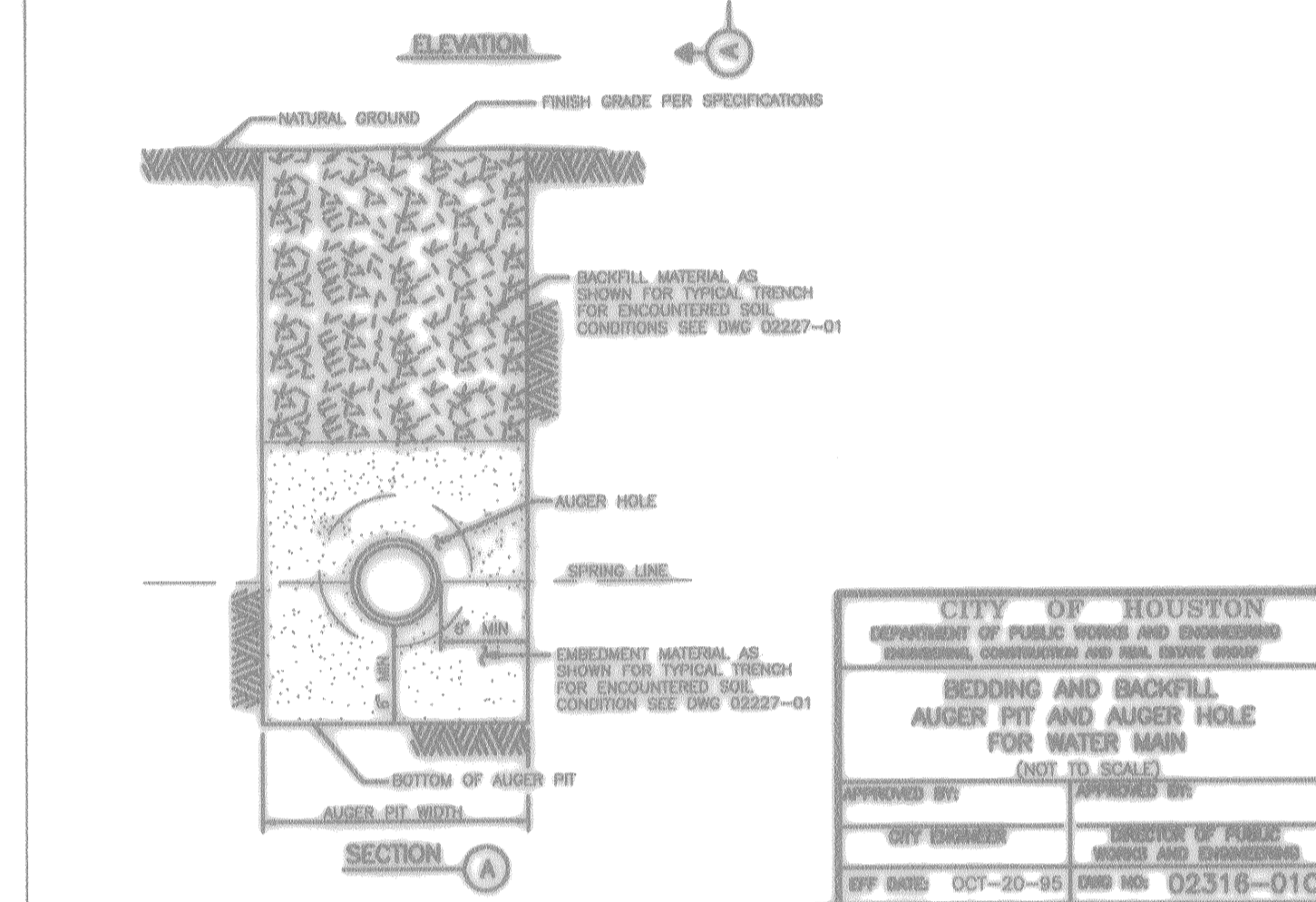
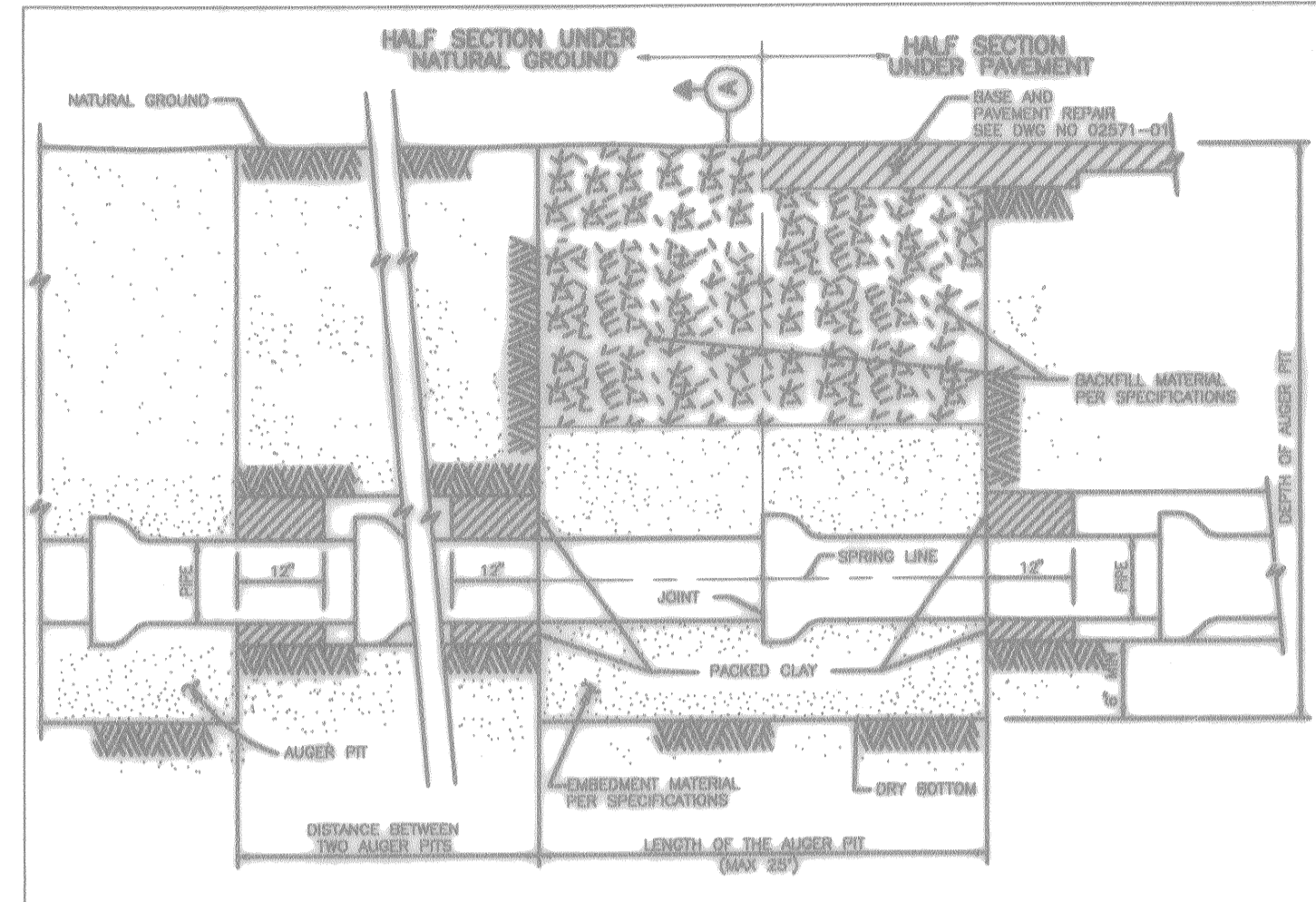
**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
 ENGINEERING, CONSTRUCTION AND REAL ESTATE GROUP

**STANDARD TAP TO STEEL MAIN**  
 (NOT TO SCALE)

APPROVED BY: \_\_\_\_\_

CITY ENGINEER      DIRECTOR OF PUBLIC WORKS AND ENGINEERING

BY DATE: OCT-20-95      DWG NO: 02665-04B



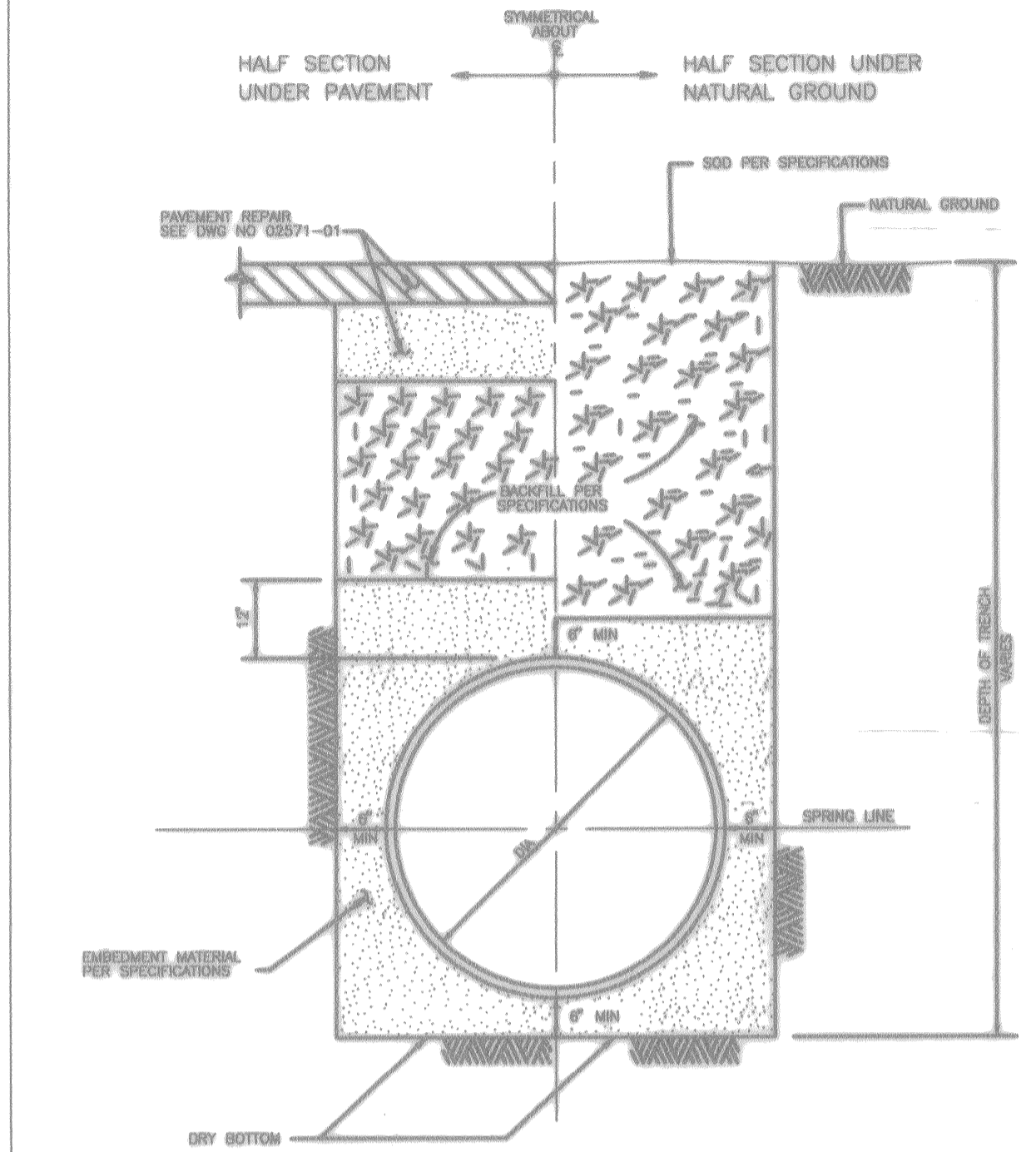
**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
 ENGINEERING, CONSTRUCTION AND REAL ESTATE GROUP

**BEDDING AND BACKFILL ALGER FIT AND ALGER HOLE FOR WATER MAIN**  
 (NOT TO SCALE)

APPROVED BY: \_\_\_\_\_

CITY ENGINEER      DIRECTOR OF PUBLIC WORKS AND ENGINEERING

BY DATE: OCT-20-95      DWG NO: 02316-01C



**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
 ENGINEERING, CONSTRUCTION AND REAL ESTATE GROUP

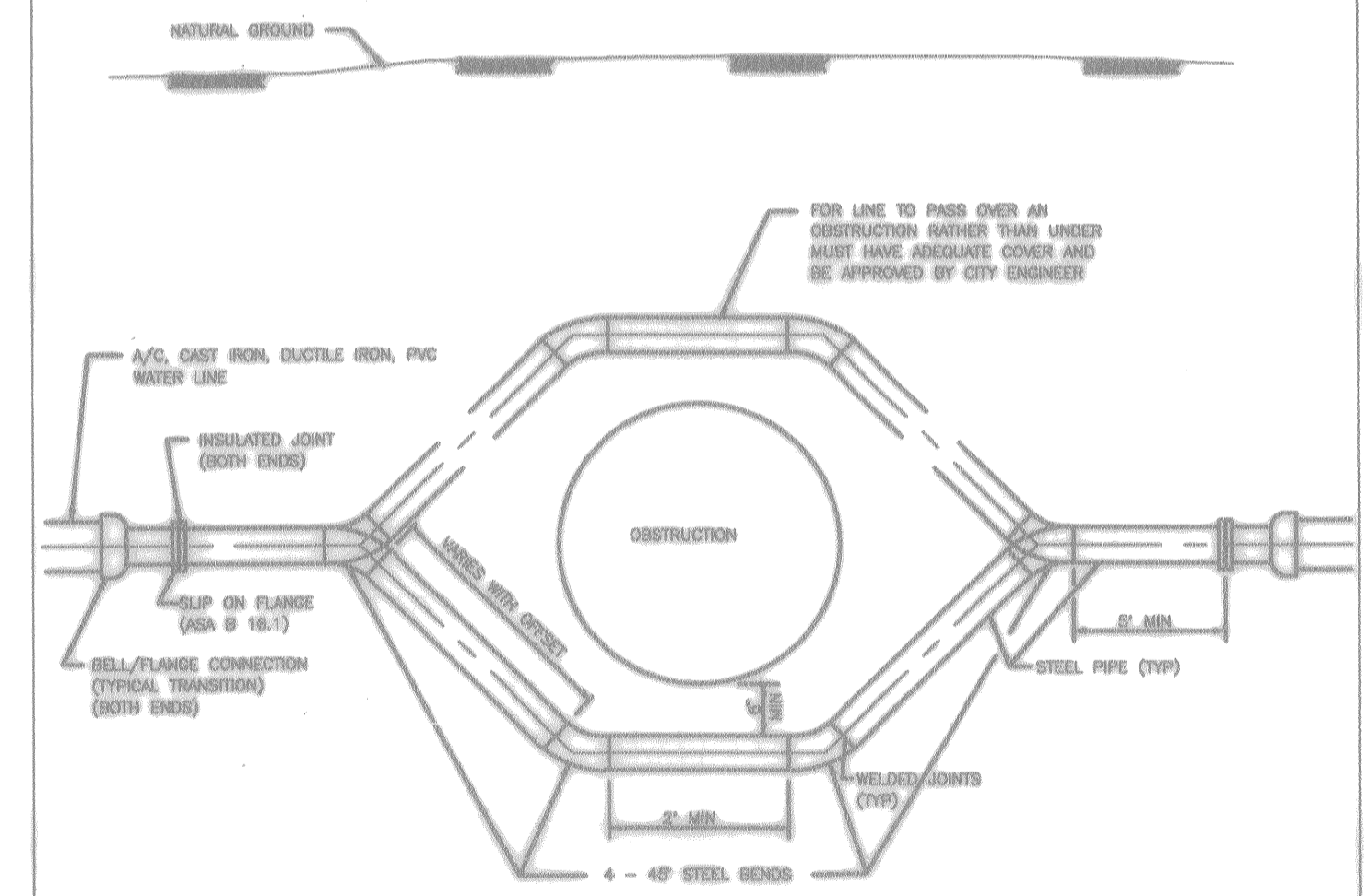
**WATER DISTRIBUTION MAIN BEDDING AND BACKFILL FOR OPEN CUT TRENCHES**  
 (NOT TO SCALE)

APPROVED BY: \_\_\_\_\_

CITY ENGINEER      DIRECTOR OF PUBLIC WORKS AND ENGINEERING

BY DATE: OCT-20-95      DWG NO: 02664-01C

- NOTE:**
1. ALL MATERIALS AND COATINGS TO BE IN ACCORDANCE WITH WATER MAIN STANDARD SPECIFICATIONS.
  2. RESTRAIN EXISTING PIPING BEYOND STEEL SECTION AS REQUIRED TO PREVENT MOVEMENT.



- TYPICAL STEEL SECTION FITTINGS**
- 4 - 4" x 4" STEEL BENDS
  - 2 - 4" BELL-FLANGE ADAPTERS
  - 2 - 4" SLIP-ON FLANGES 150 #
  - 2 - 4" INSULATED JOINT FITS

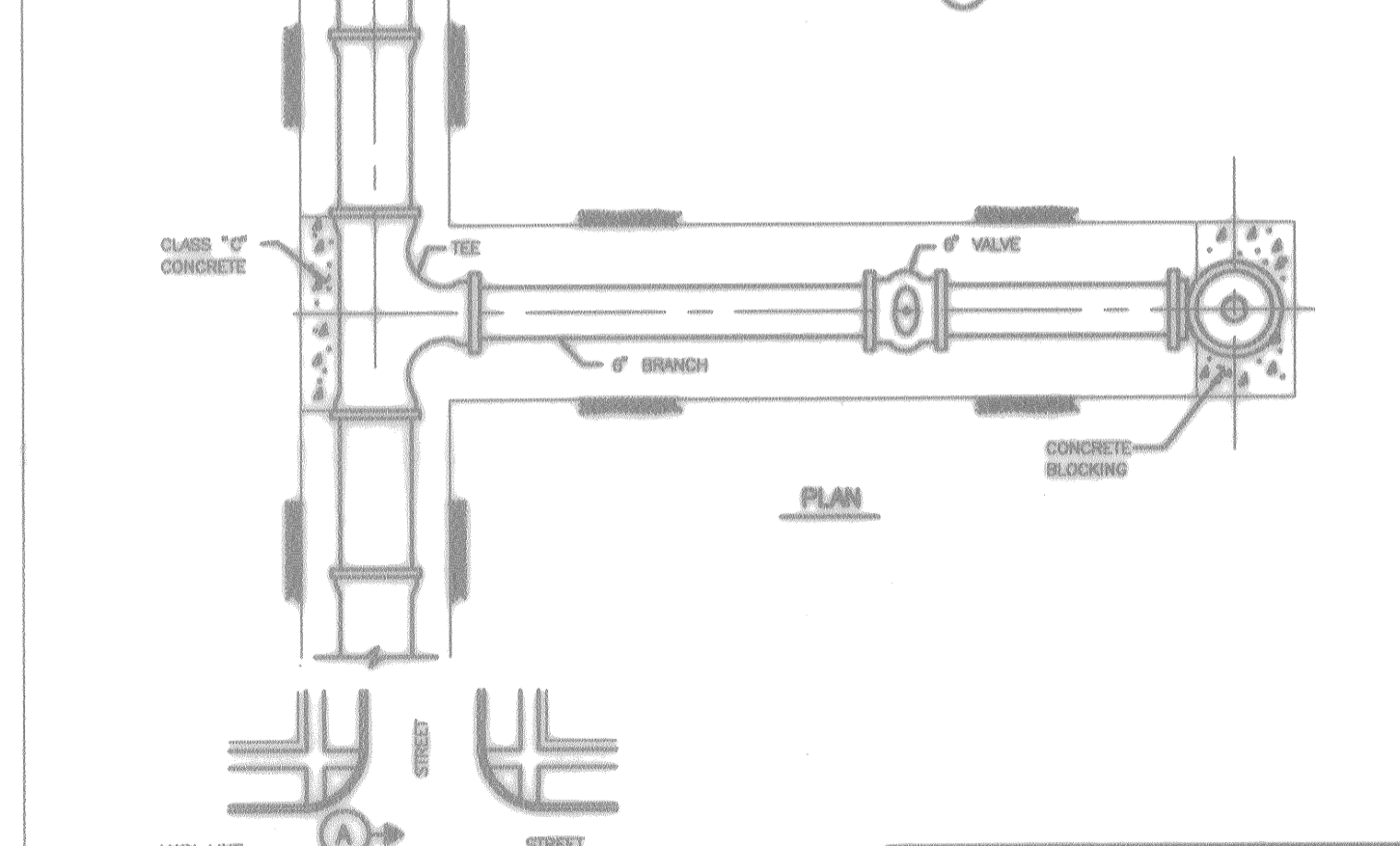
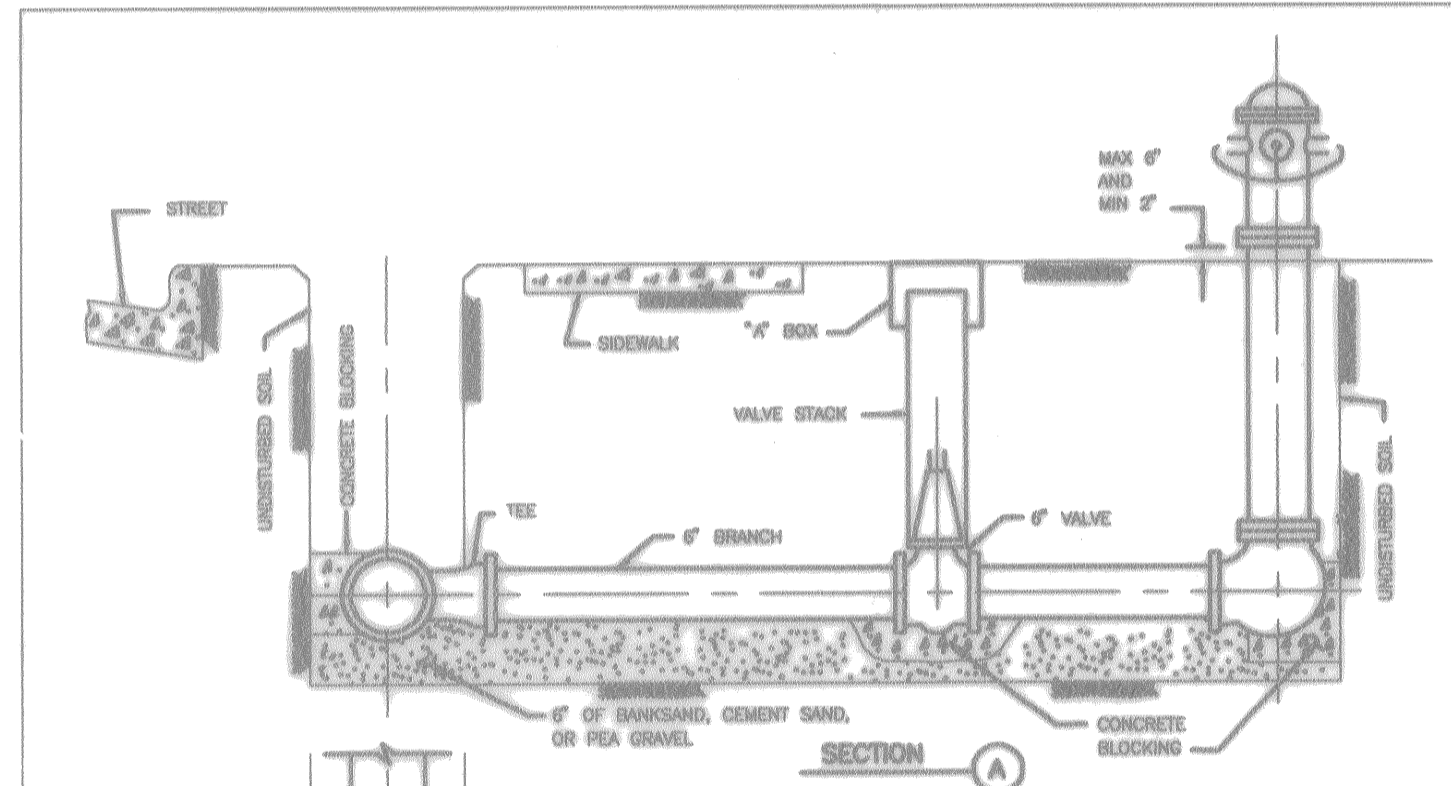
**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
 ENGINEERING, CONSTRUCTION AND REAL ESTATE GROUP

**TYPICAL STEEL PIPE OFFSET SECTION FOR WATER MAINS**  
 (NOT TO SCALE)

APPROVED BY: \_\_\_\_\_

CITY ENGINEER      DIRECTOR OF PUBLIC WORKS AND ENGINEERING

BY DATE: OCT-20-95      DWG NO: 02611-02A



**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
 ENGINEERING, CONSTRUCTION AND REAL ESTATE GROUP

**STANDARD FIRE HYDRANT DETAIL**  
 (NOT TO SCALE)

APPROVED BY: \_\_\_\_\_

CITY ENGINEER      DIRECTOR OF PUBLIC WORKS AND ENGINEERING

BY DATE: OCT-20-95      DWG NO: 02645-01B

**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS & ENGINEERING  
 ENGINEERING, CONSTRUCTION AND REAL ESTATE GROUP

**SECTION APPROVALS**

*M. H. ...* WATER ENGINEERING      TRAFFIC AND SIGNAL ENGINEERING

*M. ...* STORM SEWER ENGINEERING      STREET, BRIDGE AND RIGHT-OF-WAY ENGINEERING

CONSTRUCTION

**OTHER DEPARTMENTS**

*...* PLANNING AND DEVELOPMENT      SPONSOR DEPARTMENT

*J. ...* CITY ENGINEER      DATE: 5/2/96

*...* DIRECTOR OF PUBLIC WORKS AND ENGINEERING      DATE: 5/2/96

SUBMITTED: \_\_\_\_\_      DESIGNED BY: TM

SCALE: N/A      DRAWN BY: TM

DATE: MARCH 1996      SHEET NO. 13 OF 16 SHEETS

SURVEY BY: \_\_\_\_\_      CITY: 440-U      CITY DWS. NO. WATER

**WATER DETAILS**

**PEI** PROVIDENT ENGINEERS, INC.  
 12200 N.W. FRWY, Suite 210  
 Houston, Texas 77092