

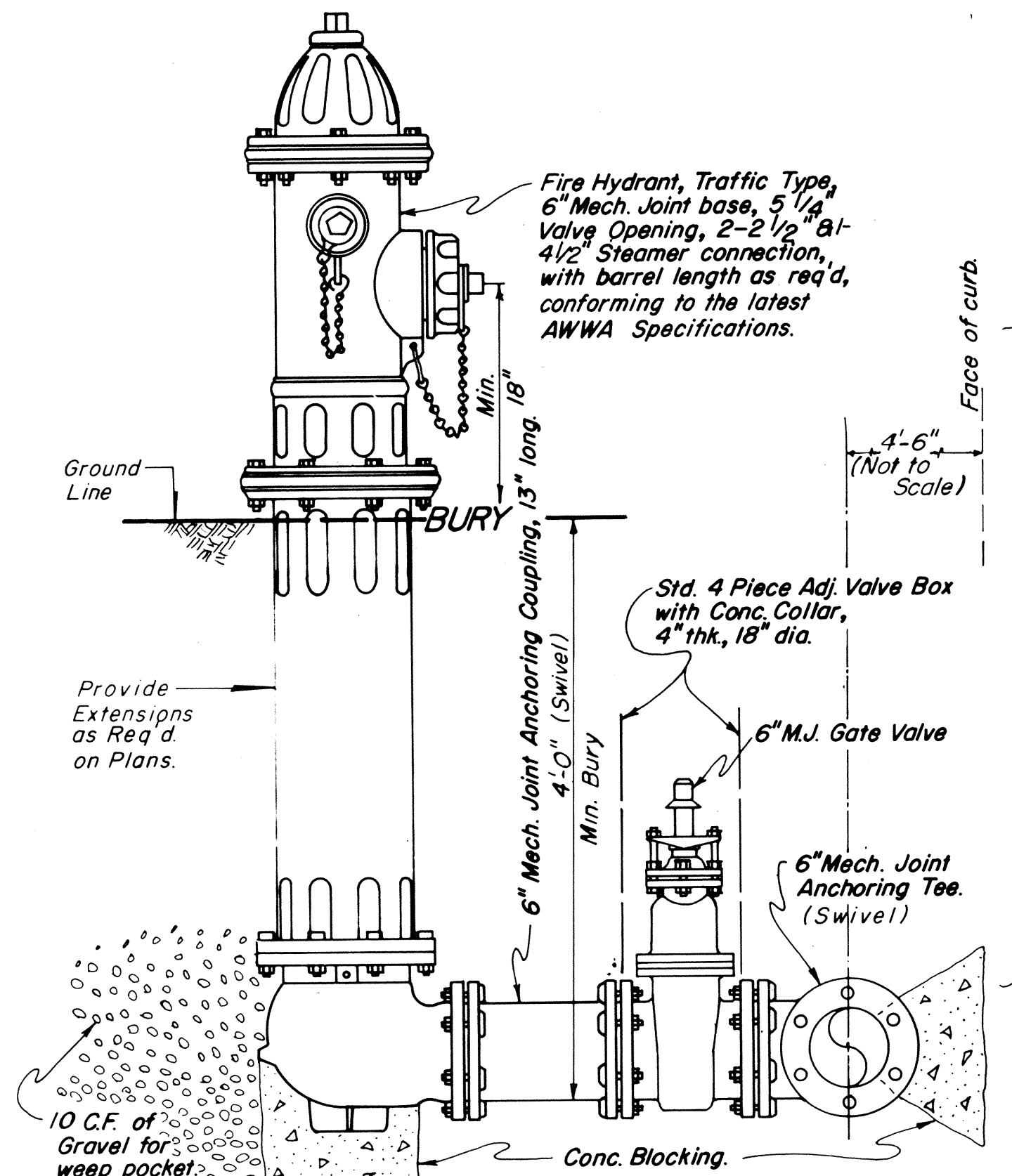
- NOTES:**
- Each plug in each fitting shall be blocked in accordance with plug diagram.
 - A sheet of thin plastic shall be placed around bolts, glands & joints of all fittings before concrete blocking is poured.
 - The minimum blocking area shall be one square foot regardless of pipe size.
 - The cost of blocking shall be included in the price bid for Cast Iron Fittings.

TYPICAL THRUST BLOCKING

(For the following table, a test pressure of 150 P.S.I. is used and the soil is assumed to have a bearing value of 1000 pounds per square foot. For other soil bearing values, divide the number shown by the other value expressed in thousands.)

Pipe Dia.	Plug or Tee	Thrust block area in square feet.			
		90° Ell	45° Bend	22 1/2° Bend	11 1/4° Bend
2"	1	1	1	1	1
3"	2	2	1	1	1
4"	4	3	2	1	1
6"	9	6	3	2	1
8"	15	11	6	3	2
10"	24	17	9	5	2
12"	34	24	13	7	3

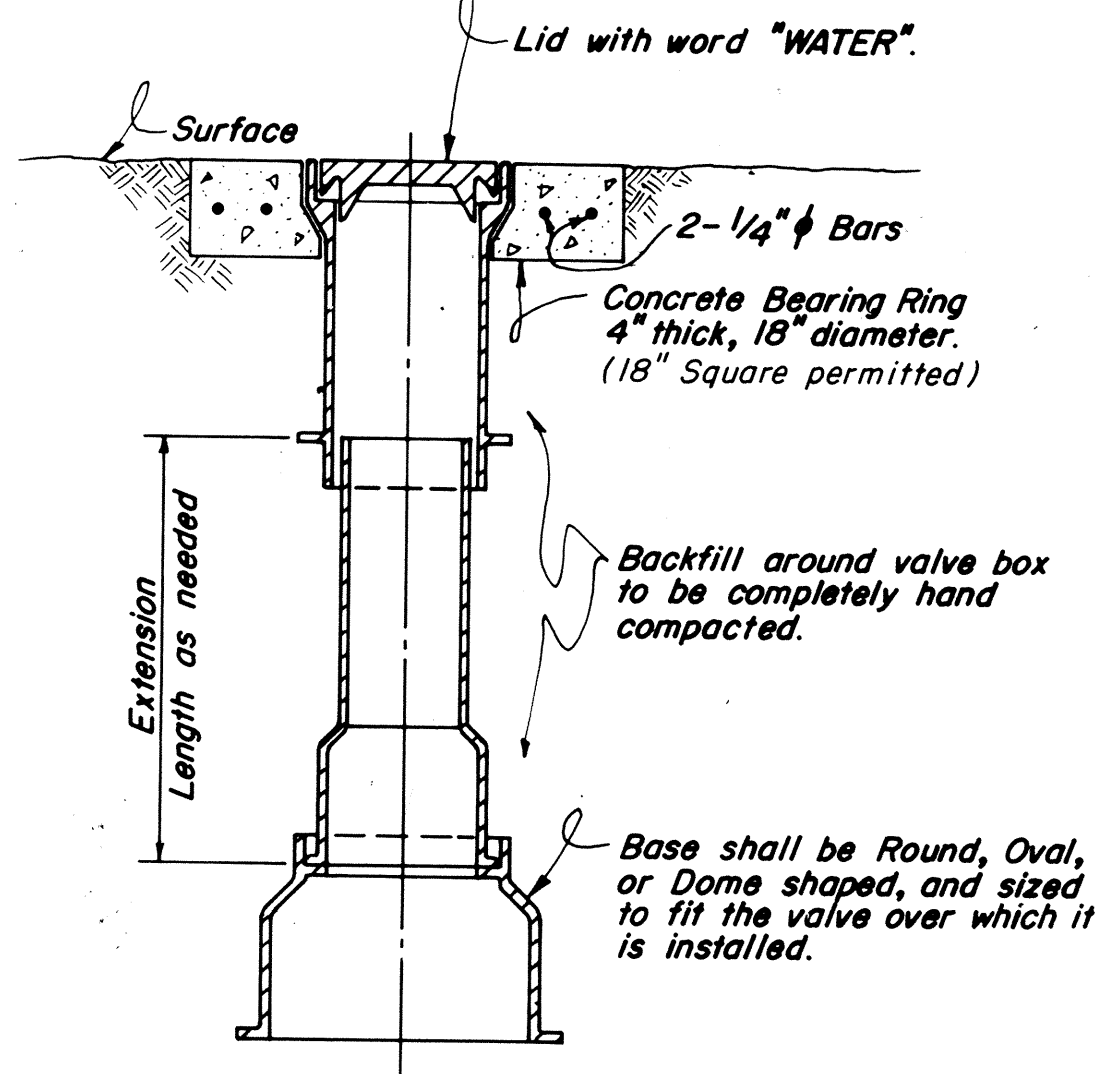
DETAIL "F"



TYPICAL FIRE HYDRANT ASSEMBLY INSTALLATION COMPLETE

NOTE: The above item includes Fire Hydrant, Coupling Piece, Gate Valve, Valve Box, Tee, Conc. Blocking, & Gravel Weep Pocket, As one bid unit.

DETAIL "D"



STANDARD VALVE BOX DETAIL

NOTE: Valve Box shall be Buffalo Type, with 5 1/4 inch shaft, 4 piece as shown; 'MUELLER' No. H-10380 or approved equal.

DETAIL "E"

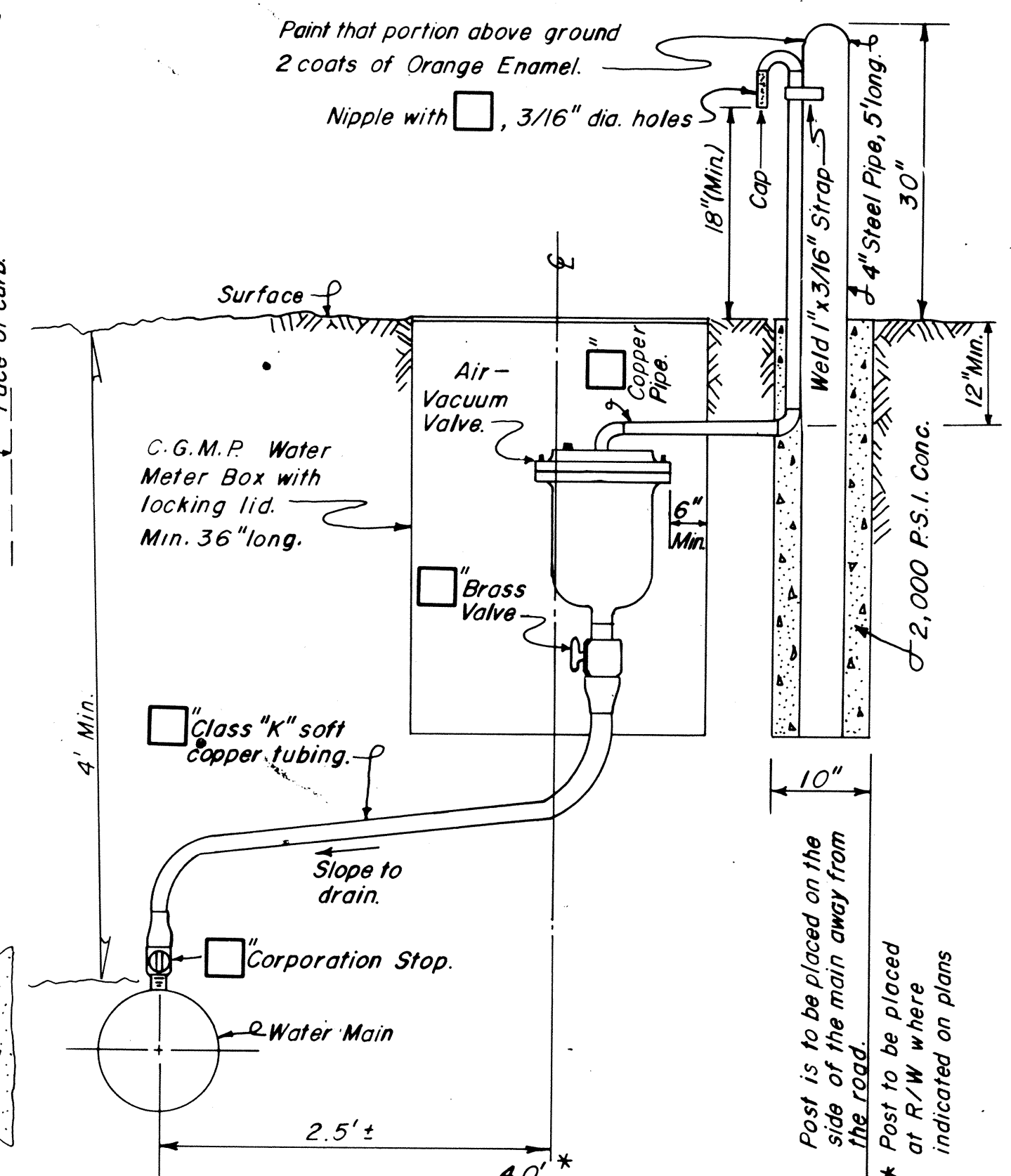
NOTE: This Bid Item Includes All Pieces Of The Box And The Concrete Bearing Ring.

NOTE: Plastic Meter Box May Be Used Only If It Is Installed Where Paving Or Sidewalk Is Not Planned or Does Not Exist. If Used, The Lid Must Be Iron.

Choctaw Standard Construction Fees

(a) The fee for supervision and inspection shall be paid to the City according to the following schedule:

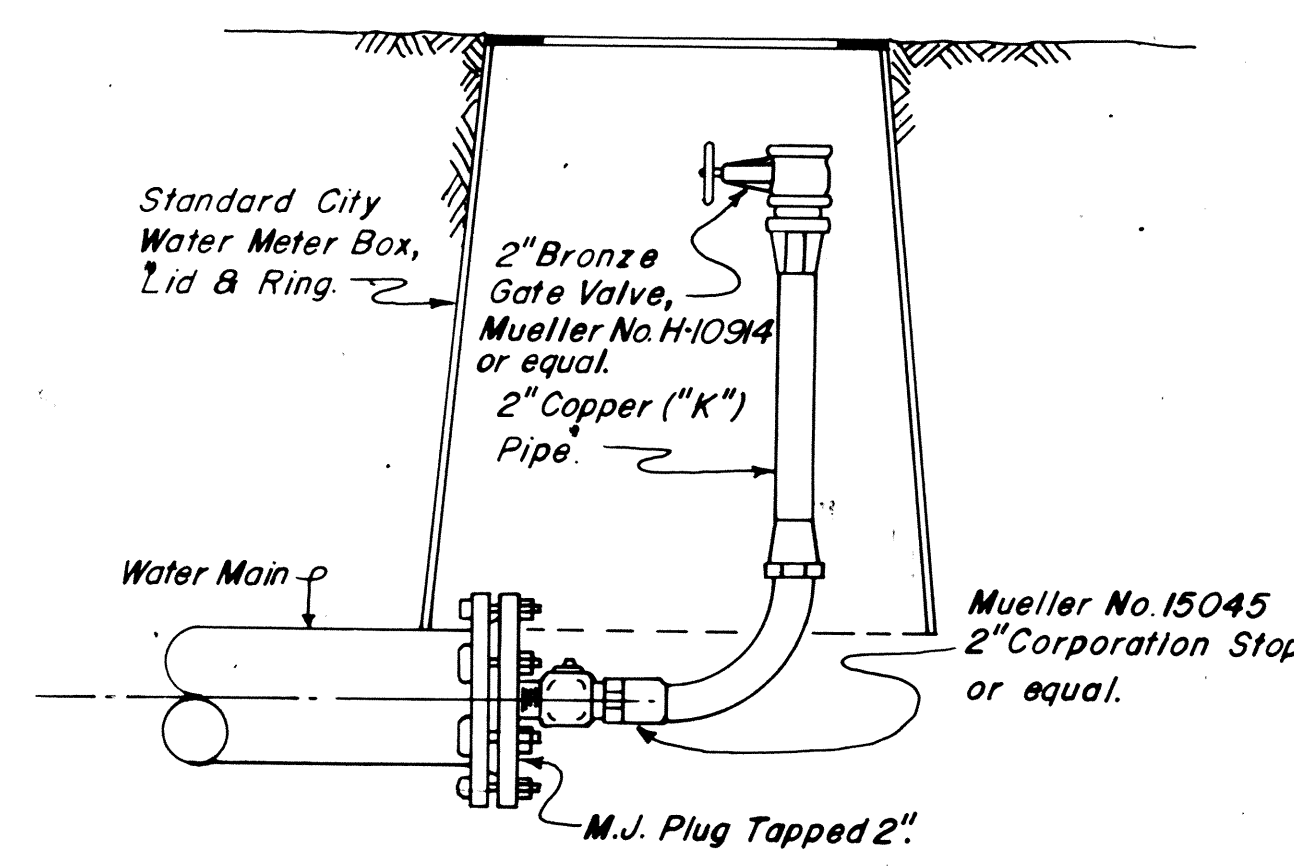
Estimated Cost of Construction	Fee
Up to \$2,000.00	3.5%
Next \$3,000.00 (\$2,001.00 to \$5,000.00)	3.0%
Next \$5,000.00 (\$5,001.00 to \$10,000.00)	2.5%
Next \$15,000.00 (\$10,001.00 to \$25,000.00)	2.0%
Next \$25,000.00 (\$25,001.00 to \$50,000.00)	1.5%
Over \$50,000.00	1.0%



AIR-VACUUM VALVE ASSEMBLY INSTALLATION COMPLETE

NOTE: The above item includes all parts and materials shown, installed in place, as one bid unit.

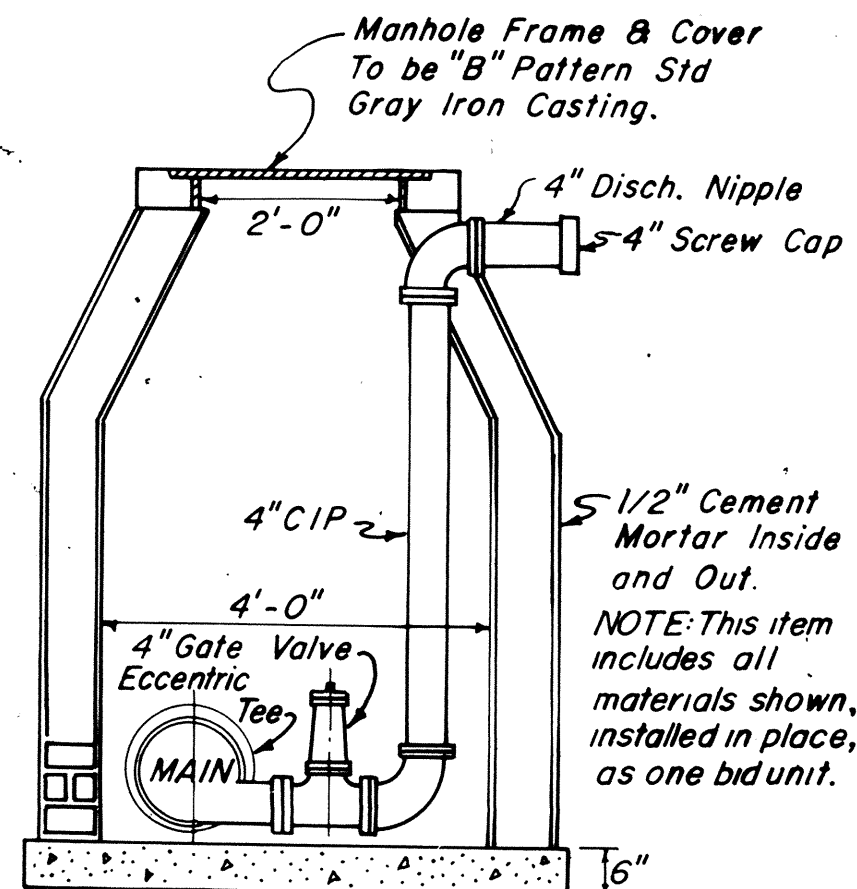
DETAIL "A"



TYPICAL 2" BLOW-OFF ASSEMBLY

NOTE: The bid item "2" Blow-Off" includes Box Ring, Lid, Gate Valve, Corporation Stop, Copper Pipe and tapping the plug 2", all in place, but does not include the Plug.

DETAIL "B"



BLOW-OFF VALVE DETAIL "C"

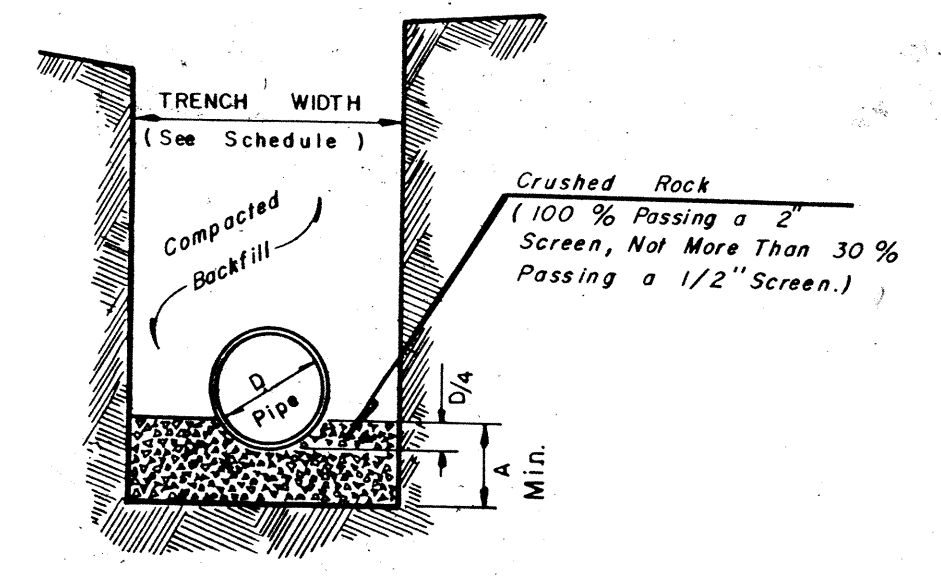
GENERAL CONSTRUCTION NOTES: WATER

- All fittings shall be taken from A.S.A. Standard A21.10. Fittings shall be Bid including all joint accessories (glands, gaskets, etc.)
- All "Anchoring Type" Mechanical Joint Fittings shall be in accordance with the "Handbook of Cast Iron Pipe" (C.I.P.R.A.), 3rd Edition, Section 8, Page 6.
- All Workmanship and Materials shall be in accordance with the local Authority's Standards.
- Where necessary, the top of the Fire Hydrant shall be rotated to face the street.
- All Fire Hydrant Extension Pieces shall be paid for at the Unit Price bid.
- Pipe joints shall be deflected no more than recommended by the pipe manufacturer.
- The Police & Fire Department shall be notified at least 24 hours prior to cutting or blocking any street, road or alley.
- All affected Utility Companies, Highway Dept & Railroads shall be notified at least 3 days prior to any construction on this project, affecting their facilities.
- At all cross ties to an existing system, the contractor shall expose the existing line prior to installing any new material to determine proper size, type & alignment of fittings. The Contractor shall make the necessary excavations to determine the proper tie point.
- Only those items detailed on this sheet that are required in the Plans & Specifications shall be used.
- A sheet of "Plotifilm" (or equal thin plastic) shall be placed around bolts & glands of all fittings before concrete blocking is poured.
- A 6" Gate Valve & Box ("Watchgate") Shall Be Installed On All Fire Hydrants.
- Minor bends indicated on the Plan & Profile Sheets shall be accomplished by deflecting the pipe joints (See Note 6 Above) unless bends are indicated on the Plans.
- All testing & construction to conform to the Standards and Specifications of the City of Choctaw, Oklahoma and Title 252 Oklahoma Administrative Code, D.E.Q. Chapter 625, Public Water Supply Construction Standards.
 - Pressure Test (252-625-17-4 (5))
 - Disinfection (252-625-17-4 (6))
 - Separation of Water Mains and Sewers (252-625-17-4 (7)) Dated May 26, 1994
- All pipe shall be min. pressure class of 200 p.s.i. regardless of type of pipe material.
- Backfill under existing and future paving with crusher run rock, Max. size 1"
- Bid item "Gravel Bedding" shall be paid for at the unit price bid per ton. Gravel Bedding shall be used only where authorized in writing by the Engineer. For bedding purposes.

TRENCH SCHEDULE

TRENCH WIDTH	Pipe		C.Y. Crushed Rock Per L.F.
	D	A	
2.2'	8"	8"	.052
2.2'	10"	9"	.058
2.2'	12"	10"	.063
2.6'	15"	11"	.082
2.9'	18"	12"	.099
3.3'	21"	13"	.121
3.8'	24"	14"	.149
4.2'	27"	15"	.175
4.5'	30"	16"	.199
4.9'	33"	17"	.229
5.2'	36"	18"	.256

NOTE: Stone Shall Be Hand or Mechanically Tamped.



TYPICAL SECTION

GRAVEL BEDDING (SEE NOTE NO. 17)
DETAIL "G"

APPROVED *Gene W. Sayers*
Gene W. Sayers
City Engineer

WATER IMPROVEMENT MAINTENANCE BOND—100% OF CONSTRUCTION COST FOR 2 YEARS.

DESIGN STANDARD DETAILS
CITY OF CHOCTAW OKLAHOMA
STANDARD WATER DETAILS

ORDINANCE No. 291

W-1

3-15-01
7-24-96
Latest Revision 6-14-95
BY: DESIGN ENGINEERS, INC.