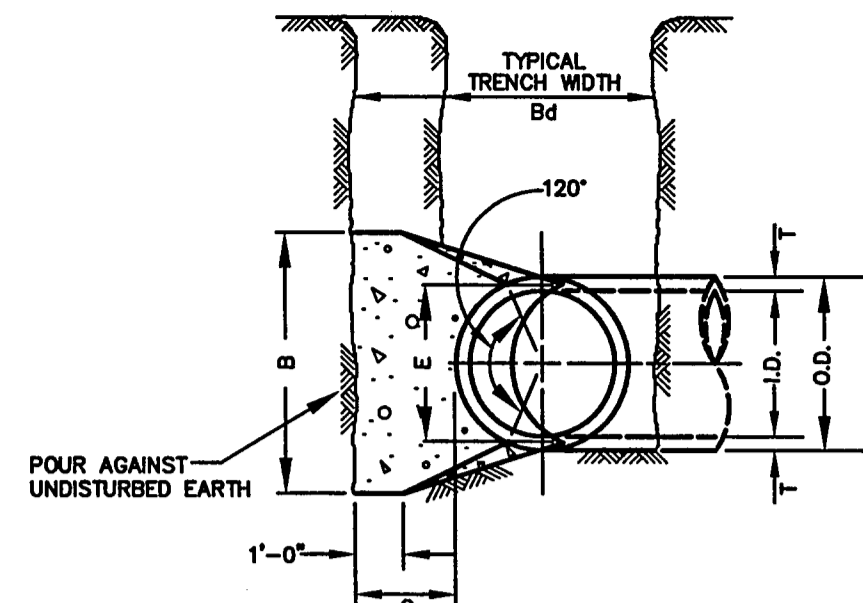
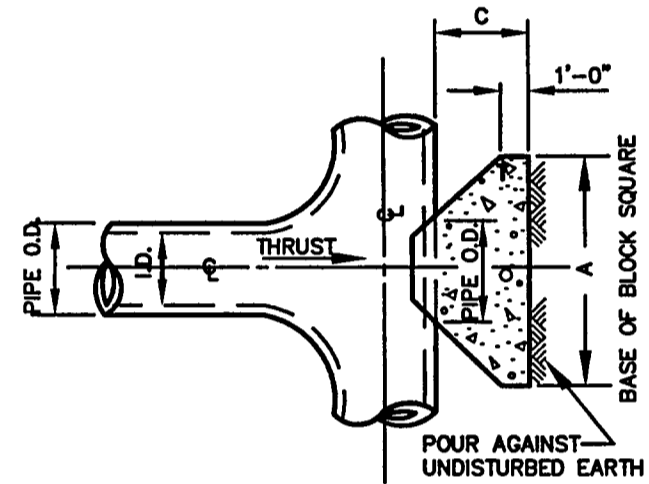


HORIZONTAL THRUST BLOCK
N.T.S.



SECTION X-X
N.T.S.

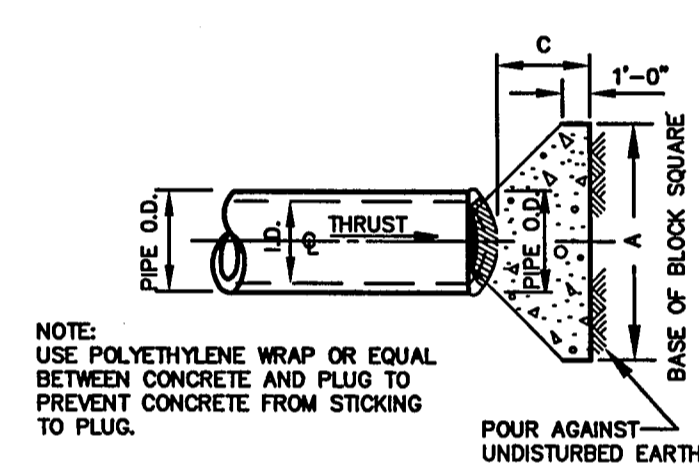
| I.D. (IN) | Δ=11.25° | | | Δ=22.50° | | | Δ=45° | | | Δ=90° | | |
|-----------|----------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| | C FT. | A FT. | B FT. | C FT. | A FT. | B FT. | C FT. | A FT. | B FT. | C FT. | A FT. | B FT. |
| 6/8 | 1.5 | 0.9 | 0.4 | 1.0 | 1.5 | 0.1 | 0.8 | 1.5 | 0.1 | 1.5 | 2.0 | 0.2 |
| 10/12 | 1.5 | 0.9 | 0.4 | 1.0 | 1.5 | 0.1 | 0.8 | 1.5 | 0.1 | 1.5 | 2.0 | 0.2 |
| 16/18 | 2.0 | 1.5 | 0.5 | 1.5 | 2.0 | 0.2 | 1.5 | 2.0 | 0.2 | 2.7 | 5.0 | 1.5 |
| 20 | 2.0 | 1.5 | 0.5 | 1.5 | 2.0 | 0.2 | 1.5 | 2.0 | 0.2 | 2.7 | 5.0 | 1.5 |
| 24 | 2.5 | 1.5 | 0.5 | 2.0 | 2.5 | 0.3 | 2.0 | 2.5 | 0.3 | 3.0 | 6.0 | 2.0 |
| 30 | 3.0 | 2.0 | 0.5 | 2.5 | 3.0 | 0.4 | 2.5 | 3.0 | 0.4 | 3.5 | 7.0 | 2.5 |



PLAN OF TEE THRUST BLOCK
N.T.S.

PLUG & TEE THRUST BLOCK

| I.D. (IN) | C FT. | A FT. | VOL. C.Y. |
|-----------|-------|-------|-----------|
| 6/8 | 1.5 | 2.5 | 0.3 |
| 10/12 | 1.5 | 3.5 | 0.8 |
| 16/18 | 2.0 | 5.5 | 1.8 |
| 20 | 2.0 | 6.0 | 1.9 |
| 24 | 2.5 | 7.0 | 3.1 |
| 30 | 3.0 | 7.5 | 4.1 |

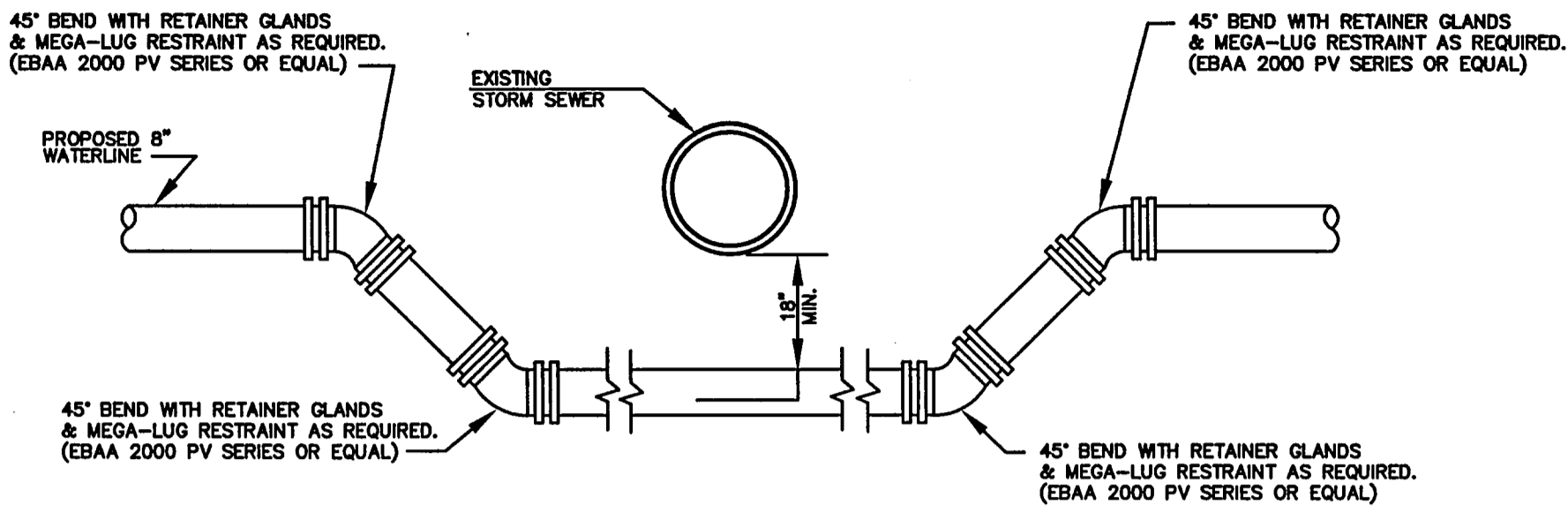


PLAN OF PLUG THRUST BLOCK
N.T.S.

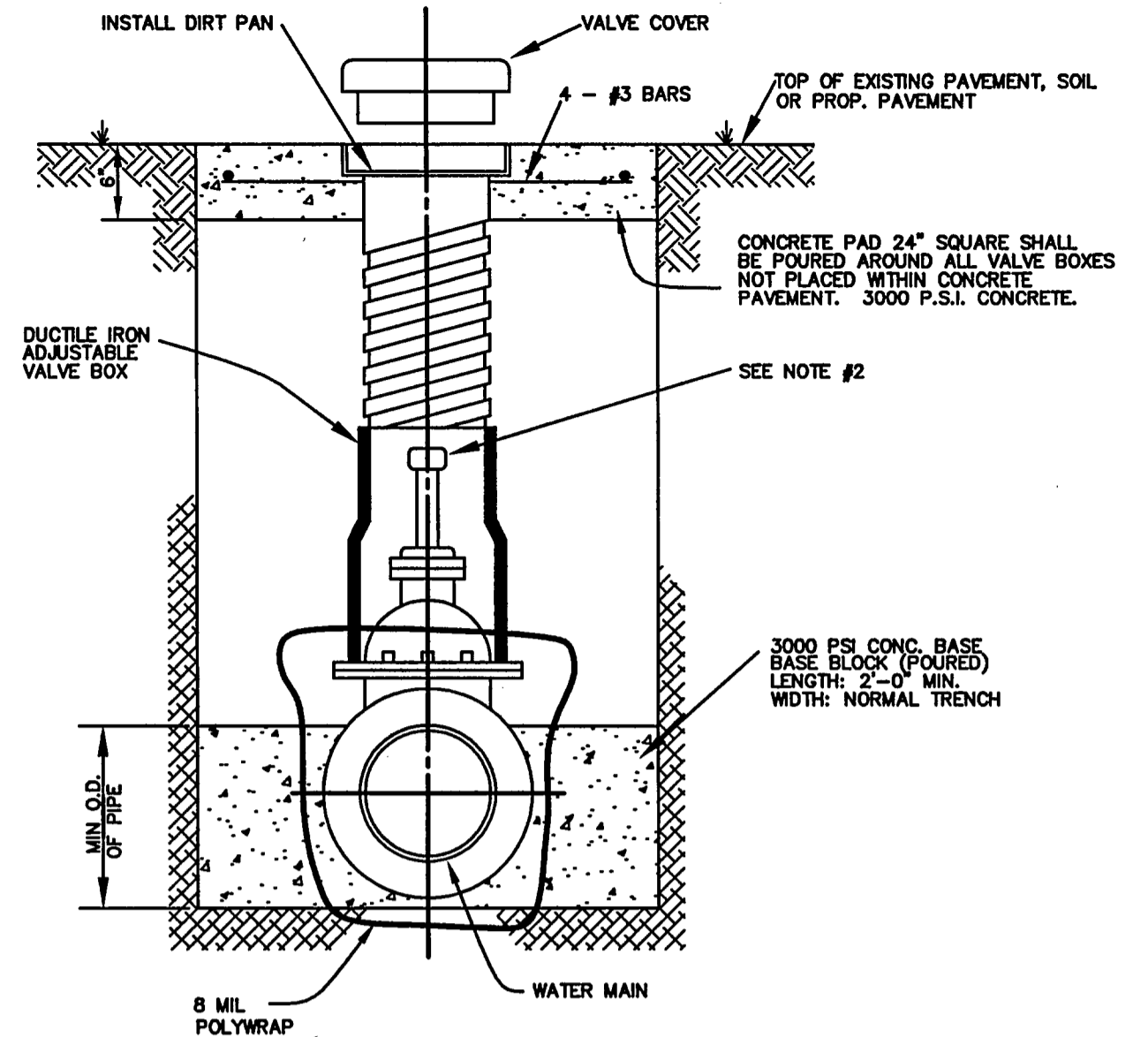
- GENERAL NOTES FOR ALL THRUST BLOCKS:
- ALL CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 P.S.I. (EXCEPT 30" I.D. - 150 P.S.I.).
 - CONCRETE FOR BLOCKING SHALL BE CLASS B, 2000 P.S.I. CONCRETE.
 - DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE C.M. THE NET VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN IN TABLES.

NOTE: WATER SERVICES SHALL NOT BE CONNECTED TO FIRE HYDRANT LINES. ALL MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND/OR SPECIAL PROVISIONS.

TYPICAL SERVICE CONNECTION WITH METER BOX
N.T.S.

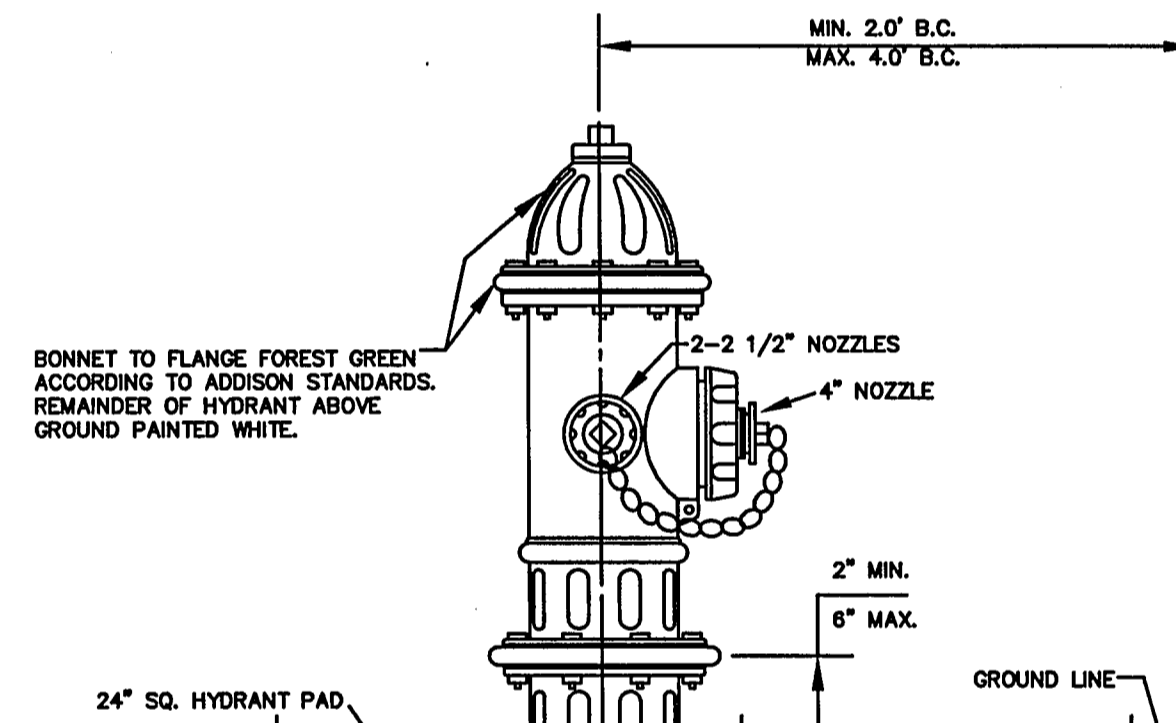


WATER LINE RELOCATION AT STORM SEWER CROSSING
TYPICAL SECTION
N.T.S.

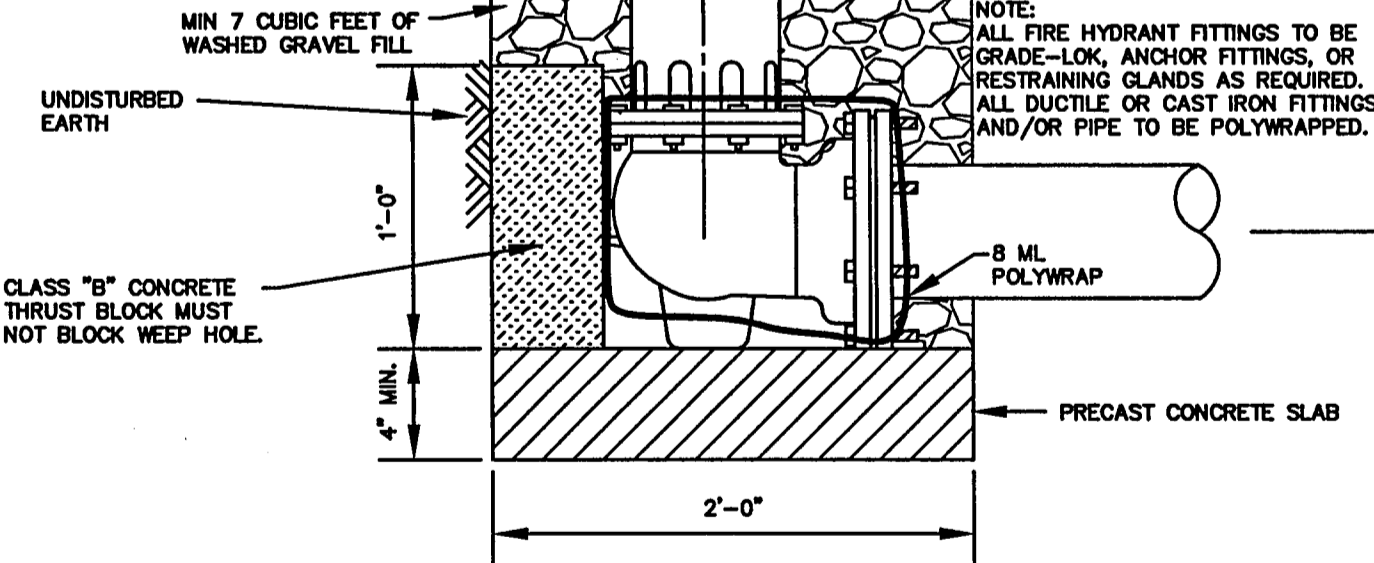


- NOTE:
- GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-508-80 OR LATEST THEREOF. ALL VALVES SHALL BE "MUELLER" OR EQUAL.
 - A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WHOSE OPERATING NUT IS LOCATED IN EXCESS OF 4 FEET BELOW THE VALVE BOX. THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 4 FEET OF VALVE BOX LID. MANUFACTURED VALVE STACK DUCTILE IRON PIPE TO BE USED FOR EXTENSION GREATER THAN 4". BELL END OF STACK TO BE FITTED OVER VALVE, AND VALVE STACK IS TO BE POLYWRAPPED.
 - VALVES SHALL BE OF DUCTILE IRON W/RUBBER ENCAPSULATED DISK. BOLTS SHALL BE STAINLESS STEEL OF SAME SIZE ON EACH VALVE.
 - VALVE COVERS SHALL BE MARKED "WATER".

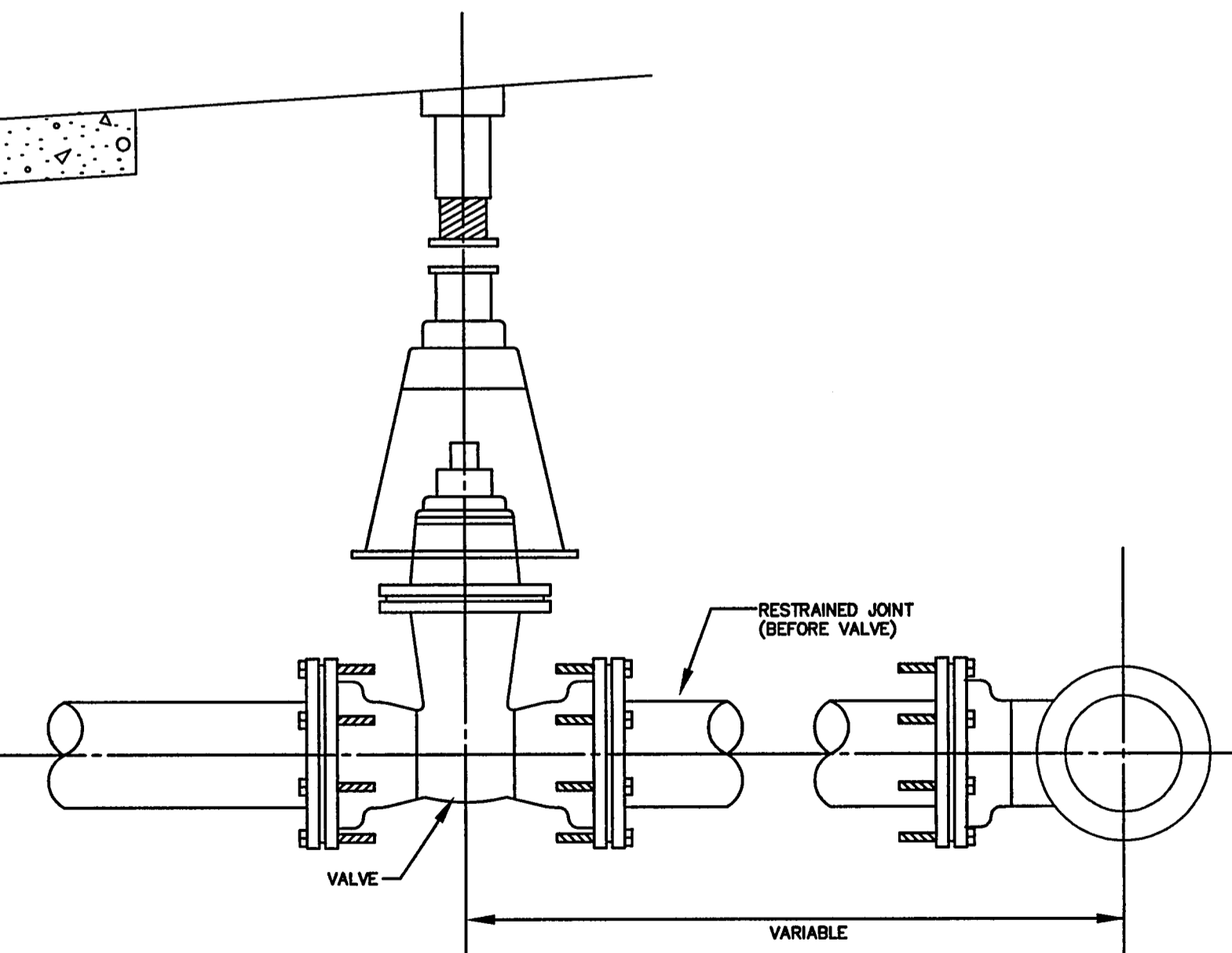
TYPICAL VALVE SETTING & BOX
N.T.S.



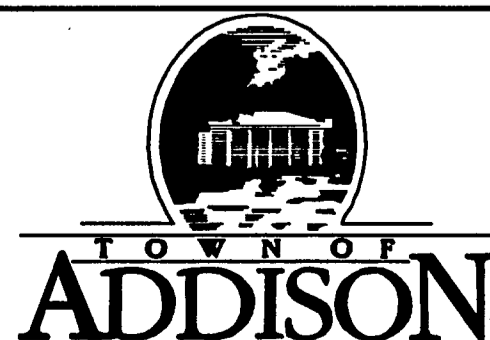
- NOTE: MUELLER "CENTURIAN" OR APPROVED EQUAL IN GENERAL. ALL FIRE HYDRANTS SHALL CONFORM TO AWWA STANDARD SPECIFICATIONS FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE FOR WATER AND SANITARY SEWER IMPROVEMENTS. FIRE HYDRANTS WITH A BARREL APPROXIMATELY 7" INSIDE DIAMETER. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE. ALL HYDRANTS SHALL BE APPROVED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.



TYPICAL FIRE HYDRANT INSTALLATION
N.T.S.



| NO. | REVISION | BY | DATE |
|-----|----------|----|------|
| | | | |



SCALE
HORIZ N/A
VERT N/A
DATE
FEB 2004

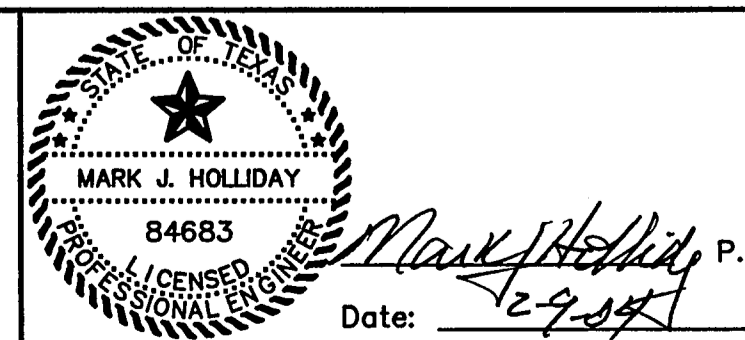


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TOWN OF ADDISON, TEXAS
TALISKER APARTMENTS
WATER LINE IMPROVEMENTS

MISCELLANEOUS DETAILS 1

TNP PROJECT
ADD03169
SHEET
10
OF
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