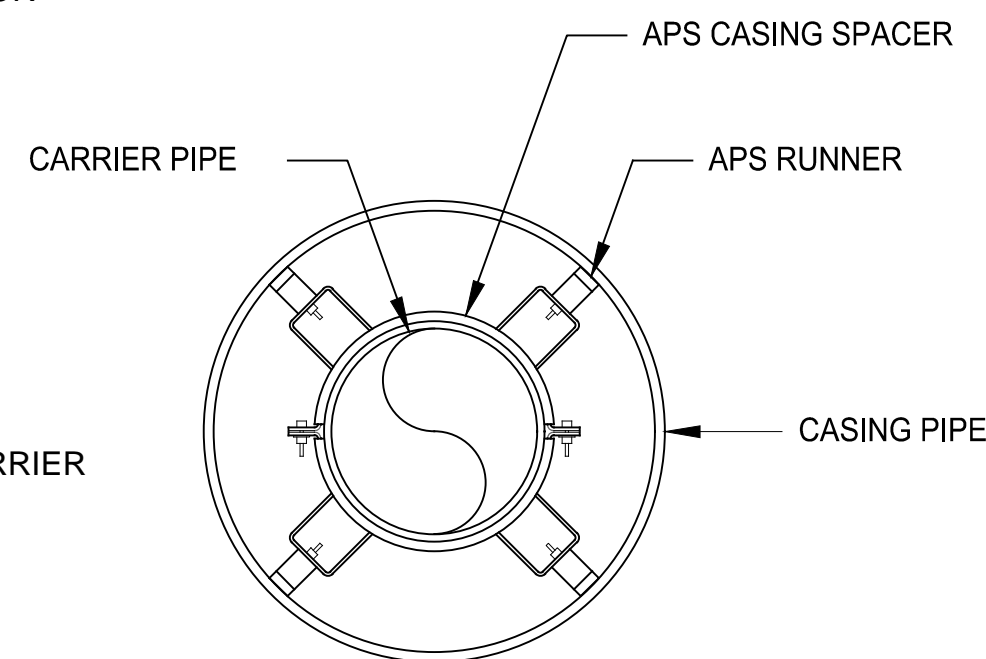


RELATIVE LOCATION OF
WATER AND SEWER LINES
N.T.S.

- NOTES:

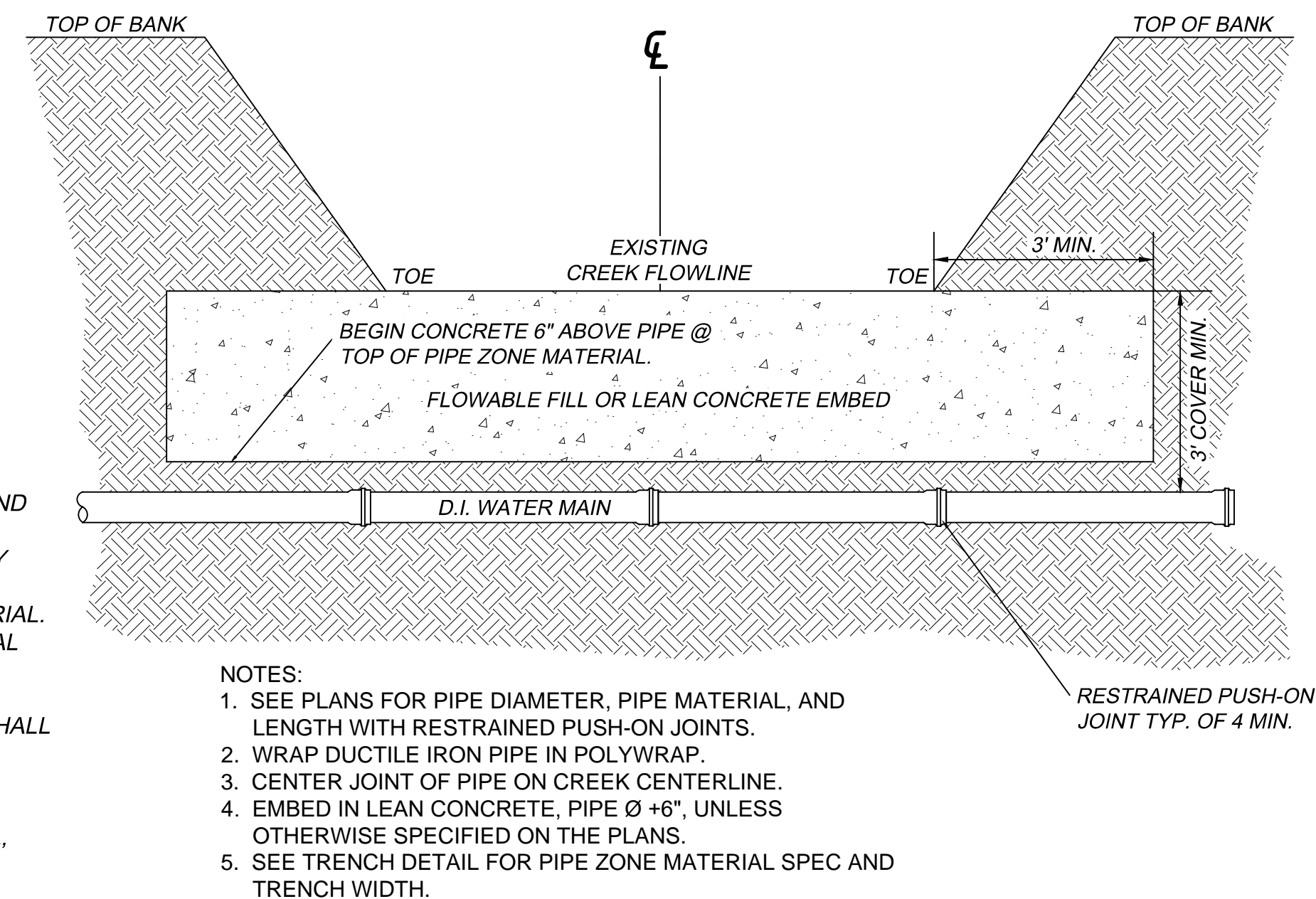
1. SPACERS SHALL BE CCI PIPELINE SYSTEMS MODEL CSS8 OR EQUAL.
2. QUANTITY OF RUNNERS SHALL BE IN ACCORDANCE WITH CARRIER PIPE SIZE AS FOLLOWS:
 - UP TO 14" DIAMETER - 4 RUNNERS
 - 16" TO 36" DIAMETER - 6 RUNNERS
 - 38" TO 48" DIAMETER - 8 RUNNERS
3. DIMENSIONS BETWEEN SPACERS SHALL BE AS FOLLOW:
STAINLESS STEEL - 8 TO 12 FEET.
4. WIDTH OF SPACERS SHALL BE IN ACCORDANCE WITH CARRIER PIPE SIZE AS FOLLOWS:
 - UP TO 14" DIAMETER - 8" WIDTH
 - 16" AND LARGER DIAMETER - 12" WIDTH
5. A MINIMUM OF THREE SPACERS PER FULL JOINT OF PIPE.



Nom. Size	Nom. Size
6"	12"
8"	16"
10"	20"
12"	24"
16"	24"
18"	30"
24"	36"

- NOTES:

1. CASING SHALL EXTEND A MINIMUM OF THREE FEET (3') BEYOND THE FLOW LINE OF PARALLEL DITCHES, TOE OF THE FORE SLOPE, OR FACE OF CURB AS APPLICABLE FOR THE HIGHWAY SECTION.
2. ENCASEMENT MAY BE OF METALLIC OR NONMETALLIC MATERIAL.
3. THE STRENGTH OF THE ENCASEMENT MATERIAL SHALL EQUAL OR EXCEED STRUCTURAL REQUIREMENTS FOR HIGHWAY DRAINAGE CULVERTS.
4. MARKER: A MARKER BEARING THE UTILITY OWNERS NAME SHALL BE PLACED AT EACH RIGHT OF WAY LINE WHERE CROSSED. (NOT REQUIRED FOR SERVICE LINES).
5. OWNERSHIP OF THE LINES SHALL BE SHOWN ON MARKERS.
6. CASING PIPE SHALL BE SEALED AT THE ENDS WITH END SEAL, CCI PIPELINE SYSTEMS MODEL ESW OR EQUAL.



DATE	REVISION	BY

GNE Designing our client's success

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 P.O. Box 116 (72018)
 2909 Military Rd
 Benton, AR 72015

Ph (501) 408-4650
 Fx (888) 900-3068
gamateengineering@gmail.com

**EAST END
IMPROVEMENT DISTRICT #1
SALINE COUNTY, ARKANSAS**



CONTENTS:

EAST END STANDARD WATER DETAILS

PROJECT NO:
17046

DATE:
JAN 2018

SHEET NO:

1

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FITTINGS	THRUST PER 100 P.S.I. PRESSURE **															
	THRUST (TONS)															
	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"
11 1/4 °	0.03	0.1	0.1	0.3	0.5	0.8	1.1	1.5	2.0	2.5	3.1	4.4	6.9	10.0	13.6	11.7
22 1/2 °	0.10	0.1	0.2	0.6	1.0	1.5	2.2	3.0	3.9	5.0	6.1	8.8	13.6	19.9	27.0	35.3
45°	0.10	0.3	0.5	1.1	1.9	3.0	4.3	5.9	7.7	9.7	12.0	17.3	27.1	30.0	53.0	69.2
90°	0.20	0.5	0.9	2.0	3.6	5.6	8.0	10.9	14.2	18.0	22.2	32.0	50.0	72.0	98.0	128.0
Plug	0.20	0.4	0.6	1.4	2.5	3.9	5.7	7.7	10.1	12.7	15.7	22.6	35.3	50.3	69.3	90.5

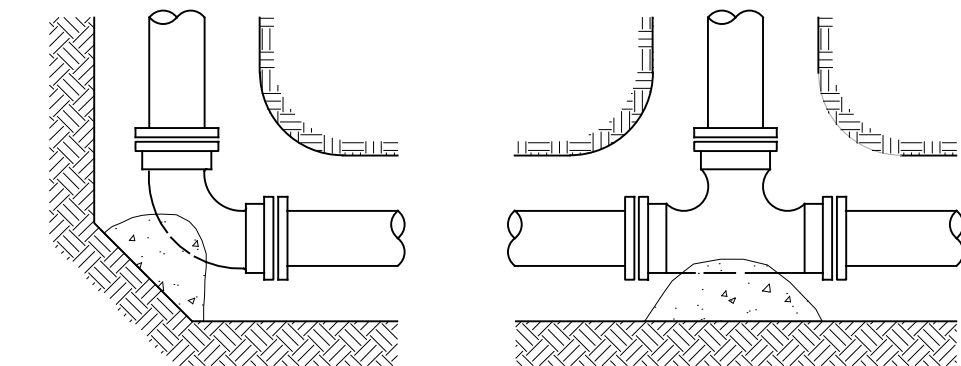
** The Table Above Lists The Resultant Thrust At A Pressure Of 100 P.S.I. In Order To Determine Thrust At Actual Test Pressure. Multiply Table Values By A Factor Equal To The Test Pressure, Divided By 100.

HORIZONTAL THRUST BLOCKING NOTES:

- Concrete For Thrust Blocks Shall Develop Not Less Than 3,000 P.S.I. Compressive Strength At 28 Days And Shall Be Placed Against Undisturbed Soil.
- Contractor Is Responsible For Providing Adequate Thrust Blocking. The Information Shown Is For Contractors Use.
- Thrust Blocking Shall Not Be Backfilled Until Concrete Has Obtained Initial Set.
- Wrap All Bolts And Nuts With Plastic To Protect From Concrete.

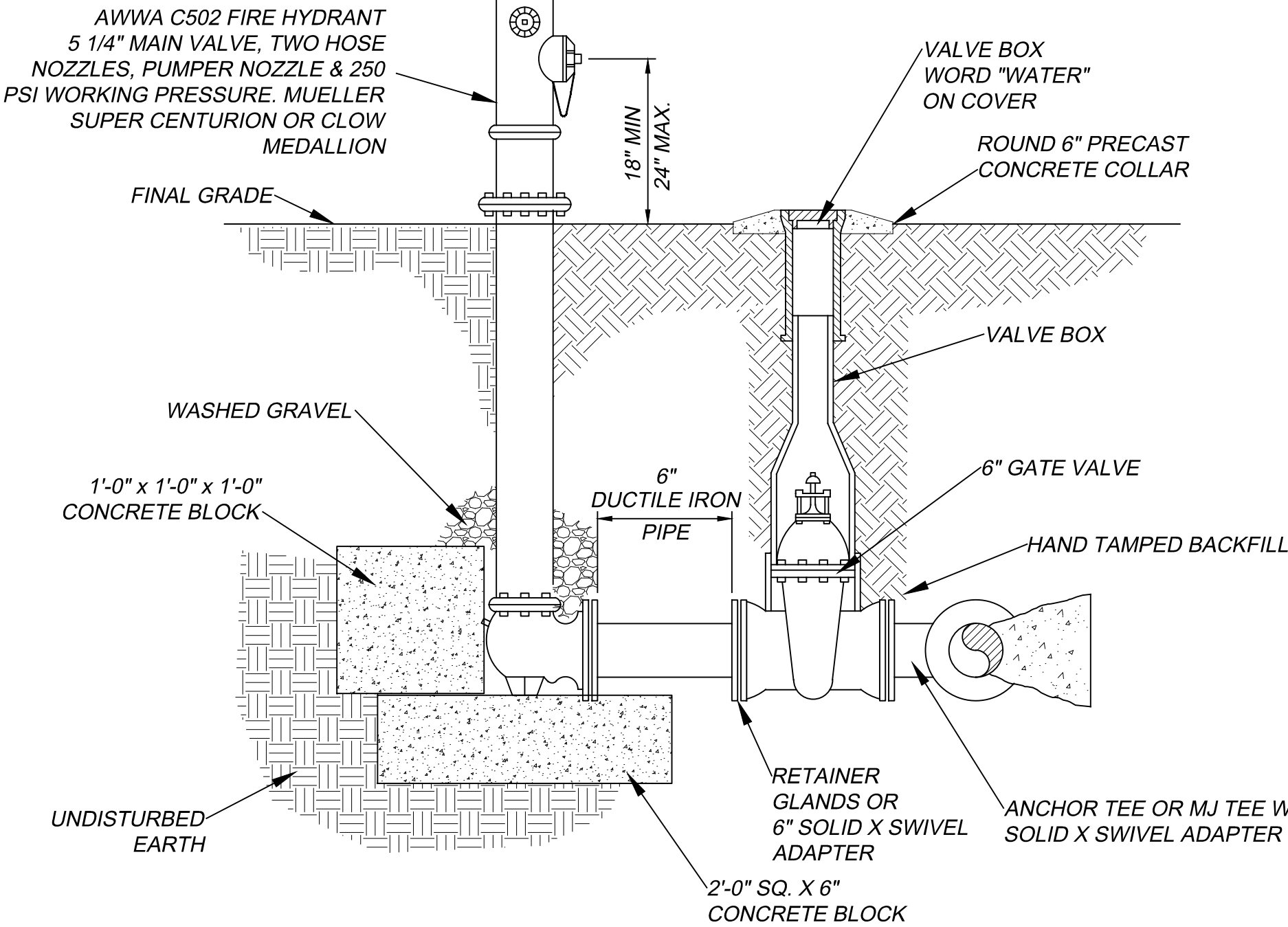
TYPE OF SOIL	SUGGESTED SAFE BEARING VALUES (TONS/S.F.)
Solid Rock	25.00
Hard Slate	6.00
Medium Shale	4.00
Soft Shale	2.00
Dry Clay Gravel	4.00
Soft Clay	1.50
Dry Sand Or Loam	2.50
Wet Clay	0.75

* Contractor Shall Be Responsible For Verifying Bearing Values.



ALL BENDS SIMILAR TEE PLUG OR CAP
HORIZONTAL THRUST BLOCKING
N.T.S.

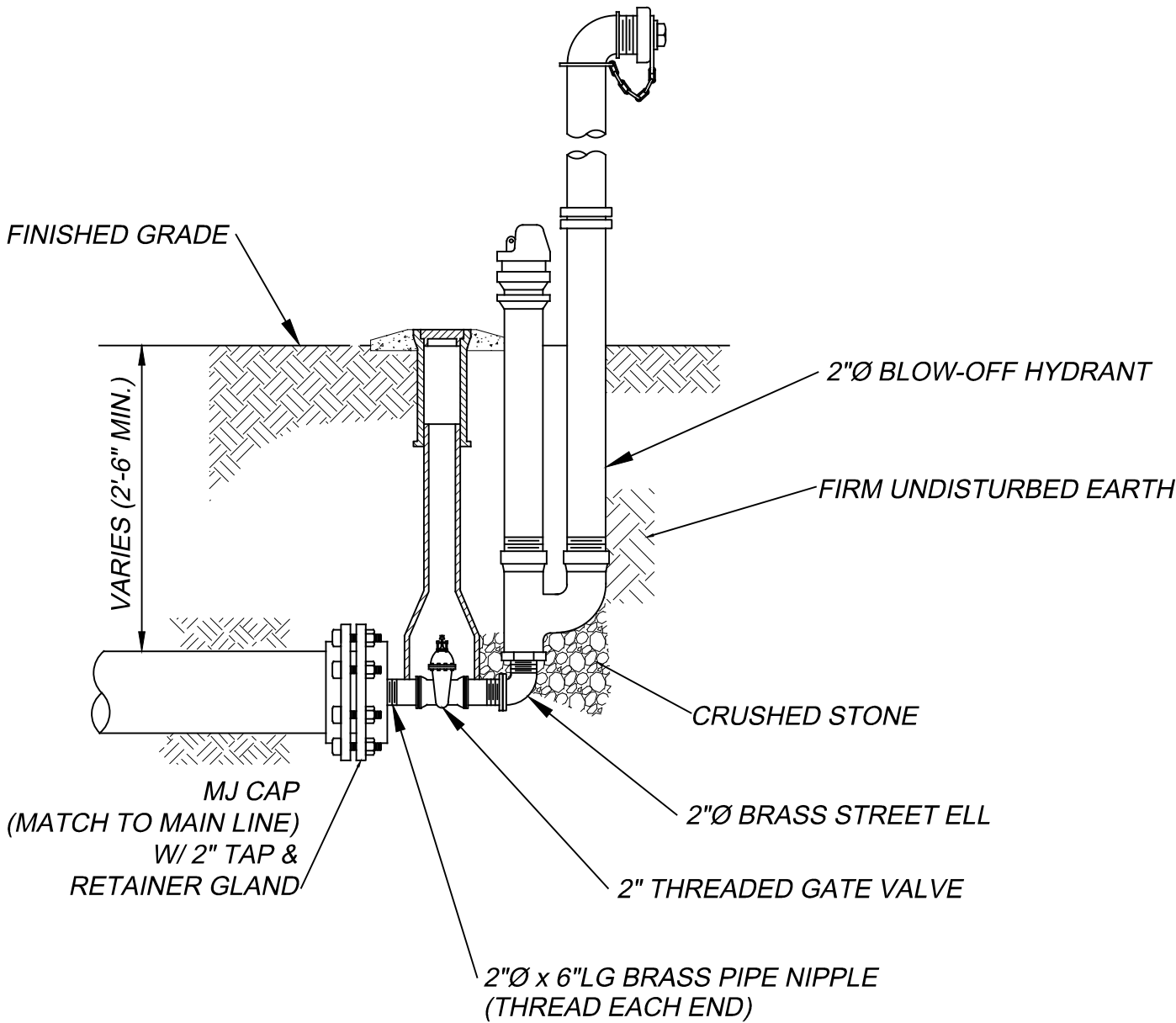
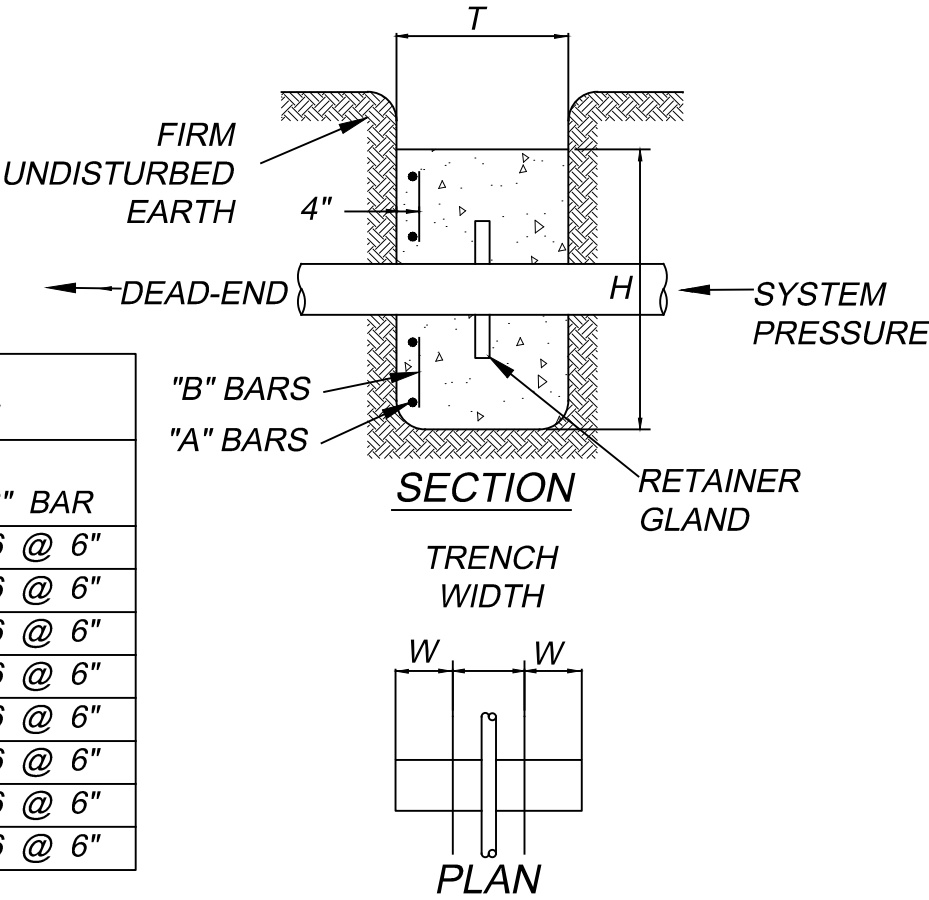
NOTE:
ALL HYDRANTS TO BE SET PLUMB W/PUMPER NOZZLE FACING STREET.



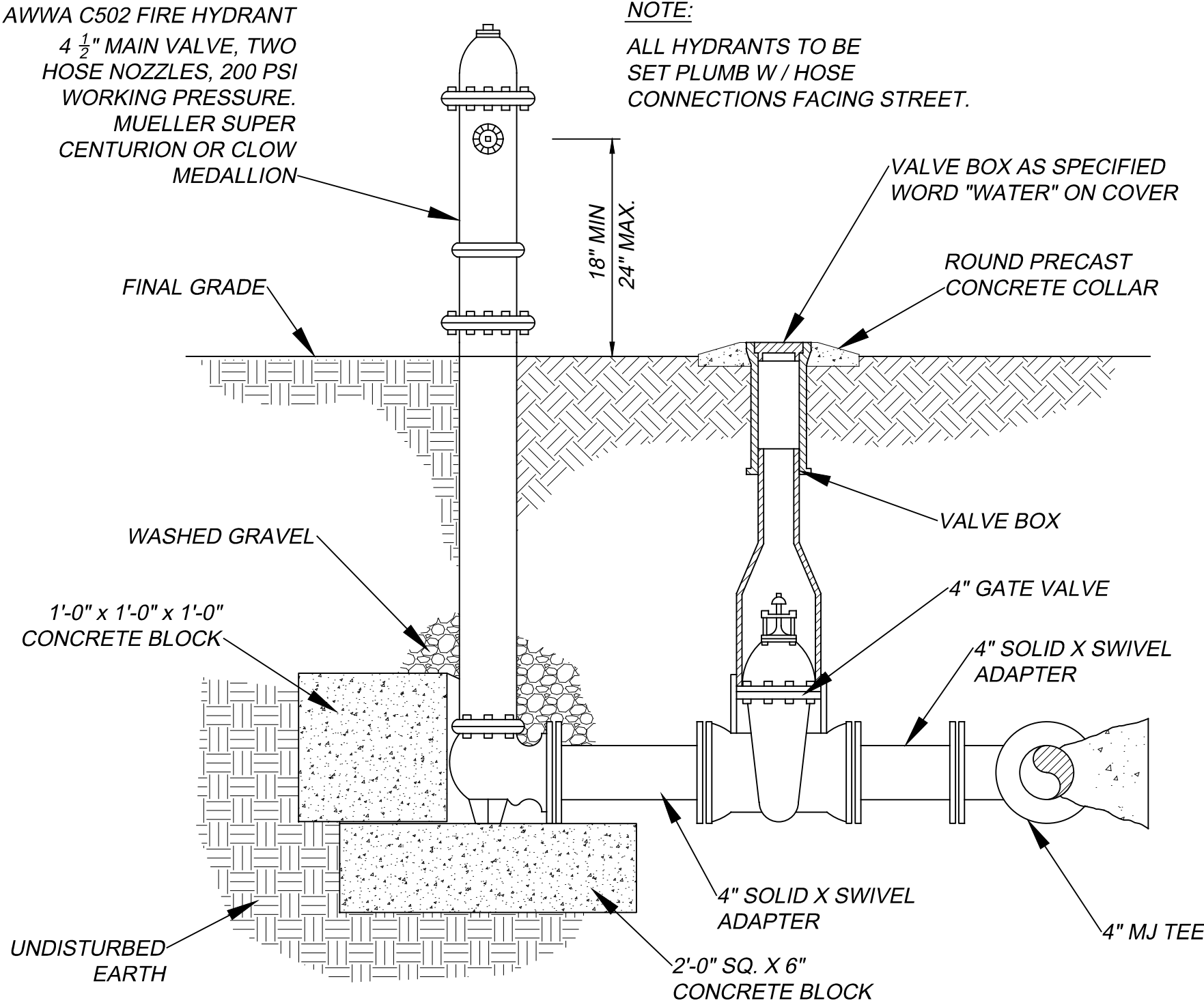
3 - WAY FIRE HYDRANT DETAIL
N.T.S.

ANCHOR COLLAR DIMENSIONS AND REINFORCEMENT					
PIPE SIZE	W	H	T	"A" BAR	"B" BAR
2 & 3"	18"	18"	12"	#6 @ 6"	#6 @ 6"
4 & 6"	18"	24"	12"	#6 @ 6"	#6 @ 6"
8"	18"	30"	12"	#6 @ 6"	#6 @ 6"
12"	24"	48"	18"	#6 @ 6"	#6 @ 6"
14"	30"	48"	18"	#6 @ 6"	#6 @ 6"
16"	36"	54"	18"	#6 @ 6"	#6 @ 6"
18"	36"	60"	18"	#6 @ 6"	#6 @ 6"
20"	36"	60"	24"	#6 @ 6"	#6 @ 6"

ANCHOR COLLAR - DETAIL
N.T.S.



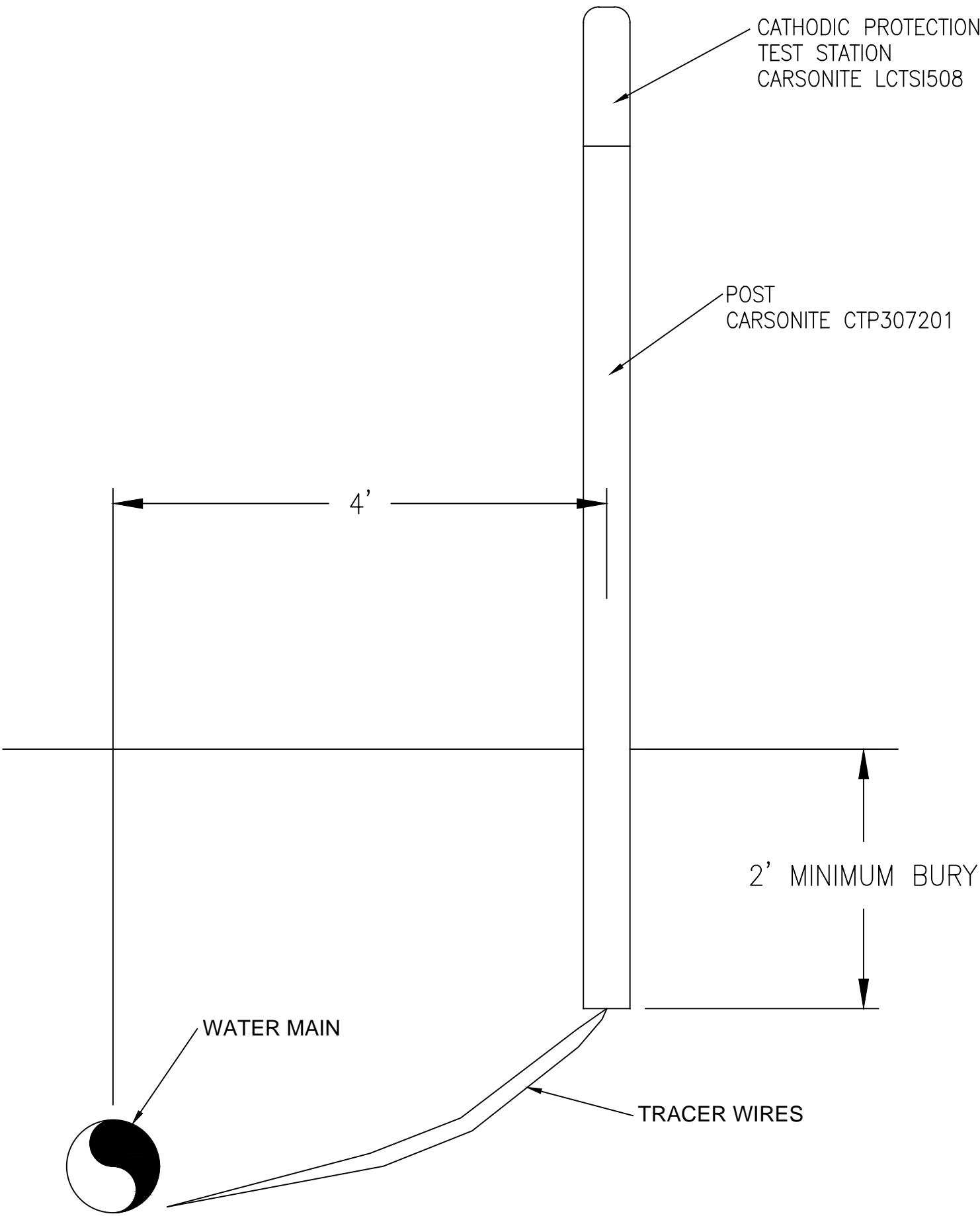
TYPICAL BLOW-OFF HYDRANT
N.T.S.



2-WAY FIRE HYDRANT DETAIL
N.T.S.

NOTES:

- SPLICE BOX IS REQUIRED FOR ALL SPLICES EXCEPT THOSE LOCATED AT VALVE OR METER BOXES.
- PROVIDE A MINIMUM OF 10' OF SLACK IN TRACE WIRES AT SPLICE BOX.



TRACER WIRE SPLICE BOX
N.T.S.

BY

REVISION

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