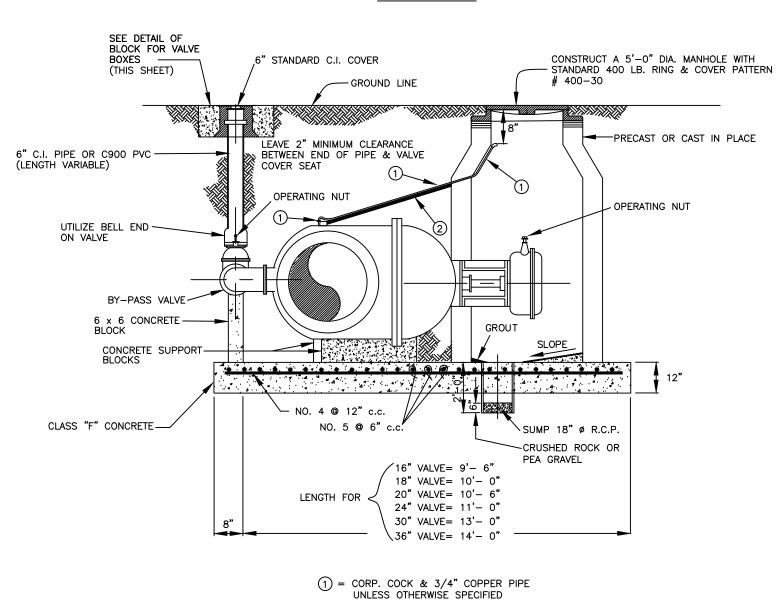
- 1. Valves shall have flanged ends. Flanged ends shall conform to ASA B16.1, Class 125 lb.
- 2. Rollers, tracks and scrappers for horizontal valves shall conform to AWWA
- Specification C500 with the following exception: Babbitt tracks will not be acceptable. 3. All valves 18" and larger shall be designed for horizontal pipe line unless otherwise called for. All other valves are to be vertical.
- 4. For cast in place or precast manholes, see sanitary sewer manholes for materials.

PLAN



SECTION A-A

(2) = 2 x 4 BOARD FOR SUPPORT

HORIZONTAL VALVE INSTALLATION

"\GATE VALVE_

- WATER LINE

LOCATION AS SPECIFIED

AIR RELEASE VALVE

RISING GRADE

2" COPPER PIPE ____

2" CORPORATION >

2" CORPORATION

STOP OUTLET

STD. CAST IRON METER BOX LID WITH LOCK TYP

COMBINATION AIR AND VACUUM RELEASE

VALVE TO BE APCO OR EQUAL.

24" DIA. R.C. PIPE FOR CONC.

NOT REQUIRED WHEN GALV. METER BOX IS UTILIZED.

METER VAULT.

FRAME AND COVER, DALLAS FOUNDRY OR 24"

GALV. METER BOX IN COVER.

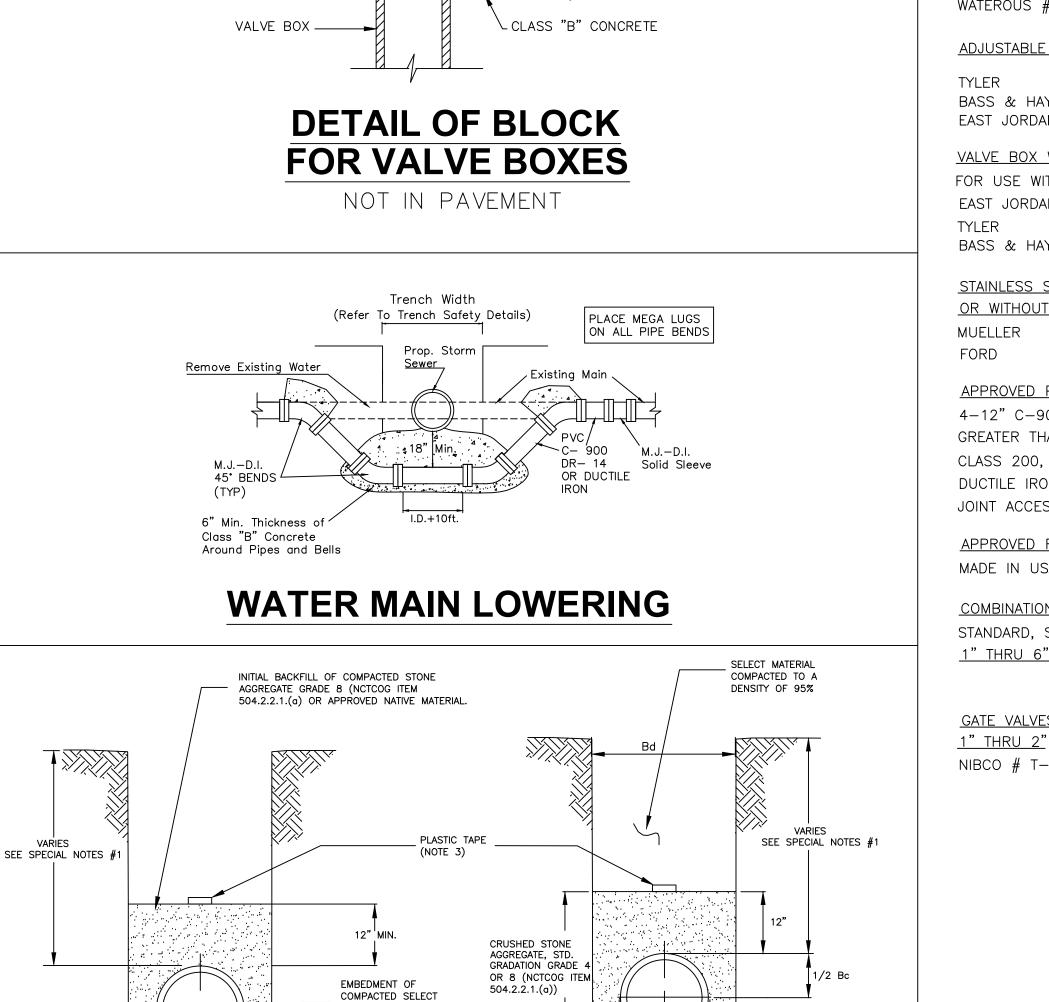
_AIR & VACUUM

RELEASE VALVE

WASHED PEA GRAVEL

ALL FITTINGS ARE TO

BE COMPRESSION OR



MATERIAL,

DUCTILE

LAYING SCHEDULE FOR

OR ROCK TRENCH CUTTINGS

EMBEDMENT FOR WATER CONDUITS

VALVE BOX

THIS NIPPLE MIN. 1 FT.

CLASS "B" CONCRETE

THRUST BLOCK

BASS & HAYES, VULCAN OR TYLER

(OR APPROVED EQUAL)

STRAIGHT OR BELL BOTTOM

D.I. PIPE OR P.V.C. C-900

1. ALL FITTINGS ARE MECHANICAL JOINTS, EXCEPT VALVE TO TEES OR

FIRE HYDRANT ASSEMBLY

2. PLACEMENT OF FIRE HYDRANTS IN SIDEWALK IS PROHIBITED.

3. PEA GRAVEL TO BE PLACED AROUND WEEP HOLE.

WYES MAY BE FLANGE TO FLANGE.

4. HYDROLOCK IS NOT REQUIRED.

RESILIENT SEATED GATE VALVE

4" THRU 12"

POURED CONCRETE CLASS "B"

(DO NOT COVER MECHANICAL

JOINTS OR WEEP HOLE.)

– NO. 3 BARS @ 18" C.E.W.

P.V.C. C-900 (CLASS 200)

ACCEPTED MATERIALS MANUFACTURERS (SEE NOTE 9)

GATE VALVES

M & H CLOW

RESILIENT SEATED GATE VALVE

4" THRU 12"

MUELLER CLOW

KENNEDY AFC

AVK

TAPPING SLEEVES

M & H

CLOW

TYLER

MUELLER AFC

TAPPING VALVES

M & H CLOW

MUELLER

AFC AVK

FIRE HYDRANTS

MUELLER #A423 M & H #129

CLOW #F2545

KENNEDY 5-1/4" K81D

AVK #2700 WATEROUS #WB-67

ADJUSTABLE VALVE BOX WITH LID

TYLER

BASS & HAYES EAST JORDAN IRON WORKS

VALVE BOX WITH LID

FOR USE WITH C-900 P.V.C. VALVE STACK

EAST JORDAN IRON WORKS

BASS & HAYES

STAINLESS STEEL WATERMAIN REPAIR CLAMP WITH

MUELLER

APPROVED PIPE

4-12" C-900-DR 14

GREATER THAN OR EQUAL TO 14" C-905-DR 18

CLASS 200, DR 14

DUCTILE IRON: CLASS 50 & 51 WITH MECHANICAL JOINT ACCESSORIES CEMENT LINED.

APPROVED FITTINGS

MADE IN USA ONLY

COMBINATION AIR VALVES

STANDARD, SINGLE- BODY DOUBLE ORIFICE 1" THRU 6": APCO OR APPROVED EQUAL

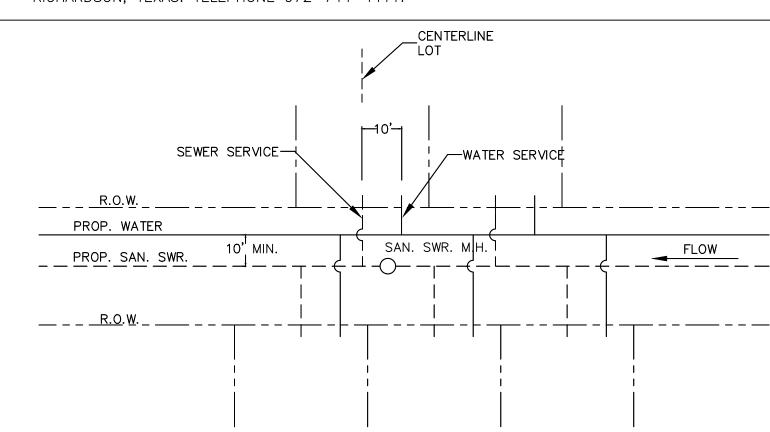
GATE VALVES FOR COMBINATION AIR VALVES

NIBCO # T- 131; # T- 133, OR APPROVED EQUAL

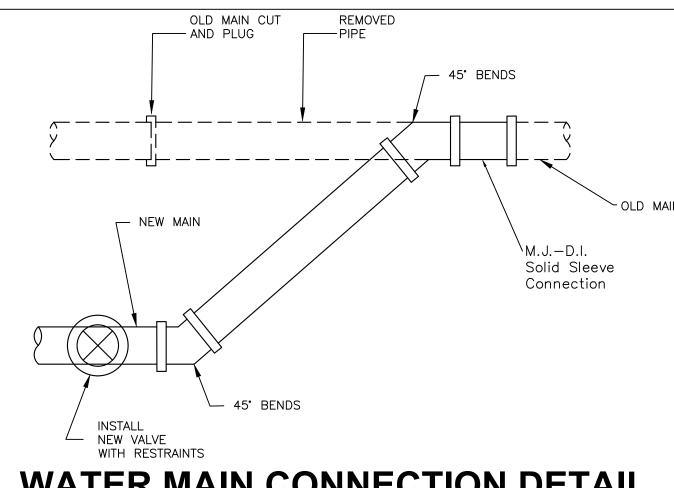
ALL MATERIALS AND WORKMANSHIP TO CONFORM TO THE REQUIREMENTS SET FORTH IN THE LATEST EDITION OF THE CITY OF RICHARDSON'S MANUAL FOR GENERAL PROCEDURES FOR THE DESIGN OF WATER AND SEWER LINES AND WATER DEPARTMENT STANDARDS.

SPECIAL NOTES:

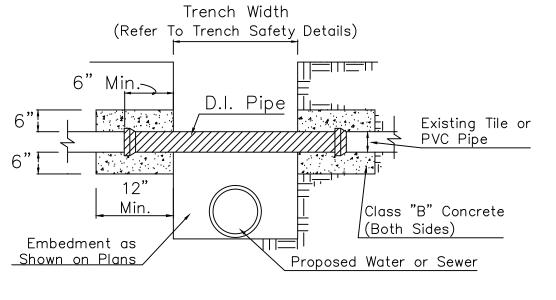
- 1. WATER MAINS SHALL HAVE THE FOLLOWING MINIMUM COVER BELOW STREET GRADES; 6", 3.5', 8", 4.0', 12", 5.0': LARGER, AS SHOWN ON PLANS.
- 2. ALL RESIDENTIAL WATER SERVICES SHALL BE 1" MINIMUM.
- 3. PLASTIC TAPE FOR SERVICES TO BE ATTACHED TO THE ENDS OF ALL SERVICE LINES AND EXTEND ABOVE GROUND LEVEL. THE TAPE SHALL MEET THE FOLLOWING SPECIFICATIONS: a. "ALLEN MARKING TAPE" OR EQUAL.
- b. ROLL MARKED CONTINUOUSLY, "CAUTION SEWER LINE", OR "CAUTION WATER LINE".
- c. SIX (6) INCHES IN WIDTH.
- b. GREEN TAPE FOR SEWER SERVICES, BLUE TAPE FOR WATER SERVICE.
- 4. LOCATE WATER SERVICES 10 FT. UPSTREAM OF SANITARY SEWER SERVICES.
- 5. ALL STUBOUTS SHALL BE ONE FULL JOINT OF PIPE.
- 6. REMOVE BLEEDER AND PLUG WITH BRASS PLUG.
- 7. CONTRACTOR SHALL MEET (TCEQ) STANDARDS FOR SEPARATION OF WATER AND SEWER CONDUITS.
- 8. CONTRACTOR SHALL SUPPLY ALL EQUIPMENT, LABOR, MATERIALS, AND ANY OTHER APPURTENANCES NECESSARY TO TEST WATER AND SEWER LINES TO CITY STANDARDS.
- 9. APPROVED MATERIALS LIST IS AVAILABLE FROM THE UTILITY SYSTEMS MANAGER ENGINEER AT THE CITY OF RICHARDSON SERVICE CENTER 1260 COLUMBIA DRIVE, RICHARDSON, TEXAS. TELEPHONE 972-744-4411.



TYPICAL LOT SERVICE DETAIL



WATER MAIN CONNECTION DETAIL



UTILITY SUPPORT DETAIL

411 W. Arapaho Road Suite 204 Richardson, Texas 75080

City of Richardson

Revisions:

972 744-4280 972 744-5804

Drawn By: Checked By:

Richards City

NO ADDITIONS OR CHANGES TO STANDARD DETAIL SHEETS UNLESS APPROVED BY CITY OF RICHARDSON

24"x36" Scale:

11"x17" Scale:

Vertical Scale:

Project Number: Issue Date: 01 MAY 1

Sheet Title:

WATER

Sheet No.:

C-1