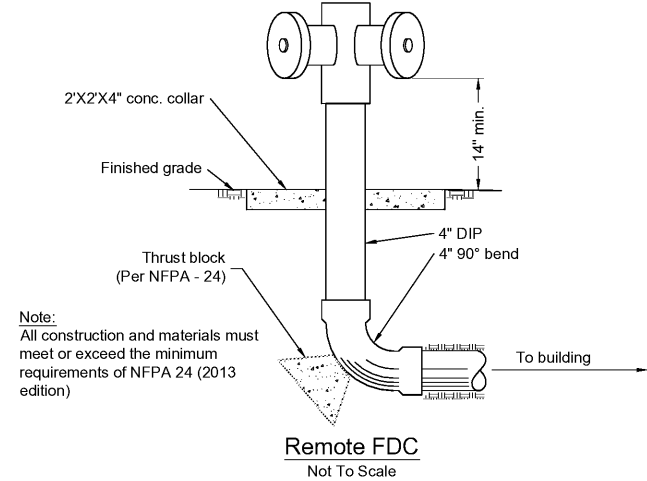


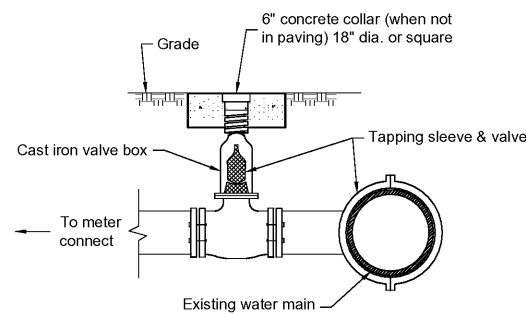
- Notes:
1. Site contractor's work ends at flange 12" above finished floor.
  2. All construction and materials must meet or exceed the minimum requirements of NFPA 24 (2013 edition)

U/G sprinkler Service Piping Detail  
Not To Scale

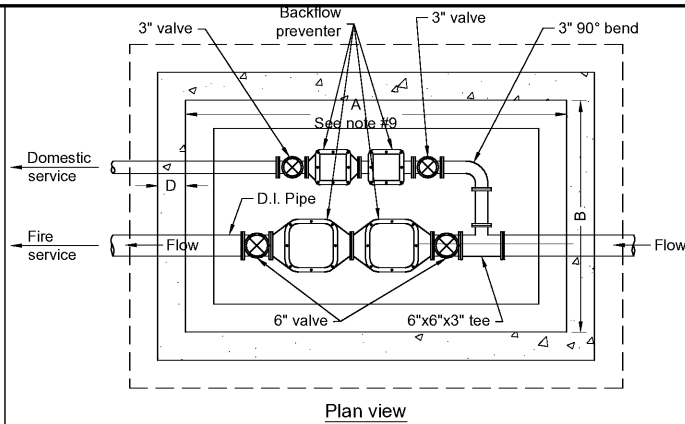


Note:  
All construction and materials must meet or exceed the minimum requirements of NFPA 24 (2013 edition)

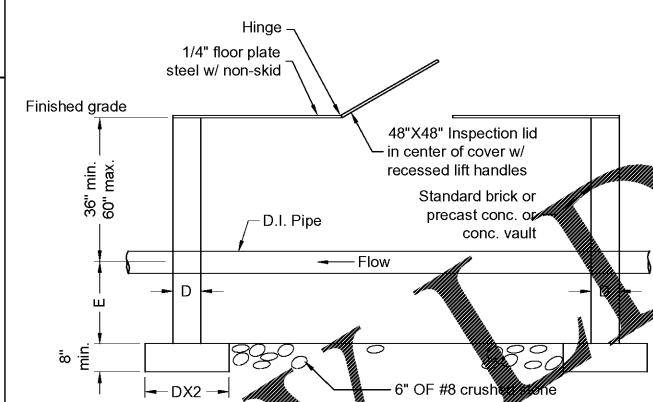
Remote FDC  
Not To Scale



Tapping Sleeve and Valve, Over 2" on PVC pipe;  
Over 3" on Other Materials  
Not to scale



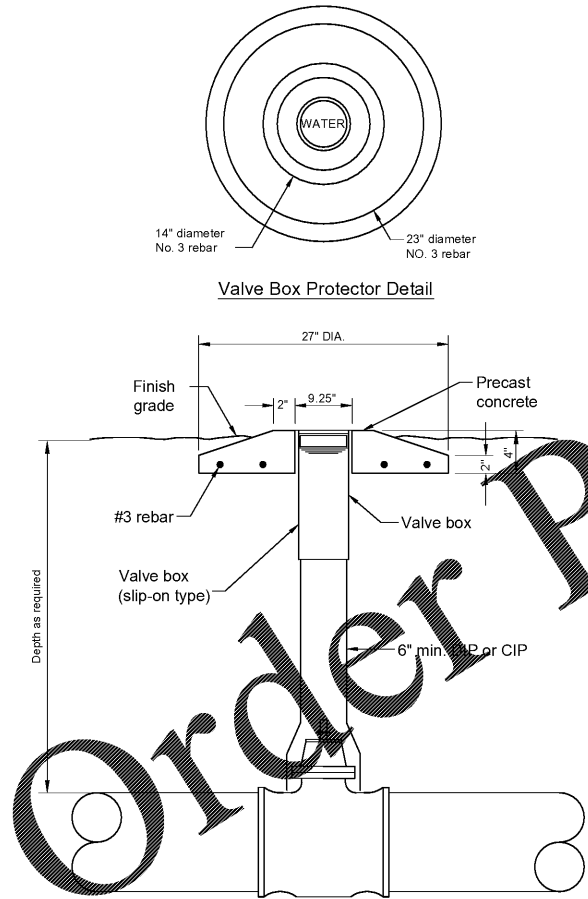
Plan view



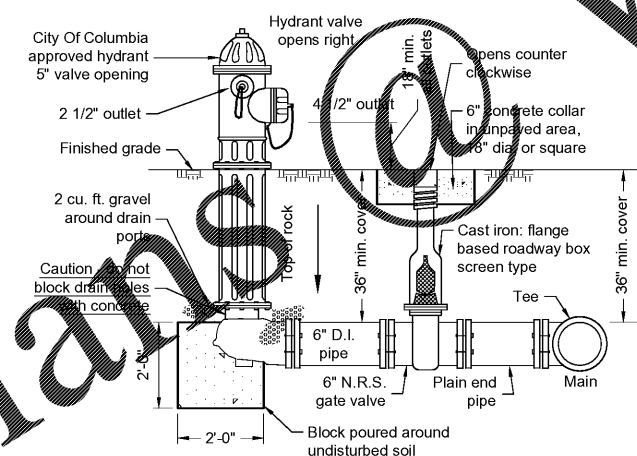
Meter box dimensions W/ by pass	Notes
A	36"
B	36"
C	128"
D	6"
E	12"

Fire Service Combined With Domestic Service Meter Box For Meter 6"  
Not To Scale

- Notes:
1. Meter box shall be site constructed of the material and to the dimensions specified herein.
  2. Meter box constructed within the paved area must withstand heavy superimposed loads. Each meter box shall be designed to meet the requirements of the individual environment in which it is to be used. Details shop drawings and design calculations must be submitted and approved prior to installation of the meter.
  3. Meter boxes shall be provided with a cover fabricated from one fourth (1/4") inch thick floor plate steel with a non-skid surface painted to cover the entire box. The cover must have a hinged 30" x 30" inspection lid in the center of the cover with lift handles for manipulating the lid. cover handles and hinges must be flat & below surface cover.
  4. Meter box covers shall be flush with the surrounding ground surface and shall have one and a half (1 1/2") high guides along adjacent sides to prevent lateral movement.
  5. The meter box shall be constructed of standard brick, or concrete block using Portland cement mortar in a standard mixture or by using precast concrete.
  6. Six (6") inches of #5 crushed stone shall be placed in the bottom of each box. see "c" for proper clearance between the top of the stone and the bottom of the pipe.
  7. Ductile iron pipe (DIP) must run completely through the meter box.
  8. Valve with box shall be installed between meter box and source water main.
  9. Meter box shall have the dimensions shown by the above table.
  10. Meter box shall be approved by the city engineering department prior to beginning construction.
  11. Installation of fire meters shall be by a city approved contractor.
  12. Touch pads to be installed by the city.
  13. No unflanges are allowed.
  14. Where possible. All meter boxes are to be located outside paved areas or the meter boxes have to be located in paved areas or sidewalks. The contractor shall use a traffic rated slab and a 4'x4' aluminum hatch - rated H20 loading.
  15. All piping are to be disinfected with chlorine in accordance with AWWA standards.
  16. A lien waiver must be provided to the city prior to any meter being installed.

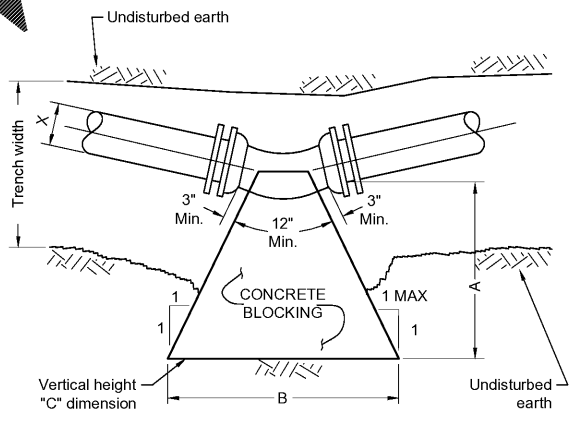


Gate Valve Box Detail  
Not To Scale

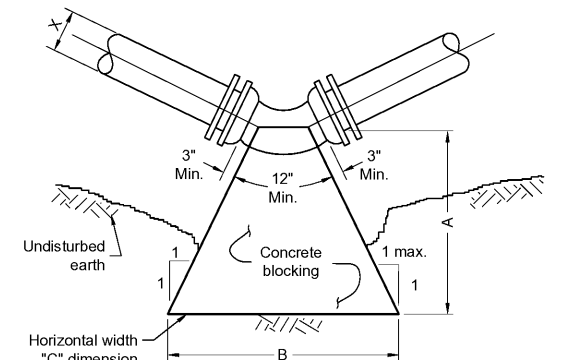


- Notes:
1. All joints to be mechanical.
  2. Hydrants shall not be less than 3' nor more than 6' from curb.
  3. Hydrant must be located so as to be unobstructed for 15' either side as measured along the curb.
  4. Minimum distance between valve and hydrant shall be 3'.
  5. Bends may be used in hydrant lead to facilitate hydrant location.
  6. Hydrant valves to open to the right.

Fire Hydrant Detail - City of Columbia  
Not to scale



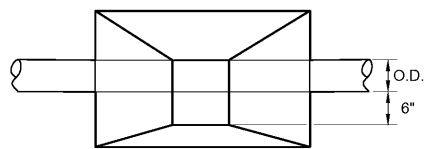
Bends  
Horizontal Blocking Detail



Vertical Blocking Detail

Concrete blocking dimensions					
Pipe size	A	B	C	MBA *2 (SQ. FT.)	*1
( ■ Denotes Branch Size) TEES					
2"-6"	2'-0"	2'-0"	1'-4"	2.7	0.13
8"	2'-0"	2'-6"	1'-10"	4.6	0.20
90° Bends					
2"-6"	2'-0"	2'-0"	1'-3"	3.4	0.16
8"	2'-0"	3'-3"	2'-0"	6.5	0.28
45° Bends					
2"-6"	2'-0"	2'-0"	1'-0"	2.0	0.11
8"	2'-0"	2'-6"	1'-5"	3.5	0.17
22 1/2° Bends					
2"-6"	2'-0"	1'-0"	1'-0"	1.0	0.08
8"	2'-0"	1'-9"	1'-0"	1.7	0.11
11 1/4° Bends					
2"-6"	2'-0"	1'-0"	0'-6"	0.5	0.06
8"	2'-0"	1'-3"	0'-9"	0.9	0.08

\*1 - Estimated C.Y. concrete for tees and bends  
\*2 - minimum bearing area (mba) is based on soil bearing capacity of 2,000 PSF.



Side view - horizontal bend PLAN  
View - vertical bend

Note:  
All tees, bends, etc. from 2-1/2" to 6" must be provided with thrust blocking, tie rods, or other approved restraining methods to prevent movement.

Thrust Blocking Details  
Not to scale

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Construction Details  
Pinewood Lake Phase 2A (CPS17074)  
Prepared For:  
Richland County  
Near Hopkins, South Carolina

Drawn: HMC  
Checked: GAL  
Revised:  
File: 399935D -Details.dwg Project No.: 399935D

**C7.4**  
Sheet Number  
August 11, 2017  
Date