

NOTES:

1. ALL WATER METERS SHALL REGISTER IN GALLONS.
2. 36" OF COVER SHALL BE REQUIRED ON COPPER SERVICE FROM DISTRIBUTION MAIN TO METER BOX.
3. METER BOX SHALL BE ONE PIECE CONSTRUCTION OF CONCRETE, PVC OR RIGID FIBERGLASS (NOT ORANGEBURG).
4. METER YOKE SHALL INCLUDE TWO 3/4" FORD ANGLE VALVES. ALL FITTINGS SHALL BE FLARED. SOLDERED FITTINGS WILL NOT BE PERMITTED.
5. SERVICE LINE LEAVING METER BOX SHALL BE STUBBED OUT AT LEAST 5' WITH TYPE "K" COPPER.

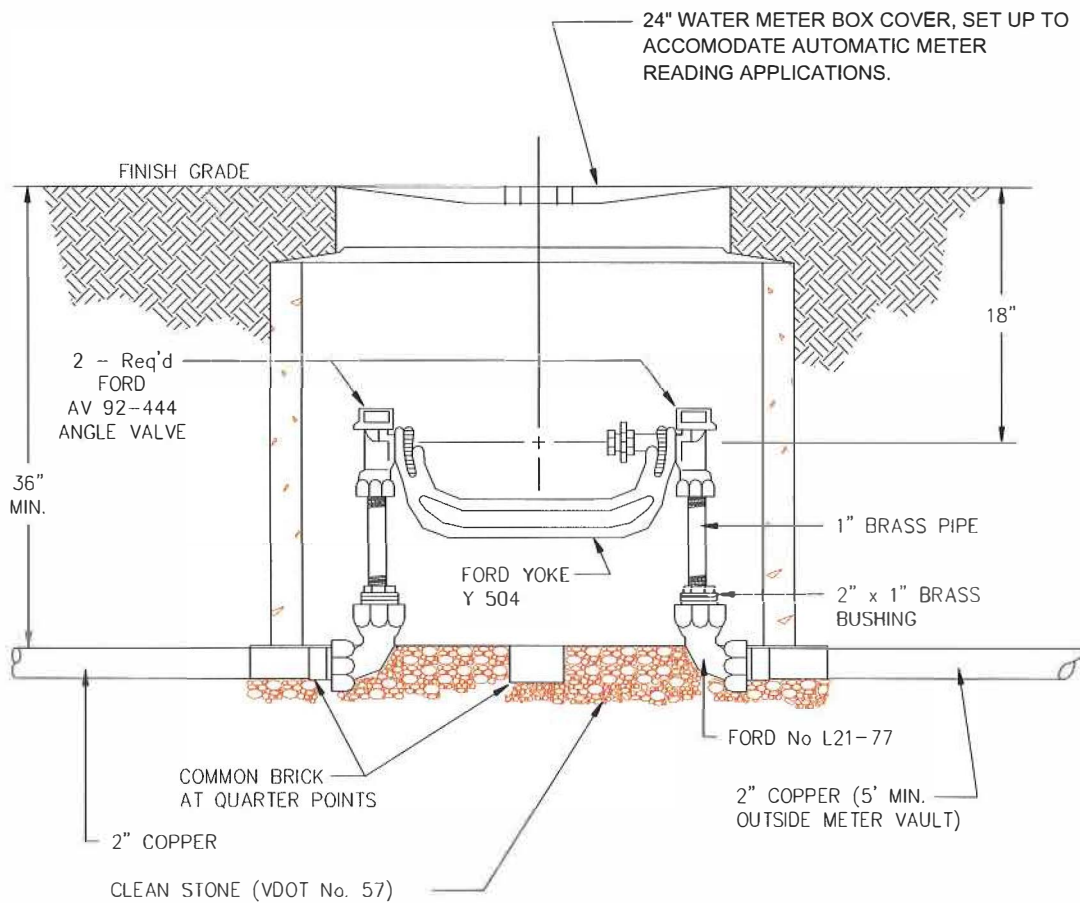
Special Note:

The service line between the main and the meter will be one continuous piece of pipe. (No joints will be permitted)

1

**Town of Culpeper &  
Culpeper County**

WATER DISTRIBUTION SYSTEM  
5/8" X 3/4" METER



NOTES:

1. ONE PIECE BOX 24" x 30" (1" METER) MUST BE USED.
2. INSTALLER MAY SUBSTITUTE TYPE "K" SOFT COPPER FOR BRASS SHOWN, PROVIDED APPROPRIATE FITTINGS AND VALVES ARE USED.
3. METER BOX MATERIAL: CONCRETE, PVC, OR RIGID FRP.

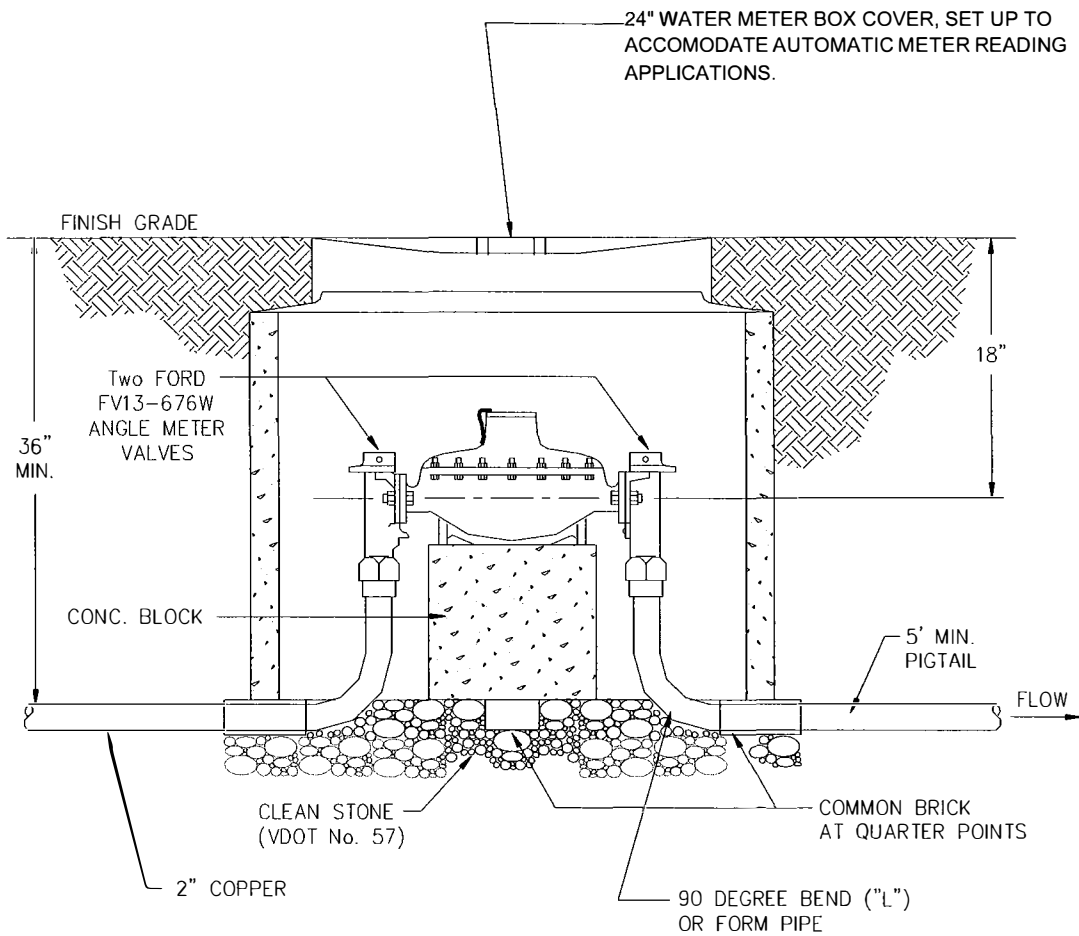
Special Note:

The service line between the main and the meter will be one continuous piece of pipe (No joints will be permitted)

2

**Town of Culpeper &  
Culpeper County**

WATER DISTRIBUTION SYSTEM  
1" METER IN 2" COPPER TUBE SERVICE



NOTES:

1. 36" x 30" ONE PIECE BOX MUST BE USED.
2. COPPER SERVICE LINE SHALL BE TYPE "K" A.S.A. No H 23.1 1947. (SOFT TEMPER)
3. LINE LEAVING BOX SHALL BE TYPE "K" COPPER AT LEAST 5' PAST BOX
4. METER BOX MATERIAL: CONCRETE, PVC, OR RIGID FRP.

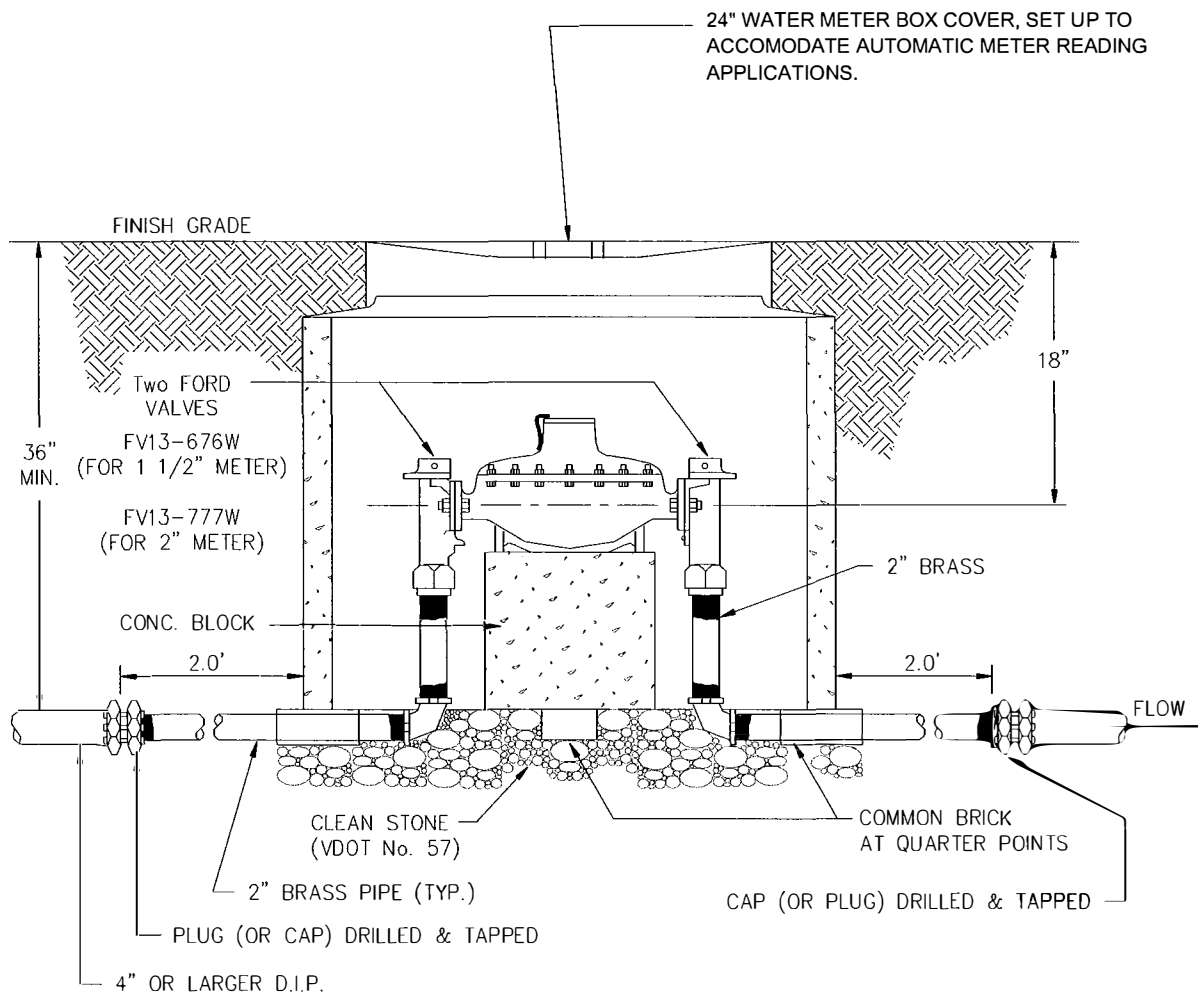
Special Note:

The service line between the main and the meter will be one continuous piece of pipe. (No joints will be permitted)

3

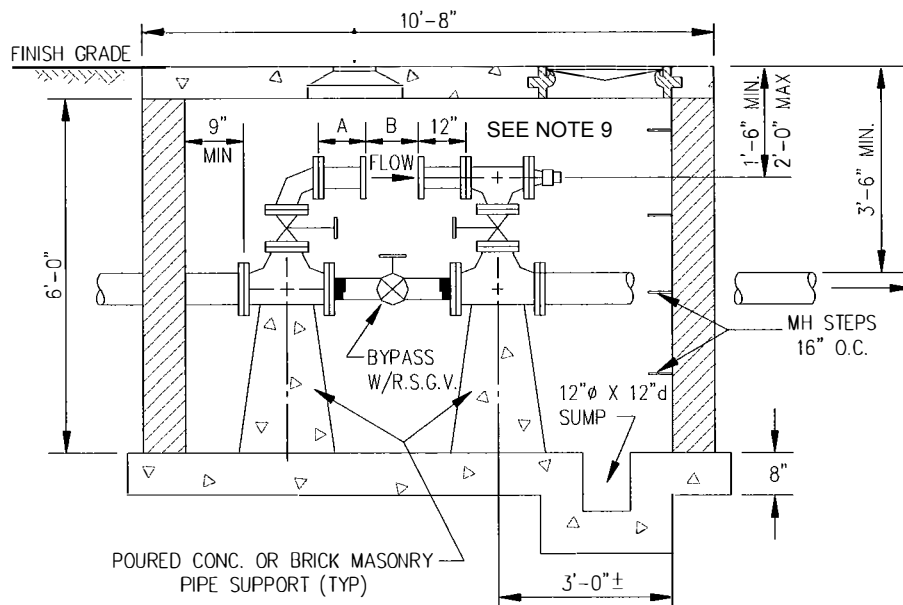
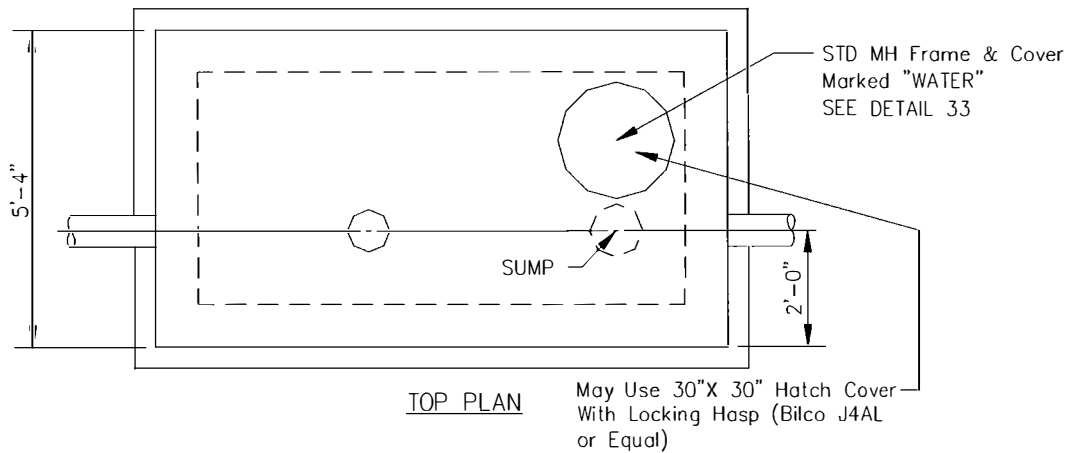
**Town of Culpeper &  
Culpeper County**

WATER DISTRIBUTION SYSTEM 1  
1/2" METER



NOTES:

1. 36" x 30" ONE PIECE BOX MUST BE USED.
2. INSTALLER MAY SUBSTITUTE TYPE "K" SOFT COPPER FOR BRASS SHOWN, PROVIDED APPROPRIATE FITTINGS AND VALVES ARE USED.
3. METER BOX MATERIAL: CONCRETE, PVC, OR RIGID FRP.



**NOTES:**

1. DIM. "A" EQUALS 8 TIMES NOMINAL METER SIZE.
2. DIM. "B" TO ACCOMMODATE METER & STRAINER.
3. BYPASS DIAMETER ONE SIZE SMALLER THAN METER.
4. BYPASS OF BRASS OR DUCTILE IRON PIPE W/MATCHING VALVE.
5. PIPE JOINTS SHALL BE SCREWED (UNDER 3" Ø) OR FLANGED (3" Ø AND OVER.)
6. SHOP DRAWINGS SHALL BE SUBMITTED TO **CCWSA** FOR APPROVAL.
7. SUMP MUST BE DRAINED TO DAYLIGHT OR PROVIDE ELECTRICITY AND A PUMP.
8. METER MUST BE READABLE BY **AUTOMATIC METER READER** OR TOUCH-READ PAD ON METER LID OR OTHER LOCATION APPROVED BY **CCWSA**.
9. PROVIDE BLIND FLANGE WITH 1" TAPPED CONNECTION AND 1" CORPORATION STOP WITH THREADED END TO FACILITATE IN PLACE TESTING OF METER.

5

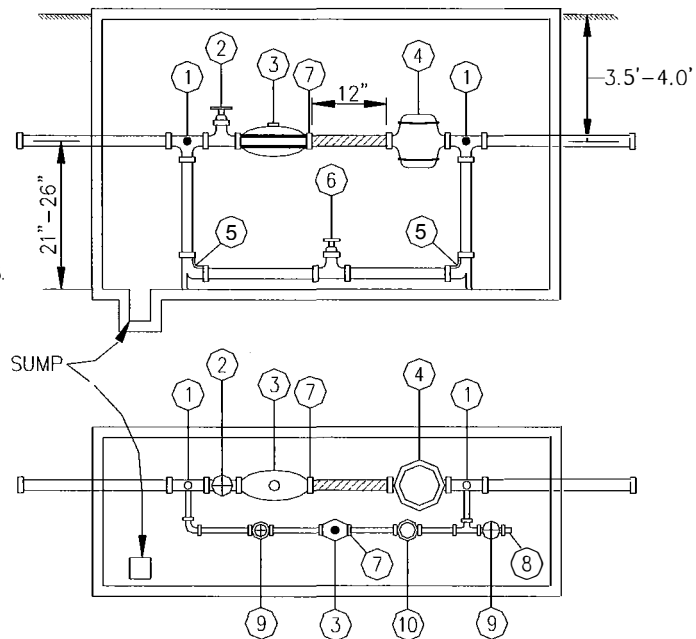
**Town of Culpeper &  
Culpeper County**

**WATER DISTRIBUTION SYSTEM 3"  
AND LARGER METER**

DISC.	SIZE			
MAIN METER	4"	6"	8"	10"
BY-PASS METER	1-1/2"	1-1/2"	2"	2"
ASSEMBLY BY-PASS	3"	3"	4"	6"

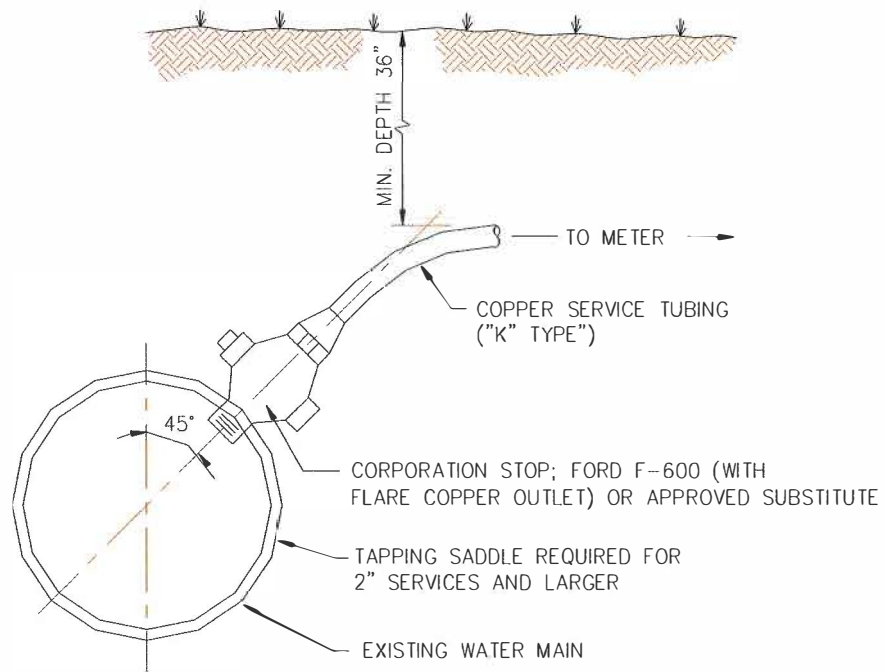
### LEGEND

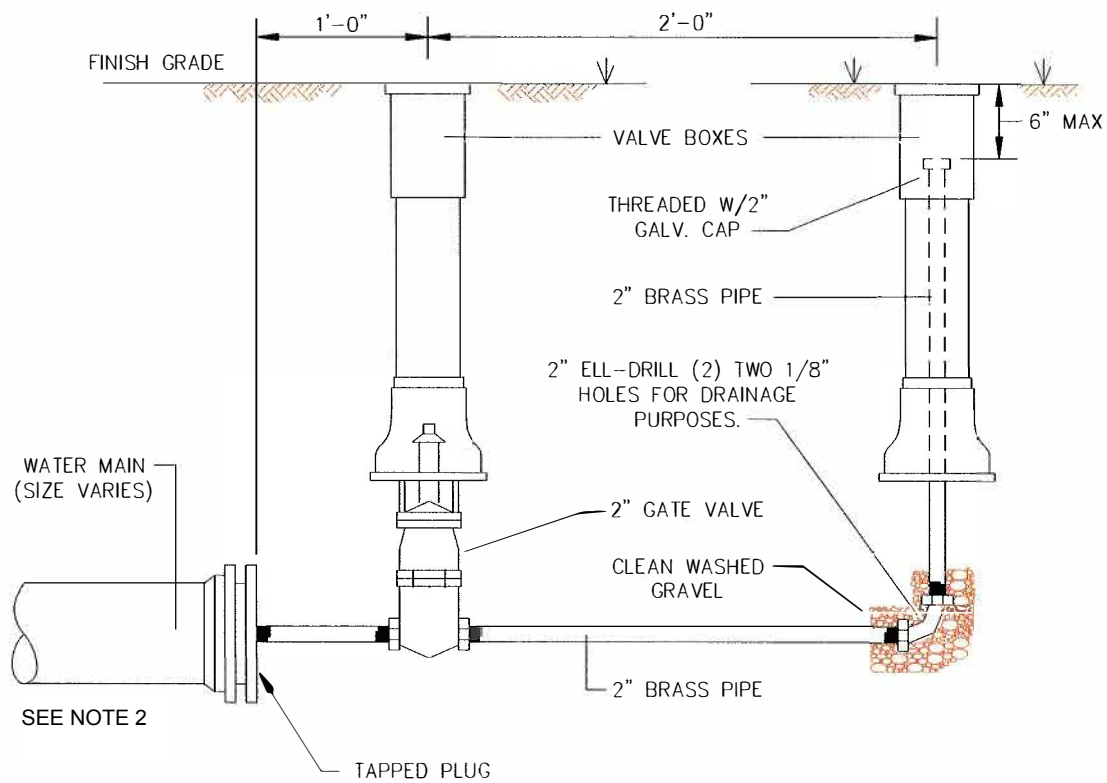
- ① TEE TAPPED - 2 INCH - AT POSITION "G".
- ② R.W. GATE VALVE.
- ③ ROCKWELL TURBO METER W/IMPULSE CONTACTOR.
- ④ DETECTOR CHECK VALVE
- ⑤ FLANGED BASE ELBOW
- ⑥ BUTTERFLY VALVE
- ⑦ FLANGE ADAPTER. USE DRESSER STYLE 128.
- ⑧ IRON PIPE BY NATIONAL FIRE STANDARDS NIPPLE W/CAP.
- ⑨ GATE VALVE
- ⑩ SWING CHECK VALVE



### GENERAL NOTES

- A.) ACCESS DOOR = 30"X 30" HATCH COVER W/LOCKING HASP. (BILCO J4AL OR EQUAL)
- B.) VAULT DIM. = MIN. DIM = 10'L X 7'W X 6'D - WALL THICKNESS = 6" MIN.
- C.) METERS WILL BE PROVIDED BY THE SERVICE AUTHORITY.
- D.) ALL BY-PASS METER PIPING WILL BE 2" BRASS, (NO GALV. STEEL)
- E.) SHOP DRAWINGS SHALL BE SUBMITTED TO THE **CCWSA** FOR APPROVAL.
- F.) SUMP AREA MUST BE DAY LIGHTED OR PROVIDE A PUMP.

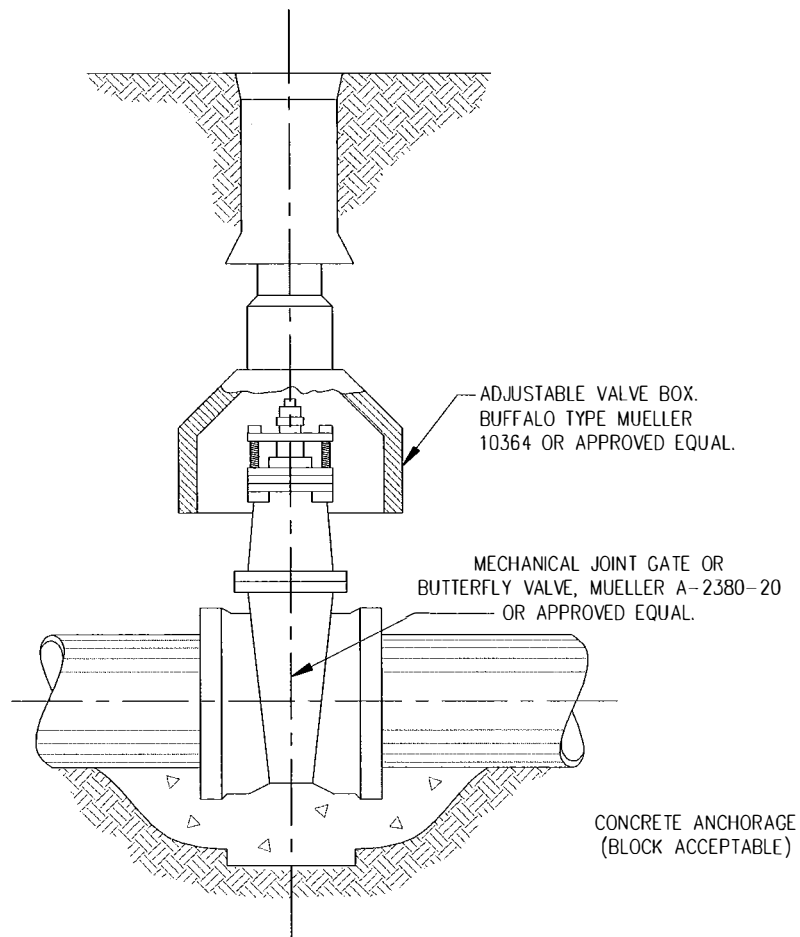




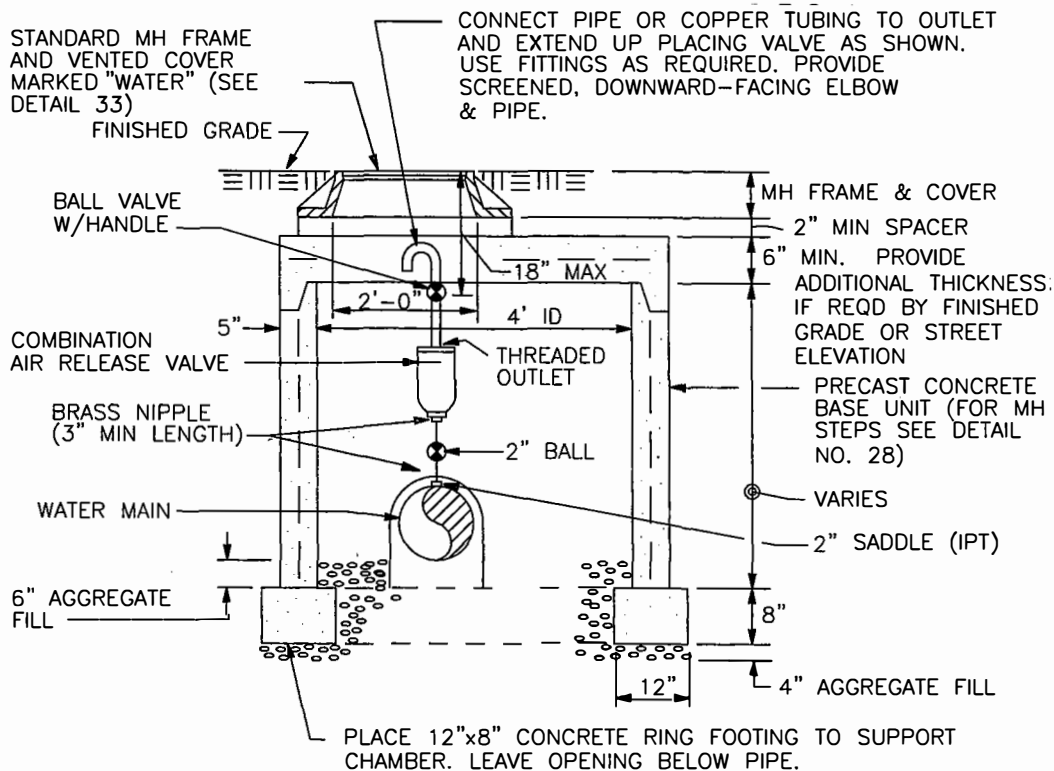
NOTES:

1. ALL 2" PIPE AND FITTINGS TO BE BRASS OR TYPE "K" COPPER.
2. PROVIDE PIPE JOINT RESTRAINTS AS REQUIRED.



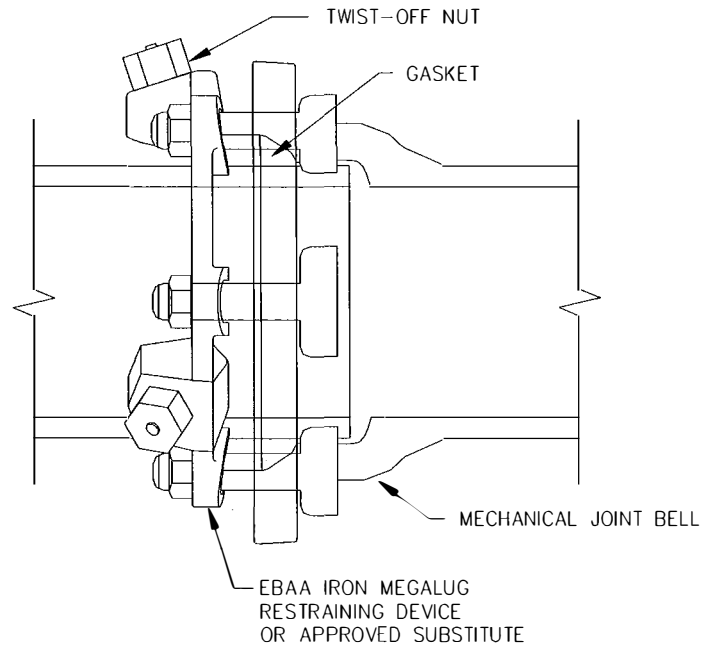


VALVE AND PIPE SHALL HAVE SAME NOMINAL DIAMETER



NOTE:

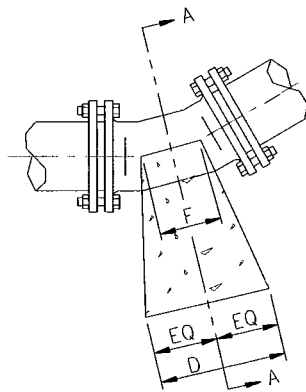
1. COMBINATION AIR RELEASE VALVES SHALL BE CONSTRUCTED WITH CAST IRON BODIES, STAINLESS STEEL FLOATS, BRONZE TRIM, AND BUNA-N SEALS. VALVES SHALL BE OF THE COMBINATION TYPE TO RELIEVE LARGE VOLUMES OF AIR AS THE LINES ARE FILLED, RELIEVE VACUUM AS THE LINES ARE EMPTIED, AND ALSO RELEASE SMALL QUANTITIES OF ENTRAINED AIR UNDER PRESSURE. MANUFACTURERS SHALL BE "VALVE AND PRIMER CORPORATION", "EMPIRE SPECIALTY VALVE", OR "VALVEMATIC VALVE & MANUFACTURING COMPANY".
2. MANHOLE MATERIALS AND FABRICATION SHALL BE IN ACCORDANCE WITH ASTM C478. SIZE OF AIR RELEASE VALVE, GATE VALVE, FITTINGS AND WORKING PRESSURES AS SHOWN ON THE DRAWINGS.



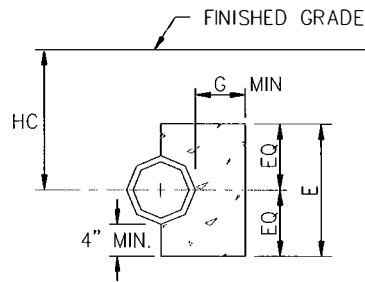
NOMINAL PIPE SIZE (INCHES)	NUMBER OF TWIST-OFF NUTS	NUMBER OF T-BOLTS	RATED PRESSURE
3	2	4	350 PSI
4	2	4	350 PSI
6	3	6	350 PSI
8	4	6	350 PSI
10	6	8	350 PSI
12	8	8	350 PSI
16	12	12	350 PSI
18	12	12	250 PSI
24	16	16	250 PSI
30	20	20	250 PSI
36	24	24	250 PSI
42	28	28	250 PSI

NOTES:

1. Make any joint deflection necessary before torquing the T-head bolts.
2. Tighten T-head bolts, bottom first, then top, sides and remainder.
3. Repeat Note 1. until all T-bolts are properly torqued.
4. Tighten twist-off nuts so that all wedges firmly contact pipe.
5. Tighten twist-off nuts in alternating manner, shearing off nuts.
6. MEGALUG may be reset or reused by assembly as described above and torquing wedge bolts to 90 ft-lbs.



PLAN



SECTION A-A

CARRY CONCRETE  
TO UNDISTURBED  
EARTH OR FIRM  
SUBGRADE

SOIL PROPERTIES	SIZE	Concrete Block Dimensions At 150 PSI Pressure				Add To Dimension D For Each Add 50 PSI Pressure Up To 300 PSI	Adjustment For Conc. Area For Different Height HC To Be Measured From Grade to $\phi$ Of Pipe			
		D	E	F	G		Up To 8'	8'-1" To 12'	12'-1" To 16'	16'-1" To 20'
CS = 1000 PSF $\phi = 15'$ SOFT SILTY CLAY & BETTER	3"	4"	1'	4"	6"	2"	CONC. BLOCK AREA 1.0 X D X E	CONC. BLOCK AREA 0.875 X D X E	CONC. BLOCK AREA 0.75 X D X E	CONC. BLOCK AREA 0.625 X D X E
	4"	4"	1'	4"	6"	2"				
	6"	6"	1'-2"	6"	7"	2"				
	8"	8"	1'-4"	8"	7"	2"				
	10"	9"	1'-6"	8"	8"	4"				
	12"	1'	1'-8"	1'	9"	4"				
	16"	1'-3"	2'	1'	9"	6"				
	20"	1'-3"	2'-6"	1'	10"	6"				
	24"	1'-6"	3'	1'	1'	6"				
	30"	2'	3'-6"	1'-4"	1'-2"	9"				
CS = 0 $\phi = 15'$ LOOSE SILTY SAND	3"	10"	1'-6"	6"	9"	2"	CONC. BLOCK AREA 1.0 X D X E	CONC. BLOCK AREA 0.5 X D X E	CONC. BLOCK AREA 0.375 X D X E	CONC. BLOCK AREA 0.25 X D X E
	4"	1'	2'	6"	9"	2"				
	6"	1'-6"	2'	6"	1'	2"				
	8"	2'-4"	2'	8"	1'	2"				
	10"	2'-6"	2'-3"	8"	1'	4"				
	12"	3'-4"	2'-6"	1'	1'	4"				
	16"	4'-2"	3'	1'	1'-6"	6"				
	20"	4'-6"	3'-6"	1'	1'-6"	6"				
	24"	5'-8"	4'	1'-6"	1'-6"	6"				
	30"	7'	5'	2'	1'-6"	9"				

DIMENSION D & E SHALL BE ADJUSTED FOR REQUIRED AREA.  
DIMENSION F & G SHALL REMAIN SAME.  
DIMENSION D SHALL BE ADJUSTED FOR REQUIRED PRESSURE IN EXCESS  
OF 150 PSI BEFORE MAKING ADJUSTMENT FOR HEIGHT.

SOIL PROPERTIES	SIZE	CONCRETE BLOCK DIMENSIONS AT 150 PSI PRESSURE				ADD TO DIMENSION D FOR EACH ADD 50 PSI PRESSURE UP TO 300 PSI	Adjustment For Conc. Area For Different Height HC To Be Measured From Grade to C Of Pipe			
		D	E	F	G		Up To 8'	8'-1" To 12'	12'-1" To 16'	16'-1" To 20'
CS = 1000 PSF $\phi = 15^\circ$ SOFT SILTY CLAY OR BETTER	3"	6"	1'-0"	6"	7"	2"	CONC. BLOCK AREA = 1.0 X D X E	CONC. BLOCK AREA = 0.875 X D X E	CONC. BLOCK AREA = 0.75 X D X E	CONC. BLOCK AREA = 0.625 X D X E
	4"	6"	1'-0"	6"	7"	2"				
	6"	8"	1'-2"	6"	8"	2"				
	8"	1'-0"	1'-4"	8"	8"	4"				
	10"	1'-3"	1'-6"	8"	10"	4"				
	12"	1'-6"	1'-8"	1'-0"	1'-0"	6"				
	16"	2'-0"	2'-0"	1'-0"	1'-3"	6"				
	20"	2'-6"	2'-6"	1'-0"	1'-6"	9"				
	24"	3'-0"	3'-0"	1'-0"	1'-6"	9"				
	30"	4'-0"	3'-6"	1'-4"	1'-9"	1'-0"				
CS = 0 $\phi = 15^\circ$ LOOSE SILTY SAND	3"	1'-0"	1'-6"	6"	9"	2"	CONC. BLOCK AREA = 1.0 X D X E	CONC. BLOCK AREA = 0.5 X D X E	CONC. BLOCK AREA = 0.375 X D X E	CONC. BLOCK AREA = 0.25 X D X E
	4"	1'-6"	2'-0"	6"	9"	2"				
	6"	2'-0"	2'-0"	6"	1'-0"	2"				
	8"	3'-4"	2'-0"	8"	1'-0"	4"				
	10"	4'-2"	2'-3"	8"	1'-0"	4"				
	12"	4'-8"	2'-9"	1'-0"	1'-6"	6"				
	16"	5'-9"	3'-6"	1'-0"	1'-6"	6"				
	20"	7'-10"	4'-0"	1'-0"	2'-0"	9"				
	24"	9'-10"	5'-0"	1'-6"	2'-0"	9"				
	30"	11'-8"	6'-0"	2'-0"	2'-0"	1'-0"				

DIMENSION D & E SHALL BE ADJUSTED FOR REQUIRED AREA.

DIMENSION F & G SHALL REMAIN SAME.

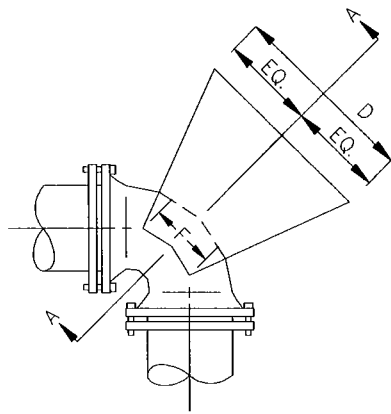
DIMENSION D SHALL BE ADJUSTED FOR REQUIRED PRESSURE IN EXCESS OF 150 PSI BEFORE MAKING ADJUSTMENT FOR HEIGHT.

NOTES:

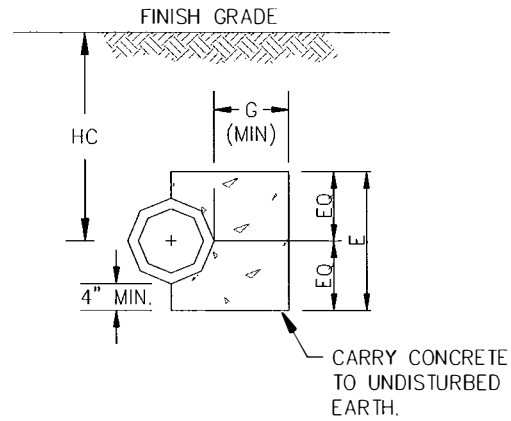
1. FC = 3000 PSI AT 28 DAYS.
2. CS = SOIL COHESION IN PSF AND  $\phi$  = ANGLE OF INTERNAL FRICTION.
3. CARRY ALL BEARING SURFACES TO UNDISTURBED GROUND OR FIRM SUBGRADE.

SOIL PROPERTIES	SIZE	Concrete Block Dimensions At 150 PSI Pressure				Add To Dimension D For Each Add 50 PSI Pressure Up To 300 PSI	Adjustment For Conc. Area For Different Height HC To Be Measured From Grade to C <sub>c</sub> Of Pipe			
		D	E	F	G		Up To 8'	8'-1" To 12'	12'-1" To 16'	16'-1" To 20'
CS = 1000 PSF φ = 15° SOFT SILTY CLAY OR BETTER	3"	9"	1'-0"	6"	6"	4"	CONC. BLOCK AREA 1.0 X D X E	CONC. BLOCK AREA 0.875 X D X E	CONC. BLOCK AREA 0.75 X D X E	CONC. BLOCK AREA 0.625 X D X E
	4"	9"	1'-0"	6"	6"	4"				
	6"	1'-0"	1'-2"	6"	8"	4"				
	8"	1'-6"	1'-4"	8"	9"	6"				
	10"	2'-0"	1'-6"	8"	10"	6"				
	12"	2'-6"	1'-8"	1'-0"	1'-0"	9"				
	16"	3'-6"	2'-6"	1'-0"	1'-3"	9"				
	20"	4'-8"	2'-6"	1'-0"	1'-4"	1'-4"				
	24"	5'-0"	3'-0"	1'-0"	1'-9"	2'-0"				
	30"	6'-0"	4'-0"	1'-4"	2'-3"	2'-0"				
CS = 0 φ = 15° LOOSE SILTY SAND	3"	1'-6"	1'-6"	6"	1'-0"	4"	CONC. BLOCK AREA 1.0 X D X E	CONC. BLOCK AREA 0.5 X D X E	CONC. BLOCK AREA 0.375 X D X E	CONC. BLOCK AREA 0.25 X D X E
	4"	2'-0"	2'-0"	6"	1'-0"	4"				
	6"	3'-0"	2'-0"	6"	1'-0"	4"				
	8"	4'-0"	2'-6"	8"	1'-0"	6"				
	10"	6'-0"	2'-6"	8"	1'-0"	6"				
	12"	7'-0"	3'-0"	1'-0"	1'-6"	9"				
	16"	11'-0"	4'-0"	1'-0"	1'-6"	9"				
	20"	11'-8"	5'-0"	1'-0"	2'-0"	1'-4"				
	24"	12'-6"	6'-0"	1'-6"	2'-0"	2'-0"				
	30"	20'-0"	6'-0"	2'-0"	2'-6"	2'-0"				

DIMENSION D & E SHALL BE ADJUSTED FOR REQUIRED AREA.  
 DIMENSION F & G SHALL REMAIN SAME.  
 DIMENSION D SHALL BE ADJUSTED FOR REQUIRED PRESSURE IN EXCESS  
 OF 150 PSI BEFORE MAKING ADJUSTMENT FOR HEIGHT.



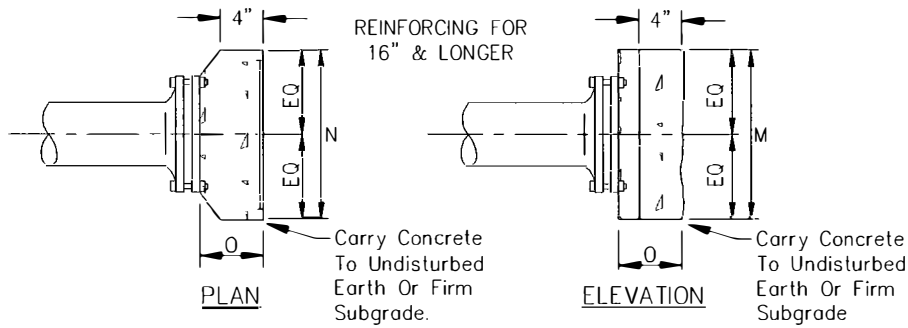
PLAN



SECTION A-A

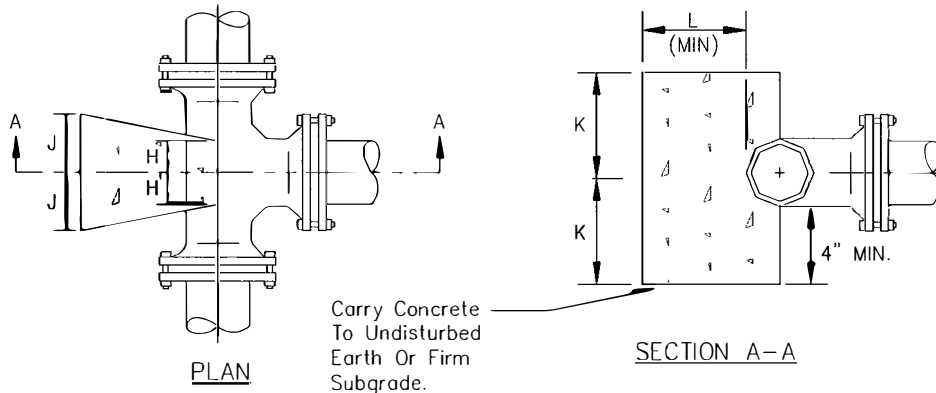
SIZE	Concrete Block Dimensions At 150 PSI Pressure				Add to Dimension "D" For Each Add'l 50 PSI Pressure Up To 300 PSI	Adjustment for Conc. Area For Different Height (HC) To Be Measured From Grade To C of Pipe			
	D	E	F	G		Up To 8'-0"	8'-1" To 12'	12'-1" To 16'	16'-1" To 20'
3"	2'-6"	2'-0"	8"	1'-0"	6"	CONC. BLOCK AREA 1.0 X D X E	C. B. A. 0.5 X D X E	C. B. A. 0.375 X D X E	C. B. A. 0.25 X D X E
4"	3'-4"	2'-0"	8"	1'-0"	6"				
6"	5'-2"	2'-0"	1'-0"	1'-6"	6"				
8"	6'-8"	2'-6"	1'-0"	1'-6"	9"				
10"	10'-0"	3'-0"	1'-6"	1'-6"	9"				
12"	10'-0"	4'-0"	1'-6"	2'-0"	1'-0"				
16"	12'-6"	5'-0"	2'-0"	2'-0"	1'-0"				
20"	15'-10"	6'-0"	2'-0"	2'-0"	2'-0"				

DIMENSION D & E SHALL BE ADJUSTED FOR REQUIRED AREA.  
 DIMENSION F & G SHALL REMAIN SAME.  
 DIMENSION D SHALL BE ADJUSTED FOR REQUIRED PRESSURE IN EXCESS  
 OF 150 PSI BEFORE MAKING ADJUSTMENT FOR HEIGHT.  
 SPECIAL DESIGN REQUIRED FOR LINES 24" OR GREATER IN DIAMETER.



BUTTRESS FOR PLUGS & CAPS										
	SIZE									
	3"	4"	6"	8"	10"	12"	16"	20"	24"	30"
M	*	*	*	2'-6"	2'-8"	3'-6"	4'-8"	6'-0"	6'-8"	8'-0"
N	*	*	*	1'-6"	2'-2"	2'-6"	3'-4"	4'-0"	5'-0"	6'-8"
O	*	*	*	10"	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	2'-0"

REINFORCE WITH 66" EW



BUTTRESS FOR TEES										
	SIZE OF BRANCH									
	3"	4"	6"	8"	10"	12"	16"	20"	24"	30"
J	6"	6"	8"	9"	1'-1"	1'-3"	1'-8"	2'-0"	2'-6"	3'-4"
K	6"	8"	10"	1'-3"	1'-4"	1'-9"	2'-4"	3'-0"	3'-4"	4'-0"
L	6"	6"	8"	9"	10"	12"	1'-2"	1'-6"	1'-8"	2'-0"
H	4"	4"	6"	6"	6"	6"	8"	1'-0"	1'-0"	1'-0"

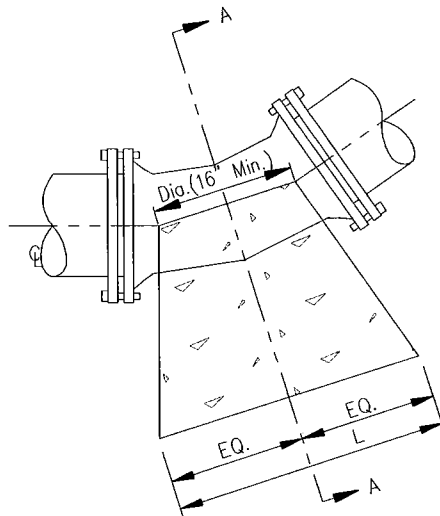
AREA OF BLOCK = 2J X 2K

NOTE: TAPPING ASSEMBLIES & SLEEVES TO BE CONCRETE BLOCKED AS COMPARABLE SIZED TEES

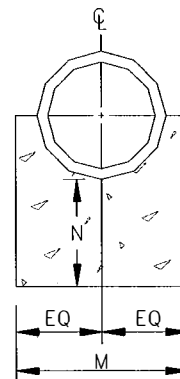
NOTES:

1.  $F_c = 3000$  PSI AT 28 DAYS.
2. THE BUTTRESS DIMENSIONS ARE BASED ON THE WATER PRESSURE OF 150 PSI WHERE THE PRESSURE IS DIFFERENT, THE AREA OF BLOCK SHALL BE PROPORTIONED TO REQUIRED PRESSURE
3. CARRY ALL BEARING SURFACES TO UNDISTURBED GROUND OR FIRM SUBGRADE





ELEVATION

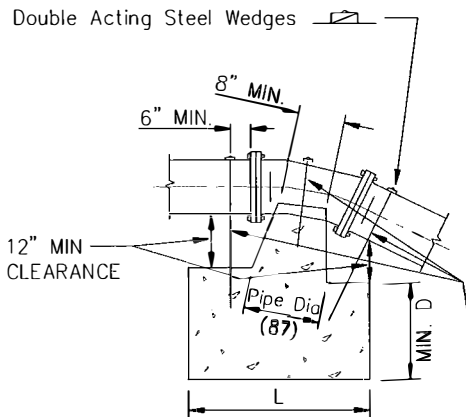


SECTION

BUTRESS FOR LOWER VERTICAL BENDS											
BEND		SIZE									
		3"	4"	6"	8"	10"	12"	16"	20"	24"	30"
11-1/4'	L	6"	6"	6"	8"	8"	8"	1'-1"	1'-5"	1'-10"	2'-8"
	M	1'-0"	1'-0"	1'-2"	1'-4"	1'-6"	2'-0"	2'-4"	2'-8"	3'-0"	3'-4"
	N	8"	8"	8"	8"	8"	8"	9"	10"	12"	1'-2"
22-1/2'	L	6"	6"	10"	11"	1'-3"	1'-4"	2'-1"	2'-9"	3'-7"	3'-3"
	M	1'-0"	1'-0"	1'-2"	1'-4"	1'-6"	2'-0"	2'-4"	2'-8"	3'-0"	3'-2"
	N	8"	8"	8"	8"	9"	9"	12"	1'-2"	1'-4"	1'-6"
45'	L	10"	1'-0"	1'-2"	1'-9"	2'-5"	2'-8"	4'-0"	5'-6"	6'-0"	8'-2"
	M	1'-0"	1'-0"	1'-2"	1'-4"	1'-6"	2'-0"	2'-4"	2'-8"	3'-6"	4'-0"
	N	8"	8"	8"	8"	12"	1'-2"	1'-6"	2'-0"	2'-6"	3'-0"

NOTES:

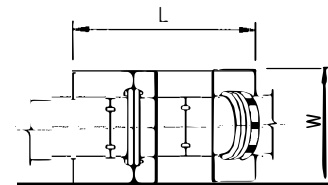
1.  $F_c = 3000$  PSI AT 28 DAYS.
2. CARRY ALL BEARING SURFACES TO UNDISTURBED EARTH OR FIRM SUBGRADE.
3. THE BUTRESS DIMENSIONS ARE BASED ON THE WATER PRESSURE OF 150 PSI AND SOIL BEARING PRESSURE OF 2500 PSI. WHERE THE WATER PRESSURE AND SOIL BEARING PRESSURE ARE DIFFERENT, THE AREA OF CONCRETE BLOCK (I.E. L & M) SHALL BE PROPORTIONED ACCORDINGLY. AREA ADJUSTMENT FOR REQUIRED PRESSURE SHALL BE MADE FIRST BEFORE MAKING ADJUSTMENT FOR SOIL BEARING PRESSURE.



ELEVATION

Embed Reinforcing Bars Minimum  
36" Diameters Including The Hook  
Paint Exposed Bars With Two Coats  
Of Bituminous Paint.

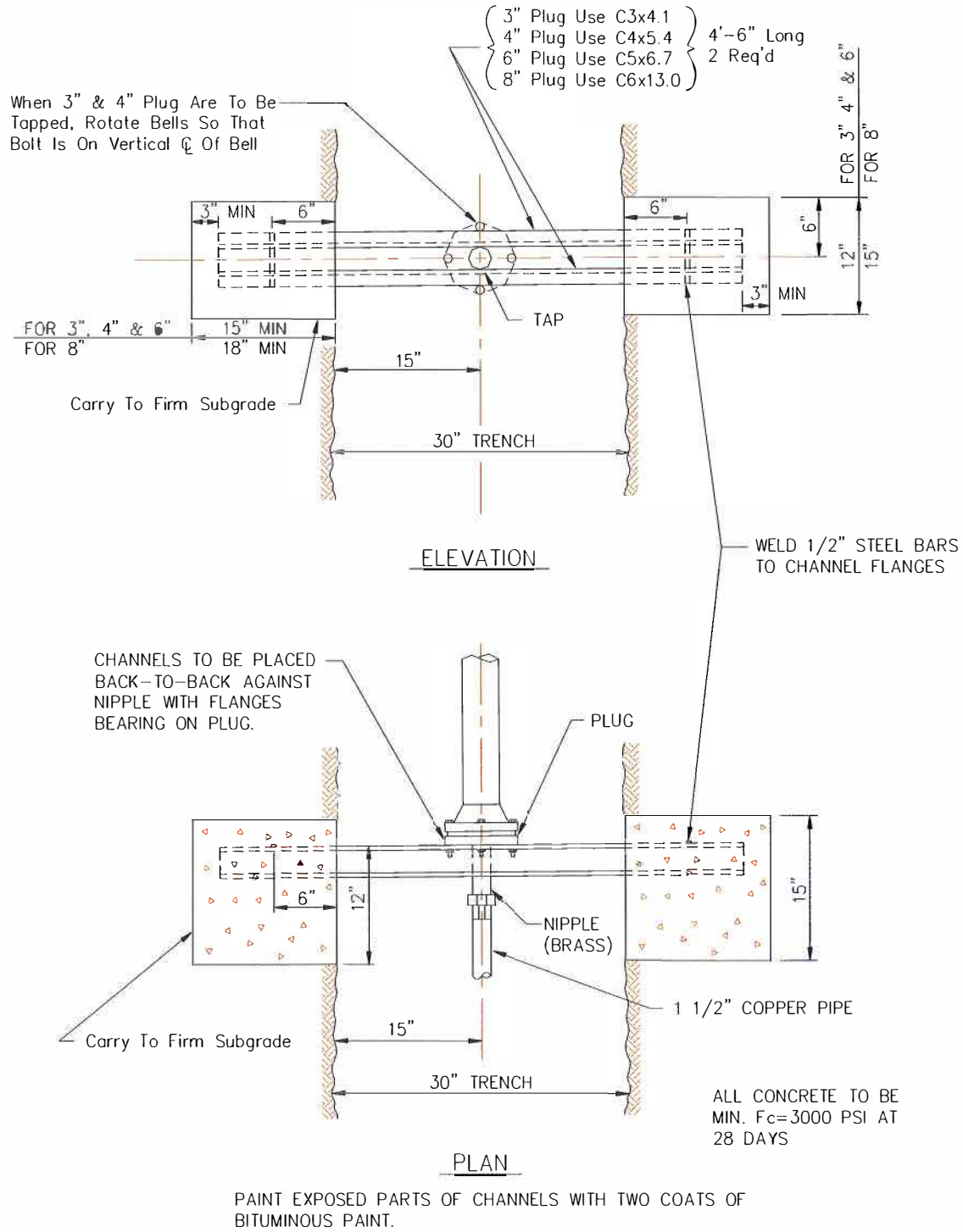
Reinforcing Bars  
Where 4 Reinforcing  
Bars Used, Place 2  
Symmetrically Placed  
Reinf Bars At Bends And  
Other 2 Bars As Shown In  
Detail.

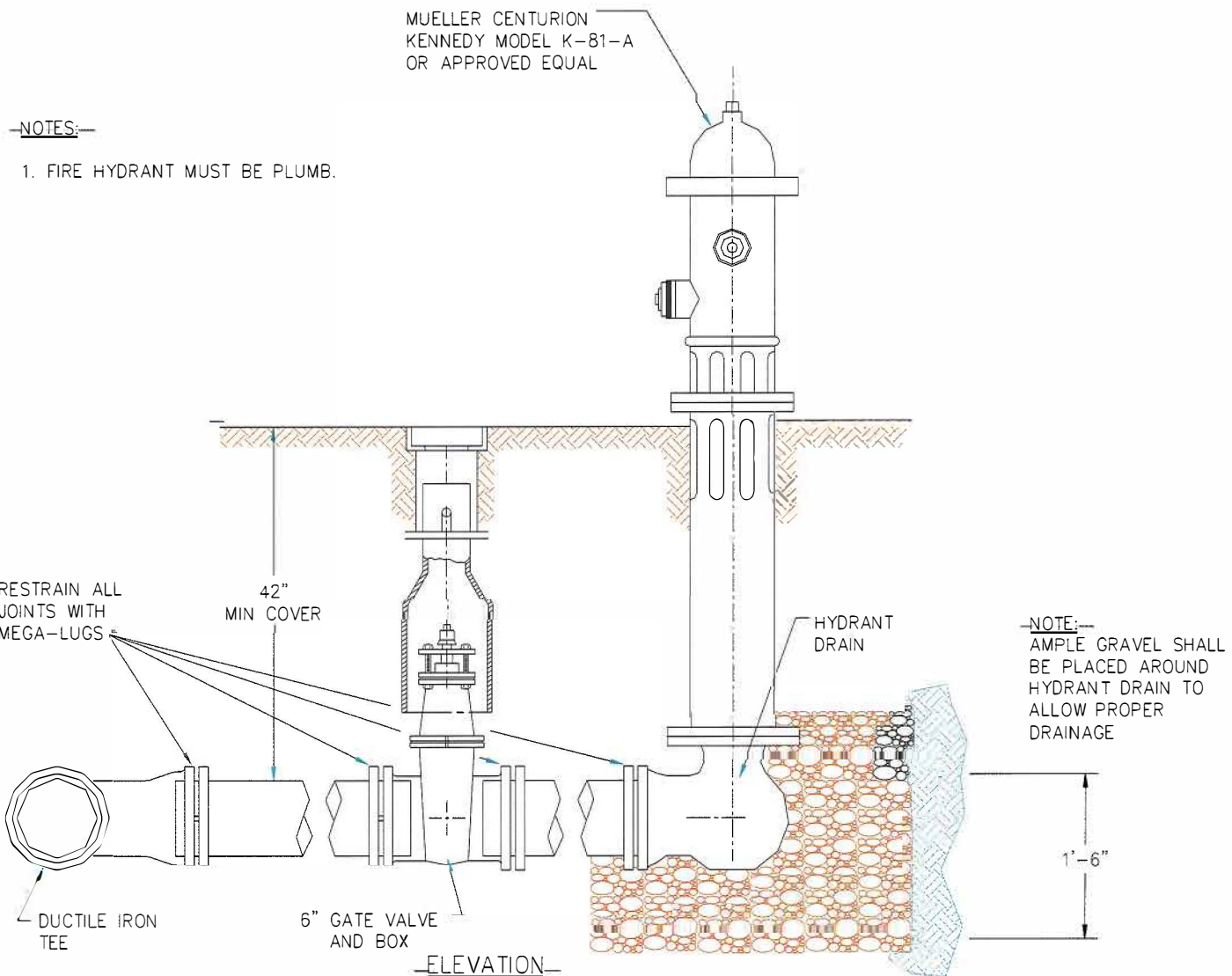


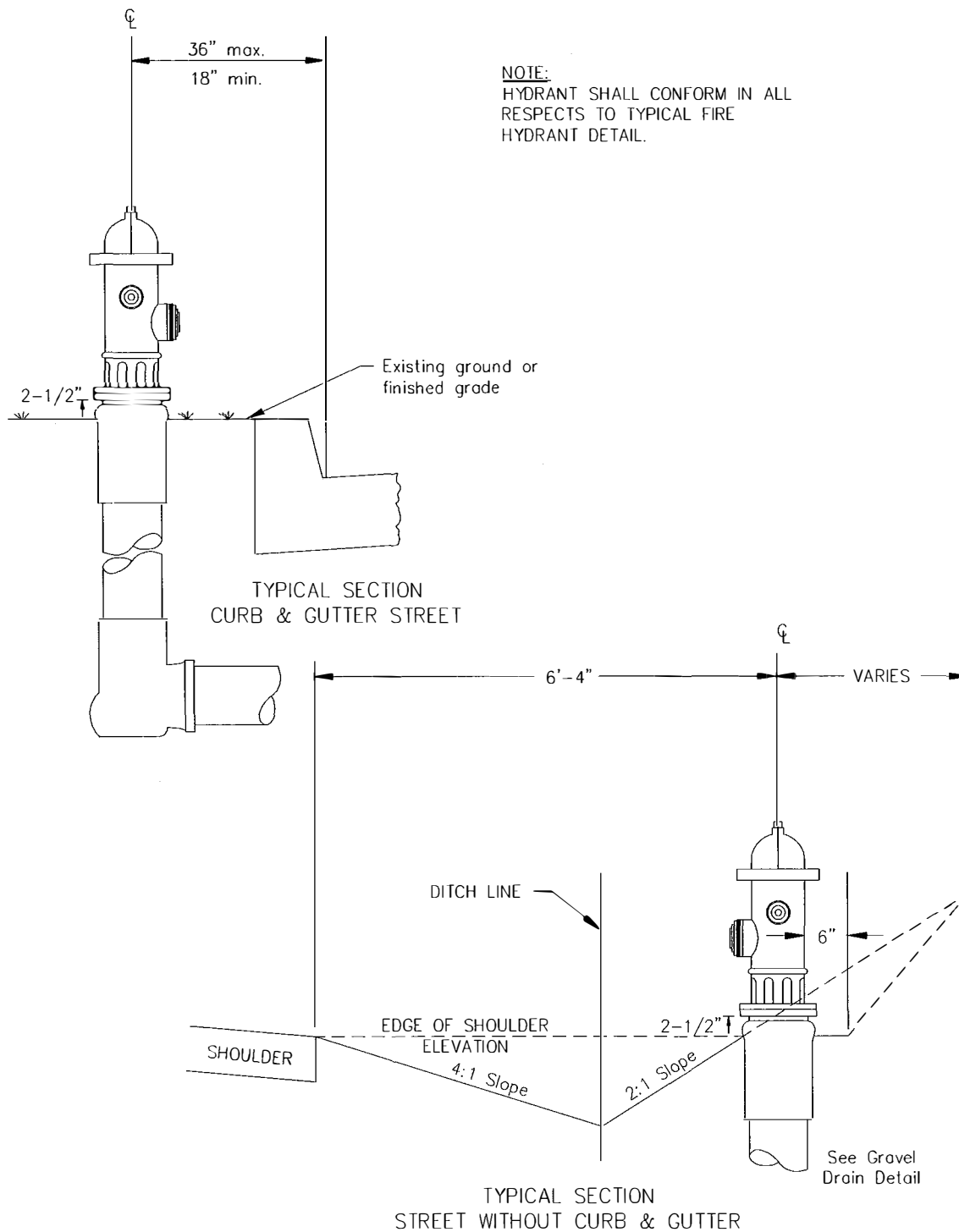
PLAN

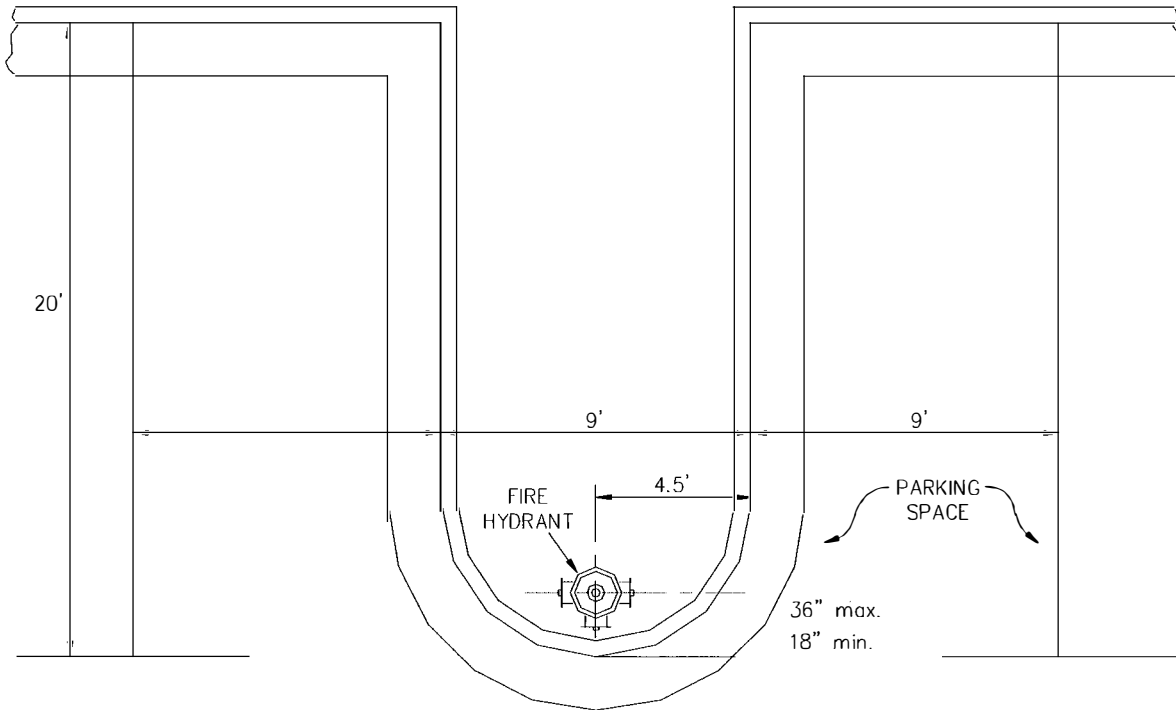
BEND		SIZE									
		3"	4"	6"	8"	10"	12"	16"	20"	24"	30"
11-1/4'	L	1'-6"	1'-6"	2'-0"	2'-0"	2'-3"	2'-6"	3'-3"	4'-0"	4'-6"	5'-0"
	W	1'-6"	1'-6"	2'-0"	2'-0"	2'-3"	2'-6"	3'-3"	4'-0"	4'-6"	5'-0"
	D	1'-6"	1'-6"	1'-6"	2'-0"	2'-0"	2'-3"	2'-6"	2'-6"	3'-0"	3'-0"
	Reinf Bars No & Size	3 #5	3 #5	3 #5	3 #6	3 #6	3 #6	3 #6	3 #8	3 #8	3 #8
22-1/2'	L	1'-6"	2'-0"	2'-6"	2'-9"	3'-6"	4'-0"	4'-6"	5'-6"	6'-0"	7'-0"
	W	1'-6"	2'-0"	2'-6"	2'-9"	3'-6"	4'-0"	4'-6"	5'-6"	6'-0"	7'-0"
	D	1'-6"	1'-6"	2'-0"	2'-3"	2'-3"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"
	Reinf Bars No & Size	3 #5	3 #5	3 #5	3 #6	3 #6	4 #6	4 #6	3 #8	4 #8	4 #8
45°	L	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	6'-0"	7'-6"	8'-6"	10'-0"
	W	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	6'-0"	7'-6"	8'-6"	10'-0"
	D	1'-6"	2'-0"	2'-0"	2'-6"	2'-9"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"
	Reinf Bars No & Size	3 #5	3 #5	3 #5	3 #6	4 #6	4 #6	4 #8	4 #8	4 #8	4 #9

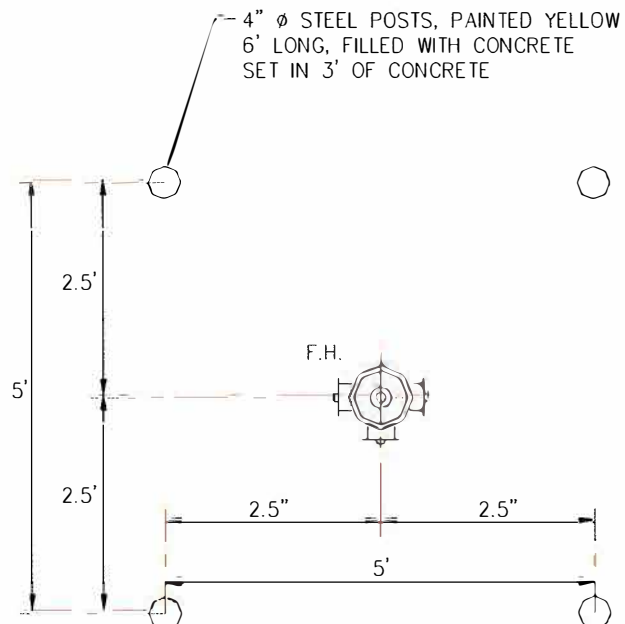
- NOTES: 1.  $F_c=3000$  PSI AT 28 DAYS.  
2. Carry All Bearing Surfaces To Undisturbed Earth Or Firm Subgrade.  
3. The Anchorage Dimensions Are Based On The Water Pressure Of 150 PSI.  
Where The Pressure Is Different, The Volume Of The Concrete (I.E.  $L \times W \times D$ )  
Shall Be Proportioned To Required Pressure.

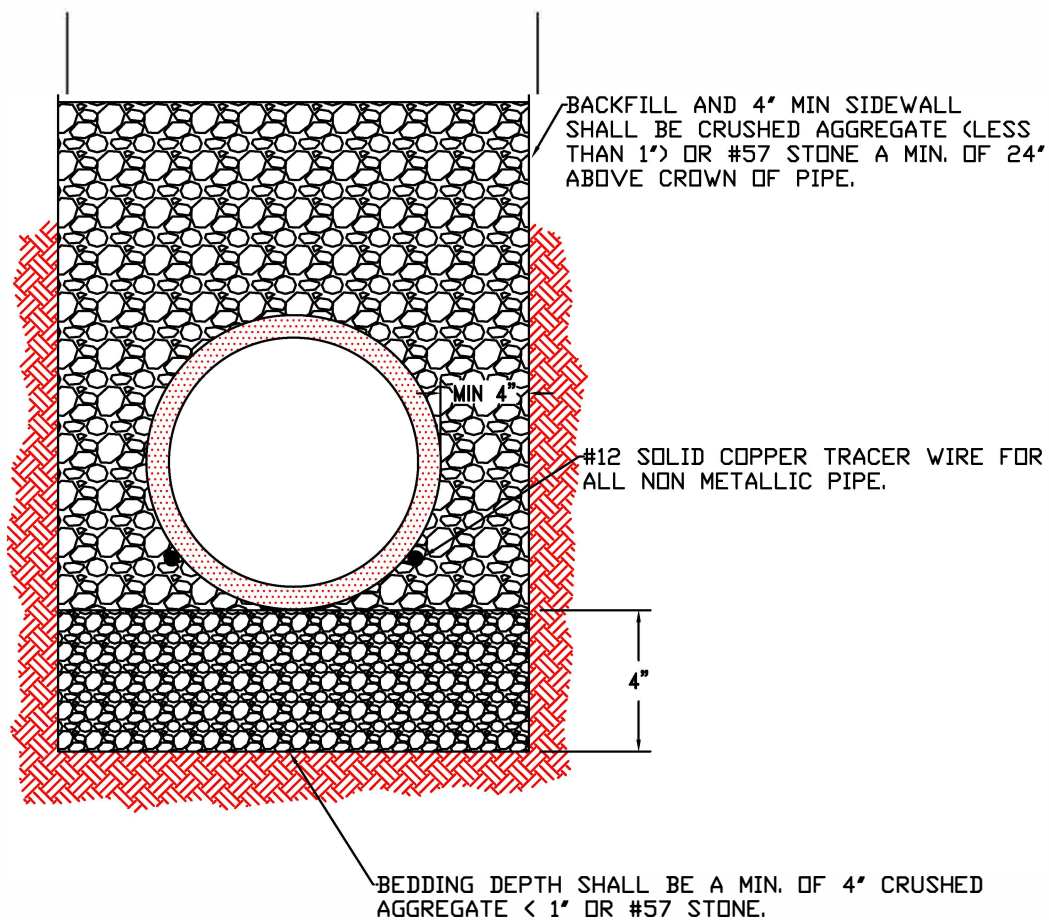














# #9400 AUTOMATIC FLUSHING DEVICE

#9400 Automatic Flushing device shall be installed in the following locations:

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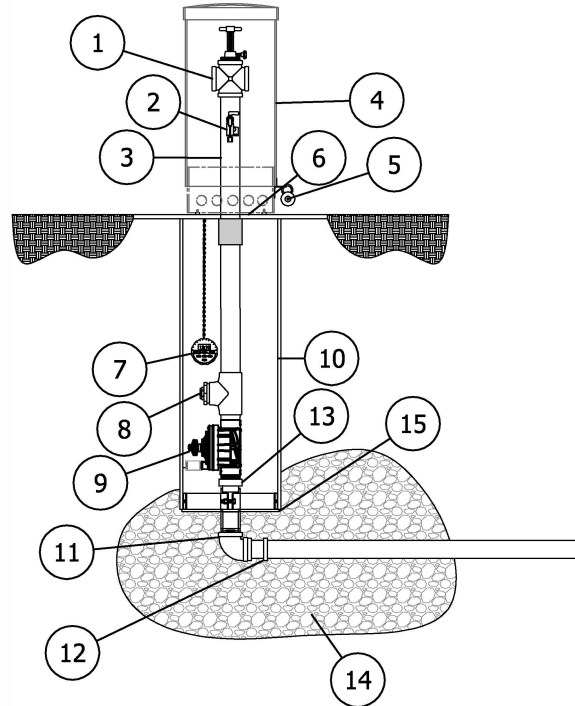
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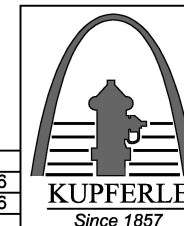


ITEM	ITEM / DESCRIPTION	OPTIONAL	BY OTHERS
1	2" WATER FLOW RESTRICTOR		
2	SAMPLING POINT		
3	2" PVC PIPE		
4	UV RESISTANT LOCKABLE DOME ENCLOSURE		
5	LOCKING POINT		
6	REMOVABLE ACCESS PLATE		
7	CONTROLLER		
8	AUTOMATIC DRAIN		
9	2" AUTOMATIC VALVE		
10	SDR 35 SEWER PIPE		
11	2" SS MIP INLET	X	X
12	2" MIP x COMPRESSION ADAPTER		X
13	O-RING CONNECTOR		
14	1" CLEAN ROCK		X
15	DEBRIS PLATE		

Automatic flushing device shall have a 2" Stainless Steel MIP inlet, that will lead vertically to the bottom into a 2" automatic flushing valve. The flushing valve shall control the flow of water through the hydrant and its diaphragm with the extension and retraction of a DC latching solenoid and have a 220 PSI rating. Each unit shall be furnished with a stand-alone valve controller. Valve controller will not require a second hand-held device for programming. Controller must have minimum of 12 possible flushing cycles per day. Shall be submersible to 12 feet, operate with a 9 volt battery and have resin-seated electrical components. Solenoid shall have no loose parts when removed from valve. Removal of 2" solenoid valve shall be possible via an o-ring connector located under the valve after removal of stainless steel access plate. Valve assembly shall be contained within a UV-resistant locking cover.

Unit model # shall be 9400 as manufactured by Kupferle Foundry Company. Model #9400 St. Louis, MO. 1-800-231-3990, or approved equal.

**NOTE: Flush water lines free of debris before installation**

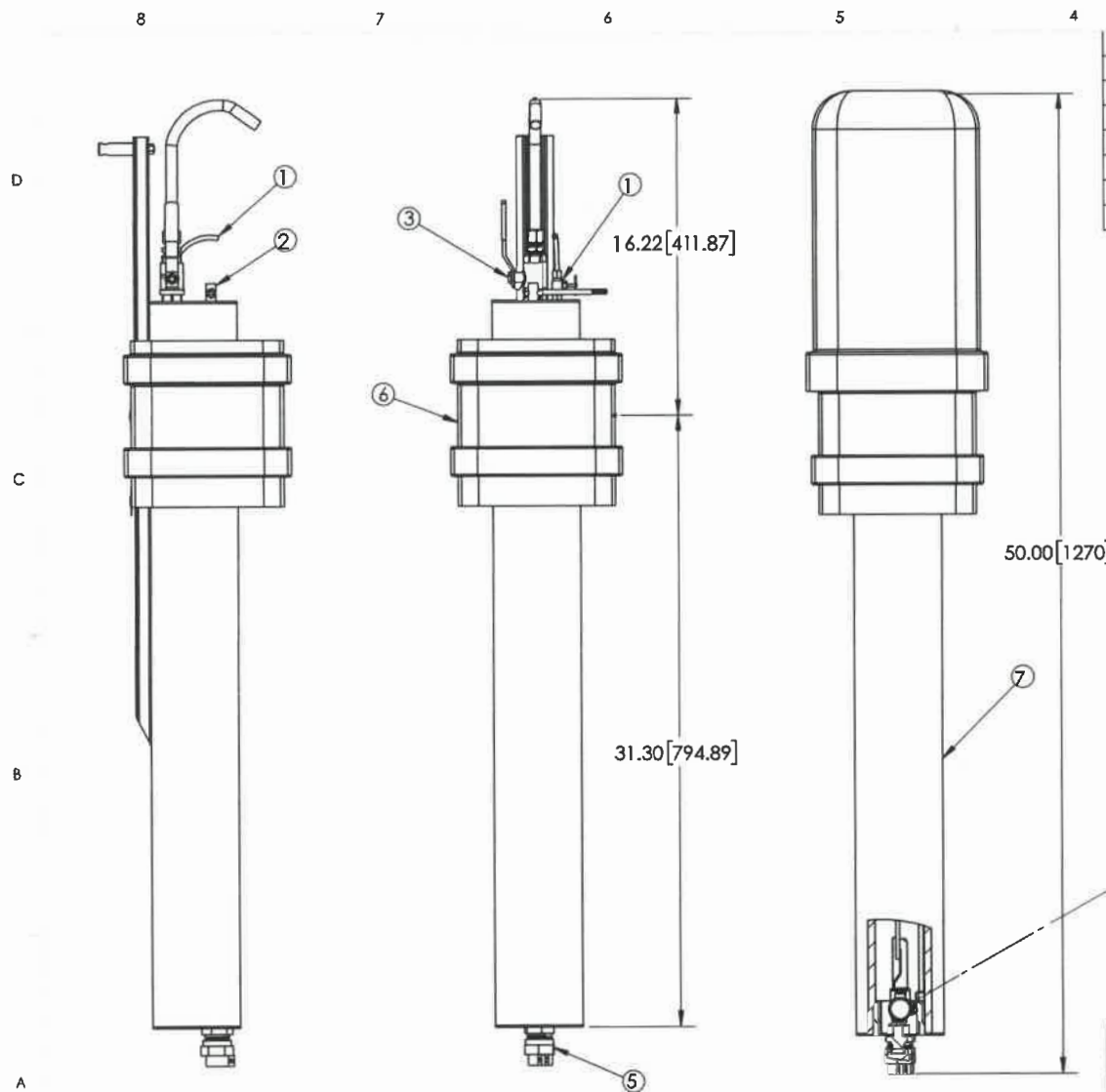


2511 NORTH 9TH STREET  
ST. LOUIS, MO 63102  
1-800-231-3990  
FAX 314-231-2820  
www.hydrants.com

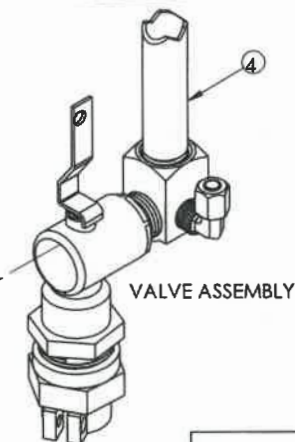
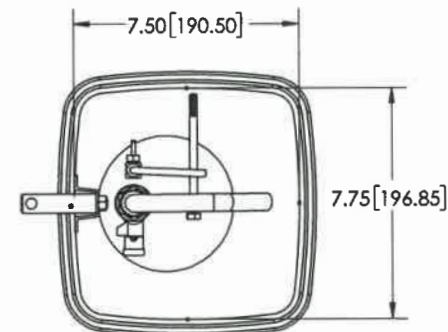
25

SHEET	OF	SCALE: 1/2"=1'	DRAWN	INITIALS	DATE
				SMS	10/4/16
			APPROVED	DCL	10/4/16
			MODIFIED		
#9400 SPEC SHEET					

DATE STATUS / REVISION



ITEM #	DESCRIPTION	QTY.
1	1/4" EVACUATION TUBE AND NEEDLE VALVE	1
2	LEVER-MAIN VALVE OPERATION	1
3	1/2" BRONZE THROTTLING BALL VALVE WITH LOCKING SS HANDLE	1
4	1/2" BRASS BARREL	1
5	3/4" CTS (COPPER TUBE SIZE) COMPRESSION CONNECTION	1
6G	POLYETHYLENE HOUSING WITH HASP LOCK	1
7	4" PVC HOUSING	1



VALVE ASSEMBLY



- NOTES:
1. STANDARD DEPTH BURY IS 36". UNIT IS AVAILABLE IN 48" AND 60" BURY.
  2. STANDARD INLET IS 3/4" CTS COMPRESSION CONNECTION. ANY INLET CONNECTION AVAILABLE.
  3. POLYETHYLENE HOUSING AVAILABLE IN BOTH BLUE AND GREEN.
  4. UNIT IS DESIGNED TO BE EVACUATED THROUGH THE EVACUATION TUBE VIA A HAND PUMP

REVISED:	DATE: 11/22/16
DRAWING DATE:	11/22/16
DRAWN BY:	MDP
SHEET:	1 OF 1
NOTE:	DO NOT SCALE DRAWING
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**WATER PLUS**  
CORPORATION

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11245 Lillian Highway, Pensacola, Florida 32506  
Phone: 800.842.9879 Fax: 850.455.5200

DESCRIPTION: MODEL 301-D-NL ABOVE GRADE SAMPLING STATION

DWG. NO. 301-D-NL