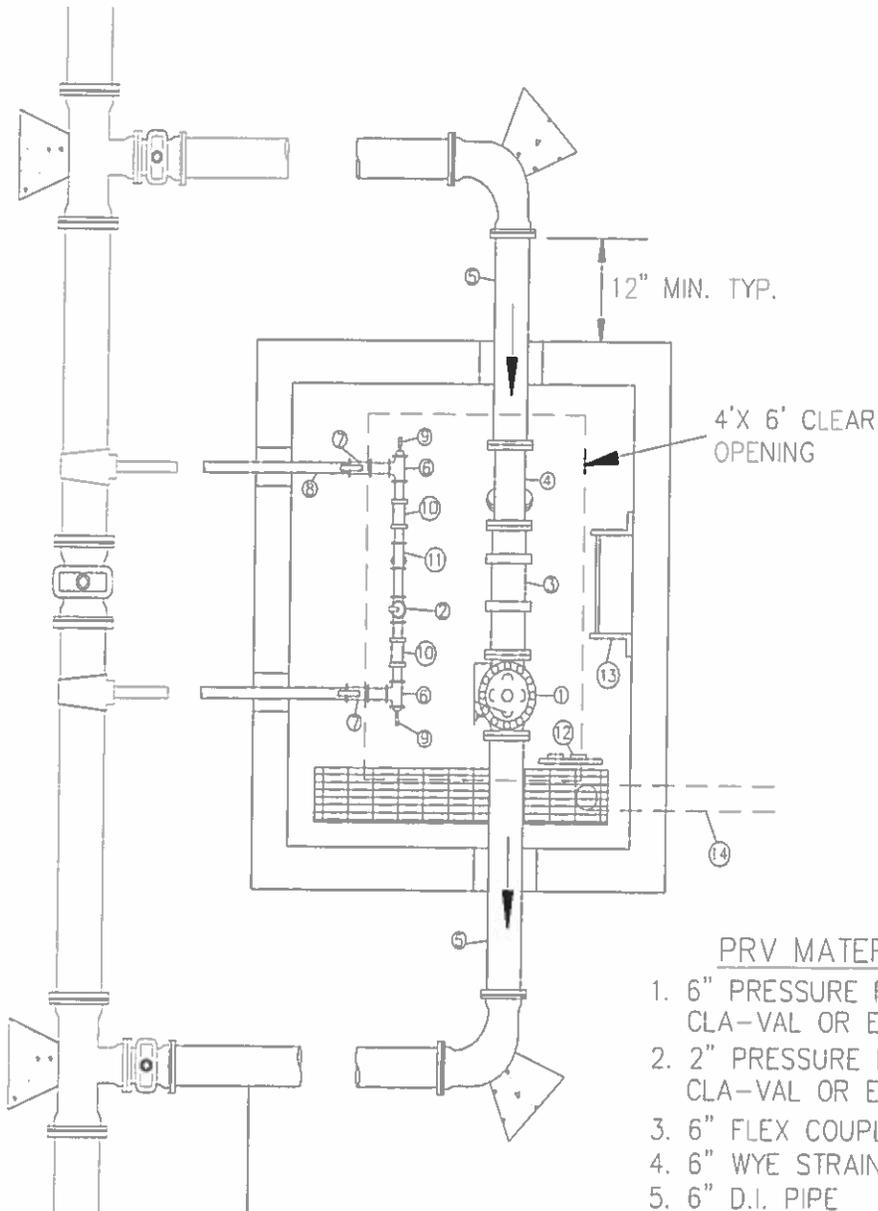


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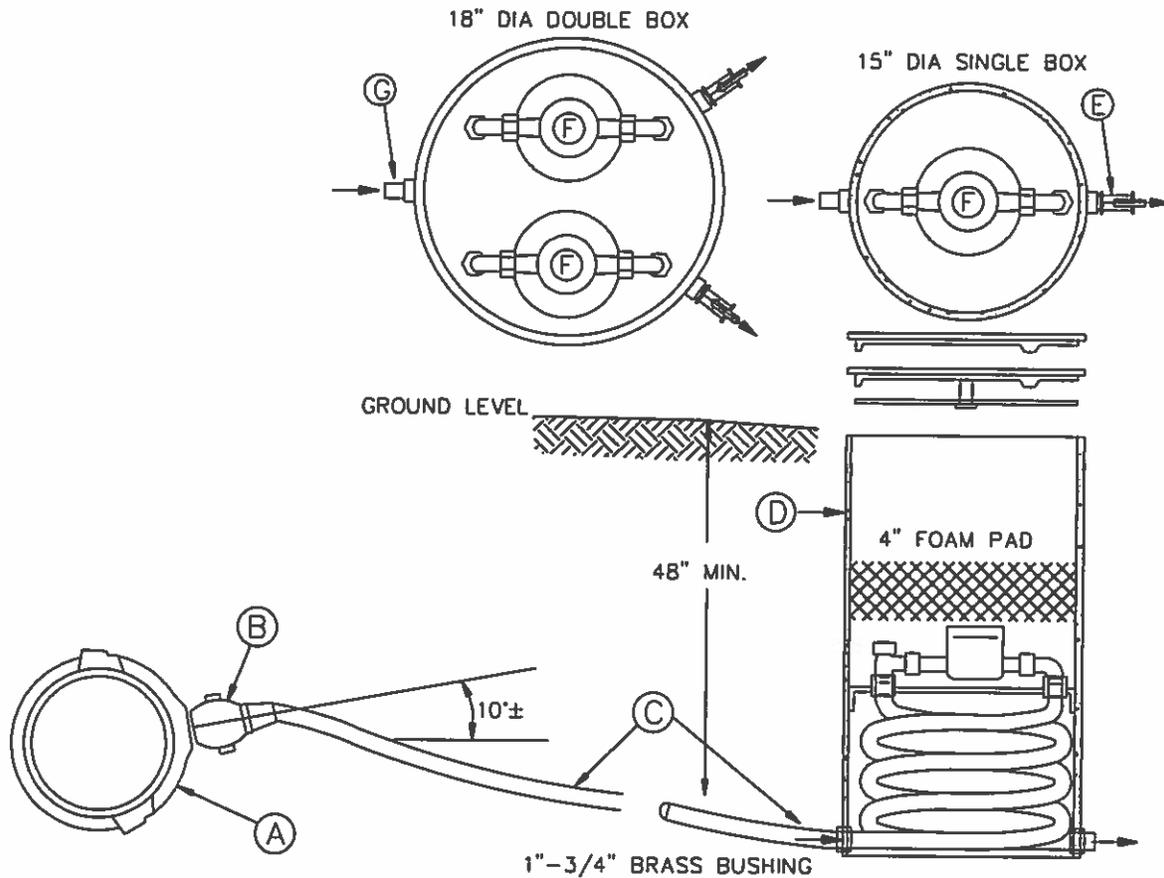
PRESSURE REDUCING STATIONPRV MATERIALS LIST

1. 6" PRESSURE REDUCING VALVE, CLA-VAL OR EQUAL.
2. 2" PRESSURE REDUCING VALVE CLA-VAL OR EQUAL.
3. 6" FLEX COUPLER
4. 6" WYE STRAINER, 1/8" SCREEN
5. 6" D.I. PIPE
6. 2" TEE (THREADED)
7. 2" THREADED BRONZE BALL VALVE W/ LEVER HANDLE
8. 2" PIPE
9. 1/4" GAUGE COCK & PRESSURE GAUGE
10. 2" FLEX COUPLER
11. 2" WYE STRAINER WITH 20 MESH SCREEN
12. GAUGE ASSEMBLY
13. LADDER
14. DRAIN LINE

ID-069

3/4"-1" SINGLE and DOUBLE WATER SERVICE-

1" - 3/4" WATER METER SERVICE

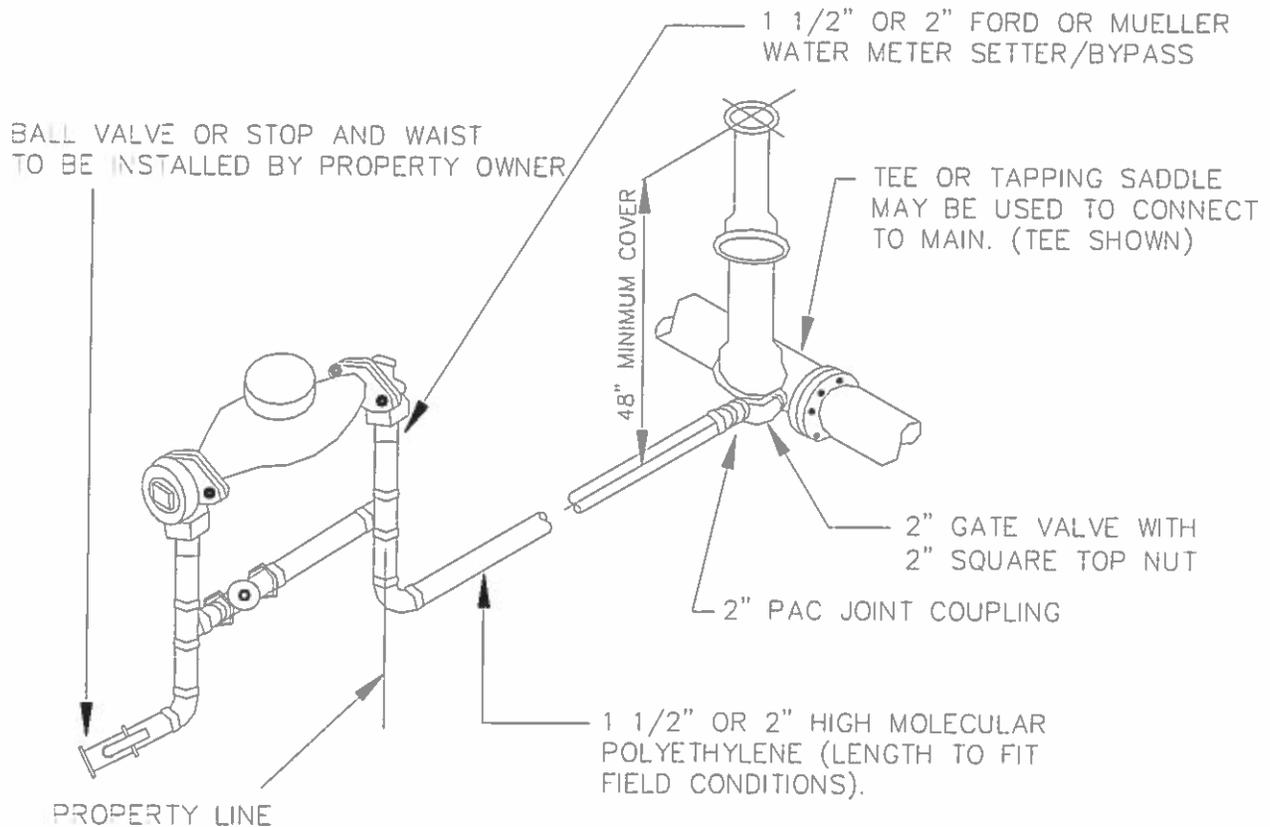


- A. 1" SADDLE, ROMAC 101S OR 202S OR EQUAL.
- B. 1" CORPORATION STOP, MUELLER OR APPROVED EQUAL.
- C. 1" HDPE COPPER TUBE SIZE WITH A WORKING PRESSURE OF 200 PSI OR EQUAL
- D. 3/4" MUELLER METER COIL BOX.
- E. PRIVATE ISOLATION VALVE(S) TO BE INSTALLED BY PROPERTY OWNER DOWNSTREAM OF METER BOX
- F. SENSUS TRPO GALLON READ METER BY CITY
- G. DOUBLE METER, 1 1/2" SUPPLY LINE AND FITTINGS

10-019

NOTES:

1. MATERIAL SUBSTITUTIONS OR DETERMINATION OF EQUAL ARE DISCRETION OF THE PUBLIC WORKS DIRECTOR.
2. SERVICE LINE TO BE 90° OF MAIN.
3. ALUMINUM BACKED LOCATE TAPE OVER SERVICE LINE FOR LOCATION AND TONING WIRE
4. DRAWING NOT TO SCALE.
5. ALL HARDWARE SUPPLIED BY DEVELOPER UNLESS NOTED OTHERWISE.

1-1/2"-2" SERVICE CONNECTION DETAILNOTES:

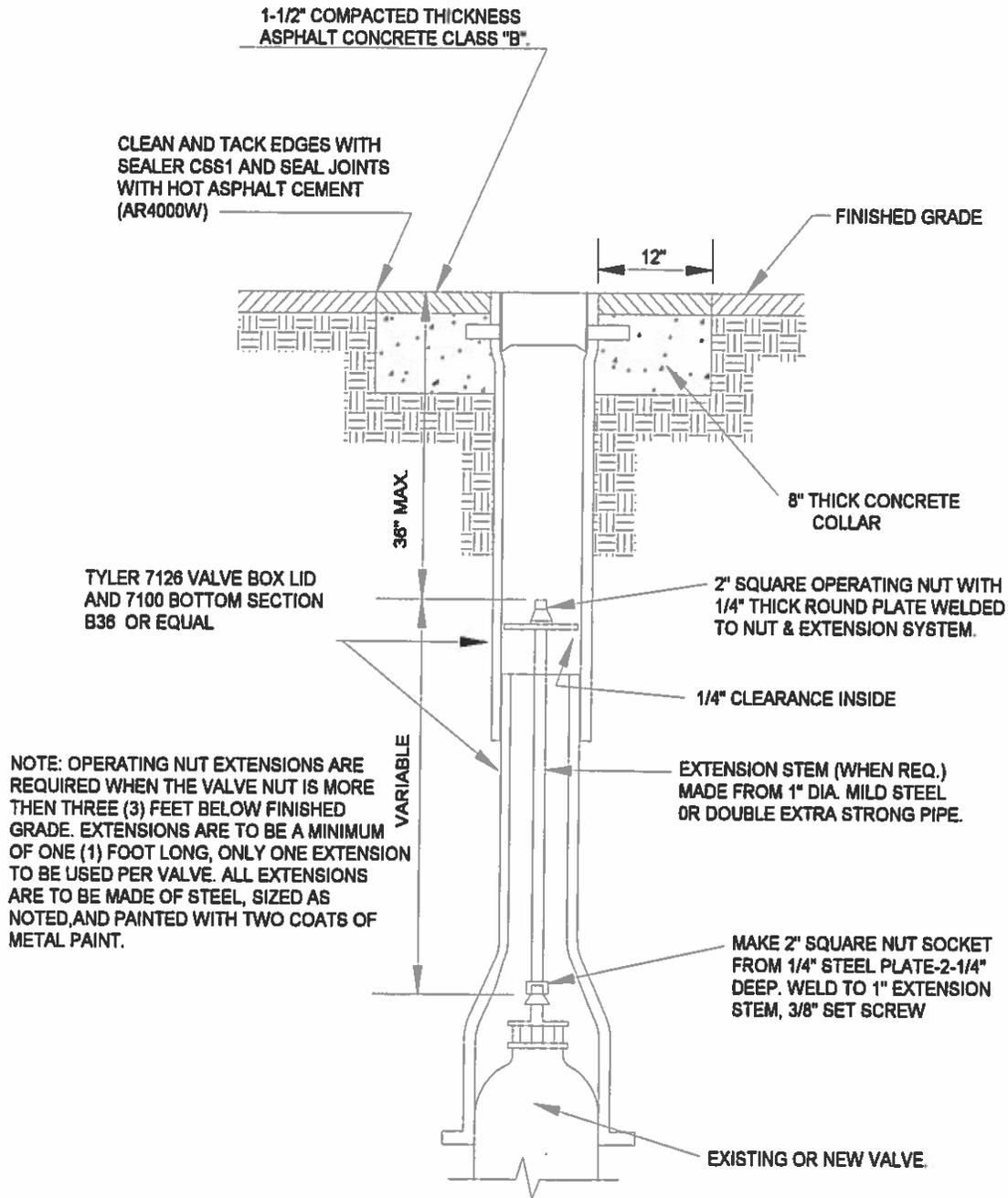
1. USE "PAC" JOINT ON COUPLINGS
2. ANY METERS DAMAGED OR CLOGGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CITY AND BACKCHARGED TO THE DEVELOPER.
3. USE METER SETTER WITH 1" BYPASS LOCKING ANGLE STOP & CHECK VALVE.
4. LOCATE METER TO PROPERTY LINE, INSTALL NEW METER BOX—H2 PRE-CAST BOTTOM SECTION # WCB AND TOP SECTION # WCT. METER LIDS ARE TO BE H2 PRE-CAST 2019 IN TRAFFIC AREAS OR 2020 IN NON TRAFFIC AREAS.
5. SENSUS TOUCH READ GALLON WATER METER.

ID-021

WATER VALVE BOX SETTING

All existing concrete valve boxes shall be replaced with cast iron boxes and adjusted to grade.

All existing cast iron valve boxes shall be adjusted to grade with cast iron components. Alignment of the valve box shall be the developer's responsibility and care shall be taken to ensure that the valve may be operated.

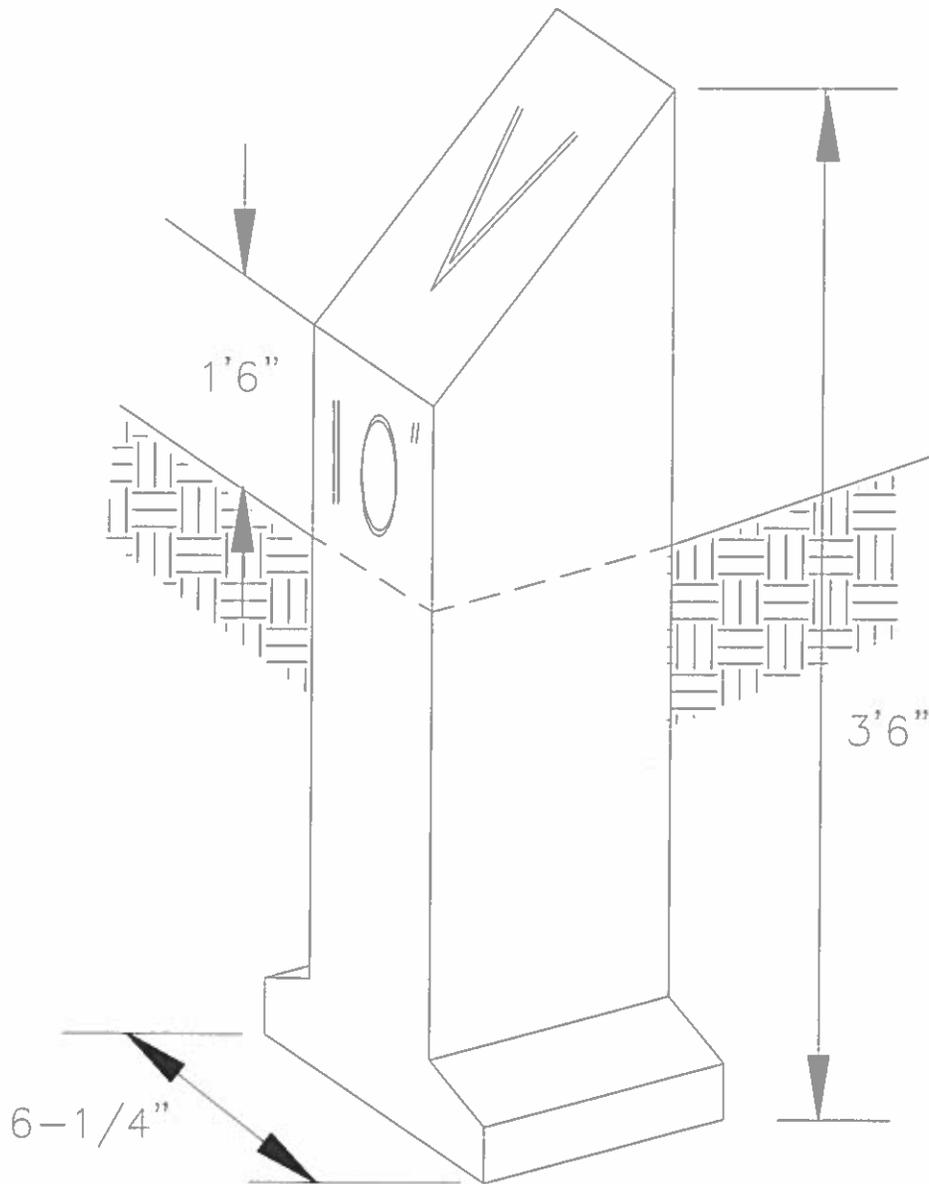


ID-048

VALVE MARKER POST

VALVE MARKER POST SHALL BE EQUAL TO FOG-TITE, WITH TWO COATS OF HI-GLOSS YELLOW PAINT. PAINT DISTANCE FROM THE VALVE MARKER TO THE VALVE ON THE POST WITH BLACK ENAMEL PAINT.

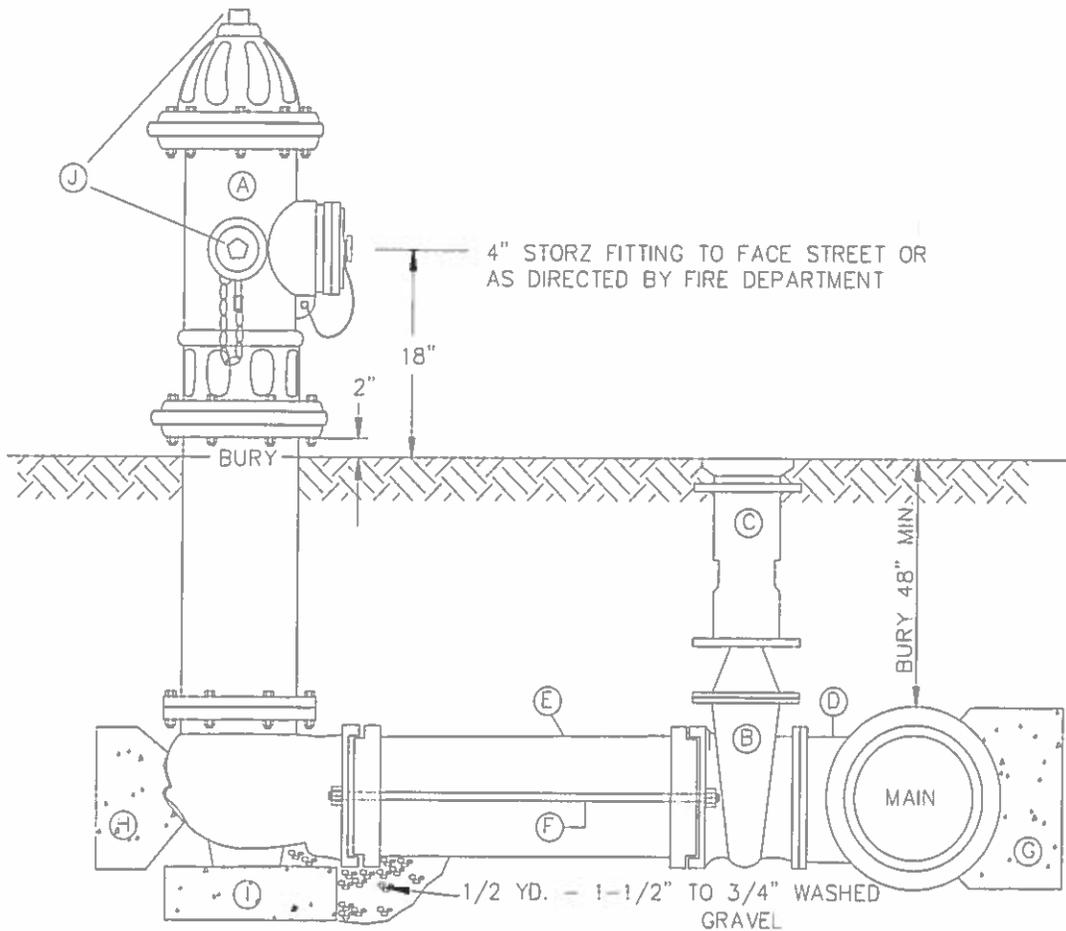
VALVE MARKER POST TO BE USED FOR ALL MAINLINE VALVES OUTSIDE PAVED AREAS.



VALVE MARKER POST

ID-051

FIRE HYDRANT ASSEMBLY

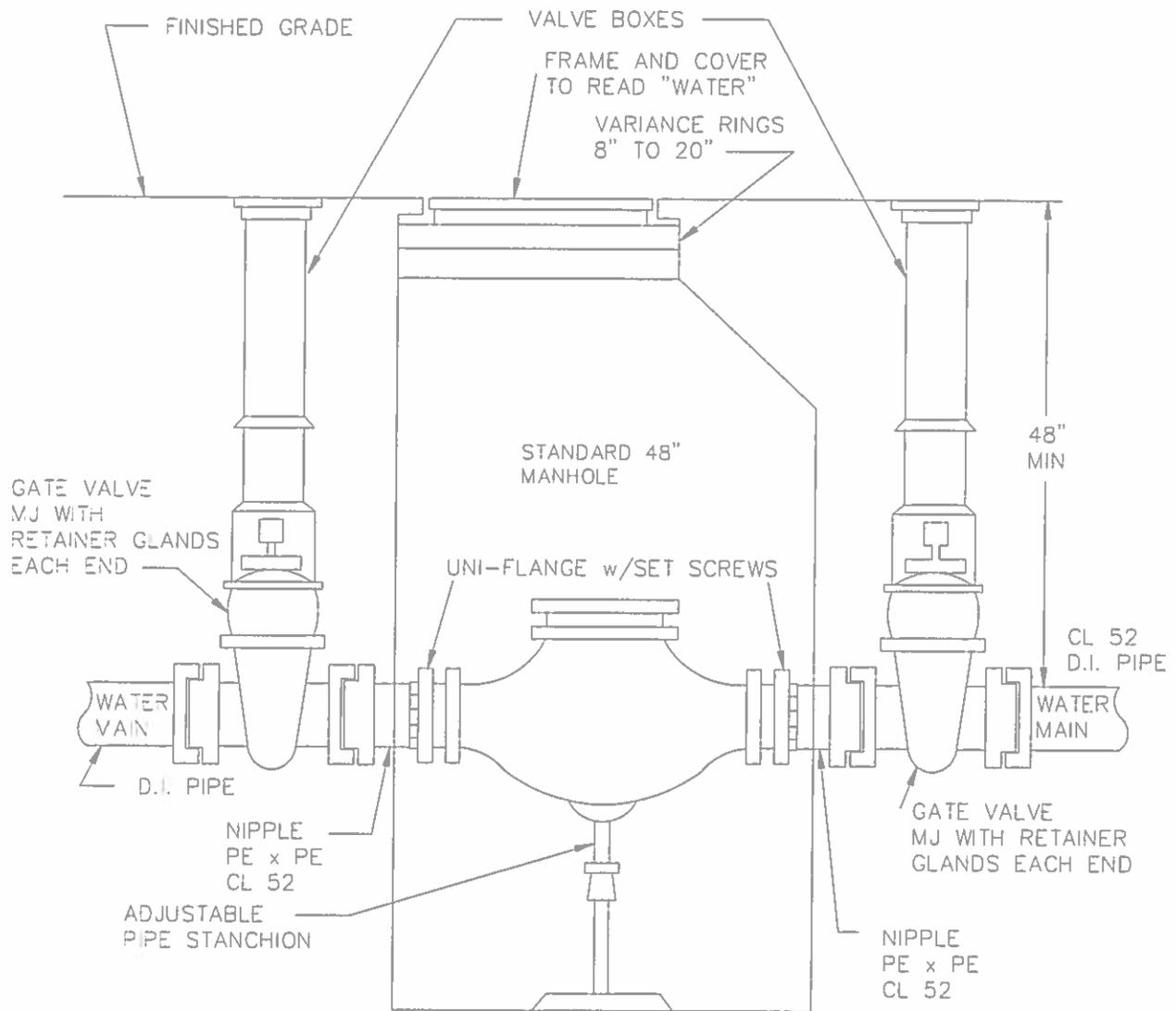


- A. ONE 5-1/4" M.V.O. HYDRANT WITH TWO 2-1/2" N.S.T. AND ONE 4 1/2" PUMPER N.S.T. THE 4 1/2" OUTLET SHALL BE FITTED WITH A 4-INCH HIGH-STRENGTH ALUMINUM ALLOY TEFLON COATED LOCKING STORZ ADAPTER WITH RUBBER GASKET AND SET SCREW. THE STORZ ADAPTER SHALL BE PROVIDED WITH AN APPROVED ALUMINUM ALLOY PRESSURE CAP ATTACHED TO THE HYDRANT BARREL WITH AN APPROVED CABLE. THE HYDRANT SHALL BE MUELLER CENTURION OR EQUAL. PAINT HYDRANT TRAFFIC YELLOW, # 1072 FARWEST PAINT CO.
- B. 6" RESILIENT SEAT GATE VALVE, FL x MJ
- C. CAST IRON VALVE BOX, TYLER OR EQUAL
- D. ONE CAST IRON TEE - M.J. x FL.
- E. PIPE / SPOOL AS NEEDED - DUCTILE IRON
- F. TWO 3/4" GALVANIZED STEEL SHACKLES. MEGALUG INSTEAD OF SHACKLES IS ACCEPTABLE.
- G. CONCRETE THRUST BLOCK, 4 SF THRUST AREA. (SEE 2-13)
- H. CONCRETE THRUST BLOCK, 6 SF THRUST AREA. (SEE 2-13)
- I. 12"x12"x4" CONCRETE BLOCK. (SEE 2-13)
- J. 1 1/2" PANEL OP NUT AND PORT COVER NUT

ID-011

SINGLE CHECK VALVE ASSEMBLY

TO BE USED AS BYPASS AROUND PUMP STATION OR PRV WHEN NEEDED



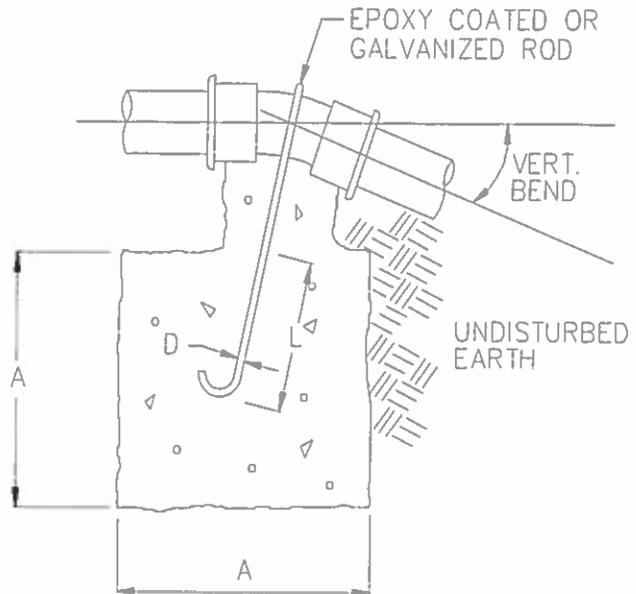
NOTE: CHECK VALVE ASSEMBLY TO BE INSTALLED AS INDICATED ON INDIVIDUAL DESIGN

ID-004

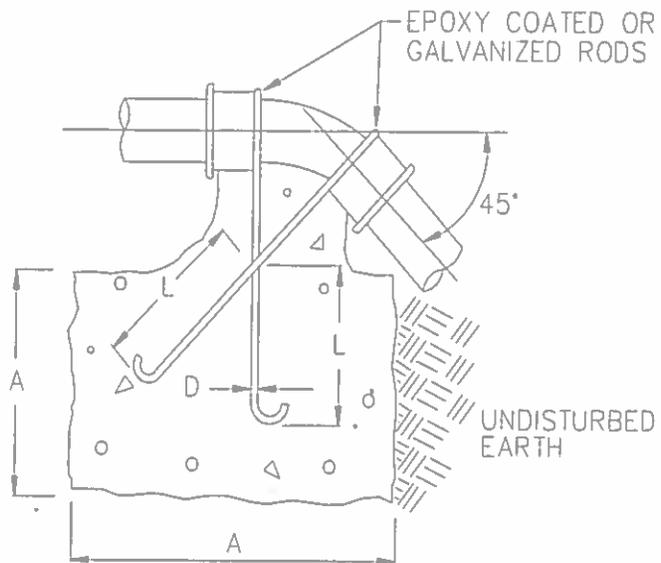
CONCRETE BLOCKING - VERTICAL

VERTICAL BLOCKING

VERTICAL BLOCKING FOR 11 1/4° & 22 1/2° BENDS					
PIPE SIZE	V B	CU FT	A	D	L
4"	11 1/4°	8	2.0'	3/4"	1.5'
	22 1/2°	11	2.2'		2.0'
6"	11 1/4°	11	2.2'	3/4"	2.0'
	22 1/2°	25	2.9'		
8"	11 1/4°	16	2.5'	3/4"	2.0'
	22 1/2°	47	3.6'		
12"	11 1/4°	32	3.2'	3/4"	2.0'
	22 1/2°	88	4.5'	7/8"	3.0'
16"	11 1/4°	70	4.1'	7/8"	3.0'
	22 1/2°	184	5.7'	1 1/8"	4.0'
20"	11 1/4°	91	4.5'	7/8"	3.0'
	22 1/2°	225	6.1'	1 1/4"	4.0'
24"	11 1/4°	128	5.0'	1"	3.5'
	22 1/2°	320	6.8'	1 3/8"	4.5'
VERTICAL BLOCKING FOR 45° BENDS					
4"	45°	30	3.1'	3/4"	2.0'
6"		68	4.1'		
8"		123	5.0'		
12"		232	6.1'	3/4"	2.5'
16"		478	7.8'	1 1/8"	4.0'
20"		560	8.2'	1 1/4"	
24"		820	9.4'	1 3/8"	4.5'



VERTICAL BLOCKING FOR 11 1/4°, 22 1/2°



VERTICAL BLOCKING FOR 45° BENDS

NOTE: CONCRETE BLOCKING BASED ON 200 PSI PRESSURE AND 2500 PSI CONCRETE.
 PROVIDE POLYETHYLENE SHEETING TO COVER BOLTS AND JOINTS FOR DISMANTLING.

D-020

THRUST BLOCK TABLE

MIN. BEARING AREA AGAINST UNDISTURBED SOIL SQUARE FEET					
PIPE SIZE	A (FT. ²)	B (FT. ²)	C (FT. ²)	D (FT. ²)	E (FT. ²)
3"	3	2	2	2	2
6"	4	4	2	2	2
8"	7	6	4	2	2
10"	11	10	6	3	2
12"	16	14	9	5	3
14"	22	19	12	6	3
16"	29	25	16	8	4
18"	36	31	20	10	5
20"	45	39	24	13	6
22"	54	47	29	15	8
24"	64	56	35	18	9
28"	87	76	48	24	12
30"	101	87	55	28	14
36"	145	125	78	40	20
42"	197	171	107	55	27
48"	257	223	140	71	36

NOTE: Bearing area of conc. thrust block based on 200 psi pressure and safe soil bearing load of 2,000 pounds per square foot.

Areas must be adjusted for other pipe sizes, pressures and soil conditions.

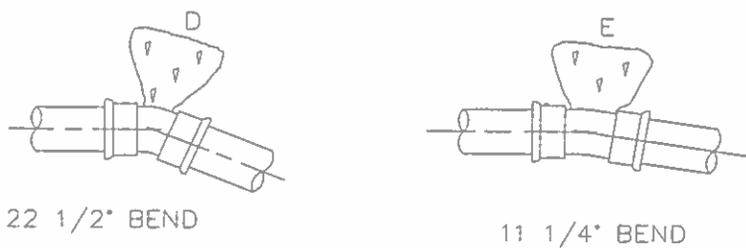
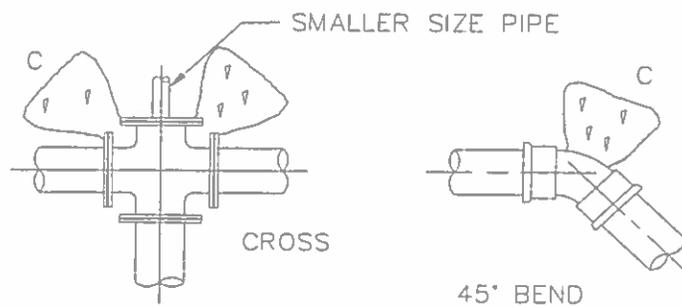
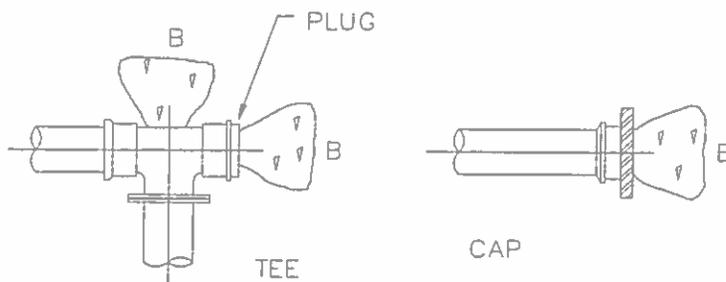
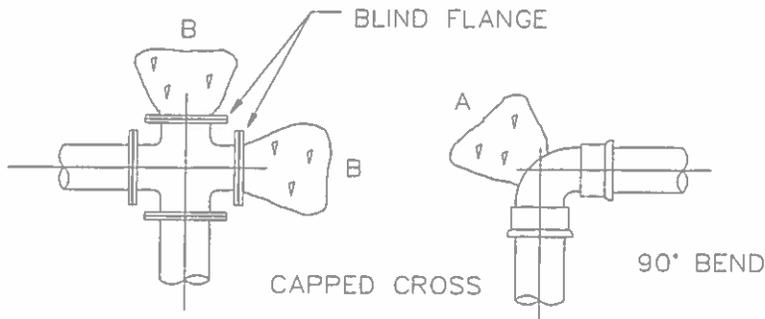
Concrete blocking shall be cast in place and have a minimum of 1/4 square foot bearing against the fitting.

Block shall bear against fittings only and shall be clear of joints to permit taking up or dismantling of joint.

Contractor shall install blocking adequate to withstand full test pressure as well as to continuously withstand operation pressure under all conditions of service.

CONCRETE BLOCKING - HORIZONTAL

- NOTE:
- See thrust block table on page 2-12 for bearing areas.
 - Provide Polyethylene sheeting to cover bolts and joints for dismantling.



NOTES: PROVIDE POLYETHYLENE SHEETING TO COVER BOLTS AND JOINTS FOR DISMANTLING.

ID-023

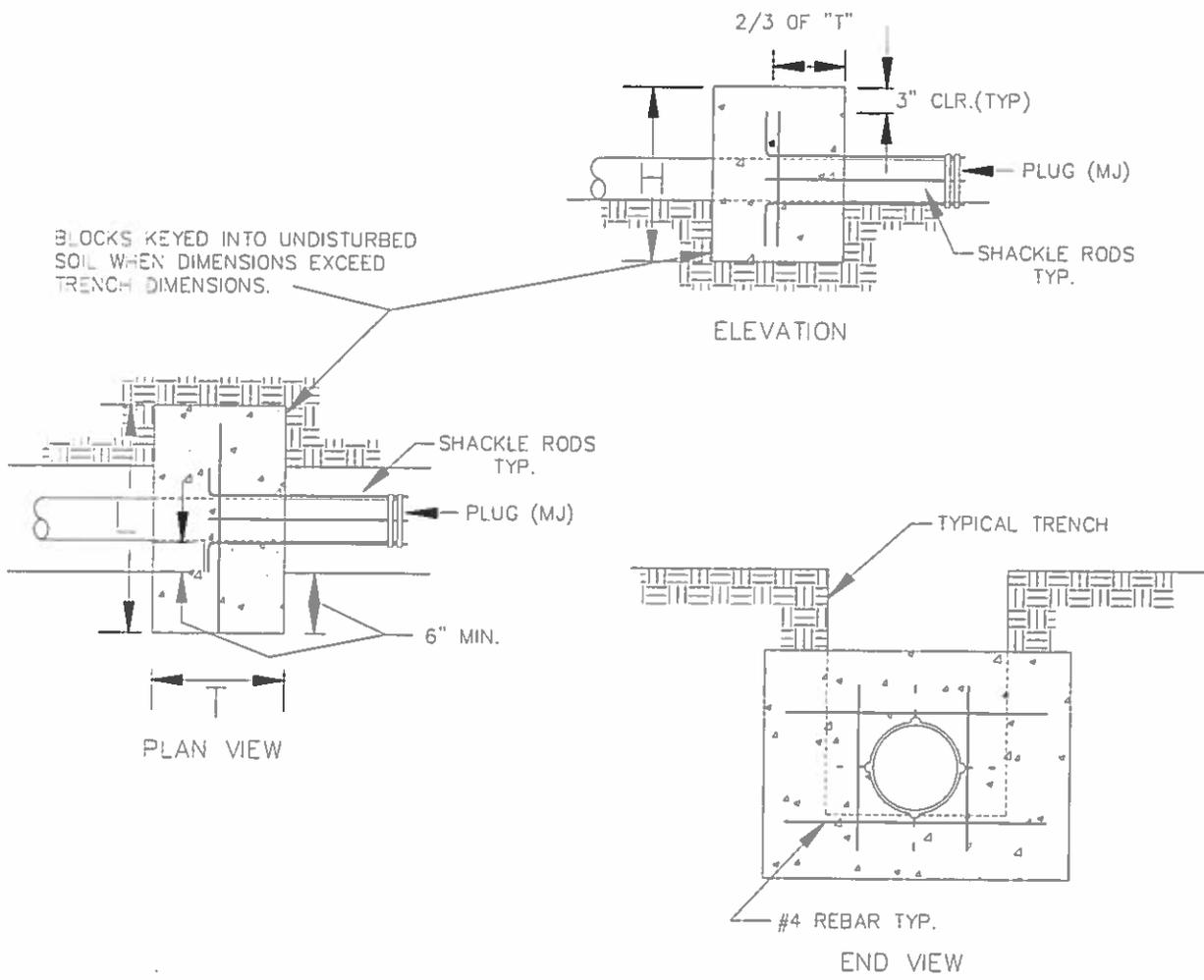
DEADMAN THRUST BLOCKING

SIZING TABLE				MIN. BLOCK LENGTH (L)						
PIPE DIA	T (min)	H (min)	SHACKLE RODS	SOIL CONDITION						
				PIPE DIA	SOFT CLAY	SILT	SAND Y SILT	SAND	SAND Y CLAY	HARD CLAY
6"	18"	30"	(4)#5 (½"dia)	6"	30"	30"	30"	30"	30"	30"
8"	18"	36"		8"	42"	38"	36"	34"	32"	32"
10"	18"	46"		10"	54"	48"	40"	38"	37"	36"
12"	24"	48"		12"	72"	64"	50"	47"	44"	42"
14"	36"	50"		14"	96"	80"	62"	56"	50"	47"
16"	42"	52"		16"	120"	100"	72"	65"	58"	53"

BLOCK SIZES GOOD TO 300 psi TEST PRESSURE

NOTES:

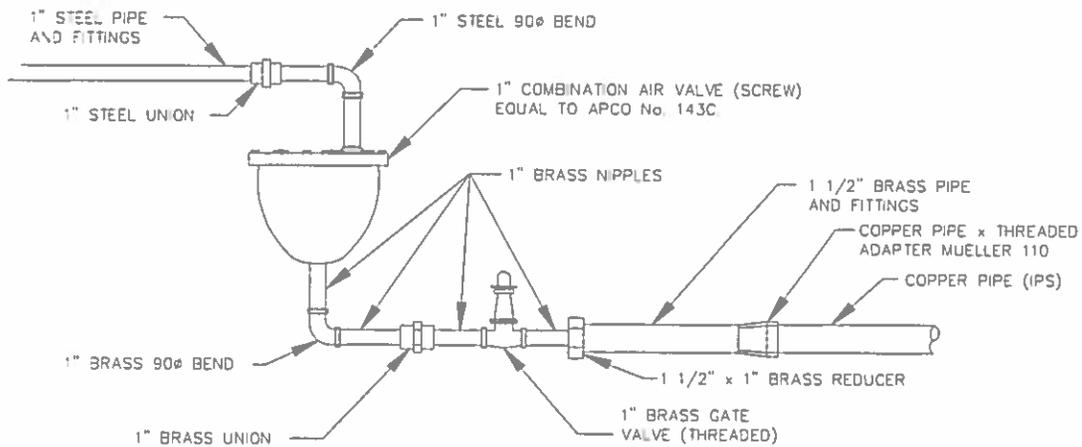
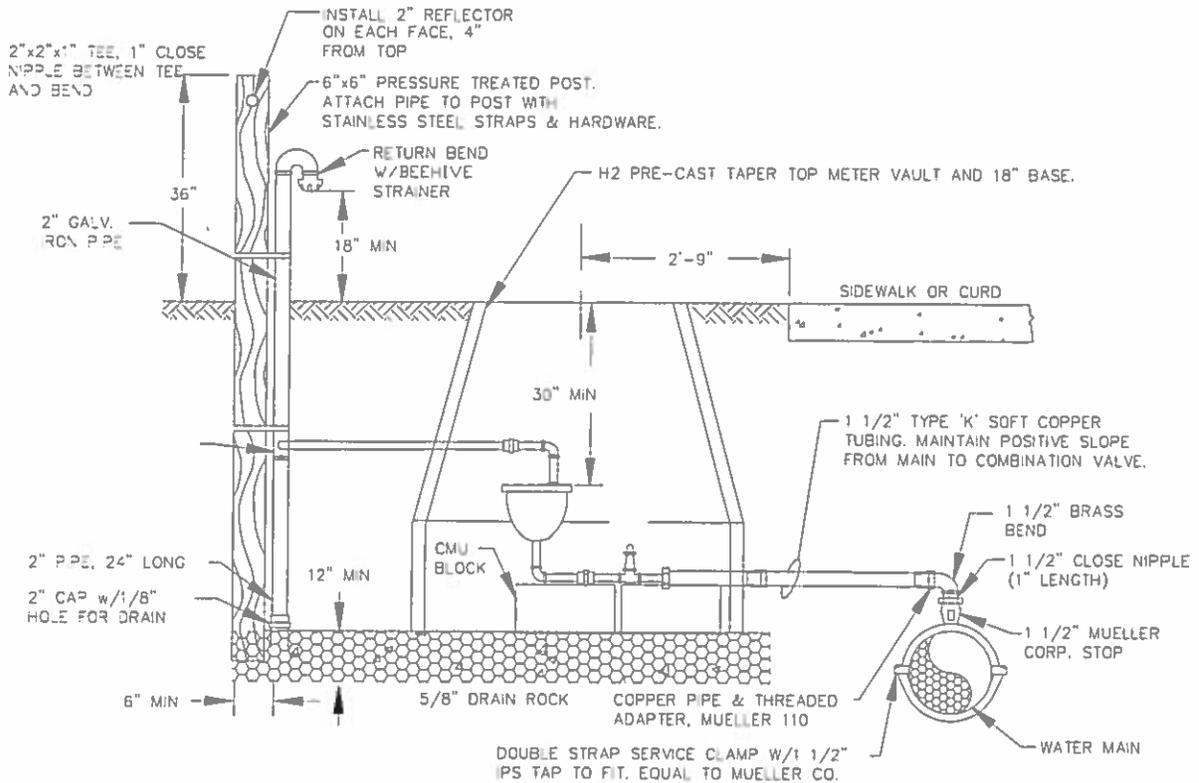
- This standard detail is for deadman blocking only.
- Concrete block shall be per APWA specification 7-11.3(13) 1988.
- Maintain 18" minimum cover over the top of block.
- Bottom of block is to be on undisturbed soil.
- Trench to be backfilled with crushed rock compacted to 95% density on all sides of block and a distance of 4' min. in front of block to full depth of block.
- Upon extension of water main, shackle rods are to be cut, remove plug. Concrete block to remain in place.
- For soil conditions not shown, block is to be designed by engineer.



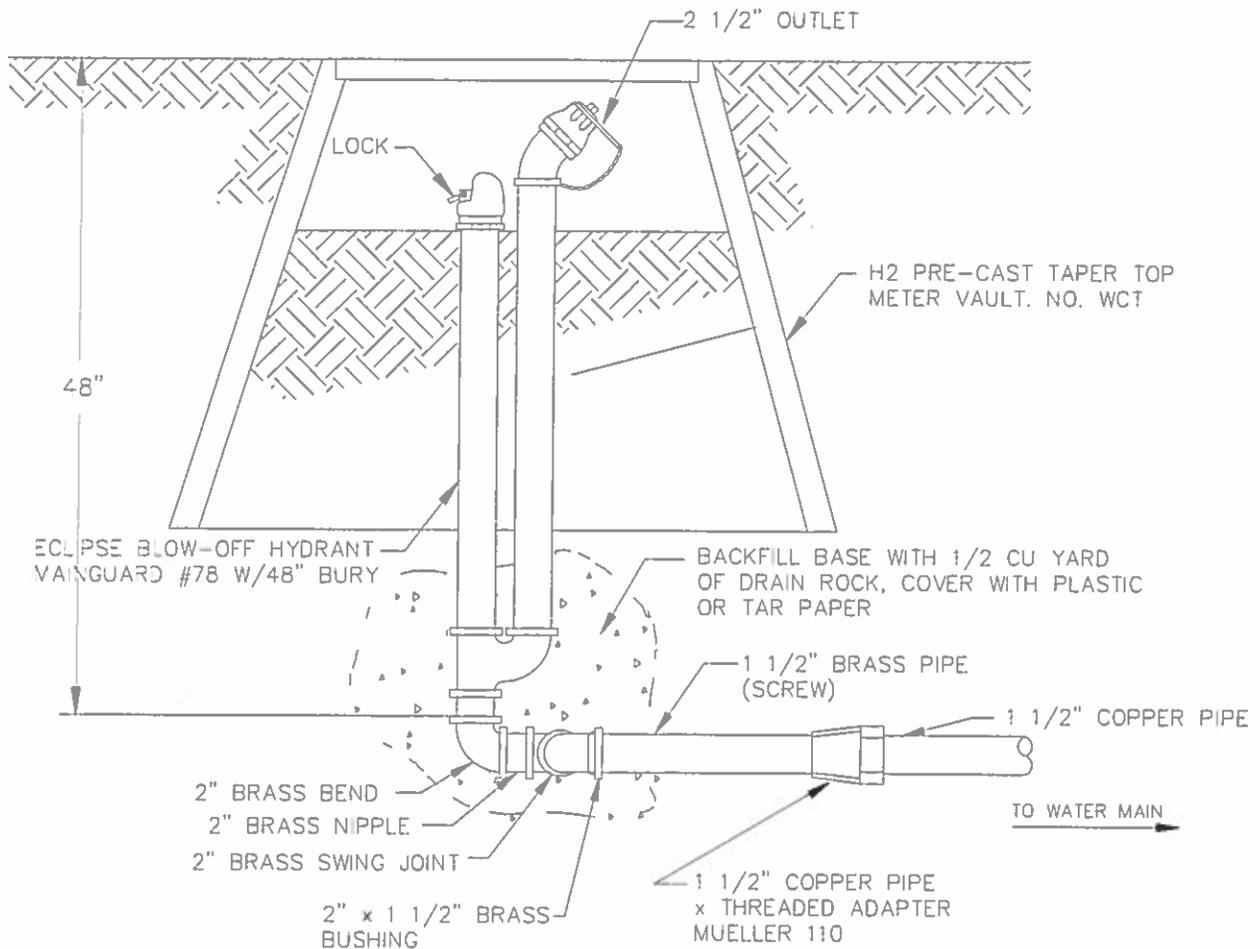
ID-050

1" COMBINATION AIR VALVE

NOTE: Air valve assembly shall be installed at highest point of line.



10-002

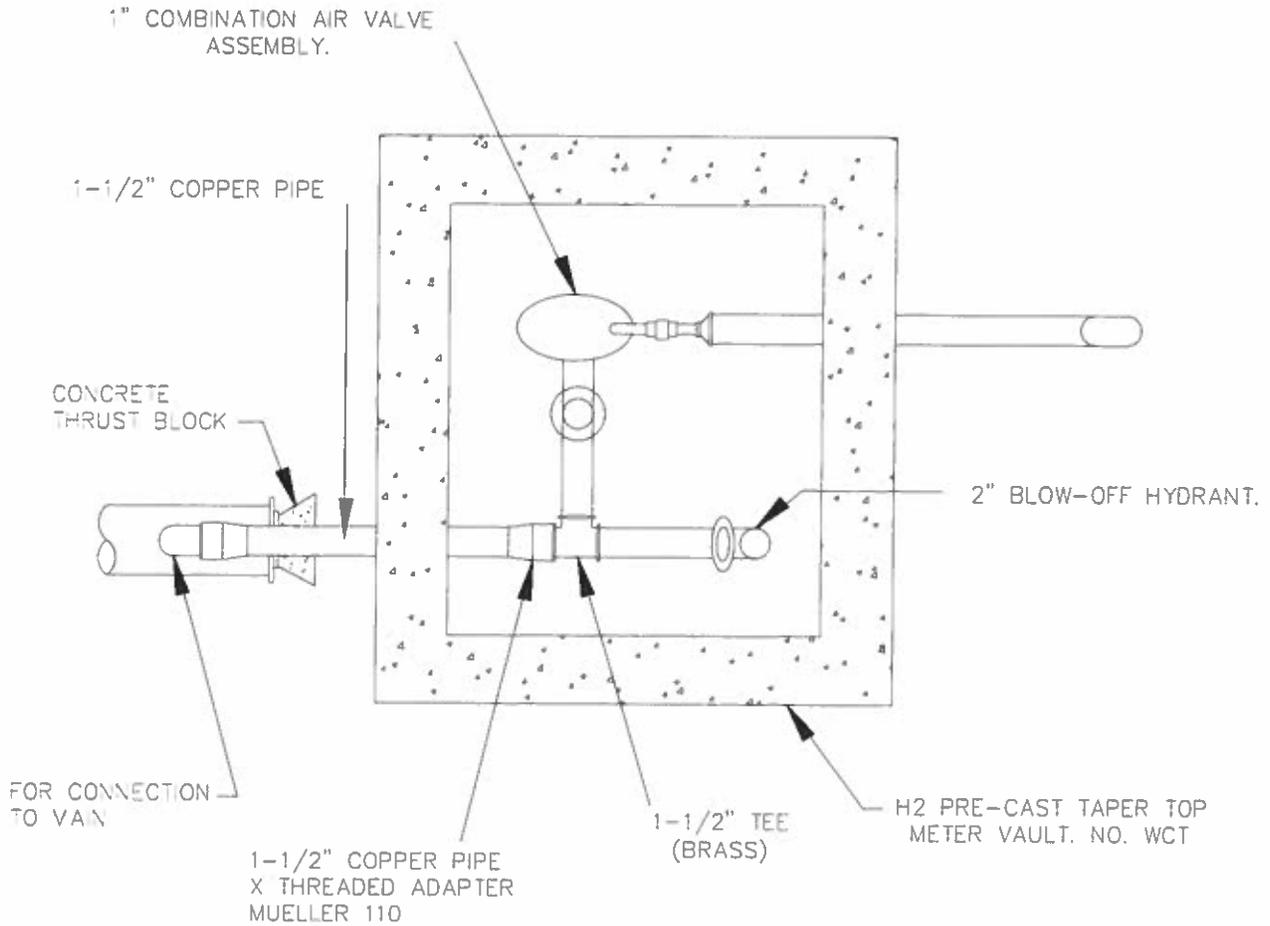
BLOW-OFF HYDRANT FOR DEAD END MAINS**NOTES**

1. INSTALL STANDARD MARKER POST IDENTIFYING VALVE LOCATION
2. SET METER BOX FLUSH WITH SIDEWALK OR CURB LOCATED IN LAWN AREA.
SET METER BOX APPROX. 2" ABOVE FINISHED GRADE IF IN LANDSCAPING AREA.
3. ALL FITTINGS TO BE BRASS UNLESS OTHERWISE NOTED.

ID-003

COMBINATION AIR VALVE & BLOW-OFF ASSEMBLIES

- NOTE: ● Install standard marker post identifying valve location.
 ● Set meter box flush with sidewalk or curb in located in lawn area. Set meter box approx. 2" above finished grade is in landscaping area.
 ● All fittings to be brass unless otherwise noted.



ID-046

RESTRAINED PIPE JOINT REQUIREMENTS

RESTRAINED JOINTS TO ADHERE TO THE FOLLOWING REQUIREMENTS OR AS RECOMMENDED BY THE MANUFACTURER IF MORE STRINGENT.

RESTRAINED JOINTS ARE REQUIRED: ON ADJACENT RUNS OF PIPE AT ALL BENDS AND PLUGS.
 ON RUNS CONNECTED TO TEES AND CROSSES ONLY OPPOSITE
 THRUST BLOCKS.
 ON ALL PIPE PLACED IN CASING PIPES.

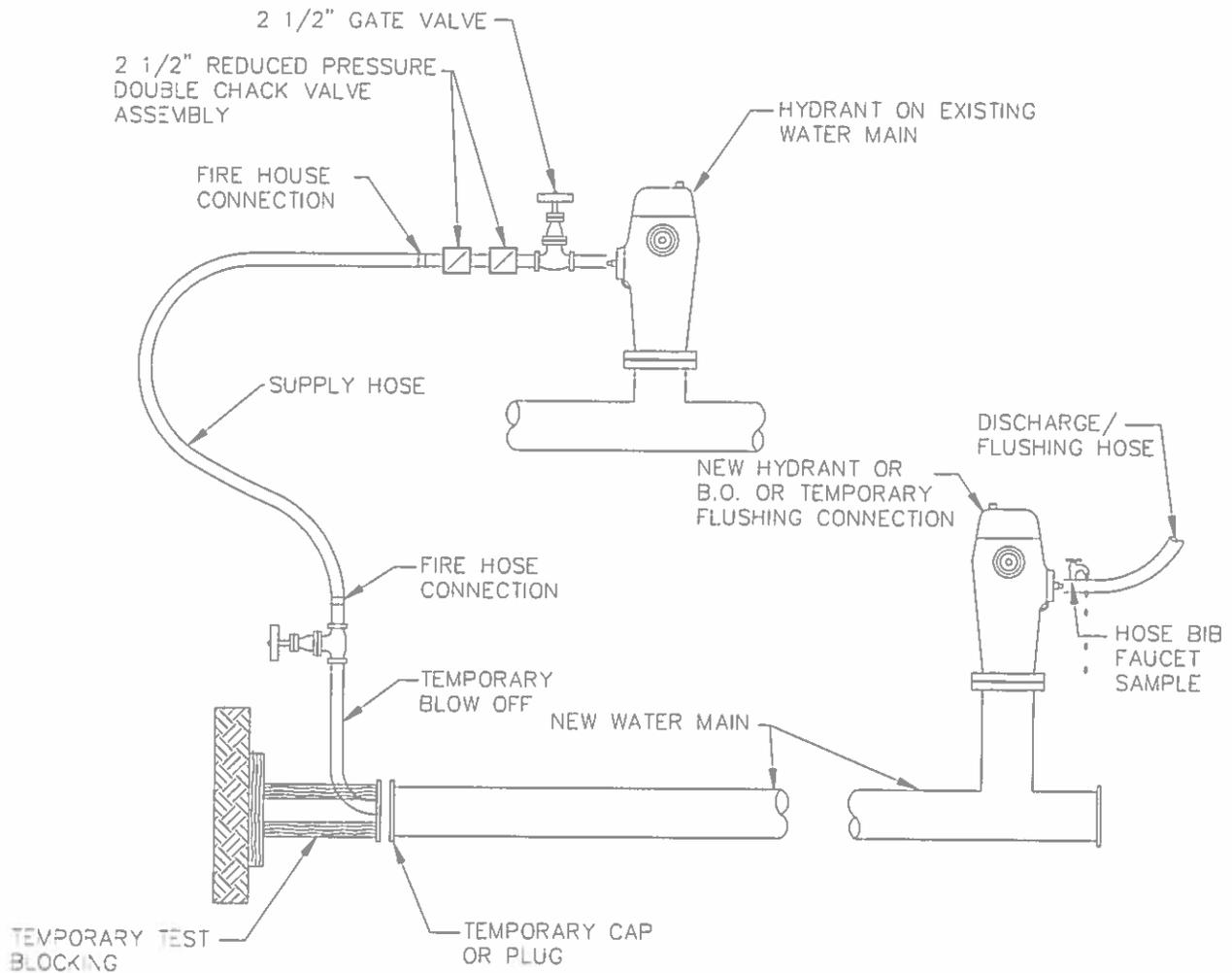
MATERIALS: DUCTILE IRON PIPE WILL BE USED WITH ALL RESTRAINED JOINTS. ALL METHODS OF RESTRAINED JOINTS SHALL BE APPROVED BY THE CITY.

LENGTH OF RESTRAINED JOINT PIPE FROM EACH SIDE OF FITTING

PIPE DIA	CROSS. PLUG. TEE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
6"	38' (49')	22' (28')	18' (18')	18' (18')	18' (18')
8" & 10"	53' (69')	34' (44')	20' (26')	18' (18')	18' (18')

VALUES IN PARENTHESES WILL BE USED FOR PIPE WITH POLYETHYLENE WRAPPING, WHERE BENDS REQUIRE TWO FITTINGS AS SHOWN ON CONTRACT DRAWINGS, LENGTH OF PIPE WITH RESTRAINED JOINTS SHALL BE AS SPECIFIED FOR THE NEXT ANGLE GREATER THAN THE SUM OF THE ANGLES FORMED BY THE FITTINGS BUT NOT GREATER THAN FOR A 90° BEND.

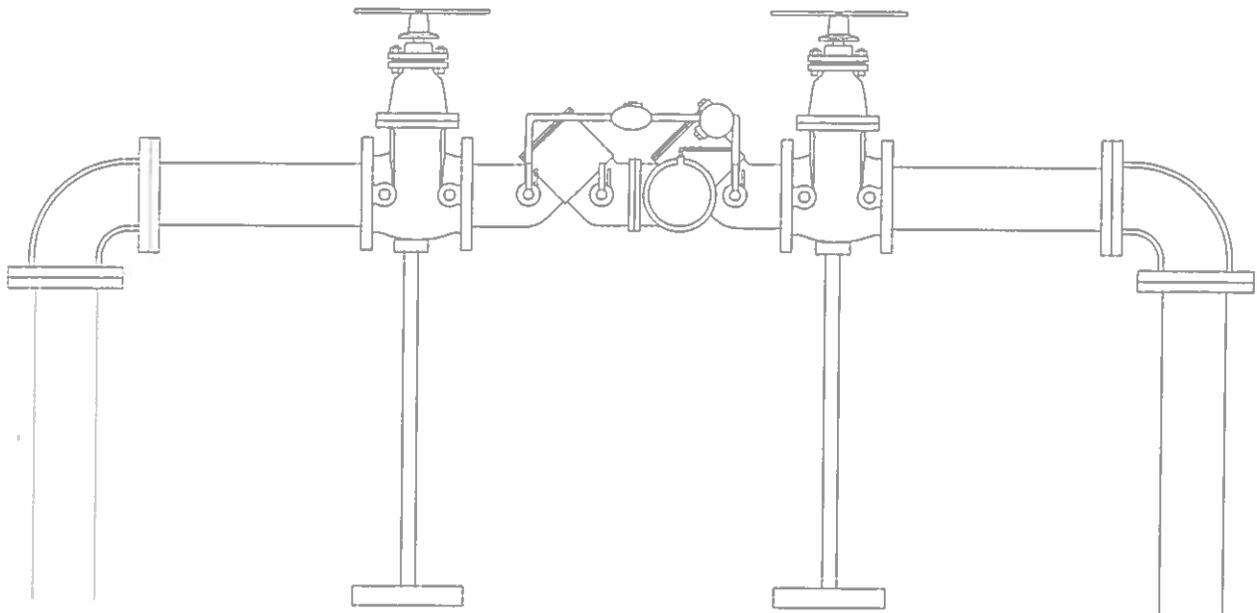
FILLING OF NEW WATER MAINS



NOTES:

1. DO NOT DISPOSE OF CHLORINATED WATER INTO STREAMS, LAKES, OR WETLANDS.
2. INSPECTION OF TEMPORARY CONNECTION REQUIRED BEFORE FILLING WATERMAIN
3. CONTRACTOR TO PROVIDE VALVES FOR TESTING PURPOSES WHERE NEEDED.

ID-010

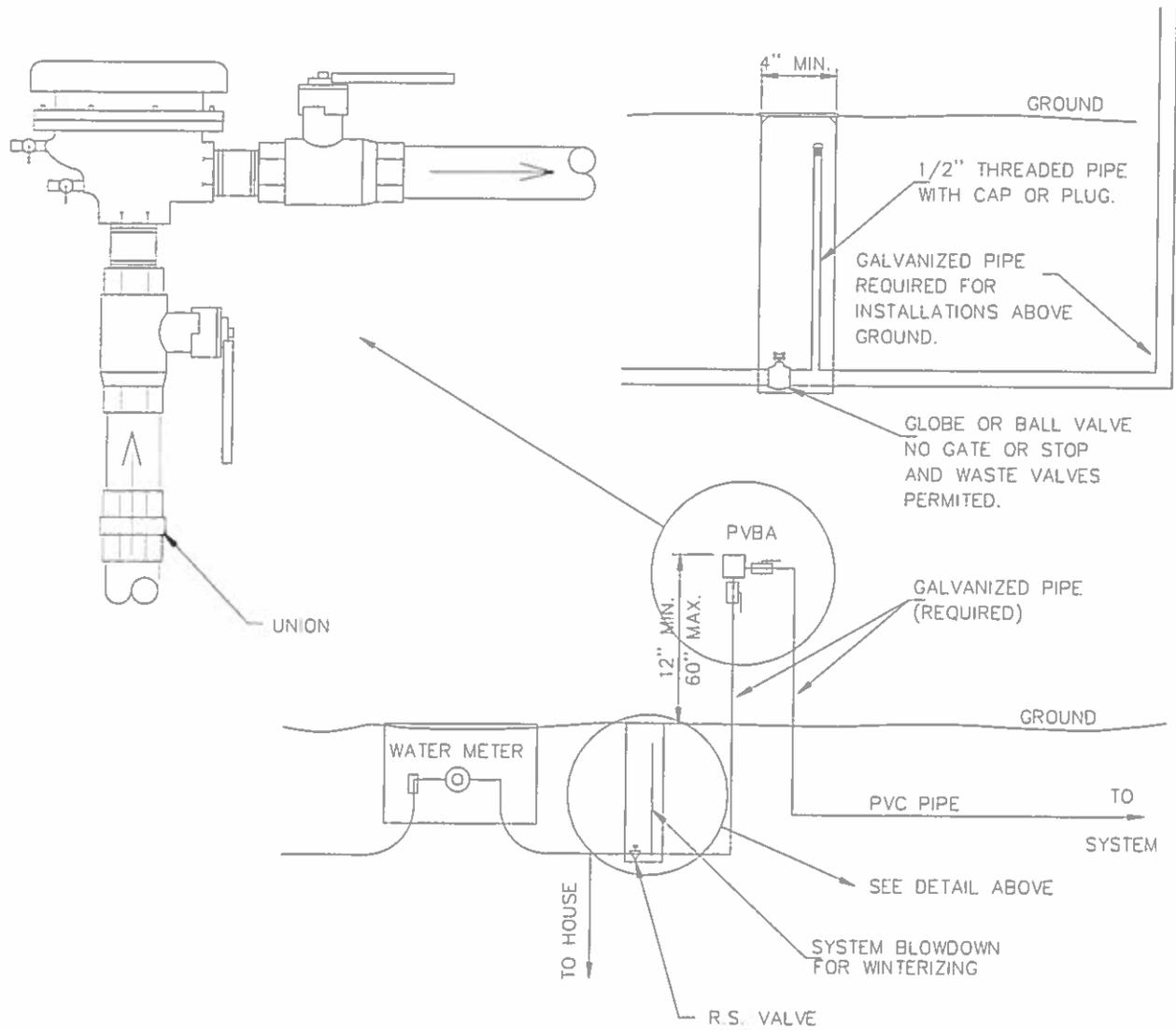
DETECTOR CHECK VALVE INSTALLATION

NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 3) A MIN. 3" DIA. FLOOR DRAIN IS REQUIRED.

TD-106

PVBA INSTALLATION

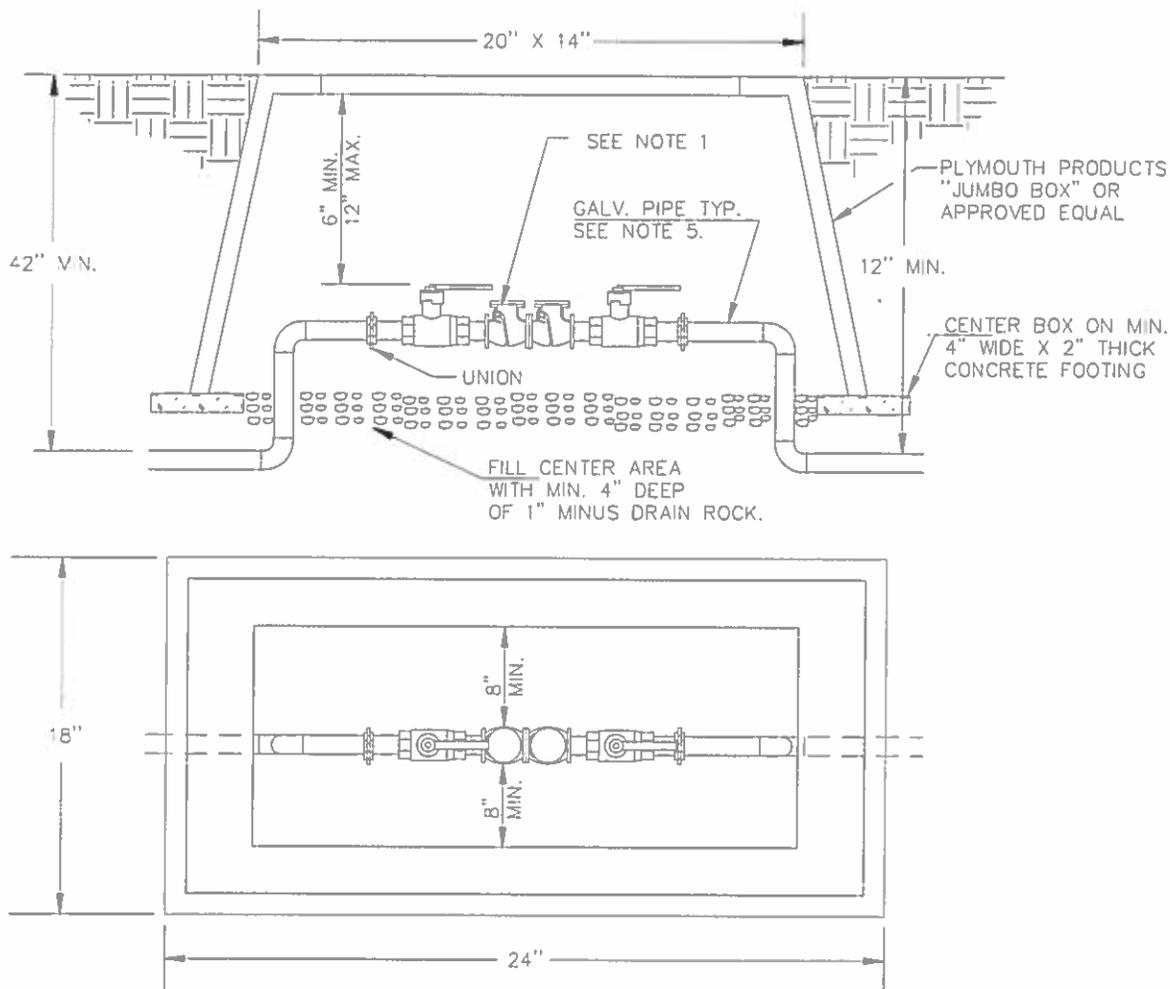


NOTES:

- 1) PVBA MAY BE INSTALLED ON LOW HAZARD POTABLE WATER SUPPLY SYSTEMS ONLY.
- 2) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 3) PVBA MUST BE INSTALLED NOT LESS THAN 12" ABOVE THE HIGHEST POINT OF USE AND NOT MORE THAN 60" HIGH.

ID-077

DOUBLE CHECK VALVE ASSEMBLY INSTALLATION 3/4" TO 1"

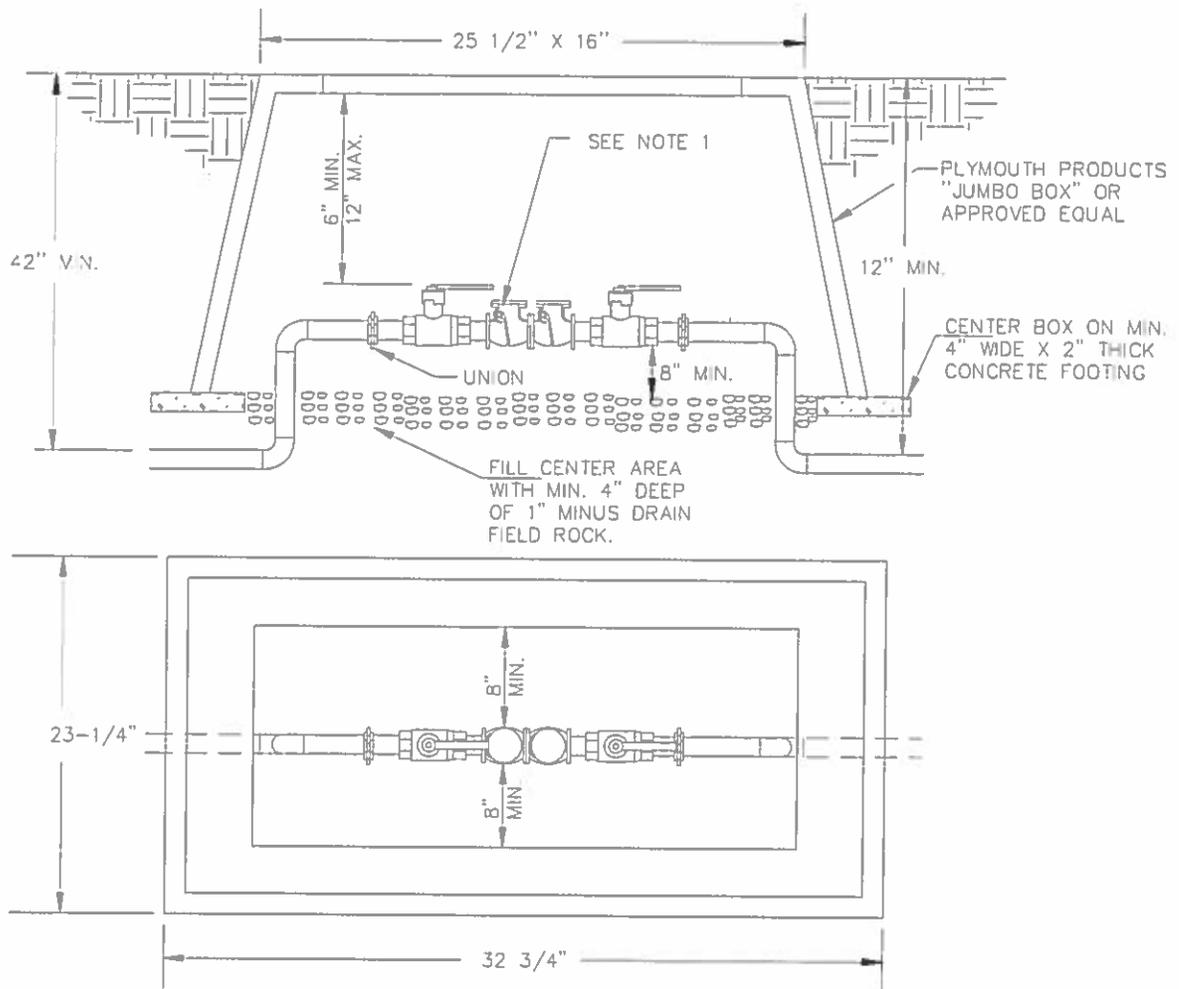


NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) MAY BE INSTALLED BELOW GROUND IN AN APPROVED VAULT.
- 3) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 4) FREEZE PROTECTION IS THE RESPONSIBILITY OF THE OWNER.
- 5) RISERS AND ALL PIPE IN BOX TO BE GALVANIZED.
- 6) A LADDER IS REQUIRED IF ACCESS OPENING TO FLOOR EXCEEDS 36"

ID-079

DOUBLE CHECK VALVE ASSEMBLY INSTALLATION 1-1/4" TO 2-1/2"

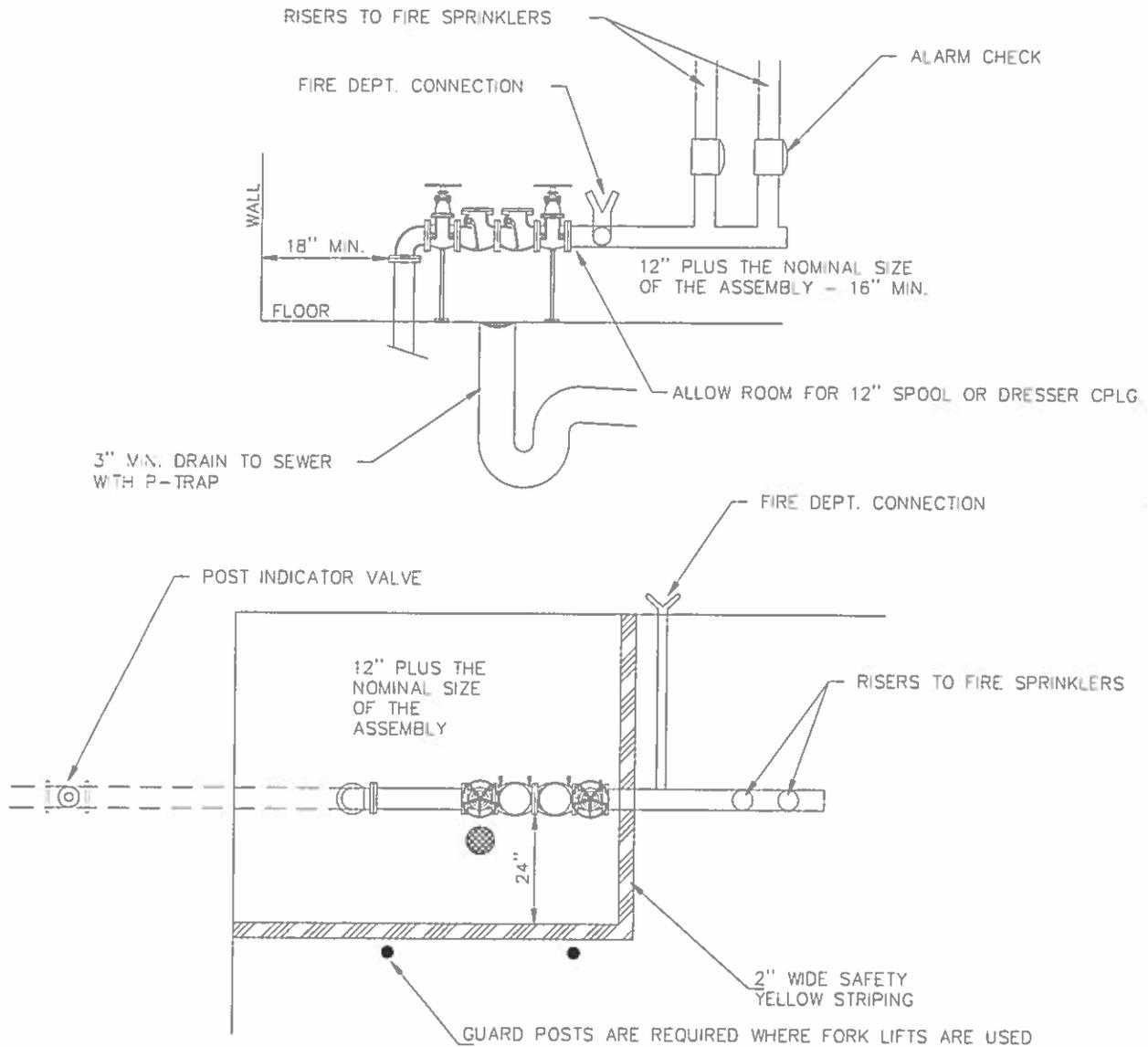


NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) MAY BE INSTALLED BELOW GROUND IN AN APPROVED VAULT.
- 3) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 4) FREEZE PROTECTION IS THE RESPONSIBILITY OF THE OWNER.
- 5) RISERS AND ALL PIPE IN BOX TO BE GALVANIZED.
- 6) A LADDER IS REQUIRED IF ACCESS OPENING TO FLOOR EXCEEDS 36"

10-080

DOUBLE CHECK VALVE ASSEMBLY INSTALLATION 3" & LARGER IN BUILDING

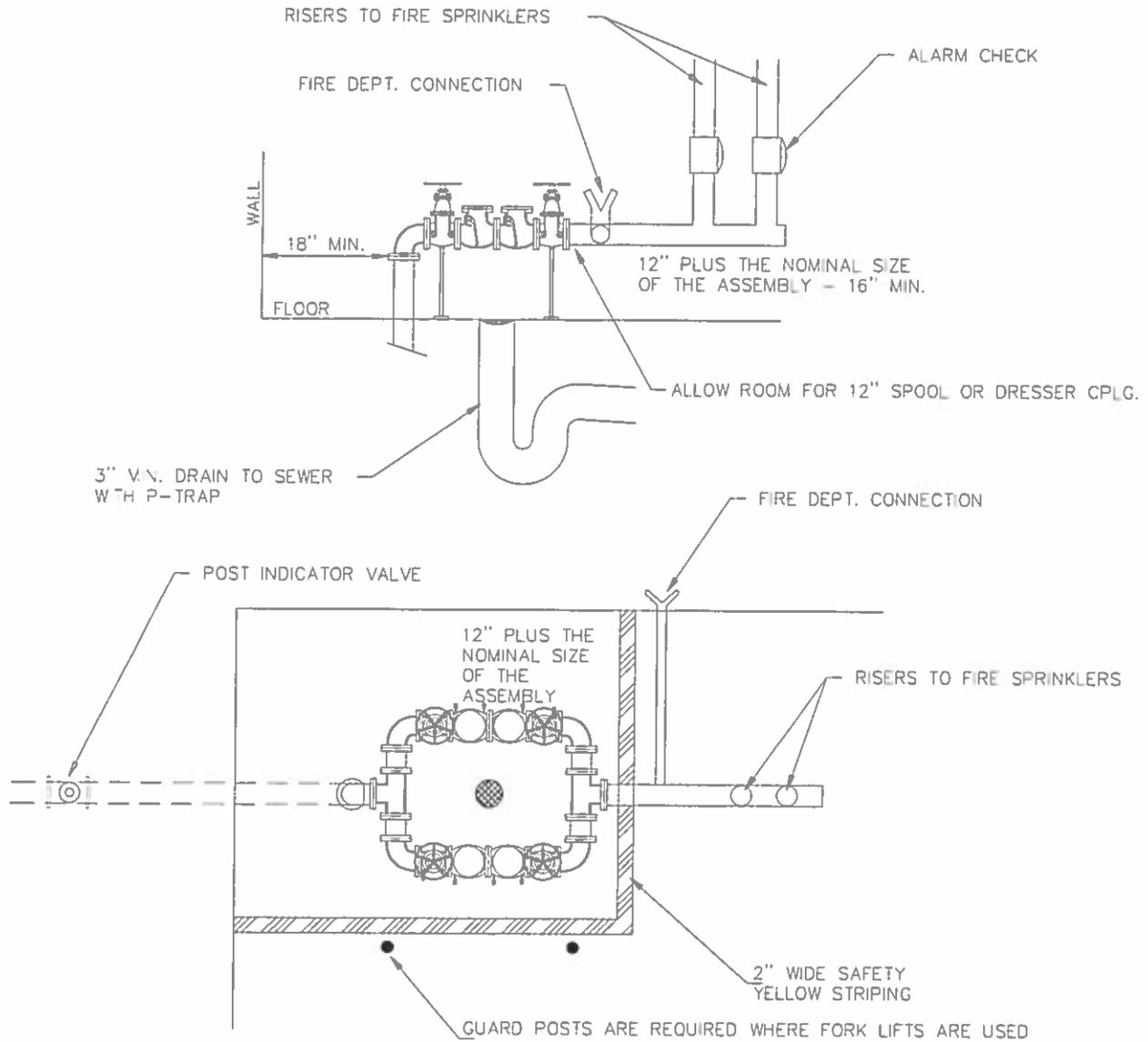


NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 3) A MIN. 3" DIA. FLOOR DRAIN IS REQUIRED.

ID-081

SIDE BY SIDE DCVA DUAL INSTALLATION 3" & LARGER IN BUILDING

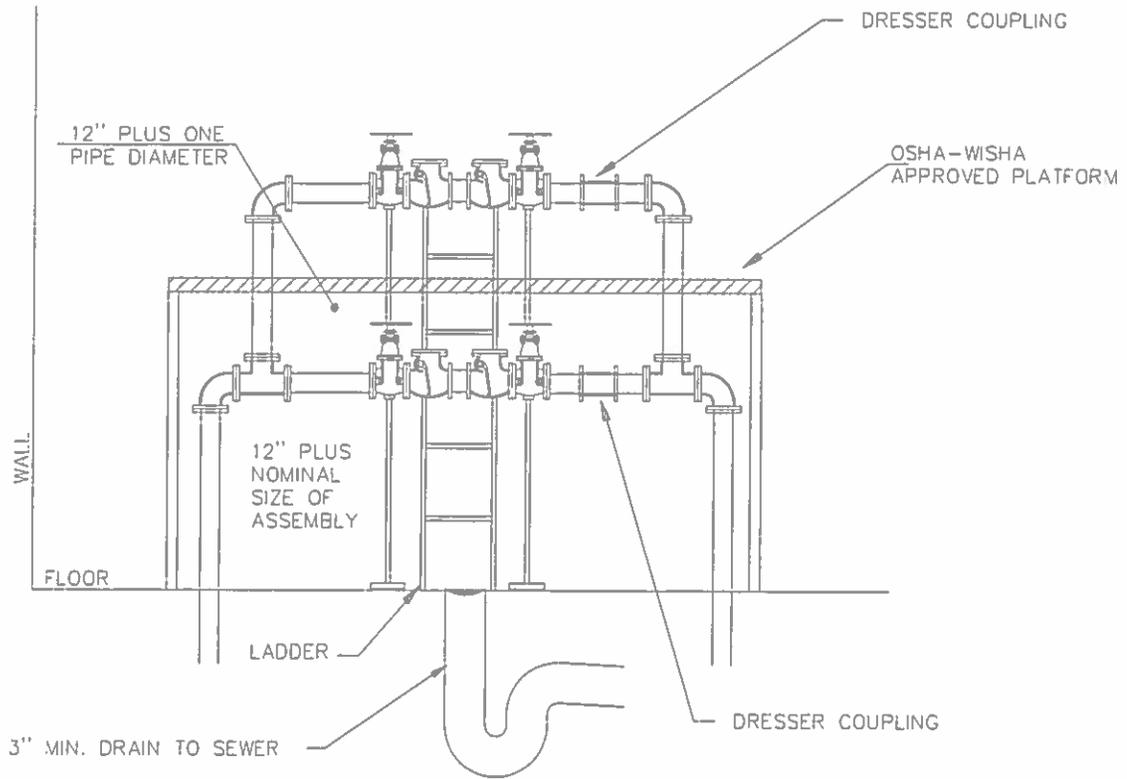


NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES
- 2) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 3) A V.N. 3" DIA. FLOOR DRAIN IS REQUIRED.

ID-082

VERTICAL APPLICATION DCVA DUAL INSTALLATION 3" & LARGER IN BUILDING

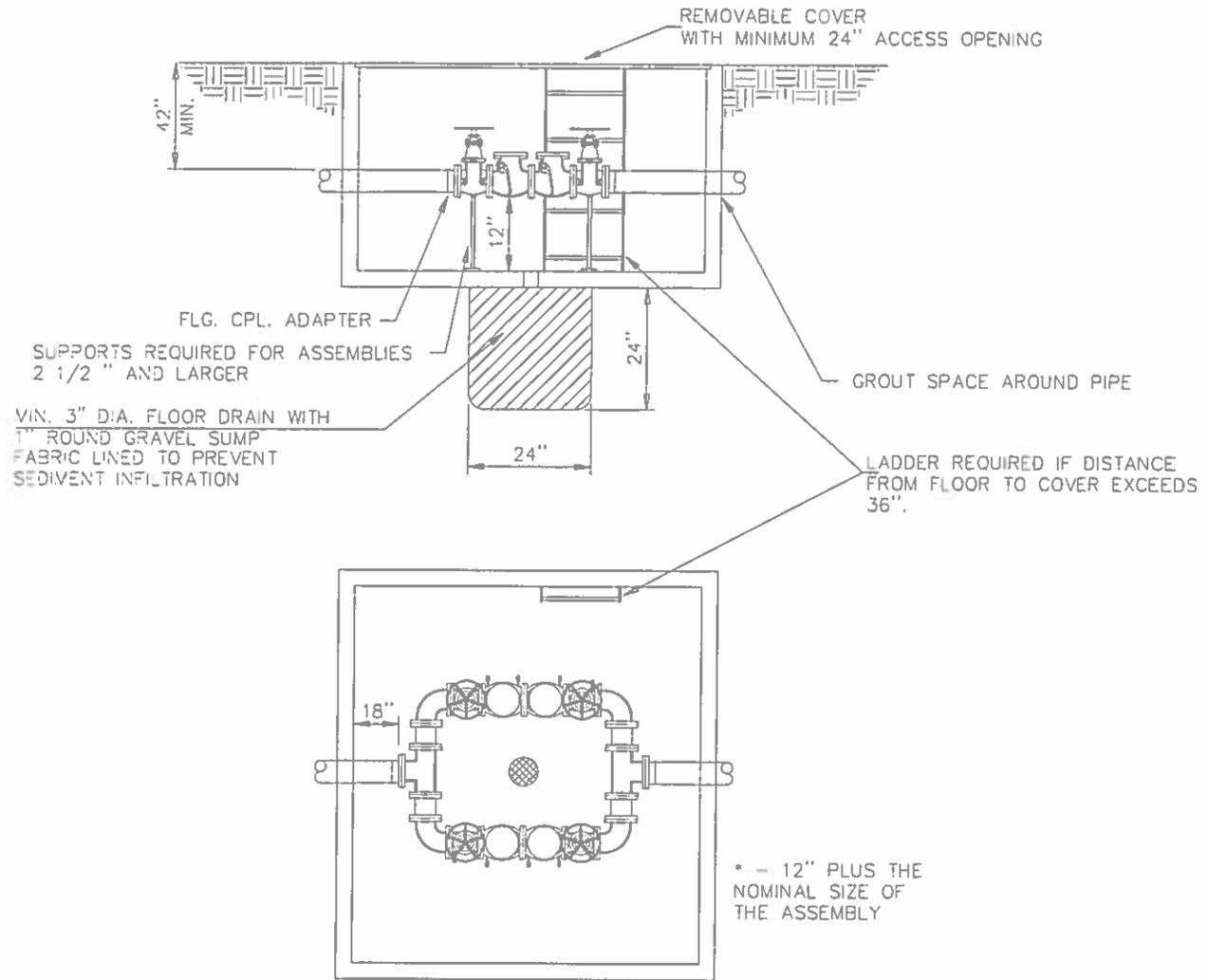


NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) MAY BE INSTALLED BELOW GROUND IN AN APPROVED VAULT.
- 3) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 4) FREEZE PROTECTION IS THE RESPONSIBILITY OF THE OWNER.
- 5) A MIN. 3" DIA. FLOOR DRAIN IS REQUIRED.
- 6) A LADDER IS REQUIRED IF THE DISTANCE FROM THE ACCESS OPENING TO THE FLOOR EXCEEDS 36".
- 7) A SPACE EQUALING 12" PLUS ONE PIPE DIAMETER IS REQUIRED BETWEEN ASSEMBLIES.
- 8) AN OSHA-WISHA APPROVED PLATFORM MUST BE ERECTED FOR MAINTENANCE AND TESTING WHEN INSTALLED 60" ABOVE FLOOR LEVEL.
- 9) GUARD POST ARE REQUIRED IN AREAS WHERE FORK LIFTS ARE USED

ID-083

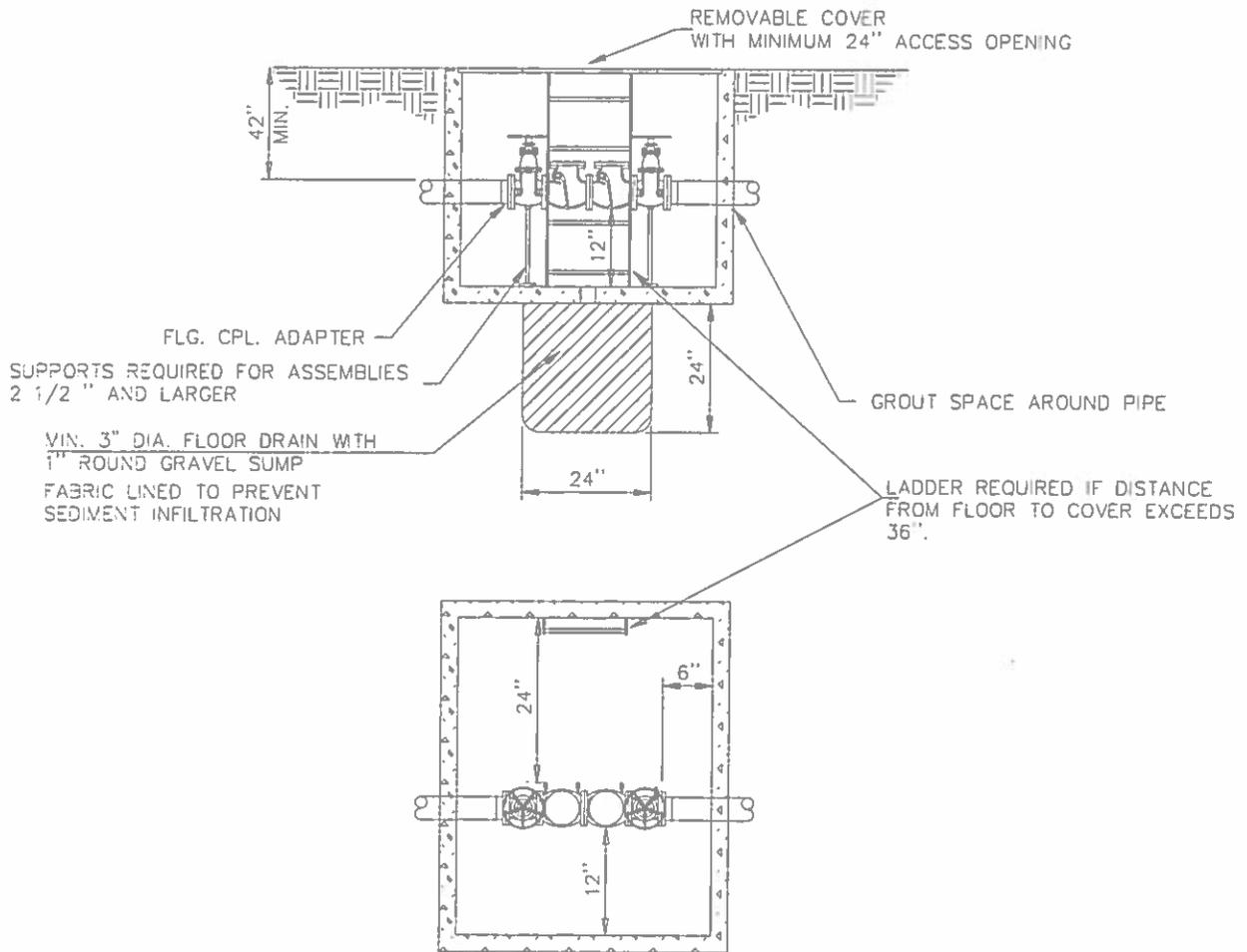
SIDE BY SIDE DCVA DUAL INSTALLATION 3" & LARGER IN VAULT



NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) MAY BE INSTALLED BELOW GROUND IN AN APPROVED VAULT.
- 3) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 4) FREEZE PROTECTION IS THE RESPONSIBILITY OF THE OWNER.
- 5) A V.N. 3" DIA. FLOOR DRAIN IS REQUIRED.
- 6) A LADDER IS REQUIRED IF ACCESS OPENING TO FLOOR EXCEEDS 36"

ID-084

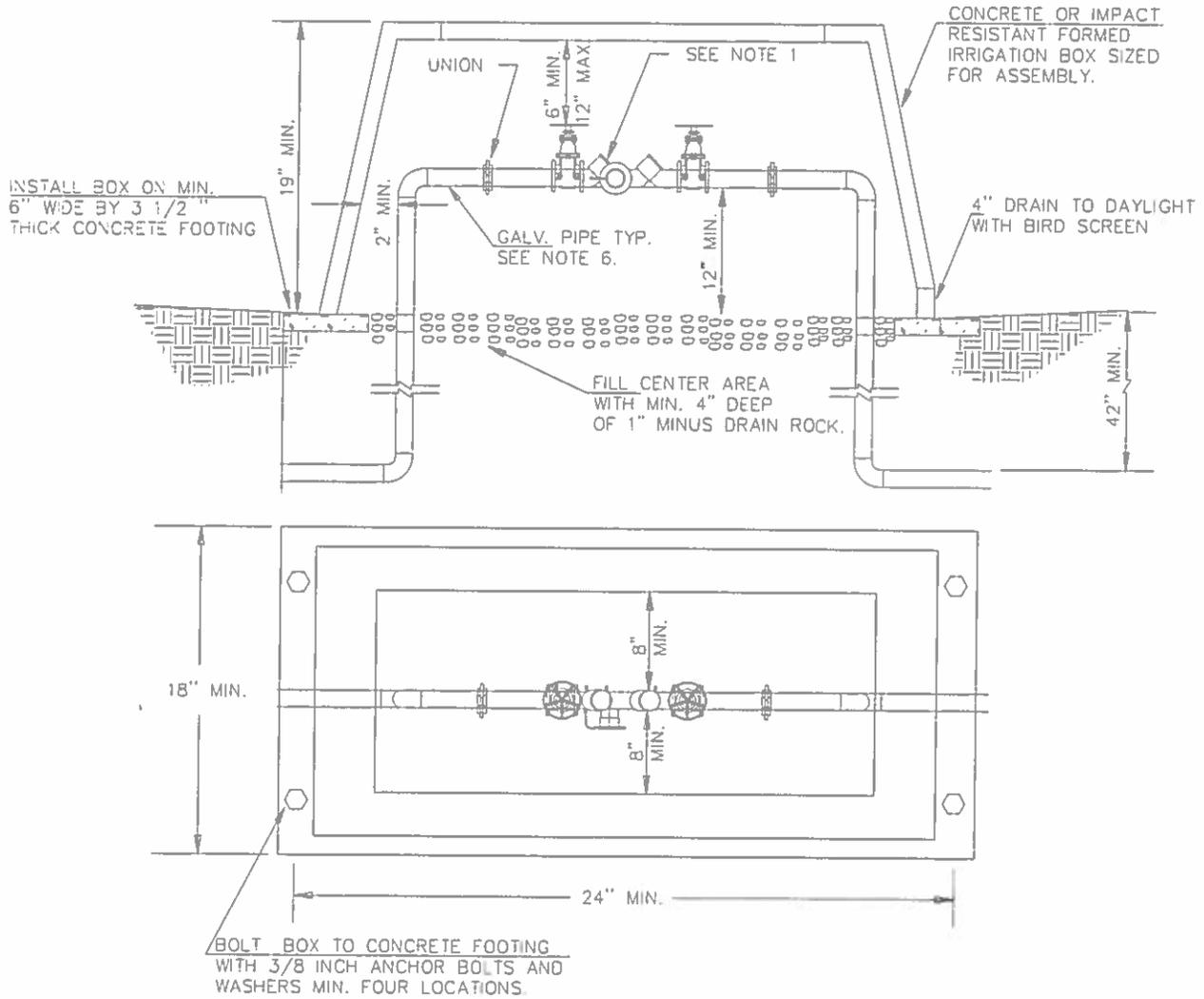
DOUBLE CHECK VALVE ASSEMBLY INSTALLATION 3" & LARGER IN VAULT

NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) MAY BE INSTALLED BELOW GROUND IN AN APPROVED VAULT.
- 3) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION
- 4) FREEZE PROTECTION IS THE RESPONSIBILITY OF THE OWNER.
- 5) A MIN. 3" DIA. FLOOR DRAIN IS REQUIRED.
- 6) A LADDER IS REQUIRED IF ACCESS OPENING TO FLOOR EXCEEDS 36"

ID-085

REDUCED PRESSURE BACKFLOW ASSEMBLY INSTALLATION 3/4" TO 1"

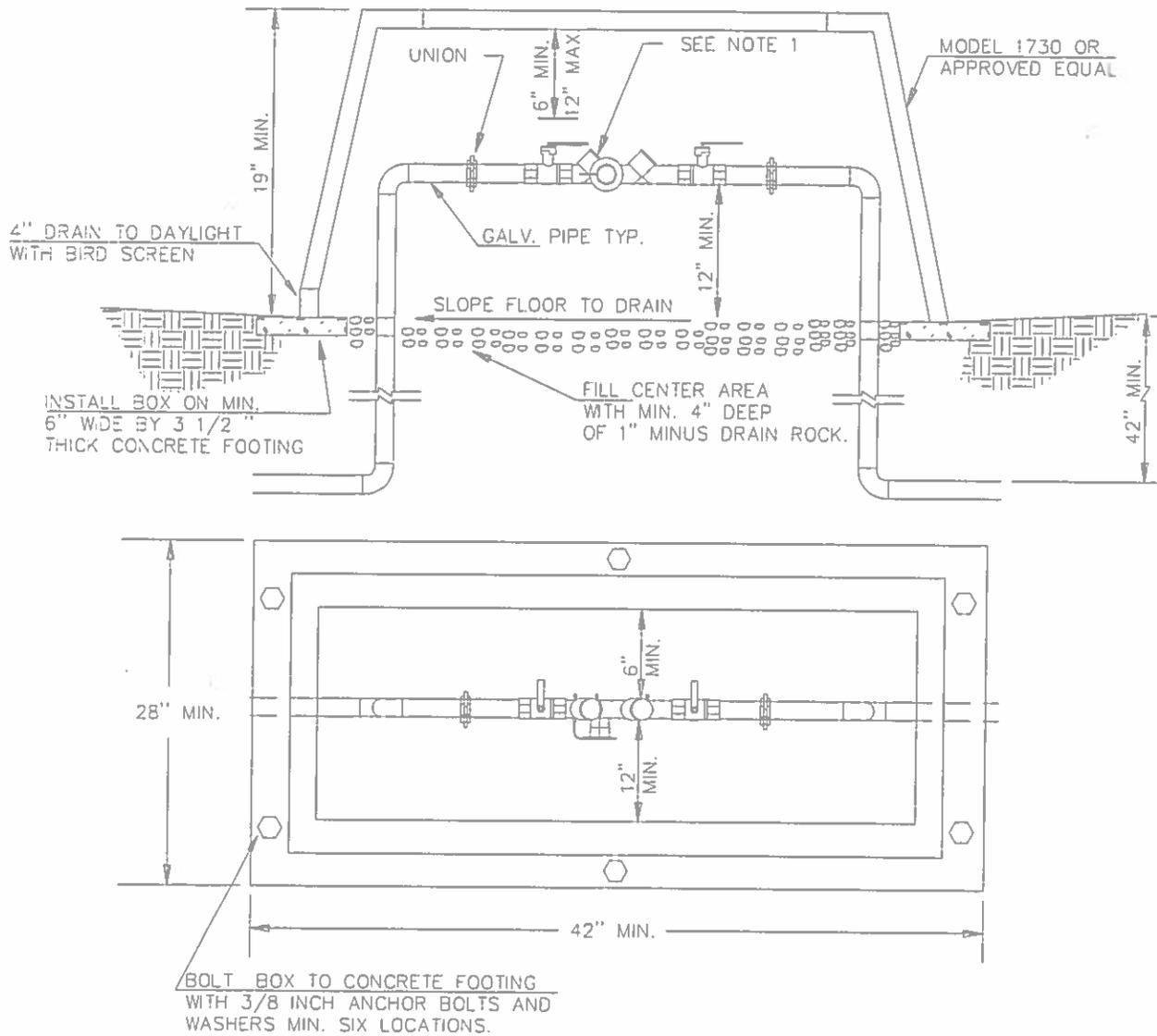


NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) MUST BE INSTALLED ABOVE GROUND MIN. 12 INCHES.
- 3) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 4) WHEN INSTALLED INSIDE A BUILDING, A FLOOR DRAIN SIZED TO ACCEPT MAXIMUM DISCHARGE FROM THE RELIEF ASSEMBLY IS REQUIRED.
- 5) FREEZE PROTECTION IS THE RESPONSIBILITY OF THE OWNER.
- 6) RISERS AND ALL PIPE IN BOX TO BE GALVANIZED STEEL.

ID-086

REDUCED PRESSURE BACKFLOW ASSEMBLY INSTALLATION 1-1/4" TO 2"

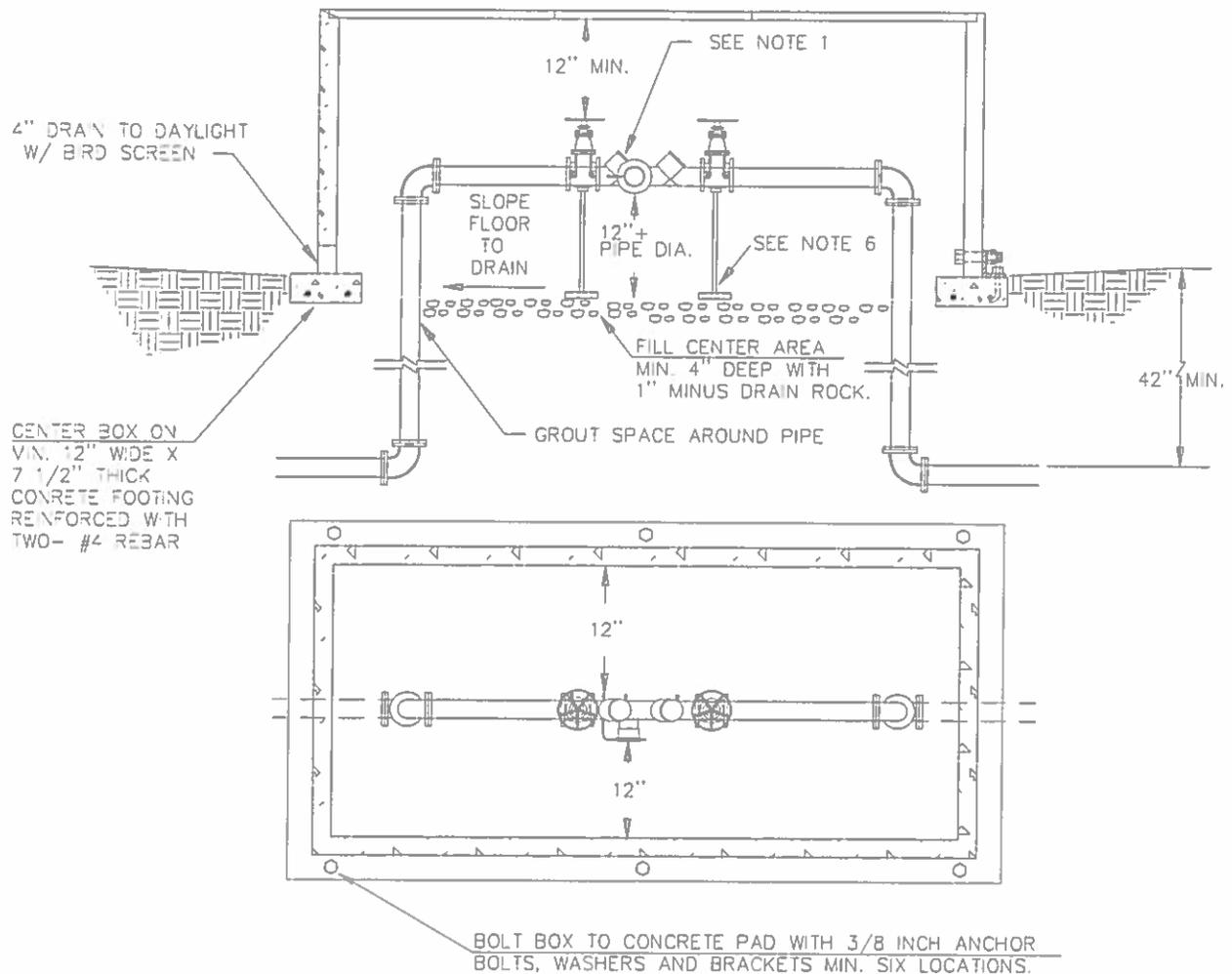


NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) MUST BE INSTALLED ABOVE GROUND MIN. 12 INCHES.
- 3) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 4) WHEN INSTALLED INSIDE A BUILDING, A FLOOR DRAIN SIZED TO ACCEPT MAXIMUM DISCHARGE FROM THE RELIEF ASSEMBLY IS REQUIRED.
- 5) FREEZE PROTECTION IS THE RESPONSIBILITY OF THE OWNER.

ID-087

REDUCED PRESSURE BACKFLOW ASSEMBLY INSTALLATION 2-1/2" AND LARGER

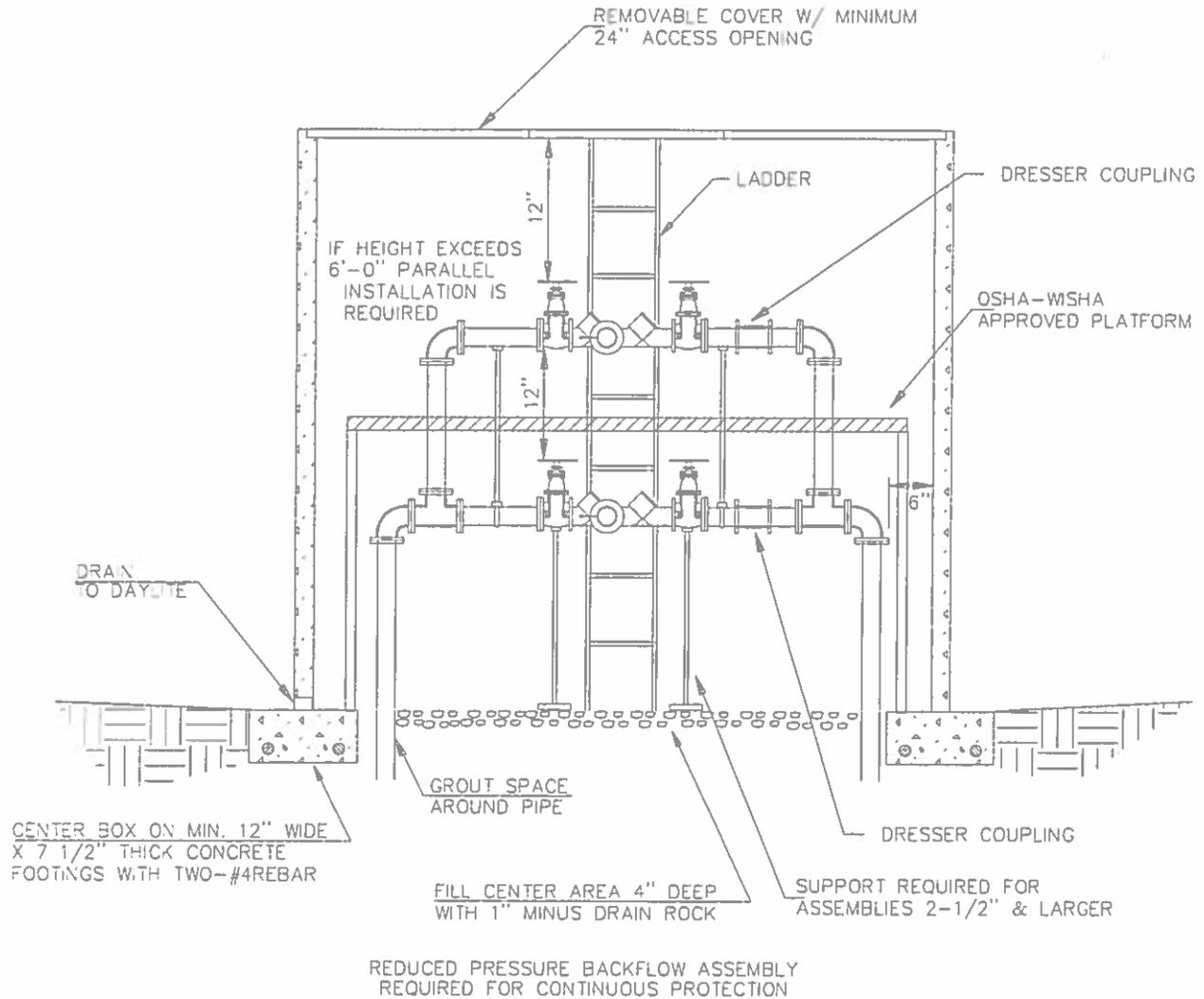


NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) MUST BE INSTALLED ABOVE GROUND. MIN. 12" PLUS PIPE DIAMETER.
- 3) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 4) WHEN INSTALLED INSIDE A BUILDING, A FLOOR DRAIN SIZED TO ACCEPT MAXIMUM DISCHARGE FROM THE RELIEF ASSEMBLY IS REQUIRED.
- 5) FREEZE PROTECTION IS THE RESPONSIBILITY OF THE OWNER.
- 6) SEE DWG. PAGE 10-14 FOR PIPE SUPPORTS. SET SUPPORTS ON CONCRETE BLOCKS.

ID-088

REDUCED PRESSURE BACKFLOW ASSEMBLY DUAL INSTALLATION

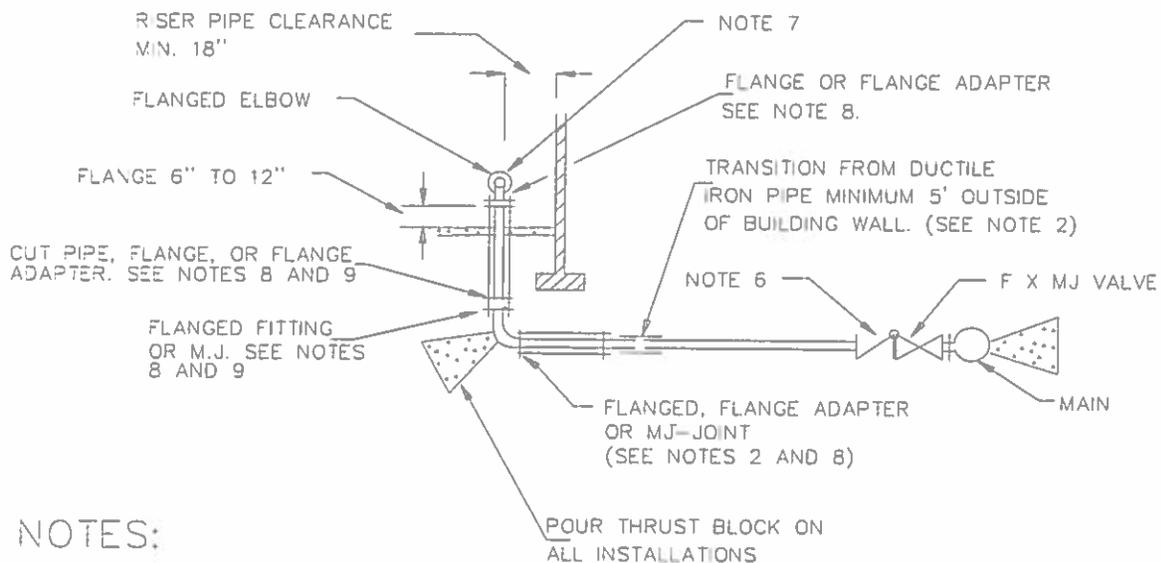


NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) MUST BE INSTALLED ABOVE GROUND.
- 3) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 4) WHEN INSTALLED INSIDE A BUILDING, A FLOOR DRAIN SIZED TO ACCEPT DISCHARGE FROM BOTH ASSEMBLIES IS REQUIRED.
- 5) FREEZE PROTECTION IS THE RESPONSIBILITY OF THE OWNER.
- 6) SUFFICIENT CLEARANCE IS REQUIRED FROM THE TOP OF THE VALVE STEM WHEN FULLY OPEN TO THE BOTTOM OF THE TOP ASSEMBLY.
- 7) AN OSHA-WISHA APPROVED PLATFORM MUST BE ERECTED FOR MAINTENANCE AND TESTING.
- 8) GUARD POSTS ARE REQUIRED IN AREAS WHERE FORK LIFTS ARE USED

ID-089

FIRE LINE INTO BUILDING

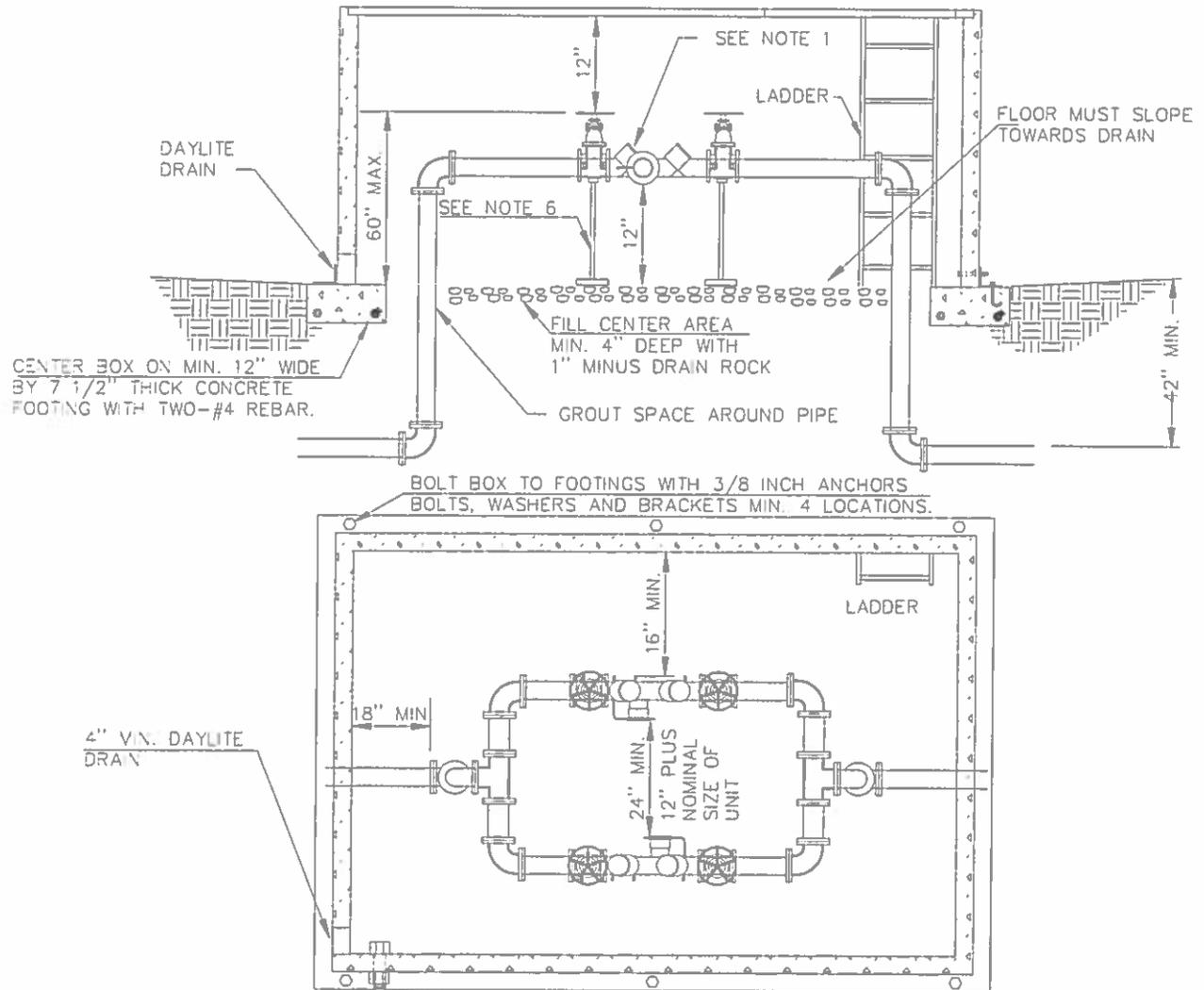


NOTES:

1. ENGINEERING INSPECTOR WILL INSPECT TO THE BACKFLOW DEVICE OUTSIDE OF THE BUILDING, OR TO THE FLANGE ABOVE THE BUILDING FLOOR.
2. JOINT TO BE FLANGED, OR FLANGE ADAPTER, EXCEPT MJ JOINT MAY BE USED WHEN BEND IS SHACKLED TO A RETAINER GLAND LOCATED A MINIMUM OF 5 FEET OUTSIDE OF THE BUILDING.
3. CONSTRUCT A THRUST BLOCK ON THE 90° BEND UNDER THE FLOOR SIZED FOR THE SIZE OF PIPE AND TYPE OF FILL. SIZE TO BE 1.34 TIMES THAT CALLED FOR IN STD. DWG. PAGES 2-12 AND 2-13.
4. FITTINGS AND PIPE WITHIN THE BUILDING LIMITS, AND TO A MINIMUM 5 FEET OUTSIDE OF THE BUILDING, SHALL BE AWWA CAST OR DUCTILE IRON.
5. PRESSURE TEST ALL FIRE LINE INSTALLATIONS AT 200 PSI FOR 2 HOURS.
6. SINGLE SOFT SEAT CHECK VALVE REQUIRED WHEN THE DISTANCE (LENGTH) FROM THE MAIN TO THE FLANGE ABOVE THE FLOOR IS GREATER THAN 50 FT.
7. APPROVED DOUBLE DETECTOR CHECK VALVE ASSEMBLY REQUIRED SEE PAGE 2-21
8. FLANGE ADAPTER TO BE 250 PSI RATED DUCTILE OR CAST IRON "UNION FLANGE" AS MFG. BY UNION FOUNDRY CO., UNIFLANGE OR EQUAL.
9. ALTERNATE MJ X 90° BEND MAY BE USED PROVIDED THAT 250 PSI RATED STEEL TIE RODS ARE UTILIZED TO ABOVE FLOOR FITTING. USE 2 RODS FOR 4"-6" PIPE, 3 RODS FOR 8", AND 4 RODS FOR 10"+. FOLLOWING ASSEMBLY, COAT ALL ROD ASSEMBLIES WITH BITUMASTIC SEALANT.

ID-090

SIDE BY SIDE RPBA DUAL INSTALLATION 3" OR LARGER



RPBA DUAL INSTALLATION

REDUCED PRESSURE BACKFLOW ASSEMBLY FOR ASSEMBLIES 3" AND LARGER

NOTES:

- 1) MUST BE ON THE LATEST DEPT. OF HEALTH APPROVED LIST OF BACKFLOW PREVENTION ASSEMBLIES.
- 2) MUST BE INSTALLED ABOVE GROUND.
- 3) A CITY OF CHELAN CROSS CONNECTION SPECIALIST MUST BE PRESENT DURING INSTALLATION.
- 4) WHEN INSTALLED INSIDE A BUILDING, A FLOOR DRAIN SIZED TO ACCEPT MAXIMUM DISCHARGE FROM BOTH RELIEF ASSEMBLIES IS REQUIRED.
- 5) FREEZE PROTECTION IS THE RESPONSIBILITY OF THE OWNER.
- 6) SEE DWG. PAGE 10-14 FOR PIPE SUPPORTS. SET SUPPORTS ON CONCRETE BLOCKS.

ID-109