11.0 DRAWINGS

INSTALLATION OF REDUCED PRESSURE BACKFLOW PREVENTERS

Reduced pressure backflow preventers will be installed above ground. (Fig. A) The unit should be placed at least twelve inches (12") above the finish grade to allow clearance for repair work. A concrete slab at finish grade is recommended. Proper drainage should be provided for the relief valve and may be piped away from the location, provided it is readily visible from above grade and the relief valve is separated from the drain line by a minimum of double the diameter of the supply line. A modified vault installation may be used if constructed with ample side clearances. (Fig. B)

ABOVE GROUND INSTALLATION

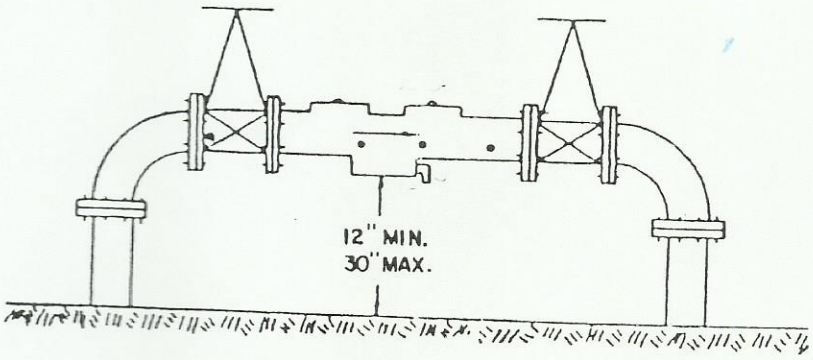


FIG. A

MODIFIED VAULT INSTALLATION

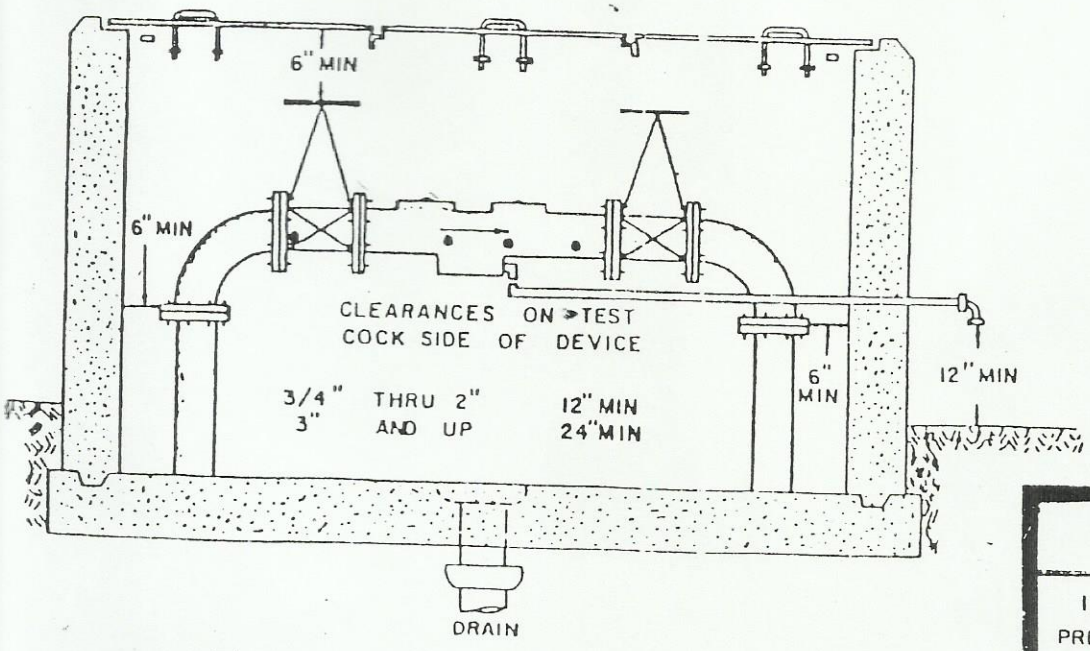


FIG B

Security Water District

INSTALLATION OF REDUCED PRESSURE BACKFLOW PREVENTERS

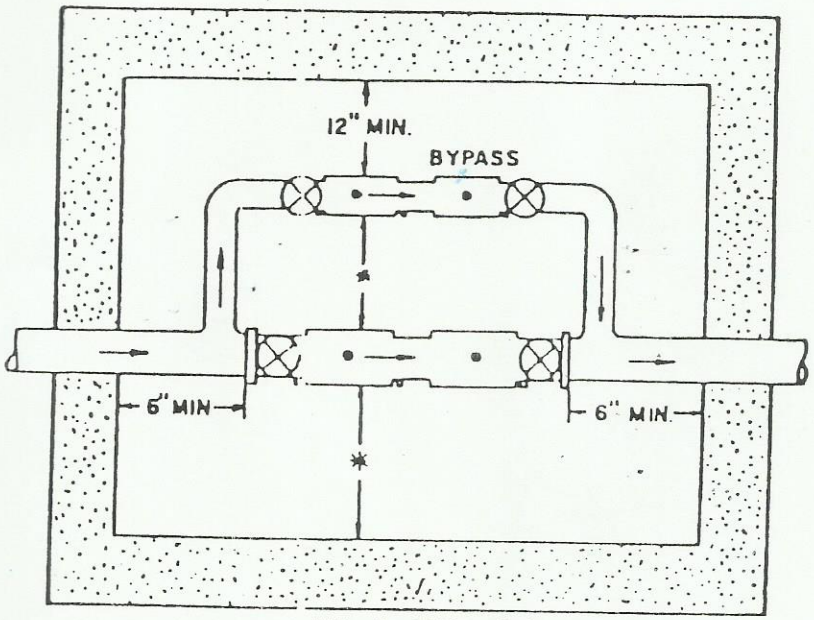
DWG NO

Installation of Double Check Valve Assembly Backflow Preventer

Though double check valve assemblies can be installed above ground these backflow preventers are also readily adaptable for vault installations. Special notice should be given to the side clearances for accessibility to properly test and repair the device. NOTE SIDE CLEARANCES (FIG. C) (See General Instructions, Page 1)

UNDERGROUND VAULT INSTALLATION

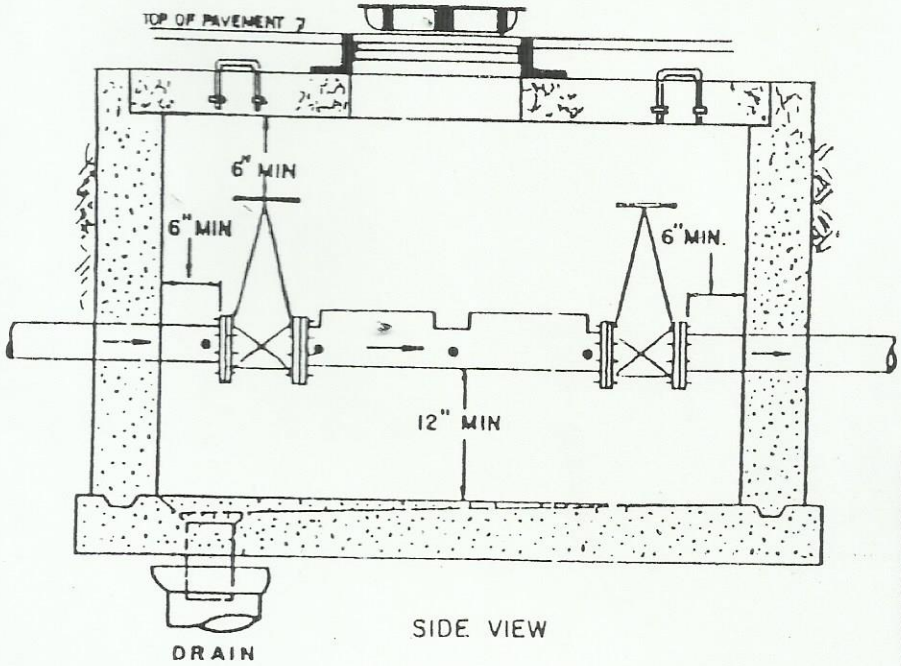
Vaults will be constructed in compliance with standard Water Division Specifications for meter pits of the same size.



* NOTE- CLEARANCES ON TEST COCK SIDE OF DEVICE

3/4" THRU 2 ..... 12"
3" AND UP ..... 24"

FIG. C - TOP VIEW



SIDE VIEW

Security Water District

INSTALLATION OF DOUBLE CHECK VALVE ASSEMBLY BACK-FLOW PREVENTER.

DWG. NO. 2

INDOOR INSTALLATION - REDUCED PRESSURE AND DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTERS

Where it is impractical to install the backflow preventer above ground, the installation may be made in an easily accessible location inside a building. The unit should be placed above the floor at a distance great enough to allow clearance for repair work. If the backflow preventer is positioned against a wall, care should be taken that the test cocks are easily accessible for testing. An air gap should be used between the relief valve outlet and the drain line if drainage is to be piped away. The air gap should be no less than double the diameter of the discharge pipe. (Fig. E) (See General Instructions, Page 1)

INDOOR INSTALLATION

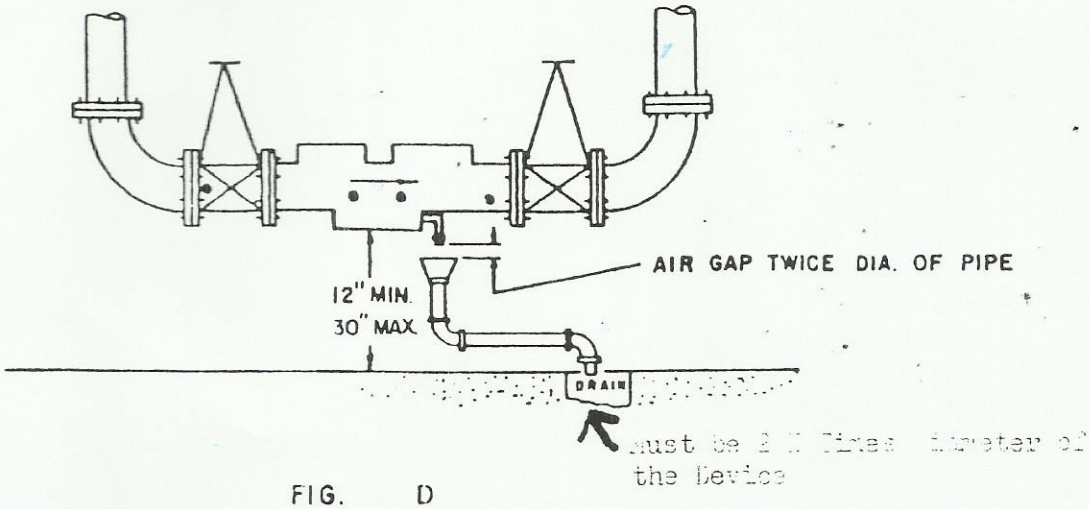


FIG. D

BYPASS POLICY

If a bypass is installed around the approved backflow prevention device the distribution system must be protected from backflow through this bypass, i.e., it also will include a backflow preventer of the same type as the main service line backflow preventer. Though it need not be of the same size, it must be installed in a similar fashion to the service line device.

Security Water District

INDOOR INSTALLATION - REDUCED PRESSURE AND DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTERS

DWG. NO 3

AIR CAP SEPARATION

An air gap separation means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture or other device and the flood level or overflow rim of the receptacle. An "approved air gap separation" shall be at least double the diameter of the supply pipe measured vertically above the overflow rim of the vessel and in no case shall the gap be less than 1". The tank should be installed as close to the property line as practical. The piping between the water meter and the air gap separation should be entirely visible to insure that no connections or tees are made in that area. To eliminate possible entrance of vermin, screened protections over the entire A/G set-up are encouraged. (See General Instructions, Page 1)

AIR GAP SEPARATION

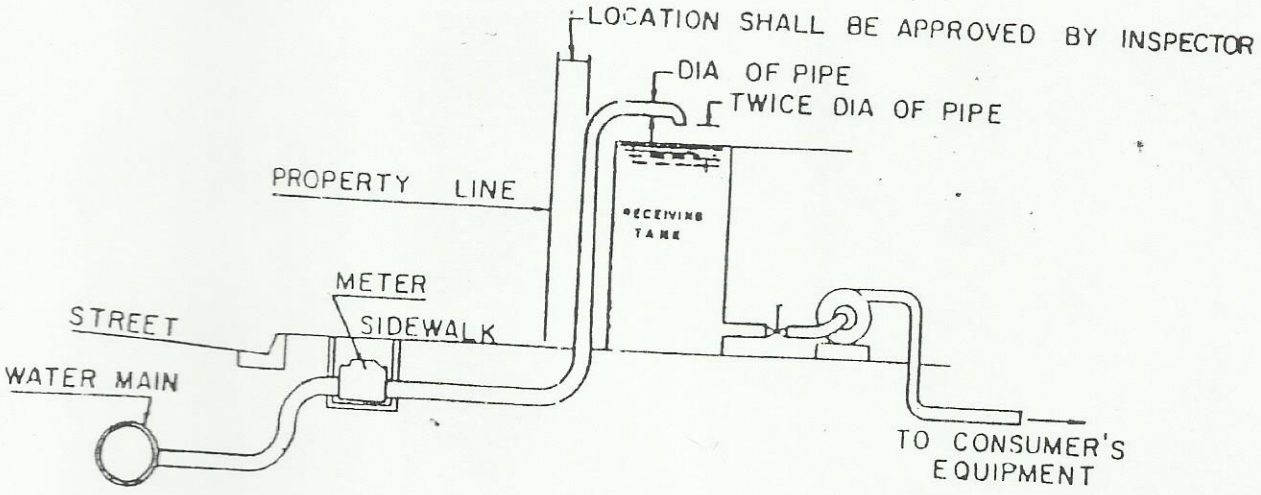


FIG. E

Security Water District
AIR GAP SEPARATION
DWG NO. 4

LAWN SPRINKLER INSTALLATION USING A PRESSURE TYPE VACUUM BREAKER AS A BACKFLOW PREVENTER

Pressure type vacuum breakers may be installed without regards to down stream valving, making it possible to isolate an entire lawn sprinkler system with a single unit when properly located. This assembly must not be installed where it will be subject to back pressures and should be installed at least twelve inches (12") above the highest outlet. The vacuum breaker should be installed where it will be accessible for periodic testing and where, if slight spillage should occur, it would not be objectionable. (Fig. G) (See General Instructions, Page 1)

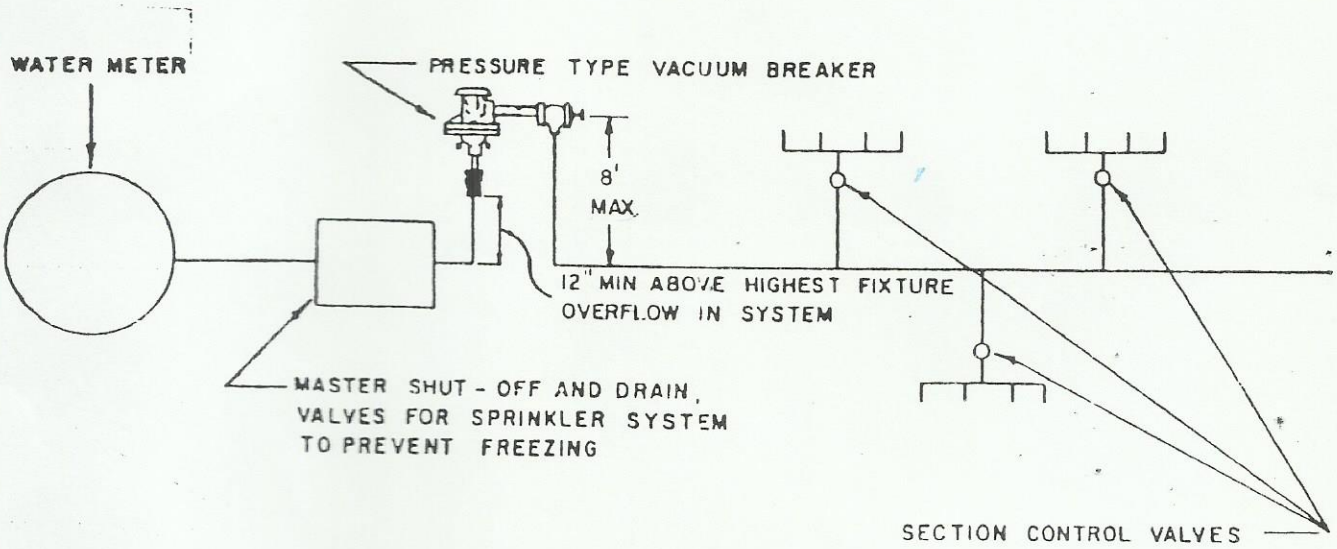


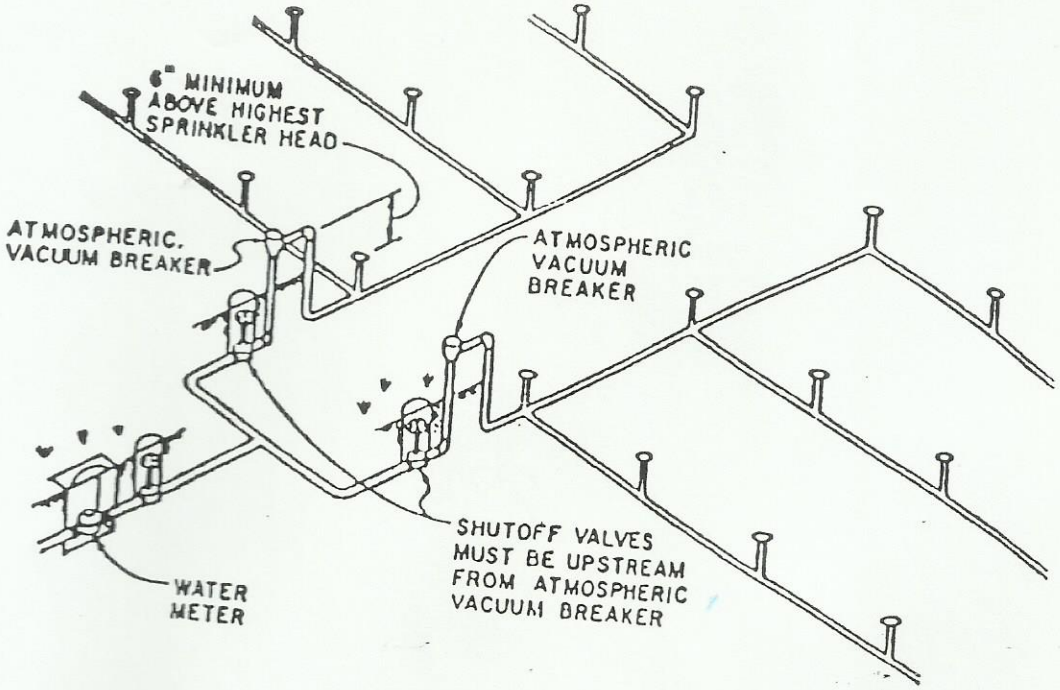
FIG. F

Security Water District

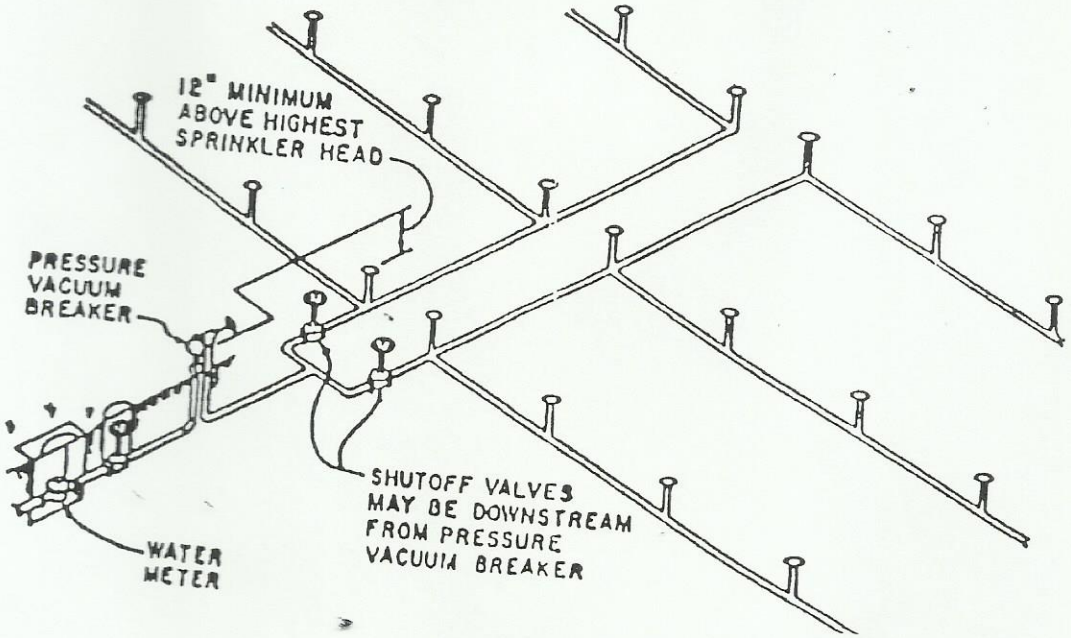
LAWN SPRINKLER INSTALLATION USING A PRESSURE TYPE VACUUM BREAKER AS A BACK-FLOW PREVENTER

DWG NO. 5

WITH ATOMOSPHERIC VACUUM BREAKER



WITH PRESSURE VACUUM BREAKER

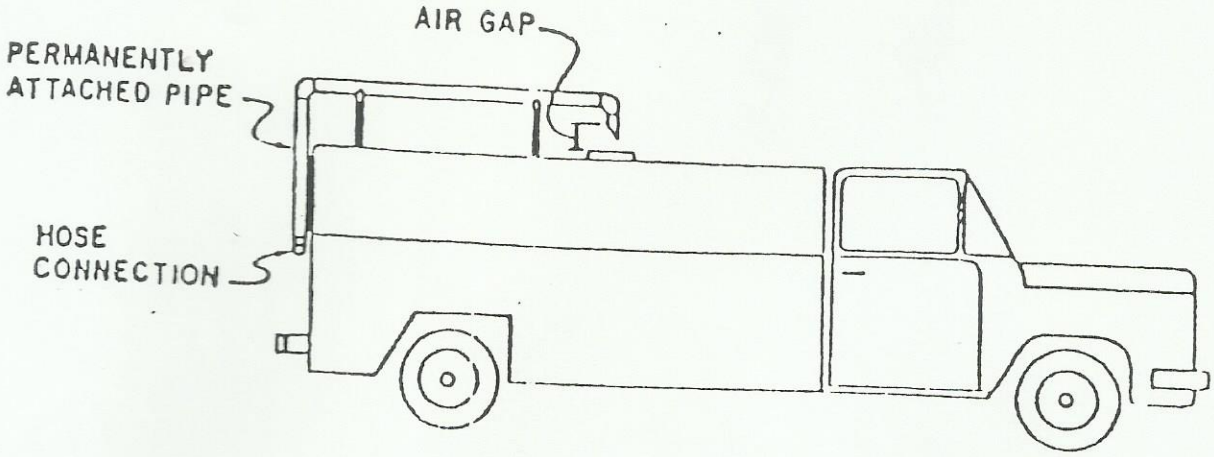


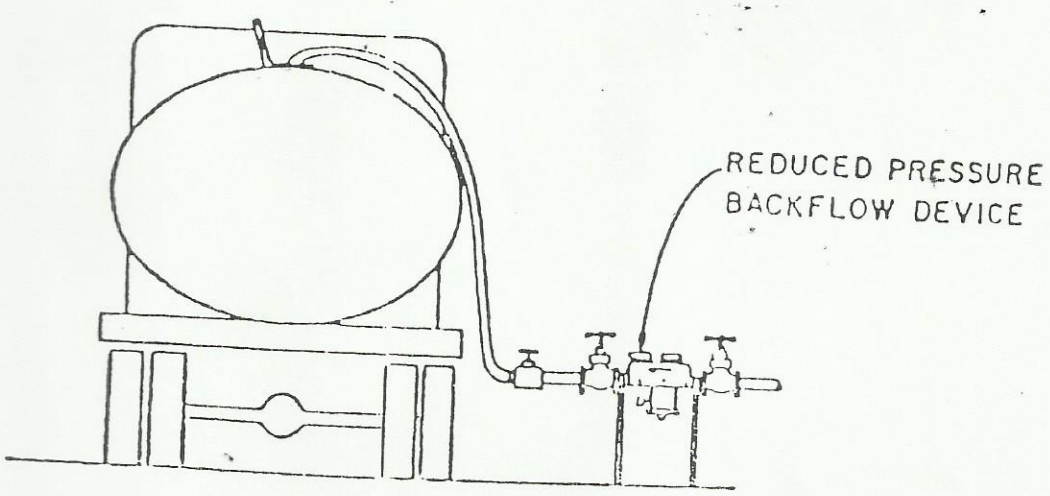
Security Water District

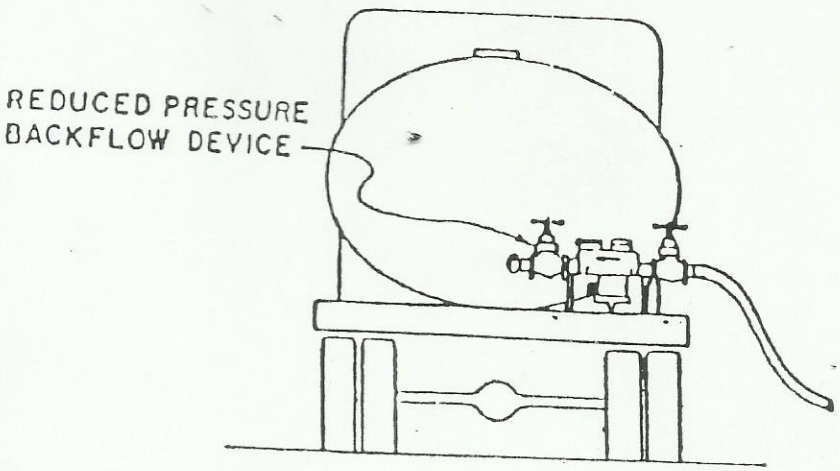
LEVEL TERRAIN - MULTI-ZONE IRRIGATION SYSTEMS

DWG NO
6

APPROVED METHODS OF FILLING WATER TANKER TRUCKS



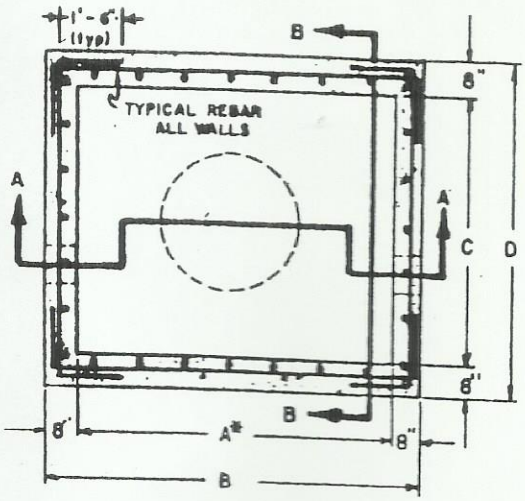




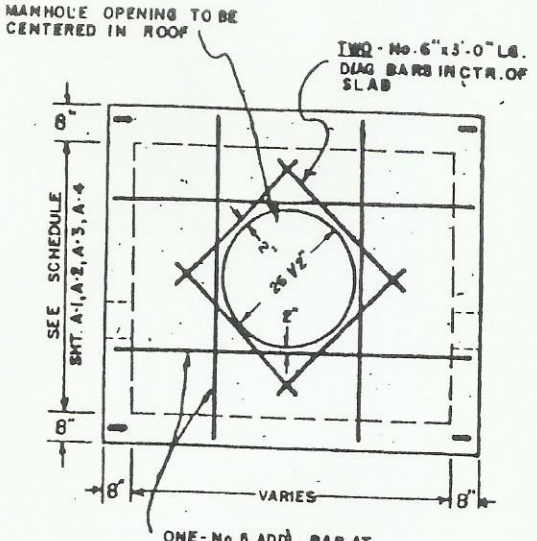
Security Water District

APPROVED METHODS OF FILLING WATER TANKER TRUCKS

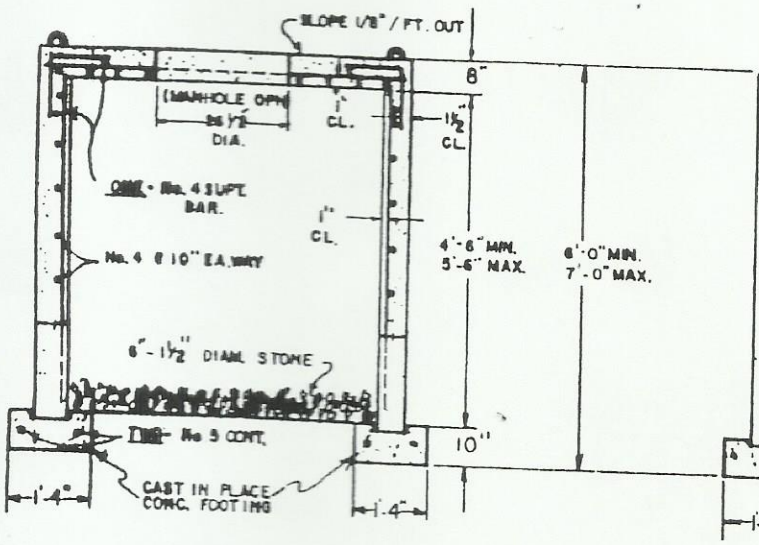
SWS NO. 7



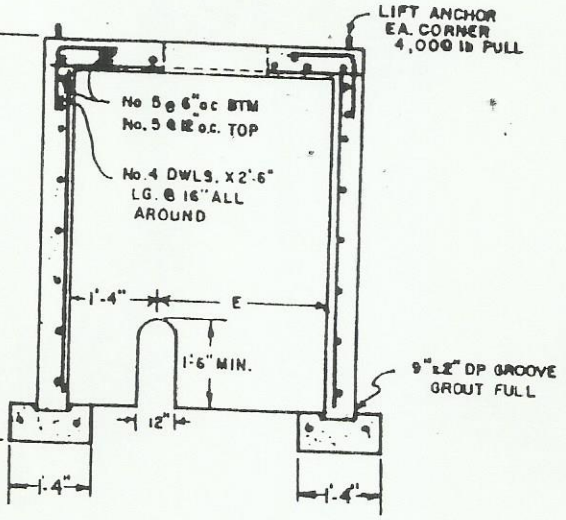
PLAN



ROOF PLAN



SECTION A-A



SECTION B-B

NOTE:

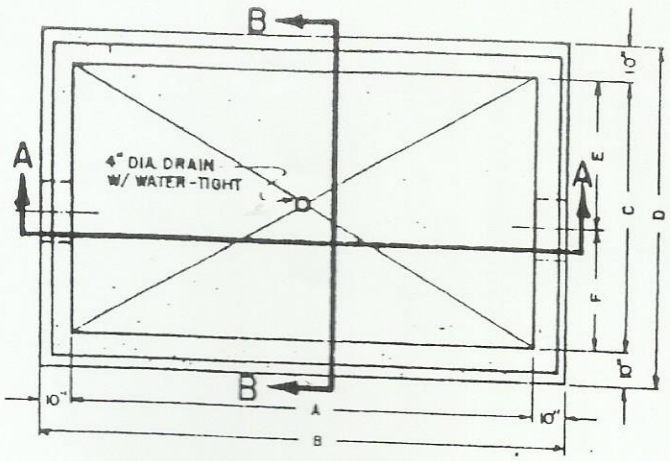
CONCRETE PIT SHALL BE PRECAST, DESIGNED FOR HS-20-44 TRAFFIC LOADING, UNLESS APPROVED OTHERWISE.

METER SIZE	A*	B	C	D	E
1½" & 2"	5'-0"	6'-4"	4'-0"	5'-4"	2'-8" ±
3" & 4"	7'-0"	8'-4"	5'-0"	6'-4"	3'-8" ±
6"	8'-0"	9'-4"	5'-0"	6'-4"	3'-8" ±

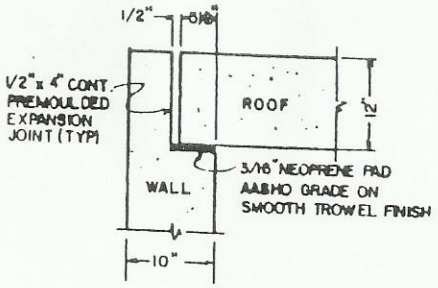
Security Water District

DOUBLE CHECK VALVE ASSEMBLY VAULT SPECIFICATIONS. 1½" - 6" METERS

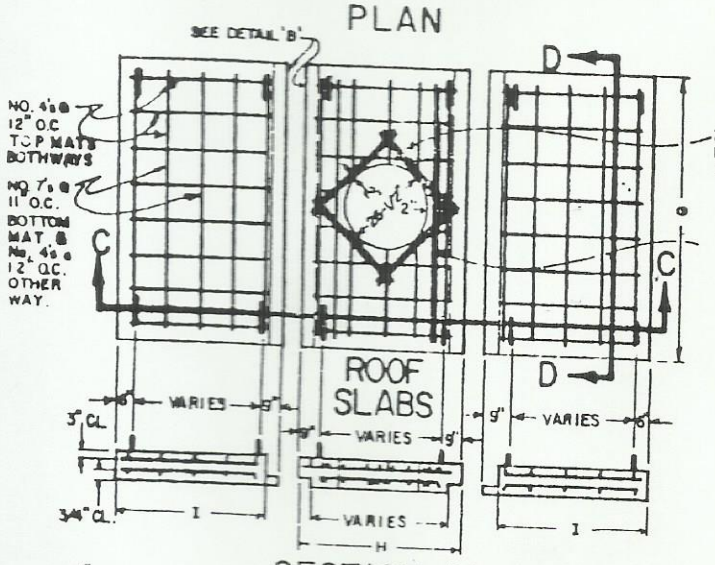
DWG. NO 8



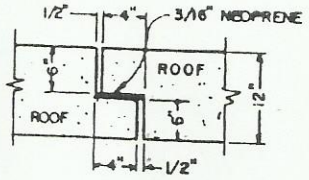
PLAN



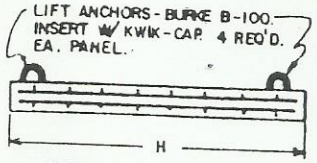
DETAIL 'A'
CORNER ROOF JOINT
NO SCALE



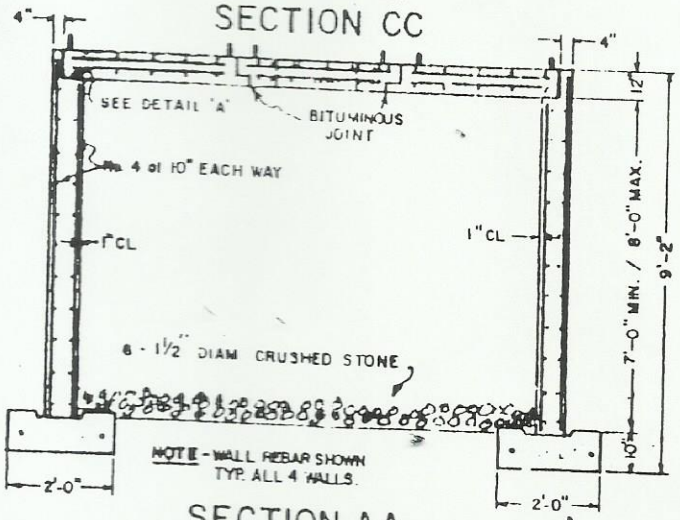
SECTION CC



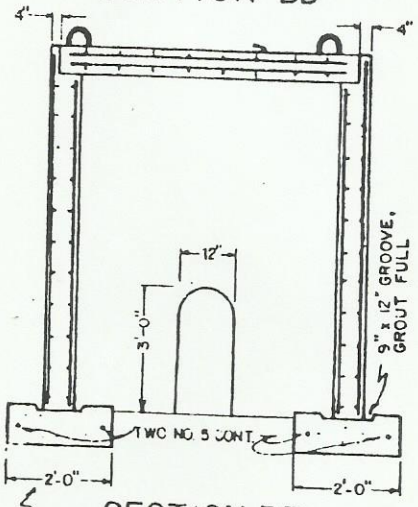
DETAIL 'B'
CENTER SLAB JOINT
NO SCALE



SECTION DD



SECTION AA



SECTION BB

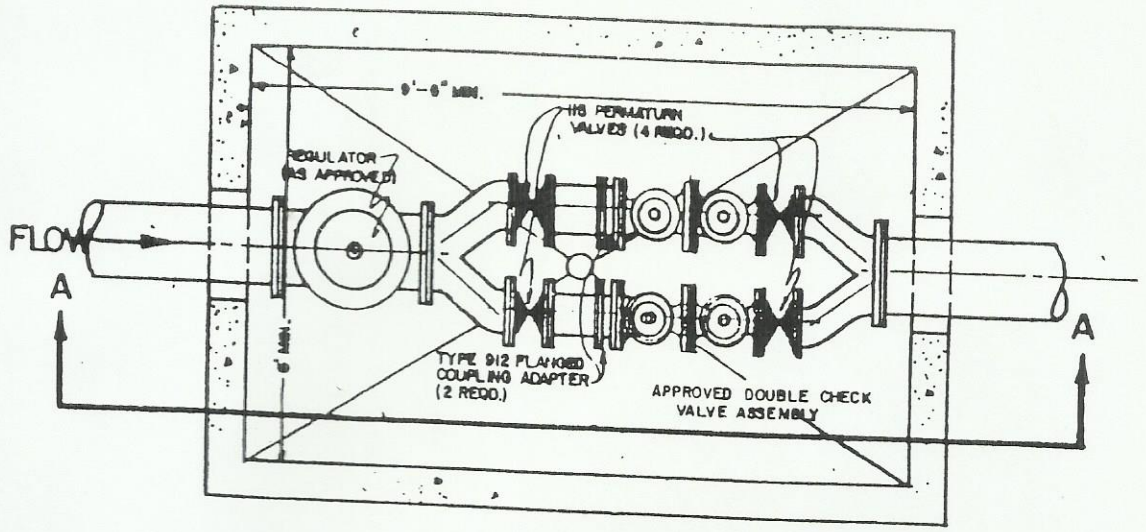
METER SIZE	A	B	C	D	E	F	G	H	I
8"	13'-4"	15'-0"	8'-10"	10'-6"	4'-9"	4'-1"	9'-9"	4'-8"	4'-9"
10"	15'-6"	17'-2"	10'-0"	11'-8"	5'-6"	4'-6"	10'-11"	5'-6"	5'-5"

NOTE ALL PITS SHALL BE FABRICATED TO MEET HS 20-44 TRAFFIC LOADING CONDITIONS

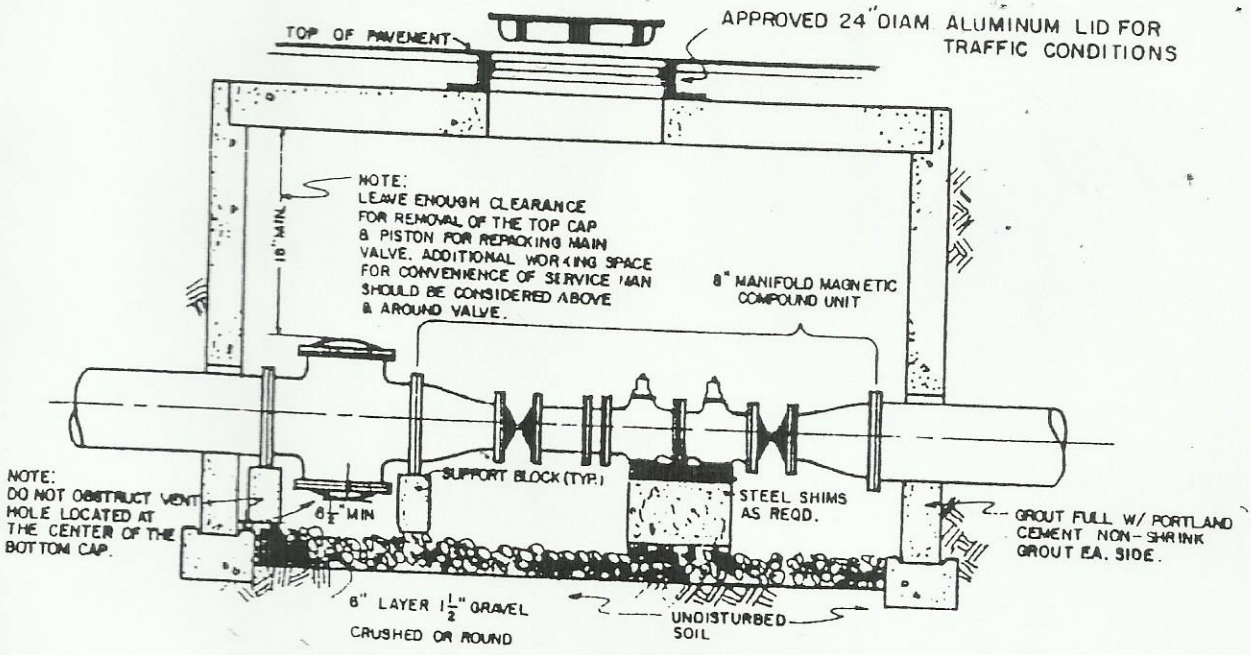
Security Water District

DOUBLE CHECK VALVE ASSEMBLY VAULT SPECIFICATIONS 8" – 10" METERS

DWG. NO 9



PLAN



SECTION A-A

NOTES

PLANS FOR MANIFOLD DOUBLE CHECK VALVE ASSEMBLY MUST BE SUBMITTED TO AND APPROVED BY THE WATER District PRIOR TO ANY CONSTRUCTION.

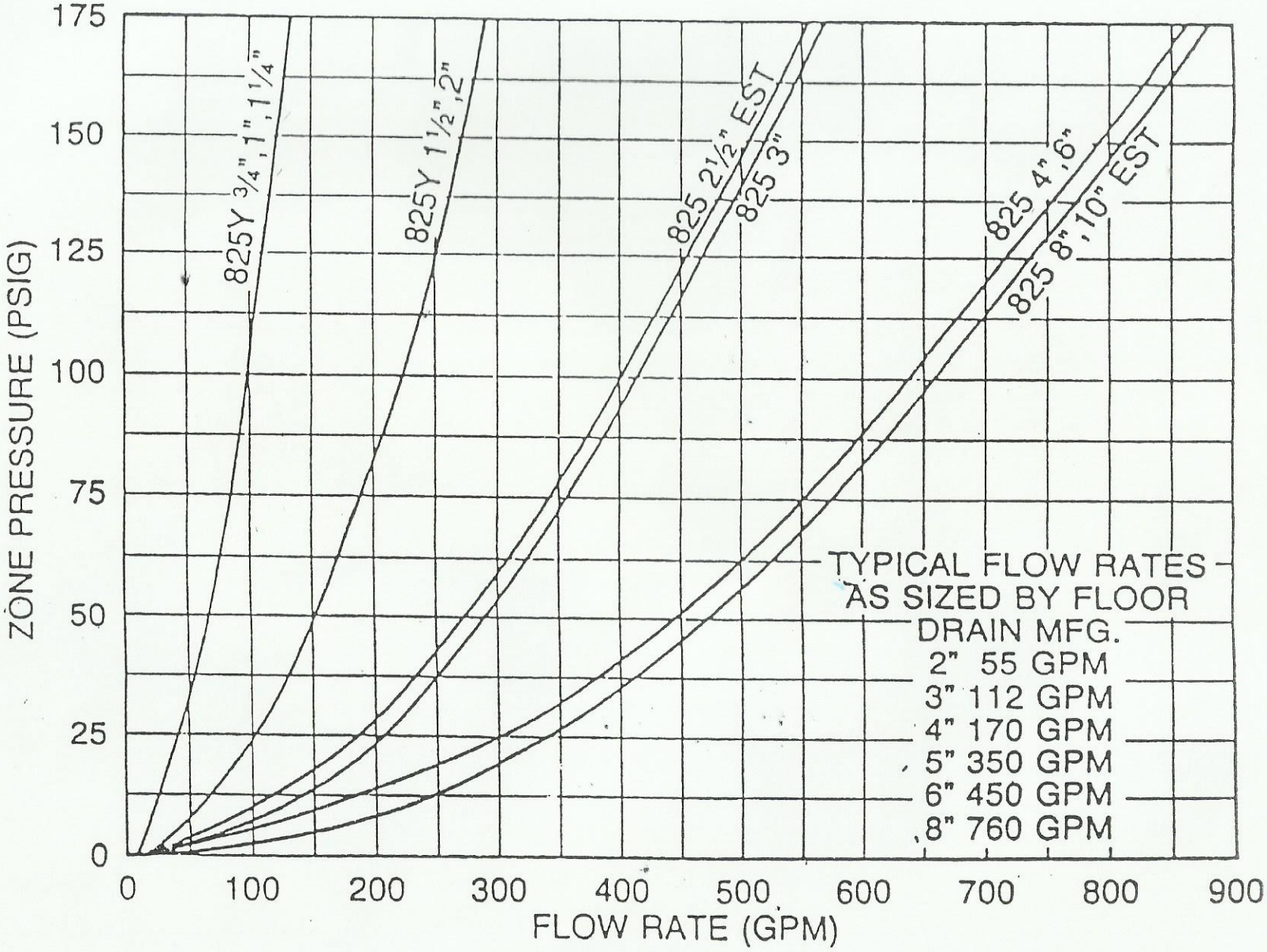
ALL PITS SHALL BE PRECAST CONCRETE, DESIGNED FOR HS 20-44 TRAFFIC LOADING ONLY

Security Water District

DOUBLE CHECK VALVE ASSEMBLY BY-PASS SYSTEM VAULT SPECIFICATIONS

DWG. NO 10

RELIEF VALVE DISCHARGE RATES



DRAWING NO. 11