Wilkinsburg-Penn Joint Water Authority

2200 Robinson Boulevard, Pittsburgh, PA 15221

Tel: (412) 243-6200 Fax: (412) 243-5837

www.wpjwa.com

Service Line Specifications

for

1”, 1 ½”, and 2”

Authority Contacts

Customer Service	John Baurle	Taylor Kasabian
412-243-6200	412-243-6180	412-243-6184

Regulations for New, Replaced and Repaired Service Lines

New Service Lines:

1. A service line location must be provided by Authority personnel (after footer or foundation is in).
2. All service lines shall be installed from inside the house out to the curb or curb line.
    a. Service lines over 100 feet in length must have a vault.
3. All service lines should be installed at 54-inch depth.
    a. When a service line runs under a portion of the house a depth of 18-inches is required.
4. All service lines must be at right angles (90°) to the street.
5. All service lines are to be Type K soft tubing no less than 1 inch.
6. Couplings are permitted between the meter and the curb stop if a hydrostatic test is performed.
    a. Couplings **are not** allowed less than 5 feet from the foundation wall.
    b. Couplings **are not** permitted under the floor or inside the foundation.
7. A service line must be encased in plastic when:
    a. at point of entry (foundation, floor, etc.).
    b. in the same ditch as or crossing a sewer.
    c. run under a portion of the house.
    d. crossing creek beds (24-inch depth under creek bed).
8. A service line running in the same ditch as a sewer should be shelved when possible 1 foot to 6 inches between the lines (up/down or right/left).
9. All service lines must be inspected in the open trench by Authority personnel. In addition, Allegheny County Plumbing Inspectors must be contacted for inspection. Pictures or videos of installed service lines are not acceptable.
10. Requests for inspection on new lines after location has been previously approved must be received by the Authority office prior to 11:00 a.m. on the date of the requested inspection. Requests received after 11:00 a.m. shall be referred to the next business day.
11. All charges must be paid prior to the installation of the service line between the main and the curb.

Replaced or Repaired Service Lines:

In addition to the above rules…

1. All service lines are to be type K soft tubing no less than ¾
2. Couplings are permitted between the meter and the curb stop if a hydrostatic test is performed. A. couplings are not allowed less than 5 feet from the foundation wall b. couplings are not permitted under the floor or inside the foundation
3. No sweat fittings are permitted underground.
4. Authority personnel must inspect all replaced or repaired service lines in the open ditch.
5. The consumer is responsible for back filling the service line ditch and setting the service box in place, so the curb stop is operable. The Authority will provide a service box if the existing box is unusable.

Domestic Meter Location and Setup

1. The meter is to be situated in a heated area easily accessible to Authority employees.
    a. Area must have a permanent heating system.
2. The meter is to be set where the service line enters the floor or wall.
    a. 12 inches in height to no more than 4 feet in height from the floor.

3. Inlet valve - A ball valve is required on the line immediately ahead of the meter and must be the same size as the service line. A waste or bleeder is **NOT** permitted. (Female pipe thread)
    a. It is permissible to use a sweat or flared coupling on copper lines, and a "Ford" compression type coupling is required on lead lines to accommodate the inlet valve.
    b. ProPress fittings are permissible, but inlet and outlet valve need to be ProPress by female.
    c. Only one sweat joint before the meter (sweat joint must be exposed).

Waste/Bleeder

4. Outlet valve - Ball types are to be installed immediately after the meter.
    a. Waste or bleeder is permitted. (Female pipe thread)
5. Following the outlet value a backflow preventer is required.
    a. Type to be determined by the Authority.
    b. Same size as service line.
    c. Must be USC, AWWA or ASSE approved.
    d. Must be installed immediately after the meter and before any connections.

NOTES:

- If installing a backflow assembly, the assembly valve may be used as the outlet valve.
- If installing a "Y" strainer before the backflow assembly, no valves are permitted on the clean-out.
- A pressure regulator **is not** required by the Authority.

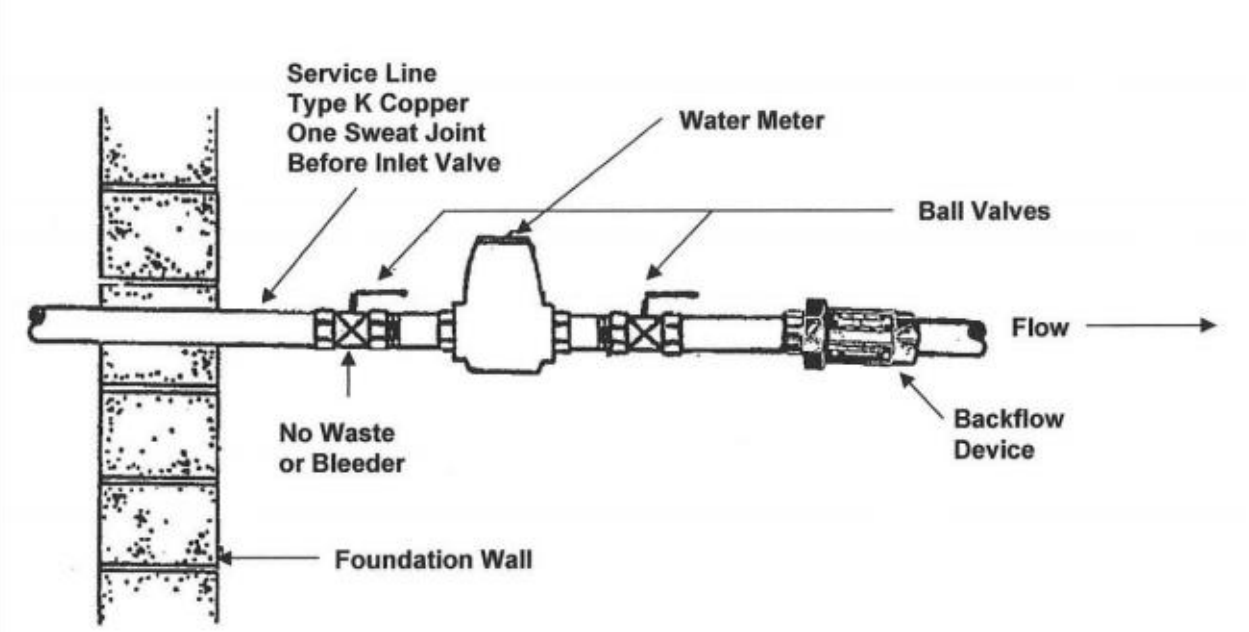
6. The meter setup and backflow preventer must be inspected by Authority personnel.
7. The Authority does not require a pressure regulator. If one is to be installed it must be installed after the backflow preventer.

Space needed for meter and meter connections:

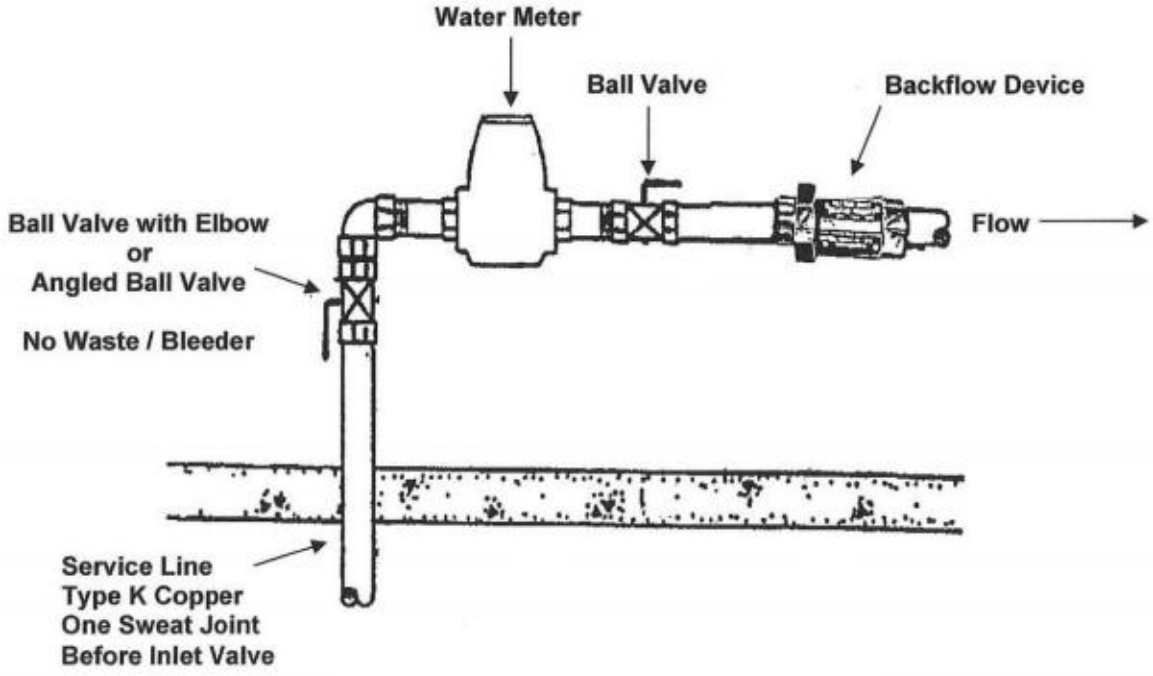
⅝ and ⅝ x ¾ - 11½"
¾ and ¾ x 1 - 13¼"
1 - 15"
1½ - 21"
2 - 26"

8. All pipe and fittings on the service line up to and including the backflow preventer must be brass or copper and must be the same size.

Water Service Through Foundation Wall



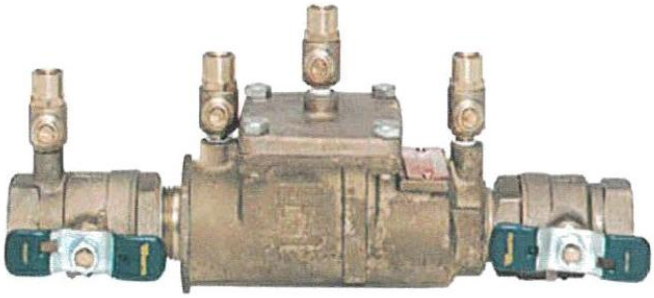
Water Service Through Floor



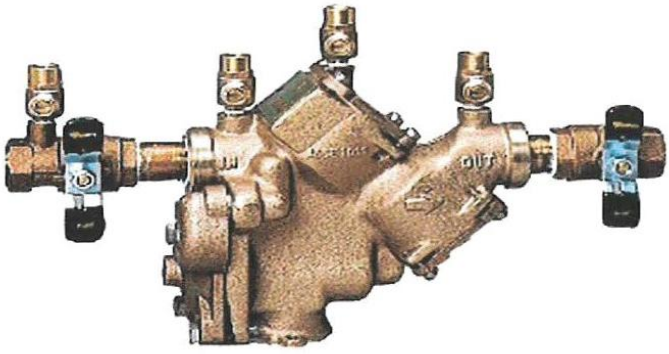
Backflow Prevention Devices

Residential Dual Check Valve

Double Check Valve Assembly



Reduced Pressure Zone Assembly



Hydrostatic Pressure Testing

Overview:

Hydrostatic pressure tests are used to gauge the integrity of a pipeline following its construction or repair activities that could affect its leak- tightness. As the term implies, in hydrostatic testing of new or repaired pipelines, water in the line is pressurized beyond the maximum operating pressure and then maintained for a predetermined amount of time to determine if there are any leaks. The operational integrity of connections and the pipe itself is assured if the hydrostatic test is successfully passed.

Testing:

The Contactor shall conduct the test. The pump, pipe connections, gauges and all necessary apparatus shall be furnished by the Contactor. The pipe shall be slowly filled with water. All air shall be expelled from the pipe as the line is filled. The line is pressurized to 1.5 times the actual pressure for a predetermined amount of time with zero pressure loss. A Water Authority Representative must witness the test. Lines, which fail to meet test requirements, shall be repaired and retested as necessary until test requirements are complied with. All pipe, fittings and other materials found to be defective under the test shall be repaired or replaced at the Contactor 's expense.

Meter Vault Specifications

For New 1” Service Line

MUELLER® THERMAL-COIL® METER BOX

Shaded area indicates change Rev. 4-14

The Mueller THERMAL-COIL Meter Box provides a means to allow a meter to be read and maintained even though it is set deep in the ground to resist freezing. The THERMAL-COIL Meter Box is designed with the meter installed on a platform that normally sets near the bottom of the box where the ground temperature keeps it warmer. The meter and platform are connected to the service line by coils of polybutylene tubing which allow the meter and platform to be raised to the surface.

The body of the meter box is made from rigid PVC which has a high insulating "R" value to resist frost bridging" inside the box. For extremely cold climates, an optional insulating pad is available which traps the relatively warm air rising from the earth inside the box.

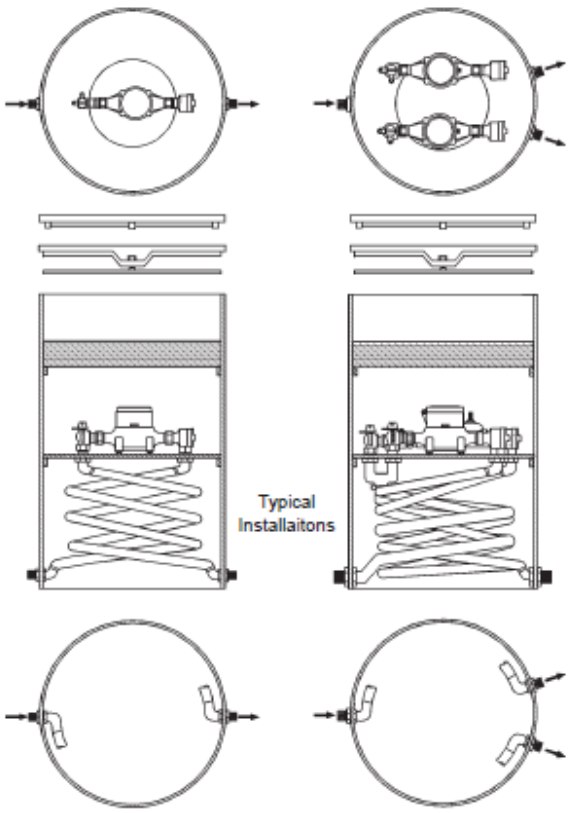
Mueller THERMAL-COIL Meter Boxes are shipped fully assembled, ready for meter installation. Their light weight saves shipping costs and makes installation a one man job in most cases. Every box is factory tested and has a 150 psig maximum working pressure rating.

Mueller THERMAL-COIL Meter Boxes are available for 5/8" to 1" meters. A wide variety of end connections, control valves, box depths, lids and other options provide you with the meter set you need. Due to the almost endless combination of features available, each box is custom built to your specifications. See page 8F.2 for options and ordering instructions.

Manufactured under one or more of the following: U.S. Patent No. 4,614,113; 4,813,281

Mueller THERMAL-COIL Meter Box Features

- Rigid .300 minimum wall PVC material holds shape and resists frost bridging
- Optional insulation pad traps earth's heat to prevent freezing in extremely cold climates
- White interior aids visibility
- Meter set is anchored to moveable platform to maintain alignment and stability
- Platform support and reinforcing ring add rigidity to box
- Poly coil tubing provides low friction loss equivalent to a typical conventional meter set of the same size and depth
- Male I.P. thread inlet and outlet connections accept a variety of MUELLER Service Fittings--see section 6
- Optional aluminum bottom available
- Large selection of optional lids



Mueller Valves and Couplings used in these meter box assemblies are manufactured and tested in accordance with ANSI/AWWA C800. Components in contact with potable water will also comply with latest requirements of the Federal Safe Drinking Water Act.

MUELLER® THERMAL-COIL® METER BOX

Rev. 5-18 Shaded area indicates changes

Mueller THERMAL-COIL Meter Box ordering instructions

To order a Mueller THERMAL-COIL Meter Box, simply choose the options you require from the nine categories listed below and place the option code on the appropriate line of the catalog number shown below.

If the box you need is a tandem type, please fill out the tandem information box shown below the options listing and contact the factory for price and delivery information. Phone 1-800-423-1323 or fax 1-217-425-7537.

Catalog Number

(1) 330 (2) CS (3) 18 (4) 48 (5) F (6) S (7) B (8) S (9) N

Options

1 - Meter Size

NOTE: Meter is not furnished. Order meter separately.

Meter Size	Code Number
5/8"	200
5/8" x 3/4"	203
3/4"	250
1"	330

2 - Box Style

Box Style	Code Number
Single meter	CS
Double meter	CD
Tandem	CT

3 - Box Diameter

Box Diameter	Code Number
15" box is for use with: 5/8, 5/8 x 3/4 or 3/4 single meters; 5/8, 5/8 x 3/4 or 3/4 tandems*	15
18" box is for use with: 1" single meters; 1" tandems; 5/8, 5/8 x 3/4 or 3/4 double meters	18

4 - Box Depth

Depth	Code Number	Depth	Code Number
30"	30	66"	66
36"	36	72"	72
42"	42	78"	78
48"	48	84"	84
54"	54	90"	90
60"	60	96"	96

5 - Meter Inlet Type

Meter Inlet	Code Number
Meter coupling	A
Lockwing angle meter stop	L
Lockwing angle ball valve (full port)	F
Lockwing angle ball valve (reduced port)	R
Lockwing angle ball valve full port with 360° turn	X
Lockwing angle ball valve reduced port with 360° turn	T

6 - Meter Outlet Type

Meter Outlet	Code Number
Meter coupling	A
Dual check valve	B
A.S.S.E. Dual check valve	S
A.S.S.E. Top entry vertical check	V
Lockwing angle meter stop	L
Lockwing angle ball valve (full port)	F
Lockwing angle ball valve (reduced port)	R
Lockwing angle ball valve full port with 360° turn	X
Lockwing angle ball valve reduced port with 360° turn	T
A.S.S.E. top entry vertical check with sample port	H
Angle Ball Valve Full Port; Cap Without Lockwing	C

7 - Box Bottom Type

Bottom Type	Code Number
Attached bottom	A
Less bottom	B
Plastic bottom	P

8 - Type of Box Locking Device

(box is ordered with device to accept either a non-locking lid, center locking or side locking lid). Lids must be ordered separately.

Lock Type		Code Number
Non-locking		N
Center locking		L
Side locking	282925 - TR2	S

9 - No Lead Brass

Code Number
N

Tandem box order information

Type of tandem device (regulator, backflow preventer, etc.) _____

Size _____, lay length _____and end connections (M.I.P., F.I.P., etc.)_____of the tandem device

Tandem device manufacturer's name_____Tandem device model number_____

** NOTE: Tandem device is not included and must be purchased separately. ALSO, 3/4" tandems systems when used with certain regulators may need to be placed within a 18" box; list the regulator model when specifying this system. If an ASSE check valve or ball valve is being used in a 3/4" setting then an 18" meter box will be required.*

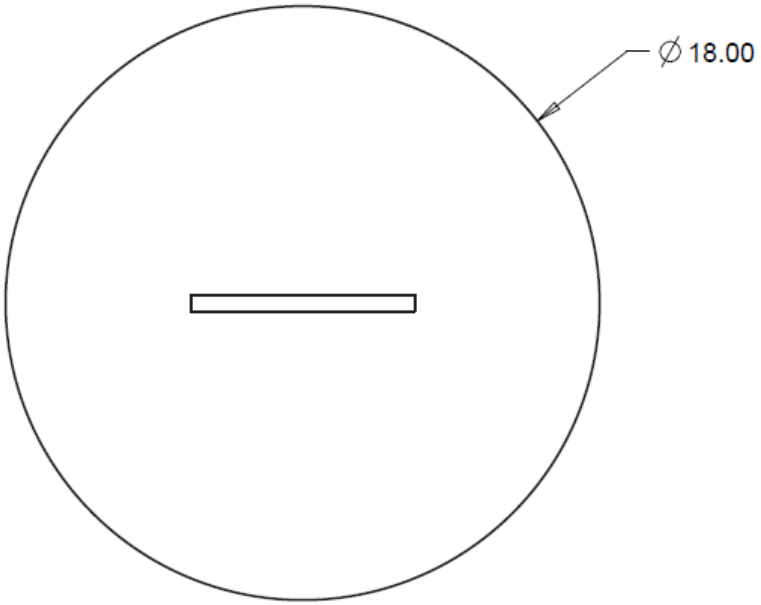
Mueller Valves and Couplings used in these meter box assemblies are manufactured and tested in accordance with ANSI/AWWA C800. Components in contact with potable water will also comply with latest requirements of the Federal Safe Drinking Water Act.

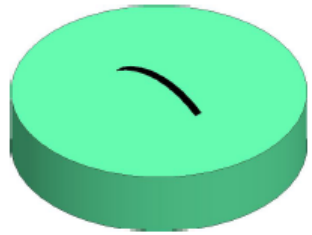
MUELLER® METER BOX SETTER LIDS

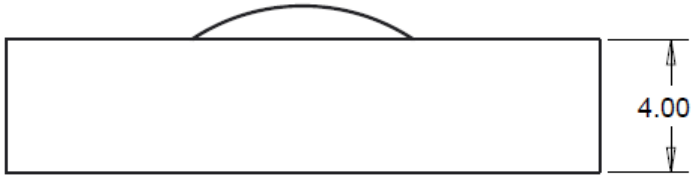
Mueller Co.

8F.11

Shaded area indicates change Rev. 4-15







790153

DR. BY	BBF	10/6/17	UNLESS OTHERWISE NOTED	THIRD ANGLE PROJECTION	C.B. NO.
CHKR			BREAK CAST CORNER(S)—		
ENGR			BREAK MACH CORNER(S)—	PURCH. / FINISH	PATT. NO.
MGR			TOLERANCES UNLESS OTHERWISE NOTED		
MFG				REF. NO. / SCALE NONE	
TOOL			LINEAR ± / ANGULAR ±		
FDRY				STK. NO.	
MAT'L:					

Mueller Co.	DESCR. ∅ 18" X 4" INSULATING PAD	NUMBER 790153

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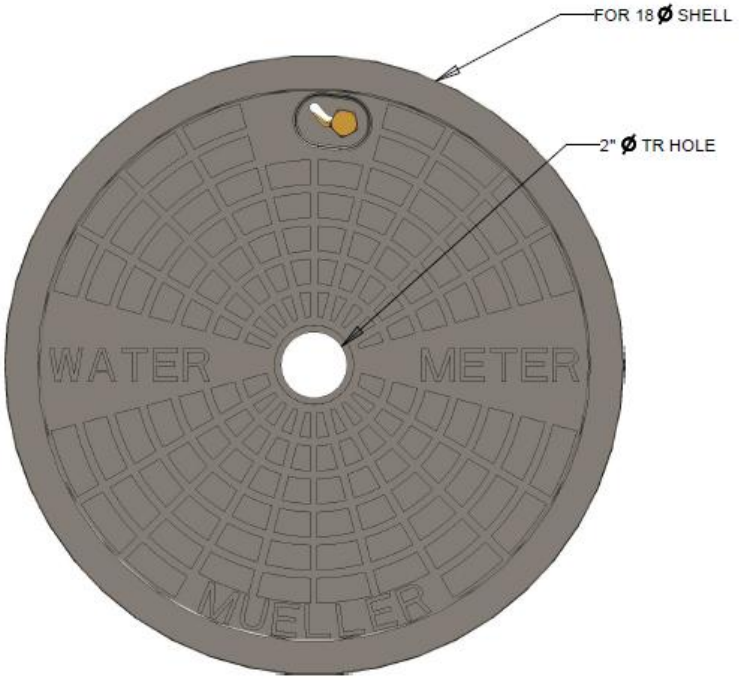
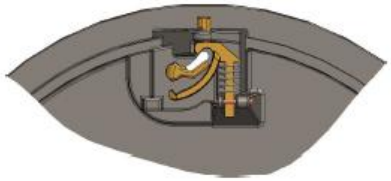
Mueller Co.

MUELLER® METER BOX SETTER LIDS

Rev. 4-16 Shaded area indicates changes





DR. BY	BBF	11/8/19	UNLESS OTHERWISE NOTED	THIRD ANGLE PROJECTION	C.B. NO.
CHKR			BREAK CAST CORNER(S)—		
ENGR			BREAK MACH CORNER(S)—	PURCH. / FINISH	PATT. NO.
MGR			TOLERANCES UNLESS OTHERWISE NOTED		
MFG				REF. NO. / SCALE NONE	
TOOL			LINEAR ± ANGULAR ±		
FDRY				STK. NO.	
MAT'L:					

Mueller Co.

DESCR. 18" Ø SIDE LOCKING LID W/ 2" TR HOLE

NUMBER 282925-TR2

282925-TR2

Meter Vault and Meter Room Requirements for 1 ½" and Larger

Meter Vault

1. Size
    a. Minimum size of vault will be 6' x 6' x 6' in depth
    b. The size of the service/fire line, meter type and backflow preventer will determine the vault dimensions.
2. Vault opening:
    a. Minimum 48" x 48" Double Leaf Access Hatch
    b. The placement of the vault (grass, sidewalk, road) will determine Grade of hatch necessary.
3. Provisions for drainage or sump pump.
4. Ladder or steps:
    a. Directly under vault opening.
    b. Must be safe and convenient for entry.
5. Consumers must always maintain safe and sanitary conditions within the vault.

Meter Room

1. Must have a permanent heat source.
2. Minimum of 6'-6" head clearance.
3. Provisions for drainage or sump pump.
4. Provide lighting.
5. Be easily accessible.
6. Consumer must always maintain safe and sanitary conditions in the meter room.
7. The size of the service line, meter type and backflow preventer will determine the meter room dimensions.