



# CITY OF TOPEKA UTILITY SERVICES INSTALLATION STANDARDS

## Application, Scheduling, and Installation Standards

### Application

Water and/or Wastewater connection applications may be made by the following methods:

Fax completed application to:	City of Topeka Engineering	785-368-3881
E-mail completed application to:	City of Topeka Engineering	
	<a href="mailto:watereng@topeka.org">watereng@topeka.org</a>	
In person at:	City of Topeka Engineering	620 SE Madison St
By calling:	City of Topeka Engineering	785-368-3842

Application Form: [http://www.topeka.org/pdfs/Service\\_Application.pdf](http://www.topeka.org/pdfs/Service_Application.pdf)

### Scheduling

Material Pickup, Connections and Inspections scheduling may be made by calling:

Water, Material Pick-up	Water Meter Inventory Specialist	785-368-2533
Water, Connections & Inspections 785-224-3766	Engineering Technician III	785-368-0134 or
Wastewater, Connections	WPC Office Assistant III	785-368-4252

A minimum of five (5) working days from application date to tap schedule date is required. A minimum of 24-hours notice shall be given to the City for cancellation or rescheduling of any tap schedule date.

### Installation Standards

#### Definitions:

**City:** the word "City" shall mean City of Topeka.

**Customer:** The word "customer" shall mean the party responsible for water usage.

**Applicant:** The word "Applicant" shall mean the second party or parties entering into contract for the performance of the work covered by the specifications.

**City Agent:** The word "City Agent" shall mean the City of Topeka Public Works designated representative.

**City Code:** "City Code" shall refer to the City of Topeka Codebook, Chapter 146, Utilities on file in the City of Topeka Clerk's Office or available on internet, [www.topeka.org/](http://www.topeka.org/).

**Technical Code** – "Technical Code" shall refer to the City of Topeka and Shawnee County Standard Technical Specifications, on file at City of Topeka Engineering, 620 SE

Madison St., Topeka, Kansas, 66607 or available at  
<http://www.topeka.org/pdfs/StdTechSpecManual.pdf>.

**Conditions:**

1. The terms of this Connection Application and all use of water or wastewater mains in relation to the service connection herein permitted shall be subject to all applicable provisions of the City Code and Technical Code and additional utility standards and specifications.
2. The Applicant shall pay for all materials furnished as specified in Utility Fees and Charges Schedule - <http://www.topeka.org/pdfs/UtilitiesFeeSked.pdf>.
3. Failure of Applicant to comply with construction specifications as outlined in this document will result in denial of future service connection permits.
4. The City of Topeka Public Works Department may refuse to accept an application for a utility connection by an Applicant if the Applicant has any unpaid obligation due and owing to the City of Topeka Public Works, whether such obligation is for unpaid accounts, charges, service, materials, guarantees or for damages.
5. Applicable permits must be posted at the job site before the service connection will be made.
6. The Applicant shall call for field locates before excavation. The Applicant shall excavate the tap hole in accordance with most current OSHA Regulations. City employees may refuse to work in any excavation they feel unfit. The Kansas Department of Industrial Safety may be called to settle any safety disputes. The Applicant is responsible for providing appropriate traffic control, fencing and/or barricading.
7. **Water** - In consideration of the City maintaining the service connection which includes the corporation stop, piping from water main to property line, meter vault, meter, and meter setter, after completion, inspection and acceptance, title to said service connection shall be vested in the Water Division. If an Applicant permits or allows a water meter, meter components or meter pit to be damaged, impaired or destroyed by any means so that the meter and/or meter pit must be repaired or replaced, the City shall bill and collect from the Applicant the cost of such repair or replacement. Allowing a water meter, box or its components to be damaged or destroyed by freezing, landscaping or vehicular traffic, theft, vandalism, fire, shall always be considered the liability of the Applicant. This list is not all-inclusive.
8. **Water** - The service line piping constructed by the Applicant from the water meter to the building or premises served and/or any line on the portions of public property or easements from the premises of the customer to the location of the customer's meter will remain the property of the customer and will be maintained by the customer. If the water main is not adjacent to the property of the customer, the customer shall maintain the service line from the meter to the building.
9. **Water** - The location of the water service herein applied for shall be installed in a manner enabling City of Topeka water personnel free and unobstructed access to the meter at any and all times. The meter pit shall **not** be located in parking, drives or sidewalks. The meter pit shall be located in the public right-of-way or easement.

Variance from this standard Meter pit location must have prior approval by a City Agent.

10. **Sewer** - The building sewer piping constructed by the Applicant from the property to and including the connection at the fitting of the City's sanitary sewer main will remain the property of the customer and will be maintained by the customer.

## **Water Connections Standards and Specifications**

### **1. Materials & Installation**

- a. **2" and smaller** - In addition to the standards listed below, all materials and installation practices will be in compliance with the latest version of the City of Topeka and Shawnee County Standard Technical Specifications ( <http://www.topeka.org/pdfs/StdTechSpecManual.pdf> ). Variance must have prior approval by a City Agent.

**Excavation and Backfill** – The Applicant will be responsible for all excavation and backfill.

**Installation** – The Applicant will be responsible for the complete installation other than the corporation stop.

**Corporation Stop** – The corporation stop will be furnished and installed in the water main by the City.

**Piping** - The piping will be furnished and installed by the Applicant.

- Pipe will be installed to exact forty-two (42) inch depth at the meter pit.
- All other points shall have a minimum cover of forty-two (42) inches.
- The piping between the water main and the meter pit shall be in line with the corporation stop and 90° degrees from the main. There shall be no horizontal bends or offsets in the piping.
- There shall be a separation of a minimum of eighteen (18) inches horizontal between the water service pipe and any gas service line, underground power line and communications lines and when in public right-of-way a minimum of ten (10) feet horizontal between the water service pipe and any sanitary sewer service lines.

**Meter Pit** – The meter pit will be furnished by the City.

- It shall be installed in the public right-of-way or easement. Meter pit shall **not** be located in parking, drives and/or sidewalks.
- Supported by concrete blocks in line with corporation stop.

**Meter Setter** – The meter setter will be furnished by the City.

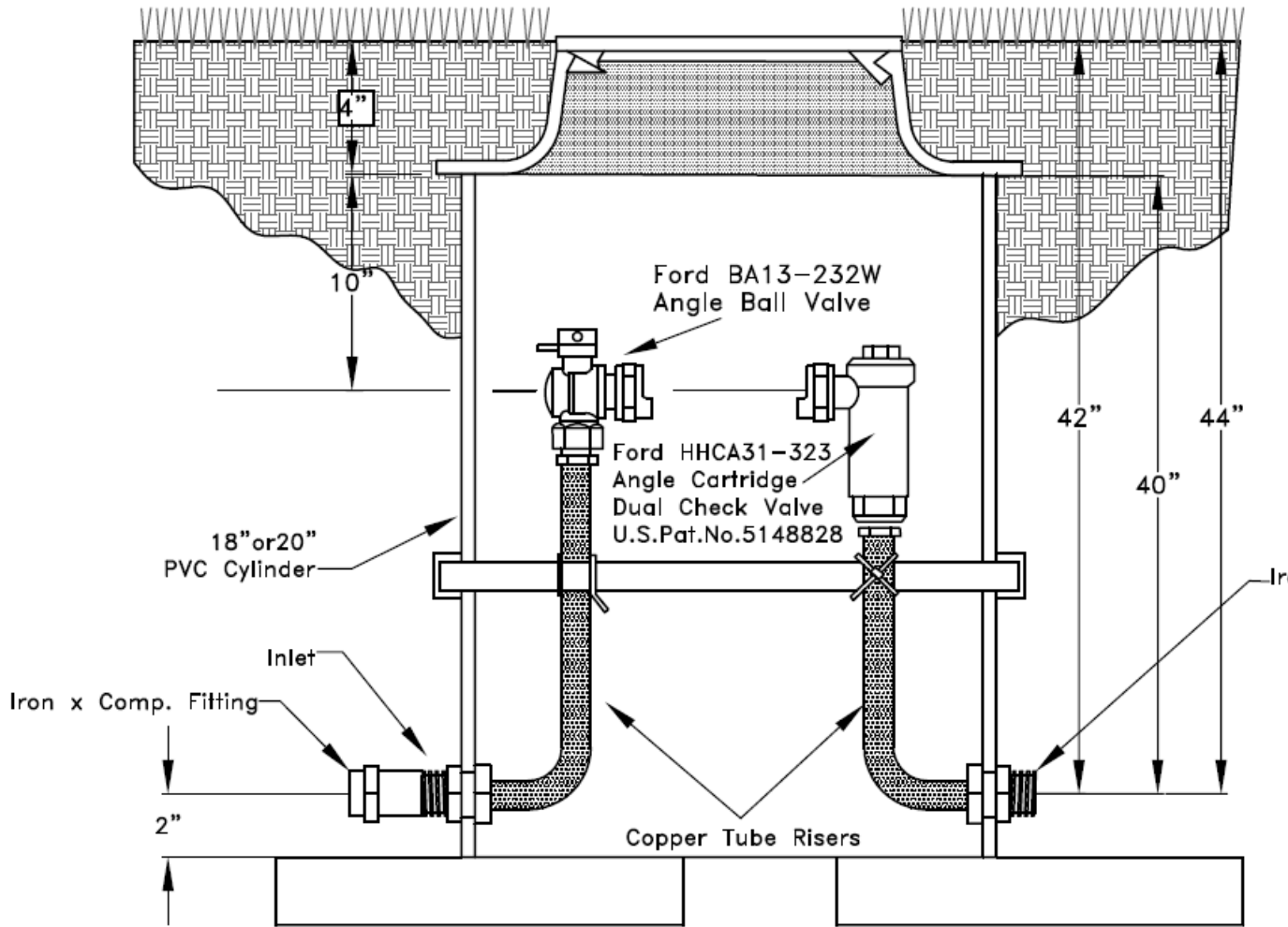
- The meter setter is to be installed so that the meter is centered and the shut-off valve is accessible.
- 2" Tru/Flow compound meter, follow 3" and larger instructions.

**Water Meter** – The meter will be furnished by the City.

- The meter shall be installed fifteen (15) to eighteen (18) inches from top of meter pit cover.

**Meter Pit Cover** – The meter pit cover will be furnished by City.

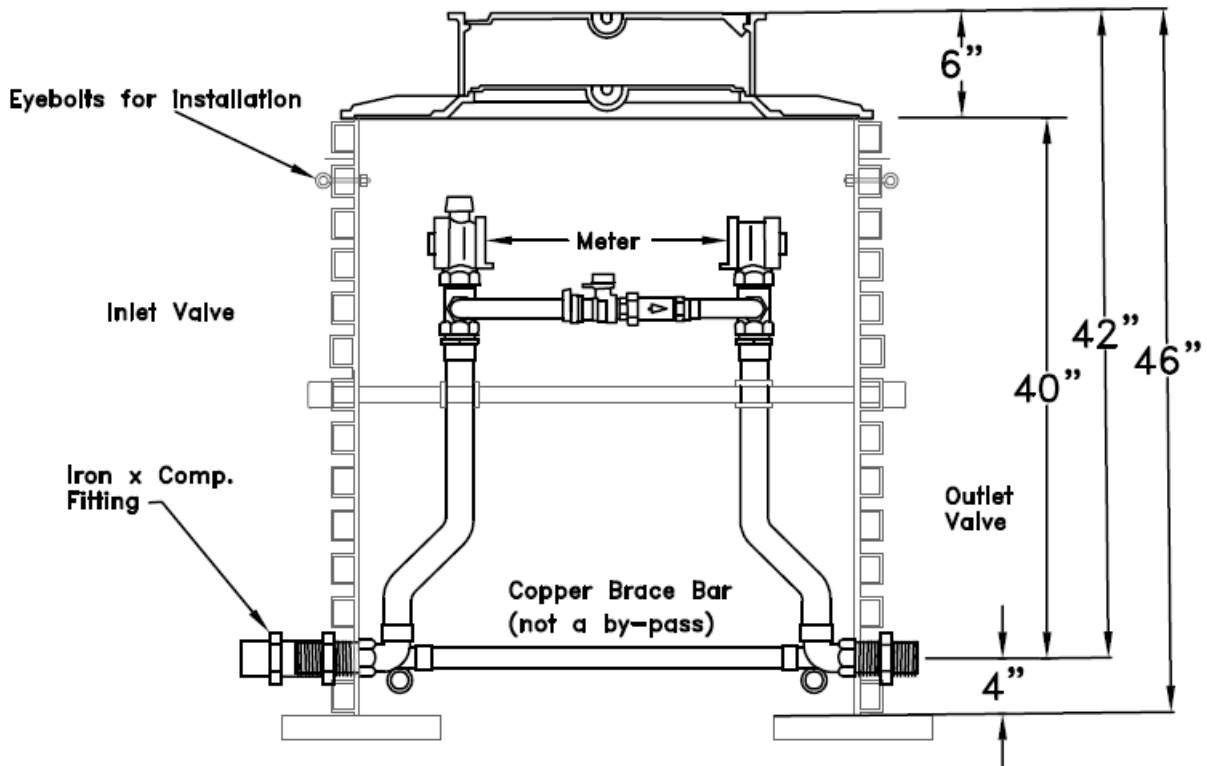
- The cover shall be flush with the ground.



**Pit Setter for 1" Meters**

Ford Type "A", "C", "X" or "PMBC-3" Single Lid Cover with a 4" depth

Meter box is to be set level on a minimum of two (2) concrete blocks (not furnished).



**Pit Setter for**

**1½" & 2" Meters**

Meter box is to be set level on a minimum of three (3) concrete blocks (not furnished).

Shown with optional dual check valve in by-pass, optional inlet angle ball valve and optional outlet angle dual check valve.

- b. 3" and larger** - In addition to the standards listed below, all materials and installation practices will be in compliance with the latest version of the City of Topeka and Shawnee County Standard Technical Specifications ( <http://www.topeka.org/pdfs/StdTechSpecManual.pdf> ). Variance must have prior approval by a City Agent.

**Excavation and Backfill** – The City will excavate and backfill from the main to the meter pit. The Applicant will excavate and backfill the remainder of the installation.

**Installation** – The City will install from the main to and including the meter pit. The Applicant will install from the meter pit to the point of distribution.

**Tap** – The tap will be furnished and installed in the water main by the City.

**Piping** - The piping will be furnished and installed by the City from the main to the meter pit. The Applicant will furnish the piping from the pit to point of distribution.

- Pipe will be installed to exact forty-two (42) inch depth at the meter pit.
- All other points shall have a minimum cover of forty-two (42) inches.

- The piping between the water main and the meter pit shall be in line with the corporation stop and 90° degrees from the main. There shall be no horizontal bends or offsets in the piping.
- There shall be a separation of a minimum of eighteen (18) inches horizontal between the water service pipe and any gas service line, underground power line and communications lines and in the public right-of-way a minimum of ten (10) feet horizontal between the water service pipe and any sanitary sewer service lines.

**Meter Pit** – The meter pit will be furnished by the City.

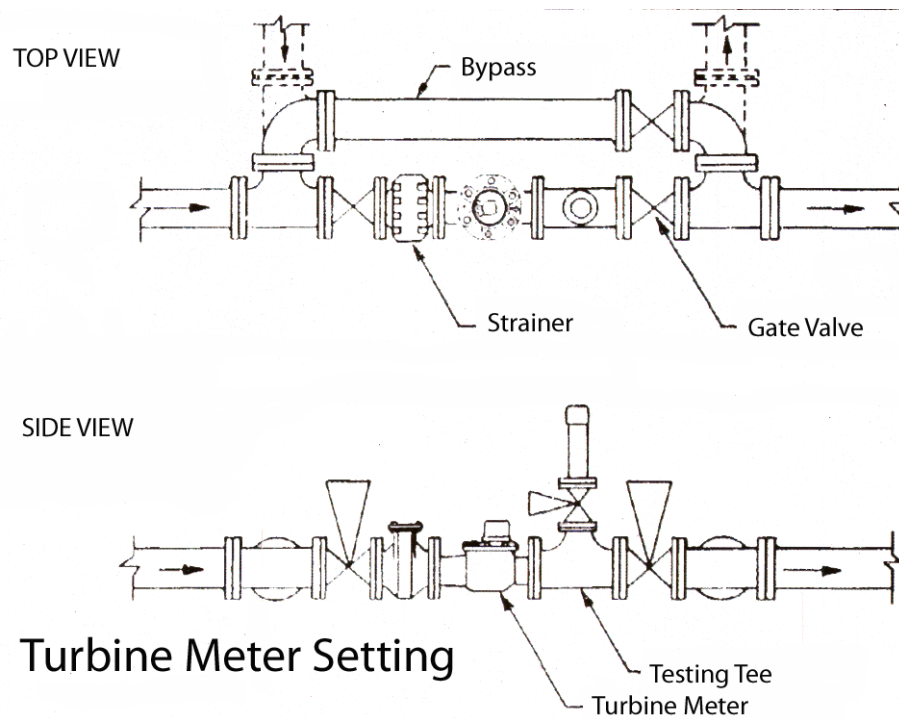
**Meter Pit Cover** – The meter pit cover will be furnished by City.

**Meter Setup Assembly** – The meter setup assembly will be furnished by the City.

- The meter setup assembly is to be installed so that the meter is centered, the shut-off valve, runaround valve and test tee are accessible and in line with the tap.

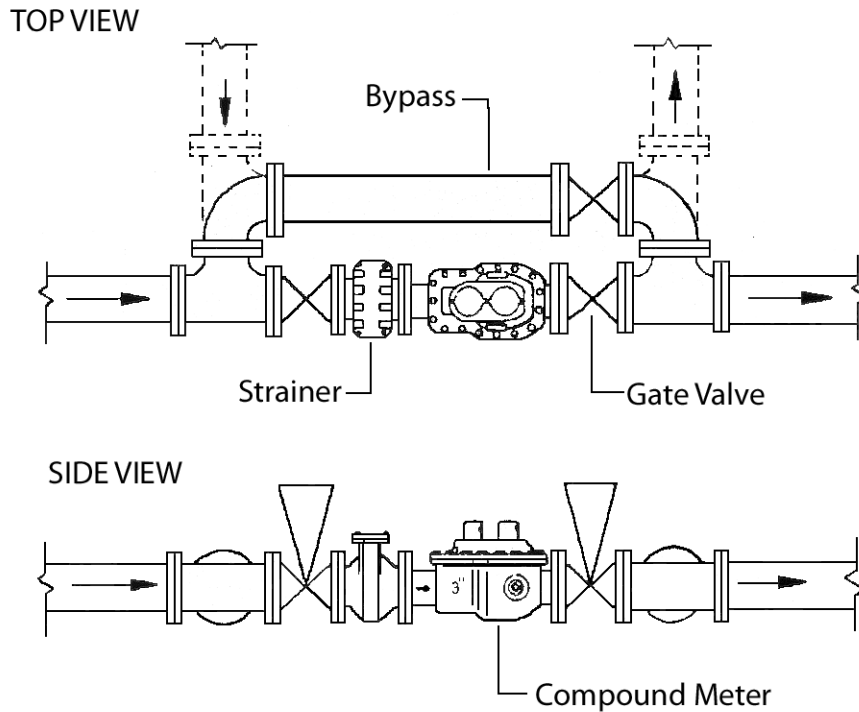
**Water Meter** – The meter will be furnished by the City.

- **Turbine Meters**
  - A minimum of four (4) pipe diameters of straight run pipe is required upstream of the meter/strainer assembly for meter accuracy.
  - Strainer attached to the inlet of the meter (strainer and meter shall be the same size).
  - The installation of the test tee can be at any convenient location where the test outlet is two (2) pipe diameters or more downstream of the water meter outlet.
  - Caution should be exercised to avoid air in the line, sudden flow surges, or excessive flow rates, as these conditions may cause damage to the turbine measuring element.
  - **Before operation**
    - With outlet-side gate valve closed, SLOWLY open inlet-side valve to pressurize meter.
    - SLOWLY open outlet-side gate valve until downstream line is pressurized.
    - After installation, it is important that the inlet valve be in the "full open" position. A partially opened inlet valve will cause flow profile distortion that will adversely affect meter accuracy.



- **Tru-Flo Compound Meters**

- There shall be a straight length of pipe equal to eight (8) to ten (10) diameters immediately upstream of the inlet, allowing for meter accuracy.
- A plate strainer is to be installed at the meter inlet (plate strainer of the same line size as the meter).
- Caution should be exercised to avoid air in the line, sudden flow surges, or excessive flow rates, as these conditions may cause severe damage to the meter.
- **Before operation**
  - Turn air bleed on meter cover counter-clockwise one to two turns.
  - With outlet-side gate valve closed, SLOWLY open inlet-side valve to pressurize meter.
  - Close air bleed (one to two turns clockwise) when air is completely vented and no "spitting" occurs.
  - SLOWLY open outlet-side gate valve until downstream line is pressurized.
  - After installation, it is important that the inlet valve be in the "full open" position. A partially opened inlet valve will cause flow profile distortion that will adversely affect meter accuracy.

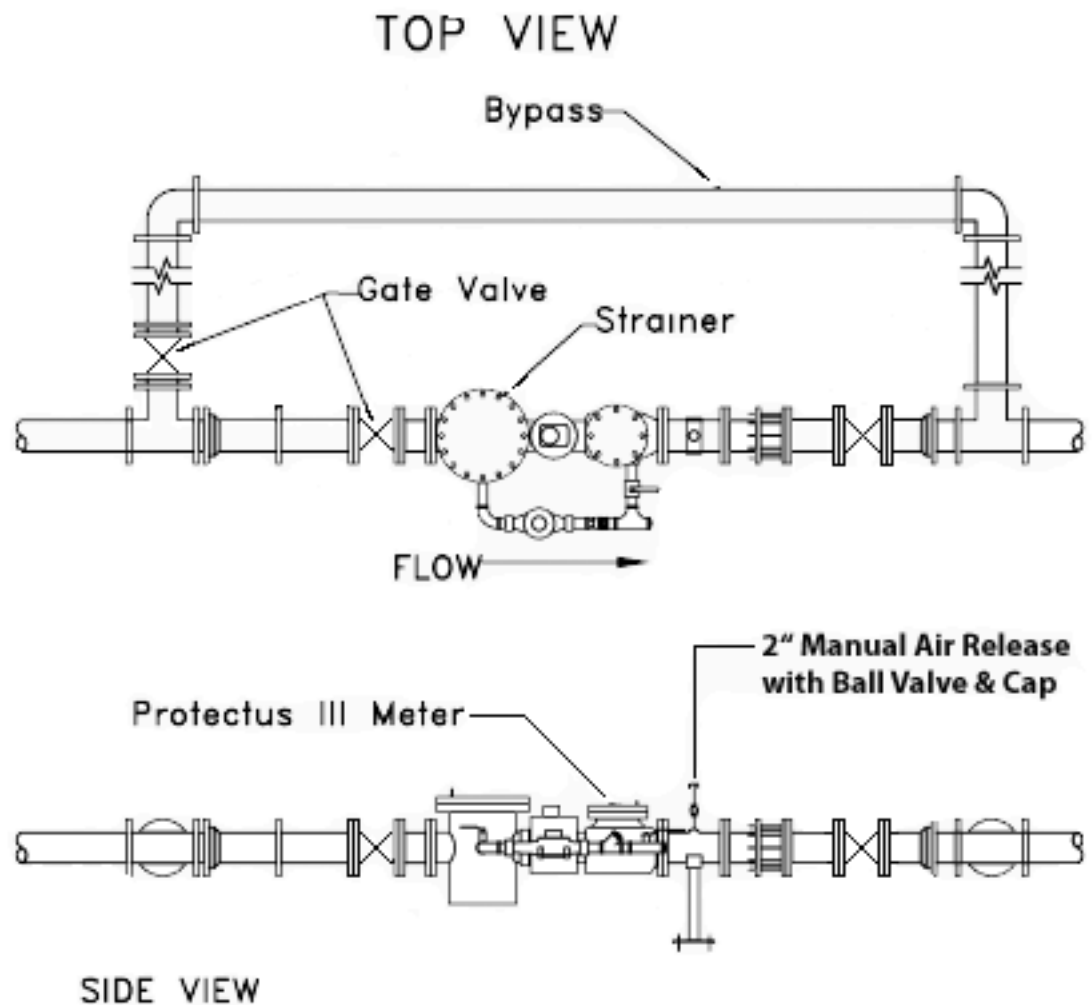


## Tru/Flo Compound Meter Setting

- **HP Protectus Meters**

- A minimum of four (4) pipe diameters of straight run pipe is required upstream of the meter/strainer assembly for meter accuracy.
- A basket strainer is to be installed in front of the fire service turbine and bypass (included in HP Protectus III meter assemblies).
- Before installation inspect the valve clapper on the detector and check for freedom of movement.
- The meter should be lowered into the meter pit and positioned in the setting via chains or straps through the lifting hooks on the top of both the strainer and DC valve. No attempt should be made to lift the assembly by a single center strap around the meter body or either end.
- The installation is to be in a horizontal position with its arrow pointing in the direction of the water flow.
- The bypass meter may be installed on either side of the mainline meter.
- Caution should be exercised to avoid air in the line, sudden flow surges, or excessive flow rates, as these conditions may cause severe damage to the meter.
- **Before operation**
  - Close both the mainline and bypass valves.
  - Turn air bleed screw on detector check valve **and** strainer cover counter-clockwise one to two turns.

- SLOWLY open mainline inlet side gate valve to pressurize meter.
- Close air bleed screws (one to two turns clockwise) when air is completely vented and no "spitting" occurs.
- SLOWLY open outlet-side gate valve until downstream line is pressurized.
- SLOWLY open upstream ball valve on bypass to pressurize bypass meter.
- SLOWLY open down stream ball valve on bypass.
- After installation, it is important that the inlet valve be in the "full open" position. A partially opened inlet valve will cause flow profile distortion that will adversely affect meter accuracy.



## **HP Protectus Meter**

2. **Inspection** – The preliminary inspection of the new service will be made at the time of the tap. The service needs to be completely installed. The inspection must be made with water

pressure on and prior to any backfill. (Water Connection Inspection Form - <http://www.topeka.org/pdfs/WaterConnectionInspection.pdf>).

3. **Backfilling** – Immediately after the tap, inspection and preliminary approval, the tap hole and trench shall be backfilled in compliance with City of Topeka and Shawnee County Standard Technical Specifications (<http://www.topeka.org/pdfs/StdTechSpecManual.pdf>). The area around the meter pit shall be backfilled with unwashed pea gravel up to (12") twelve inches from top of box and then black dirt to grade. Particular care should be taken while backfilling around meter pit to prevent pit from collapsing or egging.

4. **Clean-up** – In an established area, immediately after the completion of the work or any portion of it, the Applicant shall remove all unused material, refuse or dirt placed at the site or in the vicinity of the work, or resulting from the work and put the site in a clean and slightly condition. The Applicant is responsible for all landscape, sidewalk and/or street/pavement restoration.

5. **Streets, Alleys, Sidewalks or Easements** – In making excavations in streets, alleys or sidewalks, the paving, stones and earth must be removed and deposited in a manner that will cause the least inconvenience to the public and provide for adequate drainage. No person shall leave an excavation made in the easement open at any time without properly protecting/barricading the excavation. Site completion shall be coordinated with Construction Inspection, 368-3971 and in compliance with City of Topeka and Shawnee County Standard Technical Specifications.

6. **Restorations** – The Applicant shall return all excavated areas to previous site conditions.

### **Sanitary Sewer Connections**

1. **General** – The Applicant shall procure the services of a licensed plumber or obtain a homeowner's permit from Developmental Services to install a new building sewer service line from the structure to the sewer stub (wye) not located within the road right of way or an easement. A licensed plumber must do the work within the road right of way or an easement.
2. **Tap Required** – If the building sewer service line requires a direct tap to the sewer main, a licensed plumber must excavate the area around the main in accordance with the most current OSHA regulations. City employees may refuse to work in any excavation they feel is unsafe. The Kansas Department of Industrial Safety may be called in to settle any safety disputes. The applicant is responsible for providing appropriate traffic control, fencing and/or barricading. Water Pollution Control Division staff must do the actual tap.
3. **Scheduling** – The Applicant must allow five (5) working days from application date to schedule a tap. A minimum of 24 hours notice shall be given to the Water Pollution Control Division for cancellation or rescheduling of any scheduled tap. Please call 368-4252 to schedule your tap.

4. Completion – The Applicant shall complete all backfilling, clean up, and surface restoration in accordance with the City Code, Technical Code, specification and policies. If the excavation is in a road right of way or an easement this work must be inspected and approved by the inspection division of the City of Topeka. Please call 368-3905 to schedule your inspection.