

WATER METER CONNECTION

MAINTENANCE AND REPAIR REFERENCE GUIDE



In the event you need to conduct maintenance or repairs to your water meter, this guide will help to identify the responsible parties, recommendations and requirements for completing your repairs.



Responsibilities

THE CUSTOMER:

- Maintain the water meter pit, meter pit cover, meter pit ring, meter setting and all related materials including valves and piping.
- Maintain the full length of the water service line.
- All leaks outside the right-of-way (on the customer's property) shall be repaired by a licensed and bonded plumber at the customer's expense.
- All leaks in the right-of-way (not on the customer's property) shall be repaired by Citizens Energy Group (Citizens) at the utility's expense.

CITIZENS ENERGY GROUP:

- Maintain, install and remove the water meter and its related remote reading device(s), if applicable.
- Reinstall or disconnect water service.
- Provide and conduct leak location services to determine responsibility.
- Provide and conduct inspection services for all new service taps and service lines.

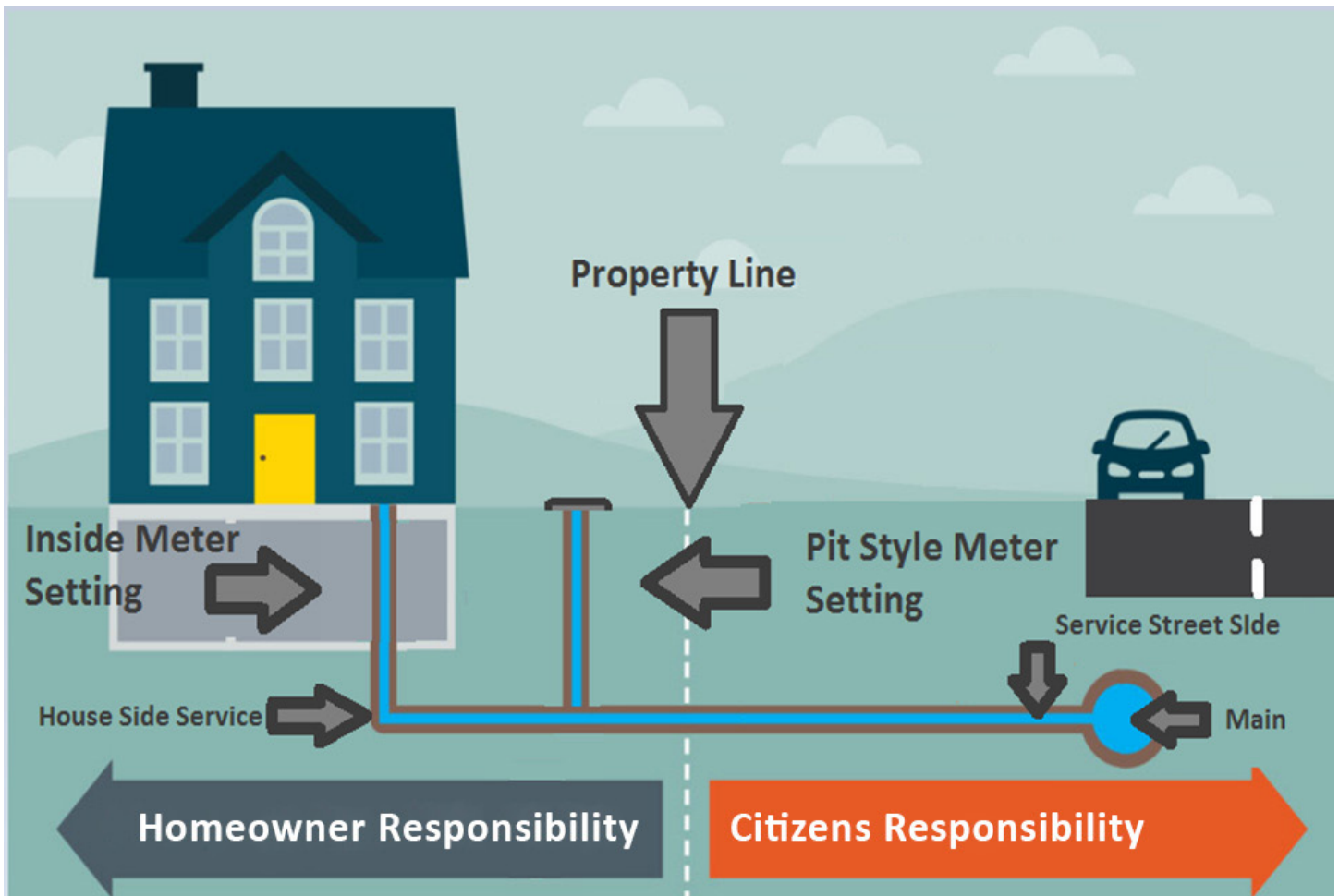


Figure 1: Water Service Responsibility

How to Make Your Own Repairs

MAKING REPAIRS TO INSIDE METER CONNECTION PARTS (FIGURE A)

1. Turn off stop and waste (S/W) valve inside the meter pit. *Note: If S/W valve needs repair, if there is no S/W valve or the meter is between the main and the S/W valve, call Citizens Dispatch at (317) 927-6000 to have water turned off at the street.*
2. Turn expansion wheel on water meter to loosen meter; remove meter from connection and set aside. Also, remove the rubber gaskets that seal the meter to the connection. Check to see if the gaskets are soft or still resilient. If dry or cracked, please call Citizens Dispatch at (317) 927-6000 to have replacements installed once repairs are completed.
3. To replace S/W valve, remove S/W valve and short piece of pipe (nipple) between valve and 90-degree elbow using two pipe wrenches. Be sure to take S/W valve and nipple pipe to supply store and get replacement parts for both. *Note: It is very important that the length of the new S/W valve and nipple pipe measures the same length as the old S/W valve & nipple pipe. Most newer S/W valves are shorter, and the distance will need to be made up by using a longer nipple pipe.*
4. To replace other meter connection parts, just remove the lock/spud nuts and disassemble the meter connection at each fitting until you have removed the part needing repair. *Note: Some meter connections do not use lock/spud nuts to hold the yoke to the meter connection assembly.* These types of meter connections will have a union pipe (large two-piece nut) that is normally below the S/W valve on the service line. To disassemble this type of connection, just loosen the union nut until the part needing repaired or replaced is removed.
5. Once you have the parts that need to be replaced off the meter connection, take these parts with you to a plumbing supply or hardware store. Make sure to match the pipe size and length that you are replacing. Plumbing fittings and pipe are not flexible so make sure that new parts are the exact size and length as the old parts you are replacing.
6. To reassemble the meter connection, just assemble the meter connection in reverse order from the way it was disassembled. Use threaded pipe tape or pipe dope (**approved for potable water**) on any threaded pipe fittings to avoid potential leaks.
7. Install gaskets inside lock/spud nuts on meter connection and reset water meter in connection. Make sure the direction of flow arrow on meter is pointed in the direction of water flow through the meter. Then turn the water on at the S/W valve or call Citizens to have the water turned on at the street. Check fittings for any leaks. *Note: If gaskets are bad, call Citizens Energy Group at (317) 924-3311. A service technician will come out and install new gaskets and reset the water meter for you.*
8. No shark bites, STAB fittings, PEX, POLY, PVC, or plastic allowed before the meter.
9. When updating service line or connection, it must Citizens Water Standards with yoke bar and valve before the meter.

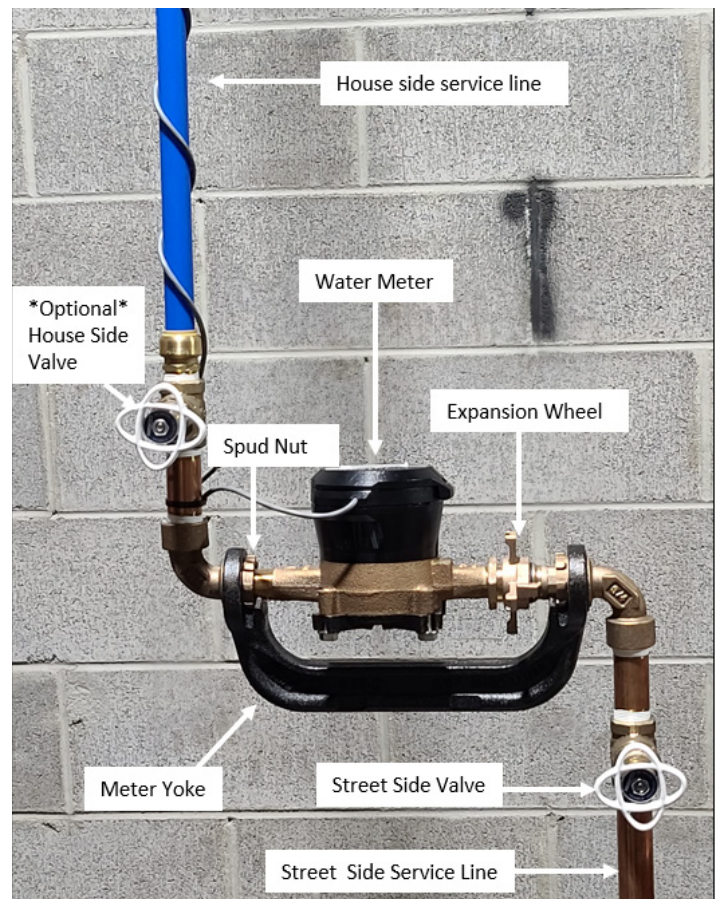


Figure A: Inside Water Meter Setting

How to Make Your Own Repairs

MAKING REPAIRS TO AN OLD-STYLE UNDERGROUND WATER METER CONNECTION PARTS (FIGURE B)

1. Turn water off at stop and waste (S/W) valve before meter. *Note: If there is no S/W valve before the meter or the S/W valve needs to be replaced, call Citizens at (317) 924-331 to turn water off at the street.*
2. Place lid back on meter pit ring and dig meter pit ring up by removing dirt that covers the meter pit ring. Dig 6 inches back from lid around the ring and down until you uncover the lip of the meter pit ring. Once this is completed, lift the meter pit ring and lid off the meter pit to give yourself room to work in the meter pit.
3. Turn expansion wheel to loosen water meter; remove meter from connection and set aside. Also, remove the rubber gaskets that seal the meter in the connection. Check to see if the gaskets are soft or still resilient. If dry or cracked, please call Citizens at (317) 924-3311 to have replacements installed once repairs are completed.
4. To replace S/W valve, remove S/W valve and short piece of pipe (nipple) between valve and 90-degree elbow using two pipe wrenches. Make sure to take S/W valve and nipple pipe to supply store and get replacement parts for both. *Note: It is very important that the length of the new S/W valve and nipple pipe measures the same length as the old S/W valve and nipple pipe. Most newer S/W valves are shorter, and the distance will need to be made up by using a longer nipple pipe.*
5. To replace other meter connection parts, remove the lock/spud nuts and disassemble the meter connection at each fitting until you have removed the part needing repair. *Note: Some meter connections do not use lock/spud nuts to hold the yoke to the meter connection assembly.* These type of meter connections will have a union pipe (large two-piece nut) that is normally below the meter connection on the service line. To disassemble this type of connection, loosen the union nut and take the connection apart by disassembling meter connection until the part needing repair or replacement is removed.
6. Once you have removed the worn parts from the meter connection, take these parts with you to a plumbing supply or hardware store. Make sure to match pipe size and length that you are replacing. Plumbing fitting and pipe are not flexible, so make sure that new parts are the exact size and length as the old parts you are replacing.

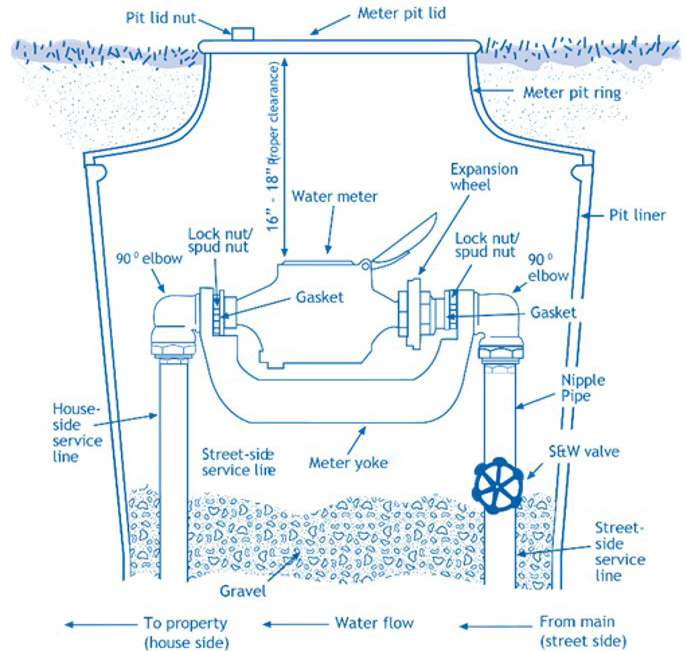


Figure B: Outside Meter Setting (Old-Style)

7. To reassemble the meter connection, assemble the meter connection in reverse order from the way it was disassembled. Use threaded pipe tape or pipe dope (approved for potable water) on any threaded pipe fittings to avoid potential leaks.
8. Install gaskets inside lock/spud nuts on meter connection and reset water meter in connection. Make sure the direction of flow arrow on meter is pointed in the direction of water flow through the meter. Then turn the water on at the S/W valve or call Citizens at (317) 924-3311 to have the water turned on at the street, and check fittings for any leaks.
9. Replace meter pit ring to meet Citizens Water Standards.
10. No shark bites or STAB fittings are allowed in meter pit. No PEX or PVC piping allowed in meter pit. Poly material allowed on house side of meter only.

How to Make Your Own Repairs

MAKING REPAIRS TO A NEW-STYLE UNDERGROUND WATER METER CONNECTION PARTS (FIGURE C-1 AND C-2)

1. Always turn water off before beginning work on meter connection or pipes. To do so, turn water off at the angle valve. Turn notch with arrow on it until the arrow points away from the meter and two holes are aligned.
2. Place lid back on meter pit ring and dig meter pit ring up by removing dirt that covers the meter pit ring. Dig 6 inches back from lid around the ring and down until you uncover the lip of the meter pit ring. Once this is completed, lift the meter pit ring and lid off the meter pit to give you room to work in the meter pit.
3. *Note: Only parts located after the angle valve on this type of meter connection are repairable by owner. If angle valve or flare nut before angle valve needs to be repaired, call a bonded plumber.*
4. Turn expansion wheel on water meter to loosen meter, remove meter from connection and set aside. Also remove the rubber gaskets that seal the meter in the connection. Check to see if the gaskets are soft or still resilient. If dry or cracked, please call Citizens at (317) 924-3311 to have replacements installed once repairs are completed.
5. Remove lock/spud nuts and disassemble meter connection until part needing replacement is removed.
6. Once you have removed the worn parts from the meter connection, take these parts with you to a plumbing supply or hardware store. Make sure to match pipe size and length that you are replacing. Plumbing fittings and pipes are not flexible, so make sure that new parts are the exact size and length as the old parts you are replacing.
7. To reassemble the meter connection, assemble the meter connection in reverse order from the way it was disassembled. Use threaded pipe tape or pipe dope (approved for potable water) on any threaded pipe fittings to avoid potential leaks. Be sure the direction of flow arrow on the meter is pointed in the direction of water flow through the meter. Then turn the water on at the angle valve and check fittings for any leaks.
8. Install gaskets inside lock/spud nuts on meter connection and reset water meter in connection.

9. Replace meter pit ring to meet Citizens Water Standards.
10. No shark bites or STAB fittings are allowed in meter pit. No PEX or PVC piping allowed in meter pit. Poly material allowed on house side of meter only.

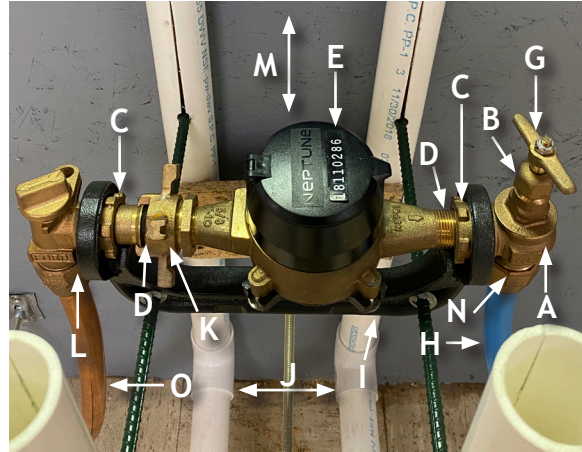


Figure C-1: Outside Meter Setting (New-Style)

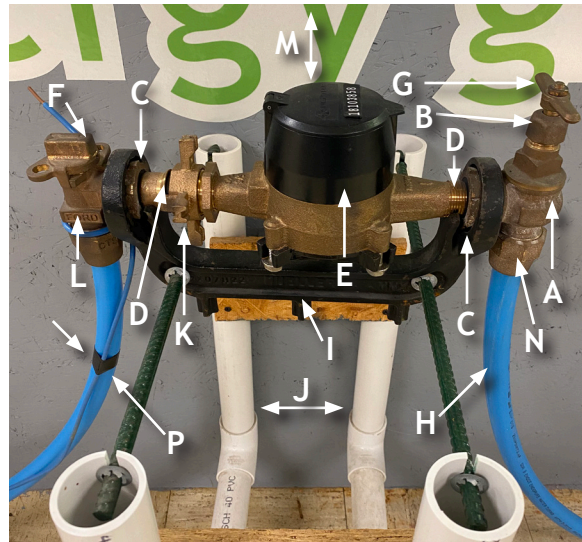


Figure C-2: Outside Meter Setting (New-Style)

Key for Figure C-1 and Figure C-2:

A- Stop & Waste (S&W) Valve	L- Flare Nut
B- Packing Nut	M- 16" - 18"
C- Lock Nut/Spud Nut	(Proper clearance from Meter to Meter Pit Lid)
D- Gasket	N- Flare Nut OR Compression Fitting for new meters only
E- Water Meter	
(Provided by Citizens Energy Group)	
F- Angle Valve	<u>For Figure C-1 ONLY:</u>
G- S&W Valve Handle	O- Street-side Service Line (Type "K" Copper Line)
H- House-side Service Line (Polyethylene)	<u>For Figure C-2 ONLY:</u>
I- Meter Yoke	P- Street-side Service Line (Polyethylene and must include Tracer Wire)
J- EZ Insert	Q- Tracer Wire
K- Expansion Wheel	

Water Service Improper Condition Guidance

COMMON IMPROPER CONDITIONS INCLUDE:

- Broken water meter pit ring.
- Raise or lower water meter pit to grade.
- Leaks before or after the water meter on customer's property.
- Broken S/W (Stop and Waste) or Angle Valve.
- PEX or PVC material installed inside the meter pit.

To repair an improper condition, customers must hire a licensed and bonded plumber to repair the improper condition noted on the blue tag.

Once the repairs have been completed, the customer must mail back the signed blue tag stating that the required repairs have been completed in compliance with Citizens Water Standards. Please retain a copy of this service tag for record keeping.

If the improper condition resulted in the customer temporarily losing water service, please contact Citizens' Dispatch at 317-927-6000 to restore your services. If the customer is unable to complete the necessary repairs within the allotted time, please contact Citizens' Customer Service at 317-924-3311.



Water Service Improper Condition Guidance

A water service application must be submitted by a plumbing professional for permitting approval of each new service line (domestic^{1,2}, irrigation³ and fire⁴). Permit approval must be obtained prior to modification, replacement and installation of any service line. All work performed on a service line must be performed by a bonded plumber and will be subject to inspection.

At the time of Citizens' inspection, a meter will be set for all residential service line taps.^{5,6} The service line from the main to the meter pit will be inspected at the time of the scheduled tap and must be approved by Citizens before the tap is made.

Circumstances requiring an inside water meter setting to be moved to an outside pit include:

- Water service line leak requiring excavation and greater than 3 feet of pipe to be replaced.
- Water service line leak resulting in indoor flooding or water damage.
- For properties undergoing rehabilitation or restoration, the water service cannot be connected to an undersized or inactive lead service line.

Figure 2 illustrates the proper water service line configuration when moving a water meter from a basement to a pit and connecting to the existing active lead service line.

Figure 3 illustrates the proper water service line configuration when tapping the water main for installation of a new service line.

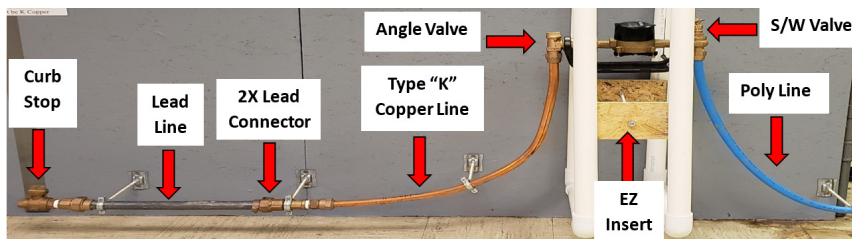


Figure 2: Water Service Line Configuration for an Existing Water Main Tap with a Lead Service Line

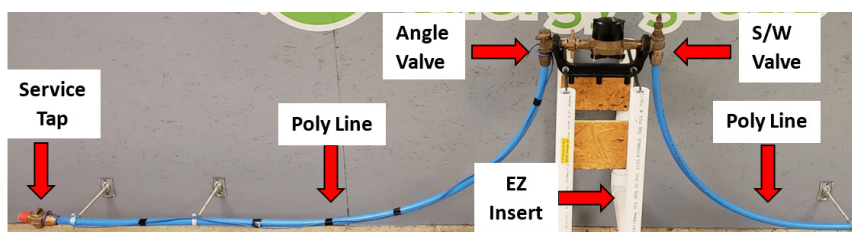


Figure 3: Water Service Line Configuration for a New Water Main Tap and Service Line

¹ Domestic service must have a minimum diameter of 3/4-inch inside the service line pipe for homes under 2,000 square feet (SF) and no irrigation and 1-inch for homes over 2,000 SF or under 2,000 SF with irrigation.

² Each domestic service must shall require an individual tap. Branched services are no longer acceptable.

³ Irrigation service must have a minimum diameter of 1-inch inside the service pipe.

⁴ Fire service must have minimum diameter of 2-inch inside the service line pipe.

⁵ The new service tap must be located in the same trench at least 3 feet from the existing service tap.

⁶ The curb box and touchpad unit must be retired and removed.



2020 North Meridian Street
Indianapolis, IN 46202

FOR QUESTIONS CONTACT

Customer Service (Residential):

(317) 924-3311

Customer Service (Rentals and Commercial):

(317) 924-3321