

# Construction and Maintenance

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The Construction and Maintenance Division (C&M) is responsible for maintaining the water distribution and wastewater (sewer) collection systems. The water distribution system consists of 2,500 miles of pipe, 190,000 meters, 19,000 fire hydrants and 55,000 water valves. DeKalb's sewer collection system has 2,300 miles of pipe and 75,000 manholes. We work on line sizes that range from  $\frac{3}{4}$  of an inch to over 100 inches which can be buried from 4 to 50 feet in the ground and have pressures near 200 PSI in some areas.

The division offers 24/7 service to respond to water leaks, sewer backups, sewer spills and any emergency situation involving the water and wastewater system. The system grows each day as DeKalb grows.

Our Team is broken into four major areas. We have divided the County into thirds to comprise the Districts. Each District has a Superintendent, several General Foremen and a team of dedicated employees to serve the citizens of DeKalb County. Our General Foremen plan the workday with the Superintendent, assure the safety of their team, check on the quality of work done, review and evaluate their staff, make field decisions and act as first responders in their assigned areas.



Our field crews do a remarkable job every day, at night and on weekends under all types of weather conditions, in traffic and other hazardous areas, in a job dealing with substances that most people do not wish to think about. They possess a variety of skills ranging from using a simple shovel, utilizing computer intensive equipment, operating complex heavy equipment and keeping a safe job site under a variety of changing circumstances. Field crews have many different roles: one of the workers is the safety person for a group in the hole directing the digging efforts, there's also a person who serves as the relief for the group in the hole doing heavy labor, finally there may be a specialist waiting to do their job when the excavation gets to their area or assigned to be away from a particularly dangerous site to summon rescue efforts should something happen. Crews sometimes stay on a jobsite for 24 straight hours making repairs so there will be minimal disruption in service. The division has a variety of representatives on site at times to show where phone, gas, cable television, and other items are located in the ground and during this process C&M staff may have to leave the hole while another entity secures or locates their underground components.

Non-contract construction projects are handled by the fourth division, Construction which also has a Superintendent, several General Foremen and a team of dedicated employees. Each year, the construction section installs approximately 50,000 feet of new water and sewer mains utilizing a rating system for line replacement that includes pipe material composition, age of line, pipe size and frequency of repairs. They also participate in any large line repairs that may occur.

C&M also has water leak detection, water valve actuation of valves with a few to 1200 rounds required to operate, large meter installation/maintenance, small meter field replacement, fire hydrant maintenance/replacement, television inspection of sewer lines and the meter shop which rebuilds over 6,000 meters per year.

We have a warehouse function to order and stock all the pipe, fittings, safety equipment, protective clothing, and supplies required to do our work. We also have a group that cuts the grass at all of the water towers, booster pump stations and lift stations in addition to portions of the plants.

Our on-site service facility coordinates and schedules service at fleet maintenance and makes shop/field repairs to our 575 plus pieces of rolling stock in addition to providing field support during emergencies or major construction activities. Our General Foreman in charge of the yard assures all of our equipment, vehicles, pumps, trailers, etc. are accounted for, properly stored and secured, and kept in a clean and safe condition.

The C&M Dispatch office operates 24 hours a day. The emergency number for dispatch is 770-270-6243. This office is the backbone of our operation in coordinating the public requests for service, sending appropriate resources to the site, tracking where our resources are, and initiating, updating and reviewing our service request system.

Our Dispatch Staff is supplemented by the Service Request Technicians which update and maintain our Computerized Maintenance Management System. This group takes the various field notes and reports and inputs this data (about 10,000 records per month) into the system to maintain a detailed record system to use for regulatory reports, enhanced customer service and system analysis for repairs and upgrades.

Working closely with both groups is our Customer Service Team which does investigations into customer concerns and claims. This team also coordinates and assures our response to issues in a timely and complete manner.

The management of the Division and administrative functions for the staff of approximately 400 are handled by one Senior Administrative Assistant and the C&M Director.

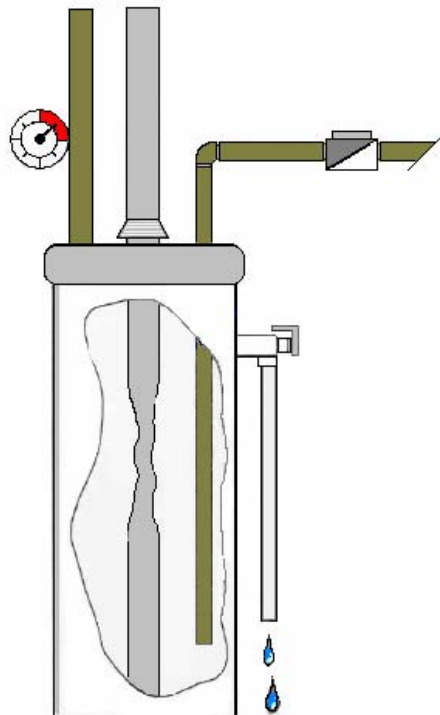
To help you avoid the need for our excellent emergency response services, there are a few code requirements and general tips you may want to consider.

**1. Sewer backflow protection for buildings with plumbing facilities below the grade of the overflow point of the sewer main.** This is generally houses or businesses that have toilets or showers below street level. If this is the case, *County code requires* the installation of an approved backflow device on the sewer line serving the building. This usually consists of a one-way flap valve installed on the sewer line near where it exits the building. This is the only means of protection in the event of a sewer backup in the main. It should prevent sewage from entering your home or business. This code does not apply to homes with septic tanks.

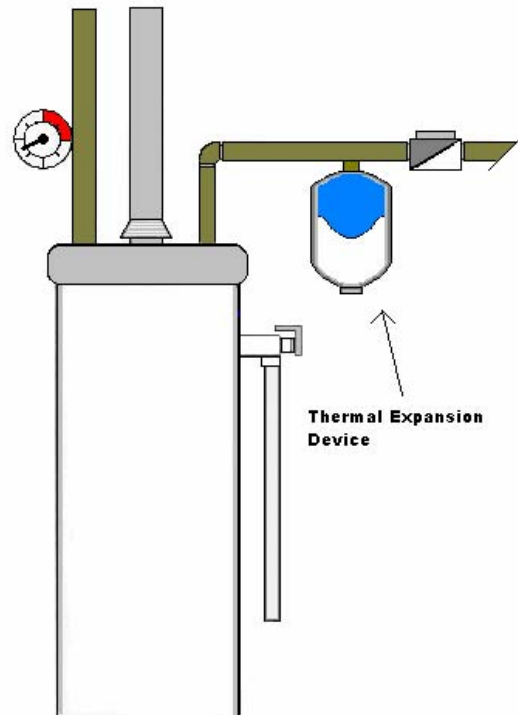


**2. Thermal expansion protection for the plumbing inside your home or business.** This consists of a valve or tank that allows the release of pressure due to expansion of water when it is heated by the water heater. The expansion of this water can cause leaks and damage to your plumbing fixtures.

## The Problem



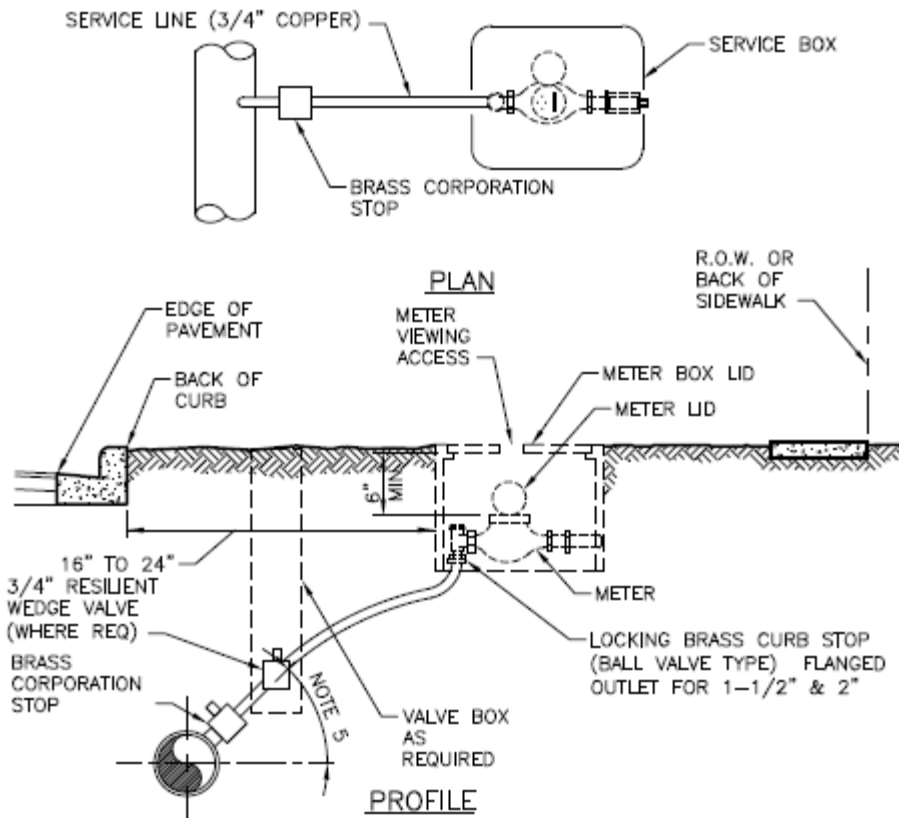
## The Solution



3. **Be sure your home or business has a pressure regulator.** This device is the only way to regulate the water pressure entering the building. It will also help maintain even pressure and flow when multiple fixtures are used at the same time.



4. **You should have two cut off valves for your water system.** One should be located on the line coming from the meter to your house which can be used to stop the flow of water to the line in your yard should there be a leak on it. The second valve should be just inside your house where the water service comes in. This will cut off the water inside your house for plumbing repairs, broken interior lines, etc. You should definitely know where this valve is as your first line of defense to minimize flooding in your house.



**Figure 1** Your first shutoff valve is just outside the service box and the second is either just outside your house or inside where the water service comes in.

5. **Review your insurance coverage for water related damage.** Many insurance policies do not cover water related damages and would not pay for any damages that might occur related to water (liquid sewage is considered water) damage to your home or possessions. Renters should consider this type of coverage also for their possessions.

6. **You should never pour oil, grease, harmful or hazardous chemicals, paints or flammable liquids into a sink, lavatory, toilet or drain.** These substances can harm or block your plumbing system and are difficult to remove in the wastewater plants.

7. **Stormwater drains, gutter downspouts and yard drains are not allowed to be connected to the sewer system.** If these connections are found, you will be required to disconnect them immediately.

#### 8. Right-of-way

County code prohibits the installation of irrigation systems (as well as buildings, some driveways, patios/decks, fences, poles, signs or wires) within the County right-of-way. The right-of-way, which extends several feet behind the curb or edge of the pavement, is specifically reserved for public utilities. Property owners should be aware of this right of way and know where their property pins are located. This will help avoid problems later if a public utility company has to perform work in this area. Utility companies and their contractors are not obligated to repair or pay for the repair of anything located in the right of way in violation of the code. This may also include flowers, shrubs, trees and other improvements within the right-of-way.

In some cases, the County may have other right-of-ways across or behind your property which have similar restrictions about what can be placed on them. Again if we have to dig up the pipe for repairs the County is not obligated for restoration of items placed in the right-of-way in violation of the code.

If your yard backs up on a creek we may also have lines near the creek for which the same conditions apply along with a stream buffer to protect the watershed.

#### 9. Customer Responsibility

You are responsible for any repairs and maintenance to your plumbing system. Your plumbing system starts at the owner side of the meter, through the service line to your house, all of the interior plumbing and fixtures, and then goes out the drains and through the sewer lines to the property line cleanout at the county right-of-way. If your property line cleanout is not visible you will be advised to correct the issue before the County can render service.

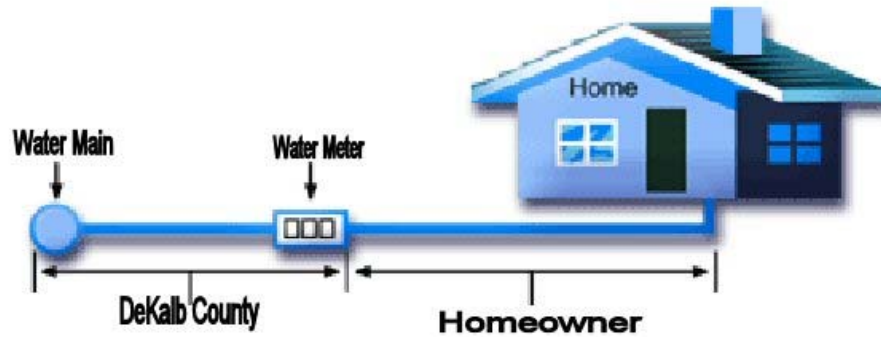


Figure 2 Your water system starts at the meter box and goes to and in your house  
YOUR SEWER PIPE SYSTEM

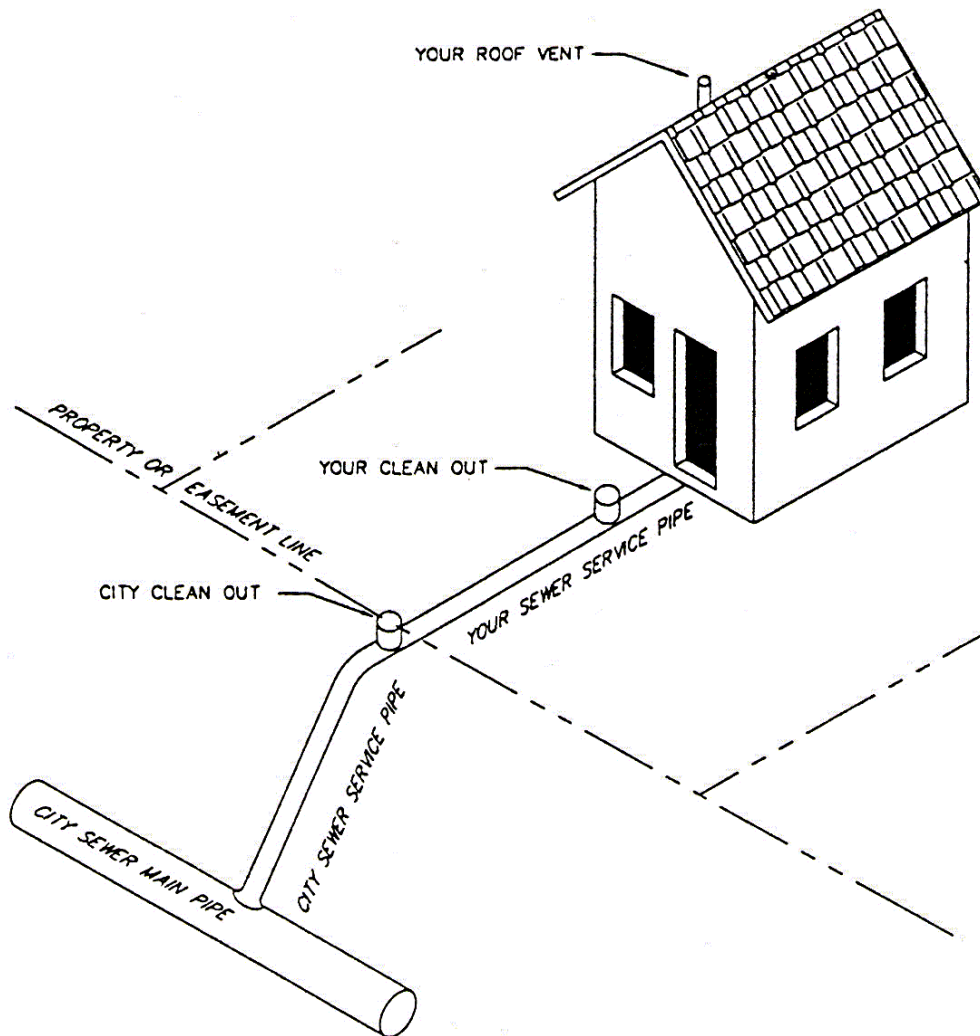


Figure 3 You own the sewer line from the house to the main. The County only maintains the lines from the property line to the sewer main as long as there is a visible property line cleanout.