



MEMPHIS LIGHT, GAS AND WATER DIVISION



MLGW Construction Requirements

**RELIABLE TODAY.
READY FOR TOMORROW.**

Whether you're preparing to build residential apartments, single-family homes, luxury residences, commercial buildings, manufacturing facilities, or retail centers, Memphis Light, Gas and Water (MLGW) provides the expertise and energy solutions to help make your development more efficient and marketable. MLGW offers reliable performance, cost-effective operations, and energy-efficient options that appeal to both residential and commercial customers for long-term value.

By partnering early in the planning process, MLGW can help you evaluate infrastructure requirements, identify available programs, and design energy solutions that align with your project goals—ensuring your building or development stands out as an ideal choice for today's buyers and tenants.

Before you begin, there are requirements you need to know and understand.

Electric:

Distribution Transformers

- There must be a **3-foot** clearance from the sides and rear of the transformer pad to screen/barrier posts, columns and walls.
- There must be a **15-foot** clearance from the screen/barrier opening to the front of the transformer pad for hot stick operation.
- There must be an **8-foot** clearance from the edge of the transformer pad to building openings such as doors, windows and means of egress.
- There must be a **10-foot** clearance from the edge of the transformer to gas meters.
- There must be a **20-foot** clearance from the edge of the transformer to flammable liquids or gas storage containers.
- There must be a minimum horizontal clearance of **10 feet** from the edge of the transformer pad to the nearest overhead electrical phase for transformer installation.
- There must be a minimum vertical clearance from the top of the transformer pad:



- o **25-foot** overhead clearance for transformer sizes 500KVA and smaller.
- o **50-foot** overhead clearance for transformer sizes greater than 500KVA.

Switchgear

- There must be a **4-foot** clearance from all obstructions and from the pad on all sides for door clearance.
- There must be a **15-foot** clearance from the front of the pad for switchstick operation unless otherwise noted by MLGW sketch.

Overhead Primary

- There must be a **10-foot** clearance from the foundation.
- There must be a **7.5-foot** horizontal clearance from the nearest conductor and **14.5-foot** vertical clearance for above-ground structures (i.e., fences, walls, etc.).
- There must be a **5-foot** clearance from sewers, drains, and other municipal utilities.
- There must be a **42-inch** clearance from telecommunications.
- There must be a **15-foot** clearance from doors.
- There must be a **7.5-foot** horizontal clearance to the nearest conductor and a **14.5-foot** vertical clearance from operable windows.
- There must be a **7.5-foot** horizontal clearance to the nearest conductor and **12.5-foot** vertical clearance from inoperable windows.



Overhead Secondary

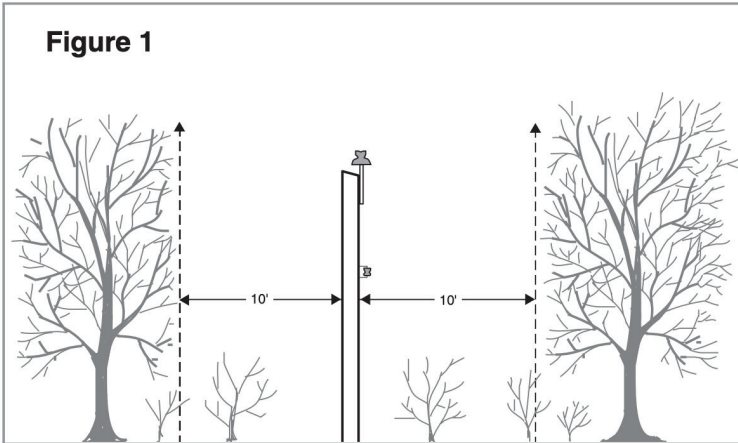
- There must be a **10-foot** clearance from the foundation.
- There must be a **5-foot** horizontal clearance to the nearest conductor and **10-foot** vertical clearance for above-ground structures (i.e., fences, walls, etc.).
- There must be a **5-foot** clearance from sewers, drains, and other municipal utilities.
- There must be a **40-inch** clearance from telecommunications.
- There must be a **15-foot** clearance from doors.
- There must be a **10-foot** horizontal clearance to the nearest conductor and a **5-foot** vertical clearance from operable windows.
- There must be a **10-foot** horizontal clearance to the nearest conductor and a **5-foot** vertical clearance from inoperable windows.
- There must be a **22.5-foot** clearance for pools.

Underground

- All MLGW electric facilities, regardless of voltage, shall have a depth of cover of **48 inches** (depth of cover is the distance from the finished surface to the top of the shallowest conduit).
 - o The installed duct line is for the purpose of installing power cable systems to be owned and operated by MLGW. No other facilities are to be installed in conduit/duct line systems intended for power cable systems. Except where crossing, there shall be a lateral (horizontal) minimum separation of **24 inches** between facilities installed for MLGW cable systems and other facilities (conduits for secondary cables telecommunications, water, sewer, irrigation, gas, etc.). Where these facilities cross, the crossing shall be made as close to perpendicular as possible and shall have no less than **12 inches** of vertical clearance, with **24 inches** preferred.
- For pad-mounted transformers, only facilities entering the pad site are permitted to be located under the pad site. Other facilities, such as conduits, gas, telecommunications, water, sewer, and irrigation, shall not be permitted beneath pad-mounted transformers, manholes, variable-depth pull boxes, handholes, etc.

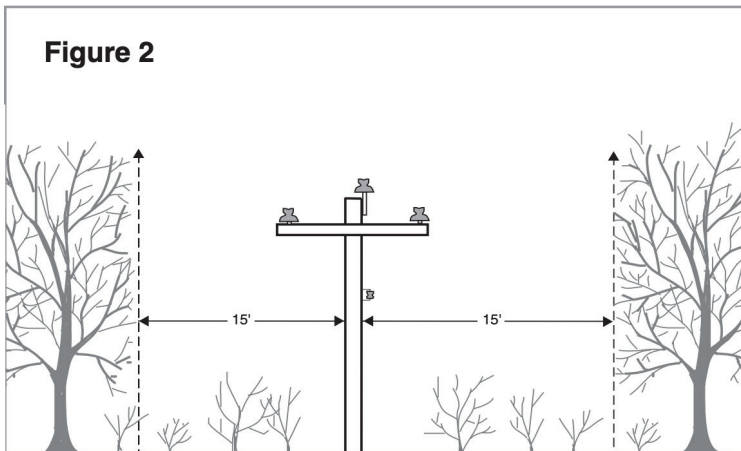
Tree Trimming (refer to the illustration below)

Single Phase Line and Secondary Line Extensions



- o All trees will be cut down and underbrush cleared even with the surface of the ground **10 feet** horizontally from each side of the center line of the proposed pole line, creating a **20-foot-wide** corridor.
- o All trees outside the above-mentioned **20-foot-wide** corridor, the branches of which extend into the corridor, will be side-trimmed to maintain a constant **10-foot** horizontal clearance on each side of the proposed pole line and the pole line projected upward, creating a **20-foot-wide** corridor through the ceiling of the tree canopy.

Three Phase Line Extensions



(cont. on next page.)

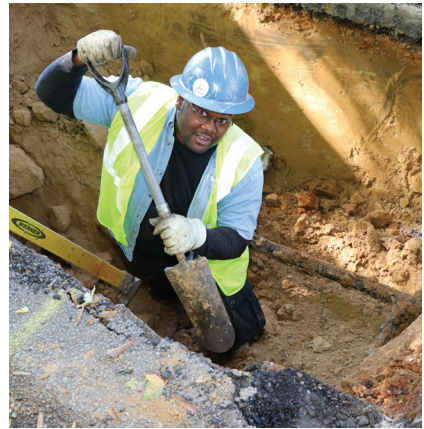
- o All trees will be cut down and underbrush cleared even with the surface of the ground **15 feet** horizontally from each side of the center line of the proposed pole line, creating a **30-foot-wide** corridor.
- o All trees outside the above-mentioned **30-foot-wide** corridor, the branches of which extend into the corridor, will be side-trimmed to maintain a constant **15-foot** horizontal clearance on each side of the proposed pole line and the pole line projected upward, creating a **30-foot-wide** corridor through the ceiling of the tree canopy.

Overhead Service

- o All trees will be trimmed to create a minimum horizontal and vertical clearance of **5 feet** from a service line.

Gas:

- There must be a **3-foot** clearance from the gas meter/regulator to any operable window opening, doors, vents or electric meter.
- There must be a **6-inch** clearance from the rear of the gas meter to any above-ground structure (i.e., fences, walls, etc.).
- Distribution main must have a **12-inch** clearance for the following: foundations, above-ground structures (i.e., fences, walls, etc.), sewers, drains, municipal utilities and telecommunications.



MLGW's best practice is to maintain proper vertical clearances, which are essential for public and pipeline safety along with system reliability. Gas meters, regulators, risers, vent openings, service lines and piping require unobstructed space above them to allow safe pressure control, ventilation, maintenance and emergency response. Structures (e.g., patios, additions, pools, etc.) or equipment installed closely above can trap gas, restrict access, and increase the risk of ignition or service disruption, and may require removal if work is necessary. Maintaining a clear area above and around gas lines protects occupants, helps avoid costly damage or relocation, and allows utility personnel to respond quickly and safely.

To reduce the risk of fire or explosion, always keep flammable and combustible materials away from gas appliances and equipment.

Water:

(Note - MLGW only provides water services to Arlington, Lakeland, Memphis and Unincorporated Shelby County. The following municipalities have their own separate water systems: Bartlett, Collierville, Germantown and Millington.)

- There must be a minimum **3-foot** clearance around residential water meters (3/4" – 2" meter size).
- There must be a minimum **10-foot** clearance around commercial water meters (3" – 10" meter size).



Unlike electric and gas meters, water meters are always installed near the transition point where the public right-of-way meets private property. All water service pipe from the water main located in the road to the water meter is MLGW's responsibility to own and maintain. Any water service pipe that comes out of the outlet side of the water meter is the customer's responsibility to own and maintain.

- There must be a minimum **10-foot** clearance on either side of the water main for building foundations and above-ground structures (i.e., fences, walls, etc.), as well as **10-foot** clearance horizontal separation from the sanitary sewer.
- There must be a minimum **5-foot** clearance on either side of the fire hydrant for building foundations and above-ground structures (i.e., fences, walls, etc.).

MLGW's best practice is to avoid any instances where an above-ground structure would be present above an MLGW-owned water line, since it could hinder maintenance work.

- There must be a minimum **18-inch** vertical separation from storm drains, sanitary sewers and other miscellaneous utility crossings, as well as crossing as close to perpendicular as possible. Ideally, water crossings will be above storm drains and under sanitary sewer unless the minimum depth of cover cannot be satisfied.
- There must be a minimum **3-foot** horizontal separation from any other utility line (electric, gas, telecom, etc.).

All water valves owned by MLGW should only be operated by MLGW personnel.

Right-of-Way/Easements Requirements:

- Single-Phase Overhead Electric:
 - **5 feet**
- Three-Phase Overhead Electric:
 - **10 feet**
- Underground Electric:
 - **5 to 8 feet**
- Joint Trench Subdivision Easement:
 - **19 feet** minimum for the frontage
 - **5 feet** minimum for the rear
 - **5 feet** minimum for the side
- General Gas Facilities Easement:
 - **10 feet** minimum
- General Water Facilities Easement:
 - **20 feet** minimum
- Switchgear:
 - **15 feet**

For more information, please visit mlgw.com/builders

