

## **Electrical Inspector – Pat McMullen**

**Inspection Office Hours 7-8:30 am Monday-Thursday  
(612)866-1979**

Inspections are normally made the same day they are called in.

Please have your permit number ready when you call for inspection.

### **Rough-In Inspection**

This inspection must be done before any wiring is covered by insulation, sheetrock, paneling, etc. Underground wiring must be inspected before the trench is covered.

- At all boxes, there must be minimum wire length of six inches including the grounding conductors.
- The outer cable jacket must extend at least ¼” into the box.
- All splicing of ground wires and other wires must be completed with approved splicing devices when calling for inspection.
- In receptacle boxes with more than one cable in the box, the ground wires must be spliced with a wire tail to be attached to the ground screw on the receptacle or switch, as only one conductor is permitted under a terminal screw.
- All metal boxes and equipment must be grounded.
- The volume of boxes must be sufficient for the number of conductors and other items contained in the Box. (See NEC art. 314-16 for box sizing)
- Do not install junction boxes in attic or conceal them in walls.
- All junctions and splices should be made in boxes that are used for fixtures, switches, or receptacles. If a regular box is too small, use a larger volume box. (See NEC 314-16)
- Plastic cable must be stapled at intervals not exceeding 4 & ½’, and within 8” of plastic boxes.
- Plastic cable must not be installed within 1 & ¼” of the face of studs, joists, strips, or any framing members. This applies to cables installed through bored holes or cables strapped to the sides of studs or strips. Cables closer than 1 & ¼” must be protected with metal plates or sleeve a minimum of 1/16” thick.
- Outlet boxes may not be used as sole support of ceiling fans. Special approved fan boxes should be used for support of ceiling fans.
- Ground fault circuit interrupters must be used for receptacles located in bathrooms, garages, outside locations, within 6’ of kitchen or bar type sinks, and unfinished areas of basements. (see NEC 210-8 for further details of GRI protection requirements)

- Recessed lighting fixtures installed in insulated areas must be IC rated. All recessed lighting fixtures must be installed as per the manufactures instructions. (Some are not approved for wiring with plastic cable.)
- See NEC 201.12 for required use of ARC/Fault protection.
- See NEC 406.12 for required use of tamper resistant receptacles

### **Final Inspection**

The law requires that the final inspection be made on wiring for all new homes, additions, and remodeling. It is unlawful to occupy a new home before all wiring is completed, inspected and approved.

It is the responsibility of the permit holder to call for the final inspection when all devices and fixtures have been installed, and wiring is entirely completed including the cover plates.

#### Other Information

All electrical equipment must be listed and labeled by a testing laboratory such as UL, ETL, MET, CSA, or several others recognized by the Minnesota State Board of Electricity.

The above information covers common mistakes made by homeowners doing their own wiring. Additional information and knowledge will be needed to install the wiring properly. Wiring by owners must comply with the same standards as required of Electrical contractors.

The code we are enforcing is the 2014 National Electric Code. You can find a copy at the public library.

State law prohibits planning, laying out, or doing electrical work by anyone other than the resident owner or a licensed electrical contractor.