

# ELECTRICAL GUIDELINES FOR RESIDENTIAL USE

**BEFORE ANY CONSTRUCTION IS STARTED, CONTACT THE POWER COMPANY** TO MAKE APPLICATION FOR ELECTRIC SERVICE, PROPER LOCATION OF METER, AND ANY OTHER REQUIREMENT THEY HAVE. (i.e.: Distance from power lines, pole size, riser requirements).

**THE BIG RAPIDS TOWNSHIP ELECTRICAL INSPECTOR ENFORCES THE 2002 MRC (MICHIGAN RESIDENTIAL CODE) FOR ONE & TWO FAMILY HOUSING UNITS. ALL ITEMS NOT COVERED BY MRC WILL BE COVERED BY MEC WITH MICHIGAN PART 8.**

**NEW SERVICE MUST BE NO LESS THAN 100-AMPS AND HAVE DOUBLE GROUND RODS AT LEAST 6' APART**

**SMOKE DETECTORS** ARE REQUIRED **IN ALL** BEDROOMS AND OUTSIDE EACH SLEEPING AREA, EACH FLOOR LEVEL, INCLUDING BASEMENT. DETECTORS SHALL BE ELECTRICALLY WIRED WITH A MINIMUM 14-3 ROMEX, SO THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL ALARMS (NOT ON SEPERATE CIRCUITS), PREFERRED CIRCUIT, MASTER BEDROOM. DETECTORS MUST HAVE BATTERY BACKUP. THE GROUNDED CONDUCTOR (NEUTRAL) SHALL BE SINGLEY TERMINATED.

- ◆ **NEVER** SPLICE A GROUND WIRE FROM SERVICE BOX TO GROUND ROD OR RODS.
- ◆ WHEN GROUNDING TO THE WATER SYSTEM, YOU **MUST** HAVE AN ADDITIONAL GROUND. GROUND ROD CLAMPS **MUST** BE APPROVED FOR DIRECT BURIAL.
- ◆ CABLES IN NOTCHES OR BORED HOLES IN WOOD STUDS, JOISTS, RAFTERS OR OTHER WOOD MEMBERS: THE HOLE SHALL BE BORED SO THE EDGE OF THE HOLE IS AT LEAST 1 1/4" FROM THE NEAREST EDGE OF THE WOOD MEMBER. IN AREAS THAT ARE LESS THAN 1 1/4" THE CABLE SHALL BE PROTECTED AGAINST NAILS OR SCREWS BY A STEEL PLATE AT LEAST 1/16" THICK.
- ◆ BOXES SHALL BE OF SUFFICIENT SIZE TO PROVIDE FREE SPACE FOR ALL WIRES (CONDUCTORS) ENCLOSED IN THE BOX.
- ◆ ONLY ONE ROMEX WIRE MAY BE USED WITH METAL BOXES THAT ARE BEVELED OR TAPERED.
- ◆ METAL BOXES MUST BE GROUNDED.
- ◆ JUNCTION BOXES SHALL BE ACCESSIBLE WITHOUT REMOVING ANY PART OF THE BUILDING.
- ◆ 2 OR MORE 20-AMP CIRCUITS MUST BE INSTALLED FOR THE KITCHEN RECEPTACLE OUTLETS (SMALL APPLIANCE) AND ALSO, ALL COUNTERTOP OUTLETS MUST BE G.F.C.I. PROTECTED.
- ◆ 20-AMP CIRCUIT IS REQUIRED FOR DINING ROOM OUTLETS.
- ◆ SEPARATE 20-AMP CIRCUIT FOR BATHROOM OUTLETS.
- ◆ SEPARATE CIRCUIT IS REQUIRED FOR FURNACE AND ALSO, MUST HAVE DISCONNECT MEANS S/P SWITCH.
- ◆ AT LEAST ONE 20-AMP BRANCH CIRCUIT SHALL BE PROVIDED TO SUPPLY THE LAUNDRY RECEPTACLE OUTLET (S). THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS OR LIGHTING.
- ◆ A WALL SWITCH AT EACH FLOOR LEVEL TO CONTROL THE LIGHT WHERE THERE ARE 6 OR MORE STEPS.
- ◆ AFCI PROTECTION REQUIRED ON ALL BEDROOM OUTLETS, LIGHTING & SMOKE DETECTORS.

- ◆ RECEPTACLE FOR REFRIGERATION EQUIPMENT SHALL BE PERMITTED TO BE AN INDIVIDUAL BRANCH CIRCUIT RATED 15 AMP OR GREATER.
- ◆ SEPARATE CIRCUITS ARE RECOMMENDED FOR DISPOSALS, MICROWAVES, AND SUMP PUMPS.
- ◆ WATER PUMP SEPARATE CIRCUIT IS REQUIRED AND MUST HAVE MEANS OF DISCONNECT 2/ POLE 240 V SWITCH AND WIRE PROTECTION.
- ◆ **RECEPTACLE OUTLETS** SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6' MEASURED HORIZONTALLY FROM AN OUTLET IN THAT SPACE. THIS INCLUDES ANY WALL SPACE 2' OR MORE IN WIDTH AND THE WALL SPACE WITH SLIDING PANELS IN EXTERIOR WALLS. OUTLETS SHOULD BE SPACED AS EQUALLY APART AS POSSIBLE.
- ◆ YOU MUST HAVE AT LEAST 6" OF FREE WIRE AT EACH OUTLET AND SWITCH POINT.
- ◆ **AT LEAST ONE** LIGHTING OUTLET SHALL BE INSTALLED IN THE ATTIC, UNDER THE FLOOR SPACE, IN THE UTILITY ROOM AND BASEMENT, IF THESE SPACES ARE USED FOR STORAGE OR CONTAINING EQUIPMENT REQUIRING SERVICING. LIGHTING TO BE AT OR NEAR EQUIPMENT REQUIRING SERVICE AND ALSO REQUIRED RECEPTACLE OUTLET.
- ◆ **AT LEAST ONE** WALL RECEPTACLE OUTLET SHALL BE INSTALLED IN THE BATHROOM ADJACENT TO THE BASIN LOCATION, WITHIN 36 INCHES FROM RIM OF BASIN.
- ◆ **AT LEAST ONE** WALL SWITCH-CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED IN EACH HABITABLE ROOM, IN BATHROOMS, HALLWAYS, STAIRWAYS, ATTACHED GARAGES AND AT OUTDOOR ENTRANCES.
- ◆ **AT LEAST ONE** RECEPTACLE OUTLET SHALL BE INSTALLED IN THE BASEMENT AND MUST BE G.F.C.I. PROTECTED.

**ALL** RECEPTACLES INSTALLED IN BATHROOMS SHALL HAVE  
GROUND FAULT PROTECTION (G.F.C.I.).  
**ALL\*** RECEPTACLES INSTALLED IN GARAGES SHALL HAVE GROUND FAULT  
PROTECTION (G.F.C.I.) \*(CERTAIN EXCEPTIONS APPLY)

- **FIXTURES IN CLOSET:** THE CLEARANCE BETWEEN THE FIXTURE AND A STORAGE AREA WHERE COMBUSTIBLE MATERIAL MAY BE STORED SHALL BE AT LEAST 18". A FLUSH RECESSED FIXTURE WITH A SOLID LENS OR A CEILING MOUNTED FLUORESCENT SHALL BE A MINIMUM OF 6" CLEARANCE.
- **OUTDOOR OUTLETS: WEATHERPOOF OUTLETS** ACCESSIBLE AT GRADE LEVEL SHALL BE INSTALLED AT THE FRONT AND THE BACK OF THE DWELLING AND MUST HAVE GROUND-FAULT PROTECTION. (G.F.C.I.).
- **AS OF FEBRUARY 29, 2004 ARC FAULT CIRCUIT BREAKERS ARE REQUIRED ON ALL BEDROOM OUTLETS, LIGHTING AND SMOKE DETECTORS.**

**REQUIRED ELECTRICAL INSPECTIONS**

**SERVICE:** THE POWER COMPANY IS NOTIFIED THE FOLLOWING DAY.  
**ROUGH IN:** BEFORE COVERING ANY WIRING

**INSPECTIONS: TUESDAY**  
Questions leave message for Dave at Big Rapids Township Hall  
**DAVE GRANT – BIG RAPIDS TOWNSHIP ELECTRICAL INSPECTOR**  
CALL BIG RAPIDS TOWNSHIP TO SCHEDULE AN INSPECTION AT 231-796-3603.