

## HUMBOLDT COUNTY BUILDING DEPARTMENT ELECTRICAL IN OUTBUILDING HANDOUT

It is the owner or contractor's responsibility to become familiar with the adopted code requirements of Humboldt County.

The owner or contractor shall become familiar with requesting the required inspections. We encourage you to ask questions and utilize available handouts.

1. Number of electrical fixtures: \_\_\_\_\_ outlets \_\_\_\_\_ switches \_\_\_\_\_ lights \_\_\_\_\_ other
2. This office recommends an owner not familiar with electrical installation or the NEC obtain a simple wiring booklet, which is written to comply with the 1999 National Electric Code (NEC). This type of book will contain more specific information regarding wiring methods, wire sizes, supports, sub panels, overcurrent protection, connections, fixtures, working space, safety precautions, grounding, branch circuits, etc. There are various requirements that cannot be covered in a handout.
3. Inform the Building Department if an upgraded service will be necessary. Normally one service is permitted on a residential lot.
4. All garage and outbuilding outlets shall be GFCI (ground fault circuit interrupter) protected. See NEC Code for specific exceptions.
5. All wiring shall be run vertically down the studs and securely stapled. If run horizontally the wire shall be protected from damage by conduit, sheetrock, plywood, etc.
6. Provide individual ground rod and ground wire when more than (1) circuit is provided. If a four wire system is run from the service a ground rod is not required. (NEC, Art. 250-24)
7. A disconnecting means and overcurrent protection shall be provided per the N.E.C. Overcurrent protection requires the breaker to be rated for the amperage of the wire. #12 wire/20 amp breaker, #10 wire/30 amp breaker. See NEC for further information.
8. Ground wire and neutral wires in a sub-panel shall be separated as per NEC, Art. 250-142(b) & 250-32(b). This requires separate bus bars. This is required for garages and similar outbuildings or for any sub-panel.
9. Electrical conduit
  - a. Underground conduit can be DB 60 and 120. All conduit above ground shall be an approved schedule 40 conduit.
  - b. Conduit shall be buried a minimum of 18" from finished grade.
  - c. Direct burial wire of Type UF, USE may be installed and buried a minimum of 24" from finished grade.
  - d. Note: The Building Department does inspect all underground installations.
10. Feeder wires for the garage shall not be serviced from a manufactured/mobile home unless approved by the Manufactured Housing Division.