



# CITY OF ARVADA

## Significant Changes for the 2008 National Electrical Code for Residential Applications

The State of Colorado has adopted the 2008 *National Electric Code*® effective August 1, 2008. Following are significant changes from the 2008 *National Electric Code*® which the City of Arvada will be enforcing on August 1, 2008.

1. All receptacles in garages and unfinished basements are required to be GFCI protected. No more exceptions for garage door openers, refrigerators, freezers or sprinkler time clocks. Receptacles serving permanently installed fire alarm or security alarm panels in basements are not required to be GFCI protected. NEC 210.8
2. All 120 volt, 15 or 20 amp branch circuits supplying outlets in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways or similar rooms shall be protected by a listed combination type arc-fault circuit interrupter (AFCI). AFCI protection is not required for kitchens, bathrooms, garages and unfinished basements. NEC 210.12
3. In basements and garages at least one GFCI receptacle must be installed in addition to any receptacles installed for specific equipment such as fire alarm systems, sump pumps, and so forth. NEC 210.52 (G)
4. An accessible GFCI receptacle outlet is required within the perimeter of residential balconies, decks, or porches larger than 20 square feet in area. The receptacle shall be located not more than 6½ feet above the standing surface. NEC 210.52 (E) (3)
5. Overcurrent devices are not permitted to be located over steps of stairways, but could be located in stair landings where the minimum clearances are met. NEC 240.24 (F)
6. Equipment grounding conductors are required to be installed with all branch circuits and feeders supplying separate buildings or structures. Existing installations are allowed to remain grounded to the neutral conductor if there is no grounding conductor, no continuous metal path (metal gas pipe, metal water pipe, or metal conduit to the structure) or ground fault protected equipment in the structure. NEC 250.32 (B)

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7. Where holes are bored in joists, rafters or wood members for cables or raceways, the edge of the hole must be 1 1/4" from the edge of the member or it must be protected by nail plates with a minimum thickness of 1/16 inch. NEC 300.4 (A)
8. The interiors of raceways installed underground are considered wet locations. The wiring within must be rated for wet locations. Romex is not approved for wet locations. NEC 300.5 (B)
9. Romex is not allowed in wet or damp locations. The inside of raceways (EMT & PVC) installed outdoors are considered wet locations. Open sided porches are considered damp locations. NEC 300.9, 334.12 (B)
10. Gaps around electric panels, cabinets and cutout boxes are limited to 1/8". All holes and gaps made in noncombustible surfaces must be repaired (new and remodel installations). NEC 312.4
11. All 15 or 20 amp, 125 or 250 volt receptacles installed outdoors in damp or wet locations must be a listed weather-resistant type. NEC 406.8 (A), (B)
12. All 125 volt, 15 and 20 amp receptacles installed in a residence shall be listed tamper-resistant receptacles. No exceptions for receptacles on ceilings, above counters or behind appliances. NEC 406.11
13. All breakers in panels must be marked clearly for the loads served. Spare breakers must also be marked. NEC 408.4
14. Hydro-massage bathtubs shall be on their own individual branch circuit. NEC 680.71
15. Cord-connected pool filter pumps for storable pools shall be provided with a GFCI that is an integral part of the attachment plug or located in the power supply cord within 12 inches of the attachment plug. NEC 680.31