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INTERIM CITY MANAGER

# City of Lawrence KANSAS

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CITY COMMISSION  
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Dear Electrical Contractor,

The 2005 National Electrical Code as adopted by the City of Lawrence, KS will be enforced beginning September 1<sup>st</sup>. 2006. This Code clarifies that all qualifying concrete-encased electrodes are to be used as part of the grounding electrode system for a building or other structure's electrical system unless the building or other structure is existing. The requirement does not mandate that a concrete encased electrode be installed, but that it is used when one is present as part of the building or other structures engineering design or actual construction.

**As described in 250.52 (A) (3) a qualifying electrode:**

1. Is encased by at least 2" of concrete and located within and near the bottom of a concrete foundation or footing that is in direct contact with the earth.
2. Consists of at least 20' of bare or zinc galvanized or other electrically conductive coated steel reinforcing bars or rods that are not less than 1/2" in diameter.
  - a. Multiple rods or bars that total at least 20' in length are included.
  - b. The bars or rods shall be permitted to be bonded together by the usual tie wires or other effective means.
3. No encapsulating non-conductive coatings, such as epoxy, are used for corrosion protection.
4. No vapor barriers or insulating material that effectively isolate the concrete footing or foundation from the earth have been used.

This requirement is for new construction of buildings or other structures that have been permitted after September 1, 2006. The requirement does not apply to buildings or other structures that were approved under the 2002 or previous National Electrical Codes or to existing buildings or other structures where just the service or other supply system is being upgraded. It would, however, apply to an existing building or other structure where the construction of an addition, etc., involves a qualifying electrode and the service or other supply system is being upgraded as part of the construction.

Where the above described electrode exists, the connection of a 4 AWG or larger copper grounding electrode conductor to the steel electrode must be made using a device that is listed by an approved testing agency with respect to its suitability for concrete encasement, if installed within the foundation or footing, for direct burial where applicable and for connection to a steel reinforcing rod or bar. **Ground rod clamps or clamps for use on water pipes will not be accepted.** Please review the attachments for further clarity.

Sincerely,

Phil Burke  
Electrical Inspector

Cc: Victor Torres, Barry Walthall, Building Safety Division Staff

