

COUNCIL ACTION FORM

SUBJECT: CITY ELECTRICAL CODE UPDATE

BACKGROUND:

The National Electrical Code (NEC) is the model code standard for electrical construction of buildings throughout the United States and most of the developed world. The code is published by the National Fire Protection Association (NFPA) and is updated at three year intervals to reflect the latest improvements in public safety science and technology. The State of Iowa and major Iowa communities, including the City of Ames, adopt the most recent edition of the NEC soon after publication.

The 2011 edition of the NEC was adopted by the State with one minor amendment and became effective throughout the State's jurisdiction in Iowa on January 1, 2012. Iowa communities typically follow the State in adopting the most recent codes.

The City's Building Code Board is responsible by ordinance to recommend appropriate code revisions to the City Council. Copies of the 2011 NEC, the State of Iowa Electrical Code, and the current City of Ames Electrical Code provisions of Municipal Code Chapter 5 were recently reviewed by the Board. All Ames electrical contractors were notified of the proposed code change and were invited to attend the Board's meeting or to send comments. The Board did receive comments from a few of the electrical contractors.

The Board's recommendation is to adopt the NEC with three amendments. Two of these are amendments added by the State to exempt ground-fault circuit interrupters (GFCI) requirements from certain appliance circuits. Adding these to our local adoption of this code will allow us to be in conformity with the State's provisions. The third is the continuation of an existing local amendment requiring the use of conduit in commercial building construction. These proposed amendments are attached. This recommendation represents the consensus of the Board, local electrical contractors, and City staff.

ALTERNATIVES:

1. Direct staff to prepare an ordinance for adoption of the 2011 NEC, including both the State amendment and the City of Ames amendment.
2. Direct staff to prepare an ordinance to adopt the 2011 NEC as adopted by the State.
3. Direct staff to make other changes to the proposed code adoption.

4. Retain the current code text that adopts the 2008 NEC with one local amendment.

MANAGER'S RECOMMENDED ACTION:

Adoption of the new version of the NEC helps local contractors and those seeking electrical permits to operate under a statewide set of codes consistent with other jurisdictions. The proposed ordinance revision will make the electrical provisions of the Municipal Code consistent with the State Electrical Code and will retain a long standing local amendment. The local amendment requiring conduit in commercial installations has the support of the Board and most electrical contractors. Conduit protects the high voltage wiring from wear or damage resulting in an electrical hazard or fires.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby directing staff to prepare an ordinance for adoption of the 2011 NEC, including both the State amendment and the City of Ames amendment.

State of Iowa and Proposed Local Amendments to the 2011 NEC

The Building Code Board recommends City Council adopt the following changes to Ames Municipal Code Section 5.100, & 5.205:

Current text to be deleted is ~~stricken~~ and new text to be added is underlined.

Sec. 5.100. TITLE & ADOPTION.

These regulations shall be known as the Building Code of the City of Ames, hereinafter referred to as “this code.”

(11) **Electrical.** The ~~2008~~ 2011 National Electrical Code, 2011 edition, ~~as adopted by the Iowa Electrical Examining Board, and published by the National Fire Protection Association, One Batterymarch Park, Quincy, Massachusetts, and as adopted by the Iowa Electrical Examining Board,~~ is hereby adopted as the electrical code of the City of Ames and shall govern electrical work and installations in the City of Ames, except for such specific, higher standards and requirements as have been or may from time to time be enacted by the City of Ames. ~~Violations of the standards of said rules, or failure to comply with the provisions of said rules shall, when occurring within the jurisdiction of the City of Ames, constitute an offense against the City of Ames.~~

Sec. 5.205. ELECTRICAL.

The provisions of the ~~2008~~ 2011 National Electrical Code (NEC), 2011 edition, are hereby amended as follows:

(1) Section 334.10 of the said National Electric Code is amended by ~~substituting the following for subsections (i) through (iii):~~ Type NM, Type NMC and Type NMS cables shall be permitted to be used in:

- ~~(i) one family dwellings and associated accessory buildings,~~
- ~~(ii) two family dwellings and associated accessory buildings,~~
- ~~(iii) multifamily dwellings and associated accessory buildings.~~

~~All other structures shall be wired using other methods as allowed by the National Electrical Code.~~
deleting Subsection (3) therefrom and inserting in lieu thereof a new Subsection (3):
All other structures shall be wired using other methods as allowed by the NEC.

(2) Add the following exceptions to Article 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel (A)(2):

- a. Exception No. 1 to (2): Receptacles that are not readily accessible.
- b. Exception No. 2 to (2): A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another, and that is cord-and-plug connected in accordance with 400.7(A)(6), (A)(7), or (A)(8).
- c. Receptacles installed under the exceptions to 210.8(A)(2) shall not be considered as meeting the requirements of 210.52(G).

(3) Add the following exceptions to Article 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel (A)(5):

- a. Exception No. 2 to (5): Receptacles that are not readily accessible.
- b. Exception No. 3 to (5): A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord-and-plug connected in accordance with 400.7(A)(6), (A)(7), or (A)(8).
- c. Receptacles installed under the exceptions to 210.8(A)(5) shall not be considered as meeting the requirements of 210.52(G).