



# **HOME BUILDERS ASSOCIATION**

OF GREATER KANSAS CITY

## **RECOMMENDED CHANGES TO THE 2018 INTERNATIONAL RESIDENTIAL CODE POSITION OF THE HOME BUILDERS ASSOCIATION OF GREATER KANSAS CITY**

Position paper prepared by the Codes Task Force  
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Endorsed and supported by the Board of Directors of KC HBA  
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The following commentary regarding the adoption of the 2018 IRC has been prepared by the KC HBA to provide various cities and counties in the metropolitan area our position on specific sections of the IRC as they consider the adoption of the new code for residential construction.

We are supportive of adopting the 2018 IRC with the outlined amendments. There may be some amendments that would only apply to a specific city or county, and we will be glad to discuss these on an individual basis and submit our recommendations.

In this recommendation we have used some abbreviations for organizations. They are as follows:

ICC—International Code Council

JOBO—Johnson County Building Officials

NFPA—National Fire Presentation Association

FEMA—Federal Emergency Management Agency

IRC—International Residential Code

NAHB—National Association of Home Builders

KC HBA & HBA—Home Builders Association of Greater Kansas City

APA—American Wood Council

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## Local Security Ordinances

During the time frame of 2009-11 a group of Overland Park police officers developed a proposed change to city ordinances regarding security in newly constructed homes. This model ordinance was adopted by some of cities in the metropolitan area. The ordinance deals with many areas in the home but the primary emphasis was on securing the entrance doors to the residences.

This same group of officers developed what we believe is one of the best new innovative products to enter the home security market—"jambrace". This product has become a standard product used by most area millwork companies in the metro market when they assemble exterior door units. Most millwork companies tell us that they use it on ALL the exterior door assemblies.

During the cycle of the 2012 IRC code adoption process this model language was submitted by the police officers to the ICC for adoption in the IRC. It was heard by the IRC committee in the spring of 2012 and rejected by the committee by a unanimous vote. The proponents did not submit public comment and it was defeated at the fall 2012 Public Comment hearing/vote. Since that time, no one as far as we are aware has put forth any effort to resubmit similar code change language. There were no proposals made during the 2015 or 2018 IRC/IBC code hearing cycles.

The KC HBA believes that a few areas need to be amended to current language in the ordinances. These include:

1. Remove the requirement that exterior lights beside or over exterior doors need to be sealed fixtures or higher than 8 feet above the walking surface.

*Reasoning:* We have many complaints from home owners that they cannot easily change burned out bulbs, and what happens is that the home owner leaves the fixture with a burned-out bulb providing no light protection. We realize that LED bulbs would go a long way to solving this problem, but home owners do NOT like LED, they want the warmth that is provided by incandescent bulbs. This was verified by checking with several large light fixture companies that supply our new home market; they tell us that over 90% of the bulbs that they ship with new exterior fixtures are incandescent. We feel that it is better to provide light at entry doors rather than have none due to burned out bulbs.

2. Remove the requirement that deadbolt locks have a specific diameter and hardness of the bolts used to mount the two sides of deadbolt locks to the door. Allow the use of both ANSI Grade 2 and 3 deadbolts (residential) and Grade 1 (commercial).

*Reasoning:* We have reviewed this requirement and cannot find that the performance of the lock will be compromised by using bolts that are of slightly smaller diameter. When a lock is securely installed in a door, it is next to impossible

to get some form of pry bar into the area between the lock surface and door surface to attempt to pry the lock away from the door and break it. While the additional cost may seem small, each time we increase building costs we eliminate another group of potential homeowners because they cannot afford a new, safer and more energy efficient home so they have to turn to older used homes. Also, you need to consider that most entry doors, especially on the front, have either glass in the door or in sidelights, which can easily be broken and an intruder could then just reach in and unlock the deadbolt.

3. Remove the requirement for either a wrap-around metal plate around the lock or the requirement that a metal protective “L” strike plate be placed on the door edge where the deadbolt enters the frame of the door (referred to as door edge protector).

*Reasoning:* When a door unit is properly installed in a framed opening, according to best practice and the existing ordinance, it is next to impossible to insert a crowbar between the jamb and door and create enough space to disengage the deadbolt. We receive numerous complaints from homeowners about the ugly appearance of these items on their doors, especially regarding front entry doors. Homeowners are most likely removing these items from their doors after they occupy the home.

Since the introduction of these requirements much has changed in the home security field. Today we have keyless entry systems, wireless cameras on the exterior of homes, wireless camera door bells, wireless alarm systems for the entire or portions of the home. These systems are being used by more homeowners due to reduced or little cost for installation and use of the systems.

The KC HBA feels that these three modifications will have little or no impact on home security.

### BUILDING PLANNING CHAPTER 3

#### R302.13, Protection of Floors

It is requested that an additional exception #5 be added to this section as follows:

#### R302.13, Exceptions, 5. Wood I-joists.

*Reasoning:* Wood I-joists were developed over 50 years ago. They have been used in home construction since the early 1970s. (I first used I-joists in 1982 in Roeland Park for a new home construction). I-joists have continued to grow in use across the US—in 2010, 470M lineal feet were produced in the US and Canada, in 2017, 790M lineal feet. At the same time the number of fire fighter deaths has continued to decrease each year. In 2017, it was reported that 60 fire fighters lost their lives in incidents related to all firefighting activities. Of these 10 were due to being struck and killed by vehicles. At least ½ or 30 fatalities were due to “sudden cardiac death” on the fire scene. The reporting systems used in the US are inadequate in scope to assist us in defining the reason for a fatality. The table below shows the trend by year of on scene fire deaths.

YEAR	# FIRE CALLS	#FATALITIES
2010	1.3 BILLION	22
13	1.2	57
14	1.3	22
15	1.3	24
16	1.3	15

During the review of the 2012 IRC by JOBO and cities in the metro area, the review by the two largest municipalities (Overland Park & KCMO) resulted in the proposed exception being adopted in their codes. Part of the information submitted at that time was a report by APA titled “Fire Protection of Floor Systems” which is provided within TAB 3 of this booklet. It shows I-joists performing well in actual burn tests. Another report that was reviewed by the American Forest & Paper Association titled “How Fire Safe are Homes with Wood I-joists”, again shows outstanding performance of wood I-joists. This report is located within TAB 4 of this booklet.

It is interesting to note that the IBC (2012, 15, or 18) does not have a requirement for protection of wood I-joists in that code, therefore a home, if the plans were sealed by an engineer, could be built under the IBC without the requirement of ½” gypsum board on the underside of the joist.

According to both NFPA and FEMA, the leading areas of fire origin in single family homes are: cooking area/kitchen, bedrooms (probably smoking in bed), common areas-- living room or family room, attic, exterior wall surfaces, laundry area, and the vehicle storage area. Unfinished basements are not mentioned in the reports.

NFPA also reported that 46% of SF fires were limited to the object of origin of the fire, and 21% limited to the room of origin, with 5+% limited to the floor of origin. Total % is 73%.

As these studies and information show, basement fires are few and far between; wood I-joists are safe products to use in new home construction and should be approved without the requirement for gypsum or other protection.

There are other great advantages to using wood I-joists among them being that the floor is level and true, they assist in reducing floor squeaks and do not deflect as much as lumber joists. They are a safer product during construction—lighter, easier to handle reducing the chance of worker injury during framing. They are a safe desirable product from the consumers view.

Many single-family homes that have unfinished basements are the most affordable homes that our industry can produce. Affordability is a significant issue in the sale of new homes; most buyers would rather purchase a new home vs used or older home. We all know that new homes are much safer due to better electrical systems, safer plumbing systems, newer appliances with safeguards built-in, better fire blocking and sealing, etc. Most if not all of these homes are purchased by homeowners, with the intent to sometime in the future finish all or large portion of the unfinished basement. The cost to the builder to frame down around HVAC ducts and plumbing lines and install ½” gypsum board will range from \$800 to \$1200 or more; all or most of the cost lost at such time that the owner chooses to “finish” their basement. This is not good economics.

R313 Fire Sprinklers—Per both Kansas and Missouri state law remove this requirement from the IRC.

**ELECTRICAL PART VIII**  
**CHAPTERS 34, 35, 36, 37, 38, 39, 40, 41**

Before we start our discussion of items that need to be addressed in these sections of the code each person or entity reviewing this needs some background information.

These chapters in the IRC are lifted in their entirety directly from the NFPA National Electrical Code. No ICC committee is allowed to review, suggest modifications, or even propose changes to the NEC. We, KCHBA, do NOT know why this exists and have asked that ICC develop its own electrical code.

In the late 1990s & early 2000s when the ICC was forming and trying to get “its” codes adopted by the various states and local jurisdictions NFPA created its own “building code” in direct opposition to ICC and tried hard to convince jurisdictions to adopt the NFPA 5000 Building Code. The NAHB took a strong stand opposing NFPA and supporting ICC efforts to get the ICC codes adopted in as many jurisdictions as possible. As a result, we believe that NAHB was removed from all NFPA committees that develop code language in this and other areas. In some cases, when NAHB tried to submit testimony or recommend code language, they were ignored.

As a result we, NAHB and KC HBA, have no voice or input to the NEC. The only method of change is to come to the jurisdictions and ask that they amend or change specific sections of the electrical parts of the IRC. One of the tenants of the IRC found in Chapter 1-Scope and Administration-is affordability. We do not believe that NFPA considers that tenant.

We, the KC HBA, are asking that the following sections of the electrical chapters be modified:  
**Please note:** We asked two builders to secure the additional cost for the items below, Bickimer Homes and Tom French Const. With standard markup the cost shown is what the impact to the consumer or home buyer would be. This applies to all of the following except E3901.7 and E3902.13.

E3901.7— Delete requirement for a receptacle on a balcony. There is NO definition of balcony in either Ch 35 or Ch 2 of the IRC. Many times the balcony in residential construction is purely ornamental in nature and no outlet is needed.

E3901.9— Delete requirement for a receptacle in each vehicle bay of garages. Of course this outlet would have to be GFCI protected. Today with most people using battery operated tools this requirement just cost money and is not needed. \*Bickimer-\$180, French-\$204.

E3901.12— Delete requirement a receptacle within 25’ of the outside HVAC compressor. Again, this is just another cost that is not justified. The KCHBA checked with 3 large HVAC dealers/service companies in the area—all told us that their service people only carry battery operated tools and do NOT use this called for outlet. (One did primarily new installations and the other two did repair and replacement work only.) \*Bickimer-\$90, French-\$102.

E3902.10— Delete the requirement for a dishwasher on GFCI breaker. Delete the requirement for a dishwasher on GFCI breaker. This new requirement has NOT been justified to us. Yes, it would be nice to protect all circuits with GFCI, but not if we are to consider cost. There has been no justification for this requirement for an outlet that typically is in an out of the way location. Bickimer-\$90, French-\$72

E3902.13—GFCI required for heated floors—Again a new requirement with NO justification and only adding to cost of construction. KCHBA agrees if the heating cables are in the shower, but not just in other parts of the bathroom.

E3902.16— Delete Arc Fault breakers for all service. Again, another added cost that will cause many complaints from homeowners when ceiling fans, any appliance with motor windings, and many other stray factors cause interruption in their electrical service.

Attached is a memo provided by the Saint Louis HBA that was prepared this year as the local jurisdictions in their area considered the 2015 IRC—to our knowledge NO jurisdiction in the STL area is requiring arc fault protection. There has not been any scientific study showing that these devices provide anything other than very minimum safety benefit in new construction. The US Fire Administration reports have shown that electrical distribution fires are more common in older homes, more than 40 years old. In our geographic area most cities have only required arc-fault for the receptacles in bedrooms. While we would like to eliminate all arc-fault we will accept them for bedroom receptacles.\* Bickimer-\$1800, French-\$612.

E4002.14— Delete the requirement for tamper resistant outlets. While we understand the idea of protection of young children who might stick something into an outlet, this requirement creates problems for older adults who may have bad joints and/or limited dexterity and have real difficulty in plugging in various appliances or devices. Unless the plug is directly centered on the outlet and inserted straight and true it will NOT engage. Again there has been no scientific data to support the claims that these devices are needed. \*Bickimer-\$110, French-\$102.