



Public Comment #9

October 14, 2020

Oklahoma Uniform Building Codes Commission
P.O. Box 12540
Oklahoma City, OK 73157

RE: International Code Council Comments Supporting Proposed Adoption of the 2018 Editions of the International Building Codes in Oklahoma

Via email: Billy.Pope@oubcc.ok.gov; Kathy.Hehnly@oubcc.ok.gov

Dear Oklahoma Uniform Building Codes Commission,

I am writing on behalf of the International Code Council¹ (the “Code Council”) in support of the State of Oklahoma’s proposed adoption of the 2018 Editions of the International Building Code (IBC), International Existing Building Code (IEBC), International Fire Code (IFC), International Fuel Gas Code (IFGC), International Mechanical Code (IMC) and the International Plumbing Code (IPC).

The Code Council is a member-focused non-profit association dedicated to building safety and sustainability and we are proud to count Oklahoma and many of its local jurisdictions as our Governmental Members. The Code Council develops the model building codes, the I-Codes, used in the design, build and compliance process to construct safe, sustainable, affordable and resilient structures. The I-Codes, including the IBC, IEBC, IFC, IFGC, IMC and the IPC, are the most widely used and adopted set of building codes in the U.S. and around the world. Developed through a consensus-based process, the I-Codes incorporate the latest technology and provide the safest, most resilient structures for our families and communities.²

The Code Council commends the Oklahoma Uniform Building Codes Commission (OUBCC) for its engagement in drafting updated building codes for the State of Oklahoma based on the 2018 I-Codes. Oklahoma currently enforces the 2015 Editions of these respective building codes.³ Adoption, implementation and enforcement of modern building codes is one of the first and most impactful steps Oklahoma and its local communities can take to advance long-term resilience. Additionally, updating the state’s building standards provides economic and financial benefits and ensures a range of health and safety benefits for the state and its citizens.

STUDIES SHOW BENEFITS OF MODERN BUILDING CODES AGAINST DISASTERS

Numerous studies confirm that the adoption and implementation of current model building codes is one of the nation’s best defenses against the natural hazards presenting the greatest risks to the State, including severe storms, winds, tornadoes and flooding.⁴ For example:

¹ See <https://www.iccsafe.org/about/who-we-are/>

² See <https://www.iccsafe.org/products-and-services/i-codes/code-development/>

³ See https://www.ok.gov/oubcc/Codes_& Rules/Adopted_Building_Codes/index.html

⁴ See <https://www.okcommerce.gov/wp-content/uploads/DRAFT-OK-CDBG-DR-Action-Plan-PL-116-20.pdf>, Page 6-11

- The 2019 FEMA Mitigation Assessment Team (MAT) report found that National Flood Insurance Program (NFIP) regulations reduced average claim payments by almost half and following modern code requirements reduced the average claim payments by an additional 90%.⁵ In addition, the National Institute for Building Sciences' Natural Hazard Mitigation Saves report found that adhering to current codes' flood mitigation requirements in the floodplain saves \$6 for every \$1 invested.⁶
- Although building code adoption alone generates enormous mitigation benefits, code enforcement is equally important. FEMA has previously quantified the cost of inadequate code enforcement as a quarter of insured losses.⁷ Researchers found similar results about 15 years later: that implementing building codes at the local level by ensuring proper staffing, training, and certification provides an additional loss reduction value on the order of 15 to 25 percent.⁸

Recognizing the life safety and mitigation benefits that current building codes provide for communities, the U.S. Department of Housing and Urban Development (HUD) has both required applicants for disaster recovery funding commit to adopt resilient codes and made available significant sums for codes' adoption and implementation. For the past seven years, and across multiple allocations, HUD has required Community Development Block Grants for Disaster Recovery (CDBG-DR) applicants demonstrate in their action plans how they will support the adoption of resilient building codes.⁹

FEMA has similarly prioritized code adoption and enforcement, concluding in its most recent five-year strategic plan that current building code adoption and enforcement are two of the most effective mitigation measures a jurisdiction can undertake by stating: “[d]isaster resilience starts with building codes, because they enhance public safety and property protection.”¹⁰ In the Plan’s very first objective, FEMA highlighted the importance of the Agency’s “advocate[ing] for the adoption and enforcement of modern building and property codes.”¹¹

In August of this year, the Mitigation Framework Leadership Group (MitFLG)—chaired by FEMA and made up of another 13 federal agencies and departments as well as state, tribal, and local officials— released the National Mitigation Investment Strategy (NMIS). The Strategy makes several recommendations concerning the use, enforcement, and adoption of building codes: “[a]rchitects, engineers, builders, and regulators should use the latest building codes for the most up-to-date requirements for structural integrity, mechanical integrity, fire prevention, and energy conservation,” “trained, certified professionals [should] handle building inspections and code administration,” and “[u]p-to-date building codes and standard criteria should be required in federal and state grants and programs.”¹²

⁵ FEMA P-2022, *Mitigation Assessment Team Report: Hurricane Harvey in Texas, Building Performance Observations, Recommendations, and Technical Guidance*, February 2019, See https://www.fema.gov/media-library/assets/documents/177700?utm_source=gd&utm_medium=ces&utm_campaign=HarveyMAT

⁶ National Institute for Building Sciences, *Natural Hazard Mitigation Saves: 2018 Interim Report*

⁷ Burby, R., *Hurricane Katrina and the paradoxes of government disaster policy: Bringing about wise governmental decisions for hazardous areas* (2006) citing *FEMA Building Performance Assessment Team, Preliminary Report in Response to Hurricane Andrew, Dade County, Florida* (1992).

⁸ Czajkowski, J. et. al., *Demonstrating the Intensive Benefit to the Local Implementation of a Statewide Building Code* (2017).

⁹ HUD, *Allocations, Common Application, Waivers, and Alternative Requirements for 2017 Disaster Community Development Block Grant Disaster Recovery Grantees*, 83 Fed. Reg. 5844, (Feb. 9, 2018); *Notice of National Disaster Resilience Competition Grant Requirements*, 81 Fed. Reg. 36,557 (June 7, 2016); *Allocations, Common Application, Waivers, and Alternative Requirements for Grantees Receiving Community Development Block Grant (CDBG) Disaster Recovery Funds in Response to Hurricane Sandy*, 78 Fed. Reg. 14,329 (Mar. 5, 2013).

¹⁰ FEMA’s 2018-2022 Strategic Plan (2018)

¹¹ *Id.*

¹² Mitigation Framework Leadership Group, *National Mitigation Investment Strategy* (Aug. 2019).

Lastly, FEMA’s “Required Minimum Standards” for all FEMA funded construction require the latest I-Codes.¹³ For post-disaster recovery, FEMA requires construction meet the latest editions of the IBC, International Residential Code, International Energy Conservation Code, IFC, IEBC; International Wildland-Urban Interface Code; IPC; IMC; IFGC; ICC 500-14, ICC/NSSA Standard on the Design and Construction of Storm Shelters; ICC 600-14, Standard for Residential Construction in High-wind Regions.¹⁴ The Agency has deemed adherence to the current versions of these codes to be so important that it will not fund rebuilding of public facilities post-disaster if that construction deviates.

THE BENEFITS OF CODE ADOPTION FOR OKLAHOMA

The 2018 editions of the I-Codes include numerous provisions that will benefit Oklahoma at both the state and local level. For example, updating to the 2018 IBC will require storm shelters for critical emergency operations facilities and in educational facilities in high risk tornado areas. FEMA’s hazard mitigation grant programs recommend funding storm shelter construction, which also generates some of the greatest benefit-cost analyses (BCAs) under the Agency’s BCA tool. There have been no fatalities in properly designed and constructed safe rooms. Additionally, updating to the 2018 IBC will also require structural observation for high rise and critical buildings to ensure that complex, critical design elements are reviewed and done to exact specifications. Thus, the 2018 IBC promotes cost effective resiliency that will help minimize reoccurrence of storm damage and protect households from future disasters by providing safe rooms or storm shelters.¹⁵

In addition, updating to the 2018 IFC will require provisions to ensure fire service and occupant evacuation elevators are able to continue to function and serve their intended purposes in an emergency; evacuation plans for factory/industrial buildings and additional crowd managers for larger events; and, a provision to ensure water from automatic sprinklers is prevented from entering into fire service and occupant elevators.

Updating to the 2018 IEBC will effectively support Oklahoma’s rehabilitation and reconstruction needs and as it covers repair, alteration, addition and change of occupancy for existing buildings, while achieving appropriate levels of safety without requiring full compliance with the new construction requirements contained in the other I-Codes. For example, to protect occupants inside and around rebuilt structures from seismic events, which have become increasingly frequent in Oklahoma, the 2018 IEBC ensures that during large alterations sufficient anchorage is provided for concrete and reinforced masonry walls, and sufficient bracing and anchorage is provided for unreinforced masonry parapets and partitions.

SUMMARY

The Code Council is happy to serve as a resource to the State of Oklahoma throughout the OUBCC’s update process. On behalf of our Oklahoma members and Chapters, the Code Council thanks the OUBCC for the opportunity to comment in support of the proposed adoption of the 2018 I-Codes.

Sincerely,

¹³ FEMA Policy 204-078-2.

¹⁴ FEMA Recovery Interim Policy FP-104-009-11 Version 2.1.

¹⁵ See <https://www.okcommerce.gov/wp-content/uploads/DRAFT-OK-CDBG-DR-Action-Plan-PL-116-20.pdf>, Page 45.

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