



AIA
Massachusetts



Home Builders & Remodelers
Association
MASSACHUSETTS



Associated Builders and Contractors
Massachusetts



AMERICAN COUNCIL OF ENGINEERING
COMPANIES OF MASSACHUSETTS



AMERICAN WOOD COUNCIL



MASSACHUSETTS
FEDERATION OF
BUILDING OFFICIALS



NAIOP
MASSACHUSETTS



MASSACHUSETTS
FOREST
ALLIANCE

June 22, 2021

The Honorable Carlos Gonzalez and Walter F. Timilty
Chairman, Joint Committee on Public Safety and Homeland Security
State House, Room 167
Boston, MA 02133

Re: H 2449/S 1589 - An Act Relative to Safe Building Materials

Dear Chairman Gonzalez and Timilty:

As developers, contractors, building owners, real estate professionals and design professionals, we are writing to express our united opposition to H 2449 and S 1589, two companion bills being offered by Rep. Donahue and Sen Feeney.

These bills would codify in statute issues related to building materials and construction methods that have historically been guided by the International Building Code (IBC) produced by the International Code Council's (ICC). Since the establishment of ICC in 1994, the Commonwealth has consistently adopted the IBC for use as our 780 CMR statewide building code.

These bills would specifically limit the use of materials used for construction at the expense of housing affordability, sustainable construction practices and jobs in Massachusetts. Under the guise of fire safety, these bills reject the scientific and collaborative code adoption process utilized by ICC, and would place limitations on the types of products used when constructing buildings. We ask you to reject the pretense of these bills.

The International Code Council Code Adoption Process Works

Within ICC, a body of scientists, architects, engineers, building officials and fire service officials help guide proposed changes to their family of base building codes. ICC codes are developed using the latest science and engineering, and incorporate input from building scientists, academics, fire service professionals, fire safety engineers, building officials, design professionals, contractors and all major construction material manufacturers – including wood, concrete and steel. As the means and methods used in construction are ever changing, ICC updates their family of codes every three years following extensive testing and review so that codes are never stagnant.

The language of these bills are duplicative of code proposals that have been previously rejected by the ICC.

Section 2(a) of the bills look to define the term “Light frame construction” by limiting the types of framing materials to a set of six types: those that utilize metal-plate-connected wood trusses, metal-plate-connected metal-web wood trusses, pin-end connected steel-web wood trusses, wooden I-joists, solid-sawn wood joists, composite wood joists as floor or roof system structural elements, or load bearing elements made of combustible materials. This limitation conflicts with the current version of the IBC adopted here in Massachusetts. Our current code, based on the 2009 IBC, defines “Light frame construction” as,

“A type of construction whose vertical and horizontal structural elements are primarily formed by a system of repetitive wood or cold-formed steel framing members.”

This far broader definition allows code users to design a system that best suits the needs of their particular building. In addition, we question the science behind why cold-formed steel framing members are disallowed, especially since ICC has never agreed to the change proposed by the proponents of this bill.

Section 2(b) of the bills look to address issues related to the height and area limitations of certain building types. Time and again this issue has been brought up and failed because the structure of the IBC addresses the issue of combustible construction through equivalent performance requirements. These requirements, such as provisions for taller and larger buildings, are based upon the potential risk to users and the equivalent performance of building materials.

Type V construction, commonly referred to as combustible construction, is already limited in overall height, stories, and size due to the potential risks associated with combustible construction. Chapter 5 of the IBC goes even further by recognizing that when special conditions exist, such as buildings that are separated with a horizontal assembly having a minimum 3-hour fire-resistance rating, that allowances can be made regarding a buildings height and area. Again, we note that the language in these bills are duplicative of code proposals that have been previously rejected by ICC, and that ICC develops its family of codes through a research driven, multi-stakeholder involved process that includes public input from scientists, architects, engineers, contractors, building and fire officials from across the United States.

Wood Construction is Safe

Tragic fires in buildings that were under construction account for less than 1% of fires and typically happen when fire doors, smoke alarms, and sprinklers are not in place. In the past decade, the National Fire Protection Association (NFPA) reports fire-related deaths and economic losses declined more than 15% and 30%, respectively. During the same period, over 80% of multi-family buildings were constructed using wood framing.

Fires also regularly occur in building constructed with concrete and steel. Cooking and heating are the most common causes of home fires, regardless of structural material. Fires start in the contents and furnishings we bring into our homes, and occur in concrete, steel, masonry, and wood buildings alike. What is most important is building to code to ensure safe buildings for occupants and first responders. Modern building codes ensure all buildings meet stringent fire safety requirements, and reductions in number of fires and lives lost reflect that.

H 2449/S 1589 will Increase Housing Costs

It is widely recognized that the Commonwealth is facing an unprecedented housing crisis. Massachusetts is one of the most expensive states in the country in term of housing affordability. Governor Baker has established a goal of 135,000 new units of housing by 2025. The amendment would both impede housing production and increase housing costs, thereby worsening the existing problem.

Although wood construction is utilized in all types of housing, it is particularly important for urban infill settings. Multi-story wood-framed buildings make the most of vacant or under-utilized properties, revitalizing communities.

Urban areas now account for over 80% of the U.S. population, and from 2010 to 2016 the nation's affordable housing stock dropped by 60%. These urban infill sites often come with high purchase prices, so the economic advantage of building five or six stories using wood is often the only way a project can work financially. The American Wood Council reports that 80% of multi-family buildings were constructed using wood framing. The savings associated with wood construction is often the difference between a home and no home at all.

Wood Products are Sustainable Building Products

These two bills run counter to state and local goals of reducing Greenhouse Gas (GHG) emissions by limiting wood construction, a renewable resource that absorbs and sequesters carbon, and would preclude the growing interest and use of tall mass timber (TMT) construction – which is on track to be included in the upcoming 10th edition of our

state building code. Now, more than ever, attention is being paid to how buildings impact the environment, including the choices of materials used in construction and how those materials help conserve energy during operation. Because it is renewable, stores carbon that reduces greenhouse gases, and is energy efficient, wood is the perfect sustainable material. By comparison, according to the Global Concrete & Cement Association, each ton of cement produces about half a ton of CO2 and is responsible for about 7% of the world's carbon emissions.

Developers, contractors, building owners, real estate professionals and design professionals want and need the freedom within the building code to choose what is best for their projects. These bills would limit the freedom to choose building materials that comply with national building codes, and hamper the ability of design professionals and contractors to meet the objectives of project owners. And it would increase the already high cost of housing in Massachusetts. The government should not pick winners and losers in the building materials market, but rather maintain a level playing field.

We ask that these bills be rejected, and we stand ready to assist you and your colleagues with any questions regarding construction methods, materials or code development. We would also welcome the opportunity to meet with you at the appropriate time to discuss our concerns.

If our organizations can provide any additional information, please do not hesitate to contact either Paul Donovan at 617-263-3320, pdonovan@kdmpc.com or John Nunnari at 617-901-4685, jnunnari@architects.org.

Thank you for your consideration.

Very truly yours;

American Council of Engineering Companies – Massachusetts
American Wood Council
Associated Building Contractors of Massachusetts
Home Builders and Remodelers Association of Massachusetts
Massachusetts Chapter of the American Institute of Architects
Massachusetts Federation of Building Officials
Massachusetts Forest Alliance
NAIOP Massachusetts, The Commercial Real Estate Development Association