



AMERICAN WOOD COUNCIL

March 8, 2016

The Honorable Delegate Talmadge Branch  
General Assembly of Maryland  
House Office Building, Room 151  
6 Bladen Street  
Annapolis, MD 21401

RE: AWC Opposition to Maryland HB 1472

The American Wood Council appreciates the opportunity to testify on this bill. AWC is the national trade association representing the North American wood products industry. We are not a marketing or promotional organization; rather our focus is on the technical aspects of wood products. Our staff consists largely of former building code officials like me, structural and fire protection engineers, and wood technologists that participate regularly in research, standard, and code development process around the world to ensure the safe and proper use of wood construction products.

AWC opposes HB 1472 and we believe it will result in no improvement in building or firefighter safety, will negatively affect the economy, jobs, and established code development processes, and have long standing impacts on the built and rural environments. Quite simply, the arson fire that resulted in the three alarm fire at the partially-constructed sixty-unit senior citizens housing and community center project at Gay and Federal Streets in Baltimore was an anomaly. The building code is explicit in its language to address the spread of fire that originates from a single, defined source. Fires set by arsonists or looters occur in multiple areas at the same time, defeating the very building safeguards that slow the spread of fire.

It is important to realize that the fire threat to people in buildings generally occurs long before structural elements even begin to be exposed to fire. It is what we bring into our buildings that, for the most part, allows fire to start and spread, with temperatures and toxicities reaching untenable ranges early in fire development. Even buildings constructed of non-combustible materials are filled with contents that are highly flammable. The contents of those room fires can frequently burn in excess of 2000 degrees Fahrenheit. Temperatures as low as 1200 degrees Fahrenheit also cause significant structural damage to materials other than wood.

Notably, fires in buildings under construction often occur when a building is most vulnerable, and long before occupancy. In these buildings, redundant fire protection features, mandated for wood and other types of construction, have not yet been installed, resulting in exposed combustible elements remaining unprotected. Recognizing this unique threat, AWC has produced three manuals and a website<sup>1</sup>

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<sup>1</sup> <http://www.constructionfiresafetypractices.com/>

designed to inform developers, local building departments and fire departments on how to prevent and reduce fire losses in buildings under construction. Following the simple recommendations provided can drastically reduce fire losses in buildings at this construction stage.

The use of wood as a framing material in urban environments, specifically for the purpose of constructing multi-family dwellings, as addressed in this legislation, is the only green and sustainable building material that comes from a resource that naturally sequesters carbon and produces oxygen for us to breathe; a fact that the legislators of Maryland, including yourself, recognized when they nearly unanimously voted for adoption of the International Green Construction Code in HB 972 sponsored by Delegate Dana Stein. Wood construction uses the least amount of embodied energy to produce and, as I have noted, has unique attributes that contribute to its superior life cycle assessment (LCA) rating. To ban the use of wood framing will drive up the cost of construction, making housing more expensive for the most vulnerable citizens, and defeat the intent of the Green Construction Code, effectively limiting high density development to rural and suburban areas with populations of less than 5,000 people per square mile. This in turn will increase urban sprawl and pollution, and utilize significantly more energy.

It is important to understand that the current building code is based upon equivalent risk. The code does not discriminate or favor one building material over another. Rather, building components that comply with specified testing protocols are evaluated, and only those that receive appropriate ratings can be used. Engineers, architects, developers, and contractors are then free to choose the most cost effective material that meets the stringent criteria in the code. It is important to emphasize that products with equivalent performance ratings are indeed equivalent. Don't be fooled into thinking that just because a product is claimed to be non-combustible that it won't fail in a fire at the end of the rating period for which it qualified.

National fire data from 2003-2007 reveals that residential fire losses topped \$6.8 billion. However, less than 1% of this loss (\$61 million), occurred in apartment buildings having sprinklers. Fires in sprinklered apartments, regardless of building construction material, are extremely rare compared to other residential fires.<sup>2</sup>

Further, HB 1472 will change building code definitions for type of construction, resulting in exclusion of fire-retardant treated wood (FRTW). As a result, builders wanting to use this more expensive option, but have the design freedom provided by wood construction, would not have an alternative. The result would be a ban of all wood construction, with no discernible benefits to the residents of Maryland. But it will result in higher construction costs, more expensive housing, and higher rents in a market desperately seeking to find affordable housing.

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<sup>2</sup> *NFPA Fire Analysis, "Area of Origin in Non-Confined Apartment Structures Excluding Properties under Construction", By Marty Ahrens, October 2009.*

Further, placard provisions within the bill will actually result in a decrease in safety to responding firefighters. Firefighters arriving at a building without a placard will not know whether the lack of a placard indicates a differing type of construction or a missing placard. Further, as noted above, all types of construction fail in fires. It would be a tragedy for firefighters to rely on the existence or non-existence of a placard to make assumptions about the fire performance of the construction, particularly without knowledge as to how long a fire may have been burning. Additionally, enforcement of placards and use of fire watches would appear to be an unfunded mandate. How will these personnel be trained, certified, and how will their certifications be tracked by the State or local authority having jurisdiction?

In summary, AWC supports the long established, multi-stakeholder involved, code development process provided by the International Code Council. Code development, research, rigorous third-party testing, public hearings, and input from code officials, fire officials, design professionals, and industry should dictate the direction of the codes. AWC stands ready to assist you with the technical and engineering expertise to safely construct wood buildings in compliance with today's life safety codes. If you or your colleagues have any questions regarding wood construction and its role in the code development and enforcement process, please do not hesitate to contact me directly. Thank you for the opportunity to present this testimony to you today. We look forward to working with you and your staff in the near future.

Respectfully,

Matthew M. Hunter, BCO