



May 31, 2022

Board of Housing and Community Development
1111 East Main Street
Suite 1400
Richmond, VA 23218

Subject: Opposition to Residential Fire Sprinkler Proposals: RB313.1-21, RB313.1(2)-21, and RB313.1(3)-21

Members of the Board of Housing and Community Development:

On behalf of the Home Builders Association of Virginia, I am writing to express our industry's opposition to the three code proposals to require residential fire sprinklers systems in new one- and two- family dwellings and townhomes.

Our industry shares the fire service professional's commitment to advancing building code requirements that ensure the health, safety, and welfare of all Virginians in their homes and apartments. That shared commitment has clearly yielded significant progress over the last 40 years: according to the National Fire Protection Association's most recent "Fire Loss in the United States" report, the 2020 estimates of the number of fires were 40% to 64% lower than in 1980 for most of the major incident type categories. Furthermore, the 2020 estimate of total fire deaths was 46% lower than in 1980, home fire deaths were 50% lower, deaths in one- or two-family home fires were 47% lower, and apartment fire deaths were 66% lower¹.

However, the Home Builders Association of Virginia and our members are equally as committed to addressing a crisis which has become *so* entrenched in our Commonwealth that it has remained unaddressed, but not unnoticed, for decades and could arguably have greater short-term and long-term impacts on public safety *and* our local, regional, state and national economies, if left alone: housing affordability. While the objective of the fire sprinkler proposals is certainly laudable, the Home Builders Association of Virginia believes that further advancements in residential fire safety could be accomplished through code requirements – and other initiatives – that are less burdensome on homebuyer's and renter's budgets.

As you know, communities across the country are grappling with the effects of a housing affordability crisis. Over the past three decades, the proliferation of local and state regulatory barriers to new residential development has limited the industry's ability to deliver new units to the market, resulting in a supply-demand imbalance which is widely viewed as a primary driver of rapidly escalating home prices and rents².

Unfortunately, Virginia has not been immune to these challenges. Our members often hear from local government officials and community organizations about the growing need for housing that is attainable for households at the lower to middle end of the income spectrum – which is validated by virtually every home

¹ National Fire Protection Association: [Fire Loss in the United States During 2020](#)

² [White House Housing Development Toolkit \(2016\)](#)

builder's and developer's internal analysis of local and regional housing markets. In partnership with local government officials, our members work to identify and remove locally-enacted impediments to new residential development and propose policy changes to alleviate some of the primary drivers of cost during the land development and construction process.

Although modest progress has been made, a comprehensive report released by the Joint Legislative Audit and Review Commission (JLARC) in 2021 confirms that there is much more work to be done.

JLARC's analysis found that housing costs have been rising in every region of the Commonwealth, "...leading to increased housing instability for Virginians."³ The report also found nearly 30% of Virginia households (905,000) were "housing cost burdened" in 2019, meaning they spend more than 30% of the income on housing costs, which is the widely accepted threshold where housing costs begin negatively impacting the household's ability to make other necessary expenditures. Furthermore, in just one-year, median home sales prices in Virginia rose between 10% and 41% (see figure below).

	Median home sales prices			Percentage change	
	2016	2020	2021	2016 to 2021	2020 to 2021
Northern Virginia	\$508,000	\$582,000	\$650,000	28%	12%
Charlottesville	290,000	319,000	350,000	21	10
Hampton Roads	254,000	234,000	330,000	30	41
Northern Neck	267,000	270,000	325,000	22	20
Central Virginia	210,000	257,000	299,000	42	16
Valley	233,000	241,000	285,000	22	18
Southwest/New River Valley	192,000	196,000	217,000	13	11
Southside	125,000	134,000	177,000	42	32
Far Southwest	98,000	117,000	160,000	63	37
Statewide	\$204,000	\$234,000	\$270,000	32%	15%

SOURCE: JLARC analysis of Monthly Median Sales Prices by County/Independent City, 2016 – present. Virginia REALTORS, updated July 15, 2021.

NOTE: Median cost home sales prices reflect the median prices in July of each year. Adjusted to 2021 dollars.

In short, Virginians are struggling to find affordable homes to purchase or rent – and the three residential fire sprinkler proposals before the Board will add substantially to the cost of housing **for consumers**, further exacerbating a concern raised in the JLARC report: "Low- and middle-income households may have incomes that could support mortgage payments but lack the savings to cover the upfront costs of purchasing a home. Rising home prices mean that down payments and closing costs can be over \$10,000 on even moderately priced homes."

Residential sprinkler advocates often cite data from the Fire Protection Research Foundation, which shows an average cost of roughly \$6,000 to install fire sprinklers. While many home builders in Virginia believe that to be an extremely conservative estimate, if it were assumed to be accurate, it ignores the reality that many Virginians cannot bear thousands of dollars in additional cost. Nationally, a \$1,000 increase in the cost of a median-priced new home pushes 117,932 households out of the market. Based on their incomes and standard underwriting criteria, these households would be able to qualify for a mortgage to purchase the home before the price

³ [Joint Legislative Audit and Review Commission Report: Affordable Housing in Virginia](#)

increase, but not afterward. In Virginia, a \$1,000 increase in the cost of a home pushes 3,871 households out of the market⁴.

Furthermore, the cost estimates from the Fire Protection Research Foundation do not include the cost of increasing the size of a structure's water meter from $\frac{3}{4}$ " or $\frac{5}{8}$ " to 1" to accommodate the residential fire sprinkler system. Increasing the water meter size, in many localities, results in a significantly higher per-unit water connection or availability fee. The Home Builders Association of Virginia surveyed localities across the Commonwealth to determine the magnitude of the fee increase and found increases ranging from several hundred dollars to over \$13,000 per unit.

Although residential sprinkler advocates in Virginia dispute this claim, the issue of water connection fees has garnered the attention of legislators in California after fire marshals across the state reported very broad and disproportionate fee schedules for residential fire sprinklers from jurisdictions. Data collected by the California Residential Water Purveyor and Fire Sprinkler Task Force in 2021 showed that localities were requiring 1" water meters for residential structures and that residential fire sprinkler hook-ups could range in cost from \$3,000 per house up to over \$60,000 per house.

Additionally, cost estimates from residential sprinkler advocates often overlook two additional "tangible" costs, and one "intangible" cost.

First, in some communities where the static pressure of surrounding waterlines is insufficient, it will be necessary to install a booster pump to provide enough pressure for an effective fire suppression system. Home builders in several regions of the Commonwealth provided cost estimates of \$1,260 to \$2,600 for these systems.

Second, although NFPA 13D does not itself require the installation of a backflow prevention device, the National Fire Protection Association agrees that many municipal water authorities in Virginia and across the country **require** the devices to prevent contaminants from reaching drinking water⁵, so it will be a cost borne by the consumer if these proposals are enacted. Home builders in Virginia have provided cost estimates ranging from \$450 to \$1,000 for these devices.

Lastly, NFPA 13D systems require the review and approval by the Authority Having Jurisdiction (AHJ), which has the potential to extend construction time and place additional burden on localities, many of which are currently struggling to employ enough plan reviewers to keep up with current construction activity levels.

Building code requirements should not be rejected outright because of associated costs to the consumer, however, it is essential for policy makers to weigh the effects of a building code proposal on the supply and access to housing for households across the income spectrum; and furthermore, identify other code requirements that may accomplish an identical public safety benefit through means that are less costly for the consumer.

Data from the National Fire Protection Association (NFPA) demonstrates that states *have* been successful in adopting building codes which are cost-effective for the consumer and result in a significant decrease in residential fires, injuries, and deaths. This includes innovations in building science such as advanced heating and electrical systems, egress windows, and fire-resistant materials and features. The proliferation – and continued improvement – in smoke alarm technology has also played a considerable role in advancing home fire safety. In

⁴ National Association of Home Builders – [2022 "Priced Out" Report](#)

⁵ National Fire Protection Association: [Common Questions on Home Fire Sprinkler Installations](#)

fact, our analysis of a recent NFPA report indicates that educating homebuyers about the status and importance of their smoke alarm systems, as well as additional investments in free smoke alarm testing and replacement initiatives, would likely result in increased home fire safety and reduced home fire deaths⁶.

Recognizing the ability to advance home fire safety in a manner that is cost-effective for consumers, states have overwhelmingly opted to *remove* the fire sprinkler mandates contained in the International Residential Code. Specifically, according to the National Fire Protection Association⁷:

- Only three states/regions require fire sprinklers in new, one- and two-family homes.
- The majority of states have enacted prohibitions on statewide and local adoption of fire sprinkler requirements for new one- and two-family homes.

Similarly, the vast majority of states have opted to not impose fire sprinkler mandates on townhomes⁸. This is due, in part, to the fact that many localities and housing advocates view townhome development as an important component of their strategy to increase the supply of affordable and “missing middle” housing⁹, particularly as demand continues to rise among younger, first-time home buyers and seniors looking to downsize. This is validated by recent U.S. Census data, which shows that townhome construction jumped 28.1% in 2021 now make up nearly 13% of all single-family starts¹⁰. Several factors are contributing to this trend:

- **Construction Costs:** “In December, new residential construction input prices were up 15.1% over the year, a slightly more moderate pace compared to the month prior. Input prices for single-family construction were up 14.7%, while multifamily registered a 14.6% increase.”
- **Lumber Costs:** “At the start of February, lumber futures contract prices fell below \$1,000 per 1,000 board feet, which represents around a 25% decline from the \$1,278 seen in January *but is still more than 100% above the lows registered at the end of August.*” (Emphasis added)
- **Land Costs:** Developers, builders, and local government planners frequently cite increasing land costs as a significant factor impacting housing costs and supply. According to FHFA estimates, the median land value of a quarter-acre lot occupied by an existing single-family home was \$163,500 in 2019, some 60 percent higher than in 2012. An analysis by the Harvard Joint Center for Housing Studies found significant increases in the price per acre land costs between 2012 and 2017 in many urban, suburban, and rural localities across Virginia, including Alexandria (21.4%), Lynchburg (15.5%), Fredericksburg (16.2%), King George County (42.7%), Rockingham County (37.5%), New Kent County (41.4%), Henrico

⁶ [A 2021 report from the NFPA](#) found that nearly 60% of home fire deaths were caused by fires in properties with no smoke alarms (41%) or in properties where the smoke alarms failed to operate (16%). In response, the Home Builders Association of Virginia (HBAV) worked to pass legislation ([SB 607](#)) during the 2022 General Assembly Session requiring “...a home inspection and the report on its findings include a determination of whether the home’s smoke detectors are in “good working order.” The HBAV also worked to introduce budget language to provide additional funding to the Virginia Department of Fire Programs to support local fire department’s free smoke alarm testing and replacement programs. The budget language was ultimately not adopted, but the HBAV will continue pursuing that initiative

⁷ National Fire Protection Association: [Fire Sprinkler Requirements, State by State](#)

⁸ National Association of Home Builders – [Fire Sprinkler Mandates, State By State](#)

⁹ “Missing Middle” is a term that refers to the range of housing types that fit between single-family detached homes and mid-to-high-rise apartment buildings. Used in this context, “middle” references the size and type of a home, and its relative location – in the middle – on a spectrum of housing types.

¹⁰ National Association of Home Builders – [Townhouse Construction Surged in 2021](#)

County (13.6%), Prince William County (43.4%), Stafford County (26.8%), Spotsylvania County (14.2%), and others¹¹.

The higher density, reduced setbacks and buffers, and smaller building footprints typically associated with townhome development allows for a more efficient use of land and can significantly reduce construction costs, which ultimately benefits consumers through lower sales prices and rents. Imposing this mandate would significantly hinder the ability for townhomes to be an effective tool in combatting the persistent housing affordability crisis in the Commonwealth.

In conclusion, a growing share of Americans say that access to affordable housing is a major problem in their communities. Earlier this year, the Pew Research Center found that 49% of Americans say availability of affordable housing in their local community is a major problem, up 10 percentage points from early 2018. The survey also found that the issue is particularly acute for both younger and older Americans: 55% of adults under the age of 30 now say this is a major problem – a 16 percentage point rise from the 39% who said so in 2018. Additionally, the share of adults ages 30 to 49 who hold this view has risen from 42% in 2018 to 55% last year¹². There is no question that home fire safety is an important issue, as well. However, decades of data and experience has proven that states have enacted building code requirements that keep individuals and families safe in their homes while not reducing the affordability and availability of housing.

We respectfully request that you oppose these three proposals. Thank you in advance for your consideration and please do not hesitate to contact our office if you have any questions.

Sincerely,



Andrew Clark
Vice President of Government Affairs
Home Builders Association of Virginia

¹¹ Harvard Joint Center for Housing Studies: <https://www.jchs.harvard.edu/son-2019-land-prices-map>

¹² Pew Research Center (January 18, 2022): [A growing share of Americans say affordable housing is a major problem where they live](#)