



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Public Comment in support of single staircase building reform

Charles <inklingthoughts592@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Thu, Sep 8, 2022 at 12:20 PM

Hi,

I am writing to express my support for increasing the building height for single staircases in multifamily dwellings. This change in building code would place Virginia in line with the rest of the modern world, including places like Japan and Europe. It would also make housing costs lower while increasing housing density, allowing for greater optionality in land use. I am grateful to the DHCD for their time and effort in ensuring a safe, livable Virginia!

Thanks,
Charles



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Single Staircase Buildings Comment

Michael Stapor <mike.stapor@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Fri, Sep 9, 2022 at 12:30 PM

Hello,

I am writing as a Virginia citizen, a professional Urban Planner, and as a former resident of a recently developed single staircase building on the campus of KTH Royal Institute of Technology in Stockholm, Sweden.

First, Virginia is facing a housing crisis. We have an inadequate supply of housing in both urban and rural localities to fuel the further growth and prosperity of our Commonwealth. Changing the rule to allow single staircase buildings unlocks the potential for greater supply and infill development on narrow sites. Additionally, because new more creative layouts can be achieved through the use of a single staircase, it is more likely to get diverse unit types of 2 bedroom or 3 bedroom units that could facilitate different living situations as opposed to a building entirely of studio apartments. It can't be stressed enough that this is a crisis, there are not enough places for people to live in our state.

Second, as an Urban Planner, the negative externalities of sprawl are well researched. The proposed rule change would unlock the ability to further accommodate people living in more dense, walkable, and transit-connected areas as opposed to being required to find housing opportunities further away from developed cores, locking them into a car-dependent and more expensive living situation. Spatially, this rule change would also allow for more of sites to be used as social/amenity space. Interior courtyards, seating areas, and other amenities as a result of "skinny volumes" allows for significantly higher quality space for amenities as a result of its efficient form.

Finally, while studying topics, such as the proposed rule change being discussed, in Stockholm, Sweden as part of an Urbanism Studies program, I actually lived in a narrow single staircase building built as part of infill housing on campus. These were intended to turn the campus from an "office park" setting to one that is more actively used, like an American college campus with dorms. Psychologically, while utilizing the narrow staircase up to my apartment, I never felt unsafe. There were sprinklers in my room and in the hallways, and heavy fire-doors that would have protected my ability to leave quickly in the event of a fire. I believe there was one incident in an adjacent, similarly built building, that triggered the fire alarm system when someone had burned their cooking. People evacuated calmly and in good time, and the building was safe.

I can appreciate how important fire safety is, however, I believe we need to consider the benefits of these practices elsewhere and look at what they are able to achieve for our other needs alongside fire safety. For improving our built environment, the proposed change is necessary and an opportunity for Virginia to lead the way in the country as a whole.

Thank you for your time and consideration,

Michael Stapor
[2204 E Marshall St.](#)
[Richmond VA 23223](#)



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<publiccomment_codedevelopment@dhcd.virginia.gov>

Single Staircase multi-family buildings

Tabitha Nichols <tabitha.b.nichols@gmail.com>

Sun, Sep 11, 2022 at 10:48 PM

To: "publiccomment_codedevelopment@dhcd.virginia.gov" <publiccomment_codedevelopment@dhcd.virginia.gov>

Hello,

My name is Tabitha Nichols and I live in Arlington County. I'm writing to express my support for changes to, I believe, 1006.3.4 that would allow for single exit multi-family housing. I support this change because housing is very expensive in my area, and I believe allowing more affordable and flexible housing construction would be a great boon to our area. More affordable housing would allow our region to retain families like mine, who would be happy to live in a single exit multi-family building, but due to cost pressures are seriously considering moving to lower productivity areas that have lower housing costs. I hope Virginia will join the ranks of innovators like NYC and Seattle that allow this desirable, flexible, more affordable type of housing and not use regulation to continue to drive up the already astronomical housing prices in our region.

Thanks,
Tabitha Nichols



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Public comment: I support increasing story/height limits for single-staircase apartments

Dan Alban <dan.alban@yahoo.com>

Mon, Sep 12, 2022 at 4:37 PM

To: "publiccomment_codedevelopment@dhcd.virginia.gov" <publiccomment_codedevelopment@dhcd.virginia.gov>, "kyle.flanders@dhcd.virginia.gov" <kyle.flanders@dhcd.virginia.gov>, "richard.potts@dhcd.virginia.gov" <richard.potts@dhcd.virginia.gov>

Hello,

I'm a longtime resident of Virginia writing in my own personal capacity as a private citizen; I have no connection to the construction, development, architecture, apartment rental, or real estate industries, and I am not able to travel to Glen Allen, VA to testify in person on October 3 due to work commitments.

I support the proposal to increase the height/story limits for single-staircase apartments, which I believe takes the form of an amendment to Virginia's implementation of 1006.3.4 (Single exits) of the International Building Code. Virginia should permit single-staircase apartments to be built with up to 6 stories (with appropriate fire-safety requirements), as is common in much of the rest of the world, including New York City and Seattle. The proposed improvements to our state housing code will continue to ensure safety for small-footprint aka "skinny" apartment buildings, while permitting them to be built on significantly smaller sites. It will also reduce the costs of building multifamily units. The resulting greater housing density and decreased construction costs will help improve housing affordability that will help us combat the housing crisis.

Single-staircase apartments will also allow more flexibility in apartment unit sizes, as the status quo for compliance with the International Building Code is to create "double-loaded corridors" where apartments only have windows on one side, typically leading to smaller apartment units. Allowing single-staircase apartments will open up the possibilities to create larger apartment units more suitable for families. Not everyone can afford to buy a home for their family, and Virginia should do more to ensure that renters can live in apartments sized suitably for their families.

Finally, "skinny" single-staircase apartment buildings will help us much more efficiently use residential real-estate - the greater density of residential development will reduce the impact on the environment, helping to preserve our Commonwealth's natural beauty.

I strongly urge the Board of Housing and Community Development & DHCD to adopt the proposal that will permit building single-staircase apartments up to 6 stories in Virginia.

Thank you,
Dan Alban

4407 7th St N
Arlington, VA 22203



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Comment in Support of Single Staircase Residential Construction

Michael Starnes <mstarnesai@icloud.com>

Thu, Sep 15, 2022 at 12:06 AM

To: publiccomment_codedevelopment@dhcd.virginia.gov

Hi,
My name is Michael Starnes, and I am writing to express my support of single staircase residential construction. Currently, multi-story dwellings with more than one residence included need two staircases if they are more than one level. This nearly doubles the amount of hallway space that needs to be included, as well as necessitating the building of a whole second staircase.

It is interesting that Virginia currently does not allow this, because the practice is actually quite common elsewhere. It is legal in Portland as well as in Europe, where buildings currently exist with one set of stairs from 3-6 levels. In some buildings in the UK it is common for them to be up to 10 stories!

Buildings in Europe built in this way are perfectly safe, and there are essentially zero safety incidents as a result, and this is even without the sprinkler systems that are already mandated in the US.

By refusing to make this improvement to building codes legal, we cause things like homelessness, longer commutes, and urban sprawl. One recent Congressional Research Service report found that for every \$100 rent increases, homelessness spikes about 8%. This should be alarming to everyone in the Commonwealth.

If we want to change the results for housing affordability, we need to change laws like this.

This is a common sense and low risk way to improve our economy without costing any taxpayer resources.

We should make single staircase residential construction legal at all heights under 6 stories. For every day that these changes aren't taking place, we risk increasing homelessness and financial precarity of working class families.

I support single staircase buildings,
Michael Starnes



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Single staircase legislation

Luke Juday <LJuday@gmail.com>

Thu, Sep 15, 2022 at 6:45 AM

To: publiccomment_codedevelopment@dhcd.virginia.gov

To All Concerned,

I am a former local community development official from Virginia and have been staying for several months in the European Union. The advantages of being able to construct courtyard-style housing with windows on both sides is are immense. Single-staircases allow for more ecologically friendly, pleasant, and inexpensive apartments. The reduced wasted space on passageways improves affordability and the small number of units on a stairwell helps foster communal trust.

I used to believe that a trade-off existed between these advantages and some small fire safety benefits to the corridor design, but even this is untrue. The European Union has lower rates of deaths from fires despite having narrower streets, denser and older buildings, fewer sprinkler systems, and single staircases. The increased number of windows possible in point-access blocks helps with fire safety and achieves many of the goals of the two-staircase rule.

I urge you to change this rule and allow for a higher quality of life in Virginia.

Luke Juday
[1002 Rose Hill Drive, Charlottesville, VA 22903](https://www.google.com/maps/place/1002+Rose+Hill+Drive,+Charlottesville,+VA+22903)
LJuday@gmail.com



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Allow single staircase apartment buildings

John Gorman <harrongorman@gmail.com>

Thu, Sep 15, 2022 at 8:46 AM

To: "publiccomment_codedevelopment@dhcd.virginia.gov" <publiccomment_codedevelopment@dhcd.virginia.gov>

Hello I am writing to support single staircase apartment buildings. Europe, NYC, and Portland have shown these buildings can serve communities and tenants well.



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Please allow single staircase buildings

Dannie B <dvbenedi@gmail.com>

Fri, Sep 16, 2022 at 8:40 AM

To: "publiccomment_codedevelopment@dhcd.virginia.gov" <publiccomment_codedevelopment@dhcd.virginia.gov>

Hello,

I'm writing in support of single stair buildings. I've stayed in many such buildings when traveling abroad - not only are the buildings perfectly fire safe, they're also MILES more liveable than the mandatory double staircase buildings we build in the US. Quality of life and affordability can both increase dramatically if we just allow this sensible policy to go through. Please support this change in rules.

Thank you,

Dannie Benedi



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Fw: "Mass Timber, Rising" article; poor impact and airborne sound insulation between multifamily units in mass timber buildings

Oleg Bulshteyn <olegbulshteyn@hotmail.com>

Fri, Sep 16, 2022 at 11:52 AM

To: "publiccomment_codedevelopment@dhcd.virginia.gov" <publiccomment_codedevelopment@dhcd.virginia.gov>

FYI.

You are obligated to protect the public's health, safety, and welfare when working on the building code modifications.

Well, the issue of sound insulation falls under the public's welfare/health.

Based on the huge number of complaints related to the poor impact and airborne sound insulation between multifamily units in mass timber buildings, you are failing to protect the public's welfare/health, hence, you are expected to adopt more stringent sound insulation requirements for multifamily buildings, specifically for mass timber buildings!

From: Oleg Bulshteyn <olegbulshteyn@hotmail.com>

Sent: Thursday, September 15, 2022 2:49 PM

To: rcassidy@sgcmail.com <rcassidy@sgcmail.com>

Cc: Carolyn Proctor <cmproctor@bizjournals.com>; Elizabeth Bennett-Parker <DelEBennett-Parker@house.virginia.gov>; dhart@parkhill.com <dhart@parkhill.com>; Helen S. McIlvaine <helen.mcilvaine@alexandriava.gov>; rnedd@arlingtonva.us <rnedd@arlingtonva.us>; CountyManager <countymanager@arlingtonva.us>; Karrer, Paul <PaulKarrer@aia.org>; knowledgecommunities@aia.org <knowledgecommunities@aia.org>; mmedick@ktgy.com <mmedick@ktgy.com>; BoardofDirectors@aia.org <BoardofDirectors@aia.org>

Subject: Re: "Mass Timber, Rising" article; poor impact and airborne sound insulation between multifamily units in mass timber buildings

Dear Mr. Cassidy:

As someone who used to live in a timber building and had to move out due to the building poor sound insulation, I urge you to survey tenants of timber buildings and include the survey results as a follow-up to the recent Multifamily Design + Construction magazine article titled "Mass Timber, Rising"

[Multifamily Design + Construction : Spring 2022 \(rrd.com\)](#)

While there is one paragraph in this article about addressing the acoustics, it does not highlight the HUGE sound insulation problem timber buildings have. Please refer to the attachments for a few timber building tenant reviews.

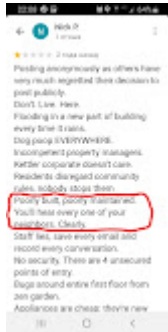
The 2021 IBC's increase of the maximum allowable height for mass timber structures in the U.S. to 18 stories without increasing the sound insulation requirements of such buildings would only make things worse.

Looking forward to your response on how the timber building tenants right to a reasonably peaceful and quiet living can be ensured!

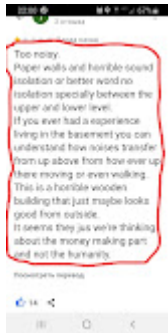
Sincerely,

Oleg Bulshteyn, P.E., MBA
Alexandria, VA

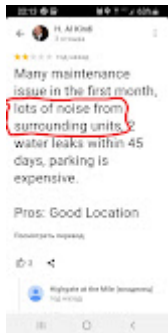
17 attachments



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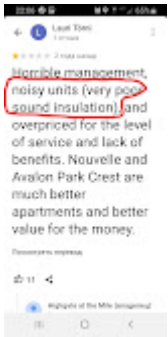


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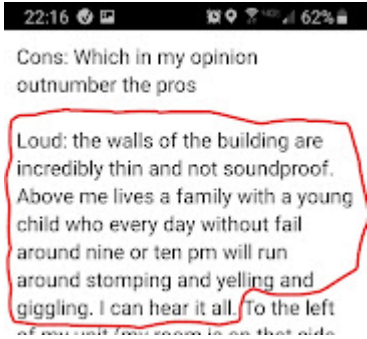
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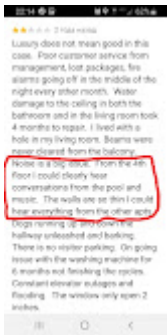
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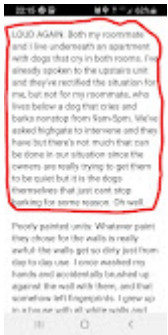
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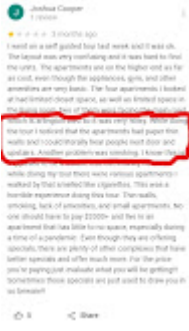


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review 17 Alexan Florence.jpg
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September 18, 2022

To: Virginia Board of Housing and Community Development

From: Virginia Chapter of the Sierra Club
Faith Alliance for Climate Solutions
Climate Action Alliance of the Valley
Climate & Clean Energy Working Group, Virginia Grassroots Coalition

Re: Comments on Key Proposals for 2021 Cycle to Update the Building Code

These comments are submitted on behalf of the Virginia Chapter of the Sierra Club, Faith Alliance for Climate Solutions, Climate Action Alliance for the Valley, and the Climate & Clean Energy Working Group, Virginia Grassroots Coalition.¹ (Collectively, “Sierra Club, et al.”) **Together, these organizations have more than 30,000 members who are residents of Virginia.**

I. OVERVIEW

Legal Framework. As recognized in this Board’s November 22, 2021 NOIRA,² it is the Commonwealth’s statutory policy that Virginia’s Uniform Statewide Building Code (USBC) follow “the newest available model codes and standards in the USBC”. This “assures that the statutory mandate is met to base the regulation on the latest editions of nationally recognized model codes to assure the protection of the health, safety and welfare of the residents of Virginia.” Section 36-99A of the Virginia Code also provides that “buildings and structures should be permitted to be constructed, rehabilitated and maintained *at the least possible cost consistent with recognized standards of health, safety, energy conservation and water conservation...*” – i.e., without weakening amendments. Thus, the NOIRA states: “As the basis for Virginia’s building code it is important to stay in sync with the national model codes.”

To underscore the importance of stronger energy efficiency standards in the USBC, Virginia’s **General Assembly enacted H2227, in 2021. It calls for adoption of energy**

¹ **Virginia Chapter of the Sierra Club** has approximately 20,000 members. The Sierra Club is a non-profit, membership organization dedicated to exploring, enjoying and protecting wild places; to promoting the responsible use of the Earth’s resources and ecosystems; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out those objectives.

Faith Alliance for Climate Solutions (FACS) is a non-profit organization with more than 185 faith communities and 3,600 faith-based activists in Virginia whose mission is to develop local solutions to climate change.

Climate Action Alliance of the Valley (CAAV) is an organization representing at least 1,000 residents of the Shenandoah Valley. CAAV’s mission is to limit the impact of humans on Earth’s climate and minimize the effects of inevitable climate change in order to protect the future for Earth and its inhabitants.

Virginia Grass Roots Coalition includes over 50 grass roots organizations with over 10,000 members. <https://reston-data-visualization-fairfaxcountygis.hub.arcgis.com/apps/reston-zoning-activity-data-hub/explore>

² The NOIRA can be found at <https://townhall.virginia.gov/L/viewstage.cfm?stageid=9475>

efficiency and conservation standards “at least as stringent as those contained in the new version of the IECC” based on an assessment of “the public health, safety, and welfare benefits of adopting standards that are at least as stringent as those contained in the IECC, including potential energy savings and air quality benefits over time compared to the cost of initial construction.”

Reading Virginia Code Section 36-99A and H2227 together, building code standards should be “at least as stringent as” energy efficiency measures in the latest IECC whenever the savings and benefits to residents and the public (including environmental benefits) over time exceed the incremental initial cost of construction. That is, rejecting proposed energy efficiency improvements would require showings of net harm to residents and the public over time, not just higher initial construction costs and not just that some builders voted “no” in work group meetings. Also, the starting point for analysis should be standards “consistent with” the latest IECC, not historic weakening amendments in a “Base Document.”

The data presented in these proceedings supports full compliance with the 2021 IECC and more stringent standards as well. (See our CDPVA submissions for most citations and to the Appendix hereto for a further discussion of the importance of maximizing energy efficiency.)

Occupant and Public Benefits. Improving energy efficiency in building structures and equipment is the first line of defense against higher ongoing energy costs to building occupants and against higher public costs, including environmental and health harms from air pollution and the fossil-fuel-driven climate crisis which is profoundly harming the U.S., Virginia and world and is accelerating. Failing to implement building standards “at least as stringent” as the latest IECC would lock-in energy waste, higher costs and ever worsening harms from air pollution and climate change. The harms would last for the 70+ year expected lives of new buildings and the far longer duration that climate pollutants remain in the atmosphere and ocean. That would harm residents and Virginia for generations.

Increasing energy efficiency in buildings through more stringent building codes will have many benefits to Virginians:

- **Cost savings:** Greater efficiency saves residents (both owners or tenants) money by reducing monthly energy bills for the lives of the property and avoiding much more costly retrofits. As repeatedly show in independent analyses, the energy bill savings over time exceed the incremental construction costs.
- **Lower utility costs for all Virginians:** Reducing demand in peak and off-peak periods reduces utilities’ costs for new generation and for purchasing fuel and power in high-cost peak periods. That benefits all customers and the economy.
- **Improved comfort and indoor air quality:** Tighter envelopes and more efficient heat pumps improve indoor air quality and comfort for residents.
- **Increased Resiliency for Residents:** Tighter, better insulated buildings maintain occupancy comfort longer during outages and protect against energy cost increases that can trigger mortgage and rent defaults.
- **Air Quality and Climate Mitigation and Resiliency:** Reducing energy demand is critical to mitigating rapidly growing and spreading climate damage to people’s

lives, health and property, public infrastructure, agriculture, lands and resources, oceans and the economy. Approximately 40% of U.S. carbon emissions are attributable to buildings. The legacy of those emissions will harm people and communities for centuries beyond the lives of new buildings. Virginia's coastal and tidal communities face sea level rise that could reach 1 foot and inundate large areas in the next 30 years and far worse by 2100..

- **Enhanced economy.** Reducing energy use, costs and pollutants will strengthen Virginia's economy, making it more competitive and less vulnerable to energy price and supply disruptions. A stock of more efficient buildings will make Virginia a more attractive place to start a business.

Residents and the public would also benefit from standards that support shifting, in the future, to on-site solar energy or to appliances and vehicles using electricity, which are far more efficient and cleaner than fossil fuel combustion in appliances and vehicles.

Cutting energy use and emissions would help to implement Virginia's stated Clean Energy Policy (§ 45.2-1706.1. (Effective October 1, 2021), which supports decarbonization and energy efficiency. It states, among other things, that it is "**the policy of the Commonwealth to: ...8. Promote building and construction practices that reduce emissions associated with built environment, including energy efficiency targets, new building standards, and transit-oriented and other sustainable development practices....**"

The IECC Benefits Residents and the Public. As prescribed by law, the IECC is the appropriate ground floor (not the ceiling) for efficiency measures in Virginia's USBC. **Each update of the IECC has gone through lengthy development involving study, debate, drafting and voting by experts, community leaders and a wide range of stakeholders in order to assure that the standards are viable and that the benefits and savings serve the public and residents will, in fact, exceed the incremental costs of construction.**

As shown in our CDPVA submissions, the **annual savings to residents from full IECC implementation (even considering incremental construction costs) have been repeatedly demonstrated, independently, by the U.S. Department of Energy (DOE) and Pacific Northwest National Laboratories (PNNL) with respect to the IECC's for 2012, 2015, 2018 and 2021. DOE/PNNL have also found that there will be substantial net benefits to the public from full implementation of the 2021 IECC.** No evidence was presented in any work group meetings that contradicts these findings. Anecdotes and untested claims do not suffice.

Unfortunately, **Virginia fell behind the 2012 IECC in key respects, and it has allowed those weakening amendments to roll forward** based on an unwritten practice of deferring to builders' ability to withhold "consent" to changes in "work group" meetings. **A decade later, Virginia's USBC is still behind the 2012 IECC for new construction with respect to wall insulation and air leakage. Nothing presented justifies failing to catch up with the 2021 IECC or becoming more stringent.**

II. SPECIFIC EFFICIENCY-RELATED PROPOSALS.

In this cycle, the Virginia Chapter of the Sierra Club (via William Penniman) submitted a number of proposals through CDPVA to catch up to the 2021 IECC and to exceed the stringency of the 2021 IECC in some respects. (Some proposals were modified in response to work-group inputs.) The Responsible Energy Codes Alliance (RECA) and the New Building Institute (NBI) also submitted proposals to catch up to the 2021 IECC and, in some cases, to go beyond it.

As demonstrated in CDPVA submissions and in presentations to the relevant workgroups, all of the Sierra Club’s proposals would benefit residents and the public by saving residents energy and money, improving air quality and health outcomes and by reducing health and climate harms from ongoing pollution associated with new residential and non-residential buildings and the appliances and vehicles they house. Our proposals pass the statutory tests by saving money and energy over time, yielding benefits to occupants and the public that exceed the initial costs of construction. Unfortunately, in nearly all cases, these proposals were classified as “non-consensus” due to opposition by builders, which was not supported by any studies or other documentation addressing the applicable statutory standards.

The BHCD should approve our proposals to make the USBC “at least as stringent” as the 2021 IECC.

Because some of our proposals overlap, we will highlight ones that we believe are particularly important for incorporation into Virginia’s 2021 USBC update.

A. CATCH UP TO THE 2021 IECC

Virginia should catch up to the 2021 IECC either by (1) eliminating the principal weakening amendments that continue to haunt the USBC or (2) simply adopting the language prescribed by the 2021 IECC to bring Virginia’s USBC into full compliance. The two options are as follows:

- 1. Eliminate the principal weakening amendments that have carried over since 2012—by adopting both the IECC’s wall insulation and its air leakage standards.**
 - a. **Residential Wall insulation standards. REC-R402.1.2(2)-21** (Penniman/Sierra Club). *See also* REC-R402.1.1(1)-21 (RECA)

The 2021 IECC standards for wall insulation should be adopted. After much deliberations, the IECC updated the wall insulation standards for new residential construction in the 2012 cycle and in the 2021 cycle. However, Virginia has been stuck for a decade on wall insulation standards for 2009. This proposal would cause Virginia to catch up to the IECC consistent with applicable legal standards.

This table illustrate the evolution of wood-frame wall R-values and U-factors for climate zone 4, which was Virginia’s only climate zone up to now and its main climate zone in the 2021 IECC³:

Zone4 / IECC cycle	Virginia 2009-now	IECC 2012-2018	2021
R-Value	15 or 13+1	20 or 13+5	30 or 20+5ci or 13+10ci or 20ci
U-Factor	0.079	0.060	0.045

The first R-Factor value is for cavity insulation, the second is for continuous insulation. Therefore, as an example, 13+5 means R-13 cavity insulation plus R-5 continuous insulation.

Both the 2012 and 2021 IECC updates were found by DOE/PNNL to save residents money year in and year out even after factoring in the impacts of incremental construction costs on ownership costs (mainly mortgage, taxes). ICF International also analyzed and found that both would save residents money consistent with DOE/PNNL and in contradiction of industry claims.

Wall insulation is extremely important because walls define the principal surface area exposed to heat, cold and wind. Because it is extremely costly and difficult to retrofit, failure to adopt the IECC standards for new construction would mean that *the harms of wasted energy are likely to last for the lifetimes of new buildings*. That would mean *decades of higher energy costs to residents and greater harm to the public from air pollution*, including climate pollution. DOE/PNNL found that both the public and the residents would benefit, including savings for residents exceeding incremental costs.

In the work group process, some builders complained that they would have to modify their old construction plans and be forced to switch from 2X4 to 2X6 construction. However, builders can comply with the IECC’s insulation standards in many ways, including 2X4 construction. In addition to choosing among the prescriptive options for specific mixes of cavity and continuous insulation, builders may select among overall performance options. The latter allow even more construction choices so long as total energy targets are achieved. Beyond that, builders have to modify their plans in some ways with every ICC and fire code cycle, with the evolution of building technology and with changing societal needs. Opposition to change is not the relevant legal test.

Some others complained that some buyers may buy other new or resale dwellings or even defer purchases because of higher initial costs. However, that can result from many factors, including voluntary builder decisions (*e.g.*, to build bigger and fancier dwellings), other building code changes, and market price fluctuations for supplies and final products. Builders have ways to adjust their mix of costs to stay competitive; and better insulated dwellings can even lead to some construction savings (*e.g.*, smaller HVAC units and more widely spaced studs if 2X6 construction is chosen). In addition, more

³ The 2021 IECC now divides Virginia into three climate zones: CZ4 for most of the state; CZ5 for a portion of the western edge; and CZ3 for a strip along the southern part of the state. **The 2021 wall standards are the same for CZ4 and 5. The 2021 wall standards for CZ3 would be comparable to the 2018 standards for CZ4.**

efficiency will reduce occupancy costs and make new homes more attractive. Builders in other states, such as Maryland, have shown that they can comply with the IECC and continue to sell houses in the same price ranges as in Virginia.

In sum, Virginia law requires adoption of the latest IECC standards which DOE/PNNL and others have shown will benefit buyers and the public over time compared to the incremental construction costs.

b. Air Leakage Standards. REC-R402.4-21 (Penniman/Sierra Club) See also REC-R402.4.1.2-21 (RECA)

The 2021 IECC air leakage standard should be adopted. Since 2012, the IECC's prescribed air leakage standard for new residential dwellings in Virginia's climate zone(s) has been 3.0 ACH50 (*i.e.*, 3.0 air changes per hour when blower-door tested at 50 Pascals). In 2015, Virginia's leakage standard moved down to 5.0 ACH50 but without testing. Virginia finally required the leakage to be tested in the 2018 USBC update. But, Virginia's USBC's leakage rate remains at 5.0, 67% higher than the IECC's standard.

The cost of materials to meet the 3.0 ACH standard is low (*e.g.*, tape, caulk and continuous air barriers which would be required anyway). Meeting the test mainly requires careful planning and attention during construction to fill gaps and cracks before walls are closed up. Appropriate contracting with framers and insulators can help.

Echoing EPA, even the NAHB has acknowledged that the values of tight construction include "Heating and cooling savings" due to greater energy efficiency; "Reduced potential for moisture movement through the building thermal enclosure;" "Improved insulation effectiveness and reduced risk of ice dams;" "Reduced peak heating and cooling loads resulting in smaller HVAC equipment;" "Improved comfort (reduces drafts and noise);" "Improved indoor air quality (limits contaminants from garages, crawl spaces, attics and adjacent units;" and enhanced "durability." NAHB, "*TechNote, Building Air Tightness: Code Compliance & Air Sealing Overview*". As EPA has recognized, tight construction also protects homes from insects and other vermin, which is one of the specific goals in Virginia's building code statute.

As noted, DOE/PNNL reviewed the totality of the 2012 IECC updates, including the 3.0 ACH50 standard for Zones 3-8, and concluded that they were cost-effective, save residents money even after considering construction costs, and provide benefits to residents over time. The public receives additional benefits as a result of improved air quality and climate mitigation.

- 2 Full adoption for new construction. EC-C1301.1.1.1(2)-21** (Penniman/Sierra Club). This proposes eliminating all Virginia-specific amendments to the 2021 IECC with respect to NEW construction. This proposal is straight forward and assures full compliance. It would make Virginia's USBC fully "consistent with" the latest IECC. It is

supported by the positive benefit cost-analysis done by DOE/PNNL and ICF. The energy and cost savings would exceed the incremental construction costs and provide benefits to residents and the public for the lifetime of the buildings. Retrofitting to achieve the IECC's energy-saving benefits would be very costly and likely require an infusion of public funds through grants, tax incentives or otherwise. Compliance with the full IECC can be achieved, as demonstrated in Maryland, and it is feasible here.

B. REDUCE COSTS, ENERGY USE AND CLIMATE POLLUTION WITH BETTER HEATING AND COOLING AND ELECTRIC READINESS FOR VEHICLES AND DWELLINGS

1. Electric Vehicle (EV) Readiness.

EV readiness is important in new construction. Virginia's building code should include basic electric infrastructure to support growing demand for EV charging, particularly at-home charging.⁴ 80% of EV charging occurs in residential settings due to the convenience and lower costs of charging. Electric vehicle sales are growing rapidly with policies in place to shift new car sales to at least 50% by 2030 and with continued growth in the 5-10 years thereafter. Rebates available from the Federal government will help to accelerate the growth of EVs and the breadth of the public that buys them, but at-home charging remains important to EV adoption and cost savings.

EVs dramatically reduce owners' vehicle operating and maintenance costs—by up to \$1900 per year (before gas prices jumped) according to reports cited in our supporting materials. Those savings dwarf the incremental cost of installing basic infrastructure (raceways and electrical panel space) during initial construction. It is far more expensive and disruptive to add later.

The savings and other benefits to residents and the public over time exceed the incremental costs of construction and thus meet the requirements for standards “at least as stringent” as the latest IECC. EVs are much more energy efficient measure which saves energy and money compared to internal combustion vehicles. They are also far cheaper to maintain. In addition, EVs eliminate vehicles' harmful air pollutants, including the hazards of fumes in garages that leak into houses (a matter the code addresses). Even considering electricity generation, **EVs reduce CO2 emissions by approximately 70% in Virginia compared to vehicles using internal combustion engines.**

We made 3 separate proposals because the issues are distinct for “residential,” multifamily and commercial construction. Each differentiates between levels of readiness. In broad terms, “**EV Capable**” spaces would basically have raceways and panel space, without wiring or chargers; “**EV Ready**” would also include wiring from the panel to near the space; “**EVSE Installed**” would include an actual charger. *Even if nothing more were*

⁴ The code already has requirements for numbers, locations and types of electric wiring and outlets for general use and appliances, including in garages. This proposal recognizes the need to service an important new piece of equipment for occupants—electric vehicles.

required, all garages and outdoor parking should be “EV Capable” for each dwelling unit provided parking.

a. Residential EV Readiness. REC-R1104.2-21 (Penniman/Sierra Club)

This proposal would not require installation of chargers, only installation of the basic infrastructure to permit easy installation of one charger at such time as a resident acquires an EV. In the case of dwellings with garages or carports, the infrastructure would include a raceway from the garage or outdoor parking area to an electric panel with reserved capacity for a 208/240V circuit. As proposed, an “EV Ready” conductor with appropriate capacity would also be installed *unless the utility says it could not provide the requisite level of service by the time the dwelling is completed. In the latter instance, only a raceway and reserved panel space would be required (i.e., “EV Capable”).*

Depending on the distance from the garage to the panel, the installation cost could be less than \$100 (*e.g.*, if the panel is in or next to the garage). That would be within the builder’s control. In any event, it is much cheaper to install the infrastructure during construction when walls are open and trades present. It would be much more costly and require opening and repairing walls if this is addressed later.

No safety issues or technical issues were raised with respect to the proposal for new residential dwellings. Questions were raised about what to do if a utility would not commit to providing adequate service to all the dwellings with EVs in a large development. This possibility was addressed, in our revised proposal, by limiting the builder’s obligation to installing a raceway and panel capacity to make it “EV Capable” without requiring installation of wiring in that instance.

b. Multifamily Residential EV Charging. EC-405.10-21 (Penniman/Sierra Club)

We submitted a proposal to equip multifamily garages and outdoor parking areas with infrastructure needed to eventually provide EV charging to serve each dwelling unit desiring service. **It would require one or a few EVSE Installed and EV Ready parking spots at the outset, plus EV Capable infrastructure to allow expansion as demand grows.** The proposal makes sense because multifamily residents will need access to at-home EV charging in order to get the many benefits of acquiring and using an electric vehicle. Our proposal showed that residents and the public would benefit and that the costs of retrofitting would be much higher than during initial construction. Those higher retrofit costs would act as a barrier to eventual service, undermining efforts to provide broad, equitable access to EVs. The staging of infrastructure and actual chargers was intended to balance costs and benefits. The proposal also permits options to evolve, so that, for example, one “Level 3” charger might serve multiple vehicles rather than more “Level 2” chargers.

During the course of work group meetings an issue was raised about potential hazards if EV chargers are *installed deep in underground garages* for multifamily buildings. No issue was raised about outdoor lots or above-ground garages with open-air ventilation or in single family garages. Nor was there agreement on the scope of the risks in below-

ground locations since battery technology and charging practices have continued to evolve.

We believe that our proposal for multifamily construction makes sense and should be adopted *even if only for above-ground parking in the top floors below ground*. If contrary fire code standards were developed for some locations, they would supersede these requirements per the ordinary order or precedence. Given the concerns raised about below-ground charging in multifamily garages, we support the idea of forming a **study group** to address the concerns in greater detail. We believe that it is critical to include manufacturers of EVs and EV charging systems in those discussions, as well as representatives of consumers and environmental interests. We would be interested in participating.

c. **Other EV Charging in New Construction. EC-C405.11.1-21** (Penniman/Sierra Club)

This proposal addresses the need for charging infrastructure in a limited number of commercial and institutional settings, in which commuters and long-distance travelers will need access to EV charging. The percentage of spaces covered by infrastructure requirements would be less than for multifamily dwellings and tailored to the nature of the market.

While much of this parking would be outside the enclosed areas that raised the safety concerns described above, some could be covered thereby. We think that the proposal should be approved as written for parking areas that are not deemed to be at risk. We also think that a “study group” should address the enclosed parking areas for these types of projects and should include manufactures of EVs and EV charging systems, consumer and environmental representatives.

2. Install heat pumps when air conditioning would be installed anyway. REC-R403.1.4(2)-21 (Penniman/Sierra Club)

Consistent with the Board’s statutory responsibility to regulate heating and cooling systems,⁵ this proposal would specify that a heat pump shall be installed in new dwellings in which air conditioning would otherwise be installed, rather than installing a stand-alone air conditioner and separate heating system. The proposal does not limit the fuel or energy used for auxiliary or emergency heat. Either electric resistance or fossil fuel (“hybrid” system) could supplement or back-up the electric heat pump. The proposal is written in terms of electric heat pumps, because they would easily substitute for electric air conditioners which are dominant in our region and because electrification helps to mitigate climate and other

⁵ **Section 36-99.6:3, Regulation of HVAC facilities. The Board shall promulgate regulations** in accordance with the Administrative Process Act (§ [2.2-4000](#) et seq.) **establishing standards for heating, ventilation, and air conditioning (HVAC) facilities in new, privately owned residential dwellings**. There was consensus for approval of **REC-R403.1.2-21**, which provides that electric resistance heat shall not be used as the primary heat source if a heat pump can be used instead. We also submitted **REC-R403.1.4-21**, which would prohibit on-site combustion as a primary heat source regardless of air conditioning and that option is also available to the Board.

pollution.⁶ If the Board does not believe that it can or should specify “electric” heat pumps then it could simply delete the word “electric” in the first sentence.⁷

The proposal is more “stringent” than the IECC with respect to energy efficiency, in part because the IECC does not address this issue, whereas the *BHCD is required by Section 36-99.6:3 to set standards for HVAC systems*. Since heat pumps are much more efficient than combustion or resistance heating and since air conditioning would be installed anyway, the proposal passes the tests in H2227 for adopting standards that are more stringent than the IECC. It would save residents money and energy and reduce air pollution and climate damage, with savings and benefits that exceed incremental costs (if any) of construction.

Since the proposal is limited to new dwellings in which air conditioning would otherwise be installed, it would likely save construction costs by installing a single device for heating and cooling rather than installing separate cooling and heating systems, with the latter also requiring investments in piping and/or storage tanks. A builder could choose to install fossil fuel combustion (e.g., gas or propane) as a supplemental heat source (a so-called hybrid system).

Electric heat pumps are highly energy efficient for both heating and cooling in Virginia. They provide heating and cooling with no need to install ducts that would not otherwise be required for a central air conditioner. (Room-sized utilize heat pumps (e.g., mini-splits) do not require ducts to provide both heating and cooling for a room.)

Heat pumps use the same technology as air conditioners for space cooling and also for heating. They are much more energy efficient than either gas/propane combustion or electric resistance units for space heating--up to 300% or more energy efficient than resistance heat or combustion heating. Modern heat pumps are capable of keeping houses warm even when outdoor temperatures reach Zero F or below with supplemental heat needed only at temperatures below freezing (well below freezing for “cold climate” heat pumps).⁸

In addition to saving energy, electric heat pumps provide greater comfort and better-quality indoor air than any system that uses combustion for space heating. Combustion heating produces indoor and outdoor air pollution, as well as drier interior air.

⁶ See <https://www.sciencedirect.com/science/article/pii/S0301421522000386> (Residential heat pumps reduce carbon dioxide emissions by 38–53% over a gas furnace; Residential heat pumps reduce 20-Year global warming potential emissions by 53–67%; Energy efficient construction reduces overall emissions for heat pumps and furnaces.); <https://news.climate.columbia.edu/2019/01/15/heat-pumps-home-heating/>. See also Reason Statement.

⁷ Though less common and still requiring combustion, gas-fired heat pumps would also save energy compared to combustion heating and could be an option for builders if the Board is reluctant to limit eligibility to electric heat pumps. It is unclear whether gas heat pumps are as efficient for cooling as electric air conditioning. Gas-fired heat pumps use a different technology than electric heat pumps.

⁸ Heat pumps are now effective and growing in popularity in New England, for example, and the technology continues to improve. <http://wepowr.com/technology/ashp/cold-climates> (“These cold climate air source heat pumps are able to function at 100% efficiency at 5°F while still remaining functional down to -15° and below.”). <https://sealed.com/resources/winter-heat-pump/>.

Importantly for the public, electric heat pumps reduce air pollution, climate harms and water pollution compared to combustion-based space heating. With Virginia's electric system moving toward cleaner energy, the benefits are particularly great and growing for electric heat pumps. Cooling and heating with electric heat pumps is vital for achieving the Commonwealth's and the world's goals for reducing GHG emissions.

3. **Electrification Readiness. REC-R404-21** (Penniman/Sierra Club)

This proposal would require installation of raceways between the electric panel and combustion-fired appliances (*e.g.*, cooking, hot water and dryers). The cost of installing an appropriately sized raceway to a point near a gas appliance and reserving and marking panel capacity is small and much lower when walls are open and trades present during construction. On the other hand, the benefits are great, as electric appliances will grow in importance since they reduce CO₂ emissions and other pollution compared to combustion and eliminate hazards from gas leaks and explosions. (The raceway would not be idle since it could be used for the lower-voltage wire needed for the gas appliance pending a future decision to pull a higher voltage wire.)

4. **Solar Readiness. REC-R404.2-21** (Penniman/Sierra Club)

This proposal is based on an Appendix RB in the 2021 IECC. Since it is in the 2021 IECC it should be adopted in Virginia's USBC. However, if it remains in an appendix, it has effectively not been adopted since no localities in Virginia are free to implement an appendix. As a result, residents will not get the benefit of the standard and will face additional impediments to installing solar, saving energy costs and reducing air pollution that contributes to public harms.

Bringing Appendix RB into the code would thus benefit residents and the public. By making an electric raceway available from roof to the dwelling's electric panel, it will make it easier for a resident to add roof top solar even after walls have been closed and construction of a house has been concluded. The cost of doing during construction is small and much lower than at a later date after walls have been closed.

5. **Proposals by RECA and NBI.**

Numerous proposals were submitted by RECA and NBI. We generally support them and encourage adoption.

6. **Proposal to rollback energy efficiency requirements for scores of types of buildings, including warehouses, utility and factories. EC1301.1.1-21, EC-C401.2-21-21/EC Appendix CB-21, (Benka)**

An initial proposal (**EC1301.1.1-21**) was made by Mr. Benka on behalf of a group of warehouse builders (applicant) to exempt 3 large categories of commercial buildings from any form of energy efficiency building standards. Those three categories – Groups F, S and

U – contain within them over 120 different types of buildings. Although the proposal cited a procedural bill (HB1289) calling for BHCD to “consider” such a proposal, ***the legislation was procedural--it did not modify the statutory standards for evaluating proposed building code provisions.*** Two vaguely-described hypothetical examples were described in the Reason Statement, but no material support was presented by applicant to justify such an exemption consistent with the law governing building codes. Applicable standards still must be “consistent with” or “at least as stringent as” the latest IECC. No credible explanation was given for why 120 types of buildings should be exempted from rules that builders have complied with in the past. **The applicant subsequently withdrew its proposal to exempt these three categories of buildings from the commercial code’s energy efficiency standards. That proposal should not be considered.**

DHCD Staff presented a proposal for an exemption without supporting data or arguments in favor of the exemption. Its sole purpose was to assure that, *as a procedural matter*, the Board “considers” the idea of an exemption. The Staff’s non-consensus proposal should be rejected since (a) no supporting data or analysis was presented, (b) it is inconsistent with applicable law and (c) the applicant that secured the legislation (HB1289) withdrew its proposal to create such an exemption.

The applicant also submitted a substitute proposal (EC-C401.2-21-21 and Appendix CB-21) to roll back the efficiency standards for building construction to the 2006 efficiency standards, which are now more than 15 years out of date. That non-consensus proposal should be rejected as being wholly inconsistent with Virginia’s legal standards and the NOIRA’s recognition that the statutory policy is to stay in sync with national codes. As with the withdrawn proposal, the only support presented for the proposal covering the same 120+ types of buildings was very general in nature: two vaguely-described hypothetical warehouses, plus the applicant’s unquantified assertion that current efficiency standards are too costly for some warehouses and hurt Virginia’s ability to attract warehouse business. No data was presented to explain why the roll back was needed or appropriate for the 120+ different types of warehouses and other buildings that would be covered by the sweeping proposal. Nor was any real information presented about costs and benefits of the applicable efficiency standards.

We submitted comments opposing the proposal through CDPVA and spoke in opposition in the working group process. **As we spelled out, the proposed rollback would violate existing law, waste energy, harm the public and harm building users for the lives of the buildings. Moreover, published data show that the claimed barrier to new business is a mirage.** Our comments cite articles published in the last few years with headlines such as: “*Industrial boom: Virginia continues to see more warehouses and distribution centers,*” “*Making it rain: Increased e-commerce fuels wave of distribution centers,*” and “*Need for speed: Developers race to build warehouses amid site shortage.*” The articles discuss “*a golden age’ in the distribution sector*” and to “**a deluge of distribution centers and warehouses that have opened recently or are currently in the pipeline**” and one “*likens the current market for building, buying, leasing warehouses and distribution centers to the mid-1800 California Gold Rush: Everyone wants in.*” In short, the proposal has been totally unsupported and should be rejected.

Conclusion

The undersigned urge the Board to expeditiously adopt and implement updated building codes that are at least as stringent as the 2021 IECC, including the proposals that were submitted through CDPVA by William Penniman and presented in the work group process. Adopting these proposals is consistent with, indeed required by, applicable legal standards for building codes in Virginia. Doing so will best protect residents and the public for decades to come.

Respectfully submitted,

William Penniman

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APPENDIX A

Climate Change and Air Quality Benefits of Better Energy Measures in Virginia's USBC

Climate change (a.k.a global warming) is fundamentally an air pollution problem. Climate change is being driven by humanity's heat-trapping "greenhouse gas" (GHG) emissions, which are primarily the result of fossil fuel production and combustion. GHG emissions from energy, particularly carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), are driving up atmospheric and ocean temperatures in the U.S., including Virginia, and around the world. CO₂ is the most ubiquitous and long-lasting GHG, which is why it is the most common focus.

Climate change and air quality deterioration generally are driven by combustion of fossil fuels largely in buildings and vehicles. Buildings account for approximately 40% of carbon dioxide (CO₂) emissions, as does transportation.

Temperature increases driven by CO₂ and other GHGs are fundamentally altering weather patterns, oceans, and atmospheric patterns. The impacts are increasingly widespread and severe:

- **Heatwaves** that kill and sicken people and livestock, devastate agriculture, and reduce times that workers, children and people generally can safely be active outdoors (*e.g.* in Virginia, South, Midwest, and West);
- **Storms** that kill people and cause massive property, business and agricultural damage such that billion-dollar storms are now a commonplace (*e.g.*, just this year in Virginia, West Virginia, Kentucky, Tennessee, Michigan, Mississippi, Texas, to name a few states, plus in countries around the world, and far more extensive hurricane damage in recent years);
- **Droughts** (*e.g.*, throughout the Western United States., Alaska, Europe, Asia, Africa, Australia) which are destroying crops, hydroelectric water sources, local and regional water supplies, and driving mass migrations of people, as well as food price inflation;
- **Wildfires** (*e.g.*, throughout the Western United States, Alaska, Europe, Asia, Australia) which kill people and wildlife, destroy homes, forests and grasslands, drive inflation of food and lumber, and compound GHG emissions with more CO₂ and particulate matter;
- **Sea level rise** from melting glaciers and ice caps and from thermal expansion of oceans, which are a direct threat to Virginia's coastal and tidal communities (now facing sunny-day flooding and forecast to see a **foot of sea level rise by 2050** inundating property and dwellings) and to coastal communities around the U.S. and the world;
- **Warming of seas and inland water bodies**, which intensifies algae blooms and kills aquatic life and harms fisheries upon which the U.S., including Virginia, and much of the world rely;
- **Poisoning through CO₂-driven acidification oceans and inland water bodies** and their aquatic life and fisheries;

- **Expanding the ranges of harmful insects and diseases**, which harm people, forests and agriculture in the U.S. and around the world;
- **Food supply disruptions** from all of the forces above leading to higher prices, hunger and famine in many parts of the world;
- **Economic disruptions** in the U.S. and around the world from all the factors identified above, which raise prices (inflation), disrupting supply chains, increases malnutrition, drives human migrations, and increases international conflicts.
- **National security and migration threats**, which the U.S. military and CIA recognize are accelerating for the U.S. and most other countries due to the disruptions that climate change is bringing to water, agriculture and economies of countries and individuals worldwide.

And, if that list was not bad enough,

- **These crises are already worse and are growing worse much faster than had previously been foreseen;**
- **Rising temperatures are triggering “feedback” affects** (e.g., methane and CO₂ releases from peat and permafrost) that are accelerating climate change even faster;
- **The direct and indirect economic, ecological and human harms from continued emissions of GHGs will last for many centuries**, with CO₂ continuing to trap heat for many centuries or even millennia, methane (natural gas) having 87 times the heating impact of CO₂ over the 20 years, and N₂O having a stronger heat trapping impact per ton than either over two hundreds of years;
- **Heat-trapping GHGs build up in the atmosphere (and ocean)** so that postponing reductions will lead to increasingly steep and disruptive reductions in the future and/or increasingly severe harms to our children and generations beyond that.

To put these in perspective, **21 of the 22 hottest years on record have occurred this century; the last year below the 20th Century average was 45 years ago; and while warming has increased every decade since 1880, the rate of temperature increase has doubled since 1981.**
<https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature>

Business as usual does not serve the health, safety or welfare of residents of the Commonwealth. Virginia’s coast (including tidal rivers that extend inland) is highly vulnerable to sea level rise. The potential exists for a one-foot sea level rise by 2050 and much worse by 2100 – the expected life of a new building subject to the 2021 code update. See <https://www.noaa.gov/news-release/us-coastline-to-see-up-to-foot-of-sea-level-rise-by-2050> ; https://www.washingtonpost.com/climate-environment/2022/09/08/sea-level-rise-climate-central/?%20environment_2 ; https://riskfinder.climatecentral.org/state/virginia.us?comparisonType=county&forecastType=NOAA2017_int_p50&level=5&unit=ft

Storms exacerbated by rising temperatures have killed people and severely harmed several parts of the Commonwealth, including Southwest Virginia most recently, and a truly massive hurricane has still not done to Virginia what has been done to states to the north and south (e.g., Sandy, Katrina, Harvey). Rising temperatures have increased the frequency of heat illnesses in

Virginia, while temperatures plus storms threaten agriculture and infrastructure. Low-income residents are particularly vulnerable to climate impacts, including un-airconditioned dwellings, fluctuating energy costs, and disruptions of food and energy. Virginia's natural heritage (forests, wildlife, fisheries, parklands) is also being harmed by climate change and its impacts.

The only solution to prevent continued worsening of the crisis is to stop emitting CO2 and other GHGs in as many ways as possible and as rapidly as possible.

- **Energy efficiency is the cheapest known way to cut GHG emissions**, which is why it should be required wherever possible and certainly in every case in which the economic savings over time exceed the incremental costs of initiating the efficiency measures. Increasing building efficiency enables buildings to continue providing comfort and the broader economy to continue producing goods and services, while reducing on-site and off-site combustion dirty fuels to generate energy. Retrofitting is more expensive, as is continuing business-as-usual.
- Not only does greater efficiency reduce total energy demand, it becomes easier for the remaining demand to be satisfied with zero-GHG or near-zero-GHG energy sources (e.g. solar and wind energy).
- Greater efficiency also provides protections from fluctuations in national and international energy prices and supplies.
- **Clean energy generation, including rooftop solar**, is another way to reduce GHG emissions and energy costs.
- **Electrification: shifting to electric vehicles, heat pumps, and electric appliances have the further advantage of greater energy efficiency and a cleaner underlying mix of fuels for generating electricity.** In Virginia, for example, EVs yield 70% less CO2 (even considering utility generation) than traditional internal-combustion vehicles.
- **There is no known way to extract GHGs from the atmosphere in the quantities that would be needed to avoid large scale future disasters** from continued emissions by the U.S. and the rest of the world. Talk of carbon capture remains just that with no viable projects in the U.S. and certainly no application to on-site generation of heat for buildings, stoves or hot water.

“Adaptation” is a supplemental strategy which may be needed to limit harms, but it will add further costs and trigger indirect harms and suffering. It is better to cut GHG emissions as fast as possible, not to pretend that our children can easily fix the problems that we leave them. For example, it is extremely costly in money, energy and political capital to rebuild or relocate infrastructure (roads, utilities, public buildings), to move populations or rebuild coastal housing and business, to building dikes or equivalent structures, and to undertake similar “adaptations.” These measures cost more money than saving energy in the first place. Keeping outdoor workers (construction, agriculture) and children out of health-threatening heat is another adaptation that may be necessary, but that has other costs to the businesses and to the children. Changing crops and trying to move heat sensitive crops farther north has huge costs to farmers

and communities left behind, as well as to the communities and support-systems that must be rearranged to deal with different crops and needs.

Air quality generally is also harmed by combustion of fuels in buildings and vehicles. Carbon monoxide and methane leaks are dangerous within homes and buildings, sometimes killing residents by asphyxiation, fire or explosion. Outside of homes, air pollution from such combustion contributes to harming people's lungs, heart and brains. Rising heat will compound those health problems.

In sum, maximizing energy efficiency with requirements at least as stringent as the 2021 IECC is critical to protecting Virginia residents and Virginia generally for both the near-term and long-term. It will save money and improve lives. Encouraging on-site solar and on-site EV charging will similarly deliver economic, health and climate benefits to residents and the Commonwealth.



THE APARTMENT AND OFFICE BUILDING ASSOCIATION
OF METROPOLITAN WASHINGTON

THE VIRGINIA APARTMENT MANAGEMENT
ASSOCIATION



Monday, September 19, 2022

Mr. Brett Meringoff, Chairman
Virginia Board of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

Chairman Meringoff,

My name is Steven Shapiro and I'm submitting the below comments on behalf of the Apartment and Office Building Association (AOBA) of Metropolitan Washington and the Virginia Apartment and Management Association (VAMA), who together represent the owners and managers of roughly 172 Million square feet of commercial office space and 630,000 residential rental units throughout the Commonwealth.

I retired as the Building Official in the City of Hampton after 34 years and have been involved in code development in Virginia for 42 years. I am a member and past President of the International Code Council, the Building Officials and Code Administrators International and the Virginia Building and Code Officials Association. I plan to testify at your October 3 meeting. However, realizing that each speaker is only afforded two minutes, I thought it best to send written comments explaining our position on several important proposals in greater detail.

AOBA and VAMA ask for your opposition to code change proposal #985 (B918.1-21). In essence, this proposal would put the entire expense of In-building emergency communication systems on the owner of the building. Currently, the owner is responsible for the design and the installation of the cabling for the system and for providing space for the equipment. The locality is responsible for the installation of any additional communication equipment required for the operation of the system. We believe that the code should remain unchanged in this respect.

If this proposal is approved, an existing building owner may be forced to spend thousands of dollars to retrofit and upgrade to a new system if a new building is constructed that now blocks the signal to the preexisting building. A property owner would be similarly obligated if a locality chooses to upgrade

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THE VIRGINIA APARTMENT MANAGEMENT
ASSOCIATION



technology due to advances such as 5G and beyond. There are no limitations to the costs that could be placed on the property.

As building owners, we understand and accept our responsibilities as laid out in the current code, but strongly urge the Board to not accept this proposal. I would note that we do support, and there was workgroup consensus, for two related changes - #1004 (B918.1.1-21) which adds the word “cabling” in place if the specific types of cable that were listed and #965 (B918.1(2)) which makes reference to two sections of the International Fire Code for details on technical requirements and installation requirements, but does not affect responsibility between owner and locality.

We additionally call on the Board to reject proposal #1169 (FP906.1-21), which would strike the exception for the installation of fire extinguishers in Groups A, B and E equipped with quick response sprinklers and now require fire extinguishers regardless. This same proposal has been before the BHCD for the last four code cycles (2009, 2012, 2015, 2018) and is now back for the fifth time. Each time, the Board has rejected it based on a lack of data to support such a move as well as the potential for such a change to encourage building occupants to remain in a burning building and attempt to fight a fire rather than safely evacuating.

This particular provision has worked well, serving as an effective incentive for owners to utilize, sooner than they might have otherwise, the technology offered by quick response sprinklers to more quickly control and put out incipient or larger fires. There is no question as to the reliability of sprinklers. Just paging through the building codes you will find trade-offs for building height, building area, wall ratings, travel distance, flame spread ratings... all because the building was fully sprinklered. As property managers, AOBA can assure the Board that vandalism is a far more likely event than these extinguishers being used, in a sprinklered building, to attempt to extinguish a fire.

Fire drill training has always stressed that occupants should first alert other occupants and then move quickly to exit the building, not to linger longer than necessary and attempt to put out the fire without any training. Portable fire extinguishers in a fully sprinklered building are a significant building maintenance/operating cost issue for the purchase, installation, annual maintenance, inspection costs, vandalism and theft. It simply isn't needed and we strongly urge the Board to, once again, deny this proposal.

Lastly, there are 21 Commercial Energy related proposals before you in this cycle. It is AOBA and VAMA's position that the Board struck a very fair compromise in the past, making amendments to the Virginia Codes that achieve a workable accommodation between the need to conserve energy and promoting

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THE APARTMENT AND OFFICE BUILDING ASSOCIATION
OF METROPOLITAN WASHINGTON

THE VIRGINIA APARTMENT MANAGEMENT
ASSOCIATION



sustainable and reasonable development. 18 of the proposals were non-consensus during the workgroup meetings (#'s 952, 966, 996, 1014, 1035, 1036, 1037, 1038, 1042, 1043, 1044, 1045, 1047, 1052, 1070, 1083, 1162 and 1196) and our members are opposed to the changes that eliminate all previous State amendments in favor of adopting the 2021 International Energy Conservation Code, whether wholly or in part.

We also ask that the Board reject the 3 proposals related to requirements for the provision of Electric Vehicle Charging (#'s 1051, 1143 and 1185), and ask instead that these proposals be designated for further study. Our industry recognizes the need for the proliferation of electronic vehicle charging equipment. Indeed, many of our members have moved to provide such equipment as an amenity to our tenants and visitors. However, our work group discussions yielded that there are additional issues to be evaluated beyond the appropriate percentage of parking spaces that should be fitted with such equipment. Specifically, fire services organizations raised very concerning information regarding the fire hazards associated with such equipment and the challenges with extinguishing such fires in parking garages and facilities. We believe these concerns merit further deliberation prior to moving forward with any permanent code changes. We believe the more prudent action would be for the Board to form a study group to report back for the next code cycle.

Thank you for your consideration of our comments and I look forward to speaking with you on October 3. Please do not hesitate to contact me with any questions.

Sincerely,


Steven Shapiro, MPA

cc: Board of Housing and Community Development
Cindy Davis, Division of Building and Fire Regulations, Department of Housing and Community Development

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Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Available for questions on affordable housing code reform

Lyle Solla-Yates <lyle.sollayates@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Tue, Sep 27, 2022 at 10:07 AM

Hello,

Thank you for public service. I will send a longer explanation later but wanted to tell you now that I made the proposal to allow more affordable missing middle residential infill on narrow lots in Virginia and am happy to speak with you in advance by email or phone if you have questions on this proposal.

Here is a nice quick introduction to the topic: <https://www.virginiamercury.com/2022/05/05/how-allowing-single-staircase-buildings-could-change-virginias-housing-market/>

Lyle Solla-Yates
Charlottesville, VA
434-806-9044

IMPROVING OPPORTUNITIES FOR MULTIFAMILY HOUSING IN VIRGINIA

EMILY HAMILTON

Senior Research Fellow, Urbanity Project, Mercatus Center at George Mason University

Update the Statewide Building Code

Agency: Virginia Board of Housing and Community Development

Comment Period Opens: November 22, 2021

Comment Period Closes: October 3, 2022

Comment Submitted: September 28, 2022

VA.R. Doc. R22-7022

I appreciate this opportunity to comment on the issue of permitting single-staircase multifamily buildings with up to six stories in the commonwealth. I am Emily Hamilton, a senior research fellow at the Mercatus Center at George Mason University, where I am codirector of the Urbanity Project. The Mercatus Center is dedicated to advancing knowledge relevant to current policy debates. Toward this end, its scholars conduct independent, nonpartisan analyses of legislation, rules, and proposals.

The commonwealth's current requirement for multifamily buildings taller than three stories to have two staircases leads to the ubiquity of double-loaded corridor apartment buildings one sees across Virginia today. Multifamily buildings with two staircases generally have large floorplates with a long corridor that has units on both sides to spread the cost of the second staircase across many households. Double-loaded corridor multifamily buildings are a key source of new housing, but permitting single-staircase buildings as well would create opportunities to build multifamily housing more affordably and on small sites where typical double-loaded corridor buildings are not feasible.¹ My own family lives in a rare three-bedroom condo in a courtyard building in Arlington. Current regulations mean that very few Virginia families have the same option, but single-stair reform would open up less expensive and more flexible multifamily construction.

Safety can be protected in multifamily buildings by various methods, some of which are discouraged under today's code, which requires two points of egress regardless of what other safety features a building provides. In this comment I address safety for single-staircase buildings as well as the potential benefits of permitting single-stair construction for multifamily buildings up to six stories.

1. Emily Hamilton and Salim Furth, "Housing Reform in the States: A Menu of Options for 2023" (Mercatus Policy Brief, Mercatus Center at George Mason University, Arlington, VA, July 2022), 6-7.

SAFETY

A high level of fire safety in multifamily buildings can be achieved using multiple strategies: hardwired smoke detectors, sprinklers, refuge areas such as balconies, building materials that are slow to burn, firefighter rescue, and, of course, egress. The International Building Code—which in spite of its name is only used in the United States and some of its island territories—reduces incentives to achieve fire safety using materials that are slow to burn, such as masonry or concrete, because a building of a certain height must have two staircases regardless of its construction materials.

Despite many jurisdictions in the United States having required multifamily housing to have two means of egress for decades, the United States has poor fire safety outcomes compared with other wealthy countries. In the United States, the annual rate of fire deaths between 2016 and 2020 was 1.06 per 100,000 people.² Other countries that permit single-staircase buildings of six stories (or, in some cases, more) have lower fire death rates, including Austria (0.46), Germany (0.43), Switzerland (0.20), and the United Kingdom (0.52).³ And the effect of two staircases on fire safety outcomes is not necessarily one of straightforward improvement. Some research on evacuation using human behavior simulation indicates that double-loaded corridor buildings fare the worst among building types because they require long walks to emergency exits.⁴

This board should look to the examples of Seattle and New York City, where single-staircase multifamily buildings are permitted to be up to six stories so long as the buildings are made from materials that have slow burn times and include sprinklers.⁵ This approach offers multifamily developers the opportunity to select from different methods of achieving fire safety, rather than mandating two staircases without consideration of other features.

AFFORDABILITY

Because the International Building Code requirement for multifamily buildings to include two interior staircases makes it infeasible to build skinny multifamily buildings, it rules out many small infill sites as places for multifamily construction in Virginia. Infill construction can take place on lots that are already served by all necessary infrastructure and are often located closer to job centers than to greenfield sites, but the building code takes many of them off the table for multifamily construction. Housing-starved localities across the state, from Hampton Roads to Charlottesville to Alexandria, can ill afford regulations that prevent multifamily construction where it makes the most sense.

The two-staircase requirement also leads to buildings with a higher percentage of space dedicated to circulation, including corridors, elevator shafts, and staircases. A typical double-loaded corridor building may include twice as much space dedicated to circulation as a point-access-block single-stair building.⁶ This circulation space is a cost that must be shared by all a building's tenants or homeowners. And a single-stair building can facilitate a 20 percent decrease in façade materials, unlocking additional cost

2. Nikolai Brushlinsky et al., “World Fire Statistics” (report no. 27, Center for Fire Statistics, International Association of Fire and Rescue Services, Ljubljana, Slovenia, 2022), table 1.7.

3. Brushlinsky et al., “World Fire Statistics,” table 1.7.

4. Seung-Woo Cho and Kyeong-Bae Kim, “A Study on the Effects of Silver Housing on Evacuation Safety Using Human Behavior Simulation—Focused on Floor Planning of Corridor Types in Urban Silver Housing,” *Journal of the Architectural Institute of Korea* 35, no. 9 (2019): 41–48.

5. “Jurisdictions,” *The Second Egress: Building a Code Change*, accessed July 18, 2022, <https://secondegress.ca/Jurisdictions>.

6. Mike Eliason, *Unlocking Livable, Resilient, Decarbonized Housing with Point Access Blocks* (Seattle, WA: Larch Lab, 2021), 5, 7.

savings.⁷ One analysis of potential savings from permitting single-stair buildings in Virginia indicates that this reform could reduce the cost of constructing multifamily buildings by hundreds of thousands of dollars, owing to the reduction in square footage dedicated to the second staircase alone.⁸

Because single-stair buildings often have windows on more than one side of each unit, they open up opportunities for buildings with larger units, including three- and four-bedroom units. Permitting single-stair multifamily construction would create new opportunities for the commonwealth's families to live comfortably in walkable neighborhoods close to jobs and amenities when they might not be able to afford single-family construction in the same area.

CONCLUSION

Permitting single-stair buildings in Virginia would create an opportunity for more, lower-cost multifamily construction, and evidence from other countries suggests that this construction is at least as safe as the double-loaded corridor alternative.

7. Eliason, *Unlocking Livable, Resilient, Decarbonized Housing*, 24.

8. Wyatt Gordon, "How Allowing Single-Staircase Buildings Could Change Virginia's Housing Market," *Virginia Mercury*, May 5, 2022.

September 28, 2022

To: Virginia Board of Housing and Community Development

From: Virginia Chapter of the Sierra Club

Faith Alliance for Climate Solutions

Climate Action Alliance of the Valley

Climate & Clean Energy Working Group, Virginia Grassroots Coalition

Re: Supplemental Comments on Key Proposals for 2021 Building Code Cycle

These comments supplement the September 18, 2022 comments submitted by the Virginia Chapter of the Sierra Club, Faith Alliance for Climate Solutions, Climate Action Alliance for the Valley, and the Climate & Clean Energy Working Group, Virginia Grassroots Coalition.¹ (Collectively, “Sierra Club, et al.”)

Our September 18 comments addressed several proposals pertaining to energy efficiency. These supplemental comments clarify one of those comments and address two other proposals.²

¹ **Virginia Chapter of the Sierra Club** has approximately 20,000 members. The Sierra Club is a non-profit, membership organization dedicated to exploring, enjoying and protecting wild places; to promoting the responsible use of the Earth’s resources and ecosystems; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out those objectives.

Faith Alliance for Climate Solutions (FACS) is a non-profit organization with more than 185 faith communities and 3,600 faith-based activists in Virginia whose mission is to develop local solutions to climate change.

Climate Action Alliance of the Valley (CAAV) is an organization representing at least 1,000 residents of the Shenandoah Valley. CAAV’s mission is to limit the impact of humans on Earth’s climate and minimize the effects of inevitable climate change in order to protect the future for Earth and its inhabitants.

Virginia Grass Roots Coalition includes over 50 grass roots organizations with over 10,000 members. <https://reston-data-visualization-fairfaxcountygis.hub.arcgis.com/apps/reston-zoning-activity-data-hub/explore>

² The September 18 comments referenced the analyses by DOE/PNNL and by ICF, a highly respected international consulting firm, concerning the savings for residents from adoption of the 2012 and 2021 IECC updates, as well as intervening updates. DOE/PNNL’s analyses can be found at <https://www.energycodes.gov/national-and-state-analysis> and DOE, “National Energy Cost Savings for New Single and Multifamily Homes, A Comparison of the 2006, 2009, and 2012 Editions of the IECC.” ICF’s analyses confirm the conclusions by DOE/PNNL that the IECC updates are cost-effective and save money for residents year after year over the incremental construction costs to residents. ICF also demonstrates deficiencies in building industry claims, including unrepresentative costs and ignoring the continuing “lifecycle” savings to residents comparing incremental savings and costs (including mortgage costs) over time. See ICF, “Methodological Comparison of Cost-effectiveness of IECC Residential Energy Codes” (July 2015) (concluding that the 2012 and 2015 IECCs save money in all climate zones); ICF, “Cost Effectiveness of the Residential Provisions of the 2021 IECC” (rev. June 2022) (concluding that the 2021 IECC saves money for residents in all climate zones); ICF, “Comparison of 2021 IECC Residential Cost Effectiveness Analyses”. See generally <https://energyefficientcodes.org/resources/> .

1. EV Charging.

a. We wish to **clarify** our September 18 comments concerning our proposal for residential EV readiness. **Our proposal REC-R1104.2-21 (Penniman/Sierra Club) would require new residential dwellings with parking to be “EV Ready”, as defined in the proposal (basically 208/240V branch circuit from the electrical panel to a point close to a parking space to serve a future charger).** *In discussions with builders, we offered to limit the obligation to one requiring “EV Capable” infrastructure (raceways and panel capacity without the wiring) if a utility is unwilling to amend a commitment agreement to provide adequate additional electric service to large developments by the time a development is completed.*

Such a modification could result in some savings for builders, but still make it easier and less costly for residents to add EV chargers when they choose to do so. We stand by our proposal and the offer. As a practical matter, houses will usually have unused panel capacity available, and it is unlikely that utilities (which are seeking to expand EV loads) will be unable or unwilling to provide voltage needed by residents to add a charger as residents choose to do so over time. Costly wiring should not be a barrier.

b. **We support our proposal for multifamily EV charging (EC-405.10-21)** as indicated in our September 18 submission, and the supporting statements accompanying that proposal. It has advantages over the DHCD Staff’s proposal, most importantly that it would facilitate adding EV charging, over time, for residents of each dwelling unit for which parking is provided. Our proposal does not address and thus does not prohibit building owners from installing load management systems covering multiple chargers.

If our proposal is not adopted, approval of the Staff proposal (EC-C405.1.3(2)-22) is superior to approving no requirements for EV charging in multifamily dwellings. However, ten percent is a low number given that 50% or more new vehicles sales are likely to be EVs by 2030 and several major manufacturers are planning to build only EVs by 2050. Limiting to projects with more than 50 dwelling units is also unwise.

The Staff proposals would be greatly improved by requiring 3 modifications: **(i)** Require that, at least, basic infrastructure to support easy expansion of charging be required for dwelling units provided parking. This is what our proposal defines as “EV Capable.” That will save money for owners and residents as EV demand grows because retrofits are far more costly than installing infrastructure during initial construction. **(ii)** All new multifamily construction projects should be covered by the requirements, not just buildings over 50 dwelling units. **(iii)** Clarify the load management provisions to require that, as individual EVs are charged to their planned limit (*e.g.*, 80-100%), the charging voltage to remaining chargers will increase up to their capacity until all EVs are fully charged over a typical night of charging. In that way, total charging needs can be met while limiting the aggregate peak power delivery requirements, since some vehicles will need as much charging and thus stop charging much sooner than others thereby enabling a shift of additional power to EVs still needing energy.

3. Although our September 18 Comments focused on energy efficiency proposals, **we also submitted a proposal (RB315.3-21) to improve health and safety of residences that combust fuels.**³ Regarding detectors, **RB315.3-21** would require that carbon monoxide (CO) and gas detectors be installed in each room in which combustion occurs (e.g., for stoves, furnaces, other combustion appliances). As the code already recognizes, CO is deadly and gas is combustible and explosive. As explained in the Reason Statement, each combustion appliance will emit CO, and, in recent years, gas leakage has been proven to be common in residences. The fumes and leaks are most likely to occur in rooms in which combustion occurs and valves and burners are located. Installing CO detectors only outside bedroom areas and garages does not adequately address the CO risk. And, the practice of adding an odorant to gas is inadequate when the residents may be in a room other than where the leak is and a faint odor, even if detected, may not be recognized before harm occurs. Also, loss of smell is a common side effect of Covid, rendering an odorant ineffective. Detectors with alarms are inexpensive, particularly compared to the harm that can occur. Combination detectors with alarms for CO and gas can be purchased for under \$100.

Respectfully submitted,

William Penniman

William Penniman

Kate West, Director

William Penniman, Sustainability Chair

Virginia Chapter of the Sierra Club

100 W Franklin St, Mezzanine

Richmond, VA 23220

Phone: 804-225-9113

Eric Goplerud, Chair

Faith Alliance for Climate Solutions

Andrew Payton, Chair

Climate Action Alliance of the Valley

Sharon Shutler, Co-Chair

Climate & Clean Energy Working Group, Virginia Grassroots Coalition

³ As indicated in footnote 5 of our September 18 Comments, we also submitted **REC-R403.1.4-21** which would restrict combustion to secondary or back up purposes, not for use as a primary heating source. That proposal is not limited to HVAC systems, but it is designed to protect health and safety, among other goals. Electric appliances are more efficient, less polluting, and safer than indoor combustion of fuels for residences. Thus, adoption would fulfill the statutory requirement that building codes protect the health, safety and welfare of residents while maximizing energy conservation. The switch to electricity as a primary heat source in all appliances would improve efficiency, but not do away with natural gas sales either for supplemental/back-up use on-site or for combustion by electric utilities to generate electricity used in residences.



YIMBYS of Northern Virginia
Public Comment: VA.R. Doc. R22-7022
Virginia Board of Housing and Community Development
For Meeting October 3, 2022
Submitted September 30, 2022

Update the Statewide Building Code to Allow for Single-Staircase Apartments

Thank you for your careful consideration of item R22-7022. I am Alex Goyette, Coalitions Coordinator and Local Lead for YIMBYS of Northern Virginia, a grassroots organization dedicated to addressing Northern Virginia's housing affordability crisis by addressing the region's severe housing shortage.

Northern Virginia faces a shortage of homes, rooted in low rates of housing production that have not kept pace with demand for housing as the region has added significant numbers of jobs. This has led to dramatic increases in housing costs, forcing residents of the region to choose between dedicating ever-larger portions of their household budget to housing, or severing their ties to their community and relocating elsewhere.

The high cost of housing in the jurisdictions nearest to Washington, D.C. has also led to rapid, sprawling development of areas farther out. This sprawl worsens traffic as people are forced into long commutes, exacerbates climate change through increased carbon emissions, and requires the development of Virginia's rural & agricultural land into housing.

The solution to these problems is to allow construction of more and denser housing near the region's economic hubs, allowing more people to live closer to their jobs, communities, and amenities without sacrificing their households' financial well-being. Permitting single-stair apartment buildings up to six floors in height would be a significant step in alleviating our housing crisis.

The existing requirement that buildings taller than three stories must have two staircases makes construction of more affordable housing more expensive, and in some places impossible. The increased cost of construction makes projects more difficult to build in the first place, and when they are built those costs must be passed on to renters or buyers in the form of higher housing prices. This harms families throughout our region. Existing requirements also limits where apartments can be built at all, as the larger buildings required by the current rule can be difficult or impossible to fit onto smaller or irregularly shaped plots of land.

Permitting single-stair buildings up to six stories would be a significant step in addressing Northern Virginia's housing shortage. It is a crucial part of making housing more affordable for Virginians.

Alex Goyette
YIMBYS of Northern Virginia
<https://www.yimbysofnova.org/>
hello@yimbysofnova.org



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

C B <cblough08@gmail.com>

Fri, Sep 30, 2022 at 12:30 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

Allowing this change is a positive move that'll allow architects to design more interesting buildings (fewer copy and paste modular 5 over 1 buildings we see now), help address our housing shortage, and improve property values and neighborhood vibrancy. Please approve the change to the regulations!



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Jane Green <jane.f.green@gmail.com>

Fri, Sep 30, 2022 at 12:32 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

We have a housing crisis. My rent went up 8% this year and I'm one of the lucky ones. Please take common-sense reforms that will help make building easier and less expensive. That means more affordable homes for young families like mine.

I support single-staircase apartment buildings, VA.R. Doc. R22-7022, to ease regulation and improve affordable housing.

Jane Green
Arlington, VA



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

Tom VanAntwerp <vanantwerp@gmail.com>

Fri, Sep 30, 2022 at 12:33 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

I'm writing to voice my support for allowing taller single-staircase buildings in Virginia. This is a perfectly normal space-saving design used without issue in many other parts of America and the world. In this time of housing affordability crisis, it's important that builders can make the most efficient use of the space available to them to bring more housing into the market. I ask that the Virginia Board of Housing and Community Development choose to support this measure.

Thank you,

Tom VanAntwerp
Alexandria, VA



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

Rebecca Lawrence <rebeccaholloway@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Fri, Sep 30, 2022 at 12:33 PM

To: Virginia Board of Housing and Community Development

I understand that you are currently considering a proposal to allow slightly larger buildings - up to six floors - to be built with a single staircase. I am fully in favor of this proposal. The solutions to our country's -- and our state's --housing shortage should include apartment buildings of all sizes, even on smaller properties. My Arlington-based company employs many junior employees who want to live in apartments and they simply aren't finding enough affordable apartments available, and they are choosing to move out of state and work remotely. I think we need to make sure we're allowing development of many more housing choices.

Many other countries already allow slightly larger buildings - up to six floors - to be built with a single staircase, including Austria, Germany, Switzerland, and the United Kingdom. This is already legal in places like Seattle and New York City. I have lived in smaller apartment buildings like this and think they can be an attractive choice.

Thank you for considering public comments in this process.
Sincerely,
Rebecca Lawrence
Arlington, VA, 22205

Rebecca H. Lawrence
tel: +1 240 398 6358
rebeccaholloway@gmail.com



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Michael Dranove <mdranove1@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Fri, Sep 30, 2022 at 12:47 PM

Hello,

I am a ffx county resident strongly in support of relaxing staircase restrictions for apartment building.

Sincerely,
Mike Dranove



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Patricia Findikoglu <patfindikoglu@gmail.com>

Fri, Sep 30, 2022 at 12:48 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

There is a housing shortage across northern Virginia. The more kinds of housing we allow to be built, the better. Renters, first time home buyers, those needing affordable housing, those without homes are all impacted by the shortage. Please make these changes to allow narrower buildings

Thank you,
Pat Findikoglu

Sent from my iPhone



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Charles Fagelson <max.fagelson@capitalone.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Fri, Sep 30, 2022 at 12:55 PM

Two staircases is a terrible, pointless regulation. Why are we making fine-grained urbanism illegal and driving up the cost of housing? If safety is actually a problem, a fire escape should be more than sufficient.

-Max

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Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Do not Support+Single-Staircase+Apartment+Buildings,+VA.R.+Doc.+R22-7022

1 message

Alex Stevens <arstevens04@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Fri, Sep 30, 2022 at 1:09 PM

Hi,

Please do not support single stair buildings. Sounds like a safety issue waiting to happen. In an emergency, I want as many ways out as possible. Creating more housing should not come at the cost of safety.



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Eli Lehrer <elehrer@gmail.com>

Fri, Sep 30, 2022 at 1:41 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

My name is Eli Lehrer. I have been a resident of Fairfax County for 15 years and, along with my wife, own a home on Fox Woods Drive in (unincorporated) Herndon. I'm writing to you in support of regulatory reforms that would allow single staircase apartments. I write as a concerned citizen and have no financial interest in this matter.

Other comments, I suspect, will provide more insight into the research on housing. And the predominant academic findings here are pretty clear: building more market-rate housing more cheaply has massive benefits for the communities in which it is built. Over the long term, a greater housing supply will reduce rents for those with lower incomes, moderate costs for new homebuyers, reduce commute times, improve environmental quality, and increase tax revenue.

I want to focus my comments, however, on the main argument *against* single staircase apartments, fire safety. In the past, when current regulations came into force, this may have been a legitimate concern. The United States, however, is thankfully in the midst of a long-term decrease in fire deaths just about everywhere. As the [National Fire Protection Association](#) finds:

"The 2021 overall estimate for total fire incidents was 55 percent lower than in 1980. Additionally, property loss, adjusted for inflation, was 20 percent lower in 2021 than in 1980.

"The 2021 estimate of total fire deaths was 42 percent lower than in 1980, home fire deaths were 50 percent lower, deaths in one- or two-family home fires were 47 percent lower, and apartment fire deaths were 66 percent lower.

"Because the US population has grown since 1980, population-based rates have dropped even more than the estimates have."

Fires have declined significantly here in Virginia. In fact, [only about 7 percent of all Virginia fire/rescue department calls even involve fires](#). And not all of these are working fires that require a hydrant hookup.

And a relatively new and well maintained housing stock coupled with a good fire service makes Fairfax County, the state's largest population center and place where one suspects many such buildings would be built, even safer. In 2021, indeed, Fairfax County [recorded only 3 accidental fire-related deaths](#) (five deaths in all). All such deaths are tragic but in a county with more than 1.1 million people, this accidental fire [death rate of less than .3 per 100,000 population is similar to the CDC's calculation of the population-wide death rate for falls from trees](#). In fact, accidental fire deaths are so rare in Fairfax County and the number of new buildings with single staircases likely to be small enough that I strongly doubt that *any* model could predict any decrease in public safety from this small, commonsense regulatory change.

The Board should approve this change without delay.

Respectfully Submitted,

Eli Lehrer
12690 Fox Woods Drive
Herndon, VA 20171
elehrer@gmail.com



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Chris Poch <chris@chrispoch.com>

Fri, Sep 30, 2022 at 1:47 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

I have stayed in single staircase buildings all over the world larger than allowed in Virginia today. I have never felt unsafe in any of them, and I strongly support allowing them in VA.

Chris
Vienna, VA



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Therese Chaplin <tchaplin@verizon.net>

Fri, Sep 30, 2022 at 1:58 PM

Reply-To: Therese Chaplin <tchaplin@verizon.net>

To: "publiccomment_codedevelopment@dhcd.virginia.gov" <publiccomment_codedevelopment@dhcd.virginia.gov>

Dear Virginia Board of Housing and Community Development,

Northern Virginia is in critical need of more affordable housing, and one way to close the gap is to allow single staircase apartment buildings to be built. We need more affordable units to house vital workforce, like police and teachers, so that they can live close to their place of employment and have a good quality of life. Please consider a proposal to allow slightly larger buildings - up to six floors - to be built with a single staircase.

Thank you, Therese Chaplin, resident of Fairfax County for 60+ years



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Comment on Proposed USBC Changes - City of Falls Church

1 message

Andy Young <anyoung@fallschurchva.gov>

Fri, Sep 30, 2022 at 3:21 PM

To: "publiccomment_codedevelopment@dhcd.virginia.gov" <publiccomment_codedevelopment@dhcd.virginia.gov>

Hello Members of the Board of Housing and Community Development –

My comments on the Uniform State Building Code represent the vision, goals and legislative priorities of the City of Falls Church.

For new construction, the City strongly supports the proposals that fully incorporate the 2021 International Energy Conservation Code without weakening amendments, specifically (EC-C1301.1.1.1(2)-21). We also urge approval of other proposals focused on installation of electric heat pumps, and readiness for electric vehicles, solar panels, and household appliances. Rigorous studies by the US Department of Energy, the Pacific Northwest National Laboratory, and ICF International, have concluded that the energy savings over time from the 2021 IECC will exceed the incremental cost of initial construction. The life-cycle cost savings from the 2021 IECC will make housing more affordable, which is a top policy priority for the City.

Adoption of the 2021 IECC will also provide important public health, safety, welfare and air quality benefits including:

- A healthier and more comfortable living environment;
- Increased resilience; and
- Reduced greenhouse gas emissions.

Many jurisdictions throughout Virginia, including Falls Church, have adopted goals to significantly reduce greenhouse gas emissions. Given that more than half of emissions result from buildings, an energy-efficient USBC incorporating the 2021 IECC is essential for the City to successfully achieve those goals.

In conclusion, the City of Falls Church urges the Board to fully incorporate the 2021 IECC without weakening amendments for new construction. We also urge approval of the proposals focused on installation of electric heat pumps, and readiness for electric vehicles, solar panels, and household appliances.

Thank you.

Andy

Andrew N. Young, Environmental Sustainability Coordinator

City of Falls Church

300 Park Ave, Falls Church, VA 22046

703-248-5297 (TTY 711)

571-581-9818 (mobile)

ayoung@fallschurchva.gov

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Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Jacob Creskoff <jjceskoff@gmail.com>

Fri, Sep 30, 2022 at 3:21 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

To whom it may concern,

I support measures to expand housing affordability in the Commonwealth, including the current proposal to lift requirements that multi family dwellings between three and six stories have two staircases. This seems a common-sense step to reduce the regulatory burden imposed by the state on developers and lower housing costs for Virginians.

Thank you,
Jacob Creskoff
Arlington, VA
jjceskoff@gmail.com
(703) 615-2956



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Brian Goggin <brgoggs@gmail.com>

Fri, Sep 30, 2022 at 2:21 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

Hello,

My name is Brian Goggin and I work in Arlington, Virginia. I am writing today to support changing Virginia's building code to allow for single-staircase buildings above 3 stories. This change would allow for more construction of housing, and more affordable housing, with no appreciable decrease in resident safety. As a resident of Washington, DC, I also have a vested interest in keeping housing affordable for our entire region and this measure would help do just that. I ask you to please approve the measure. Thank you for your time and consideration.

Sincerely,
Brian Goggin



Flanders, Kyle <kyle.flanders@dhcd.virginia.gov>

Board Meeting

Mike O'Connor <mike@vpcma.com>
To: kyle.flanders@dhcd.virginia.gov

Thu, Sep 29, 2022 at 5:08 PM

Good afternoon Kyle.

If possible, I would like to speak during the public comment period of the Board meeting Monday. I will be at a client meeting in Roanoke so I am not sure exactly what time I would be on but will endeavor to be on at nine for the entire hour. I would expect my comment to be less than one minute and to focus on two areas: The professional approach undertaken by staff and interested parties in the stakeholder process, as well as and our concern that section 107.11-21 is included in the consensus for approval section. I personally spoke up at the stakeholder meeting that this was the first time I had seen these proposed increases which were not vetted previously to those who would be required to pay. We believe that the merits of these increases should be subject to the same stakeholder scrutiny as the other changes being considered by the board.

If you could provide me the contact information, I would appreciate it.

Mike

Michael J. O'Connor, CAE

President

Virginia Petroleum & Convenience

Marketers Association

[7275 Glen Forest Drive – Suite 204](#)

[Richmond, Virginia 23226](#)

804-282-7534 office

804-484-9860 mobile



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Karina Ronstrom Beckmann <akrons@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Fri, Sep 30, 2022 at 3:39 PM

Please allow skinny staircase apartment buildings in Arlington. We need more and denser housing, and being able to build on smaller plots of land will help lessen the problem. Many European countries, and even NYC and Seattle, already allow these. Thank you!

Karina Beckmann



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Michael McCollum <mccollum12987@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Fri, Sep 30, 2022 at 4:53 PM

I live in northern VA and housing here is getting more and more expensive. In order to not become like California (and price out people who have lived here forever, people with disabilities, minorities, young people, etc) we want to build more housing. Not restrict it.

Saying you can't have apartment buildings with one staircase makes developers go from housing dozens of people to maybe making a duplex that houses 8. This drives up scarcity and prices for all of us.



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Zach Ferguson <zferguson.advocacy@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Fri, Sep 30, 2022 at 6:19 PM

Hello,

I wanted to write in strong support of legalizing single-staircase apartment buildings. My day job is as a government attorney that works on affordable housing issues and I constantly see the challenges of homelessness and spiraling rents and home prices.

I think this is an excellent idea. I can't say much original about it but I will share some excerpts from parts I find compelling:

“Instead of the long, dark corridors demanded by double-loaded staircases, single staircase buildings create community through their compactness.” Additionally, “When there is no cavernous hallway going straight through the middle of the building apartments can stretch from one side of the building to the other, enabling cross ventilation and sunlight on both sides of the unit.”

Like parking minimums and other building code requirements, the double-staircase mandate can have a powerful impact on housing affordability and construction costs. “Increased living space and lower construction costs translate to more affordable rents without any state subsidy required,” making it easier for private developers to build more affordable housing.

<https://www.planetizen.com/news/2022/05/117106-how-staircase-requirement-can-impact-housing-affordability>

Slate also has good coverage of this issue: <https://slate.com/business/2021/12/staircases-floor-plan-twitter-housing-apartments.html>

Thank you for your time and consideration.

Zachary Ferguson



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Daniel Weir <daniel.a.weir@gmail.com>

Fri, Sep 30, 2022 at 8:37 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

I support single staircase apartment buildings in Virginia. This change would remove recent barriers to building traditional, garden-style apartment buildings. These well-intentioned but fundamentally flawed regulations have not materially improved health and safety. They have, however, taken away a historically critical part of the housing supply landscape. Removing the well-intentioned but fundamentally flawed requirement that all apartment buildings have multiple staircases would make room for market actors to construct affordable new-build housing consistent with existing residents' expectations for their communities. It would remove obstacles to fixing Virginia's housing shortage.

Thank you for your consideration.

Sincerely,
Daniel Weir
Arlington, Va.



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Bradley Harmon <harmon.bradleym@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Sat, Oct 1, 2022 at 9:44 AM

Good morning!

Small single-staircase apartments are just as safe as their multiple staircase counterparts, are already legal across the country and the world, and will do a lot to advance affordable housing because they can fit on smaller or oddly shaped plots, and are cheaper to build. It's for that last reason that I'm writing today - in the midst of an intense housing shortage, we absolutely must make it easier and cheaper to build new housing, however it can safely be done.

Please, support the single-staircase measure.

Thank you,
Bradley Harmon
(214) 364-7336
Harmon.BradleyM@gmail.com



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

eleni.riris <eleni.riris@gmail.com>

Fri, Sep 30, 2022 at 8:45 PM

To: publiccomment_codedevelopment <publiccomment_codedevelopment@dhcd.virginia.gov>

Hello,

I am writing to express my support for the legalization of single staircase apartment buildings in Virginia. Given the housing crisis that we are currently experiencing it's very important that we take all actions possible to make housing more accessible and affordable to every citizen. This is a big step in the right direction and I hope that you all will make the right choice for working people in our state.

Best,

Eleni Riris
Arlington VA



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Matthew Larson <mdl Larson45@gmail.com>

Sat, Oct 1, 2022 at 1:01 PM

To: "publiccomment_codedevelopment@dhcd.virginia.gov" <publiccomment_codedevelopment@dhcd.virginia.gov>

Good afternoon,

I am incredibly excited to hear that single-staircase residential buildings are being considered for increased height allowance. This is a common-sense solution that will greatly benefit our housing supply issues, particularly in Northern Virginia where I live. Please pass this proposal so we can meet the housing needs of our state.

Warmly,

Matt Larson

Alexandria, VA



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Travis Stehouwer <travis.stehouwer@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Sat, Oct 1, 2022 at 3:04 PM

Hello,

My name is Travis Stehouwer. I live in Arlington and recently purchased a condo in the Ballston neighborhood.

In going through that buying process, finding somewhere to live was extremely difficult--and extremely expensive. Much of this is due to lack of choice and lack of supply in the housing market.

While there are tons of different factors to this issue, one is the high cost of construction. Requiring multiple staircases in small, mid-rise buildings contributes a substantial cost to the construction process and thus to the cost of the units within.

Yet, there is little to no demonstrable safety benefit to this second staircase in smaller, mid-rise structures. And this limits the size and increases the cost of these projects--often causing the project to be unprofitable, so small or midsize apartment or condo buildings simply do not get built.

Please allow single-staircase apartment buildings. Please allow more choice and lower cost in the Virginia housing market.

Travis Stehouwer



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting Single-Staircase Apartment Buildings, VA.R. Doc. R22-7022

1 message

Emily Larson <erlanson20@gmail.com>

Sat, Oct 1, 2022 at 5:42 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

Hi - I think this is a great idea. It would go a long way toward increasing the supply of smaller homes (which are amazingly hard to find), and doing so safely. This would allow more young families to enter the housing market. We happened to purchase our home last year and were blessed to find a small home (important because i actually can find time to clean it), but with interest rates climbing, many more young families are forced to keep renting. I love the single staircase idea for how it would enable these smaller, more affordable homes. Please pass this!



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporting+Single-Staircase+Apartment+Buildings,+VA.R.+Doc.+R22-7022

1 message

Sharon Livengood <shenandoahchatterbox@gmail.com>
To: publiccomment_codedevelopment@dhcd.virginia.gov

Sun, Oct 2, 2022 at 11:18 AM

Thank you for considering the code change that will allow modest sized apartment buildings to have a single staircase. Such designs have proven to be safe in Austria, Germany, Switzerland and the UK. The economic situation for many young professionals, blue collar workers and downsizing older citizens necessitates denser housing. Small apartment buildings offer a solution. The two-staircase requirement significantly adds to construction costs, without providing greater safety. Your constituents ask for a vote in favor of the freedom to create single staircase small apartments.

Sincerely,
Sharon Hawthorne



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Supporter of tall single-stair residential building development

1 message

Emmet Costen <emmet.costen@gmail.com>

Sun, Oct 2, 2022 at 5:31 PM

To: publiccomment_codedevelopment@dhcd.virginia.gov

Without development of outdoor entrance only apartment buildings or single-stair tall (3-6 story) apartment buildings, I would have simply not been able to afford rent in most places I've lived for the past 10 years. The only issue is, nearly all of them were built in the 1970s or earlier. I am a strong supporter of developing affordable housing that provides housing on the ground floor and eliminates the need for elevators and extra stairs to take up space that could be used to provide housing for more people. Housing prices have been climbing since the early 1990s because we simply haven't been building enough of it, it's time to fight homelessness and housing insecurity in the only way that will work, by building housing and a lot of it.

It's time to remove costly red tape like height restrictions, historical precedents, and zoning density limitations that pushes people towards homelessness by making housing a scarce resource and unaffordable for most. We need to incentivize developers to build in a safe but cost effective manner and we need to care more about our human neighbors struggling to afford a place to live than our own property values and put humans that are alive today over trying to "protect" the historical past.

Sincerely,

Emmet Costen



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Comment on Virginia USBC update

1 message

Jon Ward <jonward@hotmail.com>

Sun, Oct 2, 2022 at 6:24 PM

To: "PUBLICCOMMENT_CODEDEVELOPMENT@DHCD.VIRGINIA.GOV"
<PUBLICCOMMENT_CODEDEVELOPMENT@dhcd.virginia.gov>

Having read the September 18, 2022, comment letter submitted by the Virginia Chapter of the Sierra Club *et al.*, I am writing to endorse the entirety of that letter. I ask the Board to adopt and implement updated building codes that are at least as stringent as the 2021 IECC, including the proposals that were submitted through CDPVA by William Penniman and presented in the work group process.

- Jon Ward, M.S. Mech. Eng.
- [335 Riley St., Falls Church, VA 22046](#)
- 571-215-8981



Publiccomment_codedevelopment, rr
<publiccomment_codedevelopment@dhcd.virginia.gov>

Please Protect VA and Delete AFCI Exception Code Amendment

1 message

Amy Acton <amy@phoenix-society.org>

Sun, Oct 2, 2022 at 7:32 PM

To: "publiccomment_codedevelopment@dhcd.virginia.gov" <publiccomment_codedevelopment@dhcd.virginia.gov>

TO: VA Board of Housing & Community Development

FROM: Amy Acton, CEO Phoenix Society for Burn Survivors

DATE: Sept. 30, 2022

As the leader of one of the largest organizations in the U.S. that supports burn survivors – the Phoenix Society for Burn Survivors, which includes many members in Virginia, I am writing to the Board of Housing and Community Development to respectfully express my support for the **NEMA proposal RE3902.16-21** calling for the deletion of the AFCI “exception” amendment as you upgrade your building codes.

The “exception” amendment needs to be eliminated because it suggests that another device – a GFCI – can prevent electrical fires. In fact, that device is actually designed to prevent electrical shock and electrocution in wet areas of a home by detecting ground faults. According to the National Electrical Manufacturer’s Association and electrical experts, GFCIs simply do **not** do what AFCIs do. An AFCI detects and stops dangerous parallel arcing (or “arc” faults) in damaged wiring within walls or damaged electrical cords, thereby preventing an electrical fire. To remove AFCI expansion from the requirements would be a serious mistake.

If Virginia moves forward with the current “exception” amendment that is based on false and confusing information, it will allow homes to be built and renovated without AFCI expanded protection under current National Electrical Code requirements and that will put people’s lives at risk of future electrical fires. I am an electrical burn survivor myself and I join others in Virginia and nationwide in supporting strong electrical and construction codes that protect people from burn injuries and worse. I know the decisions you make are extremely important to those who depend on you to do the right thing when it comes to supporting requirements that protect lives and ensure the safety of Virginians. This is one of those moments when the stakes could not be any higher. What you decide will impact home construction for years to come. I know that all of you value public safety and we humbly ask that you treat this issue fairly and approve the proposal **RE3902.16-21** to delete the AFCI “exception” amendment now, so Virginia families are not unknowingly put at risk in the future.

Please support the proven fire prevention technology of AFCI requirements and remove the “exception” amendment from consideration in the code.

Sincerely,

Amy Acton

RN, BSN, CEO – Phoenix Society for Burn Survivors

Amy Acton

Chief Executive Officer



525 Ottawa Ave NW, Front
Grand Rapids, MI 49503

616.458.2773 | 616.304.2262 (mobile)

www.phoenix-society.org

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