

# MUNICIPALITY OF ANCHORAGE

DEVELOPMENT SERVICES DEPARTMENT



Building Safety Division

September 22, 2020

Dear Huffman-O'Malley Community Council Members:

We write in response to your letter to the Assembly dated September 18, 2020, concerning AO 2020-85. We appreciate your interest and concern about proposed changes to the adopted building codes and the process undertaken. We offer clarification and additional information.

Building code updates are a process done every three to six years in every jurisdiction across the nation. Through a collaborative process of industry, code officials, academia, and government agencies like FEMA, the family of national building codes are updated to make sure best practices are being adopted and followed for building safety. The benefit to society is beyond theoretical. FEMA has found that every dollar invested in complying with the 2018 code standards saves \$11 in damages from catastrophic events. In Anchorage, federal and state officials working with UAA determined that damages from the November 2018 earthquake were five times higher in areas not inspected by municipal employees for compliance with building code standards.

As a jurisdiction, we are evaluated by the independent Insurance Service Office, established by the insurance industry, for compliance with the latest building code. Our current three rating for commercial construction means that commercial property landowners can receive a ten percent discount on their insurance coverage for property damage based upon insurance company filings with the State of Alaska Division of Insurance. With our next ISO evaluation in 2021, delay in updating Title 23 threatens this discount for commercial property owners in the Municipality of Anchorage for new construction; we do not support increasing the cost to our local businesses by such delay. Note: because of a change in Title 23 in 2016 allowing for independent third-party review of building plans to determine compliance with the life safety provisions of the building codes, this discount is not available to new residential construction. We do however propose a modification that would retain the industry-desired third-party plan reviews but also, we hope create a pathway for homeowners to get a comparable discount to that commercial property owners receive.

After the current national codes were updated, these codes underwent a review process at the local level to modify these codes so that they make sense for Anchorage. The local code committee for each building code reflects a cross section of local engineers, contractors, and municipal building safety staff. Please see the attached list. They have done the very in-depth analysis requested in item 1 of your letter with culmination in two public hearings in June and July. Additionally, there has already been an Assembly Work session in August as a third public hearing.

AO 2020-85 does not create a mandatory requirement for sprinklers in new residential construction. Although the International Code Council model residential code does create such a mandate, the Title 23 update does not follow the national best practice and continues the Anchorage approach of placing additional risk on the building occupants of residential construction. Specifically, the proposed code provision offers an automatic sprinkler system as an *option* to address existing code requirements reflected in Section 507.1 of the 2012 International Fire Code which is currently adopted by the Municipality of Anchorage:

Homes built in areas where adequate and reliable firefighting water supply is not available the options are:

1. Extend public water utility supply (IFC 507 & Appendix B)
2. Provide an NFPA 1142 compliant private water supply system (ie, reservoir, drafting site, hydrant system) IFC Appendix B103.3
3. Construct homes in accordance with the Wildland Urban Interface Code (WUI) which involves defensible space and ignition resistant construction. Also IFC Appendix B103.3

The proposed amendment would be a new 4<sup>th</sup> option in lieu of these existing options

4. Provide automatic sprinkler system

As we develop more and more in outlying areas of the Municipality it becomes even more important for fire response and fire extinguishing resources to be part of the development equation. No matter how safe we believe our homes are, unfortunately most residential fires are still caused by human error. Cooking, smoking and use of candles account for more than half of all home fires. Heating and electrical problems account for another 20 percent. With flashover conditions occurring in under 5 minutes, by the time fire suppression resources arrive much of the home can already be involved. On a dry or windy day this could easily transition to multiple structure involvement or a wildland fire.

The data on sprinkler efficacy is compelling. An NFPA study found that they reduce the risk of death by 85%. Where Scottsdale, AZ, has mandated sprinklers, a study found no loss of life in 15 years. It is also reflected in homeowner insurance savings. Given that sprinklers reduce fire damage by 97% and limit the damage to one room on average, there is an obvious reason on how the insurance company has a source from which to pass on savings. Overall, 90 percent of the time the activation of a single sprinkler (and sprinklers only activate by zone of the fire, not all at once), is sufficient to control the fire. Given that home fires become deadly within 2-3 minutes due to modern building materials and furnishings and more open designs while discovery of the fire, calling 911 and arrival of fire response crews will occur rarely in this timeframe, the difference in being sprinklered is literally one of life and death. Admittedly, there is additional cost to adding this lifesaving equipment to a home. In the interest of affordable housing, we would be interested in exploring a reduction of sprinkler permit fees for this important life-safety consideration and hope the builders would in turn likewise waive their customary mark up on this feature.

Contrary to some anecdotal comments, surveys of homeowners show that sprinklers increase value. Seven in ten homeowners said a sprinklered house has more value. 74% of homeowners said they would be more likely to buy a house with a fire sprinkler than one without. (Harris Poll Survey). In states that have adopted the national standard for sprinklers in homes, 94% of the homeowners had a positive view for the associated sense of improved life safety.

We do not see where updates or remodeling of existing homes are going to create a new requirement for access to fire water. Although many cold climate jurisdictions require sprinklers,

as the Municipality of Anchorage does for most commercial occupancy types, sprinkler functionality is not related to regulatory requirements. In fact, there are thousands of sprinkler systems already in place in Anchorage which are not degraded by cold weather and in fact offer important life-saving capability when icy roads may impair response to a fire.

The existing code provisions address the consideration of additional options you mention in your letter. AO 2020-85 just adds another option in the form of sprinklers. Incidentally, we share your concern about adequate egress routes for subdivisions, both new and existing. Refer to the discussion above about fire response and fire extinguishing resources included in the development equation. (*IFC Appendix D107 1 and 2 Family Developments (access roads)*)

AO 2020-85 is consistent with the Anchorage Climate Action Plan. It adopts the 2018 International Energy Conservation Code for commercial construction. It also adopts new conservation provisions for residential construction.

Sprinkler provisions such as the one discussed above reduce house fire emissions by 99% by extinguishing the fire in its infancy. By greatly reducing the potential for a house fire to spread to wildland fuels and become a wildland fire threatening hundreds or even thousands of structures as higher summer temperatures with less rain exacerbate the risk, sprinklers achieve an exponential reduction in fire emissions.

AO 2020-85 would also require a “rough-in” to accommodate electric vehicle charging stations in the future for new residential construction. Based upon Anchorage’s experience with unsafe and then costly post-construction modifications to accommodate block heaters, this new provision avoids the same mistakes for a typical cost of \$100 per new home. The building code also continues to have specific windzone building requirements. The building code continues to provide accommodation for utilization of different safe and durable exterior materials, safe installation and grid-separation of standby generators as mentioned in the article in your letter but does not mandate them and their additional cost. For other items like mandating low-profile construction, systemic planning for wildfire, avalanche and flood risk, and additional/new roles for designated public space such as parks and public spaces, they would need to be addressed in Title 21, not Title 23. In that many of these provisions increase the cost of new construction, we frankly anticipate push back in any attempt to make them mandatory.

Please feel free to contact us with any questions on this ordinance. If you desire, we are also available to attend your council meetings when specific Title 23 issues are the topic of discussion.



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