VIA E-MAIL

May 10, 2022

Todd Beyreuther; Technical Advisory Group Chair
Building Code Technical Advisory Group
Washington State Building Code Council
PO Box 41449
Olympia, WA 98504

Mr. Chairman,

The Washington Aggregates and Concrete association represents over 180 statewide members in the construction material products industry including concrete, cement, and cementitious materials as well as businesses that service and supply our industry

On their behalf, thank you for this opportunity to express our strong concerns with the proposed code changes represented in 21-GP2-096 as they apply to concrete and steel building materials.

It is obvious and disappointing the council did not attempt any focused or broad outreach to the design, construction, and material supply stakeholders the proposal is attempting to arbitrarily regulate.

Had a reasonable amount of outreach and discussion been considered; the council would have received clear and substantial input to realize the proposal does not consider nor understand the relationship and contributions of these building materials necessary for the design and constructability of commercial structures and their roles in achieving measurable emission reductions. As proposed, the language restricts and ignores the dynamics and wide range of performance criteria concrete and steel construction contribute to the constructability of a project and construction schedules to meet Owner requirements, public or private.

As proposed, the changes are inconsistent and in conflict with the stated purpose objectives and standards as prescribed in RCW 19.27.020

The proposed standard limits the maximum performance of concrete materials to achieve emission reduction potentials in concrete construction. This one size fits all approach to arbitrarily lumping emission thresholds over broad classes of mix designs results in the reduction and the availability of mixes and performance necessary to meet specific design and construction schedules.

The arbitrary limits in the proposal do not represent nationally accepted standards as they are presented as stand-alone criteria not found in national standards. The LEED rating system is a good example of a non-prescriptive set of evolving national standards to meet desired emission reduction goals. In contrast to the proposed code changes, it provides for and encourages performance standards to allow for innovative uses of materials with the ability to exceed emission reductions and environmental expectations.
The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

1. To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire, and life safety.
   - The proposal code changes do not incorporate any accepted standards for concrete materials as they may apply to and do not address fire and life safety in commercial construction.

2. To require standards and requirements in terms of performance and nationally accepted standards.
   - As written, the proposal is derived based on a limited set of data representative of the greater Seattle, Puget Sound and King County area. This data is not representative of all metro and rural areas across Washington state and the changes simply intend to overlay what is achieved in the Puget Sound statewide. Very illogical as not all markets are the same and one size does NOT fit all.
   - These values cannot be relied upon to be readily available or obtainable in all communities or counties in Washington. They do provide a new lower level of minimum performance expectations as they limit the maximum potential of emission reduction concrete mixes can provide in a given local market area with locally readily and available materials and construction methods.
   - Very simply, proposal 21-GP2-096 is specifically designed to create a preference for a certain class of products by limiting the range of concrete mixes that would be available for construction. These are subjective and arbitrary criteria.

3. To permit the use of modern technical methods, devices, and improvements.
   - The proposed criteria does not enhance the use of modern technical methods, devices, and improvements as it establishes restrictive limits on concrete material performance, takes away the incentive for material and mix design innovation in material selection, and does not promote collaboration with design and construction objectives to meet or exceed project specific construction techniques.
   - Concrete performance will be reduced by establishing arbitrary and prescribed carbon thresholds over broad categories based solely on the strength of concrete mixes. It completely ignores the many dynamic properties of concrete beyond strength to enhance design and construction means and methods.

4. To eliminate restrictive, obsolete, conflicting, duplicating, and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
   - The proposed is clearly inconsistent and in conflict with this provision. Instead, it mandates unnecessary regulation on the performance of materials and limits design strategies and innovation. As a result, it will increase construction costs, increase cost to concrete suppliers to implement the needed analysis on their manufacturing operations to meet the standards. Each plant is different with different local market conditions that need to be taken into consideration. This is a time-consuming process and one that will significantly impact rural markets and potentially limit or eliminate sources of supply.
   - RCW 19.27.020 constrains the council from providing preferential treatment to types or classes of materials, products, or methods of construction.
Council bylaws; Role of the TAG; Item #6:

- “When reviewing proposed amendments to the codes, Technical Advisory Groups shall identify proposed changes that may have an economic impact on small businesses, housing affordability, construction costs, life-cycle costs, and the cost of code enforcement and shall report those findings to the Economic Impact, Enforcement, Correlation and Construction Committee”.

- Item 8 indicates there is no economic impact as a result of the proposal and does not recognize or ignores the significant cost the proposed code changes will have on material suppliers. This includes the need to consider alternative designs based on reduced performance characteristics and construction methods to meet defined construction schedules.

- All costs are passed on.
- All projects will experience increases costs to design, construction, and material supply.
- Reduced performance characteristics will reduce concrete life cost advantages in reduced durability, abrasion resistance, and most importantly seismic performance.
- It is not sufficient for the TAG or council to apply a generic or general assumption of the increased costs in construction, impacts to life cycle costs and reduced service life for structures. Each application in a given environment will need to be considered accordingly and a full value reduction and increased cost analysis will need to consider design and construction cost impacts as well.

Other factors the proposed code changes ignores;

- The concrete industry is a net importer of cement and cementitious materials from neighboring and regional states, Canada and imported sources. This is not a short-term supply chain limitation. It is the long-term condition of material supply in Washington as new sources and manufacturing plants will not be built in the foreseeable future. This includes fly ash and slag cementitious materials. The closure of Centralia Trans Alta fly ash sources forces supply from Canada and regional states. Even these supplies are of limited availability.

The Council is advancing a procurement-based proposal that has been submitted to the legislature unsuccessfully over the last four to five sessions. Each time it has been vetted and not passed by the legislature. These bills have been overly complex, not supported by public construction agencies as being costly to implement and ignores the driver in construction…. schedule. The legislature has clearly indicated they do not support forced procurement Bills.

In 2021 and 2022 sessions, the legislature requested a Construction Advisory group to provide specific deliverables and education on how the construction and design communities would implement Environmental Product Declarations and emission education strategies.

The code council would be clearly rushing ahead to implement self-serving procurement strategies of outside others that have already been rejected and not adopted as code at the federal level and not adopted as presented in recent hearings in Denver. The council would be ignoring the clear and consistent history of the legislature rejecting procurement policies applied to building materials.
We urge you to not consider the proposed code changes in 21-GP2-096 and recognize this is an issue of legislative authority and not one the council takes up simply because outside interest makes a submittal to the Council.

Sincerely,

Bruce Chattin
Executive Director