

Should building codes require windows for occupant health?

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Buffalo Public School #69 Houghton Academy maximized daylighting using INvent™ Series project-out windows from Wausau Window and Wall Systems. The modern windows feature Technoform's polyamide thermal barrier for energy efficiency, structural performance and long-term durability.

Image Credit: Buffalo Board of Education, Christine Hentz

In March, we wrote about additional research that underscored the importance of daylight and views for human health and cognitive function and raised the question as to whether our building codes, the purpose of which are to ensure building occupants' health and safety, should require a minimum window area to support the health of occupants.

The International Building Code (IBC) states that its purpose is to "provide a reasonable level of safety, public health and general welfare" and mentions "adequate light" as one of the mechanisms for

achieving this. Although currently there is no language in this code regarding the public health issue related to lack of daylight and views in buildings, it seems that adding provisions for daylight and views in the IBC would be consistent with its scope and purpose.

Coincidentally, since we first raised this potential opportunity, a code official from North Dakota submitted a proposal for the most recent revision of the IBC in which classrooms and daycare facilities would be required to have windows. His rationale was based on the mounting evidence of the impact of daylight and views on the learning outcomes of children and the need to make sure that learning environments have sufficient daylight. Unfortunately, because there were some flaws in how the proposal was structured, the IBC committee voted against the proposal in the spring. However, they did convey that they supported the basis for it.

In the subsequent public review period, the Glazing Industry Code Committee submitted a comment in support of the proposal, but the chances of the code officials overturning the committee vote at the final action hearings are slim. That said, a door has been opened to continue the dialogue and develop stronger proposals for the next version of the IBC.

In recognition of the opportunity to create a step change in how our building codes manage window area, at the National Glass Association's (NGA) fall conference during GlassBuild America, the newly formed advocacy committee agreed to create a task group focused on engaging other stakeholders and garnering input to develop a new proposal related to windows for occupant health for the next IBC revision cycle.

We know that code changes, especially ones that incorporate new ideas, take a long time to pass, but if we don't take the lead, these changes may never happen. The group discussed engaging groups such as the U.S. Green Building Council, the International Well Building Institute, the American Institute of Architects, the International Association of Lighting Designers, as well as partnering with other groups from the fenestration industry.

Having such a requirement would be a backstop against the continuing downward pressure on window area from the model energy codes. As energy codes become more stringent, designers will be faced with the choice of either using less fenestration or using better performing fenestration. A requirement for a minimum amount of glazed area will help to encourage the latter and provide a minimum level of indoor environmental quality to promote the health of occupants.

The NGA advocacy task group is looking for people to participate in this work. If you are interested in moving the dialogue forward, please email me directly at helen.sanders@technoform.com or contact the staff at NGA at <https://www.glass.org>.