AIA Dallas Position Statement Regarding the City of Dallas Proposed Section 424 Attenuation of Solar Reflectivity Impact on Neighboring Properties

The Dallas Chapter of The American Institute of Architects is the professional membership organization representing nearly 2,000 architects in the Dallas area. Outlined below is our response to the proposed Dallas Building Code amendment referenced in the title of this paper. AIA Dallas applauds the desire to institute a “good neighbor” regulation that is intended to minimize impact of future development on its neighbors. However, this particular regulation has considerable potential to negatively impact the architecture of the city and people who own and occupy these buildings.

Section 1.1.1- In trying to optimize a building’s energy performance, indoor comfort, and aesthetics, architects strive to find the right balance of exterior reflectance, solar heat gain coefficient, interior day-lighting levels, and exterior appearance. The proposed maximum exterior specular reflection of 15% is too low and the complexity of reflectivity goes well beyond referencing an exterior reflectance percentage limit. It is further complicated by the existing requirements of the adopted Dallas energy code.

When the reflectivity limitation is combined with the existing energy code performance requirements for glass, we estimate that glass options available to development teams are reduced by approximately 60%. Even more alarming is that most of the remaining options are dark or tinted glass types that greatly limit the amount natural daylight transmitted to the interior of the building. This makes the indoor spaces darker and eliminates the ability to minimize the use of artificial lighting - thereby increasing the energy consumption of the building. Of the 258 insulated glass options available to us through one major manufacturer, only eight options met the combined criteria for reflectivity, energy code, and industry recommended visible light transmittance. Of those eight options, all but one was a colored or tinted glass. A very likely outcome of this proposed regulation would be dark or color-tinted glass (i.e. Miami), higher energy costs, and darker indoor environments.

Section 1.1.2- The performance option is extremely broad and almost impossible to test. How can you test over a years’ time the potential impact on any pedestrian, plane, car, building, plant, or any adjacent areas? All glass reflects light. How do you determine what is an acceptable level where there are no nationally accepted standards? The potential for litigation is significant and a much tighter definition needs to be developed for what is a damaging level of reflected light. AIA Dallas also questions why the proposed performance studies could not also be performed by registered Texas Architects.

This issue is foundational to our industry and will so drastically affect the look and feel of our community that it deserves much more study and participation by all stakeholders. AIA Dallas does not believe there is enough time in the current adoption schedule to adequately vet the issue and craft a reasonable code solution.

Kirk Teske, AIA
AIA Dallas
2013 President