Florida Roofing & Sheet Metal Contractors Association, Inc.

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To: Mo Madani and Jeff Blair, Florida Building Commission

From: Lisa Pate, FRSA Executive Director

Date: January 31, 2018

Re: Expanded Mandatory Lightning Protection Requirements

The members of the Florida Roofing and Sheet Metal Contractors Association ("FRSA") oppose the proposed code modifications to the Florida Building Code ("FBC"), expanding the requirement to install lightning protection systems on new and existing commercial and residential structures. Currently, lightning protection systems are only required by the FBC to be installed on hospitals, nursing homes and schools. FRSA believes the owners of the buildings that will be affected by the proposed code changes should have the option to install a lightning protection system on their structures. Further, FRSA does not believe that the owner should carry the burden to disprove the need for a lightning protection system by performing a preconstruction "Risk Assessment," as proposed by the code modifications.

Most lightning protection systems for buildings are located on the roof, so roofing contractors are regularly involved in coordinating the installation, removal, and reinstallation of these systems. Sealing the roof penetrations caused by the lightning protection systems and preparing the roof covering for the attachment of lightning protection components is part of the roofing contractor's scope of work. Many building owners go to great lengths to limit the number of roof penetrations when planning for construction or the reroof of an existing building to decrease the likelihood of future leaks. Requiring the installation of a lightning protection system would result in a substantial amount of penetrations in the roofing system, thereby increasing the likelihood of leaks in the building.

The cost for these systems is also a concern. Prior to making the changes, a long-term cost analysis should be performed that analyzes the overall cost and incorporates the cost of removing, reinstalling and recertifying the system for reroof projects. The cost of this work often exceeds the original installation price. One claim presented in the proponent's supporting documents suggests that up to 80% of the cost of the system can be recouped by insurance discounts. It is hard to imagine a scenario where this would be true using the 2% annual rate reduction shown in the supporting documents, particularly when you factor the need to reroof a

building every 15 to 20 years. These expanded mandatory requirements would certainly boost the lightning protection industry's sales volume. However, in light of the shortage of skilled workers in Florida, we do not believe there is enough manpower to perform the work properly even assuming the modifications were passed.

The proponent's supporting documents attempt to demonstrate a need for expanding the lightning protection system requirements based on the overall cost of insurance claims related to or caused by lightning. There is little information to support the contention that the new lightning system requirements will reduce the amount of claims made, reduce insurance premiums, or reduce the overall costs of the building, especially when compared to the increased costs to provide and maintain the new lightning protection system. Perhaps, a revised insurance underwriting criterion may reduce the insurance industries' cost concerns.

Assuming that life safety is the primary reason for the proposed changes, the proponent's supporting documents show that, on average, approximately 13 people per year were killed in Florida between 1959 and 1993. There is no data, however, to demonstrate how many of those people, if any, were killed while they were occupying a structure. It is likely that most of these individuals were struck by lightning while participating in outdoor activities. More recent data (2007 – 2016) shows that the average for lightning-caused deaths in Florida is closer to 5 deaths per year. In a study titled "Lightning-Caused Deaths and Injuries In and Near Dwellings and Other Buildings" (Holle 2008), it was found that only 4% of lightning caused deaths were in the "Indoor" category.

There does not appear to be sufficient supporting data to make an informed decision or to place such a burden on owners of property and the construction industry in the state of Florida. Consequently, FRSA opposes the proposed changes to the Florida Building Code.