



## Immediate Release

### – New TIF White Paper – Intended Use of Structures with Emphasis on Small Cell: 2020 Update

As our industry seeks to support societies ever growing desire for communications infrastructure it is becoming more common to have telecommunications equipment mounted on a structure that was not originally designed for a telecommunications application. When multiple new uses impact a structure, it can be difficult to discern how to properly apply design standards when performing a comprehensive analysis of all structures impacted by the deployment of the telecom equipment.

The intent of this TIF White Paper is to aid stakeholders within the telecommunications industry in understanding how to determine the intended use of the underlying structure and the proper application of engineering standards when performing a structural analysis on multiple structures with differences in their intended use. Whether it be right of way structures such as light poles, or structures comprised of non-traditional materials (FRP), this white paper provides insight into which standards govern various aspects of the analysis and how to ensure that the intended use is properly accounted for.

This TIF White paper places a strong emphasis on small cell applications where the supporting structure may not have been intended for this purpose. With the rapid deployment of small cell equipment, often on structures with an intended use outside of telecom, there is often misunderstanding of how to properly apply the governing codes and standards. This results in inconsistency not only in analysis results across engineering firms, but also in different guidance amongst jurisdictions and regulatory bodies.

It is believed that this white paper will help people involved in the planning, deployment, regulation, and maintenance of telecommunications equipment to assess structures for the application of this equipment and ensure that the intended use is properly considered.

The working group of the Telecommunications Industry Foundation (“*TIF*”) that developed this White Paper included members from multiple industry Stakeholders. Engineers, Structure Owners, end users, and Manufacturers came together to pool their knowledge for the benefit of the industry. This paper is meant to generate a dialogue between various stakeholders in the industry. TIF encourages feedback and input to update the paper as circumstances arise. This paper intends to do the following:

- Outlines a logical approach to the determination of the governing design standards to be utilized in the design of telecommunications installations and the analysis of the underlying multi-use structures.
- Guides a reader on how to determine the intended use of the structure
- Discusses the important role of the structure owner in defining the underlying use of the structure
- Details the importance of the ANSI/TIA 222 standard to quantify the telecommunications infrastructure and how to relate this information to be used in other standards based on the intended use of the structure.
- Communicates the need for the engineer to be knowledgeable and apply not only the ANSI/TIA standard but also the other standards that may apply to the intended use of the structure while understanding the owner’s designation.



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- Finally, this white paper outlines some example workflows based on telecommunications infrastructures that have varying intended uses.

“As our industry sees an ever-increasing deployment of small cell structures to support the 5G network, this White Paper provides timely and expert guidance from practicing professionals within the wireless industry. This well-written guide provides a wealth of information and advice useful to engineer, network operators, owners, and jurisdiction authorities. I recommend this White Paper as a useful guide to those professionals tasked with the design and deployment of 5G systems.” David Hawkins – Paul J. Ford and Company

This document is available for download from [TIF Website](#)

The Board of Directors for TIF and this white paper committee, support feedback to bring to industry a means for educating and for information sharing through a portal on its website, [tifonline.org](#).



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