

EXHIBIT M



Figure 2 - Hammer Fall from Tower

In order to protect the public, a radial “fall distance” is generally specified from the tower with respect to public access areas. This radius should be flexible based upon circumstances (e.g. the nature of the land and the likelihood of public egress), but it should be certified by a competent engineering study.

Tower structures are specified by the industry-developed TIA/EIA 222-F standard; this is the only "complete" standard with respect to towers in that it deals with all manner of load, ice and wind conditions. The EIA-222 standard, which is periodically updated (the current revision is “F”, the next revision, due next year, will be “G”), should be utilized by engineering personnel to ensure the safety of the public, since they are more rigorous than the corresponding BOCA or Civil Engineering standards which do not specifically refer to tower structures.

Specifying other standards in addition to EIA can create conflicts. For instance, the EIA standard calls for a two hundred percent safety margin for some tower components. The corresponding structural standard permits a safety factor of one hundred sixty percent, and in some cases, only one hundred twenty-five percent. The single exception to this rule are the standards promulgated by Wisconsin DILHR, which are designed to work in tandem with EIA-222, and result in a new structure which is approximately 30% stronger than would otherwise be the case. This is good for a new structure, but the DILHR rules also conspire to reduce the number of additional co-located carriers which can be placed on *existing* structures, thereby aggravating the site shortage referred to in Section 1.2.

An important issue with respect to tower safety is ice loading. Typically, cell towers are designed to survive winds of 73 miles per hour with ½” of radial ice. While this specification does not violate the EIA standard, it represents a set of conditions which has been realized more than once within the last 20 years. However, it is precisely these types of overstress conditions which are contained within the 200% EIA and 30% DILHR safety margins. For properly