

January 23, 2017

Nika A. Aswegan, MCPM
US Cellular
Project Manager Engineering
Central Region Network Deployment
4201 River Center Ct. NE, Ste 101
Cedar Rapids, IA 52402

RE: 100' Monopine (106' to top of branches) for Waukesha Airport II, WI (Sabre #155276)

Dear Nika A. Aswegan,

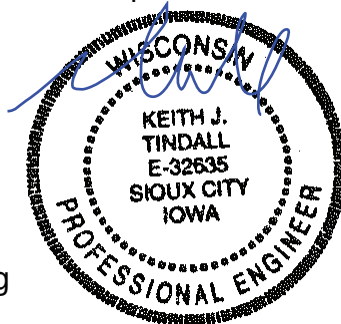
As shown in our Structural Design Report #155276 Revision A dated January 23, 2017, the above referenced Sabre monopine has been designed for a Basic Wind Speed of 90 mph with no ice and 40 mph with 3/4" radial ice, Structure Class II, Exposure Category C and Topographic Category 1 in accordance with the Telecommunications Industry Association Standard ANSI/TIA-222-G, "Structural Standard for Antenna Supporting Structures and Antennas".

When designed according to this standard, the wind pressures and steel strength capacities include several safety factors, resulting in an overall minimum safety factor of 25%. Therefore, it is highly unlikely that the monopine will fail structurally in a wind event where the design wind speed is exceeded within the range of the built-in safety factors.

Should the wind speed increase beyond the capacity of the built-in safety factors, to the point of failure of one or more structural elements, the most likely location of the failure would be within the flanged connection at the 81' level. Assuming that the wind pressure profile is similar to that used to design the monopine, the monopine will yield at the location of the highest combined stress ratio within the flanged connection. This is likely to result in the portion of the monopine above "folding over" onto the portion below, essentially collapsing on itself. **Please note that this letter only applies to the above referenced monopine designed and manufactured by Sabre Towers & Poles.** In the unlikely event of total separation, this will result in collapse within a radius of 22.5 feet.

Sincerely,

Keith J. Tindall, P.E.
Vice President of Engineering



1/23/17