



1 Fairholm Avenue
Peoria, IL 61603 USA
Phone: (309)-566-3000
Fax: (309)-566-3079

November 25, 2024

Hemphill LLC
1305 N. Louisville Ave.
Tulsa, OK 74115

Attn: Matt Kline

Reference: 195ft Tapered Steel Pole
Site: Clamshell, Crow Wing County, Minnesota
Quote Number: Q24-11198

Dear Matt,

The referenced Pole will be designed to meet the specified loading requirements in accordance with ANSI/TIA-222-H for a 109 mph 7-16 Ultimate Wind Speed with no ice and a 50 mph 3-second gust wind speed with 1.0 inches radial ice, Risk Category II, Exposure Category D, and Topographic Category 1.

It is our understanding that the design of the referenced Pole requires consideration of a contained fall radius in the event that a catastrophic wind speed would result in collapse. Although the Pole will not be designed to fail, stronger sections than required by analysis will be provided in the lower sections of the Pole. This will result in an increased safety factor in the lower sections of the Pole. This design will enable the Pole to fail through a combination of bending and buckling in the upper portion of the Pole under a catastrophic wind loading. Failure in this manner would result in the upper portion of the Pole folding over the lower portion, resulting in a fall radius no greater than 60 feet.

Please contact us at your convenience should you have further questions concerning the safety of Pole structures or other aspects of Pole design.

Kindest Regards,

Stephen Yeo, P.E.
Director of Engineering

<u>Professional Engineer</u>	
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.	
Signature:	
Typed or Printed Name: Stephen Yeo	
Date:	11/25/2024
License Number: 42234	

Products for a Growing World of Technology®