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June 16, 2021

Ms. Meg Nelson Chair, Zoning Board of Appeals Town of Essex 30 Martin Street Essex, MA 01929

RE: Balloon Demonstration

Proposed telecommunications installation at

65 & 73 Eastern Ave Client Reference: MA-044

Dear Ms. Nelson:

The following information has been provided on behalf of Tower North Development, LLC. for the proposed wireless communications facility at the above referenced location.

- My name is Scott N. Adams. I am a licensed professional civil engineer in the Commonwealth of Massachusetts with registration number 46006.
- 2. I am an independent consultant under contract by Tower North Development, LLC at 95 Ryan Dr, Suite 1, Raynham, MA 02767. My job responsibilities include providing professional engineering services for the design and construction of wireless facilities.
- 3. On August 28, 2020, (2) two representatives from Advanced Engineering Group, PC (AEG) performed a balloon test demonstration at the above reference location. Weather conditions were partly sunny with mild wind conditions and an average temperature of 75 degrees. Visibility was clear. AEG was instructed by client to fly (1) balloon at 150 ft AGL from 10:00am to 2:00pm. The balloon took flight at approximately 9:53am and ended at 2:10pm.
 - Tower center and lease area corners were staked in the field by AEG survey crew prior to balloon test.
 - Balloon diameter was confirmed at 3.5ft.
 - Additional pink ribbons were place at elevations of 140ft, 130ft, 120ft, 110ft and 100ft. This allows for additional scale reference points and wind direction.
 - · Balloon elevation was confirmed prior to flight by measuring string length in parking area, and
 - marking length at 150ft.
 - Balloon elevation was confirmed during flight by use of laser electronic measuring devices (Leica Disto & Trupulse 200).
- 4. One representative from AEG stayed at balloon location while the other AEG representative performed the viewshed analysis photos. During the viewshed process, the representatives stayed in communication with each other to determine the optimum time to obtain the photo evidence (when the balloon was at its approximate peak and steady). This process allowed for the most accurate representations possible with a balloon test.

Should you have any questions please contact me at 508-989-7979. Very truly yours,

Scott N. Adams, P.E. Advanced Engineering Group, P.C.

