CENTEK engineering

Centered on Solutions℠

January 3, 2017

Ms. Lauren Groppi
Site Acquisition Manager
Empire Telecom USA, LLC
16 Esquire Road
Billerica, MA 01862

Re: Structural Letter ~ Antenna Mount
AT&T – Site Ref: CT2102 Greenwich Perryridge Road
5 Perryridge Road
Greenwich, CT 06830

Centek Project No. 16071.84

Dear Ms. Groppi,

Centek Engineering, Inc. has reviewed the AT&T Mobility antenna installation at the above referenced site. The purpose of the review is to determine the structural adequacy of the existing mount, consisting of a low profile platform supporting the proposed/existing equipment configuration. The review considered the effects of wind load, dead load and ice load in accordance with the 2012 International Building Code as modified by the 2016 Connecticut State Building Code (CTBC) including ASCE7-10 and ANSI/TIA-222-G *Structural Standards for Steel Antenna Towers and Supporting Structures*.

The AT&T Mobility loads considered in this analysis consist of the following:

- **AT&T Mobility:**
  Low-Profile Platform: Three (3) Powerwave 7770 panel antennas, three (3) Quintel QS66512-2 panel antennas, three (3) Powerwave P65-16-XLH-RR panel antennas, six (6) CCI TPX-070821 triplexers, six (6) Powerwave LGP21401 tower mounted amplifiers (TMAs), three (3) Ericsson RRUS-11 remote radio units, three (3) Ericsson RRUS-32 remote radio units, three (3) Ericsson RRUS-32 B2 remote radio units and two (2) Raycap DC6-48-60-18-8F surge arrestor mounted with a RAD center elevation of ±134-ft AGL.

The antenna mount was analyzed per the requirements of the 2012 International Building Code as modified by the 2016 Connecticut State Building Code considering a nominal design wind speed of 93 mph for Greenwich as required in *Appendix N* of the 2016 Connecticut State Building Code. Antenna mount sizes, lengths and geometry were obtained from a mount mapping provided by Construction Services of Branford (CSB) personnel on December 15, 2016.

For the structural analysis of tower and foundation, please refer to structural analysis report performed by Centek Engineering, Inc., project number 16071.84 dated December 8, 2016 (REV 0).

Based on our review and analysis of the proposed installation, it is our opinion that the **subject antenna mount has adequate capacity** to support the aforementioned antenna configuration. If there are any questions regarding this matter, please feel free to call.

Respectfully Submitted by:

STATE OF CONNECTICUT
CAMILO A. GAVIRIA
27517
LICENSED
PROFESSIONAL ENGINEER

Camilo A. Gaviria, PE
Structural Engineer