December 24, 2014

American Tower Corporation
12830 SW Park Way
Portland, Oregon 97225

Attn: Mr. Kevin Arnold
P: (503) 708-1072
E: Kevin.Arnold@AmericanTower.com

Re: Geotechnical Engineering Report – Addendum III
Proposed Cellular Tower
ATC #281865, AT&T #SN4931
2605 Mukilteo Speedway
Mukilteo, Snohomish County, Washington
Terracon Project No. 81145034

Dear Mr. Arnold:

This letter is an addendum to, and should be used in conjunction with, both our Geotechnical Engineering Report and our subsequent Report Addendums I and II for the project, dated August 18, 2014, August 27, 2014, and September 18, 2014 respectively. The purpose of this letter is to provide further discussion of our previous discussions and recommendations concerning the steep slope below the proposed lease site and the tower foundation. The following discussion is based on communication with the third party reviewer representing the City of Mukilteo and our subsequent site visit.

As part of our original scope of services, we observed slope conditions from the top of the slope related to potential slope instability. At the time of our exploration, we did not observe evidence of slope instability from atop the slope. Based on our conversations with the City of Mukilteo’s third party reviewer, however, we performed a follow-up visit to the site on December 16. During the follow-up site visit, we climbed partially down the slope and observed an exposed scarp approximately 10 to 15 feet vertically below the top of the slope. Based on existing staking, the near-vertical scarp was located approximately 20 to 25 feet south-southeast horizontally from the southeast corner of the proposed lease area and approximately 50 feet from the proposed tower location.

The scarp was approximately 20 feet wide and 15 feet tall. Based on the size of the scarp, surrounding slope topography, and shallow slide block below the scarp, the slide appears to have been relatively surficial. Two to three trees on the flanks of the scarp showed signs of movement, likely associated with the visible failure. The surface of the main scarp was generally devoid of vegetation, but ivy covered the lower portion of the scarp and the slope below the scarp.
To support the proposed tower, we provided recommendations for both drilled shaft and engineered concrete mat foundations. Based on the observations during our recent site visit, we recommend the tower be supported by a drilled shaft foundation, and not an engineered mat. The drilled shaft foundation will transfer the foundation loads to deeper soils and reduce surcharge loading near the top of the slope. In the event that continued erosion and surficial sliding of the steep slope over the years progressively moves the top of the slope closer to the tower, use of a deeper drilled shaft foundation would provide greater foundation protection as compared to a shallow mat foundation. The 25-foot steep slope setback and drilled shaft design recommendations provided in our original report and subsequent report addendums still apply.

We appreciate the opportunity to perform these services for you. Please contact us if you have questions regarding this information or if we can provide any additional services.

Sincerely,

Terracon Consultants, Inc.

Ryan M. Scheffler, PE
Senior Staff Engineer

Dennis R. Stettler, PE
Senior Consultant