

Kimley»Horn

December 28, 2017

Michael Haven
Verizon Wireless
8921 Research Drive
Charlotte, NC 28262

SUBJECT: Verizon Wireless "Campbell University", NC NIER report

This letter documents compliance with FCC regulations for the Verizon Wireless "Campbell University" site located at 179 Day Dorm Rd., Lillington, NC 27546 with LAT/LON coordinates of 35° 24' 38.66" N and 78° 44' 26.82" W. This is an existing Campbell University building.

The FCC has established guidelines for human exposure to RF emissions in excess of established limits set forth by IEEE and ANSI. Sites with antennae mounted in excess of 50 feet (>15 meters) are generally found to be significantly below these limits. The FCC offers a "categorically excluded" status to some such facilities, and thereby exempts them from routinely having to determine compliance with RF emission standards. The required calculations have been performed in accordance with FCC OET Bulletin 65 and reflect that RF emission levels are well within the set limits.

The supplied information from the tower owner and Verizon Wireless consists of the following:

	Proposed per sector
Frequency Band (MHz)	1920-2180
Antenna Mfr.	Andrew
Antenna Model	NH65S-DG-F0M
Antenna Mounting Height	34.3 Feet (Above Existing Ground)
Antenna sectors	3
Antenna Gain	14.0 dBi
ERP per sector	125 Watts

The most restrictive limits for radiation exposure have been set at 1.0mW/cm² for PCS carriers and 0.6mW/cm² for cellular. The "Campbell University" site's cellular equipment power density has been calculated using the provided carrier information in accordance with FCC OET 65 bulletin guidelines and resulted in a net power density of 0.0325 mW/cm², or less than 6% of the allowable limit at ground level of the building.

Exposure to the 3rd floor of the building has been reviewed with respect to the exposure from the rooftop antennae. The antenna propagation would pass through a metal framed roof structure near the exterior walls of the building in-line with the direction of each antenna. This exposure in these areas of the 3rd floor related to each rooftop antenna results in a net power density of 0.165 mW/cm², or less than 28% of the allowable limit.

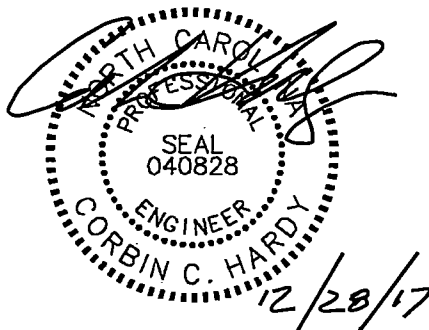
Considerations of Nearby Uses

It should be clearly noted that this letter's primary purpose is to address the exposure to the public (on the ground level outside the building and 3rd floor) from the rooftop antennae systems, and does not attempt to address the exposure levels in the immediate proximity in front of/surrounding the antennae or any indoor antenna systems. While the NIER levels are within the acceptable limits around the base of the building and 3rd floor, since the roof of the building is in a semi-controlled environment whereby unauthorized access cannot be guaranteed, the use of RF exposure warning signs should be posted on and at the access location of the rooftop.

It should be clearly noted that this letter's primary purpose is to address the exposure to the public (on the ground) and does not attempt to address the exposure levels in the immediate proximity in front of/surrounding the antennae.

In summary, the proposed cellular/PCS carrier equipment will not result in exposure of the public to levels of radio frequency radiation in excess of the levels defined in the FCC rules and regulations.

Sincerely,



Corbin C Hardy, P.E.
NC PE No. 040828