

**AFFIDAVIT**  
**of**  
**RADIO FREQUENCY EXPERT**

The undersigned, hereby states the following in support of the application of Omnipoint Communications, Inc. a wholly owned subsidiary of T-Mobile USA, Inc. (hereinafter referred to as “T-Mobile”) to install a wireless communications facility consisting of a nine (9) panel antennas, and appurtenant radio equipment at the property located at 5 Craig Road, Acton, MA 02360 (the “Wireless Communications Facility”):

1. I am a Radio Frequency Engineer employed by T-Mobile USA, Inc. responsible for radio network design in Massachusetts.
2. The list of my qualifications attached to this affidavit is true, accurate, and complete in all material respects.
3. As enabled under its Federal Communications Commission (FCC) license T-Mobile seeks to design its wireless network in order to provide reliable wireless services to its customers, whether those customers are on the street, in a vehicle, or in a building. Providing reliable service to its customers in each context is critical for T-Mobile to provide the quality of wireless service that customers demand, and to meet the objectives of Congress that a robust, competitive and low cost wireless communication capacity be developed to serve the entire nation.
4. I have thoroughly reviewed the radio frequency engineering studies, reports, and computer model prepared by T-Mobile with respect to the subject wireless communications facility. I used a propagation modeling software by Aircom named Asset. This software calculates frequency strength over distance taking into account geographical, and topographical land features and other contributors to signal loss. Finally, this calculation has also been adjusted by empirical data obtained from field measurement.
5. In order to meet its obligations under the radio license T-Mobile must have in place a network of base station antennae facilities to serve portable wireless communication devices and mobile telephones. These facilities consist of antennas mounted on a pole, building, or other structures that are connected by cables to a small equipment cabinet located near the antenna. These antennas transmit voice and data to subscribers within a defined area of coverage. Likewise, the antenna receives the radio signal from mobile transmitters (such as telephones) which then goes to equipment located in the cabinet and to ordinary phone lines from which the transmission may be routed anywhere in the world.

6. Wireless antenna facilities are integral to T-Mobile's network. Each facility, servicing only a limited area, must be carefully located so that it can properly interact with surrounding facilities. To maintain reliable and-uninterrupted service to a wireless telephone user living and/or traveling in a given area serviced by multiple antenna facilities, there must be a continuous interconnected series of facilities, which in-part overlap in a grid or "cellular" pattern.
7. In compliance with its FCC license, T-Mobile is actively building its PCS network to provide service in Massachusetts. In order to meet its goal of providing reliable, seamless and uninterrupted service T-Mobile must continue to acquire interest in property for additional facilities, and is applying for and obtaining local governmental approvals to construct the facilities in order to eliminate gaps in reliable service coverage. Any delay at this point in time severely curtails T-Mobile's ability to achieve a market position that will allow it to compete for customers, which is in the public interest.
8. Using precise computer prediction model and following a thorough review of the RF engineering studies and reports prepared by T-Mobile it was determined that a new facility in proximity to Craig Rd, and School St in the Town of Acton is critical to the overall engineering and technical plan for T-Mobile's network.
9. The subject location has specific characteristics, of topography, relationship to existing structures and its location within the narrow search limits specified by the above referenced computer model, makes it uniquely suitable to address T-Mobile's need for a proposed wireless telecommunications transmission facility. With the above considerations the proposed site was determined to be the most appropriate location for a facility to fill the existing gap in service coverage within the context of available land parcels provided to me for analysis.
10. Without a wireless transmission facility located at or near this location, a significant area of inadequate, unreliable coverage would remain in T-Mobile's wireless network in the vicinity of the proposed installation. This lack of service area or "gap" in coverage would adversely impact the service T-Mobile is able to provide to businesses and residents of School St, Lawsbrook Rd, Hosmer St as well as travelers along SR-2 and SR-2A/119, and other primary roads through and around the Town of Acton.
11. The result of such a "gap" will be an inability for the T-Mobile customer to reliably initiate, receive, or maintain voice and data connections, including 911 emergency calls, from the time that subscriber leaves the service area until that subscriber reaches that point where a quality signal is available to reinitiate the communication link.
12. All proposed wireless communications equipment will be installed, erected, maintained and operated in compliance with all applicable Federal, State and local regulations, including, but not limited to: the radio frequency emissions regulations

set forth in the 1996 Federal Communications Act, applicable regulations administered by the Federal Aviation Administration (FAA), Federal Communications Commission (FCC), Massachusetts Aeronautics Commission and the Massachusetts Department of Health. All equipment proposed is authorized by the FCC Guidelines for Evaluating the Environmental effects of Radio Frequency Emissions. The radio frequency exposure levels generated by the proposed facility are substantially below the maximum allowable health and safety standards established by the FCC. In addition, the proposed equipment and transmission characteristics are in compliance with standards set forth by the American National Standards Institute (ANSI) and the National Council of Radiation Protection (NCRP).

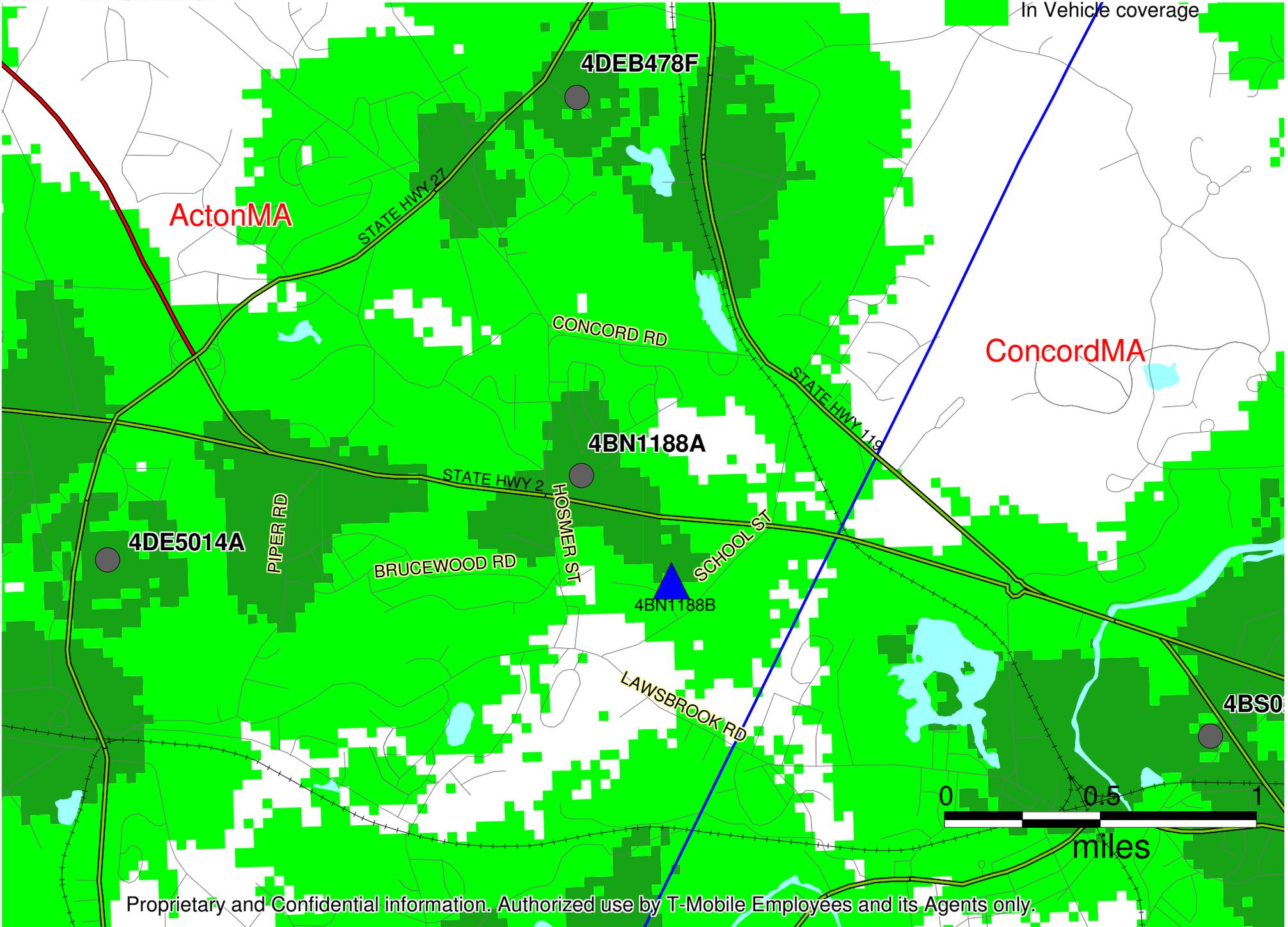
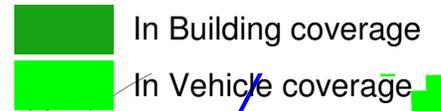
Based upon the best radio frequency technology that is available to T-Mobile at this time, it is my professional opinion that the proposed project is necessary to ensure adequate PCS service to area residents and businesses in accordance with system specifications.

Signed under the penalties of perjury this 2nd day of February, 2010.



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**Shaikh 'shake' Mahmood, RF Engineer**  
**T-Mobile USA, INC.**  
15 Commerce Way, Suite B  
Norton, MA 02766  
(508) 286-2770  
[Shaikh.Mahmood@T-Mobile.com](mailto:Shaikh.Mahmood@T-Mobile.com)



Proposed RF coverage in Acton, MA  
including  
4BN1188B at 170 ft (AGL)

In Building coverage  
In Vehicle coverage

