



SPEX09-MA-021

Proposed New 10-ft extension to 80-ft Monopole

T-MOBILE

At

**11033 John Marshall Highway
Delaplane, VA 20144**

Submitted by:

ATLANTIC TECHNOLOGY CONSULTANTS, INC.

A Member of The Atlantic Group of Companies

ATC PROJECT #: 1007-67

Supplemental Report

September 15, 2009



THE ATLANTIC GROUP
OF COMPANIES, INC.

EXECUTIVE SUMMARY:

T-Mobile Northeast, LLC ("T-Mobile") has made application to the County for the issuance of a Special Exception to allow construction of a new 10' extension to an existing 80' telecommunications support monopole tower managed by Global Tower Partners and located at 11033 John Marshall Highway, Marshall, VA 20144 on property owned by Jackie Shay McNeal.

On 11 September, 2009, T-Mobile performed a Balloon Test to give a visual representation on the requested height. As a result of this test, several issues arose concerning:

1. Actual Height of the Tower
2. Actual location on tower structure of existing wireless carriers
3. Actual location of future co-location antenna arrays on tower structure
4. Actual physical location of the tower
5. As Built Drawings (Year Constructed 2003)
6. Set-Back requirements in relationship to the actual physical location.
7. Tree Screening requirements.

The source of the information supplied to the Applicant, T-Mobile Northeast, LLC may not reflect the actual Wireless Communications Structure known as: Delaplane-WAW312B which is owned by Global Tower Partners.

These issues would potentially impact the ATC Report and recommendation(s).

It is with these new issues that Atlantic Technology Consultants, Inc. withdraws the original Report dated July 2, 2009.

Once the new information is received, ATC can review and make any new or updated recommendation(s) in respect to new technical information.



George N. Condyles, IV
President and COO
Atlantic Technology Consultants, Inc.

1.0 TECHNICAL:

1.1 Siting Issues

The tower site was planned to be located on a 75' x 75' square area of land on a 50 acre parcel. The property is zoned RA (Agriculture District), RC (Conservation District), and R1 (Residential District) and located on Tax Map 6031-63-0308.

The Application (by T-Mobile) was submitted to be physically located at 38° 54' 14.20" N and 77° 57' 38.88" W at a ground elevation of 850' and a tower height with attachments at 80' AGL as reflected in T-Mobile Drawings 6-12-09, prepared from Compass Technical Services.

Upon research of the ATC files, the original Wireless Communications site, submitted to Fauquier County in March of 2003 was submitted at a physical location of N 38-54-14.17" and W 77-57-38.82" at a Ground elevation of 730' with an overall height of 80' AGL for the tower and antennas by AT&T.

The tower was sold to Global Partners LLC at a later date.

The discrepancy is that of actual physical location which would effect the ground elevation and the overall AMSL due to the steep terrain in the area.

The tower appears not to be located in the spot of the original plans, (at a higher ground elevation) and appears to be shorter than originally planned.

The consultant took a field measurement and the result was that the tower was 72' AGL with a Ground Elevation of 753'.

The height of the tower would affect the future co-location height along with the difference of ground elevation, in this case a difference of 120' of ground elevation and the difference in height of antenna attachments to the existing tower.

1.2 Balloon Test Results

On Friday 11 September, 2009, the Applicant T-Mobile inflated and flew a balloon to the requested height of 90' AGL. The balloon was placed on the same "Contour" of the existing tower, but 35 feet northeast from the base to ensure that the balloon would not hit or interfere with the existing tower. The consultant was there early to observe the 90' of line was dispensed and the balloon was flying in the Vertical position with little wind. Upon standing in various locations to the east, north, and west, it was observed that the balloon appeared to be 15' to 20' above the existing tower structure. If the tower was constructed at 80' as per the original Conditional Use Permit, then the question has to be asked, "Why is there

an 15' to 20' of gap between the existing tower and the requested height of 90' AGL?"

(See Pictures)

1.3 Setbacks

Fauquier County's minimum setback requirement from residential units as noted in Section 11-102.2.a.3 of the County's Zoning Ordinance Article 11 "Telecommunications Ordinance" are as follows:

"Either (i) 1,000 feet or more from an adjoining property's existing residential unit or (ii) 300 feet or more from an adjoining property's existing residential unit, when the facility is centered and surrounded by preserved woodland with a minimum radius depth of 100 feet..."

With the constructed location, it appears that with the existing tree lined C&P Telephone easement, that is not controlled by the property owner, that the tower may not have the required 100' of tree buffer.

1.4 Landscape Buffer and Screening:

A Topographic Plan and Elevations Drawing (#SP-1) was submitted that demonstrates the topography of the surrounding area in relation to the location of the monopole and compares elevations of the existing residential structures ground level, tree lines, and the existing monopole structure. The June 16, 2009 letter prepared by Jackson & Campbell, P.C., Attorneys and Counselors at Law, and submitted with the Application states "This site will be located within a mature wooded area surrounded by a tree canopy. As proposed, the Applicant's highest antennas will not be higher than 10' above the average treetop height given the location on down slope of a high hill and the dense tree vegetation which runs to the top of the hill." In addition, the Applicant's site plans indicate that two (2) new trees are proposed that will match the existing size and species surrounding the compound.

During the balloon test, the Consultant observed that the tower extension (if reflective of the balloon) would be well above the 10' tree canopy. It would be approximately 15' to 20' above.

One adjacent residence will be impacted by the balloon test extension height.

2.0 Co-location:

As stated in the County's zoning ordinance, 11-102.3.c.4, regarding collocation,

"Except for areas where permitted by right, an applicant for the proposed telecommunication facility must demonstrate that an antenna location on an existing facility is not feasible.

The County's objective is that no new tower/monopole shall be permitted unless the applicant demonstrates to the reasonable satisfaction of the Board of Supervisors that no existing tower, monopole or structure can accommodate the applicant's proposed antenna."

This monopole has three (3) existing co-locations (Cingular, Nextel, and Verizon Wireless) and addition of the T-Mobile antennas will be the fourth co-location.

The existing tower appears to have co-location "slots" at the 70', 60' 50' and 40' AGL levels.

The 40' AGL level was evaluated by the applicant in the submission package. If this tower was 80', then the co-location slots would be at 78', 68' 58' and 48' as reflected in the Structural Engineers Analysis.

If so, why is 40' a consideration if 48' is available on the tower? This information leaves this consultant believing that the Tower Owner, Global Partners, knows that this tower is 72' in above ground elevation and not 80' and that the slot truly available is 40' not 48'.

This difference of $90' - 72' = 18'$ is the difference from the actual vs. approved tower heights, thus not meeting the 10' above the tree requirement.

This discrepancy must be resolved.

3.0 RECOMMENDATION

1. **This Tower should be audited** for Requirements of the Conditional Use Permit.
 - a. Request "As-built" Drawings.
 - i. Site Plan
 - ii. Structure
 - iii. Grounding
 - b. FAA" 3-C Certificate.
 - c. Re-Survey from an established benchmark the actual physical location of the tower, compound and heights of the existing co-locators and the open slot on the tower. (Consultant would like to attend.)
 - d. Set Back delineation Drawings
 - e. Tree Profile as of September of 2009.
 - f. Photo Simulations reflective of new location and requested height.

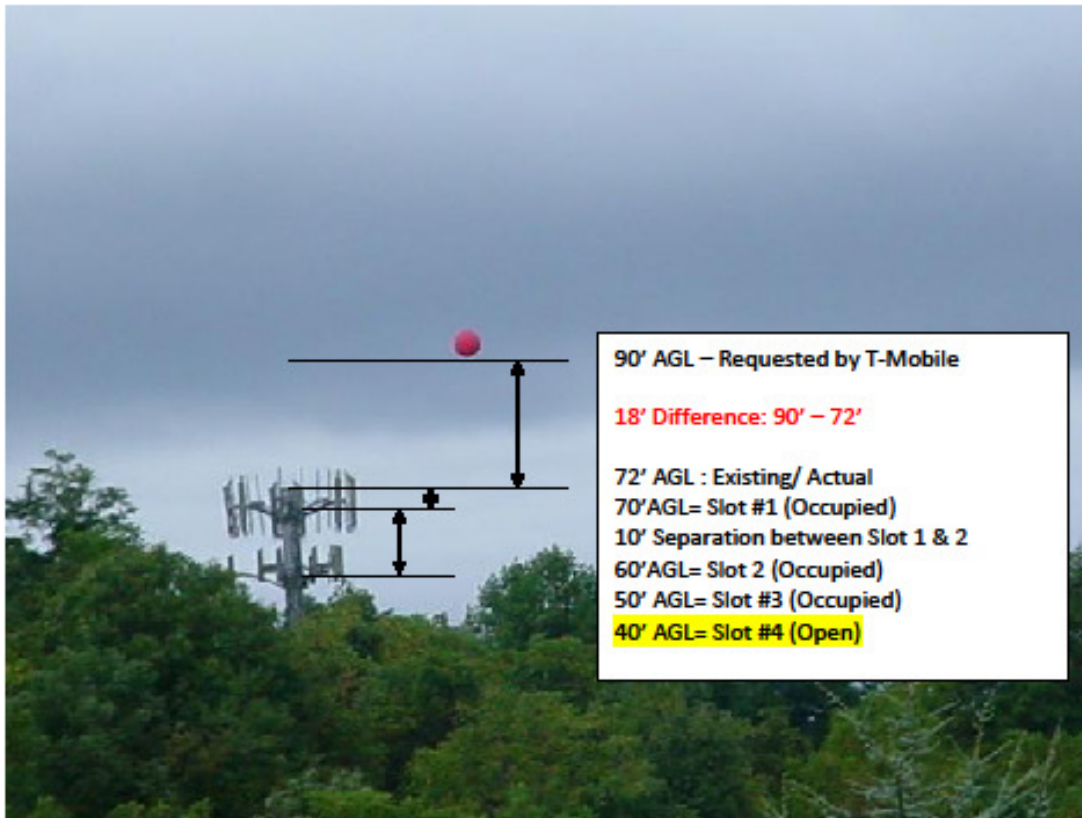
Respectfully submitted,



George N. Condyles, IV, CPM
President & COO



Balloon test – 90' AGL



Global Tower – Delaplane, VA