

December 12, 2012

Via Electronic Transmission

Ms. Elizabeth Marrinan, AICP
Village Planner
Village of Scarsdale
Village Hall
1001 Post Road
Scarsdale, NY 10583

Subject: Telecommunications Facilities Engineering Review

Dear Ms. Marrinan:

This letter summarizes the results of our review of the NextG petition to amend the Village Zoning Law. As background, and to clarify the following discussion for readers who may not know all of the details of this request, NextG has requested an amendment to the Village Zoning Law to enable the installation of a new distributed antenna system (DAS) network; it made the request using supporting documentation from Crown Castle and on behalf of the carrier MetroPCS.

Engineering Review

As a first step in reviewing the NextG petition, we were asked to review the locations where there are existing antennas in the Village and prepare a map illustrating the estimated potential coverage from those sites across the Village. Based on our review of the list of sites you provided, as well as information we obtained from public databases of existing antenna sites, we identified the following locations within the Village boundaries where there are existing antennas that may provide coverage to Village residents:

Address	Type of Support Structure
101 Secor Road	Village incinerator smoke stack
Freightway Road	Four-story parking garage
1 Heathcote Road	Church cupola (bell tower)
1001 Post Road	Village Hall rooftop and unipole
Hutchinson River Parkway at Mamaroneck Ave	Approximately 100'-high monopole

Address	Type of Support Structure
50 Thompkins Road	110'-high Village public safety monopole
Commuter Rail Station Pipeline Road at Fenimore Road	Approximately 100'-high monopole

NextG provided the Village with a map that illustrates the projected theoretical coverage for MetroPCS with and without the proposed antennas that comprise the DAS network designed by Crown Castle. The map included illustrations of the existing MetroPCS coverage as determined by Crown Castle; among the existing sites in the Village, and the monopole along the Hutchinson River Parkway (see the list above) has antennas. To supplement the map, we asked NextG for further information about the proposed antennas (see Attachment A). Based on the details provided by NextG, a typical DAS antenna site or “node” will have an effective radiated power level (“ERP”) of approximately 150 Watts and may provide a target signal level of -88 dBm within an area of approximately 1,500 to 2,000 feet from the node. Typically, signals at the -88 dBm level can provide reliable “in-vehicle” and “on-street” communications for cell phone users. Signal levels greater than -88 dBm are normally required to penetrate exterior building walls and provide reliable wireless service inside buildings and homes; the higher signal levels will be available only in very close proximity to the proposed antenna sites. Residences and businesses not in close vicinity to the antenna sites will likely not attain signal strength sufficient to provide reliable service, and in fact may not receive any service at all. We note that these coverage characteristics for the MetroPCS network are on a per site basis is less robust than would be provided by competitive cellular providers operating in the lower 800 & 700 MHz bands MetroPCS’s higher frequency network does not propagate to the same distances that the lower frequencies used by some of the other carriers providing service to Village residents.

That said, other factors can impact coverage areas regardless of the frequencies—including terrain, obstructions, and the height of the antennas above ground level, for example. Higher ground level elevations can permit signals to overcome hills (which can block signals) and valleys (which can create “holes” where signal levels may not be as strong because of the shadowing effect of the terrain around the valley). Tall buildings and foliage on trees can also diminish signals, resulting in poorer coverage to some areas. Signals in winter may be somewhat stronger in the vicinity of an antenna site than in summer when the trees are in full foliage. These factors have more impact attenuating signals at higher frequencies. And in some cases, for some services, the higher the antennas are above the ground level at both the site and in reference to the average terrain elevations around the site, the more likely coverage is better. (DAS antennas are typically mounted at relatively low heights above ground level, however.) The level of power at which the signals are transmitted, the type of antennas used, and the direction of the signals from the antennas will also impact the signal strength across the area served. Each of these inherent characteristics differs for each carrier. And lastly, how a site is designed to integrate with the adjacent existing sites for a carrier will determine how the areas will be served; this is generally based on the need of the carrier and its subscribers.

Notwithstanding these factors, what we see in the Crown Castle illustration is what we would expect to see from antennas as part of a DAS. DAS designs are usually used in cases where it is hard to obtain zoning approval for a new tower or monopole, where there are high traffic volumes along roadways where the antennas will be placed, or where there is a high concentration of users living and working close to the roadways. We note again that the coverage illustrated in the NextG map is based on a mathematical modeling. Based on our experience, the actual coverage area for a DAS antenna is typically often somewhat less than predicted because of ground “clutter” (trees, buildings, etc.) close to the antennas; trees, buildings, and other obstructions at low elevations along roadways are not usually part of the computer model that carriers such as Crown Castle use to calculate and illustrate the estimated coverage of their networks.

There are 15 antenna sites proposed for the NextG DAS. Based on the Crown Castle coverage map, it appears that signal levels in the areas where the DAS is proposed may not currently be at the target levels of -88 dBm; the map further indicates that antennas at those locations may provide coverage primarily for travelers along the adjacent roadways. Included among the routes to be served are areas along the Bronx River Parkway, Post Road, Mamaroneck/Fenimore Roads, and Popham/Drake Roads. Although NextG has not clearly stated what MetroPCS’s particular coverage objective is to justify the need for these antennas or why they have not considered use of the existing Village sites where other carriers have attached their antennas, based on New York DOT 2010 average daily traffic counts (as posted on the DOT website), it appears that those roadways are major thoroughfares through the Village. More than 11,000 vehicles travel along Fenimore, Post, and Popham Roads, and more than 40,000 travel along the Bronx River Parkway; from 7,000 to 9,000 vehicles travel along the other roads where the antennas are proposed.

Because any of the existing antenna sites in the Village may, to the best of our knowledge, also be used to support MetroPCS antennas, some of the areas proposed to be covered with new DAS antennas could likely be served by antennas attached to the existing structures—which would enable a wider area of coverage in part because of their likely higher elevation above ground. For example, in the map provided by Crown Castle, site number NY6105 (the monopole on the list above that we believe is at least 100 feet high) is shown to cover a substantially larger area (close to a mile in diameter) relative to the smaller individual DAS antenna sites. Based on our own RF coverage analysis, we would expect to see similar coverage from antennas mounted at the same height on the Village smokestack or the monopole at the public safety training facility, with of course, the exact shape of coverage contour to be impacted by local terrain and foliage. Attachment B includes maps we prepared to illustrate potential coverage from the locations where other carriers already have antennas that serve the Village. Green or yellow shading indicates areas where signals may be at levels of -88dBm or better. The maps show that with antennas at the higher elevations, coverage extends significantly beyond the nearby residents and travelers along the roadways covered by the DAS. One can also see in the illustrations that it is likely that there will remain be some areas along portions of the roadways, otherwise served with

antennas as part of the DAS, where the signal levels may still be lower than the -88 dBm. We attribute this to the terrain in those areas. Whether that would have a significant impact on services to passersby along those roads would depend on more reliable data than what is illustrated on the maps, such as drive test results (which are based on actual measurements from the proposed sites). We do believe, however, that the service from those locations would likely provide significantly greater area-wide coverage to residents in the Village than the antennas proposed along the DAS routes.

Application Process

Secondly, we were asked to provide suggestions for a process to permit and evaluate applications for wireless facilities. Attachment C contains two sample applications typical of those we ask an applicant to complete; these would supplement whatever permitting application may be required by the Village. The supplemental application process attempts to solicit all the pertinent information about a proposed antenna siting in advance. With that information filed at the beginning of the process, applications can be processed more quickly and all of the supporting documentation is available to the Village staff and Board officials to review with the application. If the information is completely and accurately provided by the applicants, it usually eliminates the need to request additional information and saves the carrier's time to reply, simplifying the overall process, expediting a review, and facilitating the quicker deployment of services for residents. The application also develops a record of information which could be available, as deemed appropriate, for public information.

As you have asked in soliciting this review, I am available to travel to Scarsdale at a mutually convenient time to meet and confer with the Board as needed. In the interim, should you have any questions about this report, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Lee Afflerbach".

Lee Afflerbach

Attachments

ATTACHMENT A

Excerpt from reply to request for additional information from NextG

From: Heimdahl, Peter [<mailto:Peter.Heimdahl@crowncastle.com>]
Sent: Thursday, October 18, 2012 6:35 PM
To: rhunicutt@ctcnet.us
Cc: Joseph Van Eaton; Peter J. Wise (PJW@ddw-law.com)
Subject: RE: Scarsdale

Responses as follows:

1. **Operating Frequencies:**
 - a. MPCS Transmit Frequency band: 2130 Mhz - 2140 Mhz (10Mhz band)
 - b. MPCS receive frequency band: 1730 Mhz – 1740 Mhz (10Mhz band)
2. **Proposed Antennas and manufacturer:** 2 Antenna models from PHAZAR are proposed for this build.
 - a. Pole Top Antenna installation: Antenna model #: AWS360-1710-10-T0-N
 - b. Communication zone antenna installation: Antenna model #: AWS360-1710-7-T0-N
3. **Proposed mounting height:**

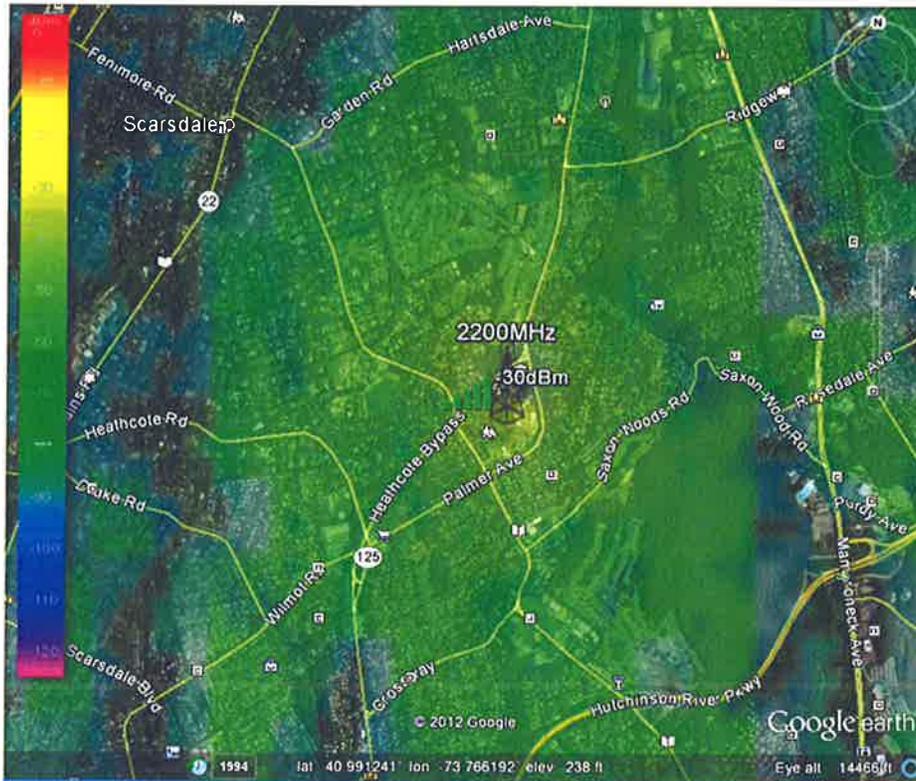
This information can be found on the drawings supplied to the Village already, however I've attached a document that summarizes.
4. **Transmitter power:**
 - a. Maximum Transmit power out of the ION (CCI equipment): 40W. We currently have 20W IONs deployed in Westchester. However the ION will be upgraded to 40W in the near future.
 - b. Maximum transmit power applied to the antenna is: 31.63 Watts.
 - c. Maximum EIRP from the antenna: (2 scenarios)
 - i. Pole Top Antenna: 316.3W
 - ii. Communication zone antenna: 158.5 Watts

Peter

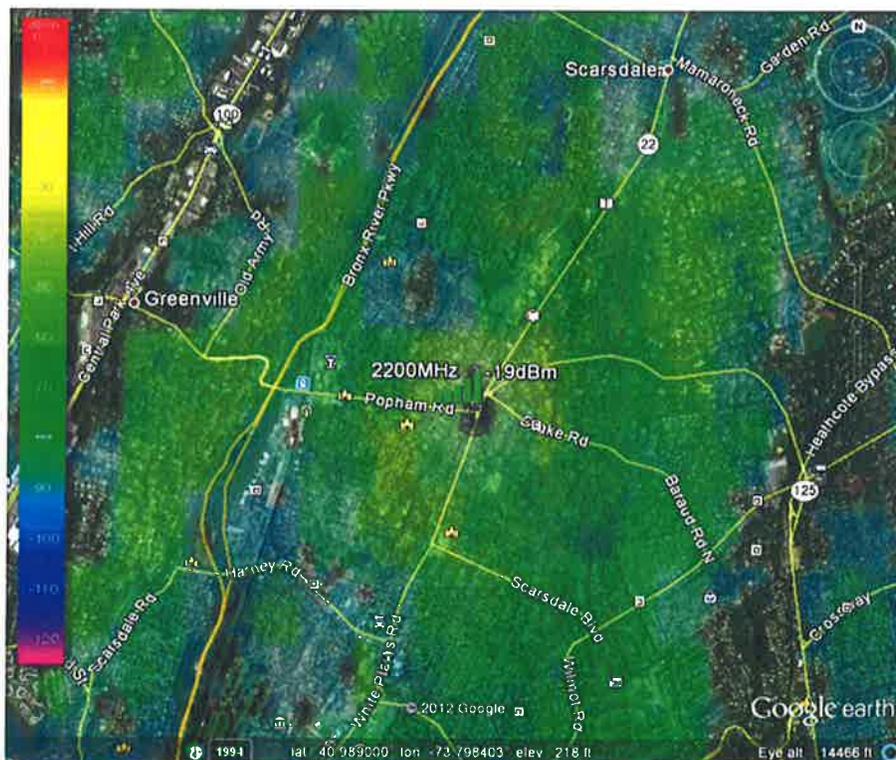
ATTACHMENT B
RF Coverage Illustration Maps

Areas in green or yellow represent signal levels of -88 dBm or better.

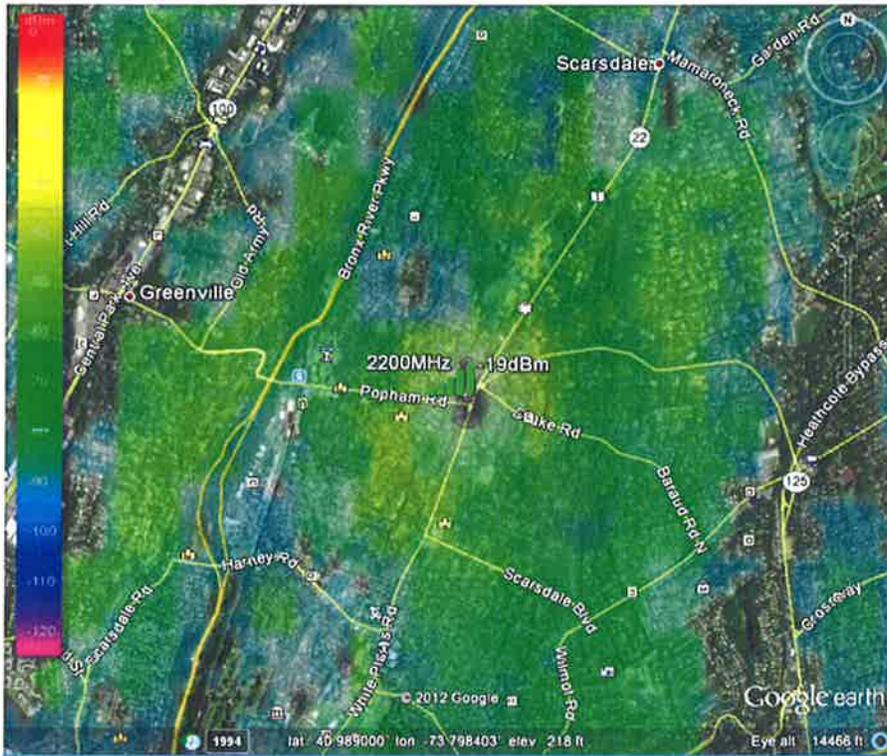
1. Calculated coverage from antennas attached to the Village incinerator smoke stack at 100' level.



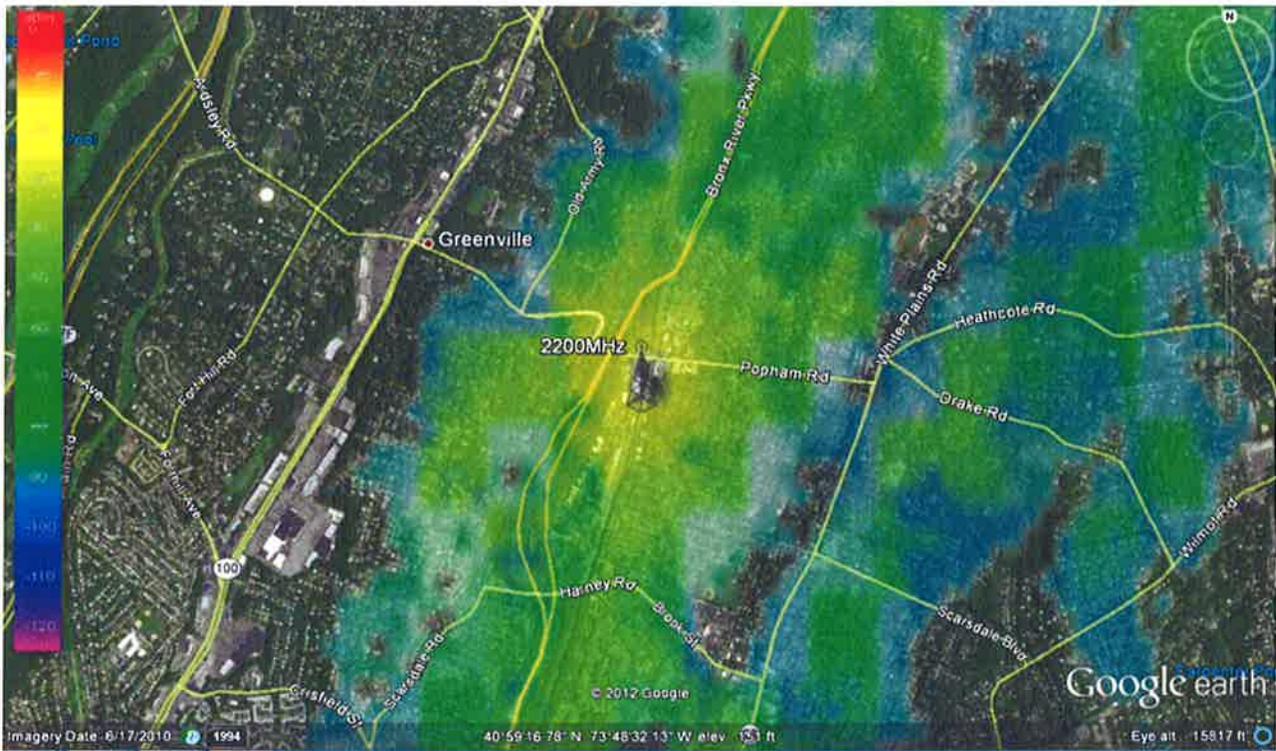
2. Calculated coverage from antennas attached to the public safety monopole with antennas at the 100' level.



3. Calculated coverage from antennas attached to the parking garage on Freightway Road with antennas at the 50' level.



4. Calculated coverage from antennas attached to the parking garage on Freightway Road with antennas at the 50' level.



5. Calculated coverage from antennas at all four locations illustrated above.



ATTACHMENT C
SAMPLE APPLICATIONS



BALTIMORE COUNTY GOVERNMENT

TOWER REVIEW COMMITTEE

Application for Wireless Communications Site Placement

Date : _____ **DRC Number:** _____

Applicant Name: _____

Company: _____

Address: _____

Telephone: Office: _____ Fax: _____ Cell: _____ e-mail: _____

Carrier name: _____

Carrier Site name: _____

Carrier site engineer: (name) _____ Telephone Number: _____

Site address: _____

Zone of property: _____

Property owner: _____

Tower or structure owner (if different from property owner): _____

Tower latitude/longitude (NAD 83): _____

Site ground elevation AMSL: _____

Antenna height AGL: _____

Frequencies to be used: _____

Maximum ERP: _____

FCC emission designator: _____

Under what section of the FCC's rules is the carrier licensed: _____

Will this site be submitted for FAA review and approval? (If FAA review has already been completed please attach a copy or approval). _____

Is the site near a County designated scenic view shed or route? If so, which one?

Is the site near a historic site? If so, which one and has a determination been made by the Landmarks Commission (attach a copy of their response)?

Has the proposed facility owner been cited by the County as having a site in need of repair? If so which one and have repairs been completed?

Explain what community notice has been provided and state what response has been received.

Will the antenna installation be in compliance with the maximum permissible RF exposure limits set forth in §1.1310 of the FCC Rules and Regulations? _____ . If not please attach an explanation.

Type of compliance study required under §1.1307 of the FCC Rules and Regulations:

- Categorically Excluded _____
- Routing Environmental Evaluation _____
- Environmental Assessment _____

Date the filing fee was paid for this application: _____

Submit five copies of this application and required attachments (see page two of the applications) to:

**Tower Review Committee
Attn: Richard A. Bohn, Chief
Electronic Services and Telecommunications
1112 Gilroy Road - Suite 101
Hunt Valley Maryland, 21031**

BALTIMORE COUNTY
Application for Wireless Communications Site Placement

ATTACHMENTS REQUIRED

1. Provide a site plan including a vicinity map, the location of the proposed antennas in relation to adjacent properties, the zone of the adjacent properties, and distance from the nearest residence.
2. Provide a drawing showing the elevation profile of the proposed structure indicating height of proposed antennas and heights designated for future attachments, (include equipment sheds or cabinets, ice bridge, cabling, etc.).
3. Provide color RF propagation contour maps of the service area illustrating current coverage with existing sites, with and without the proposed antennas as proposed and with antennas at an elevation 20 feet lower than that proposed. Identify the main arterial roadways. Please show expected coverage contours of signal levels at the target signal level and at least plus and minus 5dB. Please include a legend indicating colors and corresponding signal levels and desired coverage level. Please identify the antenna elevations upon which the model based. Provide a description and attach specifications (cut sheets) of the antennas.
4. Please provide a statement identifying alternative locations or structures within a one-mile radius from the proposed site that were considered along with an explanation as to why those sites could not be used. Provide a description of the alternative considered, an address, latitude and longitude of each alternative. Include supporting RF maps as specified above, with and without the alternatives, which demonstrate why the alternatives could not be used to provide the desired coverage. If there were non-RF reasons why those alternatives would not work, please provide an explanation of why they could not be used. State if the new structure is proposed to replace an existing structure.
5. Please provide a description of the target service area and an explanation of the need for the site and the type of services that will be provided (e.g. explain the extent to which the proposed siting is for coverage, capacity, or other service interests).
6. If drive tests, balloon tests, or other similar methods of analysis were used in selecting this site or rejecting an alternative site please attach a copy of the map illustrating the test measurements or, for balloon tests, attach copies of the photos showing the balloon and photo simulations of the structure proposed.
7. State what considerations were given to screening the site or disguising the new structure (e.g. flag/tree/light pole, low profile attachment, concealed antennas, etc.)
8. If the zone of the property to be used for this site is other than medium to high density commercial zone, explain why the site could not be placed on property so zoned.



PRINCE GEORGE'S COUNTY, MARYLAND
TELECOMMUNICATIONS TRANSMISSION FACILITY
COORDINATING COMMITTEE (TTFCC)
APPLICATION FOR WIRELESS COMMUNICATIONS
SITE COORDINATION

Application for Co-location of Antennas on an Existing Support Structure

READ ALL FILING REQUIREMENTS EFFECTIVE JULY 1, 2010 PRIOR TO FILING APPLICATION - See TTFCC [Application Instructions and Review Process 2010](#) for instructions and requirements. This document may be found at: <http://www.princegeorgescountymd.gov//Government/BoardsCommissions/tfcc.asp>

In completing the application, answer every item and do not provide any additional attachments other than the required attachments. Failure to fully comply with these instructions will result in the rejection of the application. The application will remain on hold until a complete application is provided.

Required Attachments:

1. Application fee: \$1,500 for each co-location made payable to *Prince George's County Government*.
2. Detailed site information: A printout of the aerial imagery and property information from the M-NCPPC's www.pgatlas.com website showing the property where the structure is physically located. See instructions noted above.
3. A legible vicinity map showing the property and surrounding major roadways.
4. An 11" x 17" size set of design plans and site plans of the structure showing major dimensions and the location and nature of all existing antennas:
 - a. Elevation Profile of a Support Structure Other than a Tower or Monopole. If antennas are to be attached atop a building, the elevation profile of the building must be shown indicating the height of the roof, the RAD center(s) for the antennas, and where they will be placed on the building. All existing antennas must be shown and the owners' names identified. An aerial view drawing of the building rooftop showing the location and ownership of all antennas and equipment to be placed on the roof is also required. Details of the placement of the equipment must also be provided (i.e., on the rooftop, on a steel structure, attached to a wall, or whatever is appropriate for the application).
 - b. Elevation Profile of a Monopole or Tower. An elevation drawing of the tower or monopole must be shown with all existing and proposed antennas placed on the structure at the appropriate heights above ground. Owner's names of all existing antennas must be shown. If the TTFCC has reviewed applications to attach antennas to the structure but which are not yet attached, they must be included. The structure owner/landlord is responsible for providing complete and accurate information regarding existing site attachments. Included on the elevation profile must be a depiction of the equipment area located at the base of the tower or monopole and the proposed equipment or shelter. It must show an overhead view of the equipment area showing the location of the monopole and the ownership of equipment facilities for all existing carriers and those proposed to be placed at this site.
5. Copies of antenna manufacturers' cut sheets for each antenna as shown on the engineering plans.

6. Photographs taken within 90 days of the filing of views from the proposed structure facing north, south, east, and west and the existing support structure where the antenna(s) is/are to be placed.
7. Copies of manufacturer's specifications (cut sheets) for each antenna listed.
8. If the application is to add antennas to a tower or monopole which already supports existing antennas from three carriers, or modifications are required to the tower or monopole regardless of the number of antennas already attached, a statement certified by a Professional Engineer registered in the State of Maryland affirming that the structure, including the proposed additional antennas and related cabling and equipment, meets the most current TIA/EIA standards (presently revision G) to support the existing and proposed antennas, cabling and equipment is required. Otherwise, if a structural analysis has been performed for any other reason, attach a copy of the report. The report must be certified by a Professional Engineer registered in the State of Maryland.



**PRINCE GEORGE'S COUNTY, MARYLAND
TELECOMMUNICATIONS TRANSMISSION FACILITY
COORDINATING COMMITTEE (TTFCC)
APPLICATION FOR WIRELESS COMMUNICATIONS
SITE COORDINATION**

“TTFCC”
c/o Department of Environmental Resources
Prince George's County Government
9400 Peppercorn Place, Suite 600
Largo, Maryland 20774

<i>For County Use Only</i>
Case No.: _____
Tax ID #: _____ Date: _____

Re: Application for Co-location of Antennas on an Existing Support Structure

Carrier Name: _____
Carrier site name: _____
Property Address (from PGAtlas): _____
City, State, Zip Code _____
Land Owner Name: _____
Tax identification number (from PGAtlas): _____

Support Structure Information

Structure Type: Monopole: Building: Water Tank: Tower: (For electrical transmission line tower, state tower #): _____
Latitude/ Longitude (decimal degrees from PGAtlas): Lat: _____ Long: _____
Site ground level elevation (AMSL in feet): _____
Support structure height (in feet): _____
Name of owner of the supporting structure: _____
Contact Name: _____ Phone: _____ Fax: _____ E-mail: _____
Complete Street Address, City, State, and ZIP Code: _____

Application Summary

In the space provided, write a brief description of the proposed installation including a technical description of the need for the facility, the area to be served, and the coverage objective: _____

Antenna Information

Type and quantity of antennas: OMNI _____ PANEL _____ DISH _____ OTHER(*describe*) _____

For each type of antenna:

Manufacturer: _____ model number (s) _____

Frequencies to be used: Tx: _____ Rx: _____

Antenna Size: H _____ " W _____ " D _____ "

Maximum Effective Radiated Power (ERP): _____ **Watts**

Elevation of antennas (RAD AGL): _____

Manufacturer: _____ model number (s) _____

Frequencies to be used: Tx: _____ Rx: _____

Antenna Size: H _____ " W _____ " D _____ "

Maximum Effective Radiated Power (ERP): _____ **Watts**

Elevation of antennas (RAD AGL): _____

FCC and FAA Rules & Regulations

Will the antenna installation be in compliance with the maximum permissible RF exposure limits set forth in Sec.1.1310 of the FCC Rules and Regulations? Yes No

If no, please attach an explanation.

Type of compliance study required under Sec. 1.1307 of the FCC Rules and Regulations:

Categorically Excluded

Routine Environmental Evaluation

Environmental Assessment

State if an application for an FAA review has been submitted. If an FAA determination for the site has been issued, please attach a copy. _____

Engineering Certification

I hereby certify that:

1. *All the radio-frequency (RF) information and the statements submitted in this application and any and all subsequent RF submissions or amendments to the application are true, complete and accurate to the best of my knowledge and belief, and are made in good faith.*
2. *The RF engineering has been performed to the best industry and engineering standards.*
3. *The geographical terrain data in determining the expected radio coverage is that provided by the U.S. Geological Survey, and is based on three (3) second or better terrain data.*
4. *No alteration or modification of data has been performed in the preparation of the coverage maps, unless stated in the application package. (i.e., adjust for obstructions unique to the area, foliage loss, etc.)*
5. *The individual signing below is authorized to act on behalf of the Applicant regarding this certification.*

Name: _____

Title: _____

Signature: _____

Date: _____

Applicant Name: _____

Facility Location Plan

Section 5A-155, Prince George’s County Code requires applicants to submit a facility location plan indicating the location of every existing telecommunications transmission facility and the general location of facilities that are anticipated to be built in the near future. Has a new or updated plan been filed with the County within the last year?

Yes No

If no, please submit a plan with this application.

APPLICANT CERTIFICATION

Applicant Name: _____
Title: _____
Phone: _____ FAX: _____ E-mail: _____
Company Name: _____
Complete Street Address, City, State, and ZIP Code: _____
Representing (carrier name): _____
Contact name: _____
Complete Street Address, City, State, and ZIP Code: _____
Phone: _____ Fax: _____ E-mail: _____

I hereby certify that the information and the statements submitted in this application and package are true, complete and accurate to the best of my knowledge and belief, and are made in good faith, and that the individual signing below has authority to act on behalf of the Applicant.

Applicant signature: _____ Date: _____

Incomplete or incorrect applications will not be accepted for review. Applicants resubmitting modified or revised applications must follow the same process used for filing the initial TTFCC application as outlined below. Resubmitted applications are subject to a Resubmission Fee of a minimum of \$250 for each application.

The County reserves the right to require that the Applicant provide additional information as the County may reasonably request. The Applicant agrees to cooperate with the County in supplying such additional information as requested.

Filing Instructions: Complete the form below, sign the applicant and engineer’s certifications, attach a check for the amount of \$1,500 per site payable to *Prince George’s County Government*. Applications submitted without the fee will not be processed. Submit an original with original signatures and one copy to the County, and submit two copies to the Facility Coordinator:

Prince George’s County
Department of Environmental Resources
Permits Office
9400 Peppercorn Place, Suite 600
Largo, MD 20774

TTFCC Facility Coordinator
Columbia Telecommunications Corp.
10613 Concord Street
Kensington, MD 20895



PRINCE GEORGE'S COUNTY, MARYLAND
TELECOMMUNICATIONS TRANSMISSION FACILITY
COORDINATING COMMITTEE (TTFCC)
APPLICATION FOR WIRELESS COMMUNICATIONS
SITE COORDINATION

Application for a New Tower or Monopole

READ ALL FILING REQUIREMENTS EFFECTIVE JULY 1, 2010 PRIOR TO FILING APPLICATION - See TTFCC [Application Instructions](#) and [Review Process 2010](#) for instructions and requirements. This document may be found at:

<http://www.princegeorgescountymd.gov//Government/BoardsCommissions/tfcc.asp>

In completing the application, answer every item and do not provide any additional attachments other than the required attachments. Failure to fully comply with these instructions will result in the rejection of the application. The application will remain on hold until a complete application is provided.

Required Attachments:

1. Application fee: \$2,500 for each application payable to *Prince George's County Government*.
2. Detailed site information: A printout of the aerial imagery and property information from the M-NCPPC's www.pgatlas.com website showing the property where the structure is physically located. (See instructions noted above).
3. A legible vicinity map showing the property and surrounding major roadways.
4. Attach 11" x 17" size design and site plans that show an elevation drawing of the structure and an overhead view of the structure on the property and detailed drawings of the equipment area and structure. Drawings should include the location of proposed buildings, equipment cabinets, or shelters, distances from the structure to property lines and any to the nearest off-site dwelling, (clearly identify existing versus proposed facilities). Show the zone for all adjacent properties.
5. Provide RF contour maps of the service area illustrating, in color, current coverage with existing sites, with and without the proposed antennas and with antennas at an elevation of 20 feet and 40 feet lower than proposed. Include maps illustrating the calculated coverage from the site alone and with antennas at those three elevations. Illustrate signal levels in colors representing the target signal level and at least plus and minus 5 dB. Include a legend indicating colors and corresponding signal levels. Specify the target levels for the site. Identify the antenna elevations upon which the model is based. The maps must be legible and in sufficient detail to show at least the primary roads and major highways.
6. Provide a listing, by name and address, of alternative existing structures within a one-mile radius from the proposed site that were considered in lieu of the new support structure, along with a detailed explanation as to why these structures could not be used to accommodate the antennas. If the alternative structure(s) were ruled out for RF or other engineering reasons, explain the reason and include supporting RF maps in the same format described above which demonstrate why the alternatives could not be used. If there were non-RF reasons why those alternatives would not work, provide an explanation as to why they could not be used.

7. State if drive tests, balloon tests, or other similar methods of analysis were used in selecting this site or rejecting an alternative site. Attach a copy of the RF contour map illustrating the drive test measurements or, for balloon tests, attach copies of the photos showing the balloon and photo simulations of the structure proposed, along with a map showing from where each photo was taken and the approximate distance from the proposed structure.
8. State what considerations were given to screening the site and minimizing the visual impact of the proposed structure, including any disguise options such as a flag/tree/light pole design, low-profile antenna attachment consideration, concealed/painted antennas, or other such designs and, if not used, why they were not used.
9. Photographs taken within 90 days of filing showing views from the proposed structure location facing north, south, east, and west and one of the area where the structure is proposed to be constructed.
10. Documentation of delivery of community notice as explained in Attachment D of the Application Instructions.
11. Copies of manufacturer's specifications (cut sheets) for each antenna listed.
12. Structural engineering certification statement (see page 2 of the application).



**PRINCE GEORGE'S COUNTY, MARYLAND
TELECOMMUNICATIONS TRANSMISSION FACILITY
COORDINATING COMMITTEE (TTFCC)
APPLICATION FOR WIRELESS COMMUNICATIONS
SITE COORDINATION**

“TTFCC”
c/o Department of Environmental Resources
Prince George's County Government
9400 Peppercorn Place, Suite 600
Largo, Maryland 20774

<i>For County Use Only</i>
Case No.: _____
Tax ID #: _____ Date: _____

Re: Application for a New Tower or Monopole

Carrier Name: _____
Carrier site name: _____
Property Address (from PGAtlas): _____
City, State, Zip Code _____
Land Owner Name: _____
Tax identification number (from PGAtlas): _____

Support Structure Information

Structure Type: Monopole: Tower: Other (*describe*): _____
Latitude/ Longitude (decimal degrees from PGAtlas): Lat: _____ Long: _____
Site ground level elevation (AMSL in feet): _____
Height of Structure (in feet) : _____
Name of owner of the supporting structure: _____
Contact Name: _____ Phone: _____ Fax: _____ E-mail: _____
Complete Street Address, City, State, and ZIP Code: _____

Application Summary

In the space provided, write a brief description of the proposed installation including a technical description of the need for the facility, the area to be served, and the coverage objective: _____

Antenna Information

Type and quantity of antennas: OMNI _____ PANEL _____ DISH _____ OTHER(*describe*) _____

For each type of antenna:

Manufacturer: _____ model number (s) _____

Frequencies to be used: Tx: _____ Rx: _____

Antenna Size: H _____ " W _____ " D _____ "

Maximum Effective Radiated Power (ERP): _____ Watts

Elevation of antenna (RAD AGL): _____

Manufacturer: _____ model number (s) _____

Frequencies to be used: Tx: _____ Rx: _____

Antenna Size: H _____ " W _____ " D _____ "

Maximum Effective Radiated Power (ERP): _____ Watts

Elevation of antenna (RAD AGL): _____

FCC and FAA Rules & Regulations

Will the antenna installation be in compliance with the maximum permissible RF exposure limits set forth in Sec.1.1310 of the FCC Rules and Regulations? Yes No

If no, please attach an explanation.

Type of compliance study required under Sec. 1.1307 of the FCC Rules and Regulations:

Categorically Excluded

Routine Environmental Evaluation

Environmental Assessment

State if an application for an FAA review has been submitted. If an FAA determination for the site has been issued, please attach a copy. _____

Engineering Certification

I hereby certify that:

- 1. All the radio-frequency (RF) information and the statements submitted in this application and any and all subsequent RF submissions or amendments to the application are true, complete and accurate to the best of my knowledge and belief, and are made in good faith.*
- 2. The RF engineering has been performed to the best industry and engineering standards.*
- 3. The geographical terrain data in determining the expected radio coverage is that provided by the U.S. Geological Survey, and is based on three (3) second or better terrain data.*
- 4. No alteration or modification of data has been performed in the preparation of the coverage maps, unless stated in the application package. (i.e., adjust for obstructions unique to the area, foliage loss, etc.)*
- 5. The individual signing below is authorized to act on behalf of the Applicant regarding this certification.*

Name: _____

Title: _____

Signature: _____

Date: _____

Applicant Name: _____

Every application for a new tower, monopole or other type support structure must have a statement certified by a Professional Engineer registered in the State of Maryland affirming that the structure meets the most recent TIA/EIA structural standards (presently revision G) to support the proposed antennas, cabling, and equipment to be attached.

Facility Location Plan

Section 5A-155, Prince George’s County Code requires applicants to submit a facility location plan indicating the location of every existing telecommunications transmission facility and the general location of facilities that are anticipated to be built in the near future. Has a new or updated plan been filed with the County within the last year?

Yes No

If no, please submit a plan with this application.

APPLICANT CERTIFICATION

Applicant Name: _____
Title: _____
Phone: _____ FAX: _____ E-mail: _____
Company Name: _____
Complete Street Address, City, State, and ZIP Code: _____
Representing (carrier name): _____
Contact name: _____
Complete Street Address, City, State, and ZIP Code: _____
Phone: _____ Fax: _____ E-mail: _____

I hereby certify that the information and the statements submitted in this application and package are true, complete and accurate to the best of my knowledge and belief, and are made in good faith, and that the individual signing below has authority to act on behalf of the Applicant.

Applicant signature: _____ Date: _____

Incomplete or incorrect applications will not be accepted for review. Applicants resubmitting modified or revised applications must follow the same process used for filing the initial TTFCC application as outlined below. Resubmitted applications are subject to a Resubmission Fee of a minimum of \$250 for each application.

The County reserves the right to require that the Applicant provide additional information as the County may reasonably request. The Applicant agrees to cooperate with the County in supplying such additional information as requested.

Filing Instructions: Complete the form below, sign the applicant and engineer’s certifications, attach a check for the amount of \$2,500 per site payable to *Prince George’s County Government*. Applications submitted without the fee will not be processed. Submit an original with original signatures and one copy to the County, and submit two copies to the Facility Coordinator:

Prince George’s County
Department of Environmental Resources
Permits Office
9400 Peppercorn Place, Suite 600
Largo, MD 20774

TTFCC Facility Coordinator
Columbia Telecommunications Corp.
10613 Concord Street
Kensington, MD 20895