

**MINUTES OF THE
MENDHAM BOROUGH BOARD OF ADJUSTMENT
March 1, 2011
Garabrant Center, 4 Wilson St., Mendham, NJ**

CALL TO ORDER

The regular meeting of the Board of Adjustment was called to order by Chair Seavey at 7:30 p.m. at the Garabrant Center, 4 Wilson Street, Mendham, NJ.

CHAIR'S ADEQUATE NOTICE STATEMENT

Notice of this meeting was published in the Observer Tribune and Daily Record on January 13, 2011 in accordance with the Open Public Meetings Act and was posted on the bulletin board of the Phoenix House.

ROLL CALL

Mr. Palestina – Present	Mr. Seavey - Present
Mr. Peck – Present	Mr. Smith - Present
Mr. Peralta- Present	Mr. McCarthy, Alt. I - Present
Mr. Ritger - Present	
Mr. Schumacher - Present	

Also Present: Mr. Hansen, Board Engineer
Mr. Germinario, Board Attorney
Dr. Eisenstein, Telecommunications Consultant

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PUBLIC COMMENT

Chair Seavey opened the meeting to public comment or questions on items that were not on the agenda. There being none, the public comment session was closed.

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APPROVAL OF MINUTES

On motion by Mr. Peck, second by Mr. Palestina and all members being in favor, the minutes of the January 4, 2011 regular meeting of the Board were approved as written.

On motion by Mr. Smith, second by Mr. Schumacher and all members being in favor, the minutes of the January 4, 2011 Executive Session were approved as written.

The February 1, 2011 regular meeting of the Board was cancelled due to weather.

2011 ORGANIZATION ITEMS

Appointment of Attorney: The following resolution appointing Thomas Germinario, Esq. as Board attorney was provided to the Board with their pre-meeting packages and introduced by Mr. Seavey:

**RESOLUTION
BOROUGH OF MENDHAM
BOARD OF ADJUSTMENT**

WHEREAS, the Board of Adjustment of the Borough of Mendham has a need to acquire professional Board Attorney services without competitive bidding pursuant to the provisions of N.J.S.A. 19:44A- 20.5; and,

WHEREAS, the business administrator has determined and certified in writing that the value of the services will exceed \$17,500 (including escrows); and

WHEREAS, Thomas J. Germinario, J.D., P.E. has submitted a proposal indicating that he will provide legal services for 2011 in an amount projected to exceed \$17,500 (including escrows); and

WHEREAS, the anticipated term of this contract is 1 year; and

WHEREAS, Thomas J. Germinario, Esq. has completed and submitted a Business Entity Disclosure Certification which certifies that he has not made any reportable contributions to a political or candidate committee of the Borough Council in the Borough of Mendham in the previous one year, and that the contract will prohibit him from making any reportable contributions through the term of the contract; and

WHEREAS, this resolution is subject to the Chief Financial Officer certifying to the availability of funds; and

WHEREAS, the Board of Adjustment of the Borough of Mendham wishes to retain Thomas J. Germinario, Esq.; and

WHEREAS, the Local Public Contracts Law (N.J.S.A. 40A:11-1 et seq.) requires that the Resolution authorizing the award of contracts for “professional services” without competitive bids and the contract itself must be available for public inspection.

NOW THEREFORE, BE IT RESOLVED by the Board of Adjustment of the Borough of Mendham as follows:

1. That the Board of Adjustment of the Borough of Mendham retain Thomas J. Germinario, Esq. to serve as Board Attorney for the year 2011 at a total annual cost not to exceed \$11,000, such sum as may be duly appropriated for the purposes in the duly adopted municipal budget for 2011: and escrows as required; and

2. This contract is awarded without competitive bidding as a “professional service” in accordance with N.J.S.A. 40A:11-5(1)(a) of the Local Public Contracts Law because said services are exempt from the provisions of the bidding statutes in that they are services rendered or performed by a person authorized by law to practice a recognized profession and are services which require knowledge of an advanced type in a field of learning acquired by a prolonged course of specialized instruction as distinguished from general academic instruction or apprenticeship and training.

3. The Business Disclosure Entity Certification and the Determination of Value shall be placed on file with this resolution.

4. That a notice of this action shall be published once in the official newspapers of the Board of Adjustment of the Borough of Mendham, as required by N.J.S.A. 40A:11-5(1)(a).

5. This Resolution shall take effect as provided herein.

Mr. Peck made a motion to approve the resolution. Mr. Peralta seconded.

ROLL CALL: The result of the roll call was 7 to 0 as follows:

In Favor: Palestina, Peck, Peralta, Ritger, Schumacher, Smith, Seavey
 Opposed: None
 Abstentions: None

The motion carried. Mr. Germinario was appointed Board Attorney. Ms. Callahan will make the appropriate public notification.

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Appointment Attorney re Omnipoint: The following resolution authorizing Mr. Germinario, Esq. as replacement attorney for the Board for the Omnipoint litigation was provided to the Board with their pre-meeting packages and introduced by Mr. Seavey:

**RESOLUTION
 OF
 BOROUGH OF MENDHAM ZONING BOARD OF ADJUSTMENT**

WHEREAS, the Borough of Mendham Zoning Board of Adjustment (the “Board”), is the defendant in a civil action in the Superior Court of New Jersey, Law Division, Morris County, entitled *T-Mobile Northeast LLC, et al. v. Borough of Mendham Zoning Board of Adjustment*, Docket No. MRS-L-002719-10 (the “T-Mobile Litigation”); and

WHEREAS, James H. MacDonald, Esq., the former Board Attorney, is currently representing the Board in the T-Mobile Litigation; and

WHEREAS, James H. MacDonald, Esq., wishes to withdraw from representing the Board in the T-Mobile Litigation; and

WHEREAS, the Board consents to the withdrawal of James H. MacDonald, Esq., and to the substitution of Thomas J. Germinario, Esq., the current Board Attorney, to represent the Board in the T-Mobile Litigation.

NOW, THEREFORE, BE IT RESOLVED, that the Board does hereby consent to the withdrawal of James H. MacDonald, Esq., and to the substitution of Thomas J. Germinario, Esq., to appear on behalf of the Board and to represent the Board in the T-Mobile Litigation.

Mr. Ritger made a motion to approve the resolution. Mr. Peck seconded.

ROLL CALL: The result of the roll call was 7 to 0 as follows:

In Favor: Palestina, Peck, Peralta, Ritger, Schumacher, Smith
 Opposed: None
 Abstentions: None

The motion carried. The resolution was approved.

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Appointment of Telecommunications Consultant: The following resolution appointing Dr. Bruce Eisenstein for RF and Telecommunications consulting for the AT&T Wireless application was provided to the Board in their pre-meeting packages and introduced by Mr. Germinario, Esq.:

**RESOLUTION
 OF
 THE MENDHAM BOROUGH BOARD OF ADJUSTMENT**

WHEREAS, the Board of Adjustment has determined that there exists a need for the services of an expert consultant in the fields of cellular and personal communications systems siting issues to advise the Board and to answer any relevant questions posed by interested members of the public in connection with the application of New Cingular Wireless PCS, LLC (AT&T) (hereinafter, the Applicants); and

WHEREAS, the Local Public Contracts Law permits the engagement and the appointment of firms and/or individuals for such "professional services" without competitive bids due to the specialized nature of their area of expertise; and

WHEREAS, the Board has examined the attached credentials, resume and proposal submitted by BRUCE A. EISENSTEIN, Ph.D., P.E. of The Consulting Group in Wyndmoor, PA (hereinafter, the Consultant); and

WHEREAS, the Consultant and the Applicants have been advised that the Consultant's fees and related expenses, as set forth in the attached Proposal, will be paid from the Applicants' Escrow Deposit Account pursuant to NJSA 40:55D-53.2, and specifically NOT PAID from municipal funds; and

WHEREAS, any disputes regarding the charges or fees claimed by the Consultant will be resolved between the Consultant and the Applicants pursuant to the procedures set forth at NJSA 40:55D-53.2

NOW, THEREFORE, BE IT RESOLVED on this 1st day of March 2011, by the Board of Adjustment of the Borough of Mendham, Morris County, New Jersey that:

1. Bruce A. Eisenstein, Ph.D., P.E. of The Consulting Group in Wyndmoor, PA is retained as an outside consultant to assist the Board of Adjustment in connection with the review of the relevant facts, exhibits, testimony and scientific contentions associated with the application of the Applicants.
2. A copy of this Resolution shall be published in the Observer-Tribune as required by law within ten (10) days of its passage.

Mr. Palestina made a motion to approve the resolution. Mr. Ritger seconded.

Mr. Peralta recused from the vote as he was recused from the AT&T Wireless application.

ROLL CALL: The result of the roll call was 7 to 0 as follows:

In Favor: Palestina, Peck, Ritger, Schumacher, Smith, McCarthy, Seavey
 Opposed: None
 Abstentions: None

The motion carried. Dr. Eisenstein was appointed consultant. Ms. Callahan will make the appropriate public notification.

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HEARING OF CASES

Zenjon Enterprises, LLC – Preliminary and Final site Plan/Variances/Interpretation
Block 1501, Lot 11, 25 East Main St. (Historic District) – Completeness Only

Present: Jonathan Krasney, Applicant
Robert Simon, Esq., Attorney for Applicant

Mr. Simon, Esq. advised the Board that the application is for preliminary and final site plan approval, variances, an interpretation and any waivers that might be required. They have received several review letters from the Engineer, and have complied by providing additional information.

Mr. Hansen reviewed the Completeness Letter from Ferriero Engineering dated February 14, 2011. The original application had some substantial items that were needed for completeness and the applicant resubmitted. The letter now reflects only a few open items. He recommended waivers for completeness for Checklist Items #10, 34, and 55. Item #11, a signed and sealed survey, was received. In terms of Checklist Item #57, it ties with #6 the Sewer Permit. It has been the Board’s policy to have the approval for the sewer before proceeding with a formal hearing. He recommended that the application be deemed “conditionally complete” pending receipt of the Council’s approval, and that it not be scheduled for a public hearing until that time.

Mr. Simon, Esq. agreed with the approach and stated that the sewer application had been submitted and is currently being reviewed by the Borough Engineer, Mr. Ferriero. He anticipated that the sewer resolution would be reviewed at the March 21 Borough Council meeting. He asked to be considered to the April 5 meeting. If they did not receive the approval on March 21, they would carry to the May meeting of the Board. Chair Seavey stated that he would need to review the pending items for the agenda with the Board Secretary.

Mr. Smith made a motion to deem the application “conditionally complete” pending approval of the sewer application by the Borough Council. Mr. Palestina seconded.

ROLL CALL: The result of the roll call was 7 to 0 as follows:

In Favor: Palestina, Peck, Peralta, Ritger, Schumacher, Smith, Seavey
Opposed: None
Abstentions: None

The motion carried. The application was deemed “conditionally complete”.

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Micera, John & Monica – Hardship Variance
Block 2401, Lot 20, 20 Spring Hill Road

Present: John Micera, Applicant
Monica Micera, Applicant

Mr. Germinario, Esq. advised the Board that the public notices were in order and that the Board has jurisdiction to proceed.

Mr. Micera explained that they had constructed piers with the intention of adding lights and had signed a landscaping permit. After the lights were installed, they received a notice of violation. There was miscommunication from the contractor as he had indicated that low voltage lighting did not require a permit. The inspector said that they did need a permit. They then reviewed the piers and lights with the Zoning Officer, Geoff Price and were advised that they would need a variance for the lights. The piers are to code at 4 ft.

Mr. Hansen advised that the application would require a few housekeeping items in accordance with his letter of February 7, 2011, but recommended that they be waived for completeness purposes. If the application is approved, the information should be properly recorded on the plans.

Mr. Palestina made a motion to deem the application complete. Mr. Schumacher seconded.

ROLL CALL: The result of the roll call was 7 to 0 as follows:

In Favor: Palestina, Peck, Peralta, Ritger, Schumacher, Smith, Seavey
 Opposed: None
 Abstentions: None

The motion carried. The application was deemed complete.

Mr. Micera testified that the primary reason for the lights is that there are 1400 linear ft. from the driveway to the entrance of the home. There are no street lights. They would like the lights for safety and demarcation. They also have a house number on the piers, and that is illuminated. Some of the residents within 200 ft. that were notified also have lights located on their driveway piers.

Board had no questions other than where the breakdown in communication had occurred. Mr. Micera stated that there were several contractors involved for several different aspects of the project and each were obtaining permits. It was a case of "too many cooks in the kitchen". Mr. Hansen advised that he did not believe it was with the town, but it was with the contractor who thought a permit was not required. He continued that there is a violation of 30 inches. There are no engineering issues.

In deliberations, the Board stated that the piers and lights are not out of character with the neighborhood. It appeared to be an issue with the contractor. They also noted that there are no streetlights on the road and that the piers to the entranceway to the street are 8 ft. in height.

Chair Seavey opened the meeting to questions by the public. There being none, the public session was closed.

Mr. Peck made a motion to approve the application with the condition that the plans be updated as appropriate in accordance with Mr. Hansen's request. Mr. Palestina seconded.

ROLL CALL: The result of the roll call was 7 to 0 as follows:

In Favor: Palestina, Peck, Peralta, Ritger, Schumacher, Smith, Seavey
 Opposed: None
 Abstentions: None

The motion carried. The application was approved. Mr. Germinario, Esq. will prepare a resolution memorializing the action for the April 5, 2011 regular meeting of the Board.

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Mr. Peralta recused from the New Cingular Wireless application.

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Before the formal hearing commenced, Chair Seavey advised the public of the process that the Board would be following. After each expert witness' presentation, the Board would ask questions followed by public questions with any attorney representing the public first, and then the general public. The public was also afforded the opportunity to ask any questions on the process.

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New Cingular Wireless PCS, LLC (AT&T) - Conditional Use Variance/Site Plan
 Block 2301, Lot 13, 350 Bernardsville Road

Present: Michael Lavigne, Esq., Pitney Day, LLC – Attorney for the Applicant
 Glenn Pierson, Piercon Solutions - RF Engineer for Applicant
 Robert Simon, Esq., Herold Law – Representing Interested Parties

Exhibits: A-1: AT&T Wireless RF Design – Sisters of Christian Charity – 2/22/11
 Overlay 1: AT&T Existing Reliable In-Vehicle (1900 MHz -85 dBm)
 Overlay 2: Drive Test (untitled)
 Overlay 3: AT&T Proposed Reliable In-Vehicle (1900 MHz -85dBm) @85'

O-1: New Cingular Wireless, LLC: W-Site Number: W-1018: Sisters of Christian
 Charity: Propagation prepared by Glenn Kreisberg 8/3/2010 (3 Sheets)
 O-2: Comprehensive Radio Frequency Report – Glenn Kreisberg, RF Engineer

Mr. Germinario, Esq. advised that he had reviewed the public notices and that the Board has jurisdiction to proceed.

Mr. Lavigne, Esq. introduced the application stating that the facility is proposed to be located at the Sisters of Christian Charity, 350 Bernardsville Road. The site is approximately 112 acres in the R5 (Residential) Zone. There is an existing building located approximately in the center of the site where they are proposing to install 9 panel wireless telephone antennae in the cupola. Electronic cabinets that are connected with cable will be located in the internal 5th floor attic space. Two air conditioning units would be mounted externally on the roof below the existing parapets which will be higher than the units. This differs from the facility that was proposed at the King's Shopping Center as that was a monopole. There are no towers or bulk variances required.

Mr. Lavigne, Esq. continued that the application was initially filed with the Planning Board, but the Planning Board and Board of Adjustment attorneys reviewed case law and determined that the BOA would retain jurisdiction as the Sisters of Christian Charity is a non-conforming use with prior D-Variance approvals. The application is a conditional use under the Borough's wireless telecommunications ordinance requiring site plan approval. They have included a D-Variance in the notice in case they would be required to seek it.

Mr. Germinario, Esq. advised that the application is back with the Board of Adjustment under Section 76 of the MLUL and the Puleo Case that states that jurisdiction continues similar to the situation with a bifurcated application. It is important to note that it is not a reopening of the D-Variance granted 40 years ago or not an automatic expansion of a non-conforming use. It is a conditional use, but if all the conditions of the ordinance are not met, it is a D3 variance. The determination has not yet been made and it is up to the applicant to provide the proofs to show that they are complying with conditional use requirements. If they are compliant with the conditional use, the vote would require a simple majority, not a supermajority. Also, the Board would only be required to consider the negative criteria, not the positive criteria.

Mr. Lavigne, Esq. stated that the application had been deemed complete at the January meeting. In accordance with the Wireless Telecommunications Ordinance, the Borough has retained an RF expert. They have been in contact with Dr. Eisenstein, the Board's consultant, and information he requested was submitted to the Board 10 days ahead of the meeting.

Mr. Glenn Pierson and Dr. Bruce Eisenstein were sworn in by Mr. Germinario Esq.

Mr. Pierson presented his credentials to the Board and was accepted as an expert witness.

Responding to Mr. Lavigne's questions, Mr. Pierson testified that he had a discussion with Dr. Eisenstein and had prepared exhibits and information that are required to analyze the need for the facility. In terms of compiling the information, he had originally been provided with the original report by Glenn Kreisberg that was issued about 6 months ago. He then reviewed the information along with the area and decided to do an independent analysis of AT&T's networking area. Calibrated test equipment and a drive test were used to collect data and determine if there were gaps and exactly where they were. A baseline was formed.

Providing more detail on the data gathering, Mr. Pierson explained that the drive test uses Agilent equipment. There is a calibrated digital receiver connected to laptop computers in the minivan and to antennae on top of a minivan. The signals are scanned and logged into a computer and then compared to design criteria data for an area such as Mendham. The information is then fed back into the model to check for accuracy so that the accurate coverage is presented. They have provided the information that Dr. Eisenstein has requested which included parameters of the tool, particulars on the existing sites and the propagation analysis. Copies of the carrier's licenses were provided with Mr. Kreisberg's report.

Exhibit A-1 consisting of the base map and three overlays was entered. Mr. Pierson explained that the base map is a printout of the USGS map containing topological information. On the map he identified the location of the existing AT&T wireless facility locations at St. Johns, Conifer Drive, Route 202 & Maple Avenue and downtown Bernardsville (4 Essex St.). The first overlay contained the existing coverage described as "Reliable in-vehicle" for the 1900 PCS license at -85dBm. It is shown in green tint on the overlay. The -85dBm was used as it stems from the Saddle River case as an acceptable standard for suburban coverage. The un-tinted areas represent areas below the given -85 dbm. The base map also contains terrain lines that indicate the hills and valleys, streets, and some bodies of water.

Mr. Pierson explained that the first overlay demonstrates where AT&T has reliable coverage and where there would be coverage gaps. The green tint represents the design threshold. If there is no

green on the map, the signal will decay, not necessarily completely disappear. If one is outdoors a call may be made, but it is unreliable as it may be dropped, there may be difficulty in conversation or changing location could make it spotty to no service. The phone may not be able to make a call. This occurs in Mendham in several areas between Route 24 and Route 287 due to the varied terrain.

Mr. Pierson reviewed the terrain in various areas of the Borough and described the gaps as located $\frac{3}{4}$ mi. along Hilltop to Route 24, $\frac{3}{4}$ mi. on Cherry Lane, .6 of a mile on Talmage Road, 1.25 mi. on Pleasant Valley Road and on Bernardsville Road from Horseshoe Bend to Downtown Bernardsville. There are also some small gaps on Bliss Road, Dryden to the Mountain Top and along Hardscrabble mostly in Bernardsville. The facility is not designed to fix everything. It is designed to fix everything in Mendham Borough specifically going north on Hilltop, Cherry Lane, Talmage and west on Pleasant Valley. The radio signals are currently blocked by the hills and valleys. The proposed site is desirable as it is located on a hill top with a line to different locations. They can use an existing structure that clears the tree line. The purpose of the facility is to backfill all the valleys that are surrounding that the St. John's site cannot get into.

Continuing, Mr. Pierson stated that the second overlay shows the results of the drive test. The propagation makes a good match within several feet. The test data demonstrates that the existing coverage propagation does match the empirical data signifying that the propagation model is accurate. The test reflects data from one day with no radical weather and no leaves on the trees. It represents the best case scenario for existing coverage.

He described the third overlay as AT&T in vehicle coverage at 85 ft. at 1900 mGh at -85 dBm. Explaining how the redundant coverage would be handled from St. John and the Sisters of Christian Charity sites, Mr. Pierson explained that they would be taken care of so that both would work well together.

Summarizing, Mr. Pierson stated that the Sisters of Christian Charity would provide most of its coverage in Mendham Borough and a little bit of coverage extending on Bernardsville/Mendham Road down to the boundary. It connects with existing coverage and covers the entire gap on Hilltop, the entire gap on Cherry Land and on Talmage Road. It covers about one mile of the Pleasant Valley Road gap and covers the Bliss Road gap. It does not touch Hardscrabble at all.

Responding to Mr. Lavigne, Esq. on whether redundant coverage was unique or unusual to this particular site, Mr. Pierson stated that in this area it is somewhat common because of the hilltops. There is existing coverage on all of the hilltops, but as soon as one goes into a valley the signals die off. Putting a facility on a hill will create some redundancy on the hill. Optimization of the network is done so that each site covers their designated hilltop well and distributes the coverage evenly.

Finishing, Mr. Pierson stated that he also included a street map and the parameters for the Board. The applicant has a need for the facility. The roads are not major, but do have a fair amount of traffic, and the applicant would be eliminating gaps on 3 or 4 more travelled roads. There are significant gaps and the installation is addressing those gaps as best they can without building anything new.

Before Dr. Eisenstein questioned Mr. Pierson, Chair Seavey asked him to give an overview for the public of some basics dealing with Propagation Maps, Drive Testing, dBm variations and why that information is requested.

Dr. Eisenstein explained the general principal of broadcast as one way communication with high power to move the signal out over a very large area versus the cell phone system that is two way communication. The power of the cell phone is limited and the signal must be returned to the tower. The design of the cell system must be symmetric. If a signal can get from the tower to the handheld at a certain power level, then the handheld can get to the tower at its appropriate power level. The solution from Bell Labs was to cellularize the network and break up the geographical areas and use a low power facility. This allows the reuse of frequencies so they could expand to a national network.

Continuing, Dr. Eisenstein explained that waves propagate in free space in concentric spheres. The further they go out from the source they have somewhat less power. While nothing new has been learned about propagation since about 1876 when James Clark Maxwell developed a set of equations that govern the propagation of electromagnetic waves, what is new is the way propagation tools work. They take the equations and overlay them on the United States geological survey data which has the hills and valleys and other things built in. A hill that blocks the antennae blocks the signal. The signal gets attenuated quite a bit when it goes over a hill. Other items considered today include the kind of trees, the density of housing, the character of the

area, and the weather. These factors were incorporated into two models made by Japanese physicists, Professor Okumura and Professor Hata. Propagation equations are modified to incorporate the Hata and Okumura models into the data and then it is laid over the USGS study.

Explaining the concept of -85 dBm, Dr. Eisenstein used the analogy of the power from a microwave oven. He explained that -85 dBm is approximately 5 billionths of a milliwatt of power. The microwave is typically 1,000 watts. Down a thousand fold is one watt and down another thousand fold is a milliwatt. Down a billion times from that is a billionth of a milliwatt. At the edge of the cell there is 5 billionths of a milliwatt of power. It is infinitesimal power. As the power in the cell phone is fixed, if the carriers want to increase power they need to move sites closer together and if they are satisfied with lesser power, the sites are farther apart.

Dr. Eisenstein utilized Exhibit A-1 to visually show the antennae location and how the waves decrease in power as they move out from the site until they decrease below a point of minus 85 dBm. The waves keep going, but they diminish in power. If there is an abrupt stop, they are hitting a ridge line and cannot get over the top. The areas where there is no green would constitute a gap that is defined as a power level that is below the design threshold. It does not mean that one cannot make or receive a cell phone call. The propagation plots are a median plot, an average of what the propagation could look like throughout the year and throughout the day. He used an analogy with engineering design of a bridge. One would not drive over a bridge once and say it is the right design since it did not fall down. If one can go out in an area and make a call, that is not the design criteria for a system.

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Board took a break from 9:10 to 9:25.

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Responding to Dr. Eisenstein's questions, Mr. Pierson stated that the applicant is also planning on using 800 mgh from the site and that there is 800 mgh on St. John and Conifer as well. If they get the site, Route 24 is still uncovered. That gap is more toward the Kings Shopping Center. As the High School and the hill is in the way, the proposed site at the Sisters of Christian Charity would not alleviate the need. It would also not cover Pleasant Valley as Hilltop Church would block the signals from the Kings area, and it would not provide coverage on Bernardsville Road into Bernardsville as the hill of the proposed site is in the way. The Kings site is predominantly for the valley near the intersection by Tempe Wick and Route 24. If the Sisters of Christian Charity site is approved, the northeast corner of Mendham Borough will still also be uncovered.

In terms of the gap that would still exist between the Sisters of Christian Charity and the Bernardsville downtown area, there is an application in Bernardsville for Verizon and AT&T has signed a letter of intent to collocate at the location on Washington Corner Road. If it is built, it would alleviate the need as it is a complementary site. The signal dies around the Conti property at the border. The Bernardsville application does cover Hardscrabble and fill in the southeastern corner of the Borough. Mr. Pierson concluded that one more site in Mendham Borough would be needed beyond this application to cover the northeast corner of the Borough.

Mr. Peck noted that the proposed Bernardsville site on Washington Corner Road was in hearing and questioned whether there was a propagation available from that site with the Sisters of Christian Charity site and without the Sisters of Christian Charity site. Mr. Pierson responded that he had not done the propagations and as it was still in hearing and the heights were not determined yet, it would be skeptical.

During Board questions Mr. Ritger asked about the design intent and if they were primarily covering roadways with residences and businesses secondarily. Mr. Pierson responded that it is generally the roadways as they are used as a reference point, but people use the phones anywhere and everywhere. Mr. Ritger concluded that in some cases some of the gaps are not necessarily places where people will frequent as often as a roadway.

Responding to Mr. Ritger on the purpose of providing a map at -95 dBm, Dr. Eisenstein stated many times people will express that they are in one of the "gap" areas and can still make and receive calls. They are actually in an area of -95 dBm coverage which is below the design level but still at a level where the phone will work most of the time. It may not work in bad weather or a lot of network traffic. Areas that are white are not covered at -95 dBm and the phone will say "no signal".

Mr. Peck added that if one just looks at -95 dBm, the coverage is reasonably good without the Sisters of Christian Charity site. Dr. Eisenstein agreed, but indicated that the intent is to show the

Board roll-off in coverage, not design. Except for the northeast corner of Mendham Borough, people could conceivably make and receive calls particularly on a nice clear day in the wintertime. Probably not so much in the summertime as the signal would drop off.

Dr. Eisenstein also cautioned the Board on the interpretation of any islands of green in the Exhibits. The islands of green are really not usable because if one is in a vehicle or even walking they will be going in and out so quickly that the call will drop or one would not be able to make the call. If one stood still on a hill and held the phone the right way, a call could be made, but a network cannot be designed around islands of green.

Addressing Mr. Ritger on whether there would be room for additional applicants in the cupola, Mr. Pierson stated that from a radio frequency perspective there would be room for another applicant. He was not sure about three as there are 8 openings, three of which they are using and three that could be used by a second carrier. That would leave two. The probability of other carriers approaching the Borough for coverage in this area is a matter of the space and where they are located on St. Johns and Conifer or whether they are located on a facility at all such as Metro PCS, who is not on St. Johns.

Responding to Mr. Lavigne, Esq. on whether other carriers would need to externally mount antennas or build another facility, Mr. Pierson reiterated that there are 8 openings and he was anticipating that another carrier would go into another opening which could be internally screened similar to this application.

Responding to Mr. Peck on whether his comments were based on current technology, Mr. Pierson stated that they were. Mr. Peck referenced new technology that is much smaller than the antennas that are used today. Mr. Pierson stated that cubes are nothing new. Dr. Eisenstein agreed and stated they are not appropriate for a macro site. If cubes get deployed they are for use in micro pico sites that are much smaller with a much less ambitious coverage pattern of hundreds of feet, not thousands of feet. The technology is not new, the name is. Cubes are good for filling in little areas. Mr. Pierson added that the target is for stadiums and high-traffic areas to try to get 4G data into those areas. It is targeting very high-congested areas with thousands of people. Responding to Mr. Ritger on whether they would cover a shopping center, Mr. Pierson stated that it would provide coverage about the size of the inside a house.

Mr. Palestina also requested that a propagation map be provided for the western corner of the Borough. Even though the proposed tower in Bernardsville has not yet been approved, they are one year ahead in terms of hearings. In terms of his follow-on question relating to how many loops were made to obtain data, Mr. Pierson stated that they don't usually do more than one as they obtain 4,000 samples per second averaged over 20 meters with the antennae on the outside. A lot of readings are taken. The only time they would do loops is on a divided highway such as the Parkway where there might be trees in the middle and the propagations could differ.

Responding to Mr. Peck on how -85 dBm became the standard and whether there is any case law or hearing in which it was determined as an accepted signal strength for suburban areas, Mr. Pierson stated that there was a case in Upper Saddle River that was the first time that it was publicly stated or written in case law. Dr. Eisenstein added that it became a New Jersey Supreme Court case in which at -85dBm was deemed an acceptable level of coverage for design purposes. There are other considerations as well, and the carriers can obtain the greater than 2% grade of service that they need to maintain at that power level. He explained that the absolute limit of the phones on an AT&T system would be -103 so design at -85 gives margin while at -95 provides little margin for deviations.

Dr. Eisenstein continued that some carriers are requesting -75dBm in hearings to obtain "in building" as some people have given up land line phones to go wireless. He prefers to use -85dBm until there is reason to change. It is a matter of what is good for their business versus what the Telecommunications Act requires.

Mr. Peck raised the issue of health concerns and pointed out that if the system can vary to lower level, it might also vary to higher levels of power. He wanted the health concerns explained along those lines when testimony was given to address them. Dr. Eisenstein explained that there would not be spikes in the system. Mr. Peck also raised the issue of multiple carriers that would compound the power levels from the facility. If one were using a phone they would pick up one carrier, but physically they would be in range of more than one. Addressing Mr. Palestina on who would speak to the health issues, Mr. Lavigne, Esq. advised that there is a separate witness who has prepared a report that has been previously submitted to the Board. He would follow Mr. Pierson's testimony. He would also address how multiple carriers are handled under FCC rules.

Addressing Mr. Germinario, Esq. on whether the Board would be hearing testimony about the alternate sites that were reviewed, Mr. Lavigne, Esq. responded that a site acquisition consultant would review the siting priority, the hierarchy in the ordinance and the efforts that he took to see whether or not there are any available sites higher on the priority list.

Responding to Mr. Germinario, Esq. on whether additional levels of -85dBm would be required to support moving from 3G to 4G data, Mr. Pierson stated that so far the systems have been relatively balanced so that the coverage footprint of the voice system would be very similar to 3G data and to 4G data. The developers have worked on it so that they do not need twice as many sites. Mr. Germinario, Esq. summarized stating that based on Mr. Pierson's testimony, as we move into higher and higher levels of data service it would not require supplemental facilities in terms of either antennas or towers. Mr. Pierson stated that is the way the technical parameters are laying out today.

Chair opened the meeting to questions of Mr. Pierson by the public.

Mr. Simon, Esq. representing Mr. & Mrs. Bourne and Mr. & Mrs. Masiello from Cromwell Lane began his questioning of Mr. Pierson.

Mr. Pierson responded to Mr. Simon's questions stating that he did not have a breakdown of phone and data at 1900 mGh and that his reference to -85 dBm as a standard from the Saddle River case is for a suburban area. He would check the conditions on the day of the drive test. There may have been snow on the ground. In terms of his reference to a "fair amount" of traffic on Hilltop and Bernardsville roads, he has driven them about a dozen times day and evening.

In terms of questions on the 911 system, Mr. Pierson stated that he did not have any testimony on 911, but 911 calls need to be handled by the cellular network on whatever channel one is assigned. If there is voice on 1900, 850 or 700, the 911 call needs to be routed.

Addressing collocation questions, Mr. Pierson explained that the cupola is octagonal in shape and that AT&T is proposing three of the windows that would provide a certain amount of direction of the antennas. If one is in a different window, the particular angle of antennae will be somewhat different. The carrier might be able to get very similar coverage, or it may be biased to one direction depending on how another carrier may wind up designing. In order to determine the angles of each of the windows he would need to take a protractor to the cupola and he has not done that. The carriers would also need additional room for their equipment. He only looked at collocation from an antennae perspective.

In terms of the frequencies, AT&T is operating at 700, 800 and 1900 with current licenses and the proposal is to operate all three frequencies out of the Sisters of Christian Charity site. The traditional cellular propagation would be a little bit better for 700 and 800 in this area because based on the hills and trees it would propagate somewhat better than the 1900. The 700 is running a data standard and may not provide better or worse. It may not be a significant difference for reliable data service than what would be shown for 1900. A user of the phone would not know what band they were assigned.

Responding to Mr. Simon's questions relative to reliable coverage, Mr. Pierson stated that there was not reliable coverage in the Borough at the time that St. John site became operable. He has not done a study, but Conifer Drive, based on his data, comes into Mendham Borough mostly on Talmage and Cherry Lane and does not really have a lot of significant additions to other parts of the Borough. Based on the test data, most of the coverage of the Borough is coming from St. Johns. In terms of whether one can get AT&T service in the alleged gap area in question, Mr. Pierson responded in certain locations, but the signal gets weaker. The user may or may not be able to make a call, but there is not reliable service in the gaps of coverage. Mr. Simon, Esq. confirmed that the case is one of lack of coverage, not lack of capacity.

Continuing to respond, Mr. Pierson stated that he was retained for the application in December 2010. In terms of why he was replacing Mr. Kreisberg, he stated that he was told that his assistance was heeded on a handful of sites. He became aware of Mr. Kreisberg's report in January. The report does not state what frequency is used.

Addressing Mr. Lavigne's concern on relevancy as the report was not part of the testimony, Mr. Simon, Esq. stated that the Kreisberg report was submitted both in November and December of 2010 as part of the application. It is part of the record of this application. Mr. Pierson did refer to it. It shows that -75, -85 and -95 and it covers the same streets.

Responding to the Chairman on what is different in the reports, Mr. Simon, Esq. entered Exhibits O-1 and O-2. Mr. Pierson continued addressing questions indicating that he had contacted Mr.

Kreisberg with regard to his report in January/February to ask some questions and clarify some issues. In terms of his observations on the propagation plans, Mr. Pierson was not sure how they were established and requested information to validate them. Mr. Kreisberg did not have anything readily available to do that. Mr. Pierson repeated that he had done an independent analysis. He created a baseline, determined the signal strengths and established everything from that point. He basically re-did it all. He is testifying to the work that he prepared and did. Mr. Simon, Esq. verified with Mr. Pierson that he and Mr. Kreisberg had used the same AT&T software tool.

After discussion on how to proceed at the next meeting, Chair announced that the hearing would be continued at the April 5 meeting of the Board. They would continue with Mr. Simon's questions at that time followed by the general public. They would also continue with testimony addressing health concerns. All applications on the agenda must be known before any firm agenda can be set.

Mr. Lavigne, Esq. and the Board Chair advised the public that there would not be any further formal notice. Chair announced that the application would be continued on April 5 at 7:30 p.m., and to keep up to date, the public should check general newspaper and website agendas.

ADJOURNMENT

There being no additional business to come before the Board, on motion duly made, seconded and carried, Chair Seavey adjourned the meeting at 10:45 p.m. The next regular meeting of the Board of Adjustment will be held on Tuesday, April 5, 2011 at 7:30 p.m.

Respectfully submitted,

Diana Callahan
Recording Secretary