CITY OF DOVER
BOARD OF ADJUSTMENT
April 18, 2012

A Regular Meeting of the City of Dover Board of Adjustment was held on Wednesday, April 18, 2012 at 9:00 AM with Chairman Sheth presiding. Members present were Mr. Sheth, Mr. Keller, Mr. Hufnal and Colonel Ericson. Mr. Senato was absent.

Staff members present were Mrs. Townshend, Ms. Cornwell, Ms. Metsch and Mr. Rodriguez. Also present was Mr. John Tracey, Mr. Andrew Petersohn, Mr. John Feranti, and Ms. Claire DiNardo.

APPROVAL OF AGENDA

Mr. Hufnal moved to approve the agenda as submitted, seconded by Colonel Ericson and the motion was unanimously carried 4-0 with Mr. Senato absent.

APPROVAL OF THE REGULAR BOARD OF ADJUSTMENT MEETING MINUTES OF MARCH 21, 2012

Mr. Keller stated that regarding the minutes of March 21, 2012 he has a few notations. Beginning on Page #2 and extending on every page through to Page #12 in the upper right hand corner, the header is all noted as March 21, 2011 and should be corrected to read March 21, 2012. The second notation is on Page #5 beginning with paragraph #2 "Mr. Malmberg further stated that "Mr." Townshend, this should be corrected to reflect "Mrs."

Mr. Keller moved to approve the regular Board of Adjustment meeting minutes of March 21, 2012 as amended, seconded by Mr. Hufnal and the motion was unanimously carried 4-0 with Mr. Senato absent.

OPENING REMARKS CONCERNING DEVELOPMENT APPLICATIONS

Mrs. Townshend presented to the audience the policies and procedures that would be followed during these hearings.

NEW BUSINESS

Applicant #V-12-02:

200 Plaza Drive, Cellco Partnership, LLC has requested a variance from the requirements of Article 4 §4.1 of the *Zoning Ordinance* pertaining to the height of buildings for the R-8 Zone.

Subject property is zoned R-8 (One Family Residence Zone). The owner of record is State of Delaware.

Representative: Mr. John Tracey, Young Conaway, Stargatt & Taylor, LLP., Mr. Andrew Petersohn, DBM Engineering (Radio Frequency Engineer for the project); Mr. John Feranti (Civil Engineer for the project); and Ms. Claire DiNardo, Cellco Partnership.

Ms. Cornwell provided an overview of the application and submitted for the record the Staff Report, Site Plan, and four (4) different reports provided by the applicant regarding the cell

tower.

Mrs. Townshend stated that the legal notice was published in the Delaware State Newspaper on April 8, 2012 and the public was notified in accordance with the regulations.

Mr. Sheth questioned if there was any member who had a conflict of interest and there was none.

Mr. Tracey stated that the Board may recall we were before it approximately a year ago for a very similar application located on the other side of the Dover Downs complex from where this is located. As you will recall, the main reason for them appearing before you last time and again the reason for appearing before you this time, are the ongoing existing capacity concerns that are plaguing the Verizon Wireless network in this area.

Mr. Tracey further stated that Dover has experienced growth over the years with more public events over these years. With more folks travelling the Route 1 corridor heading north and south, compound that with the advances that have been made in wireless technologies moving straight from phones to now data downloads, emails, and video streaming, all of these take and impose great capacity taxation on the existing network. This compels Verizon to try and find ways in which to address it. As the Board is likely aware, Verizon has an obligation as a holder of an FCC License to provide reliable service to its customers.

Mr. Tracey stated that this application is very similar to the last application. The cell tower height is very small for one of these structures. It is seventy (70) feet with a six (6) foot tall lightening rod on the top. This is largely because its primary focus is addressing capacity as opposed to casting a broad net of coverage.

Mr. Tracey further stated that what is interesting with this property is that we thought we had found a property that we might not have to go through the zoning process because this is located within the right-of-way of Delaware Route 1. This is located immediately adjacent to the toll plaza/rest stop area that is located near the Route 1 tolls. This is considered DelDOT's right-of-way and the Board knows that this is a twelve (12) lane wide, high speed, limited access highway at that point. The City though it's Zoning Code, to ensure that as roads become vacated, placed a zoning classification on this property which is immediately adjacent to other State owned property. It is zoned R-8 and because of that zoning, we have to proceed through the zoning process to get approval.

Mr. Tracey further stated that towers are not prohibited in the R-8 zoning district as there are a lot of different uses allowed in it such as institutional uses, public utilities, and railroads with Planning Commission approval which is what our next step would be. Because there is a height limitation expressed at thirty-five (35) feet, we need the variance to go the additional forty-one (41) feet which is seventy (70) feet for the tower and six (6) feet for the lightening rod.

Mr. Andrew Petersohn was sworn in.

Mr. Petersohn stated that he would briefly go through his credentials. He has an undergraduate and graduate degree in electrical engineering from Lehigh University. He is a professional Engineer licensed in Delaware and five (5) other states. He has been designing facilities like this

one for over a decade.

Mr. Tracey questioned if Mr. Petersohn was in charge for Verizon Wireless with this application for determining where there are deficiencies and how to address these deficiencies? Responding to Mr. Tracey, Mr. Petersohn stated that this is correct.

Mr. Tracey further questioned how Verizon Wireless became aware of deficiencies in this particular area? Responding to Mr. Tracey, Mr. Petersohn stated that in this case, it is the network statistics that reveals the predicted capacity issues such as the last application with the data crunch being on. Verizon Wireless is attempting to be proactive and stay ahead of these issues; however, these sites take over a year to go from a dot on a map to an actual tower with antennas that is connected to the rest of the network. It is important that they look ahead and forward of what the anticipated capacity will be. In this case, the crunch is certainly being felt on race weekends and any busy type of venue days and weekends in the area. The thought is moving forward, the crunch two to three times a year, is going to be an everyday occurrence unless something else is done in addition to the last application site which is now constructed and functioning.

Mr. Tracey stated that as you mentioned, the existing concern in this particular area is capacity more so than coverage. Without a facility in this location, what happens to the other facilities when these capacity crunches come on at race weekend, backups on Route 1, and a new music festival that is coming to Dover in June that is not too far away from this site? If this facility was not in place what would happen to other coverage and the capacity of these surrounding sites if there are crunches in these particular areas? Responding to Mr. Tracey, Mr. Petersohn stated that over time, the surrounding facilities, including the one that was recently constructed, will become congested to a point where they are denying service not only phone call and data, it will come to a point where it affects 911 calls because the network treats those the same as any other call. The first symptom would be data congestion and a drastic slowdown in network connectivity for data sessions. The network is programmed to prefer voice calls and would give that priority that would still flow for a time. Then that congestion would overrun the system and that is when you get into the 911 issues that affect public safety and other things.

Mr. Tracey further questioned, in short of constructing a new tower, he would presume that Verizon Wireless looked at other ways to try and deal with this capacity crunch. What are some of the other things that Verizon Wireless would do and why did they or would not work in this instance? Responding to Mr. Tracey, Mr. Petersohn stated that Verizon Wireless is already co-located on basically all of the tall antennae support structures in the area as depicted in an exhibit provided on display. The first preference is to co-locate on existing structures. Prior to that, the preference would be to bolster the existing infrastructure that is already in place by adding and tweaking antennae's and adding radios to sites; however, all that had been exhausted prior to even the last application. The only alternative left is to build a new site on a new antennae structure.

Mr. Tracey further stated you have prepared an RF report for the Board's consideration. Would you walk the Board through what that report states? Responding to Mr. Tracey, Mr. Petersohn stated that the design report he prepared gives some background on the data growth. The bottom line is that it is predicted that within the next five (5) years data growth will grow by a factor of

eighteen (18) fold. This is a prediction that Cisco has made in the last few months that has underscored a sentiment and other studies that have been out there for a while now. We are three (3) to four (4) years into an inflection point in data growth and have been ramped up expeditiously since the iPhone and other smart phones have hit the market. There is really no end in sight currently. The rest of the report focuses on why this site and why this location.

Mr. Petersohn referred to the exhibit board to explain that this was a map of the area where you can see Route 1 and Route 13. The black triangles that are numbered on the map represent the other Verizon Wireless facilities that are currently on air. Number 171 is the facility that was just constructed in front of the race track. The blue dot just to the east of that tower is the location of the proposed facility. Shaded in various colors are the coverage footprints of those facilities. You will notice that each has a distinct geographical coverage footprint that the site is responsible for serving. That is important from a radio frequency design standard as you want to be able to control the footprint of the facility and make sure that mobiles that are in that footprint are served by that site and that site alone to the greatest extent possible. There is some overlap that is required in order to facilitate handoffs as the mobile moves through the network. We want to control that and keep the overly redundant coverage to a limit. This is the reason that seventy (70) feet is good here as it is tall enough where it will clear the prevailing tree line and maintain good line of site coverage for the mobiles; however, it is not to tall that it would have the effect of creating overly redundant coverage.

Mr. Tracey stated that because this is a variance hearing and we are seeking relief from the height requirement as there is a height limitation of thirty-five (35) feet in this district. He feels that it would be important to walk the Board through why the thirty-five feet cannot be complied with as it would not work in this instance.

Mr. Petersohn stated that at thirty-five (35) feet we are not tall enough to clear the prevailing tree line and the other man-made clutter in the area. We do not need to be 200 feet here because of what the objective is which is to provide coverage and increase capacity to a refined area. Seventy-five (75) feet is the just right height here to clear the prevailing tee line, maintain adequate line of site to the intended coverage and capacity increased area without going too high and creating an overly redundant coverage situation which has an effect of more overhead on the network as mobiles bounce back and forth between their serving site with seventy (70) feet being the minimum.

Mr. Tracey further questioned that the seventy (70) feet would permit an opportunity for at least one other carrier to co-locate on this tower at the sixty (60) foot spectrum? Responding to Mr. Tracey, Mr. Petersohn stated that yes, it absolutely would.

Mr. Tracey stated that today most people are getting rid of their land lines and keeping cell phones as their main home phone lines and as more and more people do that it would tax the load on the existing system.

Mr. Sheth stated that three (3) or four (4) years before a study was done, the efficiency level was at 98% and we found out that this happened to be the two race weekends. His question is by adding the last tower in the Acme Shopping Center, this tower would be because the number of uses has increased in the last few years? The second question would be what is the reason for

the site of the location? Responding to Mr. Sheth, Mr. Tracey stated that what you are finding is five (5) or six (6) years ago when cell technology was starting to really move up; basically it was still just phone calls. When race weekend came, they would bring a mobile unit that would park itself pretty much in the same location where this tower will be installed to help handle those off chance heavy usage issues. What you see now, because these phones do so much more and they all run through the same network, the data downloads, YouTube streaming, email to text messages that is all now competing with the phone calls. Add that to these additional events that are coming on with the high traffic that goes on up and down Route 1, the occasional instances where you have backups at the toll plaza on Friday's and Sunday's from mid-April until early October, you have additional crunches of usage going on from people sitting in their cars in one location if they do not have an E-Z Pass. It takes you ten (10) to fifteen (15) minutes to move through the toll plaza. This location was very good to address those concerns as well as to deal with Dover Downs at least twice a year for two weekends and now the new music festival that will be located not too far from Route 1.

Mr. Sheth questioned if they would be sharing this tower with other cell phone companies? Responding to Mr. Sheth, Mr. Tracey stated that currently it would just be for Verizon Wireless; however, it is being designed so that other networks can come and co-located their facilities on this tower. If another person were to come on they would not have to extend the tower height to accommodate it.

Mr. Keller stated that he found in the responses a notation that stated "indeed if the monopole would have shifted 500 feet or so to the north, the property would be considered zoned with the commercial classification of the adjacent Dover Downs facility, thus providing for much more relaxed height limitations." With Dover Downs at least twice a year providing the additional need, why didn't you shift it 500 feet with more relaxed conditions and perhaps not even having to come to this Board? Responding to Mr. Keller, Mr. Tracey stated that this is two-fold. As far as the State property is concerned, it is just not wide enough in that area because you have Toll Plaza Drive and a narrow swath of ground on either side where there is not enough ground to place the compound and have the State be comfortable that no one will strike it while they are driving through the right-of-way.

Mr. Tracey further stated that you may recall from the last time that we were here we explored Dover Downs as the location for the last seventy (70) foot tower. Dover Downs is not receptive to having these types of things on their property because they do not want it to interfere with their operations; however, beyond that they have weird licensing requirements that since Verizon Wireless is not a sponsor for the NASCAR events, having Verizon Wireless locate facilities on their property would be problematic because until very recently, it was Nextel or Sprint that was sponsoring those races.

Mr. Keller further stated that with Cellco/Verizon Wireless being the applicant, they are not the owner of the property. Do we have a sign off from the State of Delaware? Responding to Mr. Keller, Mr. Tracey stated that DelDOT signed the application that was submitted and he has a copy of the lease that DelDOT executed with Cellco that ensures that they cooperate with Verizon Wireless and all the applications and processes have been signed. They have also filed a Conditional Use application with the City of Dover.

Mr. Tracey submitted a signed copy of the lease for the record.

Mrs. Townshend stated that Staff does require the property owner to sign the application so we do have the DelDOT signature on the application.

Mr. Tracey further stated that there was a statue that was passed in the last year or so that allows DelDOT to avoid going through a process like this for installations it is going to construct provided that it holds a public workshop with people. This could not go through the process because even though it is foreseeable that DelDOT/State could locate some infrastructure on this tower, at the moment the tower is serving the private entity of the Verizon Wireless customer so it is not a public facility; therefore, it is not available to be approved without going the City's process. The statue is designed to deal with maintenance yards and storage facilities which up to now, assuming you were in a jurisdiction that had some form of zoning and subdivision powers, you still had to go through that process with the jurisdiction.

Colonel Ericson questioned that five (5) to ten (10) years ago we had a similar case in which there was some research done and federal laws stated that the requirements of the cell phone company in building towers was that their requirements supersedes local ordinances is this correct? Responding to Colonel Ericson, Mr. Rodriguez stated that this was correct.

Mr. Sheth opened a public hearing and after seeing no one wishing to speak closed the public hearing.

Mr. Sheth questioned if there was any correspondence for the record and there was none.

Colonel Ericson moved to approve Application #V-12-02, located at 200 Plaza Drive, Cellco Partnership, LLC based upon testimony provided and the Staff report, seconded by Mr. Hufnal and the motion was unanimously carried 4-0 with Mr. Senato absent.

Mr. Hufnal moved to adjourn the meeting, seconded by Colonel Ericson and the motion was unanimously carried 5-0.

Meeting adjourned at 9:37 AM

Sincerely,

Diane Metsch
Secretary