

**New Castle City Board of Adjustment Hearing
December 19, 2017, 7 p.m.
City of New Castle's Town Hall
2nd and Delaware Streets**

Present: Jimmy Gambacorta, Mayor
Daniel Losco, Esq., City Solicitor
David J. Athey, City Engineer

Also Present: Jeff Bergstrom, City Building Inspector

Mayor Gambacorta called the hearing to order at 7 p.m. Roll followed.

Mayor Gambacorta read the Notice of Public Hearing that states, "An application has been filed by Buck-Kennett III, LLC (Owner), 1300 Deemer's Landing, New Castle, Delaware 19720 and Cellco Partnership/dba Verizon Wireless, Inc. (Applicant), 512 E. Township Line Road, Blue Bell, PA 19422 for a property located at 419 West Ninth Street, New Castle, Delaware 19720, Tax Parcel No. 21-014.00-500 seeking a special exception from the City Zoning Code §230-25.1, to place telecommunications infrastructure on the roof of an existing building.

For the purpose of considering this application, the Board of Adjustment will hold a Public Hearing on Tuesday, December 19, 2017, at 7 p.m. in Old Town Hall, 2nd Floor, located at 2nd and Delaware Streets, New Castle, Delaware."

Mr. Bergstrom reported the property was properly posted prior to the meeting.

(Andrew Petersohn, dbm Engineering, and Ken Farrall, CMC Engineering, were sworn in by Mr. Losco.)

John E. Tracey of Young Conaway Stargatt Taylor, LLP is representing the applicant. They are seeking a special exception for the purposes of co-locating telecommunication infrastructure on top of an existing building located in Deemer's Landing. This site is second on Verizon's priority list for the Mid-Atlantic region and is considered a critical site. The ordinance as previously drafted allowed these structures only on limited properties known as the telecommunication district. The district consisted on mostly City-owned properties. This is on one of the two parcels that qualify as the telecommunication district. The second site has a water tower owned by the Municipal Services Commission (MSC) situated on it. Discussions took place between City officials and the MSC; however, MSC did not want the telecommunications infrastructure on the water tower.

The subject building is already a tall structure and they would not need to build a tower, but the ordinance as drafted at the time did not permit this type of facility to go on top of an existing building. The City has since adopted a new ordinance that expands the locations that allow this infrastructure with two conditions: it does not allow for new towers on properties outside the telecommunication district, and it does not allow such structures in the historic district. The building selected is in an area where Verizon is trying to address existing degradation of services and continued shortfalls of service.

Mr. Petersohn is a radio frequency design engineer with two decades of experience in the industry. Verizon Wireless contracted his firm, dbm Engineering, to help identify the need for the new infrastructure. (Exhibit 1-- Radio Frequency Design Analysis dated 10/13/17).

Mr. Petersohn was involved when the water tank was being considered. He testified he is very familiar with the service needs of the area and other locations over time. The design report addresses two issues for this location: coverage -- particularly in-building in the southern part of the City. There is dense residential usage in the southern portion of the City; and the area lacks reliable service. Recent

reports indicate that about half of American homes had only wireless telephones (cellular telephones, cell phones, mobile phones). There is a capacity issue that is projected to worsen. This facility will address that issue. The current facility is about one mile northeast of the proposed facility that services all subscribers in the City. The existing facility is overburdened and is trending towards chronic over burdening that will result in dropped calls, poor input speeds, and inability to place calls. These symptoms will only worsen as time passes and will result in interruptions in service, possibly critical services like emergency responders, etc. It is important for Verizon to stay ahead of those problems.

Mr. Petersohn testified it is very expensive for Verizon to build new capacity sites. Where possible they look to bolster existing sites. This is not possible at the location being discussed tonight. When looking to install a new facility Verizon seeks to leverage existing assets they already have deployed. They upgrade with the latest technology, which is the standard technological deployment for these types of facilities. Additionally, all channels Verizon has at its disposal are deployed to existing sites to help bolster traffic and optimization is done before Verizon looks to add a new site.

To address existing assets, Mr. Petersohn said that all surrounding facilities have been overlaid with new antennas (where needed) and 4GLTE equipment to help them better address data and capacity needs of subscribers.

Using a map in Exhibit 1, Mr. Petersohn described the four sites Verizon has in the area immediately surrounding the proposed facility and the geographical areas they cover: Hares Corner, North New Castle (about one mile northeast of the City), New Castle Relo, and Pennsville (NJ). Verizon needs facilities in exact locations. Placing it one mile or more will not address these issues. Mr. Petersohn knows where the surrounding facilities are located and is familiar with the tool that generates the propagation maps. Mr. Petersohn testifies to their scientific certainty. He prepared his report from the data provided by Verizon noting it is not in Verizon's best interest to provide unreliable data. He reiterated that Verizon does not want to build a site that is not needed. He has worked with all the major telecommunications providers over his career and they all use similar propagation tools as those used by Verizon Wireless.

Mr. Tracey said the Planning Commission unanimously recommended approval of this application.

With the increase of digital devices in households coverage is shrinking in peak hours.

If approved and constructed as planned, Mr. Petersohn said Verizon proposes adding three arrays of multiple antennas for in-building service that will adequately serve areas identified to be lacking adequate capacity.

Interference Analysis Report dated 8/29/17 (Exhibit 2). Mr. Petersohn confirmed the report shows the signal emanating from the proposed facility will not interfere with any other signals (television, household electronics, AM/FM radio, emergency services, etc.) emanating from other providers because they all operate at different frequencies. The Federal Communications Commission (FCC) issues licenses for Verizon Wireless and other commercial subscriber-based services that broadcast in specific portions of the radio frequency spectrum. Mr. Petersohn said there will be no harmful overlap in channels that could cause any harmful interference as a result of these licenses. Mr. Petersohn testified that since the advent of digital/cellular communications about 10 years ago, he has heard of no interference with other users. If a report of interference is presented then Verizon Wireless would dispatch someone to determine the problem and address it immediately. They would turn the site down if they could not fix the problem immediately.

Electromagnetic Exposure Analysis dated 8/29/17 (Exhibit 3). Mr. Tracey said Verizon has an obligation pursuant to the FCC to demonstrate they meet or exceed the FCC's requirements for emissions. If they are able to demonstrate this, it is not an issue that can be used or considered to deny or approve the application. The report demonstrates Verizon is at least 80 times below the FCC threshold for these types of emissions. The data was derived from a worse-case analysis. Mr. Petersohn prepared this report and explained how it was prepared.

Mr. Losco asked if Verizon would return to the City for another antenna if this facility can no longer handle the capacity. Mr. Petersohn reiterated that Verizon leverages what they have first, i.e., they are constantly clearing channels that are using older technologies. There are other approaches available that will provide for adequate capacity. It is difficult to say when the proposed equipment would be maxxed out. Verizon can reliably project about 18 months to two years out. Additionally, Mr. Petersohn informed the FCC has been clearing new airwaves that they auction to wireless providers to help address the growing demand for capacity.

Ken Farrall, CMC Engineering (CMC), will be locating their infrastructure on top of the subject building. CMC is a civil engineering firm. They will be using the roof as the platform to locate three antennas at different places, a generator and radio equipment. CMC has evaluated the structural capacity of the building as it relates to the infrastructure. Letters from CMC dated 12/19/17 (Exhibit 5) and 11/17/17 (Exhibit 4) were distributed to commissioners. The letters address and verify there are no issues with the health, safety and welfare of the public and the structural integrity of the building. The building is a concrete block building designed the same as a tower. They will tie their infrastructure into the actual building so it becomes part of the building. They are putting the generator equipment on top because space is limited on the ground (narrow on the back side of the building). The generator is natural gas and is lighter and smaller because it does not have a fuel tank. The generator will sit on an attenuator pad designed to absorb any vibration and sound from the generator. In accordance with the new ordinance adopted by the City, architectural panels designed to match the appearance and color of the building will be used to camouflage the three locations where the antennas will be located. Antennas need to have a clear line of site from the building. The equipment will be in the center of the roof and will not be seen from the ground level. They plan to use a "Stealth" product designed to camouflage this type of equipment. The product is a light-weight fiberglass material painted to match the façade and looks like a screen wall. According to Mr. Farrall the equipment averages 10 ft. to 11 ft. in height and would be below the screening. He said the Planning Commission asked if the equipment can be lined up to the windows. The final design is not done yet and if the structural integrity of the building is not an issue, Mr. Farrall said they will try to accommodate their request.

Mr. Tracey stated there is no adverse impact on the public's interest. The applicant has demonstrated they meet emissions requirements. There is no taxing of other municipal services; there are no sounds or smells. Verizon provides a service that people are relying on more extensively.

As to the visual impact on neighbors, Mr. Tracey said there is a small portion that will be visually impacted. Mr. Losco asked about him to elaborate on the visual impact to neighbors. Mr. Tracey referred to an aerial map saying most of the antennas point to non-residential dwellings or multi-family dwellings. They cannot be invisible; however, the antennas need a clear line of site technology to be able to see other infrastructure in order to work. Screening devices are not uncommon and is not an uncommon provision in the ordinance. He thinks after screening is in place for a time it will blend into the background.

Mr. Athey noted the application was filed by Buck-Kennett. The owner is not represented at the hearing, but Mr. Tracey stated the owner consents to the application.

Mr. Athey speculated that Verizon is paying a lease. Part of the lease would stipulate it would be incumbent on Verizon to fix any problems should residents complain. Mr. Tracey confirmed the owner does have recourses as stipulated in the lease. He added that part of the ordinance includes a licensing fee to the City.

Mr. Losco noted the application had a height variance checked off. Mr. Tracey said when they submitted the application they were uncertain if a height variance would be needed. He informed the issue was discussed at the Planning Commission meeting.

Mr. Losco stated the ordinance requires the applicant to exhaust all co-location opportunities and asked if that has happened. Mr. Petersohn said there are no other tall structures of significant height in the vicinity of the water tank. If this facility does not get approved, the need will not go away. They would likely return proposing a tower within the vicinity of the water tower. Mr. Losco asked if there is a facility outside the city limits that would service the same area. Mr. Farrall said there are none. The closest is one mile away, which is too far away to adequately address the service needs here.

Mr. Athey wonders if Verizon could potentially lose customers if this application gets denied. Mr. Farrall said it is a possibility in the long-term. Mr. Tracey added that Verizon has an obligation under their federal license with the FCC to provide reliable service, hence forcing them to look at alternatives to address the situation. Short of co-locating on another structure Mr. Tracey said there is no way to address this in the City of New Castle.

The floor was opened to public comment. There were no comments in favor of the application.

Carol Hickman (Ninth Street resident) lives one block away and said she has a direct view of the top of the building. She does not want any wireless users' antenna located in a residential area in the City. She feels it will be an eyesore, she has health concerns related to the equipment, she considers the natural gas generator to be dangerous, and she is skeptical the height would be 11 ft. as stated. She suggested one area to look at is Wilmington Fiber, a non-residential area. Her neighbors do not complain about dropped calls with Verizon or any other providers. It should be looked into further.

Kathy Dunn (The Strand) opposes putting the tower in the middle of a residential area. She thinks they should construct a tower rather than put it on top of a building; it would be visibly less intrusive. She suggested putting the tower at the apartment units that are being built on Route 9. There are options that have not been considered. She wonders why the MSC does not want the tower situated on the water tower. Mr. Losco said there were efforts by the City to lease antenna spaces on the water tower and MSC disagreed saying it would be difficult to address maintenance of the water tower. Ms. Dunn asked if the proposed tower could be placed beside the water tower. Mr. Losco informed the application being considered does not include that location; the location is the applicant's decision. Mr. Athey noted the water tower is in a residential area.

Tom Tritelli does not live in New Castle and is speaking on behalf of his brother who is a resident (Ninth Street). He requested the Board consider not voting on this application tonight noting there has not been enough time to review all the information presented. He requested the minutes of the 11/20/17 Planning Commission meeting and information from that meeting (approx. 12/11/17), but he has not received it yet. He does not feel there has been enough explanation as to why it won't work somewhere else. He understands the height restriction in New Castle is four stories and Deemer's Landing is six stories. Since there is no problem with visual effects and health effects, Mr. Tritelli wonders why this would not be allowed in the historic district. He does not think it should be located in any residential area and believes it could work from at least one mile away and further. He is also concerned about health risks. He feels strongly the antennas can work from the industrial area

off New Castle Avenue and off Route 273. He believes another opinion is needed other than what has been presented tonight. He believes it will work from these industrial areas if engineered properly. He reiterated his request that the Board table a vote until more information is provided.

Beverly Flannigan lives on Third Street. *(Ms. Flannigan's comments do not pertain to the application.)* She expressed frustration that when technology is upgraded old equipment and unused wiring is left behind. It is difficult dealing with the various providers. She wants to know what Verizon can do about old equipment and wiring left behind as they improve their technology. Mr. Athey suggested she speak with Verizon's representative (Ms. Manchell) after the meeting.

The public input portion was closed.

Mr. Tracey addressed comments about health concerns saying as long as they demonstrate they fall below the thresholds established by the FCC they have met their burden in that regard and it is not a reason to deny the application. He noted there is an article on the American Cancer Society's website about cell phone towers and the fact there has been no link shown between cell phone towers and cancer. Fire companies and cell towers – last year Mr. Tracey said a site was approved in Sussex County on a fire company and one of the current locations shown on the map (Exh. 1) is located at a fire company (Hare's Corner). Mr. Tracey addressed the question as to why this won't work from a mile away in an industrial location. As the City ordinance is currently drafted the industrial area is not considered to be part of the telecommunication district and a revision to the ordinance requires co-location on existing structures.

Mr. Petersohn acknowledged that radio waves will cover a mile distance and the propagation model supports that; having service in the area now is a testament to that. However, he noted that coverage is not the key issue; the main issue is capacity. This facility will bolster in-building service coverage. When it comes to penetrating homes, steel and glass structures, or multi-family dwellings, that is when the energy has difficulty penetrating. We need to be central to the area of high demand of services and the demand for services is emanating from this area. We need to have these three (3) antenna arrays pointing to three (3) sectors covering 360 degrees surrounding this site.

As to concerns about these structures in residential areas, Mr. Tracey noted that in Delaware municipalities and counties are routinely permitted in residential-zoned areas. As for the historic district, that is a direction from the City in the ordinance prepared and voted on that excluded these facilities in that area.

Mr. Losco made reference to a medical study Mr. Tracey mentioned that is not in the record. He asked if they are aware of any scientific or medical studies that illustrate that electromagnetic waves of this intensity will cause harm to humans. Mr. Petersohn stated he is not aware of any credible studies. He added that to date there has been no credible studies conducted that show evidence of any adverse health effects of above-exposure limits. He noted this subject has been studied since WWII and credible evidence shows these facilities do not cause adverse health effects.

Mr. Losco asked if the applicant can commit that any of the facilities (generators, panels, antennas) will be no more than 11 ft. in height on the roof's surface. Mr. Farrall said the site has not been fully designed yet; however, if that is a condition they will do it.

Mr. Triletti was given the floor. He questioned why the antennas cannot be turned to point inward and if more antennas can be installed to make up the deficiency. Mr. Petersohn said if they turn the antennas and focus the energy on the surrounding site towards the subject area they would be removing that energy from another area. The closest facility where that would be most applicable is to the northeast and it is already showing signs of capacity exhaustion. We would be causing degradation in areas where that facility is an appropriate distance to serve. It is a bit too distant to serve the subject area.

Speaking to the question about adding antennas, Mr. Petersohn said if that would resolve the problem it would be the first thing Verizon would do. It would be less costly for Verizon.

Mr. Triletti revisited why the historic district is exempt, particularly if visual and health is not a problem. Mr. Losco informed he should speak with City Council; they believe it would be damaging to the historic character of the area. Mr. Athey understands, but suggested Mr. Tritelli follow up with City Council.

The hearing was closed. The Board entered into deliberations.

Mr. Losco – Federal law states you cannot prohibit cellular towers. All communities have to deal with similar issues. We can control it and the ordinance allows for this. He thinks the applicant has met the burden of proof as set forth in the ordinance. The applicant has shown there are no other current co-location opportunities present. There was speculation about Wilmington Fiber, but towers are not permitted in the area and there is no six-story building there. As for the Riverwalk apartment units being built on Ninth Street, there is no guarantee the owner would entertain a tower on their building, and that is not the application before us. We are dealing with the application to put antennas on the Deemer's Landing building. The applicant has proven there are no co-location options available, they have proven there are no credible health risks and opponents have not produced credible proof otherwise. As for the visual impact, he suggested conditioning approval so that the apparatus they construct is no higher than 11 ft. above the roof surface to minimize impact, they use the protective panels for stealthing as the ordinance requires, and that they are conditioned upon removing the equipment if it becomes obsolete.

Mr. Athey concurs with Mr. Losco's points. Even if there was MSC approval he wonders how many would object to that location. If we deny this tonight the applicant could return proposing a free-standing tower that he anticipates would be opposed by many residents. It is unfortunate the location is in a residential area, but that is the way the ordinance was passed. Many of the alternate areas are not included in the Code. The Board does not have the power to change the Code. He anticipates this to be an expensive venture with an annual payment to the owner of the property and if there were an easier way to do it he believes Verizon would go that route. He also agrees with conditions being applied to approval.

Mayor Gambacorta had no comments.

Mr. Losco made a motion to approve the application for special exception subject to two conditions: all facilities of any nature (platform, generator, antennas, panels) be no higher than 11 ft. above the roof surface, and any facilities that become technologically obsolete be removed by the applicant in a prompt fashion. Mr. Athey seconded the motion. The motion was approved by a vote of 2 in favor and 1 against (Mayor Gambacorta).

Mayor Gambacorta explained he has met with many citizens in the City and most are not in favor of the proposal.

The hearing was adjourned at 9:04 p.m.

Debbie Turner
Stenographer

Exhibits:

Exhibit 1 – Radio Frequency Design Analysis dated 10/13/17

Exhibit 2 – Interference Analysis Report dated 8/29/17

Exhibit 3 – Electromagnetic Exposure Analysis dated 8/29/17

Exhibit 4 – CMC Engineering letter dated 11/17/17

Exhibit 5 – CMC Engineering letter dated 12/19/17