

West Windsor Township Zoning Board of Adjustment

Minutes – Regular Meeting

July 26, 2018

The regular meeting of the Zoning Board of Adjustment was called to order at 7:30 p.m. on Thursday, July 26, 2018 by Chair Abbey in Meeting Room A of the Municipal Building.

STATEMENT OF ADEQUATE NOTICE

Pursuant to the Sunshine Law, a notice of this meeting's date, time, location and agenda was mailed to the news media, posted on the Township bulletin board and filed with the Municipal Clerk as required by law.

ROLL CALL AND DECLARATION OF QUORUM

Present: Susan Abbey
John Church
Michael Garzio
Curtis Hoberman
Henry Jacobsohn
Aleta Ricciardi
John Roeder
Carl Van Dyke

PUBLIC – No comments were provided.

APPLICATION

- a) **ZB18-02**
PSEG - Transmission Pole Line
Block 14, Lot 7; Block 20; Lot 2; Block 19, Lot 5; Block 21.04, Lot 2; Block 17.08, Lot 8;
Block 17.14, Lot 24; Block 49, Lot 86; Block 61, Lot 78; Block 17.18, Lot 8;
Block 16.11, Lot 19; Block 24.14; Lot 21; Block 25, Lot 8
d-3 and d-6 variances; Minor Site Plan & Conditional Use
Property Zoned: R-1C; R-30; R-20; R-30A; R-2; E Districts
MLUL: 8/16/18

Ed Schmierer, Esq., legal counsel for the board, stated that proof of notice is in order and the Board has jurisdiction.

C. Van Dyke stated that he has to recuse himself from the discussion because his daughter is an intern for PSE&G. C. Van Dyke left the meeting.

Thomas Trautner, Esq., legal counsel for the applicant stated that the proposal was classified as a minor site plan with conditional use and bulk variances. The following zones will be impacted with this installation: r1; r30; r30a; r20; r2; and the e district. The 29 monopoles will replace the existing 132kV transmission circuits with 230kV circuits. He identified the variances associated with this request

including conditional use relief and height variance approval for the height of the monopoles which will exceed 50 feet by more than 10 percent. C variances are needed for lot area and front yard setback.

Mr. Schmierer swore in the following individuals for the applicant: Jason Caldwell, Senior Project Manager; John Wang, PSE&G Structural Engineer; Cathy Curry, Engineer/Planner/Environmental consultant.

Mr. Caldwell stated that this is an aging infrastructure project. The federal government has mandated inspection of all facilities to meet certain criteria. There is a section of line through West Windsor constructed in 1929 that has been deemed needing replacement. Within West Windsor this is for a five mile distance, the total distance of this line is 55 miles. This project is an upgrade, the line circuits will be replaced to build extra capacity.

The circuit line is called the "Trenton-Burlington Line" beginning in Metuchen near Routes 287 and 1, then on to the Trenton station in Hamilton and on to the Burlington generator station in Burlington. He stated that the entire line needs replacement. This has been classified by PJM (Pennsylvania/New Jersey/Maryland) who oversees all transmission stations in the three states as an immediate need project. PJM has required that this project be undertaken. Annual maintenance takes place on all of their systems.

J. Roeder asked if approvals are granted today how long will this project take to build. Mr. Caldwell responded June 1, 2022, PJM requested December 2021 as the service date for this segment.

A. Ricciardi asked what the driving needs are for West Windsor. Mr. Caldwell stated that it is an aging infrastructure and by doing this project we are increasing the capacity.

J. Church asked if PSE&G would be in jeopardy if the construction does not happen. Mr. Caldwell replied that PSE&G would be in jeopardy. Mr. Trautner replied that this is a safety question, the applicant is delivering electricity to the consumers and it could create safety concerns if all the consumers don't have this increase. And there will be consequences for PSE&G if they do not comply with these directives, lack of power will cause disruption.

J. Church asked if the towers will remain up while the monopoles are constructed. Mr. Caldwell stated that it will be a varied sequence but the existing towers will come down before the new monopoles go up. The transmission grid has enough reliability to sustain the line for a short time. Construction from north to south is the general idea, each section will be done after the approvals are granted. Zoning permits have been obtained from the following municipalities: Metuchen; Edison; North Brunswick; South Brunswick; and, East Brunswick.

A. Ricciardi asked what would happen to the mobile antennas that are on the existing towers. Mr. Caldwell stated that there are multiple sites along the entire route and they will coordinate the project with the cell carriers.

Samuel Surtees, Zoning Officer/Land Use Manager, was sworn in and stated that a permit is required if a storage area or enclosure is enlarged or moved after planning or zoning approval is received. He was advised that there would be no cell provider outages, mobile units can come in for a few months to pick

up slack during construction.

Mr. Caldwell stated that a letter was sent to the residents about the project along with contact information. The municipality will be apprised of the construction schedule. He advised of the installation process: 1) assess the site; 2) site is engineered to reduce soil erosion; 3) install foundation; 4) remove the existing wires and towers; and, 5) install poles and the wires. Year round construction activity is anticipated. He presented a photograph of a monopole in North Brunswick (Exhibit A-1) and stated that the color of the monopole is a gray galvanized metal. J. Roeder suggested a sky blue color which is less visible.

Mr. Caldwell presented a photograph of the monopole with lattice poles on each side (Exhibit A-2) and advised that this is a photograph of the project in North Brunswick. C. Hoberman asked the size of the footprint of each monopole. Mr. Caldwell stated that Mr. Wang will discuss this.

Frederick Turek, Engineer for the Board, asked about disturbance of the bike path. Mr. Caldwell stated that the bike path is within the work zone and a sections of this will be closed during construction but it will reopen for public access. The sections closed will have a bump out area for full use of the bike path. Chair Abbey asked if those areas will be fenced and Mr. Caldwell responded that certain areas may need additional protection and fencing would be installed.

Mr. Turek was sworn in and stated that safety is the most important thing to consider and questioned the process for excavation for the foundation, he asked the size of the hole and questioned if this area is secured with fencing. He is concerned about children going over the fence. Mr. Caldwell stated that the construction crew will not leave the site with an open hole, a steel plate or other protection will be in place. The pit sizes are approximately 8 to 10 feet in diameter and 50 feet deep. Some pits are 14 feet in diameter. Mr. Caldwell stated that the current poles are 500 to 600 feet apart and the new monopoles will be 1000 feet apart. There will be impacts to the access road to Mercer County Park, a temporary site access easement agreement is being requested. He advised that the land may be within Hamilton Township and not West Windsor.

Mr. Trautner asked for a description of the maintenance needed for the tower. Mr. Caldwell stated that inspections take place annually, maintenance will be reduced because of the new structures. They anticipate that it will be accessed once every five years. Regarding landscaping, no new landscaping is proposed, there must be no vegetation beneath the transmission lines so there are no trees in the right-of-way. Mr. Caldwell advised that they need to correct an inaccuracy, in the report by Mr. Dobromilsky it notes that the substation in West Windsor will be removed, there is a substation being removed but it is not in this municipality. This was an error made by the applicant. The substation in West Windsor is located on Village Road and green slats are proposed for the fence. Regarding stump removal, this will be done in the near future if it hasn't been done already. Regarding the bike path extension, the applicant is willing to extend the bike path on Village Road and make this a condition of approval. Mr. Trautner stated that they will attempt to pursue approval for an easement to extend the bike path.

Mr. Turek stated that he is concerned about licensing agreements. Mr. Trautner advised that the applicant will look into this. Mr. Turek asked if PSE&G is willing to assist in the construction of the pieces that are missing for the bike path and Mr. Trautner responded if Council grants this, they will assist in the construction.

David Novak, Planning Consultant for the Board, was sworn in and referenced his reports dated May 16, 2018 and July 17, 2018 and stated that approval is needed from Council for the right-of-way dedications and easements. He also asked the applicant to work with the Engineer and Landscape Architect on the design of the easement areas. Mr. Trautner stated that Council approval is also needed for the utility easements. Mr. Novak asked if the underground materials have been removed. Mr. Trautner responded that they have been removed.

J. Church stated that the consumers will be paying for the upgrade and questioned if it will really help the public with resiliency and liability. Mr. Caldwell responded that it would have economic benefits and provide additional capacity for the consumers.

John Wang, structural engineer for the applicant, stated that he is the Supervisor of the transmission design group overseeing everything to ensure code compliance. Regarding the proposed width and height of the poles, currently there is a 100 foot wide PSE&G right-of-way with 52 lattice towers that are 117 feet tall. The plan is to replace them with 29 monopoles at an average height of 175 feet. The existing span between the lattice poles is 400 to 500 feet, the span for the new monopoles is 1000 to 1200 feet. They made an attempt to reduce the number of structures and their impact to the homeowners.

A typical right-of-way cross sections with superimposed monopoles was presented (Exhibit A-3). He stated that they are required to maintain clearance with the ground, minimum ground clearance needed is 45 feet, for the existing poles only 20 feet was needed. There are six circuits, all needing their own space since each has its own current, and a lightning wire on the top that is not energized. This is why the structure is taller than what exists.

The foundation size varies because it depends on the soil and the load, the foundations are 9 to 12 feet in size. He advised that the towers are as low as they can possibly install them. The footprint for the base of the pole is a minimum 9 foot cylinder. The pole of the tower is tapered and the smallest part is two feet less than the footprint of the base of the pole. The foundation is exposed 12 inches from the ground level, it must be above flood level and could be as high as three feet. The two poles at the Mercer County Lake are the tallest because they have a great span, the base plate and steel pole were not included in his description of the height.

C. Hoberman asked if those poles are in wetlands. Mr. Caldwell stated that this will be discussed by their stormwater consultant. The monopoles will be coated so the water does not cause any damage to the pole. If there are any issues they will be dealt with in the field, he testified that no transmission structure has fallen since the beginning of this transmission system. The structures are designed to withstand extreme weather conditions. He is aware of one lattice structure that is failing because of a failed foundation. These monopoles are more modern, easier to build, thinner with less of a footprint. Mr. Trautner stated that the applicant would consider it a failure if the structure moves only a few inches. A maximum wind for each section is determined and then the structures are designed.

The meeting recessed at 8:35 pm and resumed at 8:45 pm with all members in attendance.

H. Jacobsohn stated that climate change is here and asked what is being done to compensate for these changes that may get exacerbated over the next 20 years. Mr. Wang stated he is not sure if this

business has a large role in this, the lines are to be built to provide reliable service without outages.

Mr. Turek questioned the lifespan of the pole. Mr. Wang stated that the pole in place is almost 100 years old and it is still structurally sound.

Cathy Curry, Senior Project Engineer for the Applicant, stated that she is involved with all environmental and stormwater issues associated with the project. Regarding the stormwater, there will be no significant increase in the impervious surface so this should not be a concern. When the piers for the towers are being installed, if they hit groundwater concrete is poured in. The poles are proposed to be in the flood plain but not in the wetland areas of Mercer County Park. Right-of-way dedications will be consistent with the Master Plan.

Pertaining to the environmental and flood way issues, three variances are required. Bulk variances are needed for lot size and height and three variances from the conditional use requirements. Ms. Curry advised that one variance for a five foot setback was reevaluated and the new location of that pole (Block 24.14, lot 21) will be in compliance. A lot (Block 20, Lot 2) requires a minimum lot size variance since 1.67 acres are required and 1.34 acres are proposed due to the right-of-way dedication but there is no impact to the functionality.

She stated that there is no substantial detriment to the standards or the ordinance, it is an inherently beneficial use because it is a public utility and provides the service needed for consumers.

Mr. Turek stated that the towers are pre-existing and non-conforming and this proposal exacerbates the non-conformity. Regarding the variances for conditional use, towers are permitted in all zones however the pole height permitted is 55 feet. These towers are unique, they are transmission towers and there is a need for additional height which increases the reliance of the network. He stated that there are no negative impacts, no increase in noise or traffic, it is just a visual impact. An eight-foot wide footprint is all that is viewed from ground level. The properties chosen are well suited for this use. The visual bulk is reduced when the lattice towers are eliminated.

Chair Abbey asked about the locations of the poles. Ms. Curry stated that the monopoles are in close proximity to an existing pole.

J. Church asked about the requirement for a 50 foot deep foundation. Ms. Curry stated that there is a high water table in West Windsor. The water is discharged into a holding tank and then discharged elsewhere. The applicant is aware of some areas as shallow as 10 feet but there are no concerns about installation. Poles 180 to 200 feet tall are proposed.

Mr. Turek asked the applicant to advise the actual height of the poles. Ms. Curry responded that 200 feet is the maximum height. Mr. Novak asked if there are any poles constructed in New Jersey that are lower than 55 feet. Ms. Curry responded that she is unsure. Mr. Wang stated that some poles that have to cross the turnpike may be lower but 55 feet is very unlikely.

J. Church asked about the magnetic field. Mr. Wang advised that current flows through the conductor, the field tapers away from the line and in New Jersey there is a State law about EMF's that they follow but there is no industry standard. The applicant tries to consider the best way to minimize the EMF's, this is a part of the design consideration.

J. Church asked for the number related to EMF's. Mr. Wang stated that no number is available.

Mr. Turek stated that he has had discussions with the applicant on the easement bounds, there are no specific bounds at this time but he is satisfied and will work with the applicant.

Mr. Turek asked how long the project will take and Mr. Caldwell responded that it will begin early spring through spring/early summer 2020. After construction then they will restore the right-of-way.

Mr. Novak asked about the construction process. Mr. Wang advised that it takes two to three days to construct the pole which is brought in by tractor trailer.

Mr. Dobromilsky asked the hours of operation for construction and a description of the process. Mr. Caldwell stated that construction will take place between 7am to 6pm Monday through Saturday. Concrete pours for the foundation have to be done in a single day but can go past 6pm and when overtime work is anticipated they will seek approval from the town.

Mr. Novak stated that there are 52 towers being reduced to 29 monopoles and asked how many dwellings are adjacent to the monopoles. Mr. Trautner stated that the applicant needs to check.

Daniel Dobromilsky, landscape architect for the Board, was sworn in and stated that he reviewed the plan and estimated that 110 homes are near existing towers, 59 homes will be near the new monopoles. When reviewing conditional use requirements, the applicant is asked to make the location as inconspicuous as possible and go as far as specific requirements for screening. The applicant has attempted to make the pole as inconspicuous as possible by reducing the quantity from 52 to 29, reducing the number of properties affected and reducing the bulk. The applicant is also offering to make the coating lighter in color to blend with the sky. The aesthetics of the equipment station will be improved with the fencing. Any debris or stumps in the area will be cleared. The applicant was asked if they are willing to help with vehicle charging stations and Mr. Trautner responded they can assist with getting programs in place.

Mr. Turek stated that the applicant has responded positively and asked if the applicant is willing to provide a sanitary sewer easement. Ms. Curry stated that they are willing to request this easement and will work with the municipality on the exact location.

The meeting was opened to the public.

Charlie Yim, 18 Dey Farm, was sworn in and thanked PSE&G, he stated that the aesthetics are being improved, although they are taller structures it is a solid pole. He asked if the wires will sag because the poles are spaces so far apart from each other. Mr. Wang responded that the wires will not sag. There is a special conductor for these poles, crews will be maintaining the lines and the conductors will be used when there is an emergency.

Joel Selnick, Rabbit Hill Road, was sworn in and referenced the vicinity plan and said a monopole is proposed on his property (Block 19, Lot 76). He advised that the bike path near his home is heavily traveled. He did some research on electromagnetic fields (EMF) on the internet and learned that it should not exceed 3 milligauss. He asked how many studies were done to determine the levels.

J. Roeder stated that this was a concern 20 years ago, he no longer has concerns but asked the applicant to return with the definitive studies. Mr. Trautner stated that the EMF's generated will be substantially less than what currently exists. J. Roeder asked the applicant to provide legitimate research to counter the concerns expressed by Mr. Selnick.

Kyle King, electrical engineer consultant for the applicant, was sworn in and stated that pertaining to EMF's there are two different parameters. An EMF is about the current that runs through the lines and advised that there are EMF's in this room. The lattice tower is left of the right-of-way and the new design is moved towards the center of the site. The height is increased, the voltage is also increased but the current decreases so the magnetic field is lower than the lattice tower lines. There are two different circuits, the magnetic field has direction and connections, one circuit creates a field in one way, the circuit on the opposite side creates a field in the opposite direction so the magnetic field is decreased. All these parameters lower the EMF levels approximately 20 percent.

Chair Abbey asked if the magnetic fields along the edge of the right-of-way are less than what is currently there. Mr. King responded that they are. The Board of Utilities has reviewed this, there are hundreds of studies and the determination is that there is no clear public health risk associated with EMFs.

Kyung Yim, 18 Dey Farm, was sworn in and stated that she is very interested in electromagnetic fields since her home is beneath a tower. She asked if the applicant can reduce the pole to be more slender and increase the number of poles. Mr. Wang responded to Ms. Yim's concern about electromagnetic fields, the State oversees the environmental aspects of the project.

James Greschak, 165 Penn Lyle Road, was sworn in and stated the poles are not unobtrusive but the height is four times the standard of the code. Mr. Novak stated that the current pole heights are 109, the proposed height is 183 feet. Chair Abbey stated that the permitted height for cell towers is 55 feet. Mr. Greschak asked about the purpose of vegetation management and questioned if this was put into place after 9/11. Mr. Trautner stated that in August 2003 there were blackouts in the Northeast that were triggered by overgrown trees which accidentally tripped the lines. Regulations were then put into place to prohibit landscaping over three (3) feet in height.

Mr. Greschak advised that there is a tower proposed near his home, it is 100 feet from his residence and the new location will be 90 feet away and 183 feet in height. He feels that this is a danger to him, the pole is too close and asked that it be moved further away. Mr. Wang responded that originally they were asked to move the tower, the original location chosen was only 54 feet away from the residence so it was moved to 94 feet. This is the best they were able to accomplish, they cannot eliminate that structure. This is a requirement from the Federal Safety Code Commission, with a longer span a 45 foot sag would result.

Mr. Greschak stated that the applicant should be aware that many older homes on Penn Lyle Road have wells and he has concerns about contamination of the wells from the excavation for the piers. Ms. Curry stated that a preliminary environmental impact statement was submitted. Board members advised that they were not provided with a copy of this. Ms. Curry stated that there will be no disturbance to the water table. Mr. Greschak asked for guarantees of no contamination. Mr. Trautner stated that in extreme situations, PSE&G is liable for negligence and the water table is impacted.

Anthony Pojuner, 13 Allman Place, was sworn in and stated that the lattice tower near his property (Block 61, Lot 63) has a cell tower and he asked if the cell towers will be on top of the monopole. Mr. Wang responded that currently there are four structures that have cell towers. He advised that there is a way for cell carriers to attach to the monopole. Mr. Wang stated that the lattice pole is 113 feet in height and a monopole of 183 feet is proposed near Mr. Pojuner's property.

No further members of the public wished to speak. Motion was made by J. Roeder to close the public portion of the meeting, seconded by H. Jacobsohn. The vote was 7-0 in favor. Motion carried.

Board discussion took place.

Motion was made by J. Roeder to approve the major site plan, seconded by A. Ricciardi. The vote was 7-0 in favor. Motion carried.

C. Hoberman stated that there are a number of municipalities that are a part of this project and asked if we are able to place a condition on the approval that the applicant obtain all municipal approvals for this monopole project. Mr. Surtees stated that most towns are exempt from Board review including Hamilton and he is unsure if Board review is required in Plainsboro. Mr. Schmierer stated that the applicant is unable to build this unless all municipalities approve this.

J. Roeder asked that the staff do a courtesy check on the location of the monopole on Mr. Greschak's property to see if it can be moved away from his home.

Chair Abbey advised the reasons for approval are that this is a beneficial upgrading of the infrastructure from the 1920s to current standards. Although the poles are taller the number of structures are reduced by half. The towers proposed are as low as possible to satisfy the new standards. Currently there are 110 homes by towers and this will be reduced to 59. Taller monopoles leave a less magnetic field than the current design.

The following conditions of approval were identified:

The applicant shall enhance the screening around the electric equipment station just south of Village Road within the right-of-way. Green slats shall be installed in the fencing to screen the stations appearance. Existing stumps around the station will be removed.

The applicant shall repair and restore the bikeway path(s) upon completion of their work.

An extension of the asphalt pathway on Block 14, Lot 7 (connection to Plainsboro High School North) and Block 16.11, Lot 66 (connection to Penn Lyle Road south to Village Road) was recommended for approval by Council.

A utility easement across Block 19, Lot 5 should be provided. Metes and bounds description of the easement area must be provided for review and approval by the Board Engineer. Deed of easement shall be reviewed and approved by the Board attorney.

A 10-foot wide sidewalk easement to allow for the extension of the concrete pedestrian walk across Lot

19 should be provided. A description of the easement must be provided for review and approval by the Board Engineer. The deed of easement shall be reviewed and approved by the Board attorney.

All materials and equipment will be safety secured on site and the holes to accommodate the footings shall be secured and covered overnight.

J. Roeder recommended that the ordinance for cell towers be revised.

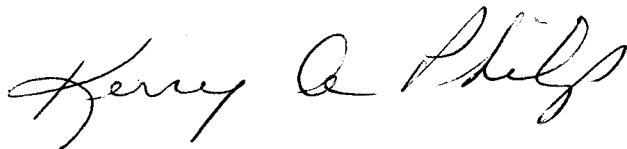
For: Abbey, Church, Garzio, Hoberman, Jacobsohn, Ricciardi, Roeder

Against: None

Abstain: None

Being that there was no other business before the Board, the meeting was adjourned at 10:35 p.m.

Respectfully submitted,

A handwritten signature in cursive script that reads "Kerry A. Philip".

Kerry A. Philip
Recording Secretary