

GREENWICH TOWNSHIP BOARD OF ADJUSTMENT

PUBLIC MEETING MINUTES

July 8, 2010, 7:30 p.m.

CALL TO ORDER and PUBLIC NOTICE

Chairman Ray Buckwalter called the meeting to order at 7:30 p.m. Ms. Oldford said this is a regular meeting of the Board of Adjustment of the Township of Greenwich. Adequate notice of this meeting has been given in accordance with the Open Public Meetings Act in that a Notice was published in *The Express Times*. Notice was posted on the municipal bulletin board in the Township Municipal Building in Greenwich Township, New Jersey, and notice was filed with the Township Clerk.

FLAG SALUTE

ROLL CALL

Present: Ray Buckwalter, Michael Black, Robert Vetrecin, Angelo Faillace, Dan Detore, Tom Strozeski, Jeanne Zander, Steve Babula

Absent: Dawn Marie Kondas, Steve Babula

Professionals: Jonathan Drill, Esq.; Michael Finelli, P.E., Lisa Specca, P.P.

APPROVAL OF MINUTES

Motion to approve the minutes of meetings of May 13, 2010 and June 10, 2010 was made by Robert Vetrecin and seconded by Angelo Faillace.

Members in favor: Ray Buckwalter, Michael Black, Robert Vetrecin, Angelo Faillace, Dan Detore, Tom Strozeski, Jeanne Zander, Steve Babula

RESOLUTION

Resolution No. 2010-04 - Phillipsburg-Easton Honda, Application #2010-01
Block 25, Lot 2.01

C2 variance to permit additional signage.

Members eligible to vote: Michael Black, Dawn Marie Kondas, Thomas Strozeski, Robert Vetrecin, Ray Buckwalter.

Request to Amend Resolution #2010-04 – Phillipsburg-Easton Honda to eliminate a sign

lighting restriction condition #2d was made by Michael Selvaggi, Esq., attorney for the applicant.

Mr. Selvaggi introduced himself and noted Mr. Mace, applicant's engineer, testified there would be Honda blue color on the wall mounted signage. Board attorney Drill explained that he had interpreted the statement about Honda blue color to mean color without lighting. Mr. Selvaggi explained that the Honda blue lighting amounted to back lighting. Mr. Selvaggi also noted that, during deliberations, lighting did not come up..

Motion to remove condition 2d was made by Ray Buckwalter and seconded by Robert Vetrecin.

Members in favor: Michael Black, Thomas Strozeski, Robert Vetrecin, Ray Buckwalter

PUBLIC HEARING

Warren Solar, Application #2009-03

Block 15, Lot 1; Block 17, Lots 1 & 2; Block 13, Lot 3; Block 19, Lot 1; Block 16, Lot 6; Block 14, Lot 10

Applicant seeks approval for "d(1)" use variance and site plan approval for a solar power generating facility. A "d(3)" conditional use variance, conditional use approval and site plan approval may be the relief ultimately required if the Township adopts an Alternative Energy Ordinance which is being considered by the Township Committee.

This hearing commenced on June 10, 2010.

Board attorney Jonathan Drill noted for the record, there is television camera and public address system for an overflow area opened in the attached Fire Department garage should there be more attendees than can fit in the regular meeting room. Five seats will be reserved for witnesses to come into the regular meeting room.

Mr. Selvaggi confirmed that this is a bifurcated application. Applicant initially seeks a use variance. A conceptual site plan only has been submitted.

Mr. Drill sent a "crib sheet" on July 2, 2010 containing the legal standards which he believed the Board must apply in this case. Mr. Drill explained the standards had been revised because of the change in the law relating to the definition of "inherently beneficial use." He sent email to applicant's attorney and attorney for objector requesting review and comment. No disagreement was forthcoming from Mr. Selvaggi, and Ms. Waterbury indicated she believed the crib sheet correct. Mr. Selvaggi indicated on the record that also believed that the crib sheet was correct.

Emails in the Board file:

On June 11 a Board member asked for a site visit at Mars site pictured in Exhibit A-4.

Mr. Selvaggi telephoned and said the Board could not access the Mars property. Mr. Drill noted Maser Consulting Engineers, applicant's engineering expert, had designed the Crayola Factory solar facility, and request was made for the Board to view that facility. Mr. Selvaggi responded that a visit could not be arranged, and further applicant did not have an obligation to facilitate a site visit.

Through Mr. Drill's contacts, a site visit was held at the Merck facility in Hunterdon County. Mr. Drill stated there was no quorum of the Board in attendance so there was no need for notice under the Open Public Meetings Act. He explained that there were two visits to avoid a quorum being present. Mr. Drill referenced an Appellate Division case which explains there is no requirement that parties or counsel must be present at a site visit. However, the knowledge gained at the site visit must be placed on the record. Mr. Drill invited the Board members who had visited the site to give input for the record.

Angelo Faillace said the facility was impressive. He observed the solar panels were movable, i.e., tracking the sun. Therefore, the panels were placed in concrete footings. There was no fence since it is a private facility. There was an opportunity to see how the grass was growing. Mr. Faillace said the panels have been in place for 2 years. He explained that the inverters made noise. He pointed out they could be heard from approximately 75' away, and the sound resembled the sound of a vacuum cleaner.

Jeanne Zander observed that Merck had planted species that were native to the area. She observed the wires on the back of the panels.

Dan Detore observed the 10 acres comprising the solar facility was very isolated. Panels were located on a high location and surrounded by trees. Panels were not observable. Vegetation on the ground under the panels was sparse. There was considerable gravel. There were tracks on either side. He observed exposed wires under the panels. Mr. Detore said he heard the inverters, which he described as sounding like a compact car idling. He also heard a fan noise and an electrical humming sound.

Tom Strozeski noted although there were exposed wires under the panels, the wires between rows were inside conduits. He said that the electrical substation was fairly concealed on the back side of a hill. There was no fencing present. There appeared to be some erosion of the ground under the panels. There was plastic netting on the ground. Panels were set in concrete footings.

Michael Black noticed a different noise on the back of the inverter than the front. The sound from the back resembled a vacuum while the front emitted a whining noise. Mr. Black observed the substation was well concealed. Wires from the solar panel field to the substation were underground. There was aluminum at the base of the panels. He observed the panels did not look like those depicted in A-4.

Mr. Vetrecin visited the Ortho Diagnostics facility on Rt. 202 as well as Ethicon. Ethicon solar arrays are located on roofs. They are not intrusive because of that. The visual impact of Ortho Diagnostics on Rt. 202 is a "disaster" because they are located in the

front yard of the property. He observed this degraded the appearance of the property. He reiterated the visual impact is negative.

Mr. Selvaggi said he had no objection to the Board members visiting sites; however, he noted the applicant would not be in a position to answer questions regarding these sites.

The applicant then continued with its presentation of its case.

Mr. Selvaggi called Mr. Petridis, who is a factual witness. Mr. Selvaggi said in response to questions and concerns, the applicant has looked at ways to mitigate the view. Mr. Selvaggi referenced Exhibit A-5 as the site concept plan. Mr. Petridis said the company looked at ways to mitigate the visual and sound impacts.

Mr. Petridis introduced Exhibit A-9, which is an up-dated proposed site plan. He said they removed some panels to mitigate visual and sound impact to the houses in the vicinity. This exhibit was finalized and circulated on 7/7. Mr. Petridis demonstrated the areas where panels had been eliminated. All hedgerows have been preserved. The overall number of panels was reduced by 20%. Approximately 20% less energy would be produced or 15 megawatts.

Mr. Selvaggi noted photographs from various neighbors properties were taken as agreed at the last meeting but that the photo-simulation exhibits had not yet been completed. That would be submitted at the next hearing session.

Mr. Buckwalter invited questions for Mr. Petridis.

Asked about the photos on A-4, Mr. Petridis indicated that neither he nor the applicant's representatives had taken those photos at the Mars facility. Mr. Petridis indicated that the photos on A-4 were downloaded from the PSE&G website. He had never been on the Mars site. Mr. Petridis said the photos on A-4 were representative of the installation process.

Mr. Finelli referenced A-9. He observed the extent of panels had been minimized. The original submission was more similar to A-9. Plan had been revised to A-5, which shows 150 acres of panels. Mr. Petridis explained the reason for the changes were as a result of the change in technology. He said he did not know how much less acreage would be used for A-9.

A-9 respects the treeline. Asked about the closest distance to a residence, Mr. Petridis said 500'. Location of substation has been moved back to minimize impact according to Mr. Petridis. Asked about the relationship to the nearest road, Mr. Petridis said A-9 is parallel to Richline Hill Road and further from Stewartsville Road and Willow Grove Road.

Mr. Buckwalter asked about the location of the railroad. He asked about the possibility of moving the array further north to minimize the impact on housing. Mr. Petridis noted

they are trying to address the concerns as to impacts on wetlands and historic districts as well as residential. Mr. Selvaggi said another witness would address environmental issues.

Mr. Faillace asked how the land would be prepared. Mr. Petridis responded this would involve engineering and planning. At the end of the lease, the property would revert to farmland.

Mr. Detore asked the square footage of the panels in A-5. Mr. Petridis said the original plan provided 1,000,000 square feet. The square footage shown on the revised plan would be 750,000.

Asked about soil testing, Mr. Petridis said it had not yet been done.

Mr. Selvaggi pointed out that last month the Board recommended an EIS. Soil testing would be completed as part of the EIS. The result would determine how the panels are installed. Trackers require concrete footings whereas fixed panels may not.

Mr. Detore asked about the wind rating of the panels. Mr. Petridis referred the question to manufacturer's representative.

Mr. Buckwalter asked about the lay of the land. Mr. Petridis said they would work with the contours of the land. Asked about the inverters on the exhibit, Mr. Petridis explained the inverters are noted by small red rectangles. Mr. Petridis indicated inverters are at least 500' away from houses. Asked about the highest point, Mr. Petridis said the land rolls down from the railroad. Is it possible people will see the panels closest to railroad? Mr. Petridis contended given the distance, the panels will not be intrusive.

Ms. Specca asked about the size of the inverters and the difference in the sound levels. Sound expert will attend in August. Mr. Petridis said there are possibilities of moving the inverters around. Ms. Specca asked about the panels on the far west. He confirmed it does not impact the farmstead.

Mr. Vetrecin asked about the testimony from the sound expert regarding the frequencies.

Mr. Faillace asked about how the sound would travel.

Mr. Buckwalter asked about the augmentation to the existing substation. The applicant was requested to submit an additional exhibit showing what the substation would look like as a result of the application. Mr. Selvaggi confirmed they are seeking to provide this.

Ms. Strozski asked about trucks, road impacts and times during construction. Mr. Selvaggi said this is a site plan consideration. Mr. Detore said this does not have to wait for site plan review. Trucks will bring in panels. Mr. Selvaggi said the applicant would post a bond and lay out routes. Mr. Strozski asked whether they need electrical

inspections.

Mr. Strozeski asked how a fire at the facility would be treated. Mr. Selvaggi said the plans could be submitted to the Fire Dept.

Mr. Black asked whether a wet coil or dry coil would be in the transformers. According to Mr. Petridis, the coils will be dry.

Mr. Detore asked about concrete for inverters. Are pads flush to the ground? Mr. Petridis said typically pads are 5 – 6 inches off the ground.

Mr. Finelli asked about the reality of 750,000 square feet of panels on A-9. Mr. Finelli said his calculations indicated the square footage would be significantly more. Mr. Petridis confirmed he did not know the actual square footage. Applicant will provide exact numbers.

Short recess was announced.

When the Board returned, Mr. Buckwalter invited questions from the public.

Marilyn Brandt, Herleman Road, asked about photographs. She asked how to submit photos of the property from her perspective. Ms. Selvaggi said he could try to get her photos as part of the computer simulation.

Jim McAleer, 110 Stewartsville Road, asked whether the applicant would be going to Franklin Township for approvals for additional panels. Applicant said there was no plan at this time. Mr. McAleer asked about the erosion problem for Harts farm. Mr. Selvaggi noted there would be expert testimony as to erosion. As to inverters, Mr. McAleer asked whether there would be noise at night. Mr. Petridis explained they would only be active in the sunlight.

Joseph Tauriello, 307 Meadow Run, asked about the cleaning process. Mr. Petridis explained a crew will come and bring their own water and sponges. Water will be trucked in. Asked about how many trucks, Mr. Petridis said he did not know. Mr. Tauriello asked whether the lease would be renewed after 20 years. Mr. Petridis said no. Mr. Petridis testified admitted that he is not a soil expert. Mr. Tauriello asked about the reason to change panel types. Mr. Petridis explained the panels chosen perform better.

Ron Marinelli, 112 Willow Grove Road, asked about the reason to tie up real estate rather than seek roof mounted systems. Mr. Petridis said rooftops are not utility scale.

Mr. Tauriello asked how the concrete footings would affect the reversion to farmland. Mr. Tauriello asked whether applicant would consider posting a bond to guarantee removal of the footings. Mr. Selvaggi clarified there is no legal obligation to the Township. Mr. Drill asked whether Mr. Petridis would post a bond to return the land to farmland. Mr. Petridis referred the request to counsel. Mr. Selvaggi said the 30-year

lease agreement obligates applicant to restore the property. Mr. Selvaggi will provide a copy of the lease. Mr. Selvaggi will talk to the client about the posting of a bond and get back to the Board in August.

Marilyn Brandt asked whether there have been any studies as to acid rain impacts and whether there is any leaching from the panel.

Elizabeth Morris, 103 Washington St., asked about the pictures. She asked whether the picture had been taken, and Mr. Selvaggi confirmed it had been.

Jim Cramer, Arbor Drive, asked about what percentage of the State requirement for renewable energy would be achieved. Mr. Petridis said he did not know the exact percentage, but it would not be significant. Mr. Cramer asked about the fencing. Mr. Petridis said another witness would give the answer. Mr. Cramer asked whether the power line could be expanded. Mr. Petridis said this is JCP & L, and the company has indicated that the project will have no impact on the grid.

Mr. Finelli asked about the life span of the project and the useful life of the solar panels. Mr. Petridis said he would return with the answer.

Noah Tuthill was called as a factual witness related to the type of solar panels that would be used. Mr. Tuthill was sworn. Mr. Tuthill works as an applications engineer for Schuco Company. Mr. Tuthill said he was an environmental study major with focus on renewable energy studies and earned his B.A. degree. He works as a solar installation crew leader, product manager and design engineer. He has been part of many installations.

Solar panel was marked Exhibit A-10. Mr. Tuthill testified the panel is made of silicone with tempered glass and aluminum frame. Life expectancy is 20 years. Silicone is an inert, recyclable component. Silicone is a semi-conductor. Sunlight energizes electrons and goes to the inverter which converts DC current to AC current for use. The panel does get hot to the touch. Temperature will not exceed 100 – 103 degrees. Panels make no noise according to Mr. Tuthill. Noise comes from the inverters. Mr. Tuthill testified there would be some reflection. Typically the reflection tends to be localized. There will be a few moments daily when reflection will be more visible. Mr. Tuthill indicated in residential situations he had never had occasion to clean a panel. Cleaning makes sense from a production point of view. Installations where there is dust or pollutants should be cleaned. Mr. Tuthill said these panels are less impacted by dust. The system is optimized because of less sensitivity to shade.

Mr. Tuthill testified as to the wiring. Each panel is connected to the one next to it, forming a string. The connection is locked. The last panel in an array is connected to an inverter. Inverter will be on top of conduit connections. Mr. Tuthill testified as to fire safety requirements for inverters. There have been few fires. The panels have been rated for wind speeds 90 – 120 mph. Mr. Selvaggi showed Exhibit A-1. Mr. Tuthill testified the racking system is designed for ground mount applications. Ideal tilt angle is the

latitude. Wind loading is considered. At the highest point the panel is typically 7 – 8' high, 3' off the ground. Mr. Tuthill said the dimensions of the quarter panel are 3 ½ x 4 ½'. Mr. Tuthill referenced Exhibit A-6.

Questions were invited from the public.

Brook Waldt, Herleman Road, asked about how many fires. Mr. Tuthill said he had seen 2 fires in twelve years, and they were installation related. They were roof mounted systems. Mr. Waldt asked about washing. Mr. Tuthill said sprinkler type systems were installed in arid climates. Applicant does not propose sprinkler.

Mike Kahter asked about resistance to hail. Mr. Tuthill said product is tested for 1 ½" hail. If a panel is broken, it is removed and replaced.

Joseph Tauriello asked about light reflection. He asked about studies of 300,000 panels reflecting light. Mr. Tuthill said he had not seen any studies. Mr. Tauriello asked how water would be brought to the site if there was a fire. How many fire trucks would it take? Mr. Tuthill said he did not know. Asked whether he had been involved with such a large project in NJ, Mr. Tuthill said no. Asked about 3-6 months for installation and how many pilings it would take, Mr. Tuthill said many factors are involved. He did not know the answer.

Elizabeth Morris, 103 Washington Street, asked about how much heat is generated by so many panels. Mr. Tuthill testified that the panels do not produce heat. Heat is very localized, and it does not hold the heat. Mr. Tuthill said there is no research available.

Ms. Morris asked about damage. What is the emergency plan? Pilot looks to land in a safe spot. If someone landed on panel, what would occur. Mr. Tuthill observed if a panel was damaged or broken, the inverter would automatically shut down.

Brad Perrone, Delaware Crossing, asked whether applicant is using Schuco panels. Mr. Tuthill responded applicant plans to use Schuco panels, the thin film technology. Does it come in a matt finish? Mr. Tuthill explained Schuco only manufactures a gloss finish. Would applicant consider a different manufacturer for matt finish? Applicant will discuss this possibility. Gloss finish is easier to clean, more durable and higher efficiency according to Mr. Tuthill.

Meeting will be continued to Greenwich Elementary School, August 12, 7:00 pm.

OLD BUSINESS

NEW BUSINESS

ADJOURNMENT

The meeting was adjourned at 10:20 pm.

These minutes were approved August 12, 2010.

Alice Oldford, Acting Secretary