

**EAST AMWELL
ZONING BOARD OF ADJUSTMENT - MINUTES
Municipal Building – 7:30 PM
June 14, 2011**

Call to order and compliance with the Open Public Meetings Act

The regular meeting of the Board of Adjustment was called to order at 7:30 PM on June 14, 2011 in the Main Meeting Room of the Municipal Building, 1070 Route 202/31, Ringoes, NJ by Chair Schroeder.

In compliance with the Open Public Meetings Act, the Administrative Officer announced this was a regularly scheduled meeting pursuant to the Annual Meeting Notice as published in the January 20, 2011 issue of the Hunterdon County Democrat, filed in the Township Clerk's Office, and posted on the Bulletin Board on June 7, 2011.

Roll Call and Agenda Review

Present: Sherrie Binder
Nancy Cunningham
Gloria Frederick
Gael Gardner
Paul Gavzy
Sue Posselt
Kendra Schroeder – Chair
Diana Garrett – Alt. #1 – *(arrived at 7:36 PM)*
Anne Williams – Alt. #2
Attorney Waterbury
Engineer O'Neal
Planner Slagle

Absent: No one

Presentation of Minutes

A motion by Gael Gardner, seconded by Nancy Cunningham to approve the Board's 5/10/11 minutes was approved with no revisions noted and Gloria Frederick abstaining.

Presentation of Bills for Payment

A motion by Paul Gavzy, seconded by Sherrie Binder to approve the vouchers for payment as listed on the agenda was unanimously approved.

Correspondence

It was noted that the correspondence will be dealt with as it comes up over the course of the meeting.

Applications to be Deemed Complete

It was noted for the record that there were no applications listed on the agenda for completeness.

Applications for Public Hearing

George A. Kotzias, Alethea Cleantech Advisors, LLC. - (Everitt Property – 219 John Ringo Road) – Use Variance/Preliminary and Final Major Site Plan Approval – B:3 L:1 & 2.02

Present for the public hearing was George Kotzias of Alethea Cleantech Advisors, LLC., Attorney Mark Peck on behalf of the applicant and Engineer Evan Hill of Innovative Engineering, Inc.

Chair Schroeder commented that the Board did not intend to hear any new testimony after 10:00 PM in an effort to provide time for questions from the public. She explained that once the applicant's professionals provide testimony, the Board will open to the public for questions of each professional. She noted that this opportunity is strictly for questions of the professionals and not for commentary. Chair Schroeder remarked that the time for personal commentary will be after the applicant has provided all of its testimony and presented all of its professionals.

Attorney Waterbury noted that the public notice was provided in accordance with the MLUL requirements and indicated that the Board had jurisdiction to proceed with the public hearing.

Attorney Peck explained that the application is for a proposed solar facility. He noted the parcel is a 55 acre tract and the solar is being proposed on 16.2 acres of the land. The property is located at 219 John Ringo Road and has frontage on Rosemont Ringoes Road and Dunkard Church Road. Attorney Peck stated the property is known as Block 3 Lots 1 and 2.02 and is located in the Amwell Valley Agricultural District.

Attorney Peck stated they are seeking Preliminary and Final Major Site Plan Approval for an approximately 3 megawatt ground mounted solar facility. It was noted that the following variances will be needed:

D-1 Variance relief from Section 92-85 – to permit 2 principal uses: The existing residence and the proposed solar facility on Lot 2.02

D-3 Variance relief from the conditional use standards governing setbacks to permit development across the common lot line between Lot 1 and Lot 2.02 (not in compliance with the required 150' setback)

D-3 Variance relief from Section 92-100:B(1) – setback requirements to allow construction of solar arrays within 68' of the adjoining property line (not in compliance with the required 150' setback)

D-3 Variance relief to allow construction within 133' of the existing residence on the parcel (not in compliance with the required 300' setback)

Attorney Waterbury swore in the following witnesses:

George Kotzias – Managing Member of Alethea Cleantech Advisors, LLC

Evan Hill – Engineer from Innovative Engineering, Inc.

Tiffany Cuvillo – Planner for Alethea Cleantech Advisors, LLC

Joanna Slagle – Planner for Township Board of Adjustment

Dennis O'Neal – Engineer for Township Board of Adjustment

Mr. Kotzias provided a brief background on Alethea. He stated he has been in the energy business for 15 years. The last 7 years have been in renewable energy. He remarked that there are tremendous environmental benefits associated with solar noting that the proposed Everitt property project will take enough Carbon Dioxide out of the air to equate to planting 410,000.00 trees. Mr. Kotzias explained that the Everitt site was chosen because of the natural buffering and the fact that the parcel is slightly elevated from the road grade. He noted that they are proposing to limit development to the southern portion of the property and indicated that Alethea will be partnering with, to lease the parcel from, Mr. Everitt for 20 years.

Mr. Gavzy asked how many Solar Renewable Energy Certificates (SREC's) this project will generate annually. Mr. Kotzias estimated about 3000 SREC's per year. Mr. Gavzy remarked that according to information provided at a Township Planning Board meeting the certificates are worth about \$650 each. Mr. Kotzias clarified that SREC's are a "market" just like gold and oil and stated that the values change daily. He indicated the value is much less than \$650 today.

Engineer Hill came forward and was accepted as an expert to provide testimony on this application. He explained that the proposed solar facility is a conditional use in the Amwell Valley Agricultural District. He referred to the most recently submitted revised (through 5/31/11) site plans. Specifically sheet 2 which depicted the existing conditions on the lots. Engineer Hill noted the existing conditions on the parcel were obtained by field surveying. Lot 1 is approximately 34 acres with frontage along Dunkard Church Road to the north and John Ringo Road to the east. Lot 2.02 is approximately 20 acres and has frontage along John Ringo Road to the east and Rosemont Ringoes Road to the south.

Engineer Hill confirmed that they have identified a tributary to the third Neshanic Creek on the property as well as wetlands associated with the creek. He indicated a field delineation of the wetlands was performed for both lots and they have also received an LOI from the NJDEP confirming that the wetlands locations were accurate as depicted on the plans and they assigned a 50' wetlands buffer area.

It was noted that the topography of the parcels generally slopes from west to east with a few dips north to south along the creek areas. Engineer Hill noted the elevations range from 222' toward the western portion of the property to 180' along John Ringo Road. He noted that adjacent uses to the property consist primarily of agricultural/residential uses.

Engineer Hill referred to sheet 3 of the plans which depicts what Alethea is proposing to construct on the site. He explained they are requesting to install a 2.9 megawatt solar facility that consists of approximately 12,600 solar panels. The improvements are generally located within the center of the parcels with no development being proposed on the northern side of the property or within the PSE&G right-of-way or within the section of the parcel between the right-of-way and Rosemont Ringoes Road.

Additional site improvements will consist of the installation of an 8' high chain link fence to serve as security along the perimeter of the site. The fence will be black vinyl coated. Along the outside of the fence will be a 50' wide landscape buffer. Within the fencing will be fixed tilt solar panels 2' off the ground at the panels front edge and 7' off the ground at the panels back edge. There will also be 4 inverter buildings among the solar array.

Engineer Hill described the inverter buildings as small containerized structures approximately 10.5' high by 15' wide and 35' long. He explained the purpose of the invertors is to house the electrical equipment in a safe, climate controlled environment.

It was noted that the provisions of the Township's Renewable Energy Ordinance provide for a 300' buffer around the residential dwelling on adjacent Lot 3 (Helen Rynearson's property) as well as for the property located in Raritan Township known as Lot 1. Engineer Hill did indicate that they will be seeking a variance to allow for the solar structures to be located 133.5' from Mr. Everitt's existing dwelling. He stated that their plans comply with the 150' rear, side and front yard setbacks.

Engineer Hill noted that during the planning process they consulted with adjacent property owner Helen Rynearson who indicated she did not want the solar panels to encroach within the 150' setback from her home to the front of her property. Engineer Hill stated that they are however proposing to encroach within the 150' buffer on the portion of Mr. Everitt's property that runs along the rear of Mrs. Rynearson's lot. He noted they will be requesting a variance to allow the solar panels to be within 68' of this lot line.

Engineer Hill explained that access to the site will be through two gravel driveways: (1) located at an existing farm access road off of John Ringo Road (2) located along Rosemont Ringo Road which will be a new access. It was noted that both of these accesses are off of County Roads and Engineer Hill indicated they will be seeking the proper approvals from the County. He noted that during construction they are proposing to access the site off of Rosement Ringoes Road and after construction this driveway will be used primarily for emergency access only. The main access point after construction of the site will be off of John Ringo Road primarily for maintenance purposes only. It was noted that each access gate will have an emergency Knox-Box which is a vault that the fire and rescue officials will have access to that will contain a key to enter the facility if ever needed. There will also be a solar powered light fixture at each gate location which will be 12' high and utilize LED lighting. The light is a dusk till dawn switched fixture that also is motion activated. Engineer Hill noted that the light will not be on at night unless someone drives up to the gate.

Ms. Cunningham asked about the barn located behind the Everitt's home and suggested a variance will be needed for the solar arrays to be closer than 150' to accessory structures per the Township's Ordinance. Engineer Hill agreed saying that the barn is approximately 135' away from the proposed solar panels.

Ms. Cunningham also asked if grading was going to be done for the driveway access off of John Ringo Road since it appears to be quite steep. Engineer Hill said they are not planning to re-grade the driveway but they do intend to resurface and stabilize it with gravel.

Engineer Hill discussed the improvements of the site and what a solar farm actually consists of. He remarked that the panels consist of solar wafers that convert light to DC electricity. He noted each panel will be approximately 3' x 5' installed 4 to an array on a fixed tilt racking system at a 26 degree tilt in a southerly facing direction. Engineer Hill explained that with the topography of the land and the fact that the front edge of the panels is located approximately 2' off of the ground, the height of the back edge of the panels will range from 9' to 12' off of the ground. He noted the height will remain with the limits of the Township's Ordinance.

Engineer Hill continued to explain that the solar panels convert light to DC electricity through wiring from the panels known as strings. At the end of each array the strings feed into combiner boxes which feed into a thicker cable which is generally buried under ground and runs to the various inverter pads throughout the site. He stated that the invertors consist of equipment in a structure that houses transformers, switching gear etc. and their purpose is to take the DC power generated from the panels and invert it to AC electricity. The AC electricity that leaves the inverter structures then goes to a switch gear pad located in the eastern portion of the proposed facility where the utility type equipment is mounted.

Engineer Hill explained that the utility equipment consists of switches, safety devices, metering and transformers which is all designed in accordance with the National Electrical Code as well as the local utility company's requirements. He noted this is the failsafe measure and stated this is where the facility can be isolated from the utility grid and the utility company has full control and it's fully monitored. Engineer Hill stated at this point they are proposing to install underground cable to an existing utility pole at which an interconnection will be made with the existing utility company's grid. He noted no new *overhead* transformers or equipment is being proposed and clarified that they will not have any *new* equipment located outside their fenced area.

Engineer Hill explained the interior of the solar array will be re-vegetated with a low maintenance meadow grass. He stated the species of seeds that are used have been used for a long period of time throughout New Jersey by farmers primarily in orchards, vineyards and nurseries. He remarked the seed mixture does not require mechanical irrigation, fertilizers or the use of pesticides. It was noted that the grass grows anywhere from 6" to 12" tall and will only need to be cut twice a year—spring and fall and can be cut with a lawnmower that has a side cutting attachment.

Engineer Hill explained the proposed landscaping at the site. He noted that the proposed project is designed to be environmentally friendly and is designed to minimize soil disturbance and maximize the potential for the site to revert back to its agricultural pre-existing use. He remarked that a small area of the site located in the south east portion of the parcel will require some minor grading to smooth out the slopes. It was noted that no soil will be brought in or taken off site to complete the necessary grading. Engineer Hill remarked that the geo-technical investigation of the sub-surface soils revealed that the site is ideally suited for the use of driven posts or helical piers. They are not proposing to use concrete posts or piers to support any of the panels. Engineer Hill commented that this is a low impact development and technique consisting of a small truck mounted (bobcat sized vehicle) to drive the posts into the ground or to screw the posts into the ground.

With regard to the proposed trees and shrubs, Engineer Hill noted that they intend to accommodate a 50' wide landscape buffer, in accordance with the Ordinance, specifically between Mrs. Rynreason's lot and the subject site. The buffer will consist of 3 rows of staggered evergreen trees. Engineer Hill noted that they are also proposing the same buffer along the southern portion of the subject site to the proposed access driveway. It was clarified that from this point of the site to the natural vegetation there will be two rows of evergreen trees with shrubs. Evergreen trees will also be planted behind the Everitt's existing dwelling. Engineer Hill stated that he believes the natural vegetation and topography will sufficiently buffer the balance of the site.

Exhibit A-1 was presented. Ten color photo images labeled A-K depicting simulated landscape buffering and existing vegetation at the site. Engineer Hill indicated that evergreens will be 8' tall upon planting and are expected to grow 4" – 6" per year making them approximately 15' – 20' tall upon maturity. With regard to the maintenance of the landscaping, Engineer Hill explained that the applicant is required to maintain the buffer throughout the life of the solar facility. The trees will have a wildflower seed mixture planted around their base to provide protection and act as mulch. He noted that the solar developer will be conducting monthly site inspections and working in conjunction with the property owner to ensure that no maintenance issues will be left unattended.

Ms. Gardner suggested that the buffer not be planted directly on Mrs. Rynearson's lot line to avoid "closing in" her property. Engineer Hill agreed to review moving the buffering further away from Mrs. Rynearson's driveway and closer to the solar array. Ms. Gardner asked if the trees will be planted in a berm. Engineer Hill said no because they like to keep their projects environmentally friendly and moving a lot of soil goes against that theory. He also noted that the goal is to allow for the property to easily revert back to its existing use. Ms. Gardner suggested a variation of evergreens to include white spruce and black pine. Engineer Hill noted they are proposing approximately 400 evergreen trees and said they would consider the suggestion and agreed to work with the Board's Professionals.

Mr. Gavzy asked for actual photos of existing buffering done by Innovative rather than photo shopped depictions. Engineer Hill said he did not have any and commented that photo simulations are commonly used throughout the industry to illustrate what a project site will look like. Planner Slagle agreed with Engineer Hill's technique. Attorney Waterbury explained that there is no value in showing the Board Members photos of something that is not representative of what will be at the subject property.

Planner Slagle commented on there being no buffering to the right of the access driveway off of John Ringo Road. Engineer Hill remarked that they are amenable to add additional buffering wherever the Board wishes.

Planner Slagle asked if a different type of fencing/gate can be used at the access driveway off of John Ringo Road since it will be visible from the roadway. Ms. Gardner suggested some type of horse fencing be used. Engineer Hill agreed to work with Planner Slagle on the type of fencing to be used at the access gate.

There was some discussion on security cameras. Engineer Hill explained that there will be cameras installed on the perimeter fencing that will all be facing inward and will not monitor any adjacent properties. He noted that they are fixed cameras and will be monitored in real time, offsite.

Ms. Posselt asked if the solar panels make any noise. Engineer Hill commented that the panels are stationary and will not make any noise, but stated that the invertors "hum" during the day. He explained the invertors are located inside a structural box as was previously discussed and the maximum noise level is 65 decibels at 50 feet away which he noted is the equivalent of a residential air compressor which cannot be heard from 200 feet away. Engineer Hill remarked that the invertors don't run at night and also added that the invertor structures have small HVAC equipment to regulate the climate inside the boxes.

Ms. Posselt asked if an animal or person touched the panels during the day would the surface be hot. Engineer Hill replied that the panels get hot similar to what your car's surface would feel like during the day if you touched it.

Planner Slagle asked if the invertors have doors. Engineer Hill noted they each have two doors and the structures are equipped with a fire suppression system built in. He noted that the entire solar facility is designed to meet the National Electrical Code, the International Building Code and all components are UL listed and rated. Engineer Hill remarked that they have not sat down and met with the local EMS/Fire Code people but they intend on doing so and plan to work with them on any suggestions or input they may have to develop an Emergency Management Plan for the site. Engineer Hill indicated the emergency personnel will access the site via the two driveways and there is a minimum of 18' wide access around the entire inside perimeter of the site which will provide adequate room for a vehicle to get around if necessary. It was noted that there will be a 20' wide access in the middle of the proposed facility with 13' wide access between each of the proposed solar arrays.

Ms. Binder commented on a recent transformer fire in town that took the power out for an extended amount of time and asked if that was a possibility on this proposed site. Engineer Hill explained that the transformers are not located in the inverter structures. He clarified that all of these details will get ironed out in the final electrical design and said that transformers tend to catch on fire because of their age and remarked that their equipment is all brand new which is more high tech and more energy efficient. He stated the site is simply producing power that will go into the grid and explained that in the event something occurs on site, the power company has the capability to flip the switch and isolate this proposed system from the grid.

Ms. Cunningham asked if the power can be shut off within the system. Engineer Hill explained that at each combiner box, which could be anywhere from 10 – 14 strings, the rows can be manually switched off.

Ms. Binder asked what a 3 megawatt system is the equivalent of. Engineer Hill commented that it would power 300 – 375 average sized homes. He noted the power generated from the site will be going directly into the grid and will serve the distribution system in which it's tied into which will likely serve local residents. He remarked that the system is connected to the smaller utility pole distribution lines, not the large overhead transmission lines.

Ms. Frederick questioned on how East Amwell will benefit from the proposed facility and remarked on some Township's receiving "host taxes." Engineer Hill explained that host taxes are paid by landfills and other entities which essentially defers taxes normally paid by residents. He noted that the proposed solar project will become a ratable to East Amwell because currently the land is Farmland assessed but it will get taxed at a higher rate once the solar system is installed.

Ms. Binder asked about the expected construction time frame of the proposed site. Engineer Hill estimated 5 – 6 months to complete the facility and remarked that people should expect to see something that resembles a halfway cultivated field and a permanently stabilized field. Ms. Binder asked about runoff. Engineer Hill noted they submitted a Stormwater Management Plan with their application. He explained that elevated solar panels that have grass beneath them does not increase stormwater runoff. He stated that it is a fact that when they convert a farm field to permanently stabilized meadow grasses, they are reducing stormwater runoff. He added the other fact is that because it is a permanently stabilized ground surface cover, they are improving surface water quality due to the fact the soils are not constantly being tilled and because no pesticides or fertilizers are being used. Engineer O'Neal agreed with Engineer Hill's statements.

Ms. Gardner asked if any trees will be cut down. Engineer Hill noted they will need to clear a small nub of trees at the access gate off of John Ringo Road.

Exhibit A-2 was presented. Engineer Hill noted it is labeled Site Plan C dated 6/1/11 and depicts what would have to be developed in order to make the site fully conform to the Township's Ordinance. He explained they would have to disturb 35% more land. He indicated this plan was submitted with their original application and stated their proposed revised plans now show a much smaller scale development.

Ms. Frederick asked why the proposed facility has to bisect two lots and why development can't be contained on one parcel. Engineer Hill explained that if they tried to keep the solar facility on Lot 2.02 they would only have 3 – 4 acres to dedicate to solar which would not be a viable project. He further explained that if they tried to keep the facility on Lot 1 they would have to develop the back field which would cause more land disturbance than what is currently being proposed.

Planner Slagle asked about proposed signage. Engineer Hill explained that they anticipate a 3' x 5' post mounted free standing sign approximately 6' to 7' tall located at each access gate displaying the site ID and emergency contact information. Attorney Waterbury confirmed the proposed signage conforms to the Township's ordinance requirements.

There was some discussion on the decommissioning plan for the proposed site. Engineer Hill explained the lease agreement for the property will be for approximately 20 years because the solar panels themselves are warranted for a period of 25 years meaning they will then degrade to about 80% efficiency. He added that the racking system is galvanized metal to protect it from the elements and the inverter structures are weather protected. Engineer Hill stated the panels will not require any manual cleaning because there is enough precipitation in the Northeast to naturally clean the panels. He indicated only those facilities in the Midwest may require manual cleaning. It was noted for the record that the project will require a performance bond in the event Alethea cannot fulfill their decommissioning plan.

There was some discussion on who is purchasing the electricity and what goals have been established by the energy companies. It was noted that JCP&L will be purchasing the power generated by the proposed facility and Mr. Kotzias explained that the electric companies don't set the "goal guidelines" but rather the State imposes the goals on the electric companies. He noted that if the electric companies don't reach a certain level of renewable energy themselves, they have to pay a penalty.

Ms. Cunningham asked Mr. Kotzias how many facilities his company has up and running. Mr. Kotzias commented that his first site will start construction tomorrow.

Ms. Binder asked what the expected annual profit/gain will be on a 3 megawatt system. Attorney Peck remarked that the question is not germane to the merits of the application. Mr. Kotzias indicated he can tell the Board that the proposed facility will cost between 12 and 13 million dollars to build.

There was some discussion on why East Amwell was chosen for this solar facility. Ms. Cunningham clarified that the Township's Ordinance provides "protection from" as opposed to "permission for" solar facilities. Engineer Hill explained that the Townships who have been proactive in establishing renewable energy ordinances are more appealing than those Townships who don't have an ordinance because the developers then know what they're dealing with and how the Townships want to see solar developed and where.

East Amwell Township Board of Adjustment Minutes – 6/14/11

The Board took a break from 9:57 PM – 10:09 PM.

Engineer O’Neal reviewed his memo dated 5/6/11. The following highlights were noted:

1. The proposed driveway accesses are both on County roads and therefore the applicant will require County approval of the proposed driveway locations
2. Engineer O’Neal remarked that he is not convinced that the steepness of the access off of John Ringo Road can be stabilized with gravel as was previously indicated and commented that the County will have to make this determination
3. A condition of approval should be that the applicant must meet with local Emergency Services to discuss the site’s Emergency Management Plan
4. A 25’ road right-of-way may also be required by the County
5. The possible need for conservation easements along the wetlands although Engineer O’Neal believes the proposed fencing is sufficient he noted the Board may wish to make a determination on this
6. The requirement of a developers agreement, posting of an escrow and a two year performance bond

A motion by Gloria Frederick, seconded by Gael Gardner to open to the public was unanimously approved.

Toni Robbi came forward as a member of the Environmental Commission and questioned how the proposed landscaping will be protected from the deer and commented that the existing cattle on the Everitt parcel should not be allowed to walk in the creek and surrounding wetlands buffer areas. Engineer Hill indicated that they are proposing to plant deer resistant landscaping and with regard to the cattle he noted that they are not proposing to expand on the area in which the cows graze. He stated that under Right-to-Farm Mr. Everitt is entitled to continue to use his property as he does currently.

Diane Harrington of 110 Boss Road questioned why the proposed solar facility cannot be fully compliant with the Township’s existing ordinance and also asked if a Technical Expert can be provided to testify as to the safety of the proposed facility. Engineer Hill responded that in order to be fully compliant they would disturb 35% more land and indicated that they would be happy to provide a Technical Expert at the Board’s July meeting. Ms. Harrington referred to a 1 to 5 acre development ratio and Planner Slagle clarified that she was referring to SADC standards that are not incorporated into the Township’s Ordinance.

Connie Swanzer of 9 Rosemont Ringoes Road came forward and questioned why there can’t be three rows of trees on their side of the proposed site versus the two rows of trees and one row of shrubs being proposed. Engineer Hill indicated they would be amenable to install three rows of trees if the Board requested them to do so.

Frances Gavigan of 123 Wertsville Road came forward and asked several questions regarding subsequent owners of the Everitt parcel(s), the maintenance agreement, site triangles with regard to the proposed access driveways, possible crop damage, the height of the panels and the height of the proposed trees to be planted, the wind resistance of the panels, the security camera’s range/field of vision, the facility being shielded from public view and the potential for power surges.

Engineer Hill commented that the minimum design wind speeds are dictated by the International Building Code and stated that the solar panels can sustain wind gusts up to 100 mph. With regard to the security cameras, he remarked that the landscape buffers are more than adequate to protect the surrounding areas from being filmed and he indicated that the cameras will be facing inward.

Planner Slagle clarified for Ms. Gavigan that the panels should be buffered from public view and adjoining uses are considered those that physically touch the boundary of the subject site, properties across the street from the subject site are not classified as adjoining uses. Engineer Hill added that their goal is to work with the Township to mitigate any buffering concerns.

Old Business

There were no old business matters listed on the agenda.

New Business

There were no new business matters listed on the agenda.

Comments of the Board Members

There were no comments made by any Board Members.

Attorney Comments

Attorney Waterbury made no comments.

Open to the Public

A motion by Gael Gardner, seconded by Gloria Frederick to open to the public was unanimously approved. Seeing no members of the public come forward, a motion by Sherrie Binder, seconded by Nancy Cunningham to close to the public was unanimously approved.

Adjournment

A motion by Paul Gavzy, seconded by Sherrie Binder to adjourn was unanimously approved.

The meeting adjourned at 11:05 PM.

Maria Andrews, Administrative Officer