

Received 2/28/06

December 16, 2005
Responses are note below each comment
February 23, 2006 by Davis, Bowen &
Friedel, Inc.

Mr. Gerald Friedel
Davis, Bowen & Friedel, Inc.
One Plaza East, Ste. 200
Salisbury, MD 21801

RE: PLUS review – PLUS 2005-11-02; Bayville Shores @ Route 54

Dear Mr. Friedel:

Thank you for meeting with State agency planners on November 22, 2005 to discuss the proposed plans for the Bayville Shores at Route 54 project to be located along Route 54 at Bayville Shores Drive.

According to the information received, you are seeking a rezoning from AR-1 to HR-1 for the purpose of 17 townhome units 3.45 acres located in the Environmentally Sensitive Developing Area.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.

Executive Summary

The following section includes some site specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The full text of this letter represents the official state response to this project. ***Our office notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.***

State Strategies/Project Location

- This proposal is located within an Investment Level 3 area according to the *Strategies for State Policies and Spending* and within the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive Plan. In these areas State policies support long-term, phased development that is sensitive to the natural environment and consistent with local comprehensive plans. The HR-1 zoning requested is not consistent with the applicable zoning districts in Table 12 of the Sussex County Comprehensive Plan. Additionally, given the significant wetlands and forested areas on the site, the HR-1 zoning appears inappropriate for the site.

HR-1 zoning is compatible with other properties served by Bayville Shores Drive. All wetlands are protected and will remain forested. Densities will be limited by available uplands.

Street Design and Transportation

- While it will need to be coordinated with the Route 54 improvements, DelDOT anticipates requiring that a paved multi-modal path, located in a 15-foot wide permanent easement, be provided across the frontage of the site.

The project will coordinate with DelDOT on the multimodal path easement. A 10-foot dedication is already illustrated.

- DelDOT recommends that sidewalks be provided within the development to provide a safe area for walking.

Sidewalks will be provided on one side of the drive area.

Natural and Cultural Resources

- Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands on this parcel. These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex.

We have been advised that wetlands have been defined by wetlands consultant and a jurisdictional determination will be of record prior to construction. No construction will occur with the wetland areas. Stated buffers for non-tidal wetlands are not regulated and cannot be implemented on this project.

- Based on a preliminary evaluation of this project using this model, the development as currently conceived, **does not** meet the prescribed TMDL nutrient reduction requirements for nitrogen and phosphorus. The applicant should realize that extensive forest-land clearing, little or no wetland buffering, and the creation of large amounts of impervious cover – can increase a parcels nutrient runoff significantly above the acceptable and/or prescribed TMDL reduction levels. It is recommended, therefore, that the applicant consider some of the above-suggested BMPs in conjunction with other redesign changes to ensure that these reductions are attained.

BMPs will be incorporated to reduce the impacts of development.

- According to aerial photographs, this site is entirely forested and preservation should be considered. Although this parcel is small it is part of a larger forest block and contains wetlands. Forest fragmentation separates wildlife populations, increases road mortality, and increases “edge effects” that leave many forest dwelling species vulnerable to predation and allows the infiltration of invasive species. Forested wetlands can harbor an array of plant and animal species, some of which depend on aquatic environments for breeding.

The site is currently wooded. Fragmentation presently existing due to a fire line on the north property line. No action planned.

Consideration for a reduction in the number of units and/or infrastructure would preserve more trees. In addition, trees provide erosion control and function in flood abatement so they shouldn't be removed for a stormwater management pond. Alternate methods of stormwater management should be considered.

Alternative stormwater management concepts will be considered.

- The PLUS application materials indicate that wetlands have been delineated. This delineation should be verified by the Army Corps of Engineers through the Jurisdictional Determination process.

The jurisdictional determination is in process.

- The proposed project is within three miles of a known Delmarva fox squirrel population at the Assawoman Wildlife Area. Delmarva fox squirrels are federally endangered and protected by the Endangered Species Act. The proposed project area contains potential habitat for the Delmarva fox squirrel. Requirements are listed in the “Rare Species” section of the letter.

The Assawoman Wildlife area Fox Squirrel is classified as an experimental nonessential population. The geography of the area is such that the population is unable to migrate to the subject property.

The following are a complete list of comments received by State agencies:

Office of State Planning Coordination – Contact: Ann Marie Townshend 739-3090

This proposal is located within an Investment Level 3 area according to the *Strategies for State Policies and Spending* and within the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive Plan. In these areas State policies support long-term, phased development that is sensitive to the natural environment and consistent with local comprehensive plans. The HR-1 zoning requested is not consistent with the applicable zoning districts in Table 12 of the Sussex County Comprehensive Plan. Additionally, given the significant wetlands and forested areas on the site, the HR-1 zoning appears inappropriate for the site.

HR-1 zoning is compatible with other properties served by Bayville Shores Drive.

Division of Historic and Cultural Affairs – Contact: Alice Guerrant 739-5685

Nothing is known on this parcel. There is a historic house (S-2091) immediately to the east of the parcel. There is another one (S-2087) across Rt 54 to the west, but it appears to be already shielded from the development by trees on the property. There is a mid-20th-c. house (S-8134) across Rt 54 to the east. The developer noted that there is a significant gradient change creating a high point in the woods; this area has high potential for a prehistoric-period archaeological site.

No action to be taken.

The DHCA would like the opportunity to check this parcel to see if a site in fact exists there and to learn something about its nature and extent before any tree-clearing takes place.

Should federal permits be needed DHCA will be authorized to inspect the site.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

- 1) The response to Item 41 on the PLUS form indicates, incorrectly, that some of the project's road frontage is subject to the Corridor Capacity Preservation Program (CCPP). This program, as determined by the General Assembly, applies only to portions of US Routes 13 and 113 and Delaware Routes 1 and 48. While DelDOT is concerned about seasonal congestion on Route 54 and seeks to manage access to preserve the capacity of this corridor, Route 54 is not in the CCPP.

Correction noted.

- 2) DelDOT is engaged in an ongoing study of the Route 54 corridor and is working on the final design of one specific project that could affect the proposed development. This project, Contract No. 24-112-01, would improve Route 54 from Delaware Route 20 to Keenwick Road (Sussex Road 58C). It is recommended that the developer's site engineer contact the manager for the DelDOT project, Mr. Mark Harbeson, and become familiar with it. Mr. Harbeson may be reached at (302) 760-2346.

Contact will be made with Mr. Harbeson in the project design phase.

- 3) Route 54 is classified as a major collector road. Collector road rights-of-way vary but are generally wider than those of local roads. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 40 feet from the centerline on collector roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project. The Route 54 improvements mentioned above may require additional right-of-way from this development.

Forty feet is currently dedicated from the centerline. We will check the requirements for additional right-of-way required by Mr. Harbeson. Wetlands will limit the extent of dedication possible.

- 4) While it will need to be coordinated with the Route 54 improvements, DelDOT anticipates requiring that a paved multi-modal path, located in a 15-foot wide permanent easement, be provided across the frontage of the site.

The multimodal path and other highway improvement must be limited to 45 feet from the road centerline due to palustrine wetlands on the property.

- 5) DelDOT recommends that sidewalks be provided within the development to provide a safe area for walking.

A sidewalk will be provided.

- 6) While they do not anticipate requiring additional improvements to the intersection of Route 54 and Bayville Shores Drive because of this development, developer's site engineer should still contact Mr. John Fiori, the DelDOT Subdivision Manager for Sussex County, to verify that. He may be reached at (302) 760-2260.

Mr. Fiori will be contacted.

- 7) The proposed stormwater management pond appears to be too close to the existing right-of-way. Normally, such a pond is acceptable if two criteria are met. First, the developer must provide a 20-foot minimum buffer between the ultimate right-of-way, which in this instance must account for our Route 54 improvements, and the top of slope of the pond. Second, the runoff from the site must be managed such that the rate and volume of the post-development runoff will not exceed the rate and volume of the pre-development runoff. Mr. Fiori will make a final determination in this matter when reviewing the detailed plans for the site.

The pond will be adjusted or alternative stormwater management devices utilized.

The Department of Natural Resources and Environmental Control – Contact: Kevin Coyle 739-9071

Soils

According to the Sussex County soil survey mapping Askecksy and Klej were mapped on subject parcel. Askecksy is a poorly-drained wetland associated (hydric) soil that has severe limitations for development. Klej is a somewhat poorly-drained transitional soil lying between wetlands and upland that is likely to contain both wetland and upland soil components.

We agree wetland areas are to be avoided and upland soils will be tested for street and building design requirements.

It should also be noted that siting a residential development in naturally wet soils – such as proposed in this project - is likely to leave potential residents on this and adjoining parcels, significantly more susceptible to flooding events during extended periods of intense rainfall, especially from tropical storms/hurricanes or “nor’easters.” Avoidance of hydric soil mapping units is one way to prevent potential future flooding problems.

Only upland soils will be disturbed. Flood protection will be incorporated in the design.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands on this parcel.

We have so confirmed.

These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex. The developer should note that both DNREC and Army Corps of Engineers discourage allowing lot lines to contain wetlands to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

No lot lines are created therefore they will not pass within wetlands. Request for 100 buffers is impractical for this site. They can not be effected without creating an economic hardship for the owner.

Wetland Permitting Information

PLUS application materials indicate that wetlands have been delineated (presumably a field delineation). This delineation should be verified by the Army Corps of Engineers through the Jurisdictional Determination process. Please note that impacts to palustrine

wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In situations where the applicant believes that the delineated wetlands on their parcel are nonjurisdictional isolated wetlands, the Corps must be contacted to make the final jurisdictional assessment. They can be reached by phone at 736-9763.

Wetlands will not be disturbed.

In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process.

Wetlands will not be disturbed.

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-9943 to schedule a meeting.

Permitting is not required as plans show no disturbance.

Impervious Cover

Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline. Based on analyses of 2002 aerial photography by the University of Delaware, the Little Assawoman Bay watershed, at that time, had about 9.7 percent impervious cover. Although this data is almost 4 years old and likely an underestimate - it illustrates the importance of a proactive strategy to mitigate for predictable and cumulative environmental impacts. Since the amount of imperviousness generated by this project (approximately 30%) will far exceed the desirable watershed threshold of 10 percent, the applicant is strongly advised to pursue best management practices (BMPs) that mitigate or reduce some of its most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with retention of existing forest cover or additional tree plantings – are examples of practical BMPs that could easily be implemented to reduce surface imperviousness.

BMPs will be utilized in the design. Plantings will be added in disturbance areas and efforts will be made to preserve upland vegetation.

ERES Waters

This project is located adjacent to receiving waters of Little Assawoman Bay designated as waters having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State, and shall be protected and/ or restored, to the maximum extent practicable, to their natural condition. Provisions in Section 5.6 of Delaware's "Surface Water Quality Standards" (as amended July 11, 2004), specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of nutrient runoff through implementation of Best Management Practices (BMPs). Best Management Practices as defined in subsection 5.6.3.5 of this section, expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree practicable, or where attainable, a standard requiring no discharge of pollutants.

Consideration will be given to best of BMPs suited to the property.

TMDLs

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Little Assawoman Bay watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited water body" can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. This project is located in the low reduction area requiring a 40 percent reduction in both nitrogen and phosphorus.

BMPs devices for nutrient reduction will be included.

TMDL Compliance through the PCS

The proposed pollution control strategy will require the completion of a nutrient budget to estimate nutrient load changes following development; documentation of these load changes will be assessed through a nutrient budget protocol. The nutrient budget protocol is a computer-based model that quantifies post-development nutrient loading under a variety of land use scenarios in combination with a variety (or absence) of BMP types and intensities. The post-development loading rate is then compared with the pre-development loading rate to assess whether the project meets the prescribed TMDL.

nutrient load reductions. Based on a preliminary evaluation of this project using this model, the development as currently conceived, **does not** meet the prescribed TMDL nutrient reduction requirements for nitrogen and phosphorus. The applicant should realize that extensive forest-land clearing, little or no wetland buffering, and the creation of large amounts of impervious cover – can increase a parcels nutrient runoff significantly above the acceptable and/or prescribed TMDL reduction levels. It is recommended, therefore, that the applicant consider some of the above-suggested BMPs in conjunction with other redesign changes to ensure that these reductions are attained. We suggest that the applicant verify their project's compliance with the specified TMDL loading rates by running the model themselves. Please contact Lyle Jones of Watershed Section at 739-9939 for the acceptable model protocol.

In development of wooded properties it is mathematically improbable that a TMDL reduction can be realized. This is offset in Sussex County by the conversion of agricultural lands to developments where major decreases in nutrient loadings are easily substantiated. This is a phase of the larger Bayville Shores development which was predominantly agricultural.

Water Supply

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

Dewatering permits will be obtained if required for utility construction.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule.

A driller will be employed.

Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

A driller will be employed.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

Sediment and Erosion Control/Stormwater Management

A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through Sussex Conservation District. Contact Sussex Conservation District at (302) 856-7219 for details regarding submittal requirements and fees.

A plan will be prepared.

A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted to DNREC Division of Soil and Water Conservation along with the \$195 NOI fee prior to plan approval.

An NOI will be prepared.

Applying practices to mimic the pre-development hydrology on the site, promote recharge, maximize the use of existing natural features on the site, and limit the reliance on structural stormwater components, such as maintaining open spaces, should be considered in the overall design of the project as a stormwater management technique. Green Technology BMPs must be given first consideration for stormwater quality management. Each stormwater management facility should have an adequate outlet for release of stormwater.

The use of natural features will be included in the design.

BMPs will be included.

It is strongly recommended that you contact the reviewing agency to schedule a preliminary meeting to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion.

A preliminary meeting will be planned.

Floodplains

Portions of the proposed project are located within or near the 100-year floodplain. It is recommended that development be limited to those areas which are outside of the 100-year floodplain.

The area of development is outside the 100-year flood plain

Forest Preservation According to aerial photographs, this site is entirely forested and preservation should be considered. Although this parcel is small it is part of a larger forest block and contains wetlands. Forest fragmentation separates wildlife populations, increases road mortality, and increases “edge effects” that leave many forest dwelling species vulnerable to predation and allows the infiltration of invasive species. Forested wetlands can harbor an array of plant and animal species, some of which depend on aquatic environments for breeding.

The site is infill to other approved development. It is currently fragmented by a 20-foot lane on the north property line, plus Route 54 and Bayville Shores Drive. The overall forest on and off site is less than 10 acres. Efforts will be made to preserve some upland forest.

Consideration for a reduction in the number of units and/or infrastructure would preserve more trees. In addition, trees provide erosion control and function in flood abatement so they shouldn't be removed for a stormwater management pond. Alternate methods of stormwater management should be considered.

Alternative stormwater wetlands will be considered.

Although leaving a forest intact is usually more beneficial to the existing wildlife and is preferential to clearing, DNREC recommends that clearing not occur April 1st to July 31st to reduce impacts to nesting birds and other wildlife species that utilize forests for breeding. Larger mature trees should be left intact.

Efforts will be made to maintain habitat on the site. Large trees will be sited and included in the final design where possible.

Open Space

To maximize the existing buffering capacity and wildlife habitat on site, forest removal should be minimized and infrastructure (such as storm water management ponds) be pulled out of the forest. Community space should be designated along the existing tree line; this area should be reforested rather than being maintained as turf grass. This area should be set aside as community open space and reforested. Doing so will preserve and expand the buffers on site and its value for birds and wildlife and it will create recreational opportunities for residents by allowing them access to and views of the forest.

Tree planting will be added around the proposed homes and upland forest will be preserved where possible.

In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off into surface water, air quality improvements, and require much less maintenance than traditional turf grass, an important consideration if a homeowners association will take over responsibility for maintenance of community open spaces.

Meadow grass will be utilized in suitable areas.

Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should also be demarked to avoid infringement by homeowners.

Residents will be permitted to enter, but not disturb, wetland areas and observe wildlife. No lots are created.

Rare Species

The proposed project lies within three miles of a known Delmarva fox squirrel (*Sciurus niger cinereus*) population at the Assawoman Wildlife Area. Delmarva fox squirrels were listed as federally endangered in 1967 and are protected by the Endangered Species Act. They generally inhabit mature forests with open understories and wet woodlands, but can be opportunistic in their habitat choice. The proposed project area contains potential habitat for Delmarva fox squirrels and the following is required prior to beginning work:

1. Completely avoid all direct and indirect impacts to the habitat, in consultation with the U.S. Fish and Wildlife Service (Trevor Clark , 410-573-4527) and Delaware Division of Fish and Wildlife, Nongame and Endangered Species Program (Holly Niederriter, 302-653-2880);

OR

2. Have surveys conducted to determine if Delmarva fox squirrels are present. In accordance with Delaware's fox squirrel site survey procedures, surveys must be conducted by a State approved fox squirrel surveyor two times between September and May: once in the fall, and again between March 15 and May 30. A

list of qualified surveyors is available upon request. Please note that surveys may confirm the presence of fox squirrels but cannot confirm absence.

The Assawoman Wildlife area Fox Squirrel is classified as an experimental nonessential population. The geography of the area is such that the population is unable to migrate to the subject property. Contact with the U.S. Fish and Wildlife Service will be made if mandated by law.

Nuisance Waterfowl

Stormwater management ponds that remain in the site plan may attract waterfowl like resident Canada geese and mute swans. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species. DNREC recommends native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (50 feet) around the perimeter. Waterfowl do not feel safe when they can not see the surrounding area for possible predators. These plantings should be completed as soon as possible as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, geese problems can be minimized.

Nature planting will be incorporated where possible to discourage nuisance waterfowl.

Solid Waste

Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average, each new house constructed generates an additional 10,000 pounds of construction waste. Due to Delaware's present rate of growth and the impact that growth will have on the state's existing landfill capacity, the applicant is requested to be aware of the impact this project will have on the State's limited landfill resources and, to the extent possible, take steps to minimize the amount of construction waste associated with this development.

Steps will be taken to minimize waste.

Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 1.3 tons (2,609.3 pounds) per year of VOC (volatile organic compounds), 1.1 tons (2,160.3 pounds) per year of NOx (nitrogen oxides), 0.8 tons (1,593.9 pounds) per year of SO2 (sulfur dioxide), 0.1 ton (141.9 pounds) per year of fine particulates and 109.1 tons (218,266.5 pounds) per year of CO2 (carbon dioxide).

No response provided. Comment is a statement with no recommendation made.

Emissions from area sources associated with this project are estimated to be 0.5 tons (1,052.5 pounds) per year of VOC (volatile organic compounds), 0.1 ton (115.8 pounds) per year of NOx (nitrogen oxides), 0.0 ton (96.1 pounds) per year of SO2 (sulfur dioxide), 0.1 ton (124.0 pounds) per year of fine particulates and 2.1 tons (4,266.4 pounds) per year of CO2 (carbon dioxide).

No response provided. Comment is a statement with no recommendation made.

Emissions from electrical power generation associated with this project are estimated to be 0.2 tons (417.1 pounds) per year of NOx (nitrogen oxides), 0.7 tons (1,450.8 pounds) per year of SO2 (sulfur dioxide) and 107.0 tons (214,000.1 pounds) per year of CO2 (carbon dioxide).

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	1.3	1.1	0.8	0.1	109.1
Residential	0.5	0.1	0.0	0.1	2.1
Electrical Power		0.2	0.7		107.0
TOTAL	1.8	1.4	1.5	0.2	218.2

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 0.2 tons of nitrogen oxides per year and 0.7 tons of sulfur dioxide per year.

No response provided. Comment is a statement with no recommendation made. A significant method to mitigate this impact would be to require the builder to construct Energy Star qualified homes. Every percentage of increased energy efficiency translates into a percent reduction in pollution. Quoting from their webpage, <http://www.energystar.gov/>:

“ENERGY STAR qualified homes are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than state energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of:

building envelope upgrades,
high performance windows,
controlled air infiltration,
upgraded heating and air conditioning systems,
tight duct systems and
upgraded water-heating equipment.”

The energy office in DNREC is in the process of training builders in making their structures more energy efficient. The Energy Star Program is excellent way to save on energy costs and reduce air pollution. They highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

Energy efficient construction will be included.

They also recommend that the home builders offer geothermal and photo voltaic energy options. Applicable vehicles should use retrofitted diesel engines during construction. The development should provide tie-ins to the nearest bike paths, links to mass transit, and fund a lawnmower exchange program for their new occupants.

Bike paths are proposed by DeIDOT.

State Fire Marshal’s Office – Contact: Duane Fox 302-856-5298

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal’s Office. At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

Plans will be submitted.

- a. **Fire Protection Water Requirements:**
 - Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.

- Where a water distribution system is proposed for townhouse type dwelling sites, the infrastructure for fire protection water shall be provided, including the size of water mains.

Will comply.

b. **Fire Protection Features:**

- For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan

Will provide details

c. **Accessibility:**

- All premises which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from Bayville Shores Drive must be constructed so fire department apparatus may negotiate it.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

Will comply. Parking will be removed from the turn around.

d. **Gas Piping and System Information:**

- Provide type of fuel proposed, and show locations of bulk containers on plan.

Will comply

e. Required **Notes:**

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Proposed Use
- Square footage of each structure (Total of all Floors)
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Name of Water Provider
- Letter from Water Provider approving the system layout
- Townhouse 2-hr separation wall details shall be shown on site plans
- Provide Road Names, even for County Roads

Will add notes to site design.

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.delawarestatefiremarshal.com, technical services link, plan review, applications or brochures.

Recommend review meeting with architect.

Department of Agriculture - Contact: Milton Melendez 698-4500

Neither the Delaware Department of Agriculture nor The Delaware Forest Service has any objections to the Bayville Shores application. The site is located on a long-range development area. The *Strategies for State Policies and Spending* encourages environmentally responsible development in areas within a Investment Level 3 area. We request that you consider limiting impervious cover as much as possible when designing this site. This site is a part of a “good recharge” area. The State of Delaware has mapped all ground water potential recharge areas. A “good” rating is the second highest rating and designates an area as having important groundwater recharge qualities. Maintaining pervious cover in “Excellent” and “Good” recharge areas is crucial for the overall environmental health of our state and extremely important to efforts which ensure a safe drinking water supply for future generations. Retention of pervious cover to ensure an adequate future water supply is also important for the future viability of agriculture in the First State. The loss of every acre of land designated as “excellent” and “good” recharge areas adversely impacts the future prospects for agriculture in Delaware.

Impervious areas will be limited to Sussex County requirements.

Right Tree for the Right Place

The Delaware Department of Agriculture Forest Service encourages the developer to use the “Right Tree for the Right Place” for any design considerations. This concept allows for the proper placement of trees to increase property values in upwards of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.

A landscape architect will design site planting.

Native Landscapes

The Delaware Department of Agriculture and the Delaware Forest Service encourages the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants. To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

Native species will be utilized.

Tree Mitigation

The Delaware Forest Service encourages the developer to implement a tree mitigation program to replace trees at a 1:1 ratio within the site and throughout the community. This will help to meet the community’s forestry goals and objectives and reduce the environmental impacts to the surrounding natural resources. To learn more, please contact our offices at (302) 349-5754.

Infill trees will be added.

Public Service Commission - Contact: Andrea Maucher 739-4247

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

Comment noted.

Sussex County - Contact: Richard Kautz 302-855-7878

The developer might want to reconsider the layout of the parking. The Planning Commission is no longer granting waivers for parking within the front setback per 115-166C of the Zoning Ordinance.

Parking will be removed from the setback.

Per page 15 of the Comprehensive Plan, "any increased density by rezoning should only be permitted with proper environmental safeguards." Because this project is situated in an Environmentally Sensitive Development Area (ESDA), the required report should include how this requirement and the PLUS comments have been addressed and how the plan has been revised accordingly. In particular, protection of the wetlands should be addressed.

Environmental safeguards includes preservation of all wetlands. The plan will be modified to minimize disturbance of upland trees, include BMPs for water quality. Impervious surfaces will also be reduced.

Furthermore, HR zoning is not clearly anticipated in the ESDA.

HR is requested to permit multi-family housing. Single lots are not proposed. Densities are low compared to 4.93 units/acre versus 12 allowable under HR.

The Sussex County Engineer Comments:

The proposed project is within the Fenwick Island Sanitary Sewer District. A sanitary sewer concept plan was approved by the Sussex County Engineering Department on June 29, 2005.

No comment required.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

Constance C. Holland, AICP
Director

CC: Sussex County

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