



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF
STATE PLANNING COORDINATION

May 24, 2005

Ms. Jessica Nichols
Meridian Architects & Engineers
26412 Broadkill Road
Milton, DE 19968

RE: PLUS review – PLUS 2005-04-04; The Lakelyns

Dear Ms. Nichols:

Thank you for meeting with State agency planners on May 4, 2005 to discuss the proposed plans for the Lakelyns project to be located on the northeast corner of the intersection of Peppers Corner and Lizard Hill Roads, south of Millville.

According to the information received, you are seeking a rezoning from AR-1 to GR/RPC for a 270 unit residential subdivision on 72 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 development is proposed for an Investment Level 4 area according to the Strategies for State Policies and Spending and the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive Plan. Based on the extensive data analysis used to develop the Strategies for State Policies and Spending, the presence of Investment Level 4 in the Environmentally Sensitive Developing Area is an indication of sensitive natural resources on-site. In this case, the forested area and wetlands on-site influenced the designation as Investment Level 4.

The proposed density and design of the proposal appears to be too intense for the sensitive nature of the site. A site plan that preserves forested areas and buffers the wetlands on-site would be more respectful of the natural resources.

Street Design and Transportation

- DelDOT will require a traffic impact study for this development.
- Stub streets should be provided to the Raymond L. Banks, Jr. Property, the George M. & Anne M. Baldwin Property and the Elisha & Sarah D. Hickman Property.
- The proposed circle (not actually a roundabout) at the intersection of North Lakelyn Drive, West Landlock Drive and East Timberlyn Court is quite close to Lizzard Hill Road. While it may be acceptable, it will require further review.

Natural and Cultural Resources

- Because this site includes sensitive headwater wetlands, the applicant should preserve as much of the existing natural wetland buffer as possible, including any immediately adjoining forested uplands. Otherwise a 100-foot buffer width is considered the minimum acceptable distance from all wetlands and waterbodies (including ditches).
- Stormwater Management ponds should also be at least 100-feet from all wetlands and waterbodies.
- The site plan should be changed to allow for preservation of as much of the forest as possible, including employing a different method of stormwater management. The ponds should be located to areas that are already cleared.

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

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

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The proposed density and design of the proposal appears to be too intense for the sensitive nature of the site. A site plan that preserves forested areas and buffers the wetlands on-site would be more respectful of the natural resources.

State Historic Preservation Office (SHPO) – Contact: Alice Guerrant 739-5685

Nothing is known in this parcel. However, 2 prehistoric sites have been found just across the creek to the rear of the parcel, and Beers Atlas of 1868 shows the D. Godwin House and a school house within the parcel. The State Historic Preservation Office would be happy to work with the developer to locate any sites within the areas to be disturbed by construction and perhaps look at ways to preserve any important sites found within open space.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Because the development is proposed for a Level 4 Area, it is inconsistent with the Strategies for State Policies and Spending. Because the development is inconsistent with the Strategies for State Policies and Spending and proposed for an environmentally sensitive area, DelDOT's road improvements in this area will be limited to safety improvements and maintenance. Any improvements needed to support this development will be the developer's responsibility. The comments that follow are technical, and are not intended to suggest that DelDOT supports this development proposal.

- 1) The response to Item 36 on the PLUS form states that the project would generate 1,962 trips per day. Apparently this estimate was based on treating the duplex units as townhouses. The Institute of Transportation Engineers (ITE) Trip Generation report doesn't specifically address duplex units, but generally DelDOT treats them as single-family detached houses. Assuming all single-family detached houses, 270 dwellings would generate 2,593 trips per day.
- 2) DelDOT will require a traffic impact study for this development. Because these studies typically take 6 to 12 months from their initial scoping meeting to the completion of DelDOT's review, it is recommended that the developer have their

- traffic engineer contact Mr. Todd Sammons of our Development Coordination Section as soon as possible to obtain a scope for this study. Mr. Sammons may be reached at (302) 760-2134.
- 3) Lizzard Hill and Peppers Corner Roads are classified as local roads. Local roads in rural Delaware typically have right-of-way widths ranging from 33 to 50 feet. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.
 - 4) DelDOT will also require that a paved multi-modal path, located in a 15-foot wide permanent easement, be provided across the frontage of the site.
 - 5) It is recommended that stub streets be provided to the Raymond L. Banks, Jr. Property, the George M. & Anne M. Baldwin Property and the Elisha & Sarah D. Hickman Property.
 - 6) DelDOT also recommends consideration of looping the west end of East Shimmering Court back into itself near lots 99 and 81 to eliminate the proposed cul-de-sac. DelDOT understands that cul-de-sacs are necessary in some instances to make efficient use of the land. However, they are not conducive to good traffic flow or a sense of community. Where possible they should be eliminated.
 - 7) The developer should consider adding a street connection to Peppers Corner Road opposite Rickards Road (Sussex Road 367B) to provide an alternative means of access to the development. Regardless of whether they seek motor vehicle access on Peppers Corner Road, the developer should provide bicycle and pedestrian access there.
 - 8) The proposed circle (not actually a roundabout) at the intersection of North Lakelyn Drive, West Landlock Drive and East Timberlyn Court is quite close to Lizzard Hill Road. While it may be acceptable, it will require further review.
 - 9) The developer's site engineer should contact the DelDOT Subdivision Manager for Sussex County, Mr. John Fiori, regarding our requirements for access. Mr. Fiori may be reached at (302) 760-2260.

**The Department of Natural Resources and Environmental Control – Contact:
Kevin Coyle 739-3091**

Soils

According to the soil survey update Pepperbox, Klej, Hurlock and Mullica-Berryland complex were mapped in the immediate vicinity of the proposed construction.

Pepperbox is a moderately well-drained soil of low-lying uplands that has moderate limitations for development. Klej is a somewhat poorly-drained transitional soil that is likely to contain both upland and wetland soil (**hydric**) components that may or may not be suitable for development. Hurlock is a poorly-drained wetland associated (**hydric**) soil that has severe limitations for development. Mullica-Berryland complex is a very poorly-drained wetland associated (**hydric**) soil that has the highest severity level for development.

Wetlands

According to the Statewide Wetland Mapping Project (SWMP) mapping, palustrine forested and palustrine scrub-shrub wetlands were mapped in the immediate vicinity of the proposed development.

Because there is strong evidence that federally regulated wetlands exist on site, a wetland delineation, in accordance with the methodology established by the Corps of Engineers Wetlands Delineation Manual, (Technical Report Y-87-1) should be conducted. Once complete, this delineation should be verified by the Corps of Engineers through the Jurisdictional Determination process.

Impacts to wetlands should be avoided to the maximum extent practicable. Wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. Lots should be removed in their entirety from the wetland, wetland buffers and the forested areas. Vegetated no-mow 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.

Impacts to wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act; impacts to tidal wetlands are also regulated by the DNREC Division of Water Resources, Wetlands and Subaqueous Lands Section. In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the Wetlands and Subaqueous Lands 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.

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) 739-4691 to schedule a meeting.

It is also recommended that the Farm Services Agency of the USDA be contacted to assess whether the farmed wetlands on subject parcel meet the recognized criteria for

classification as “prior converted wetlands.” Prior converted wetlands are farmed wetlands that have drained or altered before December 23, 1985, and no longer meet the wetland criteria established under the 404 program. Such wetlands are considered exempt from regulatory protection provided that there is no proof of a continuous “fallow period” of five years or greater in that parcel’s cropping history. Parcels converted after said date regardless of cropping history are considered jurisdictional by the Army Corps of Engineers (ACOE). The contact person for assessing a parcel’s cropping history is Sally Griffin at the USDA – she can be reached at 678-4182.

It should be noted that this parcel borders or contains headwater riparian wetlands which eventually drain to the environmentally-sensitive Inland Bays. Headwater riparian wetlands are important for the protection of water quality and the maintenance/integrity of the ecological functions throughout the length of the stream, including the floodplain system and/or waterbodies (Inland Bays) further downstream. **In recognition of this concern, the Department strongly recommends that the applicant preserve the as much of the existing natural buffer as possible, including any immediately adjoining forested uplands. Otherwise a 100-foot buffer width is considered the minimum acceptable distance from all wetlands and waterbodies (including ditches).** In cases where natural buffer vegetation has been removed or reduced by past development or farming activities, the developer is encouraged to restore/establish to said buffer width or greater with native herbaceous and/or woody vegetation. Since most of the forested wetlands on this parcel are likely to be considered jurisdictional wetlands forested (according to SWMP), it is highly likely that much of this acreage will not be legally accessible for development.

Stormwater Management ponds should also be at least 100-feet from all wetlands and waterbodies.

ERES Waters

This project is located adjacent to receiving waters of Inland Bays 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 11.5 of Delaware’s “Surface Water Quality Standards” (as amended August 11, 1999), 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 11.5(e) 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.

TMDLs

With the adoption of Total Maximum Daily Loads (TMDLs) as a “nutrient-runoff-mitigation strategy” for reducing nutrients in the Inland Bays Watershed, reduction of nitrogen and phosphorus loading will be mandatory. 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 authorized under federal code, states are charged with developing and implementing standards to support those desired use goals. The Jurisdictional authority for attaining these use goals will fall under the auspices of Section 11.5 of the State of Delaware’s Surface Water Quality Standards (as amended August 11, 1999), and will be achieved via nutrient reductions referred to as “pollution control strategies.”

Nutrient reductions prescribed under TMDLs are assigned on basis of water quality concerns – that is, the those regions deemed to be of greatest environmental concern will require correspondingly higher levels of nutrient reduction than those regions deemed less environmentally sensitive. In this watershed, these regions are demarcated as high and low reduction zones. The high reduction zone corresponds to the western portion of the watershed, and requires a reduction of nitrogen and phosphorus by 85 and 65 percent, respectively. The low reduction zone corresponds to the eastern portion of the watershed, and requires a reduction of nitrogen and phosphorus by 40 percent. **This project is proposed within the low nutrient reduction zone. It should be also be noted that the applicant plans to remove a considerable portion of the existing forest cover (over 80%) – this proposed action may reduce the possibility for attaining the required TMDL loading-rate reduction for phosphorus. As mentioned previously, it is strongly recommended (and may in fact be required) that the applicant consider designing this subdivision with greater emphasis on the retention of native forest cover.** Based on a review of numerous sources of peer-reviewed research there is almost always a huge spike in sediment-bound phosphorus following forest clearing activities.

The applicant should keep in mind that the Department considers the inclusion of stormwater management and/or wastewater treatment areas as an inappropriate/inaccurate metric for open space calculations. Using the open space as the applicant currently proposes will underestimate the calculated TMDL nutrient loading rates.

In order for the applicant to verify compliance with the TMDL mandate, a full nutrient accounting process known as nutrient budget should be prepared. The developer/consultant should contact Lyle Jones in the Department’s Watershed Assessment Section for further information regarding the acceptable protocol for calculating a nutrient budget. He can be reached as 739-4590.

Water Supply

The project information sheets state that water will be provided to the project by a central public water system. DNREC records indicate that the project site is not located in an area where public water service is available. Should an on-site public well be needed, it must be located at least 150 ft. from the outermost boundaries of the project. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

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.

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

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-3665.

Sediment and Erosion Control/Stormwater Management

1. Please submit a sediment control and stormwater management plan to the Sussex Conservation District for review. No construction (i.e. clearing, filling, grading, etc.) shall take place on-site until a sediment control and stormwater management plan has been approved by the Conservation District.
2. Please indicate on the sediment and stormwater management plan who shall be responsible for maintenance of the stormwater management facilities both during construction and after.
3. During the design of the sediment control and stormwater management plan, considerations should be made for maintenance (i.e. access, easements, etc.) of any structures or facilities.
4. During the design of the stormwater management facility please note that both stormwater quantity and quality must be addressed.
5. If a stormwater management pond is going to be utilized as a sediment trap/basin during construction it must be designed to accommodate 3600 cubic feet of

- storage per acre of contributing drainage area until project stabilization is complete.
6. Specify First Floor elevations for all lots.
 7. All ponds are required to be constructed per pond code 378.
 8. Please note that if the stormwater facilities will impact wetlands, a permit must be provided to the District prior to receiving approval.
 9. Please demonstrate to the Conservation District that you have an adequate outfall for the proposed stormwater facilities.
 10. A CCR is required for this development since the gross acreage for the project exceeds 50 acres.
 11. If this project discharges or is within a tax ditch water shed, than you must provide the District with an approval letter from DNREC Drainage Section.
 12. Due to the proximity to sensitive areas, the Conservation District will require reinforced and super silt fence to adequately protect wetland areas during the construction of the site.
 13. Under the DNREC Health and Safety memo of 2000, all wet ponds are required to have an open space depth of 3 feet or more that comprises at a minimum 50-75% of the pond.
 14. Please contact the Conservation District when design of stormwater management facility is initiated, as they would like to work closely with you in its design.

Rare/Threatened/Endangered 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:

- Contact Trevor Clark (410-573-4527) of the US Fish and Wildlife Service for proper procedures prior to beginning work. A conference with the Service is required for any projects that will directly or indirectly impact habitat within 3 miles of the Assawoman Wildlife Area fox squirrel locations;

AND/OR

- Contact Trevor Clark (410-573-4527) of the US Fish and Wildlife Service for proper procedures prior to beginning work. 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.

Potential Hunting Issue

Because the project parcel is part of a larger forest block, legal hunting activities may take place on adjacent properties. Hunting within 100 yards of a dwelling is prohibited and the applicant may want to contact adjacent landowners to determine if this is going to be an issue. In effect, the adjacent landowner will be losing 100 yards of their property for hunting if there is not buffer between lot lines and the adjacent property line.

Nuisance Waterfowl

Stormwater management ponds that remain in the site plan may attract waterfowl like resident Canada geese. 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 grasses around ponds provide an attractive habitat for these species. We recommend native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area 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, property managers or owners 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.

Forests

Minimal consideration is given for forest preservation or for wetland protection. Nearly all of the forest on this parcel is to be removed, including some for stormwater management ponds. It does not make sense to clear trees for a stormwater management pond, considering the benefit of trees in flood protection. A different method of stormwater management should be employed or the ponds should be located to areas that are already cleared.

In addition, the site plan should be changed to allow for preservation of as much of the forest as possible, considering that more than 5,000 acres of forest have been lost in Delaware since 1990. This has led to a corresponding loss of forest-dependent species and greater pressure on nearby public lands such as wildlife areas. All the displaced wildlife has to go somewhere and this often results in human-animal conflicts. DNREC is concerned because the Miller Neck Wildlife Area is in the general vicinity and could be detrimentally affected if this site plan is used as an example for future developments in the area.

This parcel is part of a larger forest block and larger, connected areas of forest are more beneficial to wildlife than narrow buffer strips or small disconnected areas of forest. 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. A larger area of forest should be preserved and set aside as ‘open space’.

Underground Storage Tanks

There is one inactive LUST site(s) located near the proposed project:

Blue Hen Market, Facility # 5-000946, Project # S0104034

No environmental impact is expected from the above inactive/active LUST site(s). However, should any underground storage tank or petroleum contaminated soil be discovered during construction, the Tank Management Branch must be notified as soon as possible. It is not anticipated that any construction specifications would be need to be changed due to petroleum contamination. However, should any unanticipated contamination be encountered and PVC pipe is being utilized, it will need to be changed to ductile steel in the contaminated areas.

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 estimate the amount of solid waste that will be generated as a result of construction and occupancy.

Air Quality

Air pollution threatens the health of human beings and other living things on our planet. While often invisible, pollutants in the air create smog and acid rain, cause cancer or other serious health effects, diminish the protective ozone layer in the upper atmosphere, and contribute to the potential for world climate change. Breathing polluted air can have numerous effects on human health, including respiratory problems, hospitalization for

heart or lung disease, and even premature death. Some can also have effects on aquatic life, vegetation, and animals.

The Department of Natural Resources and Environmental Control is asking that local jurisdictions consider mitigation to help resolve this issue. Mitigation might involve limiting large new developments to growth zones, focusing development to urban areas capable of providing mass transit services, requiring more energy efficient homes which would lessen air quality impacts, and promoting walkability and bikability within and between developments and town centers.

Once complete, vehicle emissions associated with this project are estimated to be 20.7 tons (41,442.2 pounds) per year of VOC (volatile organic compounds), 17.2 tons (34,311.3 pounds) per year of NOx (nitrogen oxides), 12.7 tons (25,315.5 pounds) per year of SO2 (sulfur dioxide), 1.1 ton (2,253.5 pounds) per year of fine particulates and 1,733.3 tons (3,466,585.8 pounds) per year of CO2 (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 8.4 tons (16,715.5 pounds) per year of VOC (volatile organic compounds), 0.9 ton (1,839.2 pounds) per year of NOx (nitrogen oxides), 0.8 ton (1,526.3 pounds) per year of SO2 (sulfur dioxide), 1.0 ton (1,969.6 pounds) per year of fine particulates and 33.9 tons (67,761.0 pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 3.3 tons (6,624.8 pounds) per year of NOx (nitrogen oxides), 11.5 tons (23,042.9 pounds) per year of SO2 (sulfur dioxide) and 1,699.4 tons (3,398,824.8 pounds) per year of CO2 (carbon dioxide).

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	20.7	17.2	12.7	1.1	1733.3
Residential	8.4	0.9	0.8	1.0	33.9
Electrical Power		3.3	11.5		1699.4
TOTAL	29.1	21.4	25.0	2.1	3466.6

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 3.3 tons of nitrogen oxides per year and 11.5 tons of sulfur dioxide per year.

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. We highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

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):

a. **Fire Protection Water Requirements:**

- Where a water distribution system is proposed for single family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required.
- The infrastructure for fire protection water shall be provided, including the size of water mains.

b. **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 Lizzard Hill Road 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.

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

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

d. **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”
- Name of Water Supplier
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- Duplex 2-hr separation wall details shall be shown on site plans
- Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads

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.

Department of Agriculture - Contact: Mark Davis 739-4811

Overall Comments

The Delaware Department of Agriculture and the Delaware Forest Service does not support the development of this parcel within an Environmentally Sensitive area. This development as proposed will lessen the value of the environmental resources found within and adjacent to this site. The Department and the Delaware Forest Service strongly encourages the developer to change the overall design and/or location of the proposed subdivision so that it will offer better environmental opportunities for communities surrounding this area. This site is located in both the cropland and forestland priority areas for preservation and conservation as is reflected on the State's Green Infrastructure Maps. The Department strongly encourages the developer to work with all agencies to address such concerns as preservation of the forested since this area is almost all forested. The Delaware Department of Agriculture offers it services to the developer in the re-design of this project, to learn more please contact our office at (302) 698-4500.

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. DFS also encourages conservation of the forest present at this site, and preservation wherever possible. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.

Native Landscapes

The Department of Agriculture 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 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.

Public Service Commission - Contact: Andrea Maucher 739-4247

The project is not within a certificated area for water.

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.

If the project connects to public wastewater services from the County, and the project lies outside of the service territory established in October 2004, then the County must update the information it filed with the Commission.

Delaware State Housing Authority – Contact Karen Horton 739-4263

According to the *State Strategies Map*, the proposal is located in an Investment Level 4 area and in an environmentally sensitive area. As a general planning practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as Investment Level 1 and 2 areas outlined in the State Strategies Map. The proposal is located in an area targeted for agricultural and natural resource protection, and therefore inconsistent with where the State would like to see new residential development.

Delaware Emergency Management Agency – Contact: Don Knox 659-3362

Due to the large number of residential units being proposed and its location in an Investment Level 4 Area, a significant impact to public safety is foreseen by implementation of this project. The developer should notify the police, fire service, and emergency medical response organization serving this portion of Sussex County, to keep them apprised of all development activities.

A portion of this property, along the Beaver Dam Ditch, is located in the Special Flood Hazard Area inundated by the 500-year flood, (FIRM Map 495). This area could also experience possible flooding from a category 3 or greater hurricane.

Routes 1, 26, and 113 are coastal storm evacuation routes and this development will be affected by traffic volume on these routes during a coastal storm event

Department of Education – Contact: Nick Vacirca 739-4658

270 dwelling units could generate an estimated 135 additional students for the Indian River School District. [Sussex](#) County does not have school concurrence legislation at this time. We recommend that the developer submit a package to the school district for informational purposes.

If the development is approved and built, please use the following information for school transportation planning. If there are homes more than 1/2 mile from the nearest public road (outside the development), developers should plan wide enough streets so that large school buses can access and turn around (without backing) from the furthest areas within the development while picking up and dropping off students. Should there not be any sites more than 1/2 mile from the nearest public road, provisions for appropriate pick-up and drop-off at the development entrance should be included. The developer should work closely with the school district transportation supervisor.

Sussex County – Contact: Richard Kautz 855-7878

This project is situated in an Environmentally Sensitive Development Area. The required report should include how the PLUS comments have been addressed and how the plan has been revised accordingly.

This summer Sussex County will be considering implementation of a Source Water Protection Program required by the State. Depending on the requirements adopted by the County Council this project might be affected. Any well location should insure that the wellhead protection area is entirely on site.

The Sussex County Engineer Comments:

PLUS 2005-04-04

May 24, 2005

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The proposed project is within the Beaver Dam Planning Area, as defined in the South Coastal Area Planning Study, Update 2004. The project request is for 270 units on 72 acres, which results in a gross density of 3.75 EDUs/acre. The County has no schedule to extend service to this project. It is unclear how annexation will occur. All pipelines must be constructed in accordance with Sussex County Sewer Standards and the South Coastal Area Planning Study, Update 2004.

For questions regarding these comments, contact Chris Calio, Sussex County Engineering Department at (302) 855-7839.

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,

A handwritten signature in cursive script that reads "Constance C. Holland".

Constance C. Holland, AICP
Director

CC: Sussex County