



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF
STATE PLANNING COORDINATION

June 27, 2005

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

RE: PLUS Review 2005-05-22, Peninsula Square

Dear Ms. Nichols,

Thank you for meeting with State agency planners on June 8, 2005 to discuss the proposed plans for the Peninsula Square project located on 127 acres on the west side of John J. Williams Highway in Sussex County. According to the information received, you are seeking a rezoning from AR-1 to HR-RPC for the construction of 606 residential units and a 247,622 square foot shopping center in the Levels 2, 3 and 4 areas.

This proposal is located mostly within an Investment Level 4 according to the *Strategies for State Policies and Spending*, and is in the Low Density area according to the Sussex County Comprehensive Plan. **The comments in this letter are technical, and are not intended to suggest that the State supports this development proposal. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to construct the development you indicate or any subdivision thereof on these lands.**

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

Executive Summary

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

Site Location/Strategies for State Policies and Spending

- The proposal is located mostly within the Level 4 area according to the *Strategies for State Policies and Spending* and mostly within the Low Density area of the Sussex County Comprehensive Plan. State priorities in these areas include conservation of natural resources and preservation of agriculture, not development.
- The HR zoning requested is inconsistent with the Sussex County Comprehensive Plan. If the rezoning is to be granted, it should be done following an update or amendment of the Plan.
- The commercial acreage proposed exceeds that permitted by an HR-RPC.
- The State supports initiatives to provide affordable housing, but notes that such initiatives should be consistent with relevant comprehensive plans.

Streets & Roads

- Right-of-way dedication will be required along the frontage of Route 24 and Autumn Road.
- A paved multi-modal path will be required within a 15-foot wide permanent right-of-way across the frontage of the site.
- DelDOT will require a traffic impact study for this development.
- The three access points proposed will not be permitted.
- The proposed main entrance is too close to the intersection of Route 24, Autumn Road and Bay Farm Road to be desirable for signalization.
- The plan should make better use of Autumn Road.
- A hierarchy of streets is recommended within the development.
- Roundabouts are recommended in lieu of the triangular island shown and at the two parking lot entrance intersections just north of the wetland crossing.
- Single access for large developments is not desirable. The plan should provide two ingress/egress points in the townhouse and condominium sections.
- Stub streets should be provided to neighboring properties.
- The developer will need to work closely with DelDOT regarding stormwater management. Details are included in DelDOT Item #13.
- Bike racks should be included in the commercial areas.

Natural & Cultural Resources

- There is a reported grave site in the vicinity of the borrow pits and wetlands near the rear of the property. The developer should call Faye Stocum of the State Historic Preservation Office to discuss requirements of the Unmarked Human Remains Act.
- Vegetated buffers of at least 100-feet should be included around the sensitive headwater wetlands on-site.
- Given the environmentally sensitive nature of this watershed, impervious cover should be reduced through the use of pervious paving materials and other best management practices.

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

While the commercial part of the project is located in Level 2 and 3 areas, a major aspect of the land development will result in 606 residential units the Level 4 Environmentally

Sensitive Developing Area according to the *2004 Strategies for State Policies and Spending*. These areas are where State investments support agricultural preservation, natural resource protection, and continuation of the rural environment. New and suburban development activities are not supported in these areas, which are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of the Level 4 portion of the site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed is likely to bring more than 1,500 new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, 100% of school transportation and paratransit services, up to 80% of school construction costs, and about 90% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.

The HR zoning requested is inconsistent with the certified Sussex County Comprehensive Plan. We understand that some units would be offered below market rate. The developer and the County's effort to provide moderately-priced home-ownership opportunities is commendable, however such efforts must take place within the context of comprehensive plans. After first being approached about the proposal, we shared these concerns with Sussex County and the developer in a December 30, 2004 letter (attached). If this proposal is to move forward, it should be considered within the context of a comprehensive plan update. The State is opposed to this proposal because it is inconsistent with the *Strategies for State Policies and Spending* and the Sussex County Comprehensive Plan.

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

There are no National Register-listed properties on or in the vicinity of the site. There are a few historic houses in the general area, but none are within view. The property has a low potential for other archaeological sites.

There is a reported grave site of Lydia Clark (S-263) in the vicinity of the borrow pits and wetlands near the rear of the property. Because of this reported burial and the potential for other unmarked burials, the developer is advised to call Faye Stocum of this office as soon as possible to discuss requirements of the Unmarked Human Remains Act. To summarize, the developer should hire an archaeological consultant to research the parcel's history and delineate the boundaries of any graves prior to construction and then maintain the grave area as dedicated open space. If graves must be disturbed, a period of advertisement is required to locate and consult with any descendants and/or the

Unmarked Human Remains committee about handling, study, and reburial issues. The developer would then be required to remove the burial(s) archaeologically and submit a report to the Division of Historical and Cultural Affairs. If not taken care of by descendants, the developer will also be required to find a protected place to rebury the excavated bones. Given the location and the name attached to the grave site, the Nanticoke Indian Association will likely participate in the consultation.

In the event that an Army Corps of Engineers permit is required to cross the wetlands, the developer will be required to consult with SHPO under Section 106 of the National Historic Preservation Act of 1966 (as amended). The developer will be required to hire an archaeological consultant for testing and data recovery if other sites are discovered in this area. For permitting information contact Joan Larrivee of the State Historic Preservation Office.

Department of Transportation – Contact Bill Brockenbrough 760-2109

Peninsula Square LLC seeks to develop 294 townhouses, 288 condominium apartments, and a 247,622 square foot strip shopping center, including two pad sites and a Wawa convenience store with gasoline pumps on an approximately 127-acre assemblage of parcels on the northwest corner of Delaware Route 24 and Autumn Road (Sussex Road 299). The tax parcels involved are numbered 2-34-23-113.00, 114.00, 114.01 and 115.00 and 2-34-29-49.00, 49.01 and 50.00. The land is zoned AR-1 in Sussex County and would have to be rezoned to HR-RPC to permit the proposed development. While the part of the project along Route 24 is in Level 2 and 3 areas with regard to the *Strategies for State Policies and Spending*, the residential part is entirely in the Level 4 area. The project is inconsistent with the Sussex County Comprehensive Plan. At the PLUS meeting, the developer indicated that 30 percent of the dwellings would be affordable housing, sold below the market rate.

- 1) DelDOT supports the Office of State Planning Coordination in opposing the development of the lands in the Level 4 area. DelDOT comments on the project are limited to the front portions in Levels 2 and 3. Comments on the residential portions of the site are technical and should not be interpreted as indicating support for the development of those lands.
- 2) DelDOT supports the OSPC's comments to the effect that the County should act in a manner consistent with their Comprehensive Plan and amend the Plan first if they want to grant the rezoning necessary for this project.
- 3) Autumn Road is classified as a local road and Route 24 is classified as a collector road. Local roads in Delaware typically have right-of-way widths ranging from 33 to 50 feet. Right-of-way widths on collector roads vary. DelDOT's policy is to require dedication of sufficient land to provide minimum right-of-way widths of 30 feet from the centerline on local roads and 40 feet from the centerline on collector roads. Therefore we will require right-of-way dedication along the frontage to provide any additional width needed from this project.

- 4) A paved multi-modal path, located in a 15-foot wide permanent easement, is required across the frontage of the site.
- 5) 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, we recommend that the developer have their traffic engineer contact Mr. Todd Sammons of the Development Coordination Section as soon as possible to obtain a scope for this study. Mr. Sammons may be reached at (302) 760-2134.
- 6) Regarding the proposed site access:
 - a) The three access points proposed will not be permitted. Preliminarily, a maximum of two entrances, one located opposite the existing entrance to the Back Bay shopping center across Route 24, will be permitted.
 - b) The proposed main entrance is too close to the intersection of Route 24, Autumn Road and Bay Farm Road to be desirable for signalization. DelDOT would be reluctant to install a signal anywhere on Route 24, particularly at a location other than a numbered State-maintained road, and even more reluctant when a signal spacing of less than 1,000 feet would result. Closer signal spacings make the signals difficult to coordinate, so through traffic is more likely to be stopped at one or more signals.
 - c) The entrance designs and locations will need to be coordinated with the plans for the Back Bay Shopping Center. The developer's engineer may contact the Subdivision Manager for Sussex County, Mr. John Fiori, in that regard. Mr. Fiori may be reached at (302) 760-2260.
 - d) The entrance designs and locations will need to be coordinated with the plans for DelDOT's proposed SR 24 Mainline Improvements, Project No. 24-112-09. The developer's engineer may contact the project manager for that project, Mr. Mark Harbeson, in that regard. Mr. Harbeson may be reached at (302) 760-2346.
 - e) The plan should be redrawn to make better use of Autumn Road. The existing signal at the intersection of Route 24, Autumn Road and Bay Farm Road is likely to be the site's only signalized access to Route 24 for some years.
- 7) A hierarchy of streets is recommended to provide condominium residents a clearly defined route to follow through the townhouse development.
- 8) The plan should be revised to eliminate the triangular island on the main entrance street. While speeds within the site would likely be low enough that it would not

matter, drivers find these islands confusing and often navigate them in ways that were not intended despite best efforts to direct them through signing and striping.

- 9) There are three locations on the plan where roundabouts should be considered: the intersection with the triangular island just mentioned, and the two parking lot entrance intersections just north of the wetlands crossing.
- 10) The plan shows a single access to the townhouses, through the shopping center, and a single access to the condominiums, through the townhouses. While single access for a large development is sometimes necessary, it is not desirable. Having a single access tends to concentrate traffic on one route and can result in significant safety concerns if the access should become blocked unexpectedly, such as by a traffic accident. The plan should be redesigned to provide at least two means in and out of each of the residential sections.
- 11) Stub streets provide connections to surrounding properties. Most significantly, Baylis Estates, a proposed development fronting on Mount Joy Road (Sussex Road 297), shares a common boundary with this project. A connection between the two developments could be beneficial for both and should be explored.
- 12) The response to Item 25 on the PLUS application indicates that 82 out of 92 acres of forest land will be removed. Although it is not a transportation comment, DelDOT suggests that it might be profitable to preserve more of the forest. Even if it meant that fewer dwellings could be developed, buyers would pay more for those dwellings in a wooded setting. It is recognized that this justification conflicts with the developer's announced goal of providing affordable housing.
- 13) Part of the land to be used for the proposed shopping center has been purchased by DelDOT for the creation of an infiltration basin. DelDOT is presently developing a project to improve Delaware Route 24 from Banks Road (Sussex Road 298) to Oak Orchard Road (Sussex Road 297). The infiltration basin just mentioned is planned to manage some of the stormwater from the improved road.

The developer proposes to obtain the land where DelDOT would otherwise build the basin and to use it for the shopping center. They would then use an adjacent parcel for a wet pond to handle both the shopping center and road runoff and would outfall to the wetlands toward the rear of the site.

At the PLUS meeting, the developer indicated that they had already met with DelDOT representatives who had accepted this proposal, subject only to the addition of a transit stop to serve the shopping center. DelDOT representatives recall the meeting somewhat differently and believe they communicated their position of not opposing the developer's further pursuit of the concept. If the real estate transaction is legal, the drainage works, and the result is a better use of public funds, it may be a good idea. With regard to drainage, DelDOT considered

building a pond with an outfall as part of the Route 24 project but determined that an infiltration basin was a better choice because of the flatness of the land and the distance the water would have to travel.

- 14) Regarding the transit stop mentioned in comment 13 above, there is presently no transit service on the subject section of Delaware Route 24. However, the Delaware Transit Corporation (DTC, operating as DART First State) has proposed a new year-round transit route to travel SR24 from Millsboro to Rehoboth Beach. Implementation, if appropriately funded, would commence in May 2006. An ADA-accessible bus stop installed directly on Route 24 with pedestrian access to and from the interior portions of the development project would be the best way to serve the project. A safe pedestrian crossing over Route 24 to a corresponding bus stop in the opposite direction also would be required. Questions regarding the status of the proposed bus route and the location and design of the stops may be directed to Mr. David Dooley, DTC Service Development Planner, at (302) 577-3278 ext. 3464.
- 15) DelDOT supports the comment from the Division of Parks and Recreation that bicycle racks should be provided in the commercial areas.
- 16) DelDOT supports the comment from Sussex County regarding the location of perpendicular head-in parking along the streets in the residential portion of the development. The parking layout should be revised to reduce the number of perpendicular head-in parking spaces that back directly onto the streets, especially those opposite one another. Perpendicular head-in parking may be necessary in front of the dwellings, but along the streets it disrupts traffic flow and can be a safety hazard. Good alternatives include parallel parking and the sort of small parking lots already shown on the plan.
- 17) The developer's site engineer should contact the project manager for Sussex County, Mr. John Fiori, regarding specific requirements for access and drainage.

Department of Natural Resources and Environmental Control

Contact Kevin Coyle 739-3091

Soils

According to the soil survey update Fort Mott, Ingleside, and Klej were mapped in the immediate vicinity of the proposed construction. Fort Mott is an excessively well-drained upland soil that has moderate limitations associated with rapid permeability. Ingleside is a somewhat well-drained upland soil with few limitations for development. Klej is a somewhat poorly-drained transitional soil likely to contain both upland and wetland soil (hydric) components that may or may not be suitable for development.

Wetlands

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. The developer should note that both DNREC and the 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 caused by homeowners.

The site contains sensitive headwater riparian wetlands which eventually drain to the Inland Bays. Headwater and near headwater streams are important for the protection of water quality and the maintenance/integrity of ecological functions throughout the length of the stream, including the floodplain system downstream. Such streams are a major avenue for nutrient-laden stormwater and sediment runoff and their protection deserves the highest priority. It is strongly recommended that the applicant maximize the buffer-width from this stream.

TMDLs

Adoption of Total Maximum Daily Loads (TMDLs) as a nutrient-runoff-mitigation strategy for the Inland Bays Watershed makes reduction of nitrogen and phosphorus loading 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 these desired use goals. The jurisdictional authority for these use goals falls under Section 11.5 of the Surface Water Quality Standards (as amended August 11, 1999), and will be achieved via nutrient reductions referred to as "pollution control strategies."

Nutrient reductions are assigned on the basis of water quality concerns. Regions of greatest environmental concern will require higher levels of nutrient reduction than those 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 is strongly recommended that the applicant design the subdivision with greater emphasis on the retention of native forest cover. A large increase in sediment-bound phosphorus generally follows extensive forest clearing activities.

The inclusion of stormwater management and/or wastewater treatment areas in open space calculations may underestimate nutrient loading rates. In order to verify compliance, a full nutrient accounting process known as nutrient budget should be prepared by the applicant. Lyle Jones, Watershed Assessment Section, can be contacted at (302) 739-4590 for further information regarding acceptable protocol for calculating a nutrient budget.

Wetland Permitting Information

If wetland impacts are considered, note that impacts to wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. 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. 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, (302) 739-4691 to schedule a meeting.

Plans indicate that a road crossing will run through the stream on the site. Impacts to streams and associated riparian wetlands, including road crossings, are regulated by the DNREC Division of Water Resources Subaqueous Land Section and the Army Corps of Engineers.

There is strong evidence that federally-regulated wetlands exist on the site. A wetlands delineation should be conducted in accordance with methodology established by the Corps of Engineers Wetlands Delineation Manual (Technical Report Y-87-1). The delineation should then be verified Corps of Engineers through the Jurisdictional Determination process.

Impervious Cover

The amount of impervious cover to be constructed (approximately 48%) should be reduced. Given the environmentally sensitive nature of this watershed, the applicant should devote more effort to employing innovative efforts or BMPs to reduce impervious cover. Use of pervious materials in lieu of asphalt and concrete significantly reduces pollutant-laden surface runoff into wetlands and streams.

ERES Waters

This project is located adjacent to receiving waters of the Inland Bays designated as having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State. Section 11.5 of Delaware's "Surface Water Quality Standards" (as amended August 11, 1999), specifies that all designated ERES waters and receiving tributaries have a "pollution control strategy" to reduce non-point sources of nutrient runoff. Subsection 11.5(e) expressly authorizes the Department to provide standard Best Management Practices (BMPs) for controlling, reducing, or eliminating the discharge of pollutants to the greatest degree practicable or attainable.

Water Supply

Well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the 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. A water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation. Dewatering well permit applications typically take approximately four weeks to process. Questions concerning these comments can be directed to Rick Rios, (302)739-3665.

Sediment and Erosion Control/Stormwater Management

- 1) Due to the proximity to sensitive areas, the Sussex Conservation District will require reinforced and super silt fence to protect wetland areas during construction.
- 2) All stormwater management facilities should be located at a minimum of 20 feet from DelDOT right-of-way.
- 3) The pond in the front of the development should be shaped more naturally in the landscape.
- 4) If the existing borrow pit is to be used for stormwater management, the pond must be reconstructed to comply with DNREC's Health and Safety Memo of 2000.
- 5) A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Plan review and approval and construction inspection will be coordinated through Sussex Conservation District. Contact Jessica Watson, Program Manager, (302)856-7219 regarding submittal requirements and fees.
- 6) It is strongly recommended that the applicant contact Sussex Conservation District to schedule a pre-application 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.
- 7) 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.
- 8) Applying practices to mimic the pre-development hydrology on the site, promote recharge, maximize use of existing natural features, and limit 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.
- 9) Each stormwater management facility should have an adequate outlet for release of stormwater. Any drainage conveyed onto this site from neighboring properties must be adequately conveyed through the site to the discharge point without interruption.
- 10) Clearly address how Stormwater Quality and Quantity Treatment will be provided. If this project is eligible for a Quantity Waiver, make the request in the stormwater

narrative citing the specific regulation.

- 11) Indicate on the sediment and stormwater management plan who will be responsible for maintenance of stormwater management facilities during and after construction. During the design of the sediment control and stormwater management plan, considerations should be made for maintenance (access, easements, etc.) of any structures or facilities.
- 12) If a stormwater management pond is going to be utilized as a sediment trap/basin during construction it must be designed to accommodate 3,600 cubic feet of storage per acre of contributing drainage area until project stabilization is complete.
- 13) All ponds must be constructed in accordance with pond code 378.
- 14) If stormwater facilities will impact wetlands, a permit must be provided to the District prior to receiving approval.

Drainage

All ditches on the property be checked for function and cleaned if needed prior to the construction of homes. Wetland permits may be required in advance of ditch cleaning. It is recommended that precautions be taken to ensure that construction does not hinder any off-site drainage upstream or create off-site drainage problems downstream by the release of on-site storm water. Any drainage/utility easement owned by an individual landowner should not have structures, decks, buildings, sheds, kennels, fences or trees within it to allow for future drainage maintenance.

It is strongly recommended that any drainage conveyance between two parcels within the subdivision be dedicated as a drainage easement and designated as passive open space, rather than individually-owned. The easement should be of sufficient width to allow for future drainage maintenance. Along an open ditch or swale, a maintenance equipment zone of 25 feet measured from the top of bank on the maintenance side, and a 10-foot setback zone measured from top of bank on the non-maintenance side is recommended. Along a stormwater pipe, a maintenance equipment zone of 15 feet on each side of the pipe as measured from the pipe centerline is recommended. These zones should be maintained as buffers to reduce sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species, selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be native species spaced to allow for drainage maintenance at maturity. Trees should not be planted within 5 feet of the top of ditch to avoid future blockages from roots.

Forests

There is a 92.7-acre forested area on the site, of which 82.05 acres will be removed in development. This forest is extremely beneficial to the region in providing important

habitat, wildlife connectors, and air and water quality benefits. Fragmentation can have irreversible effects on the regional ecosystem.

Lot lines should be redesigned to avoid impacts to the forested area. The developer is strongly encouraged to preserve and enhance forested resources on the site by minimizing clearing activities and removing lots and associated infrastructure, such as storm water management ponds, from forested areas. These areas should be viewed as community assets and managed appropriately. The developer should seriously consider making habitat improvements such as re-vegetating portions of the site. Providing a forested buffer of 100 feet or more would substantially benefit water quality and wildlife habitat.

Forested areas set aside for conservation purposes should be placed into a permanent conservation easement or other binding protection. These areas should be clearly marked so that residents understand their importance and homeowner activities do not infringe upon them. Reforestation of the open space areas in the parcel is strongly recommended to increase the buffer zone and decrease homeowners' long-term maintenance costs.

Rare Species

There are records of rare species in a sea level fen downstream from the site that could be affected by run-off from the project. This rare community is sensitive to changes in water quality and hydrologic conditions. Because of this and the large amount of impervious surface being proposed, the 80-foot buffer around the wetlands should be increased to at least 100 feet of forested buffer that does not contain lot lines, road ways, or stormwater management ponds.

The Delaware Natural Heritage Program botanist requests the opportunity to survey the forest resources which will be affected by this project in order to provide more informed comments and advise the applicant about opportunities to reduce impacts to potential rare species. Bill McAvoy can be reached at (302) 653-2880 to schedule a site visit.

Nuisance Geese

Ponds in the subdivision will likely attract waterfowl like resident Canada geese and mute swans. Native tall grasses, wildflowers, shrubs, and trees at the edge and within a 50-foot buffer area around the perimeter are recommended. Planting should be completed as soon as possible. Waterfowl do not feel safe when they cannot see predators in the surrounding area, and it is easier to control a few geese than to remove a plentiful population. Ponds should not be located adjacent to athletic fields, as the types of grass found in these areas are attractive to waterfowl. Subsequent droppings could interfere with activities and geese can become aggressive during the nesting season. The Division of Fish and Wildlife does not provide goose control services and residents will have to accept this burden (for example permit applications and fees, securing services of certified wildlife professionals). Solutions can be costly and labor intensive. Reducing the number size of ponds and providing proper landscaping and monitoring techniques will minimize nuisance geese.

Recreation

It is recommended that sidewalks be built fronting at least one side of residential streets and stub streets. A complete system of sidewalks will 1) fulfill the recreation need for walking and biking facilities, 2) provide opportunities for neighbors to interact in the community, and 3) facilitate safe and convenient off-road access to neighboring communities, parks, public mass transit stops, schools, stores, work, etc. Bike racks should be included throughout the project to encourage non-motorized mobility to the commercial area.

If a trail system is planned, a series of stacking trail loops with access points in each subdivision "pod" and connections to adjacent communities is recommended. Long, continuous, perimeter-only trail systems with few access points often go unused and neglected. Pervious, low-maintenance surface, such as crushed stone, is recommended. For trail design/construction specifications, contact Susan Moerschel, (302) 739-9235.

The Division of Parks and Recreation conducted a telephone survey of Delaware residents to gather information on outdoor recreation preferences and landscape perception. The findings are the foundation of the 2003-2008 Statewide Comprehensive Outdoor Recreation Plan (SCORP) which provides guidance for investments in outdoor recreation facilities. The high facility needs in Eastern Sussex County are Walking and Jogging, Bike Paths and Fishing Areas. The moderate facility needs are Picnic Areas, Skate Facilities, Canoe/Kayak Access, Hiking Trails, Swimming Pools, Playgrounds, Soccer Fields, Tennis Courts, Power Boat Access and Baseball/Softball Fields. Consideration should be given to provide such recreation opportunities in the proposed development. For additional information contact Bob Ehemann at (302) 739-9235.

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

Annual vehicle emissions associated with this project at completion are estimated to be 46.5 tons (93,014.7 pounds) of VOC (volatile organic compounds), 38.5 tons (77,009.9 pounds) of NOx (nitrogen oxides), 28.4 tons (56,819.3 pounds) of SO₂ (sulfur dioxide), 2.5 ton (5,057.9 pounds) of fine particulates and 3,890.3 tons (7,780,559.2 pounds) of CO₂ (carbon dioxide).

Annual emissions from area sources associated with this project at completion are estimated to be 18.8 tons (37,517.0 pounds) of VOC (volatile organic compounds), 2.1 ton (4,128.0 pounds) of NOx (nitrogen oxides), 1.7 ton (3,425.7 pounds) of SO₂ (sulfur dioxide), 2.2 ton (4,420.7 pounds) of fine particulates and 76.0 tons (152,085.7 pounds) of CO₂ (carbon dioxide).

Annual emissions from electrical power generation associated with this project at completion are estimated to be 7.4 tons (14,869.1 pounds) of NOx (nitrogen oxides), 25.9 tons (51,718.5 pounds) of SO2 (sulfur dioxide) and 3,814.2 tons (7,628,473.4 pounds) of CO2 (carbon dioxide).

| | VOC | NOx | SO ₂ | PM _{2.5} | CO ₂ |
|------------------|------|------|-----------------|-------------------|-----------------|
| Mobile | 46.5 | 38.5 | 28.4 | 2.5 | 3890.3 |
| Residential | 18.8 | 2.1 | 1.7 | 2.2 | 76.0 |
| Electrical Power | | 7.4 | 25.9 | | 3814.2 |
| TOTAL | 65.3 | 48.0 | 56.0 | 4.7 | 7780.5 |

Electrical usage via electric power plant generation will produce an additional 7.4 tons of nitrogen oxides and 25.9 tons of sulfur dioxide annually. A significant mitigation of this impact can be achieved through construction of Energy Star qualified homes. Every percentage of increased energy efficiency achieves 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 DNREC Energy Office trains builders to make their structures more energy efficient. The Energy Star Program is an excellent way to save on energy costs and reduce air pollution. The project development team is strongly encouraged to increase the energy efficiency of its homes.

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

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):

- 1) Fire Protection Water Requirements:
 - Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains of fire hydrants and sprinkler systems.
 - Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Mercantile)

- 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. (One & Two- Family Dwelling)
- 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. (Assembly and Townhouses)

2) Fire Protection Features:

- All structures over 10,000 Sq. Ft. aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sq.ft., 3-stories of more or over 35 feet, or classified as High Hazard must meet fire lane marking requirements.
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR

3) 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 John Williams Highway 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.

4) Gas Piping and System Information

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

5) 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

- Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
- Square footage of each structure (Total of all Floors)
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Townhouse 2-hr separation wall details shall be shown on site plans
- Note indicating if building is to be sprinklered
- Name of Water Provider
- Letter from Water Provider approving the system layout
- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- 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 www.delawarestatefiremarshal.com.

Department of Agriculture - Contact Mark Davis 739-4811

The Delaware Department of Agriculture objects to development of this site within the Level 4 area. As proposed, the site will not be utilizing public utilities. The Department supports state spending strategies for better investment and agrees that development of this site will create an unnecessary financial burden to the residents of the State of Delaware. The Department offers its services to the developer to identify alternative uses for the site.

Right Tree for the Right Place

The Department encourages the developer to use the "Right Tree for the Right Place" concept in any design considerations. This concept outlines the proper placement of trees to increase property value and reduce heating and cooling costs by an average of 20 to 35 dollars per month. A landscape design that uses this approach reduces maintenance costs to property owners and ensures a lasting forest resource.

Native Landscapes

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

Tree Preservation

The Department encourages the developer to implement tree preservation activities to ensure the health and vigor of the resource. Trees are affected by compaction of soils during the construction process; guidelines established by the International Society of Arboriculture (ISA) serve to lessen this impact and provide increase value to the site.

Tree Mitigation

It is acknowledged that tree removal will be necessary. The Forest Service encourages tree mitigation at a 1:1 ratio within the site to replace trees lost in construction.

Delaware State Housing Authority – Contact Jimmy Atkins, 739-4263

The proposal is to develop 606 units and 247,622 sq. ft. of commercial space on 127 acres located on the west side of John J. Williams Highway and the intersection with Bay Farm Road. The site is located in the Level 2, 3 and 4 Environmentally Sensitive Developing Areas. DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as found in Level 1 and 2 areas. Because the majority is located in the Level 4 area, DSHA does not support this development located in an area targeted for agricultural and natural resource protection, and therefore inconsistent with where the State has planned for new residential development.

The DSHA is encouraged by the developer's desire to participate in Sussex County's proposed program for moderately-priced housing. DSHA has been working closely with Sussex County to develop such a program. However, we believe that this proposal is premature, since no program has been adopted by Sussex County Council. Additionally, projects under the proposed program should be consistent with the County's Comprehensive Plan and should be located in the Town Center District, Development District or the Environmentally Sensitive Development District. The site is located mostly within the Low Density Area and the zoning requested for this proposal is inconsistent with the Sussex County Comprehensive Plan.

Department of Education – Contact Nick Vacirca

According to legislation passed in 2004, future public school sites must be located in designated growth areas and approved by the State Budget Director, the State Planning Director, and the State Secretary of Education. It is estimated that 606 dwelling units will generate 303 additional students for the Indian River School District. Sussex County does not have school concurrence legislation at this time. The developer should submit a package to the school district for informational purposes.

If the development is approved and built, 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. Should there not be any homes more than 1/2 mile from the nearest public road, provisions for appropriate pick-up and drop-off at the development entrance should be made. The developer should work closely with the school district transportation supervisor.

Public Service Commission - Contact Andrea Maucher 739-4247

Any expansion of natural gas or installation of a closed propane system must comply with Federal Pipeline Safety guidelines.

Delaware Emergency Management Agency – Contact Don Knox 659-3362

Due to the very large number of residential units proposed, commercial development, and its location in an Environmentally Sensitive Developing 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. This area could experience possible flooding from a category 2 or greater hurricane. Routes 5, 24, and 113 are coastal storm evacuation routes and this development will be affected by traffic volume on these routes during a coastal storm event.

Sussex County – Contact Richard Kautz 855-7878

The amount of commercial land proposed exceeds that permitted by an HR-RPC. The Sussex County Comprehensive Plan does not anticipate HR zoning in either the Low Density area or the Environmentally Sensitive Development District, so the request will be inconsistent with the Comprehensive Plan. The easternmost 600 feet of the project is located in an Environmentally Sensitive Developing Area. The required report should include how PLUS comments have been addressed and the plan revised accordingly.

The development proposal is to connect to the Long Neck Sanitary Sewer District, yet the site is outside the District and previous planning areas for sewer service. No capacity has been included in the existing system to serve the site and it is uncertain how the development could receive sewer service. If Artesian is to be the provider of wastewater treatment from a different facility, a Conditional Use will need to be approved.

A 600-foot wide strip of frontage along Route 24 is in the Environmentally Sensitive Developing Area. Potential sewer service for that part of the site will be considered in the Inland Bays Regional Planning Area but the remainder will not be considered for sewer service. The study will conclude in approximately 1 year. Contact Rob Davis, Sussex County Engineering Department, (302) 855-7820.

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