



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF
STATE PLANNING COORDINATION

July 12, 2005

Mr. Richard S. McCabe
George, Miles & Buhr, LLC
400 High Street
Seaford, DE 19973

RE: PLUS review – PLUS 2005-06-01; Heritage Village

Dear Mr. McCabe:

Thank you for meeting with State agency planners on June 22, 2005 to discuss the proposed plans for the Heritage Village project to be located on Postal Lane near Rehoboth Beach.

According to the information received, you are seeking site plan approval for a 147 unit residential planned community on 44.83 acres.

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 2 area according to the *Strategies for State Policies and Spending* and the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive Plan. In these areas, the State supports development activities that are in keeping with the character of the area and that respect the natural resources on and surrounding the site.

Streets and Roads

- The developer has been working with DelDOT regarding site entrances and should continue to do so.
- Two significant recommendations regarding off-site improvements are reiterated in the DelDOT comments from the TIS review.

Natural and Cultural Resources

- Given the sensitive nature of this watershed, efforts should be made to reduce impervious cover. Planting trees and using pervious alternatives to impervious surfaces would be beneficial.

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 2 area according to the *Strategies for State Policies and Spending* and the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive Plan. In these areas, the State supports development activities that are in keeping with the character of the area and that respect the natural resources on and surrounding the site.

We recommend that you utilize concepts presented in our *Better Models for Development in Delaware* publication as you proceed forward with the project's design. A copy of the book is included for your reference.

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

This parcel has been disturbed by the previous development of a golf course. There are no historic properties with a view to this parcel. No historic properties will be affected by this development.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

- 1) Regarding the site plan for the project, the developer's engineer has been working with the DelDOT Subdivision Manager for Sussex County, Mr. John Fiori. The plan presented conforms to their discussions and was the subject of a Letter of No Objection that DelDOT sent to Sussex County on May 20, 2005. That letter pertained only to the entrance locations. DelDOT asks that the developer continue to work with Mr. Fiori regarding any remaining issues. He may be reached at (302) 760-2260.

- 2) Regarding off-site improvements, a traffic impact study (TIS) was previously completed for this project under the name Villas at Heritage. DelDOT commented to Sussex County regarding that study on June 13, 2003. Two recommendations from that letter are especially significant:
 - a) Prior to the issuance of building permits, the developer should be required to enter into an agreement with DelDOT, whereby the developer would fund an equitable portion of a DelDOT project for the realignment of the Postal Lane and Cedar Grove Road approaches with Plantation Road. At DelDOT's discretion, the improvements should be for the realignment of the roadway approaches, northbound and southbound Plantation Road left-turn lanes and a westbound Postal Lane right-turn lane.

 - b) Prior to the issuance of building permits, the developer should be required to enter into an agreement with DelDOT, whereby the developer would fund an equitable portion of a traffic signal at the new intersection of Plantation Road and Postal Lane/Cedar Grove Road. The costs shall include pedestrian signals and crosswalks at DelDOT's discretion. If DelDOT chooses to place a signal at the intersection of Plantation Road and Postal Lane, without doing the realignment, DelDOT should have the option of obtaining reimbursement under this agreement, at which point the developer's obligation would be fulfilled.

Presently, all planned improvements to Plantation Road are waiting for the completion of a location study for the Western Parkway, a proposed road that would parallel Route 1 and Plantation Road. The outcome of that study, which is expected in the spring of 2006, will affect the degree to which Plantation Road will need to be improved.

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

Soils

According to the soil survey update, Greenwich was mapped in the immediate vicinity of the proposed construction. Greenwich is a well-drained upland soil that, generally, has few limitations for development.

Impervious Cover

Given the environmentally sensitive nature of this watershed, the Department believes that the applicant should devote more effort to the implementation of innovative efforts or BMPs to reduce impervious cover. Use of pervious paving materials in lieu of asphalt or concrete and planting of trees are examples of ways to reduce surface imperviousness. Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline.

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 parcel is in the **low nutrient** reduction zone.

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

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

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 Jessica Watson, Program Manager, at (302) 856-7219 for details regarding submittal requirements and fees.

As of April 11, 2005, stormwater best management practices must also consider water quality as well as quantity in impaired water bodies. This action will help achieve the required TMDL reductions for the Inland Bays watershed.

Drainage

The Drainage Section requests any existing ditches on the property be checked for function and cleaned if needed prior to the construction of homes. Wetland permits may be required before cleaning ditches.

The Drainage Section requests that all precautions be taken to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of on site storm water.

The Drainage Section strongly recommends any drainage conveyance between two parcels within a subdivision be dedicated as a drainage easement and such easement be designated as passive open space, not owned by individual landowners. The easement should be of sufficient width to allow for future drainage maintenance as described below.

- Along an open ditch or swale, the Drainage Section recommends 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. These zones should be maintained as buffers to aid in the reduction of 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.
- Along a stormwater pipe the Drainage Section recommends a maintenance equipment zone of 15 feet on each side of the pipe as measured from the pipe centerline. This zone should be maintained as buffers to aid in the reduction of 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 spaced to allow for drainage maintenance at maturity.

The Drainage Section recommends any drainage/utility easement owned by an individual landowner should not have structures, decks, buildings, sheds, kennels, fences or trees within the drainage easement to allow for future drainage maintenance.

Open Space

In areas set aside for passive open space, the developer is encouraged to consider establishment of 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.

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

Nuisance Waterfowl

Stormwater management ponds may attract waterfowl like resident Canada geese and mute swans. Because this is a mixed residential/golf course development, methods of goose control typically used on golf courses may not be appropriate here. DNREC recommends preventative methods be employed as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. Short manicured lawns around ponds are an attractive habitat for geese. They 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. 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.

Underground Storage Tanks

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

Shore Distributors, Facility # 5-000687, Project # S9207180

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.

Once complete, vehicle emissions associated with this project are estimated to be 11.3 tons (22,563.0 pounds) per year of VOC (volatile organic compounds), 9.3 tons (18,680.6 pounds) per year of NO_x (nitrogen oxides), 6.9 tons (13,782.9 pounds) per year of SO₂ (sulfur dioxide), 0.6 ton (1,226.9 pounds) per year of fine particulates and 943.7 tons (1,887,363.4 pounds) per year of CO₂ (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 4.6 tons (9,100.7 pounds) per year of VOC (volatile organic compounds), 0.5 ton (1,001.3 pounds) per year of NO_x (nitrogen oxides), 0.4 ton (831.0 pounds) per year of SO₂ (sulfur dioxide), 0.5 ton (1,072.3 pounds) per year of fine particulates and 18.4 tons (36,892.1 pounds) per year of CO₂ (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 1.8 tons (3,606.9 pounds) per year of NO_x (nitrogen oxides), 6.3 tons (12,545.6 pounds) per year of SO₂ (sulfur dioxide) and 925.2 tons (1,850,471.3 pounds) per year of CO₂ (carbon dioxide).

	VOC	NO _x	SO ₂	PM _{2.5}	CO ₂
Mobile	11.3	9.3	6.9	0.6	943.7
Residential	4.6	0.5	0.4	0.5	18.4
Electrical Power		1.8	6.3		925.2
TOTAL	15.9	11.6	13.6	1.1	1887.3

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 1.8 tons of nitrogen oxides per year and 6.3 tons of sulfur dioxide per year.

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.

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 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:**

- 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. (Townhouses)
- 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)
- 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 for fire hydrants and sprinkler systems.

b. **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 or more or over 35 feet, or classified as High Hazard, are required to 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
- For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan.

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 Postal Lane 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.

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

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

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
- 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 our website: www.delawarestatefiremarshal.com, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact: Mark Davis 739-4811

The Delaware Department of Agriculture has no objections to the Heritage Village Site Plan. It is in a location where growth is supported by the State’s Investment Strategy Plan.

The Delaware Forest Service has no objections to the development of this Investment Level 2 site at this time; however, the Delaware Forest Service encourages the developer to contact them if they have any questions concerning tree preservation and tree planting opportunities within the site.

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.

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 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

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.

Delaware State Housing Authority – Contact Karen Horton 739-4263

According to the *State Strategies Map*, the proposal is located in an Investment Level 2 area and inside the growth zone. As a general planning practice, DSHA encourages residential development in these areas where residents will have proximity to services, markets, and employment opportunities. Furthermore, the proposal targets units for first time homebuyers, which will help to create affordable housing opportunities for low- and moderate-income families.

Sussex County – Contact: Richard Kautz 855-7878

The project proposes to develop 146 residential units on part of the parcel totaling 44.83 acres. An existing golf course, pro shop and apartment are proposed to remain. The proposed project is within the West Rehoboth Expansion area for central sewer and connection to the sewer system is mandatory.

The proposed development will require a developer installed collection system in accordance with Sussex County's standard requirements and procedures. The connection point must be approved by the Sussex County Engineer. The existing 6-inch lateral serving the existing pro shop and apartment is not adequate for 146 additional units. A Sewer Concept Plan must be submitted for review and approval prior to Construction Plan approval.

With the additional 146 units, all sewer capacity for the parcel has been allocated. No additional capacity will be available to redevelop the golf course.

PLUS 2005-06-01

July 12, 2005

Page 13 of 13

Onetime System Connection Charges will apply. Please contact Mrs. Christine Fletcher at 302 854-5086 for additional information on charges. Payment of System Connection charges or an approved agreement for onsite and offsite sewer construction is required prior to issuance of a building permit. Sewer hookup permits will not be issued until Beneficial Occupancy of the collection system has been approved by the Sussex County Council.

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