



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF  
STATE PLANNING COORDINATION

April 15, 2005

Mr. Bill Chamberlain  
Vista Design Group, Inc.  
11634 Worchester Highway  
Showell, MD 21862

RE: PLUS review – PLUS 2005-02-07; Old Furnace Estates

Dear Mr. Chamberlain:

Thank you for meeting with State agency planners on March 30, 2005 to discuss the proposed plans for the Old Furnace Estates project to be located on Old Furnace Road, east of Co. Road 517A. According to the information received, you are seeking a site plan approval for 88 residential units on 98.032 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**

- The Office of State Planning Coordination notes that this proposal is located in an Investment Level 4 area according to the Strategies for State Policies and Spending. In these areas, State policies encourage agricultural preservation and

the conservation of natural resources, not development. The State will not participate in any infrastructure upgrades necessary to support this proposal.

Vista

Although this project is located within an Investment level 4 State Strategies Map, it is conveniently located between the Towns of Seaford and Georgetown for services, markets and employment opportunities. Further, due to the real estate values within investment level areas 1 & 2 housing has become unaffordable for many homebuyers. This development help address the issue of providing affordable housing opportunities for area residents. The applicant intends to provide any necessary infrastructure upgrades as presented in there preliminary site plan and the response herein

### **Street Design and Transportation**

- The plan shows the Shelby Drive and Sierra Drive intersections on Furnace Drive as slightly offset from each other. It is recommended that they be aligned opposite each other for improved safety and better traffic flow.

Vista

The Preliminary Site plan has been revised to align Shelby Drive with Sierra Drive

- It is recommended that the County require that stub streets be provided for future connections to the north, east and west.

Vista

Existing is a fifty-foot (50') Right-of-Way that is platted and runs through the middle of the site serving the property to the north (Furnace Drive). Further, the site plan can be modified to serve the properties to both the east and west. Based on comments received during the PLUS hearing in regards to development in this area, we have not provided connections to these locations at this time.

- Per your meeting with Mr. John Fiori, DeIDOT will need calculations, demonstrating to DeIDOT's satisfaction that the rate and volume of the post-development runoff would not exceed the rate and volume of the pre-development runoff before approval is given to discharge stormwater to the roadside ditch.

Vista

We understand the applicant we be required to manage the runoff in accordance to DNREC standards and that any discharge will be designed to pre-development discharge rates. The applicant will provide the necessary design calculations along with the Highway Entrance plan to DeIDOT during the review and approval process.

## Natural and Cultural Resources

- Site plans indicate a 30-foot agricultural buffer around the perimeter of the site. In this area, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses.

### Vista

Please note that additional agricultural buffers have been added to the revised site plan. Also, vegetation of these areas will be a mixture of Canopy trees, under story trees, shrubs and dresses. Additionally, the planting plan will be in accordance with Sussex County Standards and will specify 75% native species.

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

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

The Office of State Planning Coordination notes that this proposal is located in an Investment Level 4 area according to the Strategies for State Policies and Spending. In these areas, State policies encourage agricultural preservation and the conservation of natural resources, not development. The State will not participate in any infrastructure upgrades necessary to support this proposal.

### Vista

The applicant is not seeking any state funding for this project. The developer is aware that this project is located within an Investment level 4 State Strategies Map, It is conveniently located between the Towns of Seaford and Georgetown for services, markets and employment opportunities. Further, due to current real estate values within investment level areas 1 & 2 housing has become LESS affordable to many new and first time homebuyers. This development will provide a market for more affordable housing.

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

There are no known historic properties on the parcel. However, maps show a pre-1964 farmstead in the western half of the parcel. This area is near the Deep Creek Furnace Site, listed in the National Register of Historic Places. There is also a medium probability for prehistoric period archaeological sites here.

The State Historic Preservation Office would appreciate an opportunity to look at the pre-1964 site and determine its date and possible significance. They would also be happy to work with the developer to look for and delineate any prehistoric period archaeological sites, so they could be perhaps preserved in the open space.

Vista

The applicant would be more than happy to work with the State Historic Preservation Office regarding this request. However, all existing farmstead structures have been, earlier, removed from the site.

**Department of Transportation – Contact: Bill Brockenbrough 760-2109**

- 1) Because the development is proposed for a Level 4 Area, it is inconsistent with the Strategies for State Policies and Spending. Therefore DelDOT will not participate in the cost of any road improvements needed to support this development. The comments that follow are technical, and are not intended to suggest that DelDOT supports this development proposal.

Vista

The developer is not seeking any state funding for this project. Reasonable improvements will be done at the developer's expense

- 2) Old Furnace Road is classified as a collector road. From aerial photography and tax parcel maps, Old Furnace Road appears to have a right-of-way width of about 50 feet. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 40 feet from the centerline on collector roads. Therefore they will require right-of-way dedication to provide any additional width needed from this project.

Vista

The Preliminary Site plan has been revised to provide a Right-of-Way dedication of fifteen (15) feet or 40' from the existing centerline.

- 3) The developer should expect to be required to improve Old Furnace Road to DelDOT's collector road standards from Deep Creek to Rementer Road. Those standards are 12-foot lanes with 8-foot shoulders. While the answer to Item 37 on the PLUS form indicated that the road had 9-foot lanes, DelDOT widened and repaved the road in 2004 to 11-foot lanes and a 1-foot offset, for a total pavement width of 24 feet. The developer's site engineer should contact the DelDOT Subdivision Manager for Sussex County, Mr. John Fiori, regarding their specific requirements for further improvements. Mr. Fiori may be reached at (302) 760-2260.

Vista

The Developer fully expects to improve Old Furnace Road to Deldot collector road standards. In addition, the developer also expects to upgrade Old Furnace Road within property frontage limits. It seems excessive to upgrade over two miles of road for a large lot subdivision consisting of only eighty-eight (88) single-family lots.

- 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.

Vista

The Preliminary Site plan has been revised to include multi-modal paths both in and around the open spaces, along Old Furnace Road as well the perimeter of the subdivision.

- 5) The plan shows the Shelby Drive and Sierra Drive intersections on Furnace Drive as slightly offset from each other. It is recommended that they be aligned opposite each other for improved safety and better traffic flow.

Vista

The Preliminary Site plan has been revised to align Shelby Drive with Sierra Drive.

- 6) It is recommended that the County require that stub streets be provided for future connections to the north, east and west. With specific regard to the easement shown to the McMullen Farm to the north, if there is any intent that it ever be used for more than farm access, a right-of-way should be provided rather than an easement and a street should be built to the property line. Doing less than that leaves the developer open to claims from the buyers of the adjoining lots that they were unaware of the potential connection.

Vista

Existing is a fifty-foot (50') Right-of-Way that is platted and runs through the middle of the site serving the property to the north (Furnace Drive). Further, the site plan can be modified to serve the properties to both the east and west. Based on comments received during the PLUS hearing in regards to development in this area, we have not provided connections to these locations at this time.

- 7) The plan shows three stormwater management ponds along Old Furnace Road that would discharge into the ditch along the road. DelDOT will require a 20-foot minimum buffer between the ultimate right-of-way and the top of slope of any proposed stormwater management ponds. It is recommended that the ponds be located further from the road.

Vista

The Preliminary Site plan has been revised to allow the 20-foot buffer from DelDOT's proposed Right-of-Way.

At the PLUS meeting, the developers' engineer represented that in a previous meeting Mr. John Fiori of the DelDOT Planning office had approved the discharge of the three ponds into the roadside ditch. Mr. Fiori recalls the occasion somewhat differently. Specifically, he recalls saying that the runoff must be managed and if the developers' engineer submits calculations, demonstrating to DelDOT's satisfaction that the rate and volume of the post-development runoff would not exceed the rate and volume of the pre-development runoff, then discharge to the roadside ditch would be permitted. DelDOT will require those calculations.

Vista

We understand the applicant we be required to manage the runoff in accordance to DNREC standards and that any discharge will be designed to pre-development discharge rates. The applicant will provide the necessary design calculations along with the Highway Entrance plan to DelDOT during the review and approval process.

- 8) DelDOT understands the Delmarva Low Impact Tourism Experiences (DLITE) has designated Old Furnace Road as part of a regional bicycle trail. While the trail has no official status with DelDOT, the Delaware Maps for Bicycle Users indicate that Old Furnace Road is of Primary Suitability for bicycling. DelDOT will require road improvements to maintain that suitability.

Vista

See response to comment #4.

- 9) At the PLUS meeting, in response to concerns that the straight alignment of Furnace Drive might encourage speeding, the developers' engineer indicated that the alignment is constrained by a pre-existing easement. It should be possible to incorporate traffic calming measures into the design of Old Furnace Drive without violating the easement and they recommend that the developers' engineer do so. To assist them in doing so, DelDOT recommends the use of their Traffic Calming Manual, which maybe viewed at [www.deldot.net/static/pubs\\_forms/manuals/traffic\\_calming/DelDotFinal.pdf](http://www.deldot.net/static/pubs_forms/manuals/traffic_calming/DelDotFinal.pdf). Questions regarding the Manual may be addressed to Mr. Michael Somers of the DelDOT Traffic Section. Mr. Somers may be reached at (302) 659-2024.

Vista

We agree that traffic calming measures be designed into the existing Rights-of-way for Furnace Drive and will address these measures during engineering design of the final construction documents.

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

### **Green Infrastructure**

Portions or all of the lands associated with this proposal are within the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61 that represents a network of ecologically important natural resource lands of special state conservation interest.

Green infrastructure is defined as Delaware's natural life support system of parks and preserves, woodlands and wildlife areas, wetlands and waterways, productive agricultural and forestland, greenways, cultural, historic and recreational sites and other natural areas

all with conservation value. Preserving Delaware's Green Infrastructure network will support and enhance biodiversity and functional ecosystems, protect native plant and animal species, improve air and water quality, prevent flooding, lessen the disruption to natural landscapes, provide opportunities for profitable farming and forestry enterprises, limit invasive species, and foster ecotourism.

Voluntary stewardship by private landowners is essential to green infrastructure conservation in Delaware, since approximately 80 percent of the State's land base is in private hands. It is in that spirit of stewardship that the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.

#### Vista

In voluntary cooperation with the tenants of the "Green Infrastructure Initiative" Vista Design in cooperation with the applicant have developed this site plan to create habitat and develop a forested buffer linking the preserve lands to the south of Old Furnace Road with the adjacent forested lands to the north of the site. Further, these goals will be included with the Covenants and Restrictions as a way of stressing to the potential residents of Old Furnace Estates their roles in living adjacent to these natural areas and the potential risks that hunting activities pose to inhabitants of the proposed subdivision.

#### Soils

According to the Sussex County soil survey, Evesboro was mapped in the immediate vicinity. Evesboro is an excessively well-drained upland soil that has moderate limitations on account of its rapid permeability.

#### Vista

A feasibility study has been prepared and approved by DNREC (a copy of this study is attached)

#### ERES Waters

This project is located adjacent to environmentally sensitive receiving waters (Broad Creek & Nanticoke River) of the Chesapeake Bay Watershed; 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.

### **TMDL's (Total Maximum Daily Loads)**

With the adoption of Total Maximum Daily Loads (TMDLs) as a "nutrient-runoff-mitigation strategy" for reducing nutrients in the Broad Creek and Nanticoke River drainages of the Chesapeake Bay Watershed, reduction of nitrogen and phosphorus loading will be obligatory. 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. In the Chesapeake Watershed, "target-rate-reductions" of 30 and 50 percent will be required for nitrogen and phosphorus, respectively.

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 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."

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 (739-4590) in the Department's Watershed Assessment Section for further information regarding the acceptable protocol for performing this calculation.

Since the TMDL for the Broad Creek and Nanticoke mandates reducing nutrient loading to the greater Chesapeake Bay watershed, significant nitrogen and phosphorus loading must be realized from all sources including onsite/community wastewater systems. The Department has developed performance standards based on research by Departmental staff and Dr. Mike Hoover (North Carolina State University) for on-site wastewater treatment and disposal systems. Due to the size of a development's system, the performance standard dictates that the effluent concentration levels cannot exceed average annual nitrogen and phosphorus concentration levels of 5 and 2 mg/l, respectively. The phosphorus standard only applies when applicable.

The developer is encouraged to employ BMPs (or other pollution control strategies) such as stormwater management and riparian buffers to mitigate nutrient runoff into adjoining streams or watercourses.

Vista

We have prepared TMDL's calculations based on the proposed method of BMP's for this project and have enclosed a copy for your review. Based on the current design the reductions are as follows:

Phosphorus reduction 71.4 %

Nitrogen reduction 86.4 %

These reductions meet and exceed minimal requirements.

### **Water Supply**

The project information sheets state that individual on-site wells will be used to provide water for the proposed project. DNREC records indicate that the project is not located in an area where public water service is available. 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.

Vista

The applicant is in full agreement and will comply with the above requirements.

### **Sediment and Erosion Control/Stormwater Management**

1. Please submit a sediment control and stormwater management plans to the Sussex Conservation District for review. No construction (i.e. clearing, filling, grading, etc.) shall take place on-site until the Conservation District has approved a sediment control and stormwater management plan.

2. Please indicate on the sediment and stormwater management plan that 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 F.F. 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. 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.

**Vista**

The applicant is in full agreement and will comply with the above requirements. All comments will be addressed during final engineering design.

**Open Space**

Site plans indicate a 30-foot agricultural buffer around the perimeter of the site. In this area, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Once established, this ecosystem will 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.

**Vista**

As stated earlier in "Green Infrastructure" comments above, the applicant is in agreement to provide additional forested areas, buffer zones, and the use of meadow type grasses where applicable and functional.

### **Old Furnace Wildlife Area**

The proposed project is across the road from the Old Furnace Wildlife Area, a public owned State Wildlife Area managed by the Division of Fish and Wildlife, DNREC. The following items are issues that should be discussed with the Regional Wildlife Biologist, Rob Gano (302-530-3160) prior to initiation of construction activities and should be disclosed to potential buyers:

1. The developer and potential residents should be aware that the property in question will be subject to the effects of legal hunting activities in the Wildlife Area, such as firearm noise or dogs barking when pursuing game. For safety purposes, residents should be aware of hunting seasons and take the necessary precautions before walking/hiking in the wildlife area.
2. A portion of the wildlife area is either enrolled in CRP or CREP, or leased for farming. These areas must be left intact, disturbance of which is regulated by the FSA/USDA. According to county code requirements, the developer should fully disclose information regarding on-going farming operations, including the use of fertilizers, herbicides and the potential for noise and dust from those activities. In addition, prospective property owners need to be aware that some areas planted with grasses are part of an on going prescribed burning program that takes place once every 2-4 years.
3. The use of ATV's on Wildlife Areas is illegal. This has been a problem on other Wildlife Areas that are in close proximity to housing developments, and could become an on-going enforcement issue.
4. During construction, measures should be taken so that on-site construction trash does not blow onto the Wildlife Area. In addition, a roadside planting or windbreak would be useful in preventing residential trash from blowing across the road. Residents should be aware that dumping trash on wildlife areas is illegal.

#### **Vista**

The applicant is in agreement with the comments referenced above and will revise the Covenants to include the comments as presented.

### **Nuisance Waterfowl**

According to the application, pond plantings are planned to deter nuisance geese and swans. DNREC recommends native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (at least 50ft) around the perimeter. Waterfowl do not feel safe when they cannot see the surrounding area for possible predators. These plantings should be completed as soon as possible as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of Fish and Wildlife does not provide goose control services, and if problems arise,

residents or the homeowners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with a reduction in the number and/or size of the ponds, proper landscaping, monitoring, and other techniques, goose problems can be minimized.

#### Vista

We agree with DNREC's recommendations to use native plant communities to deter waterfowl in the pond areas. We plan to create fully functioning natural areas within the pond areas as recommended above, within first phase of the project.

### **Recreation**

DNREC appreciates that sidewalks will be built 1) fulfilling the recreation need for walking and biking facilities, 2) providing opportunities for neighbors to interact in the community, and 3) facilitating safe, convenient off-road access to neighboring communities, parks, public mass transit stops, schools, stores, work, etc. It is recommended that a bike and pedestrian access be provided to the parcels to the east.

#### Vista

The site plan has been revised to include a multi-modal path around the community in and around the 30' agricultural buffer. Connections to future developments could be provided in the future.

The Division of Parks and Recreation conducted a telephone survey of Delaware residents to gather information on outdoor recreation patterns and preferences as well as other information on their landscape perception. These findings are the foundation of the 2003-2008 Statewide Comprehensive Outdoor Recreation Plan (SCORP) providing guidance for investments in needed outdoor recreation facilities. The high and moderate facility needs in Western Sussex County are listed below. Consideration should be given to incorporate some of these recreation opportunities into the project. For additional information about the outdoor recreation priorities, contact Bob Ehemann at 739-5285. High priorities are Walking or Jogging Paths, Picnic Areas, Bike Paths and Fishing Areas. Moderate priorities are Swimming Pools, Baseball/Softball fields, Hiking Trails, Basketball Courts, Campgrounds and Playgrounds.

#### Vista

Please note that Old Furnace Estates has expanded the buffer and storm water areas of the site design in response to the Division of Parks and Recreations comments. Open space within the development has been increased to approximately 21%. The storm water ponds have been reduced in size in order to accommodate a multi-modal path system that will link the open regions of the site in a circular, traversable manner. As we have discussed for the record with the Sussex County Planning Board, the developer will add naturalistic plantings and stock the ponds with small fauna to begin the generation of a

functioning ecosystem for the enjoyment and education of the residents. The opportunity exists within the natural areas to install at least one tot-lot in a safe location and the developers have voiced their willingness to include it in the design.

### 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 **Error! Not a valid link.** tons (**Error! Not a valid link.** pounds) per year of VOC (volatile organic compounds), **Error! Not a valid link.** tons (**Error! Not a valid link.** pounds) per year of NOx (nitrogen oxides), **Error! Not a valid link.** tons (**Error! Not a valid link.** pounds) per year of SO2 (sulfur dioxide), **Error! Not a valid link.** ton (**Error! Not a valid link.** pounds) per year of fine particulates and **Error! Not a valid link.** tons (**Error! Not a valid link.** pounds) per year of CO2 (carbon dioxide).

Emissions from area sources associated with this project are estimated to be **Error! Not a valid link.** tons (**Error! Not a valid link.** pounds) per year of VOC (volatile organic compounds), **Error! Not a valid link.** ton (**Error! Not a valid link.** pounds) per year of NOx (nitrogen oxides), **Error! Not a valid link.** ton (**Error! Not a valid link.** pounds) per year of SO2 (sulfur dioxide), **Error! Not a valid link.** ton (**Error! Not a valid link.** pounds) per year of fine particulates and **Error! Not a valid link.** tons (**Error! Not a valid link.** pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be **Error! Not a valid link.** tons (**Error! Not a valid link.** pounds) per year of NOx (nitrogen oxides), **Error! Not a valid link.** tons (**Error! Not a valid link.** pounds) per year of SO2 (sulfur dioxide) and **Error! Not a valid link.** tons (**Error! Not a valid link.** pounds) per year of CO2 (carbon dioxide).

	VOC	NOx	SO <sub>2</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>
Mobile	6.8	5.6	4.1	0.4	564.9
Residential	2.7	0.3	0.2	0.3	11.0
Electrical Power		1.1	3.8		553.9
TOTAL	9.5	7.0	8.1	0.7	1129.8

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.

For this project the electrical usage via electric power plant generation alone totaled to produce an additional **Error! Not a valid link.** tons of nitrogen oxides per year and **Error! Not a valid link.** 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
- Upgraded water-heating equipment.”

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

#### Vista

Air quality and energy efficiency will in part be addressed through the planting of street and buffer shade trees that not only produce oxygen but filter chemical and particulate materials from air.

#### 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 states 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.

### Vista

The developer agrees to encourage onsite re-cycling areas within the community that would offer reductions in household waste per year to 35% or 1,225 pounds. In addition, we have had conversations with several homebuilders who have indicated to us that homes of this size should produce approximately 5,000 to 7,000 pound of construction waste per residence.

### **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:**

- Since the dwellings of the subdivision are to be served by individual on-site wells (No Central Water System), set back and separation requirements will apply.

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 Old Furnace 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”
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- 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](http://www.delawarestatefiremarshal.com), technical services link, plan review, applications or brochures.

Vista

All comments listed above will be more fully addressed during final engineering. All comments will be addressed in “General Notes” and in design specifications during final engineering design.

**Department of Agriculture - Contact: Mark Davis 739-4811**

The Delaware Forest Service does not support this project as proposed and reserves the right to comment on this site at this time. The site falls within a high valued area of connectivity for state open space and land preservation activities. In addition, the development, as proposed, lessens the value of the environmental resources found within and adjacent to this site. The Forest Service strongly encourages the developer to work with all agencies to address such concerns as preservation of forested areas, preservation of agricultural activities and a reduction to the overall impact to areas service such as schools and EMS. The Delaware Department of Agriculture Forest Service offers it services to the developer in the re-design of this project to meet the goals of all parties, to learn more please contact the Delaware Department of Agriculture at (302) 698-4500.

Vista

We disagree with the assessment that this development, as proposed, will lessen the value of the environmental resources found within and adjacent to the site. We further suggest that less restrictive development activities, such as those presented by the subsequent stripping off of lots from Old Furnace Road, could pose a greater level of degradation to the surrounding (preservation) land use in their lack of covenants and restrictions and the planned generation of linking habitat created through this proposals initiative. This plan further provides ponds that will create additional wildlife habitat that does not currently exist.

**Public Service Commission - Contact: Andrea Maucher 739-4247**

This project is not located in a certificated area. If water services are requested from a private utility, that utility will need to apply to the Commission for the Certificate of Public Convenience and Necessity.

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 wastewater services are requested from a non-governmental entity, and there would be 50 or more customer served, the provider will need to apply to the Commission for a Certificate of Public Convenience and Necessity (CPCN). Additional requirements may apply if the provider has not previously been awarded a CPCN by the Commission.

**Vista**

No public utilities will be provided within this development. All proposed home sites would require onsite well and septic. A letter of feasibility has been received by DNREC.

**Delaware State Housing Authority – Contact Karen Horton 739-4263**

As a general 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 activities and natural resource protection, and therefore inconsistent with where the State would like to see new residential development.

**Vista**

As previously stated, due to the real estate values within investment level areas 1 & 2 housing has become LESS affordable for new homebuyers. This development will help address this issue.

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

Due to the number of residential units being proposed, an 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.

**Vista**

Developer will notify the appropriate police, fire and emergency response services prior to construction. and will provide site visitation during and after construction.

**Department of Education – Contact: Nick Vacirca 739-4658**

88 dwelling units could generate an estimated 44 additional students for the Seaford School District.

Sussex County does not have school concurrence legislation at this time. DOE recommends that the developer submit a package to the school district for informational purposes.

State spending strategies recommend no development in level 4 areas, or if development occurred, there would be little or no State funding utilized. Development that is approved in level 4 areas will require student transportation support, a State financed program.

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.

**Vista**

First, the site plan has been revised adding additional open space thereby reducing the lot count to eighty six (86) single family lots. Second, it is anticipated that all students within the development would be picked up at one central location within the community. If not, all roads within the development have been designed to meet turning radius requirements for both school buses and fire equipment.

**Sussex County – Contact: Rick Kautz 855-7878**

The proposed subdivision is out of context with the surrounding agricultural uses in the area.

**Vista**

We agree with this assessment for the adjacent property, however in reviewing the tax maps for this area there are numerous strip lot subdivisions located within 2-3 miles west of this proposed subdivision. These strip lot subdivisions present unsafe conditions not associated with standard subdivisions with interior streets. Children who typically live in homes built along strip developments tend to also play in front of their homes offering contact in proximity with un-controlled vehicular traffic. The Department of Education concerns listed above concerning vehicular circulation requirements of a school bus, the safety of pick up and dropping off of school children are addressed and we feel is safer

inside a planned subdivision. Second, home owners pulling out of or backing out into oncoming traffic along major and minor collector roads is unsafe than in a typical well designed subdivision.

Because the proposed ponds are considered to be an amenity for the project by the developer, they should be moved within the subdivision and away from Old Furnace Road.

#### Vista

Several factors play a roll in the location of stormwater management ponds other than as an amenity. Nearest outfall location, soils, and existing grades, all play a major role in the location of ponds. For this project all three factors were taken into consideration for determining the final location of the proposed stormwater ponds. We earlier addressed pond location by moving them back away from the road as was suggested via comment and will address safety concerns in our final engineering design. We should also point out that the location of the nearest outfall lies east along Old Furnace Road, via a roadside swale as a determining factor in locating the ponds as designed.

Allowance should be made for the use of Old Furnace Road as the bike trail designated by Delmarva Low Impact Tourism Experiences.

The Sussex County Engineer Comments:

- The proposed project is not within a defined Sussex County Sanitary Sewer Planning Area.
- For questions concerning these comments, contact Chris Calio, Sussex County Engineering Department at (302) 855-7839.
- The rear of the proposed development is in an area that has an extremely high probability of encountering archaeological remains. As a precautionary measure, a reconnaissance level archaeological survey is recommended for this portion of the site.

#### Vista

The developer agrees and will as a precautionary measure provide for a reconnaissance level archaeological survey as indicated earlier in our response to comments.

For questions regarding above comments, contact Brian Page, Sussex County Engineering Department at (302) 856-6138.

**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**

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**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 Planning & Zoning