

MORRIS & RITCHIE ASSOCIATES, INC.

ARCHITECTS, ENGINEERS, PLANNERS, SURVEYORS,
AND LANDSCAPE ARCHITECTS



October 27, 2006

State of Delaware
Office of Management and Budget State Planning Coordination
Thomas Collins Bldg. Ste. 7
540 S. DuPont Hwy.
Dover, DE 19901

Attn: Ms. Constance C. Holland, AICP
Director

Re: PLUS review – PLUS 2005-11-07; Seacoast Speedway

Dear Ms. Holland;

Morris & Ritchie Associates, Inc. received your comment letter dated December 16, 2005 for the above referenced project. Your comments from that letter appear below, followed by our responses in bold text.

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 project would result in 199 residential units in what is almost entirely an Investment Level 4 area (a small portion of the site is Investment Level 3) according to the *2004 Strategies for State Policies and Spending*. This project is also located outside of a designated growth area in relevant municipal and county certified comprehensive plans. Currently, both the Town of Georgetown and Sussex County are preparing to update their comprehensive plans. If the developer intends to move forward, we suggest that the developer participate in these updates and work to incorporate the site into a county and/or municipal growth area. Because the proposed subdivision lies within 300 feet of the Smith Farm Agricultural District, which is in the State of Delaware Farmland Preservation Program, notification requirements apply.

Although located in Investment Levels 3 and 4, this site's proximity to the town of Georgetown as well as adjacent developments of similar size and nature make it an excellent choice to include in the revised Comprehensive plans. The existing farming operations and automotive raceway that is allowed under its current conditional use generate more traffic, noise, nutrient and sediment runoff than the planned residential use. The site's close proximity to the Georgetown wastewater treatment facility and local schools also make a strong argument for including it in the upcoming land use plans for the County and Georgetown. The Town of Georgetown expressed a desire to extend sewer service from the Sussex Correctional Institution where they now serve to this site sometime in the future with the hope of including existing nearby residential lots.

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This would have a positive effect on water quality on Gulls Branch and Almshouse Ditch should the Town ultimately accept the private wastewater treatment facility proposed for Almshouse that will be built and operated by one of several publicly regulated utility companies.

Natural and Cultural Resources

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

The site is located in the **high** nutrient reduction area requiring a 85 and 65 percent reduction in both nitrogen and phosphorus. Based on a preliminary evaluation of the project using this model, the development as currently conceived, **does not** meet the prescribed TMDL nutrient reduction requirements for nitrogen and phosphorus. The applicant should realize that extensive forest-land clearing, little or no wetland buffering, and the creation of large amounts of impervious cover can increase nutrient runoff significantly above the acceptable and/or prescribed TMDL reduction levels. It is recommended that the applicant consider some of the above-suggested BMPs in conjunction with other redesign changes to ensure that these reductions are attained. It is suggested that the applicant verify compliance with the specified TMDL loading rates by running the model themselves. Please contact Lyle Jones of Watershed Section at 302-739-9939 for the acceptable model protocol.

The TMDL nutrient reduction requirements have not been implemented as of this date. Mr. McBride serves on the DNREC, Division of Water Resources Committee that is rewriting the Pollution Control Strategies (PCS) and TMDL protocol to correct fatal errors in the process that currently cause all projects to fall short of the reduction requirements. The Pollution Control strategies are not anticipated to take effect until early 2007 and projects that are reviewed by PLUS and have made contact with DeIDOT will be grandfathered. Never the less, this site does meet the nutrient reduction levels mandated by DNREC in several of the methods proposed in the drafted regulations.

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

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

The project represents a major land development that will result in 199 residential units in what is almost entirely an Investment Level 4 area (a small portion of the site is Investment Level 3) according to the *2004 Strategies for State Policies and Spending*.

The project is also located outside of a designated growth area in relevant municipal and county certified comprehensive plans. Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas. These areas 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 this 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 400 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.

Because the development is inconsistent with the *Strategies for State Policies and Spending*, the State is opposed to the proposed subdivision. Currently, both the Town of Georgetown and Sussex County are preparing to update their comprehensive plans. If the developer intends to move forward, we suggest that the developer participate in these updates and work to incorporate the site into a county and/or municipal growth area.

The site currently exists as an auto race park which is incongruent with the uses of the adjacent parcels. Not only this, but as a race park, the constant pedestrian and vehicular activities held there are rapidly destroying any natural resources the land is able to provide. There are currently no efforts being made to preserve and protect any aspect of the land that has placed it in Investment Level 3 and 4 areas.

Additionally, this site is located 3.68 miles from the center of Georgetown and could be easily provided all the civil amenities and basic infrastructure required of the residents that might live there. The state requires the developer to shoulder the cost of improving roads which provide access to the development removing that burden from the state completely. Additionally all on-site roads are privately maintained by the HOA.

The project was designed to meet and, in some cases, exceed state standards. Morris and Ritchie Associates are amicable to working with the state to revise and improve the comprehensive plan.

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

The site is mainly in Investment Level 4 and the historic agricultural landscape is already substantially disrupted in this area. There is a known historic house (S-4508) in the northeastern corner of the parcel. This may be the house noted as the J. W. Pepper House on the Beers Atlas of 1868 or it may be a replacement house on the same site. There may also be a historic-period archaeological site associated with the Pepper House. There are areas of medium potential for prehistoric-period archaeological sites as well.

Small, rural, family cemeteries often are found in relation to historic farm complexes, usually a good distance from the house. The developer should be aware of Delaware's Unmarked Human Remains Act of 1987, which governs the discovery and disposition of such remains. The unexpected discovery of unmarked human remains during construction can result in significant

delays while the process is carried out. DHCS will be happy to discuss these issues with the developer; the contact person for this program is Faye Stocum, 302-736-7400. Much of the parcel has already been disturbed by the speedway, but the area around the house appears relatively intact. DHCA would appreciate the opportunity to document the house before it is demolished and to look for archaeological sites before any ground disturbing activities take place.

The Owner and Developer of the property will allow the DHCS office to visit the site only if required as part of the permit process regulated by and initiated by a federal permit application. The area around the potential historic house has been left as open space and will remain unaffected by construction. The Development will be buffered from adjacent properties or required by the county standards.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Most of the land for this development is proposed for an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies for State Policies and Spending* have deemed the type of development being proposed inappropriate for this area. As part of its commitment to support the *Strategies*, DeIDOT refrains from participating in the cost of any road improvements needed to support this development and is opposed to any road improvements that will substantially increase the transportation system capacity in this area. DeIDOT will only support taking the steps necessary to preserve the existing transportation infrastructure, preserve the capacity of US Route 113 to handle through traffic and make whatever safety and drainage related improvements are deemed appropriate and necessary. The intent is to preserve the open space, agricultural lands, natural habitats and forestlands that are typically found in Level 4 areas while avoiding the creation of isolated development areas that cannot be served effectively or efficiently by public transportation, emergency responders, and other public services.

DeIDOT strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in approved Comprehensive Plans and encourages the use of transfer of development rights where this growth management tool is available. If this development proposal is approved, notwithstanding inconsistencies with the relevant plans and policies, DeIDOT will provide technical review and comments.

We agree that the creation of isolated and remote development is inappropriate, however this site is located 3.68 miles from the center of Georgetown. It would not disrupt the existing road infrastructure, but rather improve it through the work DeIDot requests the developer furnish. The design complies with all the requirements by DeIDot of the developer that are conditional upon approval. The surrounding properties to the north and east have already been subdivided and this case would be consistent with the adjacent residential uses.

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

Investment Level 4 Policy Statement

The project is proposed for an Investment Level 4 area as defined by the *Strategies for State Policies and Spending* and is also located outside of a designated growth area in the relevant municipal and county certified comprehensive plans. According to the *Strategies* this project is inappropriate in this location. In Investment Level 4 areas, the State's investments and policies, from DNREC's perspective, should retain the rural landscape and preserve open spaces and farmlands. Open space investments should emphasize the protection of critical natural habitat and wildlife to support a diversity of species, and the protection of present and future water supplies. Open space investments should also provide for recreational activities, while helping to define growth areas. Additional state investments in water and wastewater systems should be limited to existing or imminent public health, safety or environmental risks only, with little provision for additional capacity to accommodate further development.

With continued development in Investment Level 4 areas, the State will have a difficult, if not impossible, time attaining water quality (e.g., TMDLs) and air quality (e.g., nonattainment areas for ozone and fine particulates) goals. Present and future investments in green infrastructure, as defined in Governor Minner's Executive Order No. 61, will be threatened. DNREC strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in certified Comprehensive Plans, and encourages the use of transfer of development rights where this growth management tool is available.

This particular development certainly compromises the integrity of the State Strategies and the preservation goals inherent in many of DNREC's programs. Of particular concern is the loss/fragmentation of 10 out of 24 acres of forest. While mitigating measures such as conservation design, central wastewater systems instead of individual on-site septic systems, and other best management practices may help mitigate impacts from the project, not doing the project at all is the best avenue for avoiding negative impacts. As such, the project will receive no financial, technical or other support of any kind from DNREC. Any required permits or other authorizations for the project shall be considered in light of its conflict with State growth strategies.

Recognizing that Executive Order #61 is targeted at preserving green infrastructure in a developing area; the Plan was purposely designed to preserve existing forest onsite, enhance buffers along Alms House Ditch, add ponds and wetland buffers with stormwater quality and quantity retention to prevent flooding. Native and non-invasive plant species were used. The current plan shows an increase in forest retention of 1.02 acres and open space of .53 acres over that reviewed in PLUS. Forest clearing has been reduced to 6.12 acres and penetration with forest by cul-de-sacs and lots along the south has been eliminated. The forest remains as one contiguous stand and the hedge rows along ditches and the berm along US RT 113 have remained undisturbed. MRA and the developer/landowner, take issue with the recommendation that the best avenue for avoiding negative impacts is to "do nothing". We firmly believe that the current combined uses of annual tilling for agricultural crops, fertilizer applications

and automotive racing with thousands of spectators weekly without BMP's is not in the State's best interest. Absent any TDR regulations and an acceptable receiving area the proposed MPHU residential cluster development plan affords the best opportunity for improving water and air quality on this site. The MPHU component which was added since the last PLUS submittal provides additional units that would otherwise be spread across the County on larger lots with modular homes in order to maintain affordability. This would consume 10 times more land and contribute to an increase in untreated septic tank use and increased nitrogen loadings.

Soils

According to the Sussex County soil survey Ingleside, Runclint, Hammonton, Pepperbox-Rosedale, Hurlock, and Zekiah-Longmarsh were mapped in the immediate vicinity of the site. Ingleside is a somewhat well drained upland soil that, generally, has few limitations for development. Runclint is a somewhat excessively-well drained upland soil that has moderate limitations for development on account of its rapid permeability. Hammonton is a moderately well-drained upland soil that has moderate limitations for development. Pepperbox-Rosedale is a moderately well-drained to somewhat excessively well-drained that has moderate limitations for development because of water table and/or rapid permeability.

Soil borings and a detailed geotechnical report were conducted on November 11, 2005. Soils limitation and development recommendations were provided. (See attached report.) Additionally, a Soils Reconnaissance and Feasibility Report have been submitted to DNREC are attached as Appendix 1 & 2.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands on the 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 Army Corps of Engineers discourage allowing lot lines to contain wetlands to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

State Wetland Mapping Project (SWMP) maps are consistently in error and seldom reflect the actual field conditions. A field delineated wetland has been conducted. The wetland delineation performed by GeoTechnical Associates certified wetland scientists seldom deviate from the USACOE determination. Should any adjustments be required by the USACOE the plan will be modified to respect the wetland and eliminate impacts or obtain any necessary permits for disturbances allowed under their standard process. Buffers are not required by Federal, State or Local agencies. However, substantial buffers averaging over 100' from the Almshouse Ditch have been voluntarily applied to achieve higher water quality benefits. This revised plan has significantly increased the contiguous forest buffer adjacent to the wetlands from the plan previously reviewed. There are no wetlands contained within any proposed lots or rights-of-way and at this point there are no Federal or State permits necessary to complete this development.

Wetland Permitting Information

PLUS application materials indicate that wetlands have been delineated (presumably a field delineation). This delineation should be verified by the Army Corps of Engineers through the Jurisdictional Determination process. Impacts to palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In situations where the applicant believes that the delineated wetlands are nonjurisdictional isolated wetlands, the Corps must be contacted to make the final jurisdictional assessment. They can be reached at 302-736-9763.

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 at (302) 739-9943 to schedule a meeting.

Once specific impacts, if any, are determined through final engineering the Applicant will attend a joint meeting and begin the permit process.

Impervious Cover

The post-development impervious cover figure for the parcel was omitted in the PLUS application, so it is not certain what the relative impacts from impervious cover may be. However, research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline. Based on analyses of 2002 aerial photography by the University of Delaware, the Inland Bays watershed, at that time, had about 8.7 percent impervious cover. Although this data is almost 4 years old and likely underestimated, it illustrates the importance of a proactive strategy to mitigate for predictable and cumulative environmental impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials in lieu of asphalt or concrete in conjunction with retention of existing forest cover or additional tree plantings are examples of practical BMPs that could easily be implemented to reduce surface imperviousness.

The intention of Livable Delaware and State Spending Strategies is to direct development of greater densities and impervious cover to the areas in and around town-centers, as this project does, in order to achieve a lower impervious cover percentage through out the entire drainage area. Almshouse incorporates BMP's and additional tree plantings and forest conservation to mitigate for the increase in impervious cover. This plan has 1.02 acres more forest preserved and 2.39 acres less road than the prior plan reviewed by PLUS.

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 5.6 of Delaware's "Surface Water Quality Standards" (as amended July 11, 2004) specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of nutrient runoff through implementation of Best Management Practices (BMPs). Subsection 5.6.3.5 of this section expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree practicable, or where attainable, to a standard requiring no discharge of pollutants.

As previously stated the PCS is still being written by DNREC and has not been adopted. However, Almshouse is designed to comply with the buffering, forest conservation, Best Available Technologies (BAT's) and BMP's suggested in the PLUS comments and will meet or exceed the TMDL requirements once adopted.

TMDLs

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited water body" can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. The project is located in the **high** nutrient reduction area requiring a 85 and 65 percent reduction in both nitrogen and phosphorus.

As previously stated the PCS is still being written by DNREC and has not been adopted. However, Almshouse is designed to comply with the buffering, forest conservation, Best Available Technologies (BAT's) and BMP's suggested in the PLUS comments and will meet or exceed the TMDL requirements once adopted.

TMDL Compliance through the PCS

The proposed pollution control strategy will require the completion of a nutrient budget to estimate nutrient load changes following development; documentation of these load changes will be assessed through a nutrient budget protocol. The nutrient budget protocol is a computer-based model that quantifies post-development nutrient loading under a variety of land use scenarios in combination with a variety (or absence) of BMP types and intensities. The post-development loading rate is then compared with the predevelopment loading rate to assess whether the project meets the prescribed TMDL nutrient load reductions. Based on a preliminary evaluation of the project using this model, the development as currently conceived **does not** meet the prescribed TMDL nutrient reduction requirements for nitrogen and phosphorus. The applicant should realize that extensive forest-land clearing, little or no wetland buffering, and the creation of large amounts of impervious cover can increase nutrient runoff significantly above the acceptable and/or prescribed TMDL reduction levels. It is recommended that the applicant consider some of the BMPs suggested above in conjunction with other design changes to ensure that these reductions are attained. The applicant should verify the project's compliance with specified TMDL loading rates by running the model. Please contact Lyle Jones of Watershed Section at 302-739-9939 for the acceptable model protocol.

As previously stated the PCS is still being written by DNREC and has not been adopted. However, Almshouse is designed to comply with the buffering, forest conservation, Best Available Technologies (BAT's) and BMP's suggested in the PLUS comments and will meet or exceed the TMDL requirements once adopted.

Remember no projects can meet the TMDL nutrient load reductions as currently written in the protocol. Nor has DNREC been able to provide a single example of what can be done to meet the arbitrary high standards in over 18 months of revisions to the protocol. For that reason DNREC has developed several alternate methods of compliance with PCS regulations. This project will comply with those standards and reduce nutrients to a level acceptable to DNREC.

Water Supply

The project information sheets indicate that the source of water service is yet to be determined. 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. For questions concerning these comments, please contact Rick Rios at 302-739-9944.

Well pointing permits will be applied for if required.

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 the Sussex Conservation District. Contact the Sussex Conservation District at (302) 856-7219 for details regarding submittal requirements and fees. 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. Applying practices to mimic the pre-development hydrology on the site, promote recharge, maximize the use of existing natural features on the site, and limit the reliance on structural stormwater components, such as maintaining open spaces, should be considered in the overall design of the project as a stormwater management technique. Green Technology BMPs must be given first consideration for stormwater quality management. Each stormwater management facility should have an adequate outlet for release of stormwater. It is strongly recommended that

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

A preliminary meeting will be held with SCD to discuss BMP's. Final Plans will be submitted once Preliminary Plans are approved by the County.

Forest Preservation

According to 2002 aerial photos there is a forested area within the parcel. PLUS materials indicate that 10 acres of the forest will be removed. This area provides important water quality, air quality and habitat benefits both to the site itself and the region. Therefore, the developer is strongly encouraged to preserve, and where possible, enhance forested resources on site. The forested areas should be viewed as a community asset and managed appropriately. 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 and delineated so that residents understand their importance and so that homeowner activities do not infringe upon them.

There are no Forest Conservation requirements for Delaware or Sussex County. Prior to any forest removal on this site the open areas were designated for roads, housing and stormwater ponds resulting in less tree clearing. Clustering was used on this site to save 76% of the forest cover. The current plan has reduced the amount of forest cleared from 10 acres to 6.12 acres as compared to the initial PLUS Plan. Some roads, lots and an entire cul-de-sac were removed from the forest by reducing lot size and creating a more efficient layout. Additional tree plantings have been proposed to mitigate for clearing only that which is necessary for a well balanced, walkable community. I find this subjective comment inconsistent with Liveable Delaware which strives to save large tracts of contiguous forest in remote areas of the County by allowing for concentrated growth in Towns.

Open Space

PLUS materials indicate that 35.86 acres are proposed for open space. In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off into surface water, air quality improvements, and require much less maintenance than traditional turf grass, an important consideration if a homeowners association will take over responsibility for maintenance of community open spaces. 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.

The amount of open space has been increased to 36.39 acres or 45% of the site. We will consider additional native reforestation and use of warm season grasses once a final wastewater disposal plan is completed and the areas have been defined.

Underground Storage Tanks

There is one inactive LUST site located near the proposed project: Krugers Farms, Inc., Facility # 5-000044, Project # S9401020. No environmental impact is expected from the inactive LUST site. 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 with nitrile rubber gaskets in the contaminated areas.

Offsite LUST noted: If contaminated soils are encountered DNREC will be notified and corrective measures employed. A Phase I Environmental Study was prepared for this Site.

Solid Waste

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

The Developer anticipates chipping and mulching trees and other organic materials. Recycled milled materials, if available, will be used for bituminous concrete and concrete paving. Use of pre-cast and engineered components such as roof trusses and stairs will result in less scrap lumber. Modular dimensional standards for room dimensions ensure minimal waste in drywall, trim and flat goods. There are several open space areas suitable for community compost centers for leaf and grass clipping disposal. Specific locations and process will be explored in final design and development of HOA documents.

Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 12.5 tons (25,018.8 pounds) per year of VOC (volatile organic compounds), 10.4 tons (20,713.9 pounds) per year of NOx (nitrogen oxides), 7.6 tons (15,283.1 pounds) per year of SO2 (sulfur dioxide), 0.7 ton (1,360.5 pounds) per year of fine particulates and 1,046.4 tons (2,092,790.7 pounds) per year of CO2 (carbon dioxide).

However, because the project is in a Level 4 area, mobile emission calculations should be increased by 118 pounds for VOC emissions for each mile outside the designated growth areas per household unit; by 154 pounds for NOx; and by 2 pounds for particulate emissions. A typical development of 100 units that is planned 10 miles outside the growth areas will have additional 59 tons per year of VOC emissions, 77 tons per year of NOx emissions and 1 ton per year of particulate emissions versus the same development built in a growth area (Level 1, 2 or 3).

Emissions from area sources associated with this project are estimated to be 5.0 tons (10,091.2 pounds) per year of VOC (volatile organic compounds), 0.6 ton (1,110.3 pounds) per year of NOx (nitrogen oxides), 0.5 ton (921.4 pounds) per year of SO2 (sulfur dioxide), 0.6 ton (1,189.1 pounds) per year of fine particulates and 20.5 tons (40,907.5 pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 2.0 tons (3,999.4 pounds) per year of NOx (nitrogen oxides), 7.0 tons (13,911.1 pounds) per year of SO2 (sulfur dioxide) and 1,025.9 tons (2,051,883.1 pounds) per year of CO2 (carbon dioxide).

	VOC	NOx	SO2	PM2.5	CO2
Mobile	12.5	10.4	7.6	0.7	1046.4
Residential	5.0	0.6	0.5	0.6	20.5
Electrical Power		2.0	7.0		1025.9
TOTAL	17.5	13.0	15.1	1.3	2092.8

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 2.0 tons of nitrogen oxides per year and 7.0 tons of sulfur dioxide per year. A significant method to mitigate this impact would be to require the builder to construct Energy Star qualified homes. Every percentage of increased energy efficiency translates into a percent reduction in pollution. Quoting from their webpage, <http://www.energystar.gov/>: "ENERGY STAR qualified homes are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than state energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of:

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

The energy office in DNREC is in the process of training builders to make their structures more energy efficient. The Energy Star Program is excellent way to save on energy costs and reduce air pollution. DNREC highly recommends this project development and other residential proposals increase the energy efficiency of homes and offer geothermal and photo voltaic energy options. Applicable vehicles should use retrofitted diesel engines during construction. The development should provide tie-ins to the nearest bike paths, links to mass transit, and fund a lawnmower exchange program for new occupants.

We appreciate the calculations provided indicating the projected emissions and air pollutants from this subdivision. However, given that trees can remove dust and particulates, absorb ozone, sulfur dioxide, and other pollutants and can absorb up to 26 pounds of carbon dioxide per year, the above calculations should be

amended to accommodate the addition of all proposed vegetation onsite. Numerous canopy trees, evergreen trees, and shrubs are proposed within Almshouse, providing valuable benefits to an area that extends outside the development's boundaries.

In addition, by properly placing vegetation, heating costs can be reduced by as much as 20% and cooling costs can be lowered by as much as 50%. Energy efficient technology in home-building coupled with strategically designed landscaping can provide substantial reductions in energy demands and thereby reducing our use of fossil fuels.

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 1500 gpm for 2hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Treatment)

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.

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 Bethesda 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.

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)

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, technical services link, plan review, applications or brochures.

The plan will be reviewed by the State Fire Marshall's office prior to preliminary plan approval.

Department of Agriculture - Contact: Milton Melendez 698-4500

The proposed development is in an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies* and the Sussex County Comprehensive Plan do not support this type of isolated development in this area. The intent of these plans is to preserve the agricultural lands, forestlands, recreational uses, and open spaces that are preferred uses in

Level 4 areas. The Department of Agriculture and the Delaware forest Service oppose the proposed development which conflicts with the preferred land uses, making it more difficult for agriculture and forestry to succeed, and increases the cost to the public for services and facilities.

More importantly, the Department of Agriculture opposes this project because it negatively impacts those land uses that are the backbone of Delaware's resource industries - agriculture, forestry, horticulture - and the related industries they support. Often new residents of developments like this one, with little understanding or appreciation for modern agriculture and forestry, find their own lifestyles in direct conflict with the demands of these industries. Often these conflicts result in compromised health and safety; one example being decreased highway safety with farm equipment and cars competing on rural roads. The crucial economic, environmental and open space benefits of agriculture and forestry are compromised by such development. DDA opposes the creation of isolated development areas that are inefficient in terms of the full range of public facilities and services funded with public dollars. Public investments in areas such as this are best directed to agricultural and forestry preservation. The site is designated as a "Good Recharge" area, meaning that it has valuable ground water recharge qualities. In addition, the site overlaps with the State's Green Infrastructure Investment Strategy Plan. The Cropland layer is present; this designation identifies areas that possess unique natural features that are valuable for preservation.

The Delaware Department of Agriculture supports growth which expands and builds on existing urban areas and growth zones in approved State, county and local plans. Where additional land preservation can occur through the use of transfer of development rights and other land use measures, DDA will work with developers to implement these measures. If the project is approved DDA will work with the developers to minimize impacts to the agricultural and forestry industries.

The site is within 300 feet of the borders the Smith Farm Agricultural District. If developed, the 50-foot setback and 300-foot notification zone requirements apply. The developer will be required to place the following deed notice in every new recorded deed located within the development. Please see Delaware Code Title 3, Chapter 9, Subchapter II, Section 910.

A 30 foot agricultural buffer with 50' setback has been located along the Smith Farm Parcel boundary. Notification and buffer plantings are proposed as part of this project. The Smith Farm is currently in use as a horse farm with would seem more compatible with SFO housing than the current automotive raceway. Actual groundwater recharge rates associated with this site may be substantially less than state maps infer. Soils test and groundwater monitoring are in process.

§ 910. Agricultural use protections.

(a) Normal agricultural uses and activities conducted in a lawful manner are preferred and priority uses and activities in Agricultural Preservation Districts. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural

chemicals and nighttime farm operations, land use adjacent to Agricultural Preservation Districts shall be subject to the following restrictions:

(1) For any new subdivision development located in whole or in part within 300 feet of the boundary of an Agricultural Preservation District, the owner of the development shall provide in the deed restrictions and any leases or agreements of sale for any residential lot or dwelling unit the following notice:

This property is located in the vicinity of an established Agricultural Preservation District in which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may now or in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities."

(2) For any new subdivision development located in whole or in part within 50 feet of the boundary of an Agricultural Preservation District, no improvement requiring an occupancy approval shall be constructed within 50 feet of the boundary of the Agricultural Preservation District.

(b) Normal agricultural uses and activities conducted in accordance with good husbandry and best management practices in Agricultural Preservation Districts shall be deemed protected actions and not subject to any claim or complaint of nuisance, including any such claims under any existing or future county or municipal code or ordinance. In the event a formal complaint alleging nuisance related to normal agricultural uses and activities is filed against an owner of lands located in an Agricultural Preservation District, such owner, upon prevailing in any such action, shall be entitled to recover reasonably incurred costs and expenses related to the defense of any such action, including reasonable attorney's fees (68 Del. Laws, c. 118, § 2.).

Public Service Commission - Contact: Andrea Maucher 739-4247

The project information sheets indicate that the source of water service is yet to be determined. PSC records indicate that the project is not located in an area where public water service is available. If services are needed by a public utility, either for water or wastewater services, the utility must apply to the Commission for a CPCN. 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.

The selected utility provider will comply with PSC requirements and the need for a CPCN.

Delaware State Housing Authority – Contact Jimmy Atkins 739-4263

The proposal is to develop 199 units on 81 acres located on the east side of US 113, south of Speedway Road, east of Bethesda Road, and south Georgetown. According to the *Strategies for*

State Policies and Spending, the site is located in an Investment Level 4 area and outside the growth zone. As a general planning practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as Investment Level 1 and 2 areas outlined in the *Strategies*. DSHA opposes the proposal because it is located in an area targeted for agricultural and natural resource protection. The proposal is inconsistent with where the State would like to see new residential development.

This Project is designed to appeal to families that prefer affordable single family home ownership within a community framework. It was chosen as a project to pioneer the Sussex County Moderately Priced Housing Unit program and we are currently working with the DHSA to our fullest capacity. Few if any projects are better suited for MPHU development.

Sussex County - Contact: Richard Kautz 855-7878

Sussex County will not be accepting cluster subdivisions until at least January 17, 2006. This fiscal year Sussex County will be considering implementation of a Source Water Protection Program required by the State. Depending on the requirements adopted by the County Council this project might be affected. Any well location should insure that the wellhead protection area is entirely on site.

Because the project is an AR-1 Cluster subdivision, the developer must include in the application a plan for the management of all open space. Also, the developer must document for the Planning and Zoning Commission how the proposed development: provides for a total environment and design which are superior to that which would be allowed under the standard lot option; preserves the natural environment and historic or archeological resources; and will not have an adverse effect on any of the items included under Ordinance Number 1152 (County Code 99-9C). For example, the reduction of 199 lots from 20,000 sq. ft. to 7,500 sq. ft. allows for more than 46 acres of open space yet only 33 acres of "useable" open space is provided. As a result, many of the lots do not have direct access to open space. These issues can be addressed by including in the application an explanation of how the developer plans to mitigate the issues raised by the State agencies.

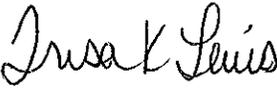
Active open space has been provided throughout the project. The vast majority of the passive open space is located adjacent to wetlands and resources that need protection rather than in backyards. The purpose of clustering is not simply to put open space back on the rear lots otherwise we would have simply left the lots larger as they were under conventional subdivision regulations.

The Sussex County Engineer Comments: the project is located southeast of the town of Georgetown and does not adjoin the city boundary. The project proposes to develop using a central community wastewater system. The project is located in Sussex County's North Coastal Planning Area. The project is not in an Environmentally Sensitive Developing Area and Sussex County does not expect to provide sewer service in the foreseeable future. Sussex County recommends the developer contact the town of Georgetown for connection to the Georgetown wastewater system. Sussex County opposes private treatment facilities when municipal sewer is available.

If the project is not annexed into Georgetown or does not receive sewer service from the Town of Georgetown, Sussex County requires design and construction of the collection and transmission system to meet Sussex County sewer standards and specifications. Alternately, if a community treatment system is utilized, the wastewater system should be operated under a long-term contract with a capable wastewater utility. The wastewater utility provider should be in place prior to approving the project. A review and approval of the treatment and disposal system by the Sussex County Engineering Department is also required and plan review fees may apply. Disposal fields should not be counted as open space. Wastewater disposal fields should be clearly identified on recorded plots. For questions regarding these comments, contact Rob Davis, Sussex County Engineering Department at (302) 855-7719.

If you have any questions, please feel free to contact our office at (302) 855-5734.

Sincerely,
MORRIS & RITCHIE ASSOCIATES, INC.


for J. Kevin McBride, RLA
Principal

JKM/tkl