

# McCRONE

- Engineering
- Environmental Sciences
- Construction Services
- Land Planning & Surveying

September 27, 2007

Ms. Constance C. Holland, AICP, Director  
Office of State Planning Coordination  
122 William Penn Street  
Haslett Armory, Ste. 302  
Dover, DE 19901

RE: PLUS review – PLUS 2004-12-06; Westminster Chase

Dear Ms. Holland,

We have reviewed and thank you for your comments regarding this project. We offer the following Point-by-Point response to comments that your office received as a part of the PLUS review (responses in **bold**).

Please accept this letter as our response to the agency comments provided.

## **Office of State Planning Coordination – Contact David Edgell 739-3090**

This site is located in Investment Level 4 according to the State Strategies for Policies and Spending. This site is located outside of the Kent County Growth Zone, and is located in the midst of numerous agricultural preservation districts. Investment 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. This proposed residential subdivision is inconsistent with the goals and intent of Investment Level 4, and appears to be inconsistent with the goals and intent of the Kent County Comprehensive Plan as well. Our office is opposed to this proposed land development project in this rural area, and notes that State investments to support this proposed use are not expected.

**Although this project is located in Investment Level 4, a significant portion of the surrounding land use is residential in nature including the subdivisions of Kentborne, Kentborne II, Wind Song Farms, Plantation Crossing, Providence Hills, and Twin Acres. The developer thanks the State for its comments, and assures the State Planning Office that the project will be completed in accordance with all applicable regulations, and with all applicable permits and approvals obtained.**

**State Historic Preservation Office (SHPO) – Contact Anne McCleave 739-5685**

This development is not favored because it is located in Investment Level 4 of the State Strategies for Policies and Spending. As discussed during the meeting, the existing farm complex (shown on the site plan and identified in our office as CRS# K-162) consists of an original milk house and other outbuildings. The house has been demolished and replaced and a new barn constructed. The new house and barn will remain; however, the older outbuildings will be demolished. There is another farmhouse, identified by our office as CRS# K-4977, not shown on the site plan and located south of the existing farm. This house will be preserved. In addition, there are archaeological sites on the property.

SHPO requests that the developers contact Anne McCleave at (302) 739-5685 to schedule a time for staff archaeologists to access the property and the existing farm complex. This will allow documentation of the buildings before demolition, walking of the development area to gain a better understanding of the archaeological sites, and recommendations on the best ways to minimize harm to the sites. In order to preserve archaeological sites, development outside of the woods and an open space buffer between the woods and the lots is suggested.

**As noted, some of the existing structures will be demolished and others will be preserved. Specifically, the existing green farmhouse (identified above as CRS#K-4977) will be preserved. The developer will be glad to allow Ms. McCleave's staff to document the other buildings prior to demolition. As suggested, construction activity will have minimal impact on the woods as 99.6% of the existing forest is being preserved. Please refer to the enclosed Site Plan.**

**Further, the developer would like to note that the site was visited by Ms. Rochelle Bohm, formerly of the Kent County Department of Planning Services, Historic Preservation Section for documentation of existing structures on the property.**

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

Davis Properties, LLC seeks to develop a 308-acre assemblage of parcels (Tax Parcels KH-00-017.00-01-67.00, 67.02, 67.03, 67.04, 67.05, 68.00, 68.01, 68.02, 68.03 and 68.04-000 and KH-00-017.00-02-01.00-000) on the east side of Deer Antler Road (Kent Road 130) about 2,600 feet south of Holletts Corner Road (Kent Road 126). The development would consist of 308 single-family detached houses. The land is zoned AC (Agricultural Conservation) and subdivision approval would be needed for the proposed development to proceed.

Our comments are as follows:

- 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.

**The developer has met with DelDOT and has retained Whitman, Requardt, and Associates, LLP (WRA) to design the required off-site road improvements. WRA and DelDOT's consultant have been in regular contact during the design**

**and review process. The developer understands that these improvements will be installed at their cost.**

- 2) DelDOT will require a traffic impact study (TIS) for the proposed development. To obtain a scope of work for that study, the developer should have their traffic engineer contact our project engineer, Mr. Todd Sammons, at (302) 760-2134.

**A Traffic Impact Study was submitted for this project and DelDOT completed their review of the TIS on 9/16/2005. The road improvements required by the TIS are currently in design and are being reviewed by DelDOT's consultant.**

- 3) While we will use the TIS to determine what off-site road improvements would be needed to support this project, the developer should expect to be required to improve Deer Antler Road to DelDOT's local road standards. If, as indicated in the answer to Item 37 on the PLUS form, the road has 11-foot lanes and 5-foot unpaved shoulders, the improvement would consist of paving those shoulders and perhaps overlaying the road.

**The road improvements required by the TIS do, as anticipated, include improvements to Deer Antler Road, which are currently in design and are being reviewed by DelDOT's consultant.**

- 4) The response to Item 39 on the PLUS form indicates that a connection to an "adjacent farm may be achieved by a Connector Road through Lot 21 on the enclosed Concept." We recommend that the County require that a stub street be provided at that location.

**As shown on the enclosed Site Plan, two street stubs have been provided to the adjacent farm that is located adjacent to the southwest property boundary.**

- 5) Deer Antler Road is classified as a local road. From aerial photography and tax maps, it appears to have an existing 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 30 feet from the centerline on local roads. Therefore we will require right-of-way dedication to provide the additional five feet from this project.

**Five feet of additional right-of-way has been accounted for in the design, and is shown as dedicated to public use on the plans as required.**

- 6) We 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.

**A paved multi-modal path will be provided along the frontage of the site, located within a 15-foot permanent easement, and is included as part of the Deer Antler Road drawings currently under review with DelDOT's consultant.**

- 7) We recommend changing the site design to eliminate some of the seven proposed cul-de-sacs, in order to enhance the grid street pattern and provide more of a sense of community.

**The developer has considered DelDOT's request, and the street layout has been redesigned where possible to eliminate one (1) cul-de-sac, reducing the number of cul-de-sacs from seven (7) to six (6). (Please see the enclosed Overall Site Plan.)**

- 8) We notice that the existing farmstead would be retained and would continue to be accessed by a farm access road from Delaware Route 6. For about 670 feet running north from Route 6, that access road occupies a 20-foot wide strip of land, which is too narrow for use as a right-of-way. However, we recommend that an emergency connection to the road be provided from the proposed cul-de-sac on the east side, with a gate to keep out non-emergency vehicles.

**Since the original concept was developed, the owners of the farmstead (prefab home and barns) have decided that they no longer desire to reside on the property and the structures will be removed. Accordingly, the question of access to the area is alleviated. The majority of this area is designed to be community Open Space.**

- 9) The developer's engineer should contact our project manager for Kent County, Mr. Brad Herb of Johnson, Mirmiran & Thompson, regarding our requirements for streets and access. Mr. Herb may be reached at (302) 266-9080.

**McCrone, Inc. has been in contact with Mr. Herb regarding this project since May 2006 regarding the proposed internal subdivision streets. Mr. Herb's office is currently reviewing the entrance to Westminster Chase as part of the Deer Antler Road Plans, which are being designed and prepared by WRA as noted above.**

**A Letter of No Objection for Recordation was received from Mr. Herb on behalf of DelDOT on November 14, 2006.**

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

**General Comment**

The site plan shows little consideration for walkability. The developer is encouraged to reduce the number of cul-de-sacs; this will improve walkability and reduce the amount of impervious surfaces.

**The developer thanks the department for its comments. Through the design process, the number of cul-de-sacs has been reduced from seven to six. As part of the design**

**process, cul-de-sacs have been located giving consideration to pedestrian activities, and we believe that the proposed subdivision street system creates a network that is very conducive to walking. To further encourage walking activities, sidewalks will be installed on both sides of all streets.**

**Design Recommendation**

No lot lines should contain wetlands and their associated buffers. Buffers of no less than 100 feet from the wetland line or stream bank should be designated as a buffer zone and be designated as part of community open space.

**The developer appreciates the Department’s concerns. The buffer along the majority of the wetlands will actually exceed the 25 foot minimum requirement – in many cases meeting or exceeding the requested 100’, as noted below:**

<b>Buffer Distance - Wetlands to Lot Lines and/or Roads</b>	<b>% of Wetland Line that Meets (or Exceeds) Buffer</b>
<b>25 ft</b>	<b>100%</b>
<b>50 ft</b>	<b>90%</b>
<b>75 ft</b>	<b>57%</b>
<b>100 ft or more</b>	<b>46%</b>

**Soils**

According to the Kent County soil survey, Sassafras, Rumford, Woodstown, Fallsington, and Johnston was mapped in the immediate vicinity of the proposed project. Sassafras and Rumford are well-drained upland soils that have few limitations for development. Woodstown is a moderately well-drained soil of low-lying upland that has moderate limitations for development. Fallsington is a poorly-drained wetland associated (**hydric**) soil that has severe limitations for development. Johnston is very poorly-drained wetland associated (**hydric**) floodplain soil that has severe limitations for development.

**The developer thanks the Department for this information.**

**Wetlands**

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine forested wetlands on this site.

Impacts to Palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process.

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state

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resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-4691 to schedule a meeting.

**The project team is pleased to inform the State that this project is to planned be completed with no disturbance to wetlands. Accordingly wetland-related permits are not required for this project.**

Recommended vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex and other waterbodies on site. It is important to note that both DNREC and Army Corps of Engineers discourage allowing lot lines to contain wetlands and associated buffers, to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

It should also be noted that this parcel immediately adjacent to sensitive headwater riparian wetlands associated with the Providence Creek. Headwater riparian wetlands and their associated streams are important for the protection of water quality and the maintenance/integrity of the ecological functions throughout the length of the stream, including the floodplain system downstream. Since headwater streams are a major avenue for nutrient-laden stormwater and sediment runoff their protection deserves the highest priority. In recognition of this concern, the Department strongly recommends that the applicant preserve, in its entirety, the existing natural forested buffer adjacent to said Headwater riparian wetlands. Efforts to maximize or expand the existing natural buffer width via planting of native woody or herbaceous vegetation beyond the recommended 100-foot buffer width, is also strongly recommended

**The developer appreciates the concern of the Department and is happy to inform the Department that 99.6% of the forested buffer is to be preserved as part of this subdivision. The developer will consider planting some of the required trees for the site adjacent to existing woodlands to further enhance and expand the natural buffer. Further, no lots will be located in the wetlands or wetland buffers as requested.**

#### **TMDLs**

Although Total Maximum Daily Loads (TMDLs) as a "pollution runoff mitigation strategy" to reduce nutrient loading have not yet been developed for most of the tributaries or subwatersheds of the Mill Creek subwatershed to date, work is continuing on their development. TMDLs for the Mill have not been developed to date, but may be available in the near future.

Therefore, until the specified TMDL reductions and pollution control strategies are adopted, it shall be incumbent upon the developer to employ best available technologies (BATS) and/or best management practices (BMPs) as "methodological mitigative strategies" to reduce degradative impacts associated with development.

**Thank you for your comments. This project is being developed in accordance with current regulations for Stormwater Management, including water quality management. Stormwater Management for this project is designed to be accomplished using traditional detention ponds, which is, in our understanding, still the preferred method for Stormwater Management in a residential subdivision.**

### **Water Supply**

The information provided indicates that Artesian Water Company will provide water to the proposed projects through a central public water system. Our files reflect that Artesian Water Company does not currently hold a certificate of public convenience and necessity (CPCN) to provide public water in these areas. They will need to file an application for a CPCN with the Public Service Commission, if they have not done so already. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at (302) 739-4247.

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.

**The developer thanks the Department for this information. Artesian Water Company acquired the required CPCN on 5/10/05. Further the developer assures the Department that applicable permits will be obtained, and appropriately licensed personnel will perform all associated work.**

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

- 1) Land disturbing activities in excess of 5,000 square feet are regulated under the Delaware Sediment and Stormwater Regulations. A detailed sediment and stormwater management plan must be reviewed and approved by the Kent Conservation District prior to any land disturbing activity (i.e. clearing, grubbing, filling, grading, etc.) taking place. The review fee and a completed Application for a Detailed Plan are due at the time of plan submittal to the Kent Conservation District. Construction inspection fees based on developed area and stormwater facility maintenance inspection fees based on the number of stormwater facilities are due prior to the start of construction. Please refer to the fee schedule for those amounts.

**The Detailed Sediment and Stormwater Management Plan has been submitted and is currently under review by the Kent Conservation District. No land disturbing activity is planned to occur before KCD approval has been granted, and all required fees have been paid.**

- 2) The following notes must appear on the record plan:

- The Kent Conservation District reserves the right to enter private property for purposes of periodic site inspection.
- The Kent Conservation District reserves the right to add, modify, or delete any erosion or sediment control measure, as it deems necessary.
- A clear statement of defined maintenance responsibility for stormwater management facilities must be provided on the Record Plan.

**The required notes have been added to the Record Plan, as noted.**

- 3) Ease of maintenance must be considered as a site design component and a maintenance set aside area for disposal of sediments removed from the basins during the course of regular maintenance must be shown on the Record Plan for the subdivision.

**Maintenance set-aside areas have been designed for the site's proposed Stormwater Management Ponds giving consideration to access and ease of maintenance. These areas will be included on the Record Plan, as noted.**

- 4) All drainage ways and storm drains should be contained within drainage easements and clearly shown on the plan to be recorded by Kent County.

**As required, all drainage ways and storm drains will be contained within drainage easements, which will be clearly shown on the Record Plan.**

- 5) A soils investigation supporting the stormwater management facility design is required to determine impacts of the seasonal high groundwater level and soils for any basin design.

**Extensive geotechnical investigations have been performed on this site, including several deep borings. Soils information has been presented to and is being reviewed by the Kent Conservation District, subject to their approval.**

Comments:

- 1) Unfortunately, the concept plan provided was not very clear, so following comments are general in nature. A pre-application meeting is suggested to discuss the site specific stormwater management and drainage requirements for this site in more detail.

**A Pre-Application meeting was held with the Kent Conservation District at the early stages of the project. The Detailed Sediment and Stormwater Management Plan has since been developed, and is currently under review by the Kent Conservation District.**

- 2) The western portion of this project drains into a small ditch that runs through the Kentbourne Subdivision. Verification of the capacity of this ditch and culvert will be required.

**This area has been shown through hydrologic and hydraulic modeling to be an adequate outfall, subject to the review and approval of the Kent Conservation**

**District. The Detailed Sediment and Stormwater Management Plan is currently under review by the Kent Conservation District.**

- 3) It is unclear if the western stormwater facility is located in wetlands. Any disturbance in wetlands may require a wetland determination or permits from the Army Corp. of Engineers.

**This stormwater facility is not located in wetlands. The project team is pleased to report that this project is to be completed with no disturbance to wetlands. Accordingly wetland-related permits are not anticipated to be required for this project.**

- 4) The Kent Conservation District recommends that no residential lot be recorded within a subdivision that contains wetlands. Placing wetlands in open space will aid in protecting those areas from disturbance and reduce individual property owner complaints regarding poor drainage of areas on their property.

**As discussed above, the development team is pleased to report that all residential lots have been designed to be located outside wetlands and associated wetland buffers, as requested.**

- 5) It is unclear if any lots are impacted by the FEMA-mapped 100 year-floodplain. It is recommended that both that the mapped flood limit be verified and adjusted if appropriate, or the lot layout modified so that the flood limit does not encroach within the buildable area of individual lots.

**As a part of the proposed design, no residential lots are to be located within the FEMA-mapped 100-year floodplain. In addition, a hydrologic and hydraulic model was performed to verify the approximate floodplain for the site. Both the Fema-mapped 100-year floodplain and the modeled floodplain are shown on the Drawings. Lot layout has been designed not to encroach beyond either line. Please see the enclosed Site Plan.**

- 6) The preferred methods of stormwater management are those practices that maximize the use of the natural features of a site, promote recharge and minimize the reliance on structural components.

**The project team appreciates this comment. As noted previously, the site design is in accordance with current regulations, and includes multiple stormwater management ponds to provide both stormwater quality and quantity management. The Detailed Sediment and Stormwater Management Plan is currently under review by the Kent Conservation District.**

- 7) The designer is encouraged to consider the conservation design approach and limit the amount of tree clearing required for the development of the site including the stormwater management facilities.

**The project team is pleased to report that 99.6% of the forested areas are to be persevered as a part of the development.**

- 8) Access to the proposed stormwater facility must be provided for periodic maintenance. This access should be at least 12 feet wide to leading to the facility and around the facility's perimeter.

**Access to the proposed stormwater management facilities will be provided, as required.**

- 9) It is recommended that the stormwater management areas be incorporated into the overall landscape plan to enhance water quality and to make the stormwater facility an attractive community amenity.

**The project team appreciates this comment. As suggested, the stormwater management areas will be considered and included with the landscape design for the project.**

- 10) A letter of no objection to recordation will be provided once the detailed Sediment and Stormwater Management plan has been approved.

**The Detailed Sediment and Stormwater Management Plan is currently under review by the Kent Conservation District.**

Proper drainage of developed lots and active open space should be considered in the development of the grading plan for this subdivision.

**The project team appreciates this comment. McCrone, Inc. has designed the site grading and drainage plans giving consideration to proper drainage of lots and open space, as noted. Grading for the site is currently under review by the Kent Conservation District with the Detailed Sediment and Stormwater Management Plan.**

### **Drainage**

The Drainage Section is aware of existing drainage problems in this area. There are existing drainage problems upstream of Kentbourne and Heather Drive. There are existing drainage problems along the waterway on the south side of this project. The Drainage Section has knowledge of existing beaver problems in the project area.

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

**As part of the Stormwater Management Design for this project, McCrone, Inc. has completed a gross watershed study of the site as well as the upstream contributing watershed. Stormwater Management for this project has been designed to reduce the**

**amount of run-off from that which occurs today. Accordingly, this project is not anticipated to create off-site drainage problems downstream.**

**At the request of the Department, the developer has also contacted the landowner to periodically observe the stream, existing pond, and ditches for evidence of beaver activity and blockages. These features will be cleared of blockages to maintain their function as necessary prior to home construction, as suggested.**

### **Floodplains**

A small portion of the site is within the 100-year floodplain. Development should be limited to areas outside of the floodplain as required by Kent County's floodplain regulations.

**As a part of the proposed design, no residential lots are to be located within the FEMA-mapped 100-year floodplain. In addition, a hydrologic and hydraulic model was performed to verify the approximate floodplain for the site. Both the Fema-mapped 100-year floodplain and the modeled floodplain are shown on the Drawings. Lot layout has been designed not to encroach beyond either line. Please see the enclosed Site Plan.**

### **Forests**

According to 2002 aerial photos, forested areas are found along the wetland complex of this parcel. Lot lines should be redesigned to avoid all impacts to the forested area. Therefore, the developer is strongly encouraged to preserve, and where possible, enhance forested resources on site. This includes removing lot lines and infrastructure (such as storm water management ponds) from forested areas to the extent possible and minimizing any clearing activities. The forested areas on-site should be viewed as a community asset and managed appropriately. Where possible, the developer should seriously consider habitat improvements such as revegetating portions of the site to increase the buffer zone to Providence Creek. A forested buffer of 100' or more would substantially benefit water quality and wildlife habitat.

**The project team is pleased to report that 99.6% of forest preservation is proposed as a part of the development. The developer will consider revegetation of areas adjacent to Providence Creek, as suggested.**

Forested areas on-site 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 these areas.

**The developer thanks the Department for the comments. In addition to preserving the existing forest on-site, the developer will consider placing these areas into a permanent conservation easement.**

### **Open Space**

To maximize the existing buffering capacity and wildlife habitat on site, it is recommended that lot lines and other infrastructure (such as storm water management ponds) be pulled out of the forest and that areas of community open space be designated along the forested/riparian areas. Doing so will accomplish two things: it will preserve the buffers on site and its value for birds

and wildlife and it will create recreational opportunities for residents by allowing them access to and views of the forest and stream.

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.

**While the design of this site has progressed, the developer has strived to keep nearly all the lots and all other infrastructure including Stormwater Management Facilities out of the forest. Some open spaces have been planned along the forested buffer as requested. If areas are placed into permanent conservation they shall be clearly marked to avoid infringement.**

#### **Stormwater Ponds, Buffers, and Nuisance Species**

The stormwater management ponds incorporated within the subdivision will likely attract waterfowl like resident Canada geese and mute swans that will create a nuisance for community residents. Although small numbers of these species are enjoyed by residents, geese and swans can quickly multiply and overwhelm the area. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Ponds that remain in the subdivision plan should be landscaped to deter nuisance species. Short manicured lawns around ponds provide an attractive habitat for these species. However, native plantings, including tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area around ponds (we recommend 50 feet), are not as attractive to geese because they do not feel as safe from predators and other disturbance when their view of the area is blocked. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners 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 of ponds, proper landscaping, monitoring, and other techniques, geese problems can be minimized.

**The developer thanks the Department for its comments. Three (3) out of four (4) proposed ponds will be landscaped so as to deter nuisance species. One (1) pond, however, will not because it is intended for use as a community amenity and the developer would like to maintain access to it.**

It is further recommended that all stormwater ponds be at least 100 feet from all wetlands and waterbodies.

**The project team is pleased to report that three (3) of the four (4) proposed stormwater management ponds are located in excess of 100 feet from wetlands. Only approximately 70 linear feet of pond perimeter are closer than 100 feet to wetlands, maintaining, in that location, a buffer of approximately 89 feet.**

### **Revegetation/Landscaping**

We request that no invasive species be used in the revegetation of disturbed or landscaped areas. A list of species considered invasive in Delaware can be found on the DNHP web site, [www.dnrec.state.de.us/fw/invasive.htm](http://www.dnrec.state.de.us/fw/invasive.htm). We further encourage, where possible/feasible, the use of native plants for habitat restoration projects on-site and our

Bill McAvoy, Botanist, can be contacted at (302) 653-2880 to assist you in developing a plant list.

**The developer thanks the Department for these comments, and will not include any invasive species while preparing the final Landscaping Plan for the project.**

### **Recreation**

We recommend that sidewalks be built fronting every residence and stub streets. A complete system of sidewalks will: 1) fulfill the recreation need for walking and biking facilities, 2) provide opportunities for neighbors to interact in the community, and 3) facilitate safe, convenient off-road access to neighboring communities, public mass transit stops, schools, stores, work, etc.

**As requested, sidewalks have been included on both sides of all subdivision streets.**

### **Air Quality**

Once complete, vehicle emissions associated with this project are estimated to be 23.6 tons (47,274.8 pounds) per year of VOC (volatile organic compounds), 19.6 tons (39,140.3 pounds) per year of NOx (nitrogen oxides), 14.4 tons (28,878.5 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 1.3 ton (2,570.7 pounds) per year of fine particulates and 1,977.2 tons (3,954,475.6 pounds) per year of CO<sub>2</sub> (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 9.5 tons (19,068.1 pounds) per year of VOC (volatile organic compounds), 1.0 ton (2,098.1 pounds) per year of NOx (nitrogen oxides), 0.9 ton (1,741.1 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 1.1 ton (2,246.8 pounds) per year of fine particulates and 38.6 tons (77,297.7 pounds) per year of CO<sub>2</sub> (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 3.8 tons (7,557.2 pounds) per year of NOx (nitrogen oxides), 13.1 tons (26,286.0 pounds) per year of SO<sub>2</sub> (sulfur dioxide) and 1,938.6 tons (3,877,177.9 pounds) per year of CO<sub>2</sub> (carbon dioxide).

	VOC	NOx	SO <sub>2</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>
Mobile	23.6	19.6	14.4	1.3	1977.2
Residential	9.5	1.0	0.9	1.1	38.6

Electrical Power		3.8	13.1		1938.6
TOTAL	33.1	24.4	28.4	2.4	3954.4

**The developer thanks the Department for its comments. The Handler Corporation has partnered with The Energy Services Group from Wilmington, Delaware and offers Energy Star Certification on all the homes they build.**

**State Fire Marshal’s Office – Contact John Rossiter 323-5365**

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):

**Fire Protection Water Requirements**

- 1) Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Wastewater Treatment Buildings)
- 2) 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)
- 3) 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.

**Fire Protection Features**

- 1) All structures over 10,000 Sq. Ft. aggregate will require automatic sprinkler protection installed.
- 2) 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.
- 3) Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- 4) Show Fire Lanes and Sign Detail as shown in DSFPR

**Accessibility**

- 1) 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 Deer Antler Road must be constructed so fire department apparatus may negotiate it.
- 2) 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.
- 3) 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.

- 4) If the use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.

#### **Gas Piping and System Information**

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

#### **Required Notes**

- 1) 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"
- 2) Proposed Use
- 3) Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
- 4) Square footage of each structure (Total of all Floors)
- 5) National Fire Protection Association (NFPA) Construction Type
- 6) Maximum Height of Buildings (including number of stories)
- 7) Note indicating if building is to be sprinklered
- 8) Name of Water Provider
- 9) Letter from Water Provider approving the system layout
- 10) Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- 11) 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.

**McCrone, on behalf of the developer, has coordinated with the State Fire Marshal's office to meet their requirements. Fire Marshal Approval was granted on February 26, 2007.**

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

The Department of Agriculture staff reviewed this project located in a Level 4 Area of the State Strategies for Policies and Spending. We do not support development of this site. If developed, we request the developer to consider design modifications to yield a more environmentally friendly and aesthetically pleasing community. The 69 acre Hidden springs Agriculture Preservation District is located across the street from this site and as a result the 300 foot notification zone may apply to the development site.

**The developer thanks the Department for this information. As shown on the Kent County Smart Map web site, Hidden Spring is not within 300' of this project. The "Smith Expansion of the Dulin Brothers District" does, however, appear to be located within 300' of the project site. Accordingly, notes required for projects within a 300 foot notification zone are included on the Record Plan.**

If a proposed new subdivision borders or is near an agricultural preservation district, then the owner of the preservation district is entitled to the following use protections, quoted from the Delaware Code:

**§ 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."*

**The developer thanks the Department for its comments. This note has been added to the Plans and will be added to any agreements of sale as well.**

The Delaware Forest Service (DFS) encourages the developer to consider a diverse landscape plan that utilizes the right tree for the right place concept. DFS encourages the preservation of forested areas adjacent to creeks, streams, wetlands and other water bodies to lessen potential pollutants to the state's water resources. Also, DFS requests the developer to plan connections for both traditional and green infrastructure between future development activities and existing natural resources. Finally, DFS encourages the use of a forestry or arboriculture professional to support the activities recommended for this site.

**The Landscape Plan for this project will be developed by a registered Landscape Architect, giving consideration to the DFS concerns as presented.**

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

The application notes Artesian Water Company as the water provider, however the project is not in a certificated area. The water service provider selected will need to apply for the Certificate of Public Convenience and Necessity (CPCN) to serve the project.

**The developer thanks the Department for this information. Artesian Water Company acquired the required CPCN on 5/10/05.**

The application notes a community wastewater system with a provider to be selected. If wastewater services are provided by a non-governmental entity, and there are more than 50 customers served, the wastewater service provider will need to apply to the PSC for a CPCN.

Additional requirements may apply if the provider has not previously been awarded a CPCN by the Commission.

**The developer thanks the Department for this information. Artesian Water Company acquired the required CPCN on 8-8-2005.**

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 project team thanks the Department for their comment. Any expansion/installation of natural gas and/or propane systems will be installed by the respective utility, and it shall be their responsibility to operate within the confines of Pipeline Safety Guidelines, as noted.**

Recent legislation (Senate Bill 99) placed non-governmental companies providing wastewater services to 50 or more customers (in the aggregate) under the regulatory control of the PSC. While rules are not yet in place, governmental agencies offering wastewater services must file data with the Commission regarding its service areas. Contact: Kevin Neilson at (302) 739-4247.

**Artesian has been granted a CPCN by the commission to provide wastewater services to this site.**

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

The proposal is to develop 308 units on 308 acres on the east side of Deer Antler Road (Road 130), north of Millington Road and adjacent to Providence Creek and west of Clayton. According to the State Strategies for Policies and Spending, the proposal is located in an Investment Level 4 area outside the growth zone. The DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as found in Investment Level 1 and 2 areas. 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.

**The developer thanks the department for their comments. Although this project is located in Investment Level 4 a significant portion of the surrounding land use is residential in nature including the subdivisions of Kentborne, Kentborne II, Wind Song Farms, Plantation Crossing, Providence Hills, and Twin Acres.**

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

No comment.

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

It is estimated that 308 dwelling units could generate 154 additional students for the Smyrna School District.

Kent County does not have school concurrence legislation at this time. We recommend that the developer submit a package to the school district for informational purposes and work closely with the school district transportation supervisor.

If the development is approved and built, please use the following information for school transportation planning: homes more than 1/2 mile from the nearest public road (outside the development) require streets wide enough for large school bus access and turn around (without backing) from the furthest areas within the development. Should there not be any homes more than 1/2 mile from the nearest public road, pick-up and drop-off areas at the development entrance should be included.

The Smyrna School District is experiencing significant growth and new developments outside current targeted growth areas of the State Strategies will cause additional strain on the public school transportation system.

**Representatives of McCrone, Inc. met with the Superintendent of the Smyrna School District on January 25, 2006 to review the proposed project and to solicit feedback regarding the project. As noted in her letter to McCrone, dated January 25, 2006, Ms. Debbie Wicks requested that adequate bus stop locations be provided and that streets be designed so that busses may negotiate intersections. The plan has been designed to accommodate these requests.**

This concludes our comments. 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 these comments noting whether or not specific recommendations were incorporated into the project design and the reasons therefore.

**As requested, the project team is pleased to submit this point-by-point response to PLUS comments. If you have any questions, please contact me or Keith Rudy, P.E. at 302-730-4600.**

Sincerely,  
McCrone, Inc.



Brian T. Pinkerton, P.E.  
Project Manager

CC: Davis Properties, LLC (Letter only)  
Sarah Keifer, AICP – Kent County Planning Department (Letter only)