



**STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION**

February 23, 2015

Mr. Roger Gross
Merestone Consultants, Inc.
19633 Blue Bird Lane, Suite 9
Rehoboth Beach, DE 19971

RE: PLUS review 2015-01-02, Ash-Lyn Development

Dear Mr. Gross:

Thank you for meeting with State agency planners on January 28, 2015 to discuss the proposed plans for the Ash-Lyn Development. According to the information received you are seeking the review of a site plan for the construction of 268 housing units and 71,000 square feet of commercial space on 81 acres located near the intersection of Williams Farm Road and Reynolds Road in Sussex County.

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

Strategies for State Policies and Spending

This project is located in Investment Level 3 according to the *Strategies for State Policies and Spending*. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. State investments may support future growth in these areas, but please be advised that the State has other priorities for the near future. We encourage you to design the site with respect for the environmental features which are present.

In light of the comment from DeIDOT (below) that the commercial entrance on Broadkill Road will not be acceptable, you should consider a pedestrian friendly, combined entrance off of Reynolds road that would connect the commercial and residential areas of this parcel. The residential and commercial areas should be linked internally to create a walkable, bikeable community.

Code Requirements/Agency Permitting Requirements

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There was an agricultural complex (S-3373) on this parcel, near the corner of Reynolds Road and Route 16, but it was demolished. The USGS Map of 1918 did indicate that there was a dwelling in that location, and there may be archaeological resources associated with it as well. There is also a National Register-listed property near the parcel, known as the David Robbins Homestead (S-3335). Pomeroy and Beers Atlas of 1868 (a 19th-century historic map) notes the dwelling on the parcel, near Williams Farm Road associated with D. Robbins. We recommend that there be enough landscaping to block noise and visual intrusions on this property. With the presence of an earlier complex, it is important that the developer be aware of the Unmarked Human Burials and Human Skeletal Remains Law, which is Chapter 54 of Title 7, of the Delaware Code (7 Del. C. Ch. 54). Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, and sometimes near or within the boundary of an historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (7 Del. C. Ch. 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to know more information pertaining to unmarked human remains or cemeteries, please check the following websites for additional information: www.history.delaware.gov/preservation/umhr.shtml and www.history.delaware.gov/preservation/cemeteries.shtml

Therefore, prior to any demolition or ground-disturbing activities, the developer may want to hire an archaeological consultant to examine the parcel for any potential archaeological site or archaeological resources, such as cemetery, burial site, or unmarked human remains.

- Furthermore, if there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CAR 800) and must consider their project's effects on any known or potential cultural or historic resources. Owners and developers who may plan to apply for an Army Corps of

Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities should take place before the Corps or other involved federal agency determines the area of potential effect of the project undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office, and the Advisory Council for Historic Preservation about the project's effects on historic properties. Furthermore, any preconstruction activities without adherence to these stipulations may jeopardize the issuance of any permit or funds. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please review the Advisory Council's website at www.achp.gov.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Per Section 2.3.1 of the Standards and Regulations for Subdivision Streets and State Highway Access, Traffic Impact Studies (TIS) are warranted for developments generating more than 400 vehicle trip ends per day or 50 vehicle trip ends per hour. Section 2.3.2 provides that for developments generating less than 2,000 vehicle trip ends per day and less than 200 vehicle trip ends per hour, DeIDOT may accept an Area Wide Study Fee of \$10 per daily trip in lieu of a TIS.

Using Institute of Transportation Engineers (ITE) data, DeIDOT estimates that the residential and commercial sections of the proposed development would, respectively, generate 2,189 and 5,428 vehicle trip ends per typical weekday. Therefore, considering only the volume warrants, a TIS would be warranted for either section and payment of the Area Wide Study Fee would not be an option.

Therefore DeIDOT will require at least one TIS. While both the residential and the commercial sections will require rezoning, the residential rezoning is described as “future.” If the developer knows that they want to pursue the residential project within the next three to five years, a single study addressing both properties seems appropriate. If the residential development is farther in the future or less certain, separate studies might be better.

In July 2014, DeIDOT provided the applicant's engineer with a list of intersections that might be included in the scope of a TIS, so that they could obtain traffic counts during the summer season. DeIDOT has reviewed that list and believe it is still adequate. If two separate TIS are done for the residential and commercial areas, both studies would include most of the listed intersections but there would be a few intersections included in only one study or the other. They recommend that the applicant's engineer request a scoping meeting or meetings when their client is ready to proceed.

- The site entrances must be designed in accordance with DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access, which is available at http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf.

Further in accordance with Section 5.2 of the Standards and Regulations, with regard to the site entrances, the proposed commercial entrance on Broadkill Road (Delaware Route 16) is not acceptable. The developer of the commercial property should expect a requirement to place their primary access, perhaps their sole access on Reynolds Road and to improve Reynolds Road for the length of the commercial site's frontage. In accordance with Section 3.10.2 and Figure 3-4, the minimum typical section for that improvement would be 11-foot lanes and 5-foot shoulders, although the TIS and the entrance design process could identify a need for greater improvements.

Similarly, the developer of the residential property should expect a requirement to improve their frontage on Reynolds Road and Williams Farm Road to provide 11-foot lanes and 5-foot shoulders, but the TIS and the entrance design process could identify a need for greater improvements.

Department of Natural Resources and Environmental Control – Contact Kevin Coyle 735-3495

TMDLs

- The project is located in the greater Delaware River and Bay drainage area, specifically within the Broadkill River watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria (under the auspices of Section 303(d) of the Clean Water Act). A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited waterbody” can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; State of Delaware Surface Water Quality Standards, as amended July 11, 2004) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the Broadkill River watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 75 percent reduction in bacteria from baseline conditions.
- A nutrient management plan is required under the *Delaware Nutrient Management Law (3 Del.C., Chapter 22)* for all persons or entities who apply nutrients to lands or areas of open space in excess of 10 acres. According to the submitted PLUS application, this project's open space may exceed this 10-acre threshold. Please contact the Delaware Nutrient Management Program at 739-4811 for further information concerning

compliance requirements or view the following web link:

<http://dda.delaware.gov/nutrients/index.shtml>

Water Supply

- The project information sheets state water will be provided to the project by Artesian Water Company via a public water system. DNREC records indicate that the project is located within the public water service area granted to Artesian Water Company under Certificate of Public Convenience and Necessity 09-CPCN-26.
- 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.
- Potential contamination sources exist in the area, and any well permit applications will undergo a detailed review that may increase turnaround time and may require site specific conditions/recommendations. In this case, there is a Superfund Site associated with the Milton Dump, located within 1000 feet of the proposed project.

Sediment and Stormwater

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. 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. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees. (Title 7, Delaware Code, Chapter 40 and Delaware Regulations, Title 7, Administrative Code, 5101).

Hazardous Waste Sites

- If it is determined by the Department that there was a release of a hazardous substance on the property in question, it is suggested that the guidelines and provisions of 7 Del.C., Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware *Regulations Governing Hazardous Substance Cleanup* be followed.

Tank Management. Please be aware:

- If a release of a Regulated Substance occurs at the proposed project site, compliance of 7 Del.C. Chapter 60, 7 Del.C., Chapter 74 and DE Admin. Code 1351, State of Delaware *Regulations Governing Underground Storage Tank Systems* (the UST Regulations) is required.
- No confirmed leaking underground storage tank (LUST) projects are located within a quarter mile from the proposed project area.
- Per the **UST Regulations: Part E, § 1. Reporting Requirements:**
 - Any indication of a Release of a Regulated Substance that is discovered by any Person, including but not limited to environmental consultants, contractors, utility companies, financial institutions, real estate transfer companies, UST Owners or Operators, or Responsible Parties shall be reported within 24 hours to:
 - The Department’s 24-hour Release Hot Line by calling 800-662-8802; and
 - The DNREC, Tank Management Section by calling 302-395-2500.

Air Quality

The applicant shall comply with all applicable Delaware air quality regulations. Please note that the following regulations in Table 1 – Potential Regulatory Requirements may apply to your project:

Regulation	Requirements
7 DE Admin. Code 1106 - Particulate Emissions from Construction and Materials Handling	<ul style="list-style-type: none">• Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.• Use covers on trucks that transport material to and from site to prevent visible emissions.

7 DE Admin. Code 1113 – Open Burning	<ul style="list-style-type: none"> • Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year. • Prohibit the burning of land clearing debris. • Prohibit the burning of trash or building materials/debris.
7 DE Admin. Code 1135 – Conformity of General Federal Actions to the State Implementation Plan	<ul style="list-style-type: none"> • Require, for any “federal action,” a conformity determination for each pollutant where the total of direct and indirect emissions would equal or exceed any of the DE minimum levels (See Section 3.2.1)
7 DE Admin. Code 1141 – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	<ul style="list-style-type: none"> • Use structural/ paint coatings that are low in Volatile Organic Compounds. • Use covers on paint containers when paint containers are not in use.
7 DE Admin. Code 1144 – Control of Stationary Generator Emissions	<ul style="list-style-type: none"> • Ensure that emissions of nitrogen oxides (NO_x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO₂), carbon monoxide (CO), and carbon dioxide (CO₂) from emergency generators meet the emissions limits established. (See section 3.2). • Maintain recordkeeping and reporting requirements.
7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty Vehicles	<ul style="list-style-type: none"> • Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

For a complete listing of all Delaware applicable regulations, please look at our website:

<http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

Delaware State Fire Marshall’s Office – Contact R. T. Leicht (302) 739-4394

Fire Protection Water Requirements:

- In the commercial area of the proposed development, water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required along with Fire hydrants with 800 feet spacing on centers.
- In the Town Homes and the Multi-Residential building area of the proposed development, water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required along with Fire hydrants with 800 feet spacing on centers.

- In the Single Family Dwelling area of the proposed development, 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 along with Fire hydrants with 1000 feet spacing on centers are required.
- Where a water distribution system is proposed, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

Fire Protection Features:

- All structures over 10,000 sqft aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sqft, 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR
- For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan

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.
- 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.
- 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.

Gas Piping and System Information:

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

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
- Townhouse 2-hr separation wall details shall be shown on site plans
- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- Provide Road Names, even for County Roads

Department of Agriculture – Contact Scott Blaier 698-4532

The proposed development is adjacent or near a number of properties currently enrolled in the State's Agricultural Lands Preservation Program, including parcels: 235-7.00-161.00, 235-8.00-15.00, 235-15.00-23.00, 235-15.00-26.00, 235-15.00-4.00, 235-14.00-120.00, 235-14.00-113.00, and 235-8.00-5.03. Collectively these parcels contain over 850 acres of preserved farmland. Therefore, the activities conducted on these preserved properties will be protected by the agricultural use protections outlined in Title 3, Del. C., Chapter 9. These protections effect adjoining developing properties. The 300 foot notification requirement affects **all new deeds** in a subdivision located in whole or part within 300 feet of an Agricultural District. Please take note of these restrictions as follows:

§ 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.).

In addition, if any wells are to be installed, Section 4.01(A)(2) of the Delaware Regulations Governing the Construction and Use of Wells will apply. This regulation states:

(2) For any parcel, lot, or subdivision created or recorded within fifty (50) feet of, or within the boundaries of, an Agricultural Lands Preservation District (as defined in Title 3, Del. C., Chapter 9); all wells constructed on such parcels shall be located a minimum of fifty (50) feet from any boundary of the Agricultural Lands Preservation District. This requirement does not apply to parcels recorded prior to the implementation date of these Regulations. However, it is recommended that all wells be placed the maximum distance possible from lands which are or have been used for the production of crops which have been subjected to the application of land applied federally regulated chemicals.

Section 1, Chapter 99, Code of Sussex Section 99-6 may also apply to this subdivision. The applicant should verify the applicability of this provision with Sussex County. This Section of the Code states:

G. Agricultural Use Protections.

(1) Normal agricultural uses and activities conducted in a lawful manner are preferred. 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 uses adjacent to land used primarily for agricultural purposes shall be subject to the following restrictions:

(a) For any new subdivision development located in whole or in part within three hundred (300) feet of the boundary of land used primarily for agricultural purposes, 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 land used primarily for agricultural purposes on 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.”

(b) For any new subdivision development located in whole or in part within fifty (50) feet of the boundary of land used primarily for agricultural purposes no improvement requiring and occupancy approval for a residential type use shall be constructed within fifty (50) feet of the boundary of land used primarily for agricultural purposes.

Recommendations/Additional Information

This section includes a list of site specific suggestions that are intended to enhance the project. These suggestions have been generated by the State Agencies based on their expertise and subject area knowledge. **These suggestions do not represent State code requirements.** They are offered here in order to provide proactive ideas to help the applicant enhance the site design, and it is hoped (**but in no way required**) that the applicant will open a dialogue with the relevant agencies to discuss how the suggestions can benefit the project.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Please be advised that DelDOT has advertised for comment a comprehensive revision of the Standards and Regulations. One comment period ran through June 1 through June 30, 2014, a second comment period ran December 1 through December 31, 2014, and DelDOT could adopt this revision as soon as February 2015. Implementation guidance has not been developed but they recommend that the developer’s engineer become familiar with the proposed changes and assess whether any of them could be relevant to this project. Information on the proposed revision is available in the Register of Regulations and at http://www.deldot.gov/information/pubs_forms/revisions_to_ASR/index.shtml.
- Because the proposed development would generate more than 200 vehicle trips per day, a Pre-Submittal Meeting is required before plans are submitted for review. Guidance on what will be covered at this meeting and how to prepare for it is located at http://www.deldot.gov/information/business/subdivisions/Pre-Submittal_Meeting_Requirements.doc. The form needed to request this meeting is available at http://www.deldot.gov/information/business/subdivisions/Meeting_Request_Form.doc.

- As shown on the Investment Level map associated with the Strategies for State Policies and Spending, the subject development is located in a Level 3 area. DeIDOT's Shared-Use Path and/or Sidewalk Process policy (available at http://www.deldot.gov/information/business/subdivisions/SUP_Sidewalk_Process.pdf) states that in Level 3 and 4 areas a path or sidewalk shall be installed along the State-maintained road frontage if the subject development abuts an existing facility. As there are no existing paths or sidewalks near the proposed development, no paths or sidewalks will be required along the site frontage.

Having said that, there is an existing cluster of commercial development on the south side of the intersection of Broadkill Road and Reynolds Road, and the proposed commercial development could provide a reason for people to walk across Broadkill Road. As part of the TIS and the entrance design process DeIDOT will examine the need for pedestrian improvements at this intersection. If we find that a traffic signal is needed, DeIDOT would likely require that it include crosswalks and pedestrian signals.

- DeIDOT offers the following recommendations regarding the site design shown on the conceptual plan:
 - A bicycle and pedestrian connection should be provided between the commercial development and the townhouse/condominium area to promote walking and bicycling for short trips.
 - The street layout at the east end of the single-family detached house area is generally too busy. While any collisions caused by this layout would be low-speed and minor if they involve only vehicles, the presence of the community pool increases the possibility that pedestrians would be present. DeIDOT recommends the following specific changes:
 - The pool should be moved to a location that is still central to the community, but less busy with regard to traffic. We suggest the area where Lots 41, 42 and 43 are proposed.
 - If the pool cannot be moved, its access should be moved by turning the plan for the parcel 90 degrees to the left or right.
 - The long driveway, connecting the townhouse/condominium area to the single-family detached house area, should either be shortened and connected to the street network near Lot 43 or eliminated entirely. If its purpose is to provide townhouse and condominium residents with access to the pool, a bicycle and pedestrian path tying in near Lot 43 should be sufficient.

Rare/Threatened/Endangered Species

- A review of the DNREC database indicates that there are currently no records of state-rare or federally listed plants, animals or natural communities at this project site. However they do encourage a site plan that would limit the need to clear the trees on the site.

Nuisance Waterfowl

- Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance for community residents. 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. Short manicured lawns surrounding ponds provide attractive habitat for these species.
- To deter waterfowl from taking up residence in these ponds, DNREC recommends planting the surrounding open space with a mix of native wildflower plantings (to be planted in accordance with the Sediment and Stormwater Plan approval agency requirements). It is best to mow the open space area surrounding the pond only once a year, either in February or March. If mowing must occur more often, it would be helpful to leave a minimum buffer of 15-30 feet in width to be mowed annually. This area would be necessary to adequately deter the waterfowl from inhabiting the area (when the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond). In addition to deterring nuisance waterfowl, the native wildflower mix will also serve to attract bees, butterflies, and other pollinators, and reduce run-off, which can contain oil and other pollutants that homeowners may use on their lawns and driveways.
- the DNREC program botanist, Bill McAvoy would gladly assist in drafting a list of plants suitable for this site. Bill can be contacted at (302) 735-8668 or William.McAvoy@state.de.us.

Additional information on TMDLs and water quality

- In response to concerns about the need for reducing nonpoint source nutrient (nitrogen and phosphorus) and bacterial pollutants to levels sufficient to meet the TMDL reduction requirements prescribed for waters of the greater Broadkill River Basin, a multifaceted and comprehensive process known as a pollution control strategy (PCS) was developed. Specifically, a PCS is a combination of best management practices and control technologies that reduce nutrient and bacterial pollutant runoff loading in waters of a given watershed to level(s) consistent with the TMDL(s) reduction levels specified for that watershed. The PCS for the Broadkill River watershed consists of recommendations from the following three areas: agriculture, stormwater, and wastewater.
- Additional information about Broadkill River PCS can be reviewed in the follow web link: <http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedManagementPlans.aspx>

- DNREC strongly encourages the applicant reduce nutrient and bacterial pollutants through voluntary implementation of the following recommended BMPs:
 - Maintain as much of the existing native forest cover as possible; the proposed removal of over 85% of the existing native forest cover to accommodate this development, we believe, is excessive. Wherever possible, DNREC further suggests additional native tree and/or native herbaceous planting in non-forested areas of open space.
 - Calculate post-construction surface imperviousness with all forms of created surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, roads, ponds, and open-water storm water management structures) included in the calculation.
 - Since this project will create additional impervious surface that will increase the probability for increased pollutant load runoff impacts to adjoining streams and wetlands, DNREC strongly encourages the use of pervious paving materials (instead of conventional asphalt and concrete paving materials) to mitigate such impacts.
 - The use of rain gardens and green-technology storm water management structures (in lieu of open-water management structures) are recommended as BMPs to reduce nutrient pollutant impacts. Please contact Lara Allison at 739-9939 for further information about rain gardens.
 - DNREC strongly encourages the applicant to voluntarily assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the “Nutrient Load Assessment protocol.” The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) that result from the conversion of individual or combined land parcels to a different land use(s), while providing applicants with quantitative information about their project’s impact(s) on baseline water quality. They also strongly encourage the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact John Martin or Jen Walls at 302-739-9939 for more information on the protocol.

Additional information on tank management

- When contamination is encountered, PVC pipe materials should be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

- If any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMS. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMS.

Additional information on hazardous waste sites

- There is one SIRS sites found within a ½-mile radius of the proposed project. Milton Dump (DE-0180) located 0.20 miles to the east of the project property. Beginning in approximately 1966 the Doug Hudson Company used the Site to excavate gravel. In 1988 a Preliminary Assessment was conducted on the Site. During the site inspection for the PA, it was discovered that illegal dumping of construction debris was occurring. SIRS issued a No Further Action designation and referred the Site to Solid Waste Branch for further investigation. In 2000, another site inspection was conducted. Some tires, appliances, wood debris and a few 55-gal.drums were observed. SIRS recommended further soil and groundwater investigations. A Facility Evaluation was conducted on the Site in early 2002. SIRS gave the Site a No Further Action designation in 2004.

SIRS strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Assessment in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA). While this is not a requirement under HSCA, it is good business practice and failure to do so will prevent a person from being able to qualify for a potential affirmative defense under Section 9105(c) (2) of HSCA.

- Should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800-662-8802). SIRB should also be contacted as soon as possible at 302-395-2600 for further instructions.

Additional information on air quality

- Both Williams Farm Road and Reynolds Road are narrow rural routes, lacking shoulders. As such, the existing property has neither sidewalks nor bike paths, and there is no available public transportation in the area. The developer proposes adding sidewalks but not bike paths. It is not clear whether the addition of sidewalks will be limited to the interior of the project or whether it will also include the property boundary.
- DNREC encourages developers and builders to consider all sustainable growth practices in their design, and we believe that the air quality impacts associated with the project should be completely considered. New homes and businesses may emit, or cause to be emitted, additional air contaminants into Delaware's air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:

- Emissions that form ozone and fine particulate matter; Delaware currently violates federal health-based air quality standards for ozone, the emission of greenhouse gases which are associated with climate change, and the emission of air toxics.
- Air emissions generated from new homes and businesses include emissions from the following activities:
 - Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.
 - The generation of electricity, and
 - All transportation activity.
- Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) for the project could not be quantified. DAQ was able, however, to quantify the mobile emissions based on the proposed daily trip data presented in the application and data taken from the ITE Trip Generation Manual, 8th Edition. Table 1 represents the actual impact the Ash-Lyn project may have on air quality.

Table 2: Projected Air Quality Emissions for Ash-Lyn					
Emissions Attributable to Ash-Lyn (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Mobile	25.26	33.31	*	*	7920.7

(*) *Indicates data is not available.*

- Note that emissions associated with the actual construction of the mixed use development, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the paragraph above.
- DNREC encourages sustainable growth practices that:
 - Control sprawl;
 - Preserve rural and forested areas;
 - Identify conflicting land use priorities;
 - Encourage growth on previously developed sites and denser communities while at the same time protect our diminishing land base;
 - Coordinate transportation, housing, environment, and climate protection plans with land use plans; and
 - Demonstrate that communities can achieve the qualities of privacy, community, and contact with nature without degrading the natural environment or generating

unacceptable environmental costs in terms of congestion, use of natural resources, or pollution.

- Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:
 - **Constructing with only energy efficient products**
Energy Star qualified products are up to 30% more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of energy efficiency translates into a percent reduction in pollution. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.
 - **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation and from the use of oil or gas heating equipment.
 - **Constructing with high albedo, high solar reflectance materials.** This includes roofing and hardscape. These materials help to reduce heat island impacts and, by extension, help to minimize the potential for localized ground-level ozone formation. These materials also help reduce demands on air conditioning systems and save on energy costs.
 - **Providing shade for surface lot parking areas.** Approaches may include architectural devices, vegetation, or solar panels. Providing shade for parking areas helps to reduce heat island impacts, and, by extension, helps to minimize the potential for localized ground-level ozone formation. Such measures can also have the additional benefit of channeling or infiltrating stormwater.
 - **Providing no more than the minimum local code requirements for parking capacity.** This measure minimizes the environmental harms associated with parking facilities, such as automobile dependency, vehicle emissions, land consumption, and stormwater runoff.
 - **Encouraging the use of safe multimodal transportation.** This measure can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk, bike path, or mass transit, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.
 - **Using retrofitted diesel engines during construction.** This includes equipment that is on-site as well as equipment used to transport materials to and from site.

- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- **Planting trees in vegetative buffer areas, particularly those between the site and adjacent residential areas.** Trees reduce emissions by trapping dust particles and replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development. The applicant should submit a plan to the DNREC DAQ which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Ash-Lyn mixed use development project. The DAQ point of contact is Rachel Yocum, and she may be reached at (302) 739-9402.

Delaware State Fire Marshall's Office – Contact R. T. Leicht 739-4394

- 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.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

Department of Public Health – Contact: Laura Saperstein 744-1011

The Delaware Division of Public Health (DPH) is pleased to be able to participate in the PLUS application process. In keeping with its mission to protect and promote the health of all people in Delaware, DPH looks for opportunities to encourage and enhance our population's health behaviors that will result in healthy people and healthy communities.

Community design can impact the health of a population. Studies show that persons in lower-income communities, the elderly, and children often suffer more from consequences of inadequate land-use and transportation. Additionally, we know physical activity has a direct correlation to many chronic diseases, including hypertension, diabetes and obesity. In 2012, 39.1% of Delawareans reported a BMI of "overweight," and 26.9% reported a BMI as "obese." To that end, DPH looks to make recommendations for land-use that can empower Delawareans to make good health behaviors a part of their daily lives.

DPH is pleased to see the inclusion of sidewalks within the Ash-Lyn development. Additionally, the proposed 17+ acres of open space as well as the "community recreation areas" can positively impact residents' health by increasing the opportunities to incorporate physical activity into daily routines through active recreation. It appears that the community recreation area may also include a pool which currently aligns with the SCORP regional priorities.

DHSS feels the Ash-Lyn proposal has the opportunity to increase positive health behaviors for its residents by incorporating the following recommendations into its land development proposal:

- The inclusion of internal walkways, for example, around the perimeter of the stormwater management areas, will enhance the pedestrian infrastructure and enable residents to choose walking as a recreational option. Additionally, any opportunity to provide pedestrian connection to the existing land development(s) will encourage active transportation (walking/biking) among residents.
- Include pedestrian lighting on all paths and walkways to enhance the usability of active transportation options.
- Include crosswalks at all key intersections
- Include bicycle facilities, such as bike lanes, signage, and parking to enhance non-motorized options.
- Include a pathway for connection of pedestrians and bikers to and from the residential and commercial spaces.
- Include bike lanes and right turn lanes for cyclists along the frontage at Reynolds Road.

Department of Agriculture – Contact Scott Blaier 698-4532

- The Department of Agriculture also advises the landowner to comply with any forested buffer requirements required by Sussex County.

Sussex County – Contact Brady Nauman 855-7777

The Office of State Planning Coordination received a letter from Brandy B Nauman, the Housing Coordinator & Fair Housing Compliance Office for Sussex County regarding the Ash-Lyn PLUS application. A copy of that letter is enclosed with this letter.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



Constance C. Holland, AICP
Director, Office of State Planning Coordination

CC: Sussex County Planning
Brandy Nauman, Sussex County Housing Coordinator

Enclosure