



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

December 26, 2013

Jeffrey Clark
Land Tech Land Planning, LLC
118 Atlantic Avenue, Ste. 202
Ocean View, DE 19970

RE: PLUS review 2013-11-03; Preserve at Cedar Pines

Dear Mr. Clark:

Thank you for meeting with State agency planners on November 27, 2013 to discuss the proposed plans for the Preserve at Cedar Pines located on Cedar Neck Road north of Ocean View. According to the information received, you are seeking site plan approval through Sussex County for 45 single family and 30 multi-family dwelling units on 29.36 acres.

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

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. This particular parcel has several environmental features that should be considered when developing the parcel. We encourage you to design the site with respect for the environmental features which are present.

Code Requirements/Agency Permitting Requirements

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known cultural or historic resources, such as a National Register-listed property or an archaeological site, on this parcel. However, if there will be any development or construction activity on the parcel, the developer should be aware of the Delaware's Unmarked Human Burials and Human Skeletal Remains Law, which is outlined in Chapter 54 of Title 7 of the Delaware Code.

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 (Delaware Code Title 7, Chapter 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 that pertains 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.

Prior to any demolition or ground-disturbing activities, the developer should consider hiring an archaeological consultant to examine the parcel for potential historic or cultural resources, such as a potential archaeological site, a cemetery 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 CFR 800) and must consider the 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

- The site entrance 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](http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf). If the subdivision streets are to be built for State maintenance, they too must be designed in accordance with DelDOT's Standards and Regulations. DelDOT anticipates requiring a right turn lane into the site.
- The subject land, Tax Parcel 1-34-09.00-21.00, was previously proposed for development as Seasons at Bethany. An entrance plan was approved for that development on September 26, 2007, but the entrance was never constructed. With the proposed change in use, that plan approval will need to be revisited. In accordance with Section 8.6 of the Standards and Regulations the developer will need to obtain both a Letter of No Objection and an entrance plan approval specific to the current development proposal.
- Also associated with Seasons at Bethany, a signal agreement was executed on August 31, 2007, between the State and Bethany Marina Liquidating Trust for the intersection of Cedar Neck Road (Sussex Road 357) and Fred Hudson Road (Sussex Road 360). In accordance with Section 2.15.1 (formerly Section 3.10.1) of the Standards and Regulations, we will require the current developer to assume the same obligation. If it can be shown that the current developer has assumed responsibility for the 2007 agreement, it may not be necessary for them to enter a new agreement. The developer should contact Mr. Chris Sylvester, an engineer in the DelDOT Traffic Section, to determine whether a new agreement is needed. Mr. Sylvester may be reached at (302) 659-4094.
- Related to trip generation and traffic impact, DelDOT has four comments:
 - When the Seasons at Bethany was approved in 2007, the volume-based warrant for requiring a Traffic Impact Study (TIS) for a residential development was 2,100 trips per day. Consequently, no TIS was required or done for Seasons at Bethany. However, later that year (effective in April 2008) DelDOT adopted revised regulations, lowering the threshold at which TIS are warranted. Per Section 2.3.1 of the Standards and Regulations for Subdivision Streets and State Highway Access, TIS are warranted for developments generating more than 400 vehicle trip ends per day or 50 vehicle trip ends per hour.

- Related to the TIS is the trip generation of the site. Preliminarily, DeIDOT estimates that the subject development would generate 730 vehicle trip ends per day and 73 vehicle trip ends in the peak hour.
- Section 2.3.2 of the Standards and Regulations provides that where a TIS is required only because the volume warrants are met, and the projected trip generation will be less than 2,000 vehicles per day and less than 200 vehicles per hour, DeIDOT may permit the developer to pay an Area Wide Study Fee of \$10 per daily trip in lieu of doing a TIS. DeIDOT would permit them to do so in this instance.
- Because the site would generate more than 200 vehicle trip ends per day, a Traffic Operational Analysis may be required as part of the site plan review, in accordance with Section 2.14 (formerly 3.9) of the Standards and Regulations. If the developer performs a TIS, the work involved in a TOA would be included therein. Payment of the Area Wide Study Fee does not exempt the developer from providing a TOA if one is found to be necessary. A decision regarding the need for a TOA will be made at the pre-submittal meeting discussed below.
- As indicated on the DeIDOT Meeting Request Form, available at <http://www.deldot.gov/information/business/>, because the site would generate more than 200 trips per day, a pre-submittal meeting is required. The purpose of such meetings, similar to PLUS meetings, is to identify problems with your plan so that they can be corrected before the plan enters our formal plan review process. Please complete and submit the form to request such a meeting.
- Metes and bounds and total areas need to be shown for any drainage easements. Section 5.7.2.5 of DeIDOT's Standards and Regulations for Subdivision Streets and State Highway Access requires, in part, a minimum 20-foot wide drainage easement for storm drainage systems that fall outside the existing right-of-way or the drainage/utility easement. These easements must be shown on the record plan, not referenced by a note.
- In accordance with Section 3.4.1.2 of the Standards and Regulations for Subdivision Streets and State Highway Access, the Record Plan should show all existing entrances (residential/commercial) within 400-feet of the proposed site entrance.
- In accordance with Section 2.15 (formerly Section 3.10) of the Standards and Regulations for Subdivision Streets and State Highway Access, the required off-site improvements and when they are warranted will need to be shown on the Record plan by note or illustration.
- In accordance with Section 3.6.5 and Figure 3-3 of the Standards and Regulations for Subdivision Streets and State Highway Access, DeIDOT will require dedication of right-of-way along the site's frontage on Cedar Neck Road to provide a minimum of 30 feet of

right-of-way from the road centerline. The right-of-way dedication note should read as follows, **“A 30-foot wide strip of right-of-way from the centerline of right-of-way is hereby dedicated to the State of Delaware, as per this plat.”**

- In accordance with Section 3.6.5 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on Cedar Neck Road. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, **“A 15-foot wide permanent easement is hereby established to the State of Delaware, as per this plat.”**
- In accordance with Section 4.8 of the Standards and Regulations for Subdivision Streets and State Highway Access, a 20-foot wide buffer will be required from the edge of any stormwater management pond to the ultimate right-of-way of the nearest State-maintained road. The ultimate right-of-way is based on the functional classification of the road.
- As specified in Section 3.4.1.1 of the Standards and Regulations for Subdivision Streets and State Highway Access, a traffic generation diagram is required on the Record Plan.
- Refer to the Standards and Regulations for Subdivision Streets and State Highway Access, Appendix D – Plan Review Checklist, pages D-2 through D-39, for checklists associated with various types of plan submittal. For each plan submittal, submission of the appropriate checklist with the plan is required.
- Referring to the Standards and Regulations for Subdivision Streets and State Highway Access, Chapter 1 – Introduction, Section 1.4: Review Fees, page 1-8, the Initial Stage review fee shall be assessed to this project.
- In accordance with Section 3.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, a record plan shall be prepared prior to issuing “Letter of No Objection”. The following information will be required for the “Letter of No Objection” review:

Copy of the Initial Stage Fee Calculation Form
Copy of the Initial Stage Review Fee
Gate-Keeping Checklist – Site Plan
Design Checklist – Record Plan*
Owners and Engineer’s name and e-mail address
Sight Distance Spreadsheet
Three (3) paper sets of the Record Plan
Conceptual Entrance Plan
CD with a pdf of the Site Plan

Submission of the Area-Wide Study Fee (if applicable)

*For the design checklist for the site plan, please refer to the Standards and Regulations for Subdivision Streets and State Highway Access, Appendix D, Plan Review Checklist, page D-2 and D-3.

- Referring to the Standards and Regulations for Subdivision Streets and State Highway Access, Chapter 1 – Introduction, Section 1.4: Review Fees, page 1-8, the Construction Stage review fee shall be assessed to this project.
- Referring to the Standards and Regulations for Subdivision Streets and State Highway Access, Chapter 4 – Construction Plans, Section 4.3: Subdivision Construction Plan Checklist or Section 4.4: Commercial Entrance Plan Checklist, an entrance plan shall be prepared prior to issuing entrance approval. The following information will be required for Subdivision/Entrance Plan review;

Copy of the Construction Stage Fee Calculation Form

Copy of the Construction Review Fee

Gate-Keeping Checklist – Entrance Plan

Design Checklist – Entrance Plan**

Auxiliary Lane Spreadsheet

Three (3) paper sets of the Entrance Plan

SWM Report and Calculations (If applicable)

Pipe Angle Spreadsheet (if applicable)

CD with a pdf of the Entrance Plan

**For the design checklist for the entrance plan, please refer to the Standards and Regulations for Subdivision Streets and State Highway Access, Appendix D, Plan Review Checklist, page D-9 and D-13.

Department of Natural Resources and Environmental Control – Contact Bahareh Van Boekhold
735-3495

Wetlands

- State regulated wetlands ARE located on this property based on a review of the State wetland maps. State regulated wetlands are those wetlands identified on the State's official State Regulated Wetland Maps. Any activity in State regulated wetlands may require a permit from DNREC's Wetlands and Subaqueous Lands Section. Based on proposed site plan, house plans are outside of the wetland line and the wetland line has been delineated according to application. Please be sure to keep construction materials outside the wetland area. Additional information about State regulated wetlands is available by contacting the Wetlands and Subaqueous Lands Section at (302) 739-9943

or on line at

<http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx>

- Waters of the U.S. regulated by the U.S. Army Corps of Engineers **are** likely to be located on this property based on a review of aerial photographs, SWMP maps, Soil Surveys and USGS topographic maps. Waters of the United States include the following: navigable waters of the United States; wetlands; tributaries to navigable waters of the United States, including adjacent wetlands and lakes and ponds; interstate waters and their tributaries, including adjacent wetlands; and all other waters of the United States not identified above, such as isolated wetlands, intermittent streams, and other waters that are not part of a tributary system to interstate waters or to navigable waters of the United States, where the use, degradation or destruction of these waters could affect interstate or foreign commerce. We suggest a delineation to be sure any activity is within U.S. Army Corps regulations. The extent of Federal jurisdiction over Waters of the United States is determined by the U.S. Army Corps of Engineers and is based on site specific conditions. Therefore, an on-site inspection by an environmental consultant is recommended to determine if Waters of the U.S. are located on the property and the limits of Federal jurisdictional. The U.S. Army Corps of Engineers can be contacted at (215) 656-6728 or online at <http://www.nap.usace.army.mil/cenap-op/regulatory/regulatory.htm>.

TMDLs

- The project is located in the *low nutrient reduction* zone of the greater Inland Bays watershed. In this watershed, Total Maximum Daily Load (TMDL) pollutant reduction targets have been developed by the State of Delaware (under the auspices of Section 303(d) of the 1972 Federal Clean Water Act) for nutrients (e.g., nitrogen, phosphorus), and bacteria. 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 *low reduction* zone of the Inland Bays watershed calls for 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 40 percent reduction (17 percent for marine waters) in bacteria from baseline conditions.
- A nutrient management plan is required under the *Delaware Nutrient Management law (3 Del. Chapter 22)* for all persons or entities who apply nutrients to lands or areas of open space in excess of 10 acres. 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 view the following web link for additional information: <http://dda.delaware.gov/nutrients/index.shtml>
- The Inland Bays Pollution Control Strategy (PCS) and the accompanying regulations were finalized by order of the DNREC Secretary on October 2008. These regulations can be reviewed at <http://regulations.delaware.gov/documents/November2008c.pdf> and background information, guidance documents, and mapping tools can be retrieved from http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib_pcs.htm.

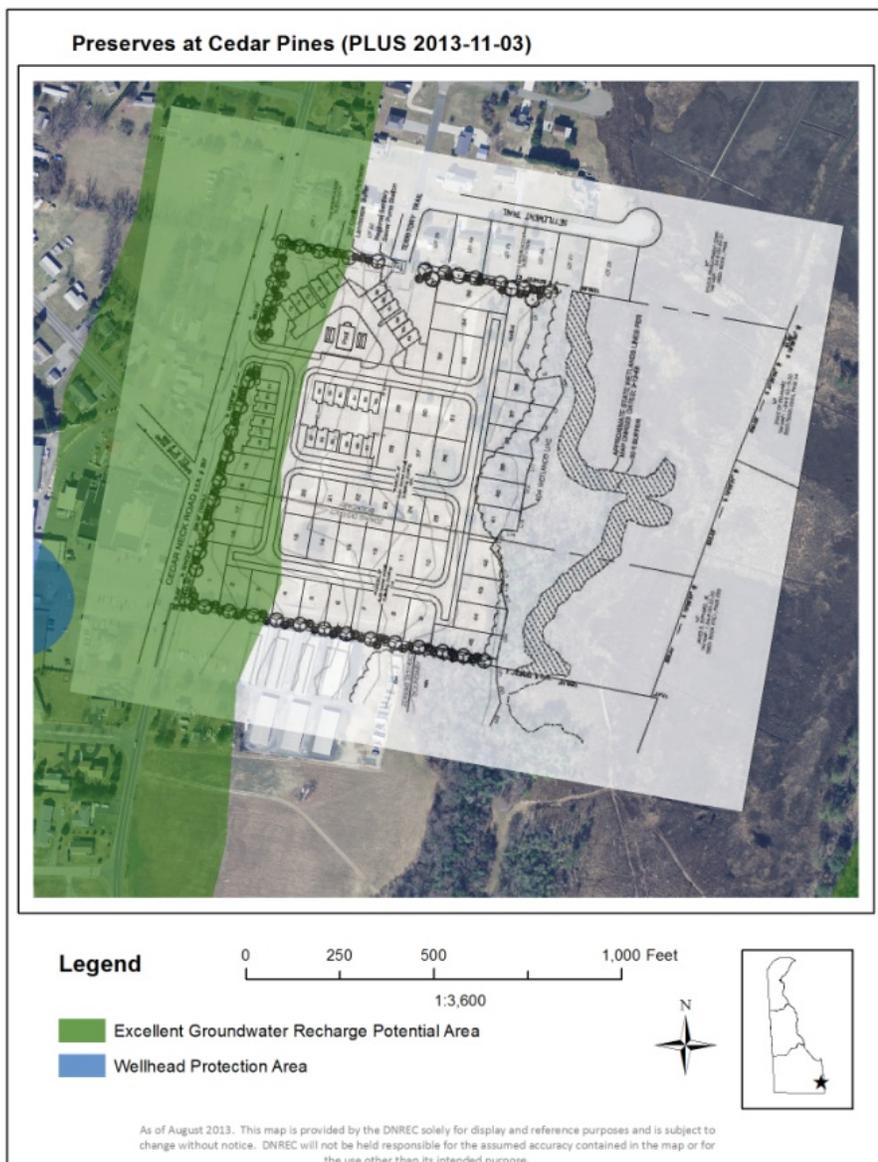
Water Resource Protection Areas

- A portion of the project falls within an area of excellent ground-water recharge potential for Sussex County (see map) and is subject to their source water protection ordinance. Excellent Ground-Water Recharge Areas are those areas mapped by the Delaware Geological Survey where the first 20 feet of subsurface soils and geologic materials are exceptionally sandy. These soils are able to transmit water very quickly from the land surface to the water table. This map category (excellent) is an indicator of how fast contaminants will move and how much water may become contaminated (Andres, 2004). Land use activities or impervious cover on areas of excellent ground-water recharge potential may adversely affect ground water in these areas.
- In addition, because the excellent ground water recharge area can readily affect the underlying aquifer if contaminants are spilled or discharged across the area, the storage of

hazardous substances or wastes should not be allowed within the area unless specific approval is obtained from the relevant state, federal, or local program.

References

Andres, A. Scott, 2004, Ground-Water Recharge Potential Mapping in Kent and Sussex Counties, Delaware: Delaware Geological Survey Report of Investigations No. 66, p. 14.
<http://www.udel.edu/dgs/Publications/pubform.html#investigations>



Water Supply

- The project information sheets state water will be provided to the project by Sussex Shores Water Company via a public water system. DNREC records indicate that the project is located within the public water service area granted to Sussex Shores Water Company under Certificate of Public Convenience and Necessity 89-CPCN-02.
- 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.

Sediment and Stormwater Program

- 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)

Flood Management

- A significant portion of this property is located in the 1% annual chance floodplain. Any site plan showing the location the floodplain boundary must show the boundary as it is depicted on the effective FEMA Flood Insurance Rate Map. If the floodplain boundary is shown in any other location, documentation must be sent to FEMA to revise the floodplain boundary prior to development. A coastal study has been conducted which revises the current FEMA maps. These preliminary maps can be viewed at www.rampp-team.com/de.htm

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.
- The following confirmed leaking underground storage tank (LUST) project is located within a quarter mile from the proposed project area:
 - Hockers G&E Inc, Facility: 5-000182, Project: S1007068 (Inactive)
- No environmental impacts are anticipated; however, 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 Branch 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:

Table 1: Potential Regulatory Requirements	
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 minimus levels (See Section 3.2.1)

<p>7 DE Admin. Code 1141 – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products</p>	<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.
<p>7 DE Admin. Code 1144 – Control of Stationary Generator Emissions</p>	<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.
<p>7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty Vehicles</p>	<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 Duane Fox 739-4394

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:

- **Fire Protection Water Requirements:**
 - Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. In the area of the single family dwellings, the spacing of the fire hydrants can be extended to 1000 feet spacing on centers.
 - Where a water distribution system is proposed for townhouse type dwelling sites, the infrastructure for fire protection water shall be provided, including the size of water mains.
- **Fire Protection Features:**
 - 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. This means that the access road to the subdivision from Cedar Neck Road must be constructed so fire department apparatus may negotiate it.

- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.
- **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
 - Square footage of each structure (Total of all Floors)
 - National Fire Protection Association (NFPA) Construction Type
 - Maximum Height of Buildings (including number of stories)
 - 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 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.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

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 these suggestions can benefit the project.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Please refer to the DeIDOT website for guidance as to whether a pre-submittal meeting is required and how to prepare for one. That guidance is available at <http://www.deldot.gov/information/business>.
- Be advised that the standard general notes have been updated and posted to the DeIDOT website. Begin using the new versions and look for the revision date of June 28, 2013 for the Record/Site Plan and Construction Plan general notes. The Temporary Traffic Control Notes (TTCN) still have the revision date of August 14, 2012. The notes can be found at http://www.deldot.gov/information/business/subdivisions/DeIDOT_Development_Coordination_Plan_Sheet_Notes.doc
- In accordance with Section 3.6.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, we recommend that right-of-way monuments be placed along the subdivision streets.
- Please check to determine if any utilities will need to be relocated as part of this project.
- The developer should anticipate a requirement that any sub-station and/or wastewater facilities have access from the internal subdivision streets with no direct access to the State-maintained highway. Preliminarily, that requirement will extend to the proposed clubhouse.
- The developer's engineer should anticipate a requirement that the sight distance triangles for the site entrance be shown on the record plan.
- The developer's engineer should anticipate a requirement that a turning template plan be provided to verify that vehicles can enter and exit the development safely. The minimum design vehicle that should be used for this development is SU30.
- The developer's engineer should anticipate a requirement that a label should be added within the right-of-way for each street, reading "Privately Maintained."
- On June 27, 2012, DeIDOT announced changes in the way that we receive checks. A letter in this regard can be found at
 - <http://www.deldot.gov/information/business/subdivisions/PaymentProcedure.pdf>
- The proposed development is located in a Level 3 Investment Area relative to the Strategies for State Policies and Spending. DeIDOT's Shared Use Path/Sidewalk Process requires that developments in Level 3 areas install a shared use path or sidewalk if the

development abuts an existing facility. As there are no existing shared use paths or sidewalks abutting this property, installation of such a facility is not required. The Process is available at

○

http://www.deldot.gov/information/business/subdivisions/SUP_Sidewalk_Process.pdf.

- All PLUS comments should be addressed prior to submitting record, subdivision or entrance plans for review.
- The developer should anticipate additional comments once the entrance plans are submitted for review.

Department of Natural Resources and Environmental Control – Contact Bahareh Van Boekhold 735-3495

Soils Assessment

- Based on soils survey mapping update, following soil mapping units were mapped on subject parcel (grouped on the basis of drainage class):
 - 1) Well drained – Fort Mott-Henlopen (FhA),
 - 2) Somewhat poorly drained (potentially hydric) – Klej (KsA)
 - 3) Poorly drained & very poorly-drained (hydric) – Askecksy (AsA), and Transquaking (TP; tidally influenced)
- Based on review of the NRCS soils survey mapping update, Askecksy (AsA) and Transquaking and Mispillion are the primary wetland associated (hydric) soil mapping units mapped on this parcel. These soil mapping units have naturally-elevated water tables and are often prone to seasonal flooding, especially when accompanied by high-intensity precipitation events. Klej is a transitional soil between wetlands and uplands and may or may not be hydric. DNREC strongly recommends that the applicant avoid all hydric soil mapping units. We further recommend that the applicant contact a certified (ARCPACs) and licensed soil scientist (State of Delaware Class D licensed) to conduct a more thorough site-specific field delineation of the hydric soils on this site. Please contact the Underground Discharges Branch at 739-9948 for a list of qualified soil scientists.
- The Statewide Wetland Mapping Project (SWMP) often uses the soil survey as the basis for mapping and delineating wetlands. The presence of a hydric soil is one of three key parameters that must be met in order to meet jurisdictional wetland requirements (as specified by the USACOE). The other parameters are hydrophytic vegetation and hydrology. Hence the presence of hydric soils is a correlate with wetland presence.

Although removal of hydrophytic vegetation may change the jurisdictional status of a wetland to a non-wetland, the existing wetland conditions still persist. That is, relatively undisturbed native hydric soils (i.e., those soils not extensively filled and graded as usually associated with construction practices) still retain much of their “wetness” and their environmental/ecological values (i.e., retain water and pollutants). Thus, building on hydric soils (e.g., Fallsington, Broadkill, and Manahawkin) may increase the potential for future on-site and off-site flooding events (hydric soils act as nature’s “sponge” by retaining water and mitigating surface water runoff or flooding) along with concurrent increases in the volume of pollutant-laden surface water runoff and discharges to surface water bodies (streams, ponds, and ocean) and groundwater; such increases in water volume and pollutants may negatively impact both homeowner safety and water quality (or health). DNREC strongly recommends that the applicant avoid building in hydric soil mapping units.

Additional information on TMDLs and water quality

- Compliance with the specified TMDL nutrient and bacterial reduction requirements specified for the Inland Bays watershed can be facilitated by the strategies and requirements described in the Inland Bays PCS, and the implementation/adherence to the following recommended BMPs:
 - A United States Corps of Engineers (USACE) approved wetlands delineation is strongly recommended. According to information presented in the PLUS application, a wetlands delineation was conducted but not approved by the USACE.
 - Based on a review of existing buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. *Wetland and Stream Buffer Requirements – A Review*. J. Environ. Qual. 23: 878-882.), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer (planted in native vegetation) from all water bodies (including ditches) and wetlands (field delineated and approved by the USACE).
 - Based on information presented in the PLUS application, a 100-foot buffer from the tidally-influenced wetlands was proposed. Since non-tidal palustrine wetlands (PEM1A, PFO1/3A, and HPFO1/4B) bound the tidal wetlands (E2EMPd &Nd), the applicant’s proposed 100-foot buffer does not sufficiently protect (i.e., buffer not wide enough) the adjoining non-tidal wetlands; it is also not sufficiently protective of water quality in adjoining waters that drain to waters in the greater Inland Bays watershed (Figure 2). Consequently, we strongly recommend the applicant establish/maintain the 100-foot buffer width from the non-tidal wetlands rather than the tidal wetlands.

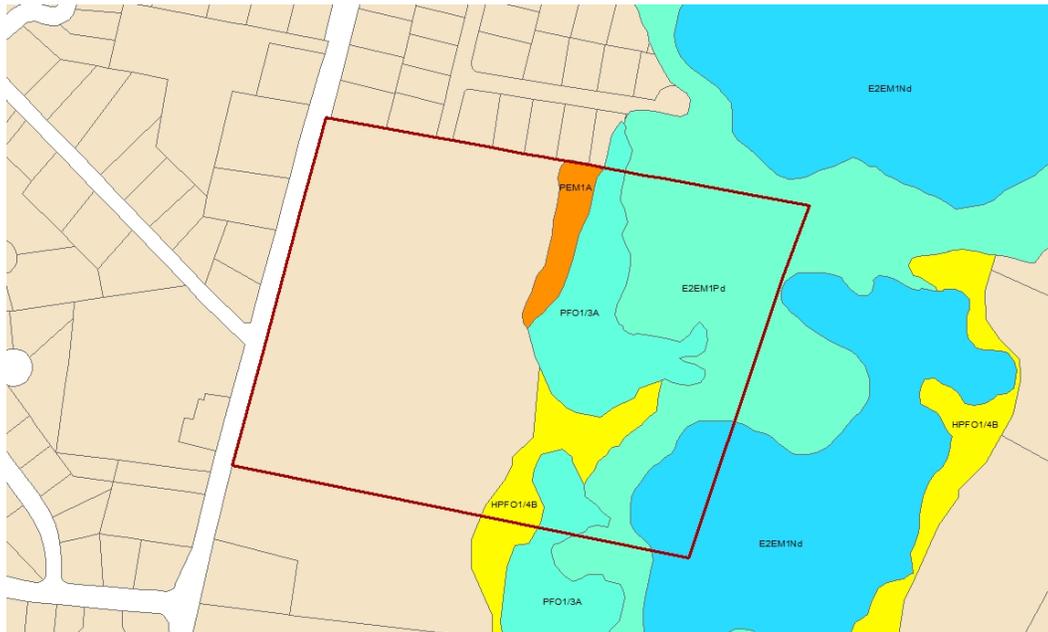


Figure 2: SWMP mapped wetlands in the immediate vicinity of the proposed project

- Calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, and roads) included in the calculation. We strongly recommend that the applicant avoid all hydric soil mapping units (e.g., Fallsington, Manahawkin, and Broadkil). Building on such soils is likely to contribute to an increased probability of future onsite and offsite flooding problems.
- Use rain gardens, and green-technology storm water management structures (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant impacts via runoff/discharges from impervious surfaces.
- Calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, ponds, and roads) included in the calculation.
- Wherever practicable, we strongly advise the use of pervious paving materials (instead of conventional asphalt and concrete) as a BMP(s) to reduce the impacts from all forms of created surface imperviousness.
- Applicant should 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) resulting from the conversion of individual or combined land parcels to a changed or different land use(s); thus providing applicants and governmental entities with quantitative information about the project's impact(s) on baseline water quality. We strongly encourage the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact Jen Walls or John Martin at (Division of Watershed Stewardship) 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.

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