



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

May 17, 2012

Mr. Mark Ziegler
McBride & Ziegler
2607 Eastburn Center
Newark, DE 19711

RE: PLUS review – 2012-04-05; Walker Farm Estates

Dear Mr. Ziegler:

Thank you for meeting with State agency planners on April 24, 2012 to discuss the proposed plans for Walker Farm Estates project the to be located at 1080 Old Lancaster Pike and 5 Kings Grant Road near Hockessin.

According to the information received, you are seeking to rezone two parcels from NC21 to ST and then reconfigure the parcels to create a lot for the existing lot and create 7 additional single family detached lots, 39 single family attached lots for 10 twin lots and 29 townhome lots.

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 New Castle 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 2 according to the *State Strategies for Policies and Spending*. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. State investments will support growth in these areas.

Code Requirements/Agency Permitting Requirements

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known historic resources on or within this parcel. However, it seems that there was some type of dwelling or structure on the parcel associated with a S. Chandler

according to the Pomeroy and Beers Atlas of 1868. Furthermore, the USGS Topographic Map of 1904 also indicated a dwelling or structure there. There is a possibility that there may be potential archaeological remains associated with it. With this in mind, it is important that the developer be aware of 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, and often they are on historic farm sites, rural areas or open space lands. Disturbing unmarked burials triggers 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. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area for the presence of such a cemetery. If a cemetery is discovered, it is very costly to have it archaeologically excavated and the burials moved. In the event of such a discovery, the Division of Historical & Cultural Affairs recommends that the plans be re-drawn to leave the cemetery on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with a homeowners association or development. If you need or would like to read more information that pertains to cemeteries or unmarked human remains, please go to the following websites for additional information at www.history.delaware.gov/preservation/umhr.shtml and www.history.delaware.gov/preservation/cemeteries.shtml .

Prior to any demolition or ground-disturbing activities (such as development or construction activities), the developer should consider hiring an archaeological consultant to examine the parcel for archaeological sites, such as a cemetery or unmarked human remains.

- 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 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. Any preconstruction activities without adherence to these stipulations may jeopardize the issuance of a permit or receipt of funding if it is determined that such opportunity to comment has been foreclosed. 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

- Please refer to DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access (February 15, 2010) for the design of the site streets and entrance. The website for the Standards and Regulations is http://www.deldot.gov/information/pubs_forms/.
- For the proposed lots on Kings Grant Road, Chapter 7 and specifically Section 7.3 of the Standards and Regulations is applicable but no street construction, other than curb cuts for the driveways, is required or anticipated.
- Relative to trip generation and traffic impact, DelDOT has two comments:
 - As specified Section 2.3.1 of the Standards and Regulations, Traffic Impact Studies (TIS) are warranted for developments generating more than 400 trips per day or more than 50 trips per hour in any peak hour. Item 25 in the PLUS application indicates that 302 trips per day are anticipated. DelDOT calculated slightly higher numbers, 351 trips per day and 35 trips in the evening peak hour. This difference will need to be resolved but with either estimate we do not anticipate requiring a TIS for the development that is now proposed.
 - Section 3.9 of the Standards and Regulations provides that in evaluating access, DelDOT may require an Operational Analysis. While it is not contained in our regulations, DelDOT uses a threshold of 200 daily trips to determine when to begin considering the need for an Operational Analysis. A decision in this regard will be made at the pre-submittal meeting discussed below.
- As indicated on the DelDOT 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.
- Referring to the Standards and Regulations, Section 3.6.5, Dedication of Right-Of-Way, and Figure 3-3, Minimum Standards for Total Roadway Right-Of-Way, Old Lancaster Pike is a Collector Road, which requires an 80-foot right-of-way (40 feet from road centerline). Therefore, DelDOT will require additional right-of-way dedication in order to obtain the required 40 feet from the centerline along the entire property frontage. The right-of-way dedication note should read as follows, **“A 40’ strip of right-of-way from the centerline of right-of-way is hereby dedicated to public use as per this plat.”**

- Regarding the design of Stonehouse Way, both ends require attention. The north end would intersect Old Lancaster Pike about 160 feet from Kings Grant Road, measured from centerline to centerline. Section 9.5 and Figure 9-1 of the Standards and Regulations address intersection spacing. While there is not a specific criterion for the spacing of subdivision streets, our minimum criteria for spacing of residential driveways on a numbered state road is 200 feet. Therefore DelDOT will not permit the proposed configuration. They recommend that Stonehouse Way instead be tied into Kings Grant Road near the line between proposed Lots 1 and 2.
- At the south end, DelDOT recommends that Stonehouse Way be tied into Kings Grant Road there as well, forming a loop. Section 5.1.4.1 of the Standards and Regulations specifies that the maximum length of a permanent dead end street is 200 feet. While exceptions are permitted, to obtain one the developer will have to demonstrate that connection of Stonehouse Way to Kings Grant Road is not feasible. DelDOT does not presently see why that would be so.
- In accordance with Section 5.4 of the Standards and Regulations, vertical sight distance will need to be evaluated at the proposed intersection of Old Lancaster Pike and Stonehouse Way.
- The existing entrance on Old Lancaster Pike serving the barn on the property can remain as it is as long as the structure is used as a barn. If it is converted for use as a residence, the owner will need to obtain an entrance permit in accordance with Chapter 7 of the Standards and Regulations.

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

TMDLs

- Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the greater Christina River watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited water body” can assimilate and still meet 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.

TMDLs are required by federal law (Section 303(d) of the 1972 Clean Water Act), and the states are charged with developing and implementing specific land use practices that support these desired use goals. The project is located in the greater Christina River watershed, specifically within the greater White Clay Creek subwatershed. In the Christina River watershed, post-development nitrogen and phosphorus loading must be capped at the pre-development or baseline loading rate (or a 0% post-construction

increase in N & P in Delaware's portion of the Christina River Basin) to meet the required TMDL for each nutrient. Moreover, bacteria must be reduced by 86.41% in this area of the Christina River watershed to meet the required TMDL. The specific required nutrient and bacterial requirements for various stream segments in the watershed and background information is in the report entitled "*Christina River Basin High-Flow TMDL*" by the EPA. This report can be retrieved from the following web link: http://www.epa.gov/reg3wapd/tmdl/pa_tmdl/ChristinaMeetingTMDL/index.htm

Water Supply

- The project information sheets state water will be provided to the project by Artesian Water Company via a public water system. Our 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 85-WS-03.
- 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 sediment and stormwater plan will be required for 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 possible. 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 New Castle County Department of Land Use Engineering Section. Contact the Department of Land Use at (302) 395-5470 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 and the Department requires remediation pursuant to the Hazardous Substance Cleanup Act, the provisions of 7 Del.C., Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware *Regulations Governing Hazardous Substance Cleanup* shall be followed.

Tank Management Branch 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) projects are located within the bounds of the project property:
 - Walker's Florist, Facility: 3-001878, Projects:
 - N9804068 (Inactive): 1,000-gallon heating fuel UST removed in 1998; 20 tons of soil over-excavated and bioremediated. No further action was required.
 - N9809149 (Inactive): No further action required in 1998 following the removal of a 10,000-gallon heating fuel UST.
 - Landscape Services Inc., Facility: 3-000448, Project: N9101004 (Inactive): 2,000-gallon gasoline UST removed in 1989; No further action required in 1993.
 - No environmental impacts are anticipated; however if any construction activities require disturbing the subsurface, please contact David Lerner of the DNREC-TMS at (302) 395-2500.
- The following confirmed leaking underground storage tank (LUST) projects are located within a quarter mile from the proposed project area:
 - United Methodist Church Hockessin, Facility: 3-002257, Project: N0312083 (Inactive)
 - Bell Atlantic Inc., Facility: 3-000483, Project: N9109198 (Cross-listed), N9202038 (Inactive)
 - Hockessin Baptist Church, Facility: 3-000923, Project: N9502033 (Inactive)
 - St Mary of the Assumption, Facility: 3-001110, Project: N9110232 (Inactive)
 - Lin House, Facility: 3-002064, Project: N0004050 (Inactive)

- 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.

Delaware State Fire Marshall’s Office – Contact John Rudd 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.
 - 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 and duplex 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 Old Lancaster Pike must be constructed so fire department apparatus may negotiate it. If a “center island” is placed at an entrance into the subdivision, it shall be arranged in such a manner that it will not adversely affect quick and unimpeded travel of fire apparatus into the subdivision.
 - 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.
- **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
 - Duplex and Townhouse 2-hr separation wall details shall be shown on site plans
 - Provide Road Names, even for County Roads

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

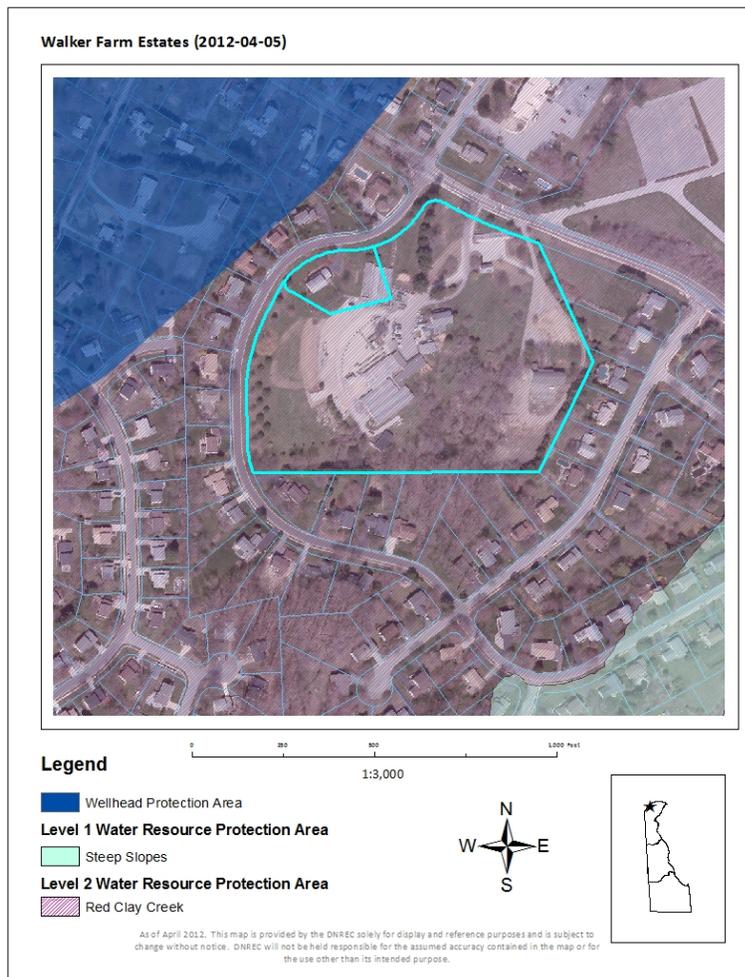
- DelDOT recommends that the developer tie the driveway serving the barn into Stonehouse Way and eliminate the barn’s existing access on Old Lancaster Pike.
- In addition, DelDOT recommends that the developer provide sidewalks along the east side of Kings Grant Road in front of the existing and proposed houses in their development.

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

Water Resource Protection Areas

- The DNREC Ground-Water Protection Branch (GPB) has determined that it falls entirely within a Level 2 Water Resource Protection Areas for New Castle County (NCC). This area is in the Drinking Water Basin for Red Clay Creek (see map).

GPB recommends referring to NCC Unified Development Code for regulations regarding development in this critical area.



Soils Assessment

- The Glenelg (GeB; 3-8% slope) soil mapping unit is a well-drained upland soil mapping unit that, generally, has few limitations for development. In contrast, the Glenelg (GeC; 8-15% slope) soil mapping unit has significant limitations for development because of steeply sloping topography; especially where slopes on the landscape exceed 10%. We strongly recommend avoiding such areas. Building on steeply sloping topography may increase water runoff and flooding potentials.

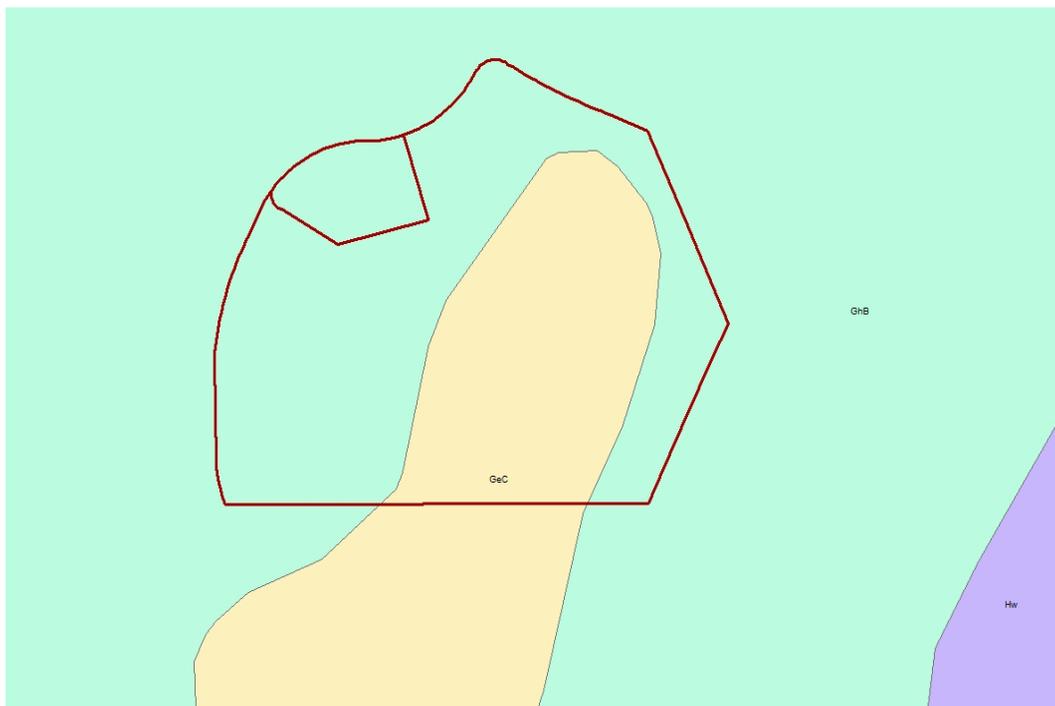


Figure 1: NRCS soil mapping in the immediate vicinity of the proposed project

Additional information on TMDLs and water quality

- A Pollution Control Strategy (PCS) is the regulatory directive requiring the implementation of various best management practices (BMPs) that help reduce transport of nutrient and bacterial pollutant runoff from all waters draining into a “greater” common watershed, with the ultimate objective of achieving the obligatory TMDL reduction requirements for that watershed. However, the PCS for the Christina River watershed has not been formally completed to date. In absence of a finalized PCS, the applicant is strongly urged to reduce nutrient and bacterial pollutants through voluntary commitment to the implementation of the following recommended BMPs:

- DNREC strongly encourages the applicant to consider native tree planting in addition to maximizing and or preserving passive wooded open space.
- The applicant should 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.
- Since this is a large project that will likely generate a great amount of impervious cover, we strongly advise the use of pervious paving materials (instead of conventional asphalt and concrete) as a BMP to reduce the impacts associated with surface imperviousness, wherever practicable.
- DNREC recommends the use of 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 from impervious surfaces.
- The 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 (e.g., nitrogen and phosphorus) and bacterial loading 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. DNREC encourages the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact Lyle Jones at 302-739-9939 for more information on the protocol.

Additional information on hazardous substances

- There is one SIRS site located within a ½ mile radius of the proposed project. Hockessin Groundwater Study (DE-1317) is located 0.29 miles north-east of the proposed project. The Site is an area wide groundwater investigation that targeted nine businesses that used or produced PCE. A Preliminary Assessment of the 32 acre area was conducted in July of 2005. It was recommended that the Site continue to undergo groundwater monitoring. Artesian Water Co. practices water blending to keep PCE levels well below the drinking water limits.

SIRS strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Environmental Site Assessment (including a title search to identify environmental covenants) 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.

- Additional remediation may be required if the project property or site is re-zoned.
- 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 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.

Delaware State Fire Marshall's Office – Contact Duane Fox 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.

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: New Castle County

