



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION

May 18, 2015

Mr. Zachary Crouch
Davis, Bowen & Friedel, Inc.
Milford, DE 19963

RE: PLUS review 2015-04-04, Cape Henlopen School District

Dear Zach,

Thank you for meeting with State agency planners on April 22, 2015 to discuss the proposed plans for the Cape Henlopen Elementary School. According to the information received, you are seeking site plan review for the construction of a 79,990 sq. ft. elementary school 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 2 according to the *Strategies for State Policies and Spending*. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future.

Code Requirements/Agency Permitting Requirements

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Per Section 2.2.2.1 of the Development Coordination Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the plan accompanying the PLUS application, DelDOT estimates that the development would generate 929 vehicle trip ends per day on a typical weekday. For the weekday morning and evening peak

hours, they calculate 324 and 202 vehicles per hour, respectively. Based on the any of these three volumes, this project would warrant a TIS.

- Recognizing that fact, the District and their engineer for the project, Davis, Bowen & Friedel, met with DelDOT in October 2014 and established a scope of work for the study. DelDOT will need to receive that study, to review it and to reach agreement with the District on how and when any needed off-site improvements will be built.
- The site access on Route 24 must be designed in accordance with DelDOT's Development Coordination Manual (formerly the Standards and Regulations for Subdivision Streets and State Highway Access), which is available at <http://www.deldot.gov/information/business/subdivisions/changes/index.shtml>.
- As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Development Coordination Manual, DelDOT will require dedication of right-of-way along the site's frontage on both Route 24 and Mulberry Knoll Road. By this regulation, this dedication is to provide a minimum of 40 feet of right-of-way from the road centerline on Route 24 and 30 feet of right-of-way from the road centerline on Mulberry Knoll Road. The following right-of-way dedication note is required, **"An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."**
- In accordance with Section 3.2.5.1.2 of the Development Coordination Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on both Route 24 and Mulberry Knoll 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."**
- Referring to Section 3.4.2 of the Development Coordination Manual, the Initial Stage review fee shall be assessed to this project.
- In accordance with Section 3.4 of the Development Coordination Manual, 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
 - Sight Distance Spreadsheet
 - Design Checklist – Record Plan*
 - Owners and Engineer's name and e-mail address
 - 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 Development Coordination Manual, Appendix D, Plan Review Checklist.
- Referring to Section 3.4.1 of the Development Coordination Manual, 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. The form needed to request this meeting is available http://www.deldot.gov/information/business/subdivisions/Meeting_Request_Form.pdf.
- Referring to Section 3.4.2.1 of the Development Coordination Manual, the following items, among other things, are required on the Record Plan:
 - A Traffic Generation Diagram. See Figure 3.4.2-a for the required format and content.
 - Depiction of all existing entrances within 450 feet of the proposed entrance.
 - Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.
- In accordance with Section 3.5 of the Development Coordination Manual, connectivity requirements shall be followed for all development projects having access to State roads. The proposed interconnection to Delaware State Police Troop 7 is acceptable in concept but the design will require coordination with the Division of Facilities Management. The plan accompanying the PLUS application does not show what we understand to be the current plan for the police facilities.
- Referring to Section 3.5.4.2 of the Development Coordination Manual, all projects located in Level 2 Investment Areas relative to the Strategies for State Policies and Spending that need Entrance Plan Approval are required to install a shared-use path or sidewalk along the State-maintained road frontage if the project abuts an existing facility. A fee in lieu of construction may be accepted if construction is physically impossible but DelDOT sees no reason why construction cannot occur in this instance. Preliminarily, the proposed shared use path is acceptable.
- Referring to Section 3.5.5 of the Development Coordination Manual, existing and proposed transit stops and associated facilities as required by the Delaware Transit Corporation (DTC) or DelDOT, in consultation with Sussex County, shall be shown on the Record Plan.
- In accordance with Section 3.8 of the Development Coordination Manual, storm water facilities, excluding filter strips and bioswales, shall be located a minimum of 20 feet from the ultimate State right-of-way along Route 24.
- Referring to Section 4.3 of the Development Coordination Manual, the Construction Stage review fee shall be assessed to this project.

- Referring to Section 4.3 of the Development Coordination Manual, an entrance plan shall be prepared prior to issuing entrance approval. The following information will be required for Entrance Plan review:
 - Copy of the Construction Stage Fee Calculation Form
 - Copy of the Construction Review Fee
 - Gate-Keeping Checklist – Entrance Plan
 - Auxiliary Lane Spreadsheet
 - Design Checklist – Entrance Plan**
 - Pipe/Angle Spreadsheet (if applicable)
 - Three (3) paper sets of the Entrance Plan
 - SWM Report and Calculations (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.

- In accordance with Section 5.2.5.6 of the Development Coordination Manual, Turning Movement Diagrams shall be provided to verify vehicles can safely enter and exit the site entrance. As per Section 5.2.3 of the Manual, the entrance shall be designed for the largest vehicle using the entrance.

- In accordance with Section 5.2.9 of the Development Coordination Manual, the Auxiliary Lane Worksheet should be used to determine whether auxiliary lanes are warranted at the site entrance and how long those lanes should be. The worksheet can be found at http://www.deldot.gov/information/business/subdivisions/auxiliary_lane_worksheet.xls.

- In accordance with Section 5.4 of the Development Coordination Manual, sight distance triangles are required for the site access on Route 24 and shall be established in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards. A spreadsheet has been developed to assist with this task. It can be found at <http://www.deldot.gov/information/business/subdivisions/Intersection-Sight-Distance.xls>.

- Metes and bounds and total areas need to be shown for any drainage easements. Section 5.7.2.6 of DelDOT's Development Coordination Manual requires, in part, a minimum 20-foot wide drainage easement for storm drainage systems, open or closed, that fall outside the existing right-of-way. These easements shall be shown and noted on the record plan.

Department of Natural Resources and Environmental Control – Contact Kevin Coyle 739-9071
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. Please view the following web link for further information on the regulatory requirements and technical analysis involved in the development of the specific TMDLs: <http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessmentTMDLs.aspx>

- The Inland Bays Pollution Control Strategy (PCS) and the accompanying regulations were finalized by order of the DNREC Secretary on October 2008. The PCS regulations can be reviewed at <http://regulations.delaware.gov/documents/November2008c.pdf> Background information about the PCS with guidance documents and mapping tools can be retrieved from http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib_pcs.htm
- 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 or view the following web link for additional information: <http://dda.delaware.gov/nutrients/index.shtml>

Water Supply

- The project information sheets state water will be provided to the project by Tidewater Utilities via a central water system. DNREC records indicate that the project is located within the public water service area granted to Tidewater Utilities under Certificate of Public Convenience and Necessity 83-W-15.

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 Management Plan must be approved for this project prior to beginning construction. The DNREC Sediment and Stormwater Program will be the reviewing agency for this project. A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted prior to construction beginning on the site. The NOI fee of \$195 must be submitted as well. A project application meeting was held for this project on March 12, 2015. The Stormwater Assessment Report for the project rated all areas as “minor” with the exception of the runoff potential rating based upon the proposed impervious for the site. Soil mapping and preliminary investigations indicate that infiltration is a viable option for management of Stormwater on the site.

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 Section

- 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.

There following confirmed leaking underground storage tank (LUST) project is located within a quarter mile from the proposed project area:

- Morris John W, Facility: 5-000470, Project: S9103046 (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	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	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	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)
7 DE Admin. Code 1141 – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	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	Ensure that emissions of nitrogen oxides (NO _x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO ₂), carbon monoxide (CO), and carbon dioxide (CO ₂) 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	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>.

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known archaeological sites, or National Register-listed property on this parcel. However, if there will be any development project in the future, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law, which is in 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 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. 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.

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 (DSFPR):

- **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 educational sites, 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

- **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 includes the traffic island in the entrance drive from the main thoroughfare being 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.
 - 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
- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- 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

- The school site is proposed to be subdivided from a larger parcel and would have shared access with another part of the larger parcel opposite the existing entrance for the Beacon Middle School. DelDOT encourages shared access as a general principle. However, DelDOT notes that the proposed access easement serving the school and the adjoining parcel is only about 200 feet deep and does not provide for a separate left turn lane into that adjoining parcel. Depending on the use of that parcel, it may be adequate, but we recommend:
 - The entrance should be designed with a wide enough median island that a left turn lane into the adjoining parcel can be built if one is needed,
 - The School District and the seller should cooperate on a conceptual design for changes to the entrance needed to accommodate the seller's expectations for development of the remainder of their property and the easement should be sized to accommodate that design, and
 - The School District and the seller should enter and record a clear and detailed easement agreement such that the seller can modify the entrance as necessary to develop the remainder of their property but cannot unacceptably inconvenience the District as they do so.

- Be advised that the Standard General Notes have been updated and posted to the DelDOT website. Please begin using the new versions and look for the revision date of March 21, 2014. The notes can be found at http://www.deldot.gov/information/business/subdivisions/DelDOT_Development_Coordination_Plan_Sheet_Notes.doc
- The applicant should expect a requirement that all PLUS and/or TAC comments be addressed prior to submitting record, subdivision or entrance plans for review.
- Please check to determine whether any utilities will need to be relocated as part of this project.
- The applicant should expect a requirement that any substation, wastewater facility or other utility parcels serving the site have access from an internal subdivision street with no direct access to Route 24.
- Please be advised DelDOT's check handling procedures changed in 2012. For specific information, see the letter available at <http://www.deldot.gov/information/business/subdivisions/PaymentProcedure.pdf>.

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

Flooding and Sea Level Rise

- Portions of the planned development area lies within an area that will be subject to direct and permanent inundation from sea level rise (<http://de.gov/slrmmap>). The areas you would likely be chiefly concerned with will be the two crossings of Love Creek at Route 24 and Goslee Mill Pond on Robinsonville Road.

Sea levels in Delaware have risen by about a foot over the past century (NOAA, 2014). This rate of sea level rise is likely to accelerate in the coming decades as a result of global climate change and local subsidence. Accelerated sea level rise will result in permanent flooding of low-lying coastal areas and increased risk of flood damage during storms (DNREC, 2012).

DNREC Preliminary Land Use Service maps depicting future inundation risk from sea level rise indicate that approximately 29.72 acres of this site out of 321.43 acres or 9.2 percent could be inundated by sea level rise of 1.5 meters. In the short-term, sea level rise on this parcel, combined with periodic coastal flooding events, may result in repetitive flood damage to roads and significant difficulties maintaining storm water, drainage and other infrastructure. In the long-term, this increased flood and inundation risk could result in costly public and private flood abatement and drainage projects and an eventual abandonment of structures.

Recommendations:

Design life span. This includes ensuring that the roadway functions for the 1% chance flood plus anticipated future sea level rise.

References:

NOAA (National Oceanic and Atmospheric Administration). (2014). Mean Sea Level Trend, Lewes, DE. Retrieved from http://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?stnid=8557380.

DNREC Delaware Coastal Programs. (2012). Preparing for Tomorrow’s High Tide: Sea Level Rise Vulnerability Assessment for the State of Delaware. Dover, DE: Department of Natural Resources and Environmental Control. Retrieved from <http://de.gov/slrva>.

Soils Assessment

- Based on soils survey mapping update, the soil mapping units with the most limitations for development in the immediate vicinity of the proposed project is Hurlock (HvA). Hurlock is a poorly-drained wetland associated (hydric) soil that has severe limitations for development (considered unsuitable for development; Figure 1).

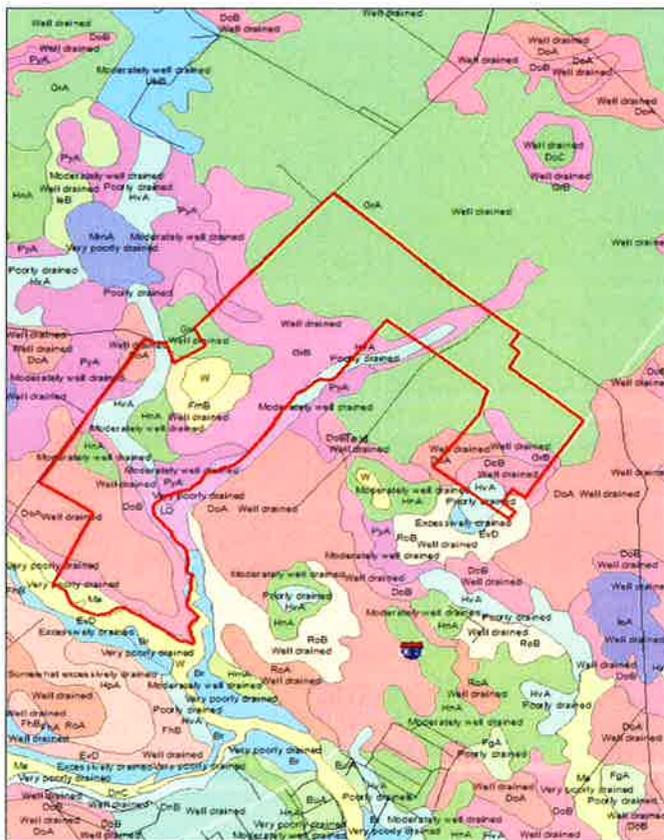


Figure 1: NRCS soil survey mapping update

0 700 1,400 2,800 Feet



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 adherence to the strategies and requirements described in the Inland Bays PCS and the implementation of the following recommended BMPs:
 - 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 (maintaining the existing forested buffer and planting additional native vegetation to maintain this 100-foot buffer) from all waterbodies (including ditches) and wetlands (as determined by USACE approved wetlands delineation).
 - Use of green-technology storm water management and a rain garden(s) (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant runoff increases that often track post-development increases in surface imperviousness. Please contact Lara Allison at 739-9939 for further information about the possibility for installing a rain garden(s) on this parcel.
 - 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. Excluding any of the above-mentioned forms of surface imperviousness will underestimate this project's actual environmental impacts and is considered an unacceptable best management practice(s).
 - Since this project will create additional surface imperviousness that will increase the probability for increased flooding and increased pollutant load runoff impacts to streams and wetlands in the greater Inland Bays watershed, wherever practicable, Use of pervious paving materials (instead of conventional asphalt and concrete) to mitigate said impacts. We suggest that the applicant use pervious paving materials in all parking areas and consider the use of pervious pavers in roadways as well.
 - 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 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.

Species and Habitat

- The wetlands to the south of this project site are mapped as Key Wildlife Habitat in the Delaware Wildlife Action Plan, and provide critical habitat for tiger salamander (*Ambystoma tigrinum tigrinum*) and barking tree frog (*Hyla gratiosa*) which are state-endangered, and for Cope's gray tree frog (*Hyla chrysoscelis*) which is very rare within the state. 'Welches Pond' and 'Hetty Fisher Glade', which are both near the project site, are possibly the last of the wetlands remaining in this area that supports these species. Seasonal wetlands such as these will lose its amphibian and reptile fauna without appropriate surrounding upland habitat. These species use small isolated bonds for breeding for only a small portion of the year, and spend most of their lives in a zone of 450 feet or more around the wetland.

Additional information on hazardous waste sites

- DNREC 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) and a Phase II or Facility Evaluation in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA) and the HSCA Guidance Section 2, part 2.3 (page 2-1). 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 by the county.

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). SIRS 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.

Additional information on air quality

- New residential and commercial developments may emit, or cause to be emitted, 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; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
 - The emission of greenhouse gases which are associated with climate change, and
 - The emission of air toxics.

- Air emissions generated from commercial spaces 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 needed to support the commercial space, 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 development were quantified. Table 2 represents the actual impact the Cape Henlopen Elementary School may have on air quality.

Emissions Attributable to Cape Henlopen Elementary School (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 Source emissions	3.09	4.07	*	*	*

(*) Indicates data is not available.

Note that emissions associated with the actual construction of the road, 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 table 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.
 - Providing tie-ins to the nearest bike paths and links to any nearby mass transport system. These measures can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk, a 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 are 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. Trees reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, thereby 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 this project.

Department of Education-Contact Despina Wilson 735-4040

- The DOE will continue to work with the district, architect, site engineer, municipal government and various state agencies regarding the project. The DOE reserves the right to provide continued and on-going comments and input as the project develops.

Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394

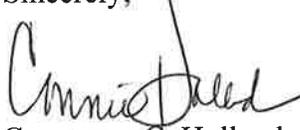
- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded

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,

A handwritten signature in black ink, appearing to read "Constance C. Holland". The signature is fluid and cursive, with a large initial "C" and "H".

Constance C. Holland, AICP

Director, Office of State Planning Coordination

CC: Sussex County