



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

March 21, 2011

Shante Hastings
DelDOT
23697 DuPont Blvd.
Georgetown, DE 19947

RE: PLUS review – 2011-02-04; DelDOT Bridgeville Maintenance Yard

Dear Ms. Hastings:

Thank you for meeting with State agency planners on February 23, 2011 to discuss the proposed plans for the DelDOT Bridgeville maintenance yard facility to be located on the north side of Road 582, just north of the Town of Bridgeville.

Review of the information received, the Department is seeking a site plan review for a maintenance facility that will consist of a crew operations building, mechanic shop, salt barns, truck sheds, equipment sheds, etc.

Please note that any changes to the plan, other than those suggested in this letter, could result in additional comments from the State and additional PLUS review(s). Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The Department 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 – Contact: Bryan Hall 739-3090

- 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. In addition, the site is adjacent to the long-term growth and annexation area for the Town of Bridgeville and the Department should consider the benefits of annexation.

Code Requirements/Agency Permitting Requirements

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known cultural or historic resources such as an archaeological site or National Register listed property on this parcel. However, it is important that the developer be aware of the Delaware Unmarked Human Remains Act of 1987, outlined in Chapter 54 of Title 7 of the Delaware Code, which pertains to the discovery and disposition of such remains, because the unexpected discovery of unmarked human remains during construction can result in significant delays while the process is carried out. Therefore, prior to any demolition or ground-disturbing 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 culture or historic resources.

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

TMDLs

- The project is located in the greater Chesapeake drainage area - specifically, within the Nanticoke watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria (under the auspices of Section 303(d) of the Clean Water Act). A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited 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. The TMDL for the Nanticoke watershed calls for a 30 and 50 percent reduction in nitrogen and phosphorus, respectively, from baseline conditions. The TMDL also calls for a 2 percent reduction in bacteria from baseline conditions.
- The applicant should be made aware that EPA is requiring that the State of Delaware develop a Watershed Implementation Plan and 2-year progress milestones for purposes of accelerating efforts to improve and restore waters of the Chesapeake Bay.

The WIP and milestones will identify specific pollution reduction practices and programs to reduce nitrogen, phosphorus, and sediment from a variety of sources within the watershed. Moreover, efforts to develop the documents and assist in developing the required reductions will be provided through meetings and discussions with an

interagency workgroup and various subcommittees recently convened by the State of Delaware. Included in the meetings and discussions are onsite wastewater disposal systems which are a known source of nutrient pollutants to groundwater. Delaware's Draft Phase 1 WIP is currently available for review at: http://www.wr.dnrec.delaware.gov/Information/Pages/Chesapeake_WIP.aspx.

Water Supply

- The project information sheets state that an individual on-site well(s) will be used to provide water for the proposed project. Our records indicate that the project is not located in an area where public water service is available. Should an on-site Public/Miscellaneous Public well be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the current Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing each and every well(s).
- 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.

Individual On-Site Wastewater Systems

- The Small Systems Branch reviews and approves site evaluations, permit applications, conducts installation and compliance inspections of systems with daily flows equal too and less than 2,500 gallons per day. This is a three-step process, which includes the site evaluation, the design/permit application and the construction/installation of the system.

Sediment and Stormwater Program

- DelDOT will perform the Sediment and Stormwater review for this project in-house.

Flood Management

- A portion of this parcel is located in a Zone A floodplain. This area has a revised floodplain that is currently preliminary and not effective. It can be found on <http://www.rampp-team.com/de.htm>

Although the floodplain boundary has been revised, no base flood elevation has been established. Sussex County may require a base flood elevation be submitted with parcels greater than 5 acres or 50 lots that contain Zone A floodplain.

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:

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)
7 DE Admin. Code 1141 – Limiting Emissions of Volatile Organic	<ul style="list-style-type: none"> • Use structural/ paint coatings that are low in Volatile Organic Compounds. • Use covers on paint containers when

Compounds from Consumer and Commercial Products	paint containers are not in use.
7 DE Admin. Code 1144 – Control of Stationary Generator Emissions	<ul style="list-style-type: none"> • Ensure that emissions of nitrogen oxides (NO_x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO₂), carbon monoxide (CO), and carbon dioxide (CO₂) from emergency generators meet the emissions limits established. (see section 3.2). • Maintain recordkeeping and reporting requirements.
7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty Vehicles	<ul style="list-style-type: none"> • Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

For

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 (DSFPR):

- **Fire Protection Features:**
 - All structures over 10,000 sq. ft aggregate will require automatic sprinkler protection installed.
 - Buildings greater than 10,000 sq, ft, 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 means that the access road from E. Newton Rd. 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.
 - 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 and 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
 - 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 Natural Resources and Environmental Control – Contact Kevin Coyle 739-9071

Additional TMDL Information

- 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 Nanticoke 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:

- Please maximize open space by establishing more tree cover on this parcel.
- DNREC recommends that the applicant calculate post-construction surface imperviousness with all forms of created surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, and roads) included in the calculation. We encourage the use of pervious paving materials (instead of conventional asphalt and concrete) to mitigate impacts from surface imperviousness. We further encourage replacement of the existing paved surface material with pervious paving materials wherever practicable.
- A United Army Corps of Engineers approved wetlands delineation is recommended before proceeding beyond the initial planning stage.
- 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 and establish a minimum 100-foot upland buffer (planted in native vegetation) from all water bodies (including ditches) and wetlands.
- DNREC encourages the applicant to voluntarily assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the “Nutrient Load Assessment protocol.” The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) that result from the conversion of individual or combined land parcels to a different land use(s), while providing applicants with quantitative information about their project’s impact(s) on baseline water quality. We encourage 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 air quality

- According to the Preliminary Land Use Application the applicant has requested a review of the site plan located on the north side of Road 582 adjacent to the Railroad. The applicant intends on developing the property into a crew operations building, mechanic shop, salt barn, and truck sheds.

- Construction related activities may emit, or cause to be emitted, air contaminants that 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 are generated 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 your maintenance yard, and
 - Transportation activity.

- The area and electric power generation emission components for this project could not be quantified, however, based on daily trip data presented and data taken from the ITE Trip Generation Manual, 8th Edition, the mobile air emissions were quantified in Table 2 and represent the actual impact the DelDOT Bridgeville Maintenance Yard may have.

Table 2: Projected Air Emissions		
Emissions Attributable to DelDOT Maintenance Yard (Tons per Year)	Bridgeville (Tons per Year)	Nitrogen Oxides (NOx)
	Volatile Organic Compounds (VOC)	
Mobile Emissions	0.29	0.38

(*) *Indicates data is not available.*

- Note that emissions associated with the actual construction of the maintenance yard, 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 tables above.

- Measures may be taken to substantially reduce the air emissions. These measures include:

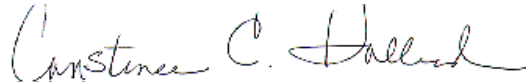
- **Constructing with only energy efficient products.** Energy Star qualified products are up to 30% more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of increased 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.
- Additionally, the following mitigation measures will reduce emissions associated with the actual construction phase of the project:
 - **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 emissions by trapping dust particles and by replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development. The applicant should submit a plan to the DAQ which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the DelDOT Bridgeville Maintenance Yard.

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 cursive script that reads "Constance C. Holland".

Constance C. Holland, AICP

Director, Office of State Planning Coordination

CC: Sussex County
Town of Bridgeville