



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

July 23, 2015

Mr. Scott Lobdell, PE  
Van Cleef Engineering  
630 Churchmans Road  
Suite 105  
Newark, DE 19702

RE: PLUS review 2015-06-04, Delaware Sports Complex

Dear Scott,

Thank you for meeting with State agency planners on June 24, 2015 to discuss the proposed plans for the Delaware Sports Complex. According to the information received, you are seeking review of a site plan review for a 156,750 square foot sports complex on 320 acres in Middletown.

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 Middletown is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the Town.**

**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. We also, recommend that the Town review their comp plan to make sure this use is consistent with the Future Land Use portion of the plan.

**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. According to the PLUS

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application the proposed complex would generate 2,283 trips per day. On this basis, the complex would warrant a TIS.

Per Section 2.2.2.4 of the Manual, if a development is located within a Transportation Improvement District (TID) and is consistent with the Land Use and Transportation Plan for that TID, then under certain conditions DelDOT may require participation in the TID in lieu of conducting a TIS and making improvements based on the TIS. The proposed complex is located in the Westown TID but the land use assumed for it in creating the TID is a wastewater treatment spray field. To address the proposed use through the TID would require a significant update and expansion of the Westown Circulation Concept Plan (includes a traffic study), an update of which was just completed in March 2015. If the developer wishes to proceed with their development as proposed and as part of the TID, we would undertake that update and require them to participate in the TID.

We have proposed that their participation should be at the Industrial and Institutional rate, which is currently \$8,285 per acre. For a site of 173.35 acres, that would yield a contribution of \$1,436,205. The applicant has suggested that there should be another rate, yet to be developed. We are willing to consider that possibility but it must be a rate that provides sufficient funds to address the traffic impacts associated with the developments to which it is assessed.

Thinking logically about what the update of the Circulation Concept Plan might find, St. Annes Church Road (New Castle Road 447) between Delaware Route 71 and the railroad would need shoulders and pedestrian improvements and the intersection of Route 71 and St. Annes Church Road might need signalization. These improvements would likely need to be done before much of the complex could open but the developer would get credit toward the above contribution for their expenses in these regards. These improvements would also be timely with regard to the Westown Residential development, which is expected to be starting soon on the north side of St. Annes Church Road west of the railroad.

Levels Road (Delaware Route 15) between US Route 301 and St. Annes Church Road and St. Annes Church Road between Levels Road and the railroad presently have 4-foot paved shoulders, whereas DelDOT's standard is five feet, so shoulder widening is a likely future project, either when the existing and relative recent road resurfacing requires attention or when increased bicycle traffic makes the additional width more important.

Also, the March 2015 update identified a need for an additional through lane each way on Levels Road from US Route 301 through the entrance to the Westown North Industrial Park. The new update could find that that widening will need to be done sooner than otherwise expected and extended to the entrance to the sports complex. Again, these and other road improvements, if done by the developer, would be creditable toward the above contribution.

Questions or concerns regarding Westown should be directed to Mr. Marc Coté, DeIDOT's Assistant Director for Development Coordination. Mr. Coté may be reached at (302) 760-2165.

- Improvements to the site access on Levels Road will certainly be needed and they must be designed in accordance with DeIDOT's Development Coordination Manual, which is available at <http://www.deldot.gov/information/business/subdivisions/changes/index.shtml>.

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

**TMDLs.**

- The project is located in the greater Delaware River and Bay drainage area, specifically within the Appoquinimink River watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) for nitrogen, phosphorus, and bacteria have been promulgated through regulation in most of the State of Delaware's water bodies. 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 Appoquinimink River watershed calls for a 60 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for an 8 percent (freshwaters) reduction in bacteria from baseline conditions. The specific TMDL nutrient and bacterial load reductions for the Appoquinimink watershed can be viewed in the following web-link:  
<http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessmentTMDLs.aspx>

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 will likely exceed this 10-acre threshold. Please contact the Delaware Nutrient Management Program at (302) 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 information provided indicates that the Town of Middletown/Artesian Water Company will provide water to the proposed project through a public water system. Our files reflect that the Town of Middletown /Artesian Water Company does not currently hold a certificate of public convenience and necessity (CPCN) to provide public water in these areas. They will need to file an application for a CPCN with the Public Service Commission, if they have not done so already. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at (302) 736-7547. 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 areas, and at least 150 feet from the outermost boundaries of the project. 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 Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

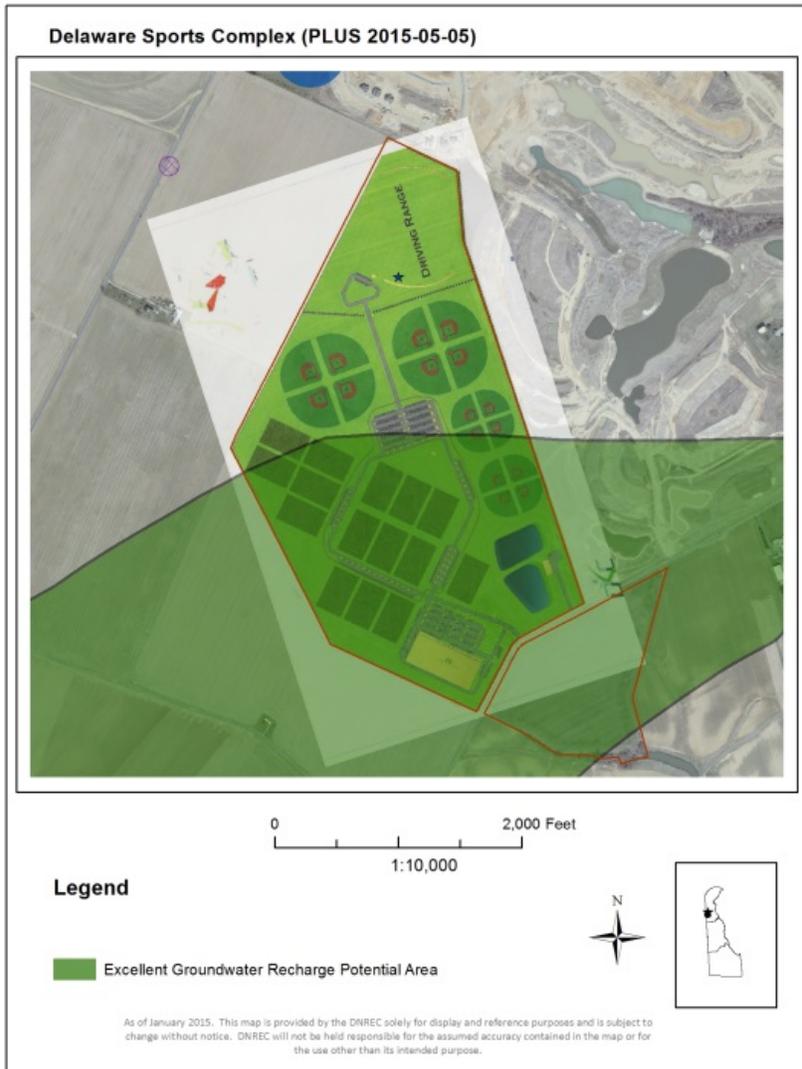
Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation. All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising. Potential Contamination Sources exist in the area, and any well permit applications will undergo a detailed review that may increase turnaround time and may require site specific conditions/recommendations. In this case, there are (2) Spray Irrigation sites associated with Middletown Waste Water Facility, (1) Ford and (2) Von Croy, located within 1,000 feet of the proposed project.

#### **Source Water Protection Areas.**

- A significant portion of the project falls within an excellent ground-water recharge potential area for the Town of Middletown (see map).

Although the Town of Middletown's Source Water Protection Ordinance meets the minimum standards of protection, this protection does not limit impervious cover in excellent ground-water recharge potential areas. Impervious cover prevents precipitation from infiltrating through the soil to the water table aquifer. Impervious cover refers to structures including but not limited to roads, sidewalks, parking lots, and buildings. Any impervious cover within an area of excellent ground-water recharge potential area has the potential to have a negative effect the quality and quantity of drinking water available. DNREC recommends moving the impervious cover to the area of the parcel outside the excellent groundwater potential area.

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.



**Wastewater.**

- In accordance with the Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems, the applicant must develop and submit for DNREC's review and approval, an operating protocol designed to ensure the high-level disinfection criteria is met before the wastewater is released to the storage system or to the wastewater reuse system. All wastewaters containing domestic wastes shall receive, at a minimum, but not limited to biological treatment and disinfection prior to irrigation. This level of treatment is required to protect the health of persons who may come in contact with the irrigated wastewater and to reduce the potential for odors in storage ponds and during irrigation. Wastewater effluent standards for domestic and municipal wastewater for BOD5, TSS, and disinfection are based on site access control. In cases where public access cannot be restricted, such as landscaped areas, golf courses,

parks, and roadway medians, levels of wastewater pretreatment need to be increased in order to assure comparable public health safeguards exist.

### **Sediment and Stormwater Management.**

- A 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 Town of Middletown. Contact Morris Deputy, Town Manager for the Town of Middletown at (302) 378-9120 for details regarding submittal requirements and fees.

### **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.

There is one SIRS site within a ½ mile radius of the property in question. Rutkoske Property (DE-1223) is located adjacent south of the project property. The Site was brought to the attention of DNREC when power poles treated with creosote were installed in a DelDOT right of way on the Rutkoske Property. Soil samples were collected from around the poles in February 1991. Creosote was found to be pooled around the poles and one SVOC was found above the Unified Risk Based Standards (URS). Additional soil samples were collected in September 2001. Results indicated that soil and groundwater were not impacted by the installation of the creosote treated poles. The Site was administratively closed due to the lack of evidence of a release.

### **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 are no confirmed leaking underground storage tank (LUST) projects located within a quarter mile from the proposed project area.

Per the UST Regulations: Part E, § 1. Reporting Requirements:

Any indication of a Release of a Regulated Substance that is discovered by any Person, including but not limited to environmental consultants, contractors, utility companies, financial institutions, real estate transfer companies, UST Owners or Operators, or Responsible Parties shall be reported within 24 hours to:

The Department’s 24-hour Release Hot Line by calling (800) 662-8802;  
And The DNREC Tank Management Section by calling (302) 395-2500.

**Air Quality.**

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

<b>Table 1: Potential Regulatory Requirements</b>	
<b>Regulation</b>	<b>Requirements</b>
<b>7 DE Admin. Code 1106</b> - 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.
<b>7 DE Admin. Code 1113</b> – 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.
<b>7 DE Admin. Code 1135</b> – 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)
<b>7 DE Admin. Code 1141</b> – 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.
<b>7 DE Admin. Code 1144</b> – Control of Stationary Generator Emissions	Ensure that emissions of nitrogen oxides (NO <sub>x</sub> ), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO <sub>2</sub> ), carbon monoxide (CO), and carbon dioxide (CO <sub>2</sub> ) from emergency generators meet the emissions limits established. (See section 3.2). Maintain recordkeeping and reporting requirements.
<b>7 DE Admin. Code 1145</b> – 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>

Department of Agriculture – Contact Scott Blaier 698-4532

- The proposed project is adjacent to a property enrolled in the State's Agricultural Lands Preservation Program (Clay Farm Expansion of the Baker Farms District, (Parcel # 1302600018). Therefore, the activities conducted on this preserved property are protected by the agricultural use protections outlined in Title 3, Del. C., Chapter 9. These protections effect adjoining developing properties. The 300 foot notification requirement affects all new deeds in a subdivision located in whole or part within 300 feet of an Agricultural District. Please take note of these restrictions as follows:

**§ 910. Agricultural use protections.**

(a) Normal agricultural uses and activities conducted in a lawful manner are preferred and priority uses and activities in Agricultural Preservation Districts. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations, land use adjacent to Agricultural Preservation Districts shall be subject to the following restrictions:

(1) For any new subdivision development located in whole or in part within 300 feet of the boundary of an Agricultural Preservation District, the owner of the development shall provide in the deed restrictions and any leases or agreements of sale for any residential lot or dwelling unit the following notice:

This property is located in the vicinity of an established Agricultural Preservation District in which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may now or in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities."

(2) For any new subdivision development located in whole or in part within 50 feet of the boundary of an Agricultural Preservation District, no improvement requiring an occupancy approval shall be constructed within 50 feet of the boundary of the Agricultural Preservation District.

(b) Normal agricultural uses and activities conducted in accordance with good husbandry and best management practices in Agricultural Preservation Districts shall be deemed protected actions and not subject to any claim or complaint of nuisance, including any such claims under any existing or future county or municipal code or ordinance. In the event a formal complaint alleging nuisance related to normal agricultural uses and activities is filed against an owner of lands located in an

Agricultural Preservation District, such owner, upon prevailing in any such action, shall be entitled to recover reasonably incurred costs and expenses related to the defense of any such action, including reasonable attorney's fees (68 Del. Laws, c. 118, § 2.).

- In addition, if any wells are to be installed, Section 4.01(A)(2) of the Delaware Regulations Governing the Construction and Use of Wells will apply. This regulation states:  
(2) For any parcel, lot, or subdivision created or recorded within fifty (50) feet of, or within the boundaries of, an Agricultural Lands Preservation District (as defined in Title 3, Del. C., Chapter 9); all wells constructed on such parcels shall be located a minimum of fifty (50) feet from any boundary of the Agricultural Lands Preservation District. This requirement does not apply to parcels recorded prior to the implementation date of these Regulations. However, it is recommended that all wells be placed the maximum distance possible from lands which are or have been used for the production of crops which have been subjected to the application of land applied federally regulated chemicals.

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There was a farm on this parcel called the Naudain Farm (N14389), but it was demolished. The A. Crockett House (N-5224), which is shown on Pomeroy and Beers Atlas of 1868, is near this parcel, toward the west side. Therefore, 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](http://www.history.delaware.gov/preservation/umhr.shtml) and [www.history.delaware.gov/preservation/cemeteries.shtml](http://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](http://www.achp.gov).

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

- **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 the site of a place of assembly, 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, 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
  - All structures over 60,000 sqft shall have horizontal standpipes installed.
  - All structures over 100,000 sqft shall meet the requirements of Large Area Buildings.

- **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 Levels 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. Regulation 705, Chapter 5, Section 2.6
  
- **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 Natural Resources and Environmental Control – Contact Kevin Coyle 739-9071 **Soils Assessment.**

- The soil mapping units mapped on this parcel are predominately well-drained Matapeake, (MkA & MkB), Sassafras (SaA & SaB), and variants of Reybold (ReB & RdA; Figure 1).

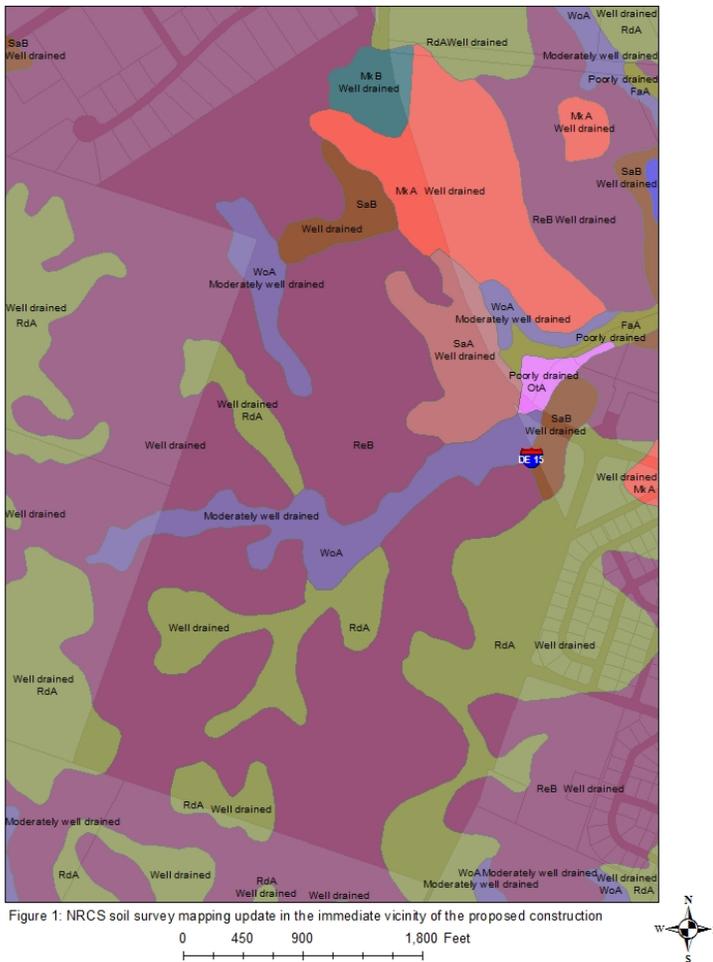


Figure 1: NRCS soil survey mapping update in the immediate vicinity of the proposed construction

**Additional information on TMDLs and water quality.**

- In response to concerns about the need for reducing nonpoint source nutrient (nitrogen and phosphorus) and bacterial pollutants to levels sufficient to meet the prescribed TMDL reduction requirements in the Appoquinimink watershed, a multifaceted and comprehensive process known as a Pollution Control Strategy (PCS) has been developed to enable such reductions. Specifically, a PCS is a combination of best management practices and control technologies that reduce nutrient and bacterial pollutant runoff loading in waters of a given watershed to level(s) consistent with the TMDL(s) reduction levels specified for that watershed. The PCS for the Appoquinimink River watershed consists of recommendations from the following four areas: agriculture, land preservation (open space), stormwater, and wastewater. Additional information about Appoquinimink River PCS is available from the follow web-link:

<http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedManagementPlans.aspx>.

In further support of the PCS, the applicant is strongly urged to reduce nutrient and bacterial pollutants through voluntary commitment to the implementation of the following recommended BMPs:

- Maintain as much of the existing open space as possible; we further suggest additional native tree and native herbaceous planting, wherever practicable.
- Applicant 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 for surface imperviousness. We strongly recommend that the applicant 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 for surface imperviousness. Omission of any of the above-stated forms of surface imperviousness will result in an underestimate of the actual post-development surface imperviousness and associated environmental impacts.
- Use green-technology storm water management structures (in lieu of open-water management structures) and raingardens as BMPs to mitigate or reduce nutrient and bacterial pollutant impacts from runoff or discharges from impervious surfaces. Please contact Lara Allison at (302) 739-9939 for further information about the possibility for installing a raingarden(s) on this parcel.
- Since this project will create additional impervious surfaces which will increase the probability for increased pollutant load runoff impacts to adjoining streams and wetlands in the greater Appoquinimink watershed, wherever practicable, use pervious paving materials (instead of conventional asphalt and concrete) to mitigate the these impacts. We especially recommend the use of pervious paving materials (in lieu of conventional asphalt or concrete) in areas designated for parking.

- 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) 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 strongly encourage the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact John Martin or Jen Walls at (302) 739-9939 for more information on the protocol.

### **Bog Turtle.**

- In 2012, Phase II surveys were conducted at potential bog turtle (*Glyptemys muhlenbergii*) habitats within the vicinity of the project area, with a result of no bog turtles found. However, this species, which is listed as threatened under the U.S. Endangered Species Act, is elusive, and a result of “No Bog Turtles Found” does not conclusively confirm their absence. Bog turtles can persist in low numbers or could move into to the habitat in the future. Therefore, we recommend that activities that may affect hydrology be minimized. If you have additional questions, please contact our endangered species biologist, Holly Niederriter at [Holly.Niederriter@state.de.us](mailto:Holly.Niederriter@state.de.us) or (302) 735-8670. Additionally, the results of this survey are valid for five years. If project is not completed within five years note that another survey may be required.

### **Habitat and Species of Greatest Conservation Need.**

- The field to the east of Charles E. Price Memorial Park and south of the entrance road of the park is excellent grassland bird habitat; every grassland songbird we expect to nest in Delaware has been observed nesting at this site, including several Species of Greatest Conservation Need (see table below). In addition to common species such as the eastern meadowlarks, grasshopper sparrow, and red-winged blackbirds, this is also one of only two confirmed sites for nesting savannah sparrows, and Dickcissels (a recent arrival to Delaware’s breeding bird fauna). Moreover, bobolinks, which are not known to nest in Delaware, have lingered at the site and upland sandpipers, (a state-endangered breeding species) have been documented at this site as well. With the proper mowing regime this species could use this habitat for nesting.

It would be best if project plans were configured to avoid impacts to this high quality nesting grassland bird habitat.

See the table below for a list of Species of Greatest Conservation Need documented at this site:

Scientific Name	Common Name	Taxon	State Rank	State Status	Federal Status
<i>Passerculus sandwichensis</i>	Savannah sparrow	Bird	S1B, S4N		
<i>Spiza americana</i>	Dickcissel	Bird	S1B		
<i>Bartramia longicauda</i>	Upland Sandpiper	Bird	SHB, S1N	E	
<i>Dolichonyx oryzivorus</i>	Bobolink	Bird	S1B, S3N		

**State Rank:** *S1*- extremely rare within the state (typically 5 or fewer occurrences); *S2*- very rare within the state (6 to 20 occurrences); *S3*-rare to uncommon in Delaware, **B** - Breeding; **N** - Nonbreeding; **SX**-Extirpated or presumed extirpated from the state. All historical locations and/or potential habitat have been surveyed; **SH**- Historically known, but not verified for an extended period (usually 15+ years); there are expectations that the species may be rediscovered;

**State Status:** **E** – endangered, i.e. designated by the Delaware Division of Fish and Wildlife as seriously threatened with extinction in the state pursuant to State of Delaware Code (7 Del. §601 et seq.) and implementing regulation (Title 7, 3900, 16.0 Endangered Species) ; **n/a**-plants are not included in Title 7.

**Federal Status:** **E** – endangered, i.e. designated by the U.S. Fish and Wildlife Service as being in danger of extinction throughout its range; **T** – threatened, i.e. designated by USFWS as being likely to become endangered in the foreseeable future throughout all or a significant portion of its range; **C**-candidate – Taxa for which the U.S. Fish and Wildlife Service has on file enough substantial information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species. NOAA Managed Candidate: **SC**-Species of Concern are those species about which NOAA's National Marine Fisheries Service (NMFS) has some concerns regarding status and threats, but for which insufficient information is available to indicate a need to list the species under the Endangered Species Act (ESA).

#### State Natural Heritage Site.

- Because several Species of Greatest Conservation Need are present at this site, this project is within a State Natural Heritage Site (SNHS). SNHS and Delaware National Estuarine Research Reserves are identified as "Designated Critical Resource Waters" by the Army Corps of Engineers (ACOE), and as such are subject to the restrictions and limitations imposed through Nationwide Permit General Condition No. 22. A copy of this letter shall be included in any permit application or pre-construction notification submitted to the Army Corps of Engineers for activities on this property.

If you propose to use Nationwide Permit No. 3, 13, 18, 29, 39 or 42, the State of Delaware has denied 401 Water Quality Certification (WQC) and Coastal Zone Federal Consistency Concurrence (CZM) for these Nationwide Permits in Designated Critical Resource Waters. In order to use any of these six Nationwide Permits at this site you must apply for a project-specific Water Quality Certification (WQC) and Coastal Consistency Determination (CZM) from the appropriate offices at DNREC. To obtain the application materials and for all information regarding WQC, contact DNREC's Wetlands and Subaqueous Lands Section at (302) 739-9943. For information pertaining to CZM, contact DNREC's Coastal Programs at (302) 739-9283.

If you propose to use Nationwide Permit No. 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, or 44, this Designated Critical Resource Water designation may require you to obtain authorization through some other nationwide or general permit, or an individual permit from the Army Corps of Engineers. You should review the Nationwide Permit General Conditions and Regional Conditions for Delaware (see, in particular, Nationwide Permit General Condition No. 19) to determine what notification requirements or restrictions might be applicable for your activity. Please contact the Army Corps of Engineers at (215) 656-6728 if you have questions or require additional information regarding the Nationwide Permit Program.

**Additional information on tank management.**

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

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

**Additional information on hazardous waste sites.**

- 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) 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 by the Town.

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 air quality.**

- The proposed property has neither sidewalks nor bike paths, and there is no public transportation in the area, as the property is somewhat outside the primary growth zone for Middletown. While the developer indicates that sidewalks will be added as part of this project, it is unclear whether the sidewalks will be limited to the project’s interior. The DAQ encourages the developer to consider perimeter sidewalks along Levels Road as well as the addition of bike paths, especially given the site’s proximity to the Saint Anne’s housing development and the MOT Charter School.
  
- DNREC encourages developers and builders to consider all sustainable growth practices in their design, and we believe that the air quality impacts associated with the project should be completely considered. New facilities may emit, or cause to be emitted, additional air contaminants into Delaware’s air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:
  - Emissions that form ozone and fine particulate matter; Delaware currently violates federal health-based air quality standards for ozone. New Castle County, Delaware is classified as non-attainment for not meeting federal and state 8-hour ozone standards. Compared to Kent and Sussex Counties, short term 1-hour average peak ozone levels are usually highest in New Castle County, as well,
  - The emission of greenhouse gases which are associated with climate change, and
  - The emission of air toxics.

Air emissions generated from new facilities include emissions from the following activities:

- Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.
- The generation of electricity, and
- All transportation activity.

Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) for the project could not be quantified. DNREC was able, however, to quantify the mobile emissions based on the proposed daily trip data presented in the application and data taken from the ITE Trip Generation Manual, 8<sup>th</sup> Edition. Table 2 represents the actual impact the Middletown Sports Complex project may have on air quality.

<b>Table 2: Projected Air Quality Emissions for Middletown Sports Complex</b>					
Emissions Attributable to Middletown Sports Complex (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NO <sub>x</sub> )	Sulfur Dioxide (SO <sub>2</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Carbon Dioxide (CO <sub>2</sub> )
Mobile	7.58	10.00	*	*	*

(\*) Indicates data is not available.

Note that emissions associated with the actual construction of the sports complex, 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, 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 an excellent way to save on energy costs and reduce air pollution.
- **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation and from the use of oil or gas heating equipment.
- **Constructing with high albedo, high solar reflectance materials.** This includes roofing and hardscape. These materials help to reduce heat island impacts and, by extension, help to minimize the potential for localized ground-level ozone formation. These materials also help reduce demands on air conditioning systems and save on energy costs.
- **Providing shade for parking areas.** Approaches may include architectural devices, vegetation, or solar panels. Providing shade for parking areas helps to reduce heat island impacts, and, by extension, helps to minimize the potential for localized ground-level

ozone formation. Such measures can also have the additional benefit of channeling or infiltrating stormwater.

- **Providing charging stations for plug-in electric vehicles.** This measure helps to reduce localized air pollution by supporting the use of non-gasoline powered vehicles. Please refer to the US Department of Energy's website for electric vehicle readiness information: [http://www1.eere.energy.gov/cleancities/electric\\_vehicle\\_projects.html](http://www1.eere.energy.gov/cleancities/electric_vehicle_projects.html).
- **Encouraging the use of safe multimodal transportation where possible.** This measure can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk or bike path, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.
- **Using retrofitted diesel engines during construction.** This includes equipment that is on-site as well as equipment used to transport materials to and from site.
- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- **Planting trees in vegetative buffer areas, particularly those between the site and nearby residential areas.** Native trees reduce emissions by trapping dust particles and replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development. The applicant should submit a plan to the DNREC Division of Air Quality (DAQ) which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Middletown Sports Complex project. The DAQ point of contact is Rachel Yocum, and she may be reached at (302) 739-9402 or [Rachel.yocum@state.de.us](mailto:Rachel.yocum@state.de.us).

Delaware State Fire Marshall's Office – Contact John Rudd 323-5365

- 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](http://www.statefiremarshal.delaware.gov), technical services link, plan review, applications or brochures.
- The local Fire Chief should be contacted, prior to any approval by our Agency, for suggestions on providing readily easy access for Emergency Medical Services to the most remote portions of the participant areas of the sports fields.

**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: Town of Middletown