



December 14, 2006

Edwin Tannefoss
Davis, Bowen & Friedel
23 North Walnut Street
Milford, DE 19963

RE: PLUS review – PLUS 2006-11-09; Cape Henlopen High School

Dear Mr. Tannefoss:

Thank you for meeting with State agency planners on November 21, 2006 to discuss the proposed plans for the Cape Henlopen High School project to be located at 1250 Kings Highway, the site of the existing Cape Henlopen High School.

According to the information received, you are seeking site plan approval through Sussex County a 210,000 sq. ft. high school on the site of the exiting high school.

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.

Executive Summary

The following section includes some site specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The full text of this letter represents the official state response to this project. ***Our office notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.***

State Strategies/Project Location

- This project is located in Investment Levels 1, 2 and 3 according to *Strategies for State Policies and Spending*. This site is also located in the next to the Town of Lewes and the existing school site will be utilized. Investment Levels 1 and 2 reflect areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy. The State has no objections to placing a school on this site in accordance with County codes and ordinances.

Street Design and Transportation

- On October 16, 2006, DelDOT wrote to Sussex County regarding the need for a traffic impact study (TIS) for the conditional use application just mentioned. A copy of that letter is enclosed. As discussed in that letter, DelDOT does not feel that a separate TIS is needed for the school. It is being addressed in a TIS for another development nearby and they believe they can obtain all the information they need from that study. When DelDOT completes their review of that study they will send the County a separate letter recommending transportation improvements that should be required for the high school redevelopment.
- Presently DelDOT is working with a developer on the south side of Kings Highway to extend the Junction and Breakwater Trail through their site and out Gills Neck Road to Kings Highway. As a further extension of that trail, the plan for the high school campus should include a multi-use path extending from Kings Highway at Gills Neck Road to Savannah Road.
- Because the new school will be larger, the redevelopment will constitute a change in use and DelDOT may therefore require improvements to the site entrance.

Natural and Cultural Resources

- There are known drainage issues with Ebenezer Branch. The Drainage Program is investigating the removal of drainage obstructions from the branch.

The following are a complete list of comments received by State agencies:

Office of State Planning Coordination – Contact: Bryan Hall 739-3090

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Division of Historical and Cultural Affairs – Contact: Alice Guerrant 739-5685

Nothing is known on this parcel. Historic maps and photographs do not show any development here prior to the existing school. However, there is a high potential for a prehistoric-period archaeological site in the western corner. There are no remaining standing historic buildings adjacent to this parcel.

Current plans do not indicate any disturbances planned for this corner, but if there will be any ground-disturbing activities here, such as utility placement or reconfiguration of the playing fields, we would appreciate an opportunity to examine the area for a site prior to that work.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

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- 2) Presently DelDOT is working with a developer on the south side of Kings Highway to extend the Junction and Breakwater Trail through their site and out Gills Neck Road to Kings Highway. As a further extension of that trail, the plan for the high school campus should include a multi-use path extending from Kings Highway at Gills Neck Road to Savannah Road.
- 3) Because the new school will be larger, the redevelopment will constitute a change in use and DelDOT may therefore require improvements to the site entrance. The developer's site engineer should contact the DelDOT Subdivision Manager for Sussex County, Mr. John Fiori, regarding specific requirements for off-site improvements, the path and the entrances. Mr. Fiori may be reached at (302) 760-2157.

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

Soils

According to the Sussex County soil survey update, most of the soils mapped on subject parcel are well-drained Greenwich soils. Greenwich soils are well-drained that, generally, have few limitations for development.

Based on Statewide Wetland Mapping Project (SWMP) mapping, no wetlands were mapped on this parcel.

Impervious Cover

Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. It is strongly recommended that the applicant implement best management practices (BMPs) that reduce or mitigate some of its most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness.

TMDLs

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Broadkill watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited

water body” can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. In the greater Broadkill watershed, in which this project is located, nutrient reductions” of 40 percent will be required for nitrogen and phosphorus.

TMDL compliance through the Pollution Control Strategy (PCS)

As indicated above, Total Maximum Daily loads (TMDLs) for nitrogen and phosphorus have been proposed for the Broadkill watershed. The TMDL calls for a 40% reduction in nitrogen and phosphorus from baseline conditions. A pollution control strategy will be used as a regulatory framework to ensure that these nutrient reduction targets are attained. The Department has developed an assessment tool to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Additional nutrient reductions may be possible through the implementation of Best Management Practices such as wider vegetated buffers along watercourses, increasing passive, wooded open space, using enhanced nutrient removal wastewater technologies, and the use of stormwater management treatment trains. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.

Water Resource Protection Areas

The DNREC Water Supply Section has determined that a significant portion of the proposed development falls within a wellhead protection area (see following map and attached map). Wellhead protection areas are surface and subsurface areas surrounding a public water supply well where land use activities or impervious cover may adversely affect the quantity and quality of ground water moving toward such wells. The review did not find any excellent groundwater recharge areas.

The DNREC Water Supply Section recommends that the portion of the new development within the wellhead protection area not exceed 20% impervious cover. Some allowance for augmenting ground-water recharge should be considered if the impervious cover exceeds 20% but is less than 50% of that portion of the parcel within this area. However, the development should not exceed 50% regardless. The purpose of an impervious cover threshold is to minimize loss of recharge (and associated increases in storm water) and protect the quality and quantity of ground water and surface water supplies.

The proposed development would change the impervious over from 23% to approximately 54%. These percentages are based on the square foot values provided by the PLUS applicant.

A water balance calculation will be necessary to determine the quantity of clean water to be recharged via a recharge basin (Thorntwaite, 1957). The environmental assessment must document that post-development recharge will be no less than predevelopment recharge when computed on an annual basis. Commonly, the applicant offsets the loss of recharge due to impervious cover by constructing recharge basins that convey relatively pure rooftop runoff for infiltration to ground water.

The proposed plan discusses dry infiltrations basins to manage storm water within the wellhead area. Care should be taken in the design and management of these ponds because they are in the capture zone of Lewes' drinking water supply. All the water entering these basins in the form of precipitation and runoff will be drawn into public water supply.

In addition, because the wellhead protection area the source of public drinking water, 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.

Map of Cape Henlopen High School (PLUS 2006-11-09). Map of proposed development as it impacts the wellhead protection area. The dark red area shows the wellhead protection area with affected parcel in light blue.



References

Delaware Department of Natural Resources and Environmental Control, 2005, Source Water Protection Guidance Manual for the Local Governments of Delaware, p. 144.

http://www.wr.udel.edu/publications/SWAPP/swapp_manual_final/swapp_guidance_manual_final.pdf

Delaware Code Annotated (2001). Title 7 Chapter 60 Subchapter VI, § 6083 (2006). Adoption of source water assessment, wellhead protection and excellent ground-water recharge potential areas by the Governor's Cabinet Committee on State Planning Issues. [Electronic version]. Retrieved November 8, 2006, from <http://www.delcode.state.de.us/title7/c060/sc06/index.htm#TopOfPage>

Kauffman, G.J., Wozniak, S.L., and Vonck, K.J., 2005, Delaware Ground-Water Recharge Design Manual: Newark, DE, Water Resources Agency, University of Delaware, p. 31.

Listed as: "Supplement 1 – Groundwater Recharge Design Methodology"
<http://www.wr.udel.edu/swaphome/Publications/SWPguidancemanual.html>

Climatic Water Budget

Thornthwaite, C. W. and Mather, J. R., 1957, Instructions and Tables for Computing Potential Evapotranspiration and the Water Balance: Drexel Institute of Technology, Laboratory of Climatology, Volume x, Number 3

Water Supply

The project information sheets state that the City of Lewes will be used to provide water for the proposed project. DNREC records indicate that the project is located within the public water service area granted to Lewes Board of Public Works under Certificate of Public Convenience and Necessity number 01-CPCN-07. It is recommended that the developer contact the Lewes Board of Public Works to determine the availability of public water. Any questions concerning CPCNs should be directed to the Public Service Commission at 302-739-4247. 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 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.

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 is an underground storage tank associated with the Cape Henlopen High School within 1000 feet of this project.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

Sediment and Erosion Control/Stormwater Management

A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through the Division of Soil and Water Conservation Sediment and Stormwater Program. Contact Elaine Webb with the Sediment and Stormwater Program at (302) 739-9921, for details regarding submittal requirements and fees.

A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted to the Division of Soil and Water Conservation along with the \$195 NOI fee prior to plan approval.

Green Technology BMPs must be given first consideration for stormwater quality management. Each stormwater management facility should have an adequate outlet for release of stormwater. Drainage program has received a complaint in 2006 related to a blockage in the stream downstream of the Cape Henlopen High School site. This may limit the school's ability to discharge.

Sediment traps surrounding the developed area will need to be provided during construction. Plan for sediment trap locations as well as discharge configurations.

Contact DNREC to schedule a preliminary meeting to discuss the sediment and erosion control and stormwater management components of the plan. 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.

Drainage

There are known drainage issues with Ebenezer Branch. The Drainage Program is investigating the removal of drainage obstructions from the branch. For more information, please contact Brooks Cahall of the DNREC Drainage Program at (302) 855-1930.

Site Investigation and Restoration

2 SIRB sites were found within a half-mile radius of the proposed site:

1. The Pagonis property was investigated in 1995. The recommendation was no further action. DNREC does not foresee any negative impact on the proposed site.
2. Lewes Coal and Gas: PAHs were detected during an investigation in 1989. Further investigation revealed presence of BTEX and TPH. A remedial investigation to determine the extent and degree of contamination is currently on going. It is difficult to say what impact this site will have on the proposed site at this point. However, the owner should take necessary precaution by avoiding groundwater use if there is any indication that the groundwater at the proposed site is contaminated.

State Fire Marshal's Office – Contact: Duane Fox 856-5298

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. 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):

- a. **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.
- b. **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

c. **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 Kings Highway 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.

d. **Gas Piping and System Information**

- Provide type of fuel proposed, and show locations of bulk containers on plan.

e. **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

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.delawarestatefiremarshal.com, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact: Scott Blaier 698-4500

The Delaware Department of Agriculture has no objections to the proposed application to construct a new high school on the existing high school site.

Right Tree for the Right Place

The Delaware Department of Agriculture Forest Service encourages the developer to use the “Right Tree for the Right Place” for any design considerations. This concept allows for the proper placement of trees to increase property values in upwards of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.

Native Landscapes

The Delaware Department of Agriculture and the Delaware Forest Service encourages the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants. To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

Tree Mitigation

The Delaware Forest Service encourages the developer to implement a tree mitigation program to replace trees at a 1:1 ratio within the site and throughout the community. This will help to meet the community's forestry goals and objectives and reduce the environmental impacts to the surrounding natural resources. To learn more, please contact our offices at (302) 349-5754.

Public Service Commission - Contact: Andrea Maucher 739-4247

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

Department of Education – Contact: John Marinucci 739-4658

1. The DOE supports locating school facilities on parcels with existing or reasonable access to civil infrastructure to include but not limited to:
 - Roads, pedestrian walkways and shared use paths
 - Waste water/sewerage and domestic water
 - Electric, and telecommunications
 - Storm water drainage and conveyance

School sites with public water and sewer utilities or access to public water and sewer utilities are recommended by DOE over sites requiring on-site facilities. This school site appears to offer access to adequate public civil utilities.

2. The DOE supports the State Strategies for Policies and Spending. When considering school facility locations, the DOE considers proximity and access to basic support services as a high priority.

The school location under consideration is already developed as a school site. The proposal will not significantly alter that usage rather, continue that usage with a new structure to replace the existing school structure.

3. The DOE supports locating school facilities strategically within the geographic region and/or community the facility is intended to serve in order to:
 - Encourage non-student pedestrian access to the school facility in an effort to reduce vehicle miles traveled to the extent practical

- Encourage student pedestrian access to the school facility, in order to contain the school's life-cycle operating costs associated with student transportation, as practicable
- Create education campuses by co-locating educational facilities and services in an effort to reduce life-cycle costs as a result of the co-located schools sharing common spaces, facilities and services.

Because the new school structure will be constructed on the same parcel as the current school structure, this is viewed as no net change once construction of the new school and demolition of the old school is completed. The district already owns the land, therefore reducing the cost of the overall project.

4. As a result, the DOE supports this site as a location for the Cape Henlopen High School Construction.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



Constance C. Holland, AICP
Director

CC: City of Lewes
Sussex County



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. Box 778
DOVER, DELAWARE 19903

CAROLANN WICKS, P.E.
SECRETARY

October 16, 2006

Mr. Lawrence B. Lank
Director
Sussex County Planning and Zoning Commission
P.O. Box 417
Georgetown, DE 19947

Dear Mr. Lank:

This letter concerns **Cape Henlopen High School**. As you may know, the Cape Henlopen School District seeks a conditional use approval to replace the existing high school with a larger one on its current campus (Tax Parcel 3-35-8.00-34.00). The parcel is 66.4 acres in size. A Support Facilities Report for this application, our application number S-06-09-01, is enclosed. **For the reasons discussed below, we do not recommend that a traffic impact study (TIS) be required for this application.**

Briefly, the high school expansion is included as a committed development in a TIS that was completed this year for a large mixed-use development on the southeast corner of Kings Highway (US Route 9) and Gills Neck Road (Sussex Road 267). That study is still under review, but we expect to comment on it later this year. In the process of reviewing that study, we anticipate identifying transportation improvements that should be required of the school district and we will send you a separate letter in that regard.

Mr. Lawrence B. Lank

October 16, 2006

Page 2 of 2

Please contact me at (302) 760-2109 if you have questions concerning this correspondence.

Sincerely,



T. William Brockenbrough, Jr.
County Coordinator

TWB:tsm

Enclosures

cc: Dennis J. Hughes, Davis, Bowen & Friedel, Inc.
Constance C. Holland, State Planning Coordinator, Cabinet Committee on State Planning Issues
Darrel Cole, Director, Public Relations
Kathy English, Director, Finance
Joseph Cantalupo, Assistant Director, Statewide and Regional Planning
Theodore G. Bishop, Assistant Director, Development Coordination
Marc Cote, Subdivision Engineer, Development Coordination
Gemez Norwood, South District Permit Supervisor, Maintenance and Operations
Charles Altevogt, Program Manager, Development Coordination
Monroe Hite, III, Project Manager, Project Development South, DOTS
William J. Dryden, Transportation Planner, Project Development South, DOTS
John T. Fiori, Subdivision Manager, Development Coordination
Joshua Schwartz, Subdivision Manager, Development Coordination
Todd Sammons, Project Engineer, Development Coordination
Troy E. Brestel, Project Engineer, Development Coordination



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

Support Facilities Report

Application #: S-06-09-01

SUSSEX COUNTY

Parcel # 335-8.00-34.00

Name: Cape Henlopen School District

Received Date: 09/27/2006

Approved Date: 09/29/2006

PART I - Preliminary Traffic Data

A. Estimated traffic generation for fully developed site:

1. Under Existing Zoning: Land use Agriculture

Zoning classification	Average daily traffic (estimated)	Projected hourly volume during the peak		a. <input checked="" type="checkbox"/> (Coincides with Highway Peak Hour) b. <input type="checkbox"/> Off Highway Peak Hour
		A.M. Hour	P.M. Hour	
AR-1	1516 vpd	359 vph	119 vph	
Assumes development as High School (ITE Land Use Code 530) generating on a per student basis, changed using ITE Manual.				
Total	1516 vpd	359 vph	119 vph	

2. Under Proposed Zoning: (maximum generation rate for zoning)

Zoning classification	Average daily traffic (estimated)	Projected hourly volume during the peak		a. <input checked="" type="checkbox"/> (Coincides with Highway Peak Hour) b. <input type="checkbox"/> (Off Highway Peak Hour)
		A.M. Hour	P.M. Hour	
AR-1 / CU	2530 vpd	585 vph	224 vph	
Assumes development as High School (ITE Land Use Code 530) generating on a per student basis, changed using ITE Manual.				
Total	2530 vpd	585 vph	224 vph	

B. Existing Traffic Data

Source	5 Traffic Summary
Road 1 U.S. 9, KINGS HWY. (CLAY RD., RD. 269 to LEWES LIMITS)	
Annual Average Daily Traffic (AADT)	13336 vpd
Summer Average Daily Traffic (SADT)	13336 vpd
Peak Hour Volume	1334 vph
Year of Traffic Count	4
Road 2 SEASHORE HWY (ROAD 12 to SW LEWES LIMITS)	
Annual Average Daily Traffic (AADT)	10678 vpd
Summer Average Daily Traffic (SADT)	13952 vpd
Peak Hour Volume	1914 vph
Year of Traffic Count	2

C. Projected traffic growth from committed developments as supplied by the County Planning Office (see attached listing of committed developments).

No information received from County Planning Office.

Road #	ADT	Dem. Vol.	a. <input type="checkbox"/> (Coincides with Highway Peak Hour) b. <input type="checkbox"/> (Off Highway Peak Hour)
Road 1			
Road 2			

