



STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**

800 BAY ROAD  
P.O. Box 778  
DOVER, DELAWARE 19903

CAROLANN WICKS, P.E.  
SECRETARY

September 29, 2008

Mr. Charles Baker  
General Manager  
New Castle County Department of Land Use  
87 Reads Way  
New Castle, DE 19720

Dear Mr. Baker:

DelDOT has completed its review of the traffic impact study (TIS) for The Pilot School (SNR 6630) in New Castle County, prepared by Landmark Engineering (LE), dated September 9, 2008. LE prepared the report in a manner generally consistent with DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access. The TIS evaluates the impact of the subject development, proposed to be located on a 50.34-acre parcel in New Castle County. The proposed land use consists of a 73,819 square foot private school. The Pilot School is located on the south side of Woodlawn Road (New Castle Road 223), west of the intersection of Woodlawn Road and Rocky Run Parkway. One access point is proposed along Woodlawn Road. Construction is expected to be complete by 2010.

Based on our review, we have the following comments and recommendations:

The proposed development meets the New Castle County Level of Service Standards as stated in Section 40.11.210 of the Unified Development Code (UDC). None of the studied intersections exhibit level of service (LOS) deficiencies.

The developer has proposed a roundabout at the proposed site access on Woodlawn Road. While a roundabout at this location would not exhibit any level of service deficiencies, the developer must still demonstrate that one installed at this location could operate safely. Thus, before we make any decision on whether or not a roundabout at this location would be acceptable, we will require that the developer perform additional studies.

Should the County choose to approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan. All applicable agreements (i.e., letter agreements for off-site improvements and traffic signal agreements) should be executed prior to entrance plan approval for the proposed development.



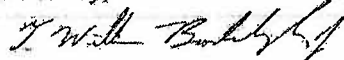
1. The developer should improve Woodlawn Road from the site entrance to Rocky Run Parkway to meet DelDOT's local road standards. Local road standards include two eleven-foot travel lanes and two five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes at DelDOT's discretion. DelDOT should analyze the existing travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if necessary.
2. The developer should install a single-lane roundabout or other sufficient and acceptable improvements at the site entrance on Woodlawn Road. A preliminary concept will need to be designed to determine if a roundabout is feasible at this location. In preparing this concept plan, the developer will need to provide a speed study on Woodlawn Road, a sight distance analysis, a review of the vertical profile, and possibly other studies related to roundabouts as described in NCHRP Report 572. The developer should coordinate with DelDOT's Traffic and Subdivision sections to determine the scope and schedule of these studies. If a roundabout is not found to be feasible, a conventional tee intersection with appropriate turning lanes should be required.
3. The developer shall replace the existing guard rail, located along Woodlawn Road near the Hurricane Run creek, with new guard rail and Type I attenuator. The developer should contact DelDOT's Subdivision Section for more information in this regard.
4. The following bicycle and pedestrian improvements should be included in the design of the proposed development:
  - a) A 14' X 22' shelter pad should be installed on the west side of Rocky Run Parkway at the intersection of Woodlawn Road. An ADA-accessible sidewalk should connect the proposed bus stop with the school's main entrance.
  - b) A seven-foot sidewalk, with a five-foot minimum buffer from edge of pavement, should be included along the frontage of Woodlawn Road.
  - c) ADA-compliant curb ramps and crosswalk should be included at the site entrance.
  - d) Upon further study, if a roundabout is determined to be feasible at the site entrance and is pursued, the following improvements should be made:
    - a. Pedestrian warning signs and shark-tooth yield markings should be included at all entrances to the roundabout.
    - b. Share the Road signs (MUTCD W11-1, W16-1) should be included at all entrances to the roundabout.

Please note that this review generally focuses on capacity and level of service issues; additional safety and operational issues will be further addressed through our subdivision review process.

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Additional details on our review of the TIS are attached. Please contact Mr. Troy Brestel at (302) 760-2167 if you have any questions concerning this review.

Sincerely,



T. William Brockenbrough, Jr.  
County Coordinator

TWB:tbm  
Enclosures  
cc with enclosures:

Ted Williams, Landmark Engineering  
Jerome S. Heisler, The Reybold Group  
Tigist Zegeye, WILMAPCO  
John Janowski, New Castle County Department of Land Use  
Owen Robatino, New Castle County Department of Land Use  
Frederick H. Schranck, Deputy Attorney General  
Darrel Cole, Chief of Community Relations, Public Relations  
Robert Taylor, Director, Transportation Solutions (DOTS)  
Ralph A. Reeb, Director, Division of Planning  
Drew Boyce, Assistant Director, Project Development North, DOTS  
Donald D. Weber, Chief Traffic Engineer, Traffic, DOTS  
Theodore G. Bishop, Assistant Director, Development Coordination  
Mark Luszcz, Assistant Chief Traffic Engineer, Traffic, DOTS  
Thomas E. Meyer, Traffic Studies Manager, Traffic, DOTS  
J. Marc Coté, Subdivision Engineer, Development Coordination  
A. Charles Altevogt, Program Manager, Development Coordination  
Jennifer Pinkerton, Deputy Principal Assistant, Pavement Management, M&O  
Mark Alexander, Canal District Engineer, Canal District  
Mark Tudor, Project Manager, Project Development South, DOTS  
Semia L. Hackett, Service Development Planner, Delaware Transit Corporation  
Anthony Aglio, Bicycle Coordinator, Statewide & Regional Planning  
Jennifer Baldwin, Pedestrian Coordinator, Statewide & Regional Planning  
Richard Woodhall, Subdivision Manager, Development Coordination  
Todd Sammons, Project Engineer, Development Coordination  
Troy Brestel, Project Engineer, Development Coordination  
Andrew J. Parker, McCormick Taylor

## General Information

**Report date:** September 10, 2008

**Prepared by:** Landmark Engineering

**Prepared for:** The Pilot School

**Tax Parcels:** 06-029.00-002

**Generally consistent with DeIDOT's *Standards and Regulations for Subdivision Streets and State Highway Access*:** Yes

## Project Description and Background

**Description:** 75,099 square foot private school

**Location:** South side of Woodlawn Road (New Castle Road 223), west of the intersection of Woodlawn Road and Rocky Run Parkway.

**Amount of land to be developed:** approximately 50.34 acres

**Land use approval(s) needed:** Subdivision approval, New Castle County Land Use approval

**Proposed completion date:** 2010

**Proposed access locations:** Woodlawn Road

## Livable Delaware

*(Source: Delaware Strategies for State Policies and Spending, July 2004)*

**Location with respect to the Strategies for State Policies and Spending Map of Delaware:** The proposed location of The Pilot School is located within Investment Level 4.

### **Description of Investment Level:**

#### *Investment Level 4*

Areas located within Investment Level 4 are predominantly agricultural; contain agribusiness activities, farm complexes and small settlements that are often found at historic crossroads. These areas contain undeveloped natural areas, including forestland and recreational parks, however may have scattered single-family detached residential homes located within them.

Transportation facilities and services will be preserved by the state while they continue to manage the transportation system in a manner that will support the preservation of the natural environment. The state will limit its investments in water and wastewater systems to existing public health, safety and environmental risks and discourage accommodating further development. In addition, the state will limit continued development of areas within Investment Level 4 to those that enhance agriculture and protect water supplies, preserve critical habitat and maintain existing education and public safety services. Although residential development is not desirable in Investment Level 4, conservation design techniques (protecting large portions of existing open space and farmland while clustering development on a smaller portion of the parcel and using environmentally friendly design innovations) can be utilized in some cases to help ensure that developments are compatible with the rural character and natural resources present in the area. However, it is the state's general intent to discourage additional development in Investment Level 4 areas that are unrelated to the areas' needs by limiting infrastructure investment.

**Proposed Development's Compatibility with Livable Delaware:** The Pilot School falls within Investment Level 4. As described, Investment Level 4 contains areas that are generally limited to maintain existing education and public safety services. As the proposed school is essentially being relocated from an existing site, this development proposal is generally consistent with the policies in the 2004 update of the Livable Delaware "Strategies for State Policies and Spending."

### Comprehensive Plans

The proposed development is located within New Castle County.

**New Castle County Comprehensive Plan: (Source: New Castle County Comprehensive Plan Update, 2007)**

The site is located in an area with a Future Land Use designated as Resource and Rural Preservation.

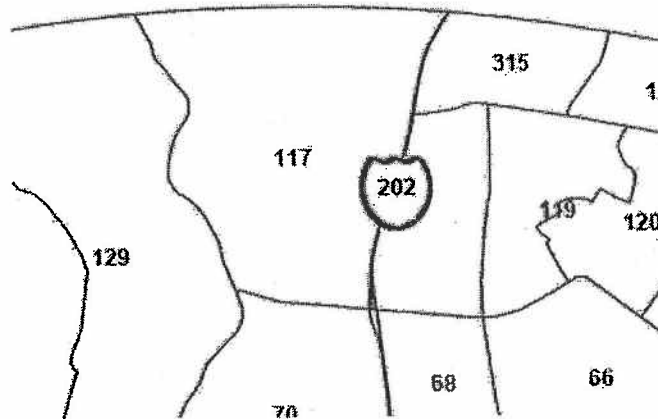
The land is currently zoned SE (Suburban Estate), and the developer does not plan to change the zoning. According to Section 40.02.233 of the New Castle County Unified Development Code (UDC), current characteristics of SE zoning include:

- This district is not serviced by sewer, and is not planned for sewer service in the future. Some areas may have public water available. The development pattern is planned for full build-out.
- The character of the area is intended to preserve a character that has long been established in northern New Castle County for single-family homes on large lots.
- Landscaping and design are intended to enhance or preserve the character of the area and preserve the views of the landscape. Both single-family and open space subdivisions are provided to insure that difficult sites can be utilized.

**Proposed Development's Compatibility with Comprehensive Plan:** Based on the above description of Suburban Estate zoning and the data shown on the site plan, the proposed school generally does not adhere to this section of the New Castle County Unified Development Code.

**Regional Transportation Plan**

**Transportation Analysis Zones (TAZ) where development would be located: N117**



**TAZ Boundaries:**

**Current employment estimate for TAZ: 2,515 in 2005**

**Future employment estimate for TAZ: 2,512 in 2030**

**Current population estimate for TAZ: 225 in 2005**

**Future population estimate for TAZ: 729 in 2030**

**Current household estimate for TAZ: 92 in 2005**

**Future household estimate for TAZ: 319 in 2030**

**Relevant committed developments in the TAZ: Brandywine Hunt, Brown Property, Village of Brandywine.**

**Would the addition of committed developments to current estimates exceed future projections: Yes**

**Would the addition of committed developments and the proposed development to current estimates exceed future projections: Yes**

**Relevant Projects in the DelDOT Capital Transportation Program (2008-2013)**

Currently, there are no DelDOT projects within the study area.

**Trip Generation**

As there is no proposed increase in the number of students or faculty at the proposed school from its existing condition, trips for the proposed school were generated using counts taken at the school's present site.

**The Pilot School Trip Generation**

Land Use	Morning Peak Hour			Evening Peak Hour		
	In	Out	Total	In	Out	Total
75,099 square foot private school	171	122	293	17	17	34

