



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

July 15, 2010

Mr. Ted Williams  
Landmark Engineering  
100 W. Commons Blvd., Ste. 301  
New Castle, DE 19720

RE: PLUS review – 2010-06-02; Meridian Crossing II

Dear Mr. Williams:

Thank you for meeting with State agency planners on June 23, 2010 to discuss the proposed plans for the Meridian Crossing II project to be located on the north side of Old Porter road, east of Porter Road.

According to the information received, you are seeking site plan approval through New Castle County for the expansion of a previously recorded subdivision from 51 lots to 71 lots to consist of 50 twin homes and 21 town homes.

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

**Strategies for State Policies and Spending**

- This project is located in Investment Level 2 according to the *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. Our office has no objections to the proposed development of this project in accordance with the relevant county codes and ordinances.

### **Code Requirements/Agency Permitting Requirements**

#### **State Historic Preservation Office – Contact Terrence Burns 736-7404**

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

Prior to any demolition or ground-disturbing activities, the developer may want to consider hiring an archaeological consultant to examine the parcel for archaeological sites, including a cemetery or unmarked human remains.

- If there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on or in reference to historic or cultural resources.

#### **Department of Transportation – Contact Bill Brockenbrough 760-2109**

- The site access and subdivision streets must be designed in accordance with DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access. This manual is available on-line at [http://www.deldot.gov/information/pubs\\_forms/manuals/subdivisions/pdf/Subdivision\\_Manual\\_Revision\\_1\\_proposed\\_060110.pdf](http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf).

#### **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 C & D Canal and Red Lion Creek watersheds. In the Red Lion Creek watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nutrients (e.g., nitrogen, phosphorus), and bacteria (under the auspices of Section 303(d) of the Federal Clean Water Act). A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited water body” can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; *State of Delaware Surface Water Quality Standards, as amended July 11, 2004*) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the Red Lion Creek watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 38 percent reduction in bacteria from baseline conditions. Although a TMDL has not been developed for the C&D Canal watershed to date, the TMDL developed for the Red Lion Creek will apply to

the entirety of the project area. *John Martin, Watershed Assessment Section, (302) 739-9939, [John.Martin@state.de.us](mailto:John.Martin@state.de.us)*

- **Water Supply.** The project information sheet state water will be provided by United Water DE via a public water system. DNREC records indicate that the rightmost part of this project is located within the public water service granted to United Water of Delaware under Certificate of Public Convenience and Necessity (CPCN) 88-CPCN-03; however, the leftmost part of this project is located within the public water service area granted to Artesian Water Company under Certificate of Public Convenience and Necessity 85-WS-03. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at (302)736-7547. Should an on-site public well be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area. Furthermore, they must be located at least 150 feet from the outermost boundaries of the project(s). The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be located and constructed 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. *Ricardo Rios, (302) 739-9944, [Ricardo.Rios@state.de.us](mailto:Ricardo.Rios@state.de.us)*
- **Sediment and Stormwater Program.** A new sediment and stormwater plan will be required for 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 revised plan as soon as possible. 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 New Castle County Department of Land Use Engineering Section. Contact the Department of Land Use at (302) 395-5470 for details regarding submittal requirements and fees (Delaware Code, Title 7, Chapter 40; Delaware Regulations, Administrative Code, Title 7, 5101). *James Sullivan, (302) 739-9921, [James.Sullivan@state.de.us](mailto:James.Sullivan@state.de.us)*

- **Tank Management Branch.** If a release of a Regulated Substance occurs at the proposed project site, compliance with 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 LUST projects located within a quarter mile of the project site.

- Per the **UST Regulations: Part E, § 1. Reporting Requirements:**
  - “Any indication of a Release of a Regulated Substance that is discovered by any Person, including but not limited to environmental consultants, contractors, utility companies, financial institutions, real estate transfer companies, UST Owners or Operators, or Responsible Parties shall be reported within 24 hours to:
    - The Department’s 24-hour Release Hot Line by calling 800-662-8802; and
    - The DNREC, Tank Management Branch by calling 302-395-2500.”
    -
- **Air Quality.** The applicant shall comply with all applicable Delaware air quality regulations. These regulations include:

**Regulation 1106** - Particulate Emissions from Construction and Materials Handling

- Using dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.
- Using covers on trucks that transport material to and from site to prevent visible emissions.

**Regulation 1113** - Open Burning

- Prohibiting open burns statewide during the Ozone Season from May 1-Sept. 30 each year.
- Prohibiting the burning of land clearing debris, trash or building materials/debris.

**Regulation 1141** – Limiting Emissions of Volatile Organic Compounds From Consumer and Commercial Products

- Restricting the use of certain coatings and consumer products in typical architectural applications.

**Regulation 1145** - Excessive Idling of Heavy Duty Vehicles

- Restricting idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

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

At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

- **Fire Protection Water Requirements:**

- Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. In the area of the Single Family dwellings, hydrants spacing can be reduced to 1000 feet on centers
- Where a water distribution system is proposed, 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 Sq. Ft. aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sq.ft., 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR

- **Accessibility**

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from the main thoroughfare 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 plan to place trees along the drive aisles may cause an obstruction to clear access by fire apparatus and needs to be addressed.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

- **Gas Piping and System Information:**

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

- **Required Notes:**

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Proposed Use
- Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
- Square footage of each structure (Total of all Floors)
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Where Townhouses are proposed, 2-hr separation wall details shall be shown on site plans
- 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

Department of Education – Contact John Marinucci 735-4199

- This development will be subject to the New Castle Voluntary School Assessment Statutes 9 Del. C. Chapter 26, § 2661 and 14 Del. C. § 103(c).

This previously recorded subdivision has been previously certified as requiring a Voluntary School Assessment Agreement in 2003. At that time the Colonial School District reported a lack of school capacity to accommodate the students likely to be generated by the subdivision.

Because the previous VSAA certification is approximately seven years old and the subdivision is being revised, the DOE will require a re-certification in accordance with 9 Del. C. Chapter 26, § 2661 and 14 Del. C. § 103©

### **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.

#### State Historic Preservation Office – Contact Terrence Burns 736-7404

- The developer should also provide some landscaping along the borders of the parcel in order to lessen the visual effects on the surrounding properties.

#### Department of Transportation – Contact Bill Brockenbrough 760-2109

- DelDOT recommends that the developer's engineer contact the DelDOT Subdivision Manager for northwestern New Castle County, Mr. Joshua Schwartz, to schedule a pre-submittal plan review meeting. Mr. Schwartz may be reached at (302) 760-2768.
- DelDOT's standard reference for estimating development traffic is Trip Generation, an informational report published by the Institute of Transportation Engineers. This report does not treat twin homes separately from single-family detached houses or townhouses. They must treat twin homes as one or the other. When the houses are relatively large and flat, similar to single-family detached homes, we treat twin homes as single-family detached homes. More commonly, however, they are relatively small and vertical, more similar to townhouses, and DelDOT treats them as such. As the developer's engineer explains in the attached letter, the proposed twin homes would closely resemble townhouses, and the proposed plan can be expected to generate less traffic than the development that is presently recorded. Therefore, while a new development with this daily trip generation would warrant a Traffic Impact Study based on Section 2.3.1 of our Standards and Regulations, we find that the proposed plan change does not warrant one.

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

- **Additional information on TMDLs.** A pollution control strategy (PCS) is the regulatory directive requiring the implementation of various best management practices (BMPs) that help reduce transport of nutrient and bacterial pollutant runoff from all waters draining into a "greater" common watershed, with the ultimate objective of

achieving the obligatory TMDL reduction requirements for that watershed. However, the PCS for the C&D canal and Red Lion creek watersheds have not been formally completed to date. In absence of a final PCS, the applicant is strongly urged to reduce nutrient and bacterial pollutants through the voluntary commitment to the implementation of the following recommended BMPs:

- Please maximize open space by retaining the existing native tree cover and/or planting of additional native trees/ herbaceous plant cover on this parcel.
- DNREC strongly recommends 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, and roads) included in the calculation. 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 via the application/use of pervious paving materials (“pervious pavers”) in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation (or establishment of additional forest cover acreage) – are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness.
- DNREC strongly urges the applicant to voluntarily limit paved surface imperviousness through substitution of pervious paving materials instead of conventional paving materials (e.g., asphalt and concrete) for any remaining unpaved surfaces (although it appears that most of the roads have been constructed).
- Additionally, they strongly recommend the use of rain gardens, and green-technology storm water management structures (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacteria pollutant runoff impacts from the constructed forms of surface imperviousness.
- The Department has also developed an assessment tool to evaluate how your proposed development may reduce nutrients and bacteria to help meet the TMDL requirements. Please contact Lyle Jones at 302-739-9939 for more information on the assessment tool.
- **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 TMB. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMB.

- Should the municipality anticipate being more restrictive than Delaware's Regulations Governing Underground Storage Tank Systems or Delaware's Regulations Governing Aboveground Storage Tanks, please be aware that the municipality shall be responsible for enforcing the more restrictive rules.
- **Hazardous Waste Sites.** The Site Investigation and Restoration Branch (SIRB) strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Assessment 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.
- There is one SIRB site found within a ½-mile radius of the proposed project:
  - Parkway Gravel Company (DE-0086) is to the east of the project area, across the railroad tracks. The United States Environmental Agency performed a Preliminary Assessment of the site and determined that no further action was needed as of 1985.
- 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). SIRB should also be contacted as soon as possible at 302-395-2600 for further instructions.
- **Additional information on air quality.** Measures may be taken to substantially reduce the air quality emissions and include:
  - **Constructing only energy efficient buildings.** Energy Star qualified buildings are up to 30% more energy efficient. These savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of increased energy efficiency translates into a percent reduction in pollution.
  - **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.

- **Providing tie-ins to the nearest bike paths and links to any nearby mass transport system.** For every vehicle trip that is replaced by someone using a sidewalk, bike path or mass transit can significantly reduce mobile source emissions.
- Additionally, the following measures will reduce emissions associated with the actual construction phase of the development:
  - **Using retrofitted diesel engines during construction.** This includes equipment that are on-site as well as equipment used to transport materials to and from site.
  - **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
  - **Planting trees at residential units and in vegetative buffer areas.** Trees reduce emissions by trapping dust particles and by replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development on air quality. The applicant is advised to contact DNREC Air Quality Management Section for measures that may be incorporated into the Meridian Crossing development.

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

- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: [www.statefiremarshal.delaware.gov](http://www.statefiremarshal.delaware.gov), technical services link, plan review, applications or brochures.

Delaware State Housing Authority – Contact Karen Horton 739-4263

- DSHA supports the expansion of a previously recorded plan from 51 lots on 20 acres to 71 lots (59 duplexes and 21 townhomes) that will provide more affordable housing

Department of Education – Contact John Marinucci 735-4199

- DOE requests developer work with the affected School District transportation department to establish developer supplied bus stop shelter ROW and shelter structures, either at the entrance to the development or interspersed throughout the development as determined and recommended by the that school district.
- DOE recommends that any playgrounds be installed and maintained in accordance with ASTM Designation F-1487 and CPSC PUB. 325

Department of Agriculture – Contact Scott Blaier 698-4529

- 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. To further support this concept the Delaware Forest Service does not recommend the planting of the following species due to the high risk of mortality from insects and disease:

Callery Pear

Leyland Cypress

Ash Trees

Red Oak (except for Willow Oak)

If you would like to learn more about the potential problems or impacts associated with these trees, please contact the Delaware Forest Service for more information at (302) 698-4500.

- 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.

**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  
Office of State Planning Coordination Director

CC: New Castle County