



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

August 10, 2012

Mr. Brian Conlon  
30 South 17<sup>th</sup> Street, St. 13000  
Philadelphia, PA 19103

RE: PLUS review – 2012-07-03; Christiana Mall expansion

Dear Mr. Conlon:

Thank you for meeting with State agency planners on July 25, 2012 to discuss the proposed plans for the expansion 850 sq. ft. Christiana Mall expansion and a proposed 100,000 sq. ft. retail building to be placed adjacent to the mall.

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 1 according to the *Strategies for State Policies and Spending*. This property is also an existing retail mall. Investment Level 1 reflects 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. Our office has no objections to the proposed 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 resources, such as archeological sites or National Registered listed property on this parcel. However, if this proposed development or construction project proceeds the developer still needs to be aware of Delaware's Unmarked Human Burials and Human Skeletal Remains Law, which is outlined in Chapter 54 of Title 7 of the Delaware Code.

Abandoned or unmarked family cemeteries are very common in the State of Delaware, and often they are either on or near a historic farm site, in rural areas or open space lands. Disturbing unmarked burials triggers Delaware's Unmarked Human Burials and Human Skeletal Remains Law (Delaware Code Title 7, Chapter 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area for the presence of such a cemetery. If a cemetery is discovered, it is very costly to have it archaeologically excavated and the burials moved. In the event of such a discovery, the Division of Historical & Cultural Affairs recommends that the plans be re-drawn to leave the cemetery on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with a homeowners association or development. If you need or would like to read more information in reference to cemeteries, burial grounds or unmarked human remains, please go to 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).

Prior to any demolition, ground-disturbing or construction activity, the developer should consider hiring an archaeological consultant to examine the parcel for archaeological sites, such as a cemetery or unmarked human remains.

- If there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential 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. Any preconstruction activities without adherence to these stipulations may jeopardize the issuance of a permit

or receipt of funding if it is determined that such opportunity to comment has been foreclosed. 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)

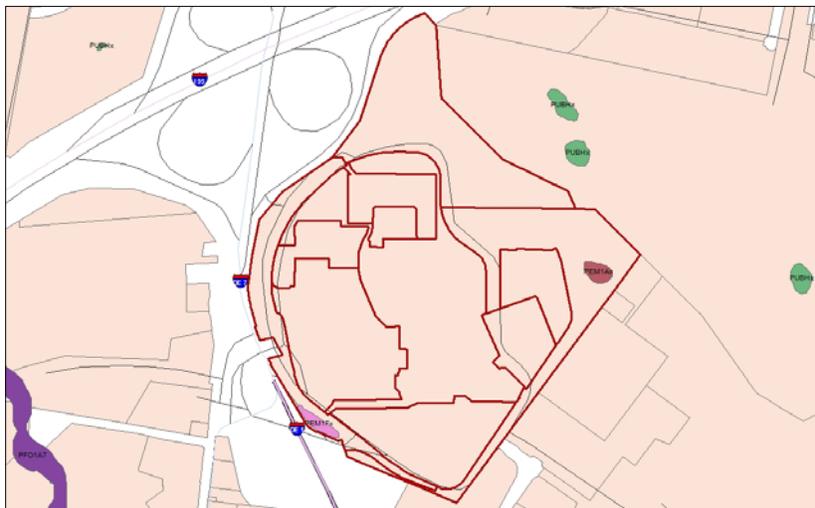
Department of Transportation – Contact Bill Brockenbrough 760-2109

- DelDOT has received the applicant's July 5, 2012, letter to New Castle County seeking a waiver of the County's requirement for a Traffic Impact Study. As that letter states, the applicant's traffic engineer has already begun work on a Traffic Operational Analysis (TOA) in support of their application. DelDOT provided a scope of work for this analysis (copy attached) based on the understanding of the County's Unified Development Code but they are open to changes to it if the County believes any are needed.
- DelDOT anticipates receiving a letter from the County regarding the application and will respond when we do, but preliminarily they are supportive of the waiver request subject to conditions still to be determined. DelDOT will respond separately to the TOA when they have received and reviewed it, and they may have conditions to recommend then.
- Further, regarding the July 5 letter, to DelDOT's knowledge the Churchman's Crossing area has never formally been designated as a Transportation Improvement District (TID). It has some aspects of a TID and DelDOT and the County has treated it as one for purposes of their waiver processes but the area was not established with the intent of designating it to be one.
- The Delaware Transit Corporation (DTC) will reserve specific comment until plans are received depicting the relocation and redesign of the Park and Ride.
- In general, DTC expects that the current agreement concerning the Park and Ride will be honored. The redesign must include ADA accessible transit amenities and should also incorporate the same transit operator facility as is provided at the current location. The relocated site must accommodate the internal circulation and layover of transit buses which also allows for consolidated transit operations and service at the Park and Ride during the holiday season detour.
- DTC is eager to meet and discuss further details regarding the Park and Ride in relation to the Mall's development plan design and phasing. Mr. John Sisson, DTC's Manager of Capital Projects and Facilities, may be contacted in this regard. Mr. Sisson can be reached at (302) 760-2501.

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

## Wetlands

- According to the stream layer on our global information system there is a tributary of the Christina River located on the east side of the subject property. If the stream is to be impacted then a jurisdictional determination should be requested from the Wetlands and Subaqueous Lands Section. If the tributary is jurisdictional then a permit will be required to perform work in the tributary. The New Castle County swamp map layer indicates a possible isolated non-tidal wetland area also located on the east side of the property. There are no State-regulated wetlands on the subject property.
- The Statewide Wetland Mapping Project (SWMP) map of the proposed project site is listed below (Figure 1). The SWMP map should only be used as a means of assessing the potential for wetland occurrence on the proposed project site; the map should not be used in lieu of a wetlands delineation/assessment by the Subaqueous Lands Section. A small excavated pond-like wetland area is mapped in the west-central portion of the parcel (PEM1Ax). This wetland should not be used or converted for use as a storm water management structure. As mentioned previously, please contact subaqueous lands section at (302) 739-9943 to schedule an onsite assessment.



**Figure 1:** SWMP mapping in the immediate vicinity of the proposed project

## TMDLs

- Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the greater Christina River 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 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.

- TMDLs are required by federal law (Section 303(d) of the 1972 Clean Water Act), and the states are charged with developing and implementing specific land use practices that support these desired use goals. The project is located in the greater Christina River watershed. In the Christina River watershed, post-development nitrogen and phosphorus loading must be capped at the pre-development or baseline loading rate (or a 0% post-construction increase in N & P in Delaware's portion of the Christina River Basin) to meet the required TMDL for each nutrient. Moreover, bacteria must be reduced by 29-95% under high flow conditions to meet the required TMDL. The specific required nutrient and bacterial requirements for various stream segments in the watershed and background information is in the report entitled "*Christina River Basin High-Flow TMDL*" by the EPA. This report can be retrieved from the following web link: [http://www.epa.gov/reg3wapd/tmdl/pa\\_tmdl/ChristinaMeetingTMDL/index.htm](http://www.epa.gov/reg3wapd/tmdl/pa_tmdl/ChristinaMeetingTMDL/index.htm)
- A nutrient management plan is required under the *Delaware Nutrient Management law (3 Del.Code, 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 may exceed this 10-acre threshold. Please contact the Delaware Nutrient Management Program at 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 project information sheets state water will be provided to the project by Artesian Water Company via a public water system. Our records indicate that the project is located within the public water service area granted to Artesian Water Company under Certificate of Public Convenience and Necessity 85-WS-03.
- 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 a Landfill site associated with the Marta & Acierno Christiana Mall, and a Superfund site associated with the Christiana Mall Site located within 1000 feet of the proposed project.

### **Sediment and Stormwater Program**

- A 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 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. (Title 7, Delaware Code, Chapter 40 and Delaware Regulations, Title 7, Administrative Code, 5101)

### **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.

### **Tank Management Branch Please be aware:**

- 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.
- The following confirmed leaking underground storage tank (LUST) projects and underground storage tank (UST) facilities are located within the proposed project area:
  - Strawbridge & Clothier Christiana Mall, Facility: 3-001051, Project: N9110241 (Inactive) - 10/17/91--10000 gallon fuel oil tank removed. Composite sample 273 ppm tph. 2/19/92--130 tons of contaminated soil used as construction fill on-site. NFA letter issued 1/16/92.
  - New Castle Assoc Christiana Mall, Facility: 3-000624, Project: N9602044 (Inactive) - 3/25/96—Diesel tank for emergency generator. NFA 3/13/96. 2/25/96—free product disposed of by VAC truck at time of tank removal/sampling. Sample results below action levels.

- J C Penney Company Christiana Mall, Facility: 3-000464, Projects:
  - N9110239 (Inactive) - 10/17/91—6000 gallon heating oil tank failed a precision tightness test on 9/10/91. Tank passed second precision tightness test on 9/16/91. NFA letter issued on 2/24/92.
  - N9112304 (Inactive) - 10/23/91--10000 gallon tank removed. . NFA letter issued 12/20/91.
  - N9904076 (Inactive) - Removal of 6,000 gallon UST indicates that severe petroleum contamination (16,000 PARTS PER MILLION DRO) remains in the soils just surrounding corrugated p piping intersecting the excavation on one site and located about halfway between ground surface and the tank pit bottom. All other contaminations originally on site was removed, which is also indicated by confirmatory soil sample results and field observations (11 PPM DRO OR LESS). N Additional sampling along the piping run is required. 7/12/99--NFA letter issued to J.C.PENNEY
  
- Macy's Inc. Christiana Mall, Facility: 3-001967, NO LUST
  
- Macy's East Christiana Mall, Facility: 3-001248, NO LUST
  
- No environmental impact is anticipated; however, 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	<ul style="list-style-type: none"> <li>• Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.</li> <li>• Use covers on trucks that transport material to and from site to prevent visible emissions.</li> </ul>
<b>7 DE Admin. Code 1113</b> – Open Burning	<ul style="list-style-type: none"> <li>• Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year.</li> <li>• Prohibit the burning of land clearing debris.</li> <li>• Prohibit the burning of trash or building materials/debris.</li> </ul>
<b>7 DE Admin. Code 1141</b> – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	<ul style="list-style-type: none"> <li>• Use structural/ paint coatings that are low in Volatile Organic Compounds.</li> <li>• Use covers on paint containers when paint containers are not in use.</li> </ul>
<b>7 DE Admin. Code 1144</b> – Control of Stationary Generator Emissions	<ul style="list-style-type: none"> <li>• 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).</li> <li>• Maintain recordkeeping and reporting requirements.</li> </ul>
<b>7 DE Admin.</b>	<ul style="list-style-type: none"> <li>• Restrict idling time for trucks</li> </ul>

<b>Code 1145</b> – Excessive Idling of Heavy Duty Vehicles	and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.
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For a complete listing of all Delaware applicable regulations, please look at our website:  
<http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

### **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.

#### Office of State Planning Coordination – Contact Herb Inden 302-739-3090

- An expansion at the Christiana Mall is certainly welcome news, both from an economic development standpoint and the fact that this is a very appropriate area for such a development. As noted at this meeting, the recent updates to the mall have done well in recognizing the benefits of making the area more pedestrian friendly, especially with improvements to the parking area. Furthermore, we understand that the relocation of the Park'n Ride lot will move this area closer to the mall which will both benefit the riders and the mall by making it easier and more attractive to access the mall. As noted at this meeting, it is our expectation that though this new development will not actually be attached to the mall that a strong pedestrian link can still be made between both buildings. As was stated, our hope in this regard is that such a linkage should encourage people to walk rather than drive in between buildings. One idea in this regard would be to use something similar to what was done at the King of Prussia Mall, where they used a canopy in between buildings. Also, given the fact that more development is still possible at the mall, we would like you to consider looking into doing some kind of master plan for linking all the uses in and around the Christiana Mall again, so people can minimize the need to drive to all the shopping areas and thus, making this a more attractive place to shop. We would offer our assistance with the development of such a plan.

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

- DelDOT recommends that the applicant have their site engineer contact the Subdivision Manager for this part of New Castle County, Mr. Joshua Schwartz, to discuss requirements with regard to site and entrance plans. While DelDOT has no further comments on the plan presented here, they may have some as development of the plan progresses. Mr. Schwartz may be reached at (302) 760-2768.

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

- 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, housing, 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.

**Soils Assessment**

- The predominant soil mapping unit mapped in the immediate vicinity of the proposed project area is Urban Land (Up). Urban Land is a soil mapping unit consisting of soil materials that have been extensively modified by filling (native/nonnative soil and/or trash/building debris), grading or removal practices. Urban land has variable limitations for development which can only be assessed by an onsite examination (See figure 2). Also, significant potential exists for the presence of some unmapped hydric soil inclusions in the Keyport soil mapping unit. We strongly recommend a United States Army Corps of Engineers (USACOE) approved wetlands delineation before commencing any development activities.



Figure 2: NRCS soil mapping in the immediate vicinity of the proposed project

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

- 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 designated for that watershed. However, the PCS for the Murderkill watershed has not been formally completed to date. In the absence of a current PCS, the applicant is strongly urged to reduce nutrient and bacterial pollutants through the voluntary commitment to the implementation of the following recommended BMPs:
- We encourage the applicant to maintain as much of the existing forest cover as possible. We further suggest additional native tree and native herbaceous planting wherever possible.
- A United States Army Corps of Engineers (USACE) approved wetlands delineation is strongly recommended.
- Based on a review of existing buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. *Wetland and Stream Buffer Requirements – A Review*. J. Environ. Qual. 23: 878-882.), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer (planted in native vegetation) from all water bodies (including ditches) and wetlands (field delineated and approved by the USACE). A buffer width less than 100-foot from wetlands or waterways are not sufficiently protective of water quality.
- The applicant should 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.
- Since this is a large project that will likely generate a great amount of impervious cover, we advise the use of pervious paving materials (instead of conventional asphalt and concrete) as a BMP to reduce the impacts associated with surface imperviousness, wherever practicable.
- We 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 bacterial pollutant impacts via runoff from impervious surfaces.

- The 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 (e.g., nitrogen and phosphorus) and bacterial loading that result from the conversion of individual or combined land parcels to a different land use(s), while providing applicants with quantitative information about their project’s impact(s) on baseline water quality. We encourage the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact Lyle Jones at 302-739-9939 for more information on the protocol.

#### **Additional information on hazardous waste**

- There is one Site Investigation and Remediation (SIRS) site within a ½ mile radius of the property in question. The Christiana Mall Dump Site (DE-0186) is located in the south-west portion of the project property. A Preliminary Assessment was completed in February of 1988 because of the discovery of an unauthorized dump. It was observed by a SIRS representative and workers from the Christina Mall that the dump held some domestic waste, appliances and furniture. No drums were found. The dump area has since been covered by pavement and buildings for the mall. No evidence of a release or contamination was found and the Site was issued a No Further Action Designation in January of 2002.
- DNREC 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 County.

- 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 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 air quality**

- Commercial spaces may emit, or cause to be emitted, 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; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
  - The emission of greenhouse gases which are associated with climate change, and
  - The emission of air toxics.
- Air emissions generated from commercial spaces 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 needed, and
  - All transportation activity.
- Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) for this project could not be quantified. DAQ was only able 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 – Projected Air Quality Emissions represents the actual impact the Christiana Mall expansion project may have on air quality.

Emissions Attributable to Christiana Mall (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 Source	9.0	11.9	*	*	*

(\* ) Indicates data is not available.

- Note that emissions associated with the actual construction, 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.
- 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 excellent way to save on energy costs and reduce air pollution.
  - **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.
  - **Providing tie-ins to the nearest bike paths and links to any nearby mass transport system.** These measures can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk, a bike path or mass transit, 7 pounds of VOC and 11.5 pounds of NO<sub>x</sub> are reduced each year.
  - **Using retrofitted diesel engines during construction.** This includes equipment that are on-site as well as equipment used to transport materials to and from site.

- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- **Planting trees in vegetative buffer areas.** Trees reduce emissions by trapping dust particles and 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 which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Christiana Mall expansion project.

**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: New Castle County



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

SHAILEN P. BHATT  
SECRETARY

**MEMORANDUM**

**TO:** File

**FROM:** T. William Brockenbrough, Jr., County Coordinator 

**DATE:** May 25, 2012

**SUBJECT:** **Cabela's at Christiana Mall**  
**Scope of Work for Traffic Operational Analysis (TOA)**  
**Meeting on May 11, 2012**

**ATTENDANCE:** Drew A. Boyce, DelDOT Project Development North  
T. William Brockenbrough, Jr., DelDOT Development Coordination  
Brian M. Conlon, Langan Engineering & Environmental Services  
J. Marc Cote', DelDOT Development Coordination  
Vincent M. Iavarone, VMI-Maris Traffic Consultants  
Nicole Majeski, DelDOT Deputy Chief of Staff  
Darren O'Neill, DelDOT Project Development North  
Frederick H. Schranck, Deputy Attorney General  
John Sisson, Delaware Transit Corporation  
Larry J. Tarabicos, Elzufon, Austin, Reardon, Tarlov and Mondell  
James P. Whitcome, General Growth Properties

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**Background and Discussion**

General Growth Properties (GGP), as owner of the Christiana Mall, seeks to redevelop the DART First State Park-and-Ride lot at the north end of the property as a 100,000 square foot Cabela's sporting goods store. The Park-and-Ride lot would be moved closer to the bus stop serving the mall.

GGP plans to seek a waiver from New Castle County and DelDOT's requirements of a Traffic Impact Study (TIS) based on the mall's location within the Churchmans Crossing Area, which resembles a Transportation Improvement District in some respects. While it was not a scoping meeting per se, part of the discussion at the subject meeting addressed the need for and extent of a Traffic Operational Analysis (TOA) that DelDOT may require in considering their waiver request.



This memorandum is to address in some detail what DeIDOT is likely to require in that TOA if a waiver is requested.

### **Cases to be Evaluated**

The study shall evaluate the Saturday mid-day peak hours for the following situations:

- 1) Existing (2011 or 2012);
- 2) 2014 without development;
- 3) 2014 with development;

### **Facilities to be Evaluated**

The TOA should evaluate conditions at the following intersections for capacity and level of service using the Highway Capacity Software (HCS). It should also evaluate the extent to which they meet the relevant DeIDOT, AASHTO and MUTCD standards for geometry and traffic control devices.

- 1) Center Boulevard / Christiana Mall Ring Road
- 2) Center Boulevard / Center Boulevard
- 3) Center Boulevard / Driveway serving Dick's Sporting Goods and other stores.

### **Traffic Counts**

The Consultant should count traffic **and pedestrians** from 10:00 a.m. to 2:00 p.m. on a Saturday, to determine when the peaks occur.

The traffic counts should be submitted to DeIDOT both electronically as PETRA/Excel files and as draft report figures showing peak hour volumes (labeled with date and peak hour interval) posted on diagrams of the road network.

The Consultant should include counts of pedestrians, a separate count of right-turn on red (in addition to right-turn movement counts), and a separate count of heavy vehicles.

The Consultant should be alert for events affecting the traffic counts, such as accidents or nearby construction and shall inform me of any such events when submitting the counts. As necessary, DeIDOT reserves the right to reject the counts or require adjustments to them.

**Trip Generation** should be done using the 8<sup>th</sup> edition of the ITE Trip Generation report.

**Trip Distributions** for the proposed and committed developments should be submitted with the traffic counts.

### **Growth Factors and Committed Developments**

The Consultant shall apply growth factors to the traffic counts. DelDOT will develop those factors after we receive the Consultant's traffic counts.

The Consultant shall add in projected traffic from Allied Properties' planned 915,000 square foot shopping center (Colonnades at Christiana a.k.a. Christiana Fashion Center).

### **Highway Capacity Software**

The Consultant shall use the most recent version of the Highway Capacity Software (HCS) that implements the 2000 Highway Capacity Manual (HCM). Presently, that is Version 4.1f or HCS+.

**Seasonal Adjustment Factors** are not applicable to this analysis.

### **DelDOT Projects**

While there are no active projects within the immediate study area, DelDOT is engaged in major reconstruction and expansion of the I-95 / Delaware Route 1 / Delaware Route 7 interchange. This project should be discussed in the text of the report.

More broadly, the proposed development is located in the Churchmans Crossing Study Area. This area functions in some respects like a Transportation Improvement District. The Churchmans Crossing Study should be discussed in the text of the report.

### **Transit, Bicycle, and Pedestrian Facilities**

The analysis should describe the existing and proposed transit service in the project area and should also describe the existing and needed transit, bicycle, and pedestrian facilities on or near the project site. In determining these items, the Consultant shall contact Mr. Wayne Henderson, a Service Development Planner at the Delaware Transit Corporation (DTC), and Mr. Marco Boyce, of DelDOT's Statewide and Regional Planning Section. Mr. Henderson may be reached at (302) 576-6063. Mr. Boyce may be reached at (302) 760-2527.

### **General Notes**

- 1) DelDOT's requirements regarding base saturation flow rates, peak hour factors, lane utilization factors, and percentages of heavy vehicles have changed recently. The Consultant is advised to read Section 2.9.11.6 of DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access carefully.

Memorandum to File

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- 2) The Consultant shall contact Mr. James Clacher of DelDOT's Transportation Management Center (TMC), to obtain advance approval for the use of any signal timings. Mr. Clacher may be reached at (302) 659-2403.
- 3) The Consultant should contact Ms. Donna Robinson, of DelDOT's Statewide and Regional Planning Section, for crash data within the study area. The Consultant shall report on this data and make recommendations for improvements if safety problems exist in the study area. Ms. Robinson may be reached at (302) 760-2156.
- 4) DelDOT reserves the right to change this scope of work if the study is not performed within a reasonable time.
- 5) The developer may choose to have DelDOT's Consultant perform the TOA rather than use their own Consultant. If this option is of interest, the developer should contact Mr. William Brockenbrough at (302) 760-2109 to request a cost estimate.
- 6) By copy of this memorandum I ask those copied to contact me at (302) 760-2109 regarding any significant errors or omissions.

TWB:km

cc: those in attendance

Jennifer Cohan, Acting Director, Planning

Donald D. Weber, Chief Traffic Engineer, Traffic, DOTS

Cleon L. Cauley, Sr., Deputy Director of Planning

Thomas E. Meyer, Special Projects Manager, Traffic, DOTS

James Clacher, TMC Supervisor, Traffic, DOTS

Troy Brestel, Project Engineer, Development Coordination

W. Paul Hogge, Project Engineer, Development Coordination

Wayne M. Henderson, Service Development Planner, Delaware Transit Corporation

Marco Boyce, Program Manager, Statewide & Regional Planning

Donna Robinson, Statistical Information Supervisor, Statewide & Regional Planning

Andrew Parker, McCormick & Taylor, Inc.

Mir Wahed, Johnson, Mirmiran, & Thompson