



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

June 19, 2015

Mr. Mark Ziegler
McBride & Ziegler, Inc.
2607 Eastburn Center
Newark, DE 19711

RE: PLUS review 2015-05-04, St. Peters Church

Dear Mark,

Thank you for meeting with State agency planners on May 27, 2015 to discuss the proposed plans for St. Peters Church. According to the information received, you are seeking review of a site plan for a 66 unit housing project on 1.78 acres in the City of New Castle.

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

Strategies for State Policies and Spending

- This project is located in Investment Level 1 according to the *Strategies for State Policies and Spending*. 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. Thus, the Office of State Planning Coordination has no objections to this project.

Code Requirements/Agency Permitting Requirements

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Per Section 2.2.2.1 of the Development Coordination Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the plan accompanying

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the PLUS application, we estimate that the development would generate 524 vehicle trip ends per day on a typical weekday and 55 vehicle trip ends in the peak hour of that day. The daily volume differs significantly from the volume shown on the PLUS application. Based on either the daily volume or the peak hour volume, as we calculate them, this project would warrant a TIS.

However, per Section 2.2.2.2 of the Manual, developments generating fewer than 2000 vehicle trip ends per day and fewer than 200 vehicle trip ends per hour in any hour of the day are eligible to pay the Area Wide Study Fee in lieu of conducting a TIS. This fee is calculated as \$10 per daily trip, so for this project it would be \$5,240. The AWS Fee form is found under Appendix C, page C-6, of the Manual. Payment of the fee does not exempt the developer from having to conduct a Traffic Operational Analysis (TOA) if the need for one is identified in the entrance plan review process or from participating in off-site improvements if they are determined to be necessary. Presently, we do not see a need for a TOA or off-site improvements beyond the pedestrian improvements and signal agreement discussed elsewhere in these comments.

One exception in Section 2.2.2.2 is that if the City were to require a TIS, DelDOT would support the City in that effort and would not accept the AWS Fee.

To obtain a scope of work for a TIS, the applicant may have their engineer contact Mr. Troy Brestel of this office. Mr. Brestel may be reached at (302) 760-2167.

We acknowledge that 524 vehicle trip ends per day and 55 vehicle trip ends per hour are different from and higher than the volumes what the developer's engineer showed on the PLUS application and presented at the PLUS meeting and also different from and higher than the volumes discussed at the DelDOT Pre-Submittal Meeting. Briefly, the Institute of Transportation Engineer's Trip Generation Manual provides average rates and regression equations for use in predicting the trip generation of various land uses and the differences are a matter of selecting the appropriate land use and correctly choosing between the rates and equations.

Following the PLUS meeting, we discussed this matter with the developer's engineer. They believe local data, collected at similar apartments in the area, would show lower trip generation, such that a TIS is not warranted. If such data is submitted for our review, we would consider it

- The site access on East 6th Street must be designed in accordance with DelDOT's Development Coordination Manual (formerly the Standards and Regulations for Subdivision Streets and State Highway Access), which is available at <http://www.delldot.gov/information/business/subdivisions/changes/index.shtml>.
- In accordance with Section P.3 and Figure P.3-a of the Development Coordination Manual, because the proposed development would generate more than 200 vehicles per day, DelDOT will require a Pre-Submittal Meeting to discuss the project before plans are

submitted for review. The form to request a Pre-Submittal Meeting is available at http://www.delDOT.gov/information/business/subdivisions/Meeting_Request_Form.pdf.

- As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Development Coordination Manual DelDOT will require dedication of right-of-way along the site's frontage on Route 9 and on East 61h Street. The total right-of-way widths on Route 9 and on East 6th Street are 80 feet and 60 feet, respectively, and the standard dedications on these roads are half of those distances from the road centerline. Therefore it may be that no dedication is needed. However, because the distances from the road centerlines are not dimensioned on the plan we cannot be certain. If a dedication is needed, then the following right-of-way dedication note is required, "An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."
- In accordance with Section 5.3.1.3 of the Development Coordination Manual, DelDOT will require the developer to provide curb ramps at all four corners of the intersection of East 6th Street, Harmony Street and the site entrance and to connect them to the existing sidewalks on those streets.
- In accordance with Section 2.5.1 of the Development Coordination Manual, DelDOT will require the developer to enter a signal agreement for the intersection of East 6th Street and Delaware Route 9. Please contact Mr. Ahmed Abdelmoteleb in our Traffic Studies Section to initiate this process. Mr. Abdelmoteleb may be reached at (302) 659-4096.
- This project is located within the regulated airspace zones of New Castle Airport (ILG), which is a public-use facility. Federal Aviation Regulation (FAR) Part 77 imposes height restrictions on any structures within these zones. DelDOT requires that the applicant for this project submits a "Proposed Construction/Alteration in Airport Zones Notification Form" in accordance with Delaware Code (2 Del. C. § 602).

This notification form can be submitted during the plan approval process with the local land use jurisdiction, but DelDOT's Office of Aeronautics is willing to test hypothetical height numbers to prevent any future project complications. Please contact Mr. Joshua Thomas with the Office of Aeronautics at (302) 760-4834 with any questions or concerns. A copy of the notification form can be found at this address:

http://www.delDOT.gov/information/community_programs_and_services/airports/pdfs/aviation_obstruction_review_form.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 waterbody” can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; *State of Delaware Surface Water Quality Standards, as amended July 11, 2004*) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the 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 existing TMDL developed for the Red Lion Creek should apply to the entirety of the project area. The specific TMDL nutrient and bacterial load reductions for the Red Lion Creek watershed can be viewed in the following web-link:

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

- **Water Supply**

DNREC’s records indicate that the project is located within the public water service area granted to NCC Water & Light under Certificate of Public Convenience and Necessity 88-WS-05. DNREC recommends that the developer contact NCC Water & Light to determine the availability of public water. Any public water utility providing water to the site must obtain a certificate of public convenience and necessity (CPCN) from the Public Service Commission. Information on CPCN’s and the application process can be obtained by contacting the Public Service Commission at 302-739-4247. Should an on-site Public/Miscellaneous Public well be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation. All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Sediment and Stormwater Management. A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as

practicable. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the New Castle Conservation District. Contact Andy Bowman at the New Castle Conservation District at (302) 832-3100 Ext. 3 for details regarding submittal requirements and fees.

DNREC botanist, Bill McAvoy would gladly assist in drafting a list of plants suitable for the bioretention areas included in the site plans. Please feel free to contact Bill at (302) 735-8668 or William.McAvoy@state.de.us.

- **Tank Management Section**

If a release of a Regulated Substance occurs at the proposed project site, compliance of 7 Del.C. Chapter 60, 7 Del.C., Chapter 74 and DE Admin. Code 1351, State of Delaware Regulations Governing Underground Storage Tank Systems (the UST Regulations) is required.

The following confirmed leaking underground storage tank (LUST) projects are located within a quarter mile from the proposed project area:

New Castle City Garage, Facility: 3-000617, Project: N0001011 (Inactive)

St Peters The Apostle Church, Facility: 3-001810, Project: N9709131 (Inactive)

Spotswood, LLC, Facility: 3-002671, Project: N1410076 (Inactive)

Robinson Property, Facility: 3-001603, Project: N9507153 (Inactive)

No environmental impacts are 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 Branch 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:

Regulation	Requirements
7 DE Admin. Code 1106 - Particulate Emissions from Construction and Materials Handling	Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads. Use covers on trucks that transport material to and from site to prevent visible emissions.

7 DE Admin. Code 1113 – Open Burning	Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year. Prohibit the burning of land clearing debris. Prohibit the burning of trash or building materials/debris.
7 DE Admin. Code 1135 – Conformity of General Federal Actions to the State Implementation Plan	Require, for any “federal action,” a conformity determination for each pollutant where the total of direct and indirect emissions would equal or exceed any of the de minimus levels (See Section 3.2.1)
7 DE Admin. Code 1141 – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	Use structural/ paint coatings that are low in Volatile Organic Compounds. Use covers on paint containers when paint containers are not in use.
7 DE Admin. Code 1144 – Control of Stationary Generator Emissions	Ensure that emissions of nitrogen oxides (NO _x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO ₂), carbon monoxide (CO), and carbon dioxide (CO ₂) from emergency generators meet the emissions limits established. (See section 3.2). Maintain recordkeeping and reporting requirements.
7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty Vehicles	Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

For a complete listing of all Delaware applicable regulations, please look at our website:
<http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known archaeological sites, or National Register-listed property on this parcel. However, not too far away is the New Castle Historic District, which on the National Register of Historic Places and a National Historic Landmark as well.
- The developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law, which is in Chapter 54 of Title 7, of the Delaware Code (7 Del. C. Ch. 54). Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, and sometimes near or within the boundary of an historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware’s Unmarked Human Burials and Human Skeletal Remains Law (7 Del. C. Ch. 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is

any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to know more information pertaining to unmarked human remains or cemeteries, please check the following websites for additional information: www.history.delaware.gov/preservation/umhr.shtml and www.history.delaware.gov/preservation/cemeteries.shtml.

Therefore, prior to any demolition or ground-disturbing activities, the developer may want to hire an archaeological consultant to examine the parcel for any potential archaeological site or archaeological resources, such as cemetery, burial site, or unmarked human remains. Furthermore, if there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. Owners and developers who may plan to apply for an Army Corps of Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities should take place before the Corps or other involved federal agency determines the area of potential effect of the project undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office, and the Advisory Council for Historic Preservation about the project's effects on historic properties. Furthermore, any preconstruction activities without adherence to these stipulations may jeopardize the issuance of any permit or funds. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please review the Advisory Council's website at www.achp.gov.

Recommendations/Additional Information

This section includes a list of site specific suggestions that are intended to enhance the project. These suggestions have been generated by the State Agencies based on their expertise and subject area knowledge. **These suggestions do not represent State code requirements.** They are offered here in order to provide proactive ideas to help the applicant enhance the site design, and it is hoped (**but in no way required**) that the applicant will open a dialogue with the relevant agencies to discuss how these suggestions can benefit the project.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Previously, DelDOT had developed plans for a project on Delaware Route 9 in this area, the SR 9, Delaware and Harmony Street Intersection Improvement Project. The plan was to extend Harmony Street through this parcel and make it the new entrance into the City. Also in order to manage the stormwater and drainage we were going to

install bio-swales on the subject property. However, after extensive community involvement the City had not reached consensus on moving forward with the project, so DelDOT discontinued work on it. If the proposed building is built as shown in the PLUS application it would limit the options for the project.

- This project is on the Harriet Tubman Underground Railroad Byway. Please refer to the following manuals for guidance on context sensitive design:

The Corridor Management Plan for the byway is located here:

http://www.deldot.gov/information/community_programs_and_services/byways/railroad.shtml#byways_page

Delaware Byways Context Sensitive Design Manual is located here:

http://www.deldot.gov/information/community_programs_and_services/byways/pelf/Context_Sensitive_Solutions_for_Delaware_Byways.pdf.

- Be advised that the Standard General Notes have been updated and posted to the DelDOT website. Please begin using the new versions and look for the revision date of March 21, 2014. The notes can be found at http://www.deldot.gov/information/business/subdivisions/DelDOT_Development_Coordination_Plan_Sheet_Notes.doc
- The applicant should expect a requirement that all PLUS and/or TAC comments be addressed prior to submitting record, subdivision or entrance plans for review.
- Please check to determine whether any utilities will need to be relocated as part of this project.
- Please be advised DelDOT's check handling procedures changed in 2012. For specific information, see the letter available at <http://www.deldot.gov/information/business/subdivisions/PaymentProcedure.pdf>.

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

Flooding and Sea Level Rise

- Portions of the planned development area lies within an area that will be subject to direct and permanent inundation from sea level rise (<http://de.gov/slrmapp>)

Sea levels in Delaware have risen by about a foot over the past century (NOAA, 2014). This rate of sea level rise is likely to accelerate in the coming decades as a result of global climate change and local subsidence. Accelerated sea level rise will result in

permanent flooding of low-lying coastal areas and increased risk of flood damage during storms (DNREC, 2012).

DNREC Preliminary Land Use Service maps depicting future inundation risk from sea level rise indicate that approximately 1.93 acres of this site out of 1.93 acres or 100 percent could be inundated by sea level rise of 1.5 meters. In the short-term, sea level rise on this parcel, combined with periodic coastal flooding events, may result in repetitive flood damage to roads and significant difficulties maintaining storm water, drainage and other infrastructure. In the long-term, this increased flood and inundation risk could result in costly public and private flood abatement and drainage projects and an eventual abandonment of structures.

Recommendations:

Lots within flood prone areas should be eliminated.

Any structures that are built within an area mapped as both floodplain and sea level rise zone should be constructed with 18" of freeboard plus additional freeboard to accommodate future sea levels.

Filling lots to elevate them to above base flood elevation is discouraged.

Access roads should be designed to be flood resilient for the entirety of the project's design life span. This includes ensuring that the roadway functions for the 1% chance flood plus anticipated future sea level rise.

References

NOAA (National Oceanic and Atmospheric Administration). (2014). Mean Sea Level Trend, Lewes, DE. Retrieved from http://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?stnid=8557380.

DNREC Delaware Coastal Programs. (2012). Preparing for Tomorrow's High Tide: Sea Level Rise Vulnerability Assessment for the State of Delaware. Dover, DE: Department of Natural Resources and Environmental Control. Retrieved from <http://de.gov/slrva>.

Soils Assessment

- The soil mapping units mapped on this parcel are predominately moderately well (Udorthents) to well-drained (including Hambrook Urban Land complex although not defined in the map; Figure 1).

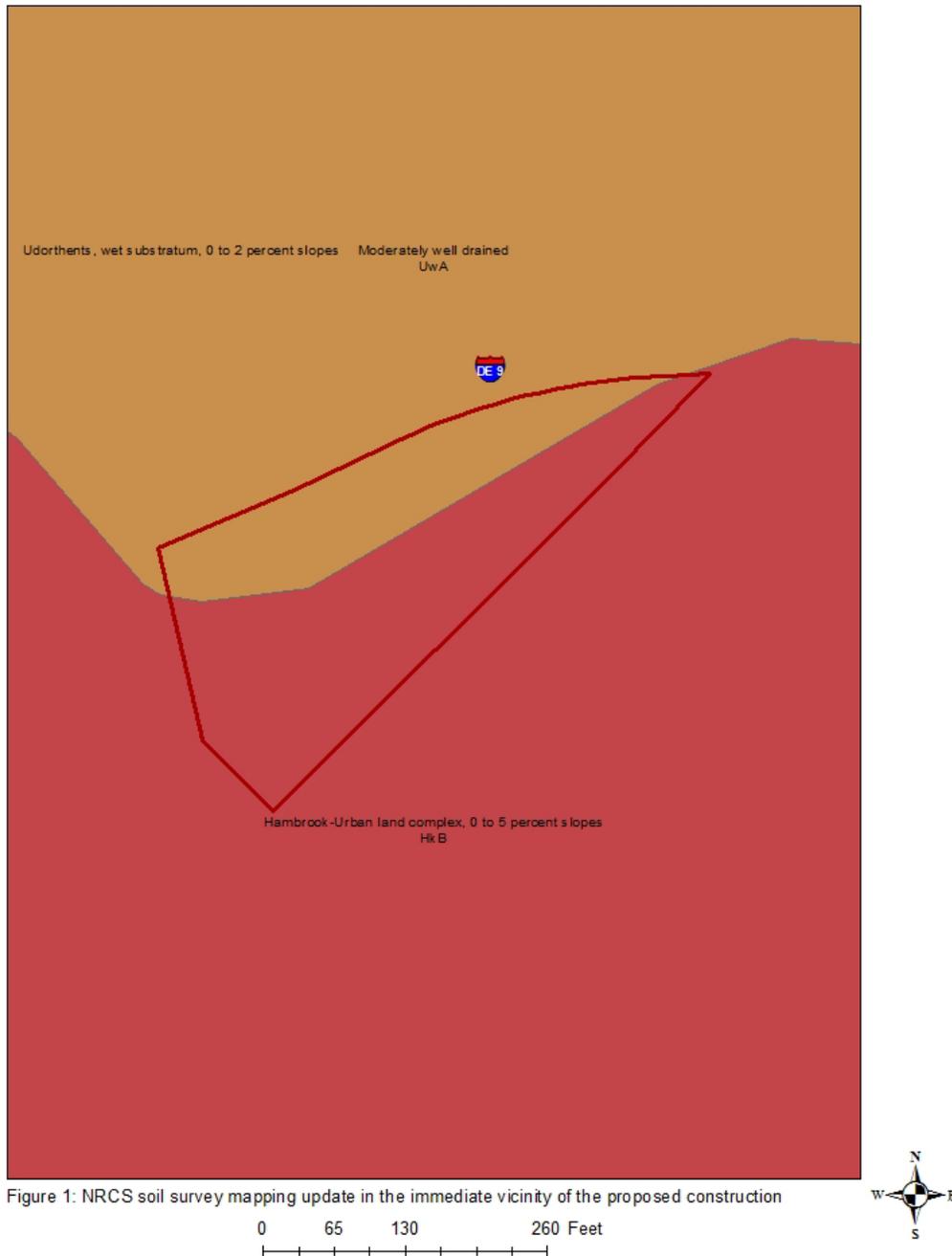


Figure 1: NRCS soil survey mapping update in the immediate vicinity of the proposed construction

Additional information on TMDLs and water quality.

- A Pollution Control Strategy (PCS) to achieve the required TMDL nutrient and bacterial load reduction requirements has not been established for the C&D Canal & Red Lion Creek watersheds to date. In absence of PCS, DNREC strongly encourages the applicant to reduce nutrient and bacterial pollutants through voluntary implementation of the following recommended BMPs:

Maintain as much of the existing open space as possible; we further suggest additional native tree and native herbaceous planting, wherever possible.

Calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, ponds, and roads) included in the calculation for surface imperviousness. Omission of any of the above-stated forms of surface imperviousness will result in an underestimate of the actual post-development surface imperviousness and associated environmental impacts.

Since this project will create additional impervious surface that will increase the probability for increased pollutant load runoff impacts to adjoining streams and wetlands in the greater C& D Canal and Red Lion Creek watersheds, we strongly encourage, wherever practicable, the use of pervious paving materials (instead of conventional asphalt and concrete) to mitigate the aforementioned pollutant runoff impacts from parking lots and roads. We especially recommend the use of pervious paving materials in areas designated for parking.

Use 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 from runoff or discharges from impervious surfaces. Please contact Lara Allison at 739-9939 for further information about the possibility for installing a raingarden(s) on this parcel.

Applicant should voluntarily assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the "Nutrient Load Assessment protocol." The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) that result from the conversion of individual or combined land parcels to a different land use(s), while providing applicants with quantitative information about their project's impact(s) on baseline water quality. We strongly encourage the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact John Martin or Jen Walls at 302-739-9939 for more information on the protocol.

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

- New homes and businesses 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 to support the commercial space, and
- All transportation activity.

Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) for the development were quantified. Table 2 represents the actual impact the project development may have on air quality.

Emissions Attributable to St. Peters Church (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Area source emissions	2.0	0.2	0.2	0.2	8.3
Power emissions	*	0.8	2.8	*	415.4
Mobile emissions	3.0	3.2	0.1	*	1950.6
Total emissions	5.0	4.2	3.1	0.2	3474.3

(*) Indicates data is not available.

Note that emissions associated with the actual construction of the road, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

DNREC encourages sustainable growth practices that:

- Control sprawl;
- Preserve rural and forested areas;
- Identify conflicting land use priorities;
- Encourage growth on previously developed sites and denser communities while at the same time protect our diminishing land base;

- Coordinate transportation, 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.

Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:

Constructing with only energy efficient products. Energy Star qualified products are up to 30% more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of energy efficiency translates into a percent reduction in pollution. The Energy Star Program is an excellent way to save on energy costs and reduce air pollution.

Offering geothermal and/or photo voltaic energy options. These systems can significantly reduce emissions from electrical generation and from the use of oil or gas heating equipment.

Constructing with high albedo, high solar reflectance materials. This includes roofing and hardscape. These materials help to reduce heat island impacts and, by extension, help to minimize the potential for localized ground-level ozone formation. These materials also help reduce demands on air conditioning systems and save on energy costs.

Providing shade for parking areas. Approaches may include architectural devices, vegetation, or solar panels. Providing shade for parking areas helps to reduce heat island impacts, and, by extension, helps to minimize the potential for localized ground-level ozone formation. Such measures can also have the additional benefit of channeling or infiltrating stormwater.

Providing charging stations for plug-in electric vehicles. This measure helps to reduce localized air pollution by supporting the use of non-gasoline powered vehicles. Please refer to the US Department of Energy's website for electric vehicle readiness information: http://www1.eere.energy.gov/cleancities/electric_vehicle_projects.html.

Encouraging the use of safe multimodal transportation. This measure can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk, bike path, or mass transit, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.

Using retrofitted diesel engines during construction. This includes equipment that is on-site as well as equipment used to transport materials to and from site.

Using pre-painted/pre-coated flooring, cabinets, fencing, etc. These measures can significantly reduce the emission of VOCs from typical architectural coating operations.

Planting trees in vegetative buffer areas, particularly those between the site and adjacent residential 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 project. The applicant should submit a plan to the DNREC DAQ which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the St. Peters Church project. The DAQ point of contact is Deanna Cuccinello, and she may be reached at (302) 739-9402.

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 black ink that reads "Constance C. Holland". The signature is written in a cursive style with a large initial 'C'.

Constance C. Holland, AICP
Director, Office of State Planning Coordination

CC: New Castle County