



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

September 22, 2015

Mr. Ron Sutton
Civil Engineering Associates
55 W. Main St.
Middletown, DE 19709

RE: PLUS review 2015-08-03; Peninsula Square

Dear Mr. Ron:

Thank you for meeting with State agency planners on August 26, 2015 to discuss the proposed plans for the Peninsula Square project. According to the information received you are seeking review of a site plan for 288 residential units and 217,800 square feet of commercial building on 30 acres at the intersection of Rt. 24 and Autumn Road in Sussex County.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State, and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.**

Strategies for State Policies and Spending

This project is located in both Investment Level 2 and Investment Level 3 according to the *Strategies for State Policies and Spending*. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. State investments may support future growth in these areas, but please be advised that the State has other priorities for the near future. We encourage you to design the site with respect for the environmental features which are present.

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 PLUS application, we see that the total daily trips are estimated at 2,500 vehicle trip ends per day. We estimate that the apartments alone would generate 1,869 vehicle trip ends per day on a typical weekday. Again for the apartments alone, we calculate 158 and 188 vehicles per hour for the weekday morning and evening peak hours, respectively. Based on any of these three volumes, the apartments would warrant a TIS. We would expect the commercial development would also warrant a TIS if it were somehow separated from the apartments, but without more information on the nature of development, we cannot determine that.

With that said, Section 2.2.2.2 of the Manual permits DelDOT to accept an Area Wide Study Fee in lieu of a TIS for developments generating less than 2,000 vehicle trip ends per day and less than 200 vehicle trip ends per hour. Therefore, if the apartments and the commercial development were separated, it would be possible to address the apartments without a TIS and it might be possible to do that for the commercial development as well.

The Fee is calculated as \$10 per daily trip, or in this case \$18,690 for the apartments, and is payable when plans are submitted for the Initial Stage review. The Fee, if paid, would be banked for the funding of future traffic studies in Sussex County and does not reduce any contributions that might be assessed for off-site improvements or excuse the developer from making such contributions. Payment also does not excuse the developer from the need to conduct a Traffic Operational Analysis if DelDOT identifies the need for one in their review of the entrance plan.

Presently, the off-site improvements we foresee requiring are improvements to Autumn Road (Sussex Road 299) and Branch Road, including their intersection, frontage improvements along Delaware Route 24 and a contribution toward DelDOT Contract T200711201, HSIP SC, SR 24 at Mount Joy Road and SR 24 at Bay Farm Road Intersection Improvements. The design of the project will need to be coordinated with the design of the aforementioned contract and depending on the timing of the two efforts, the developer may not need to build improvements on Route 24.

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. However, to determine a scope of work for a TIS involving the commercial property we will need to know enough about the proposed use to estimate how much traffic it will generate.

- The site access points on Autumn Road and Route 24 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.deldot.gov/information/business/subdivisions/changes/index.shtml>. Presently, Branch Road intersects Autumn Road on what is approximately a 90 degree curve. The proposed site entrance is at one end of that curve. Preliminarily, as part of their entrance construction, we anticipate requiring the developer to reconstruct Autumn Road in the area of the curve, aligning their site entrance with the north-south leg of Autumn Road and aligning Branch Road opposite the east-west leg of Autumn Road. A Traffic Operational Analysis would be needed to determine the design of this improvement but possible means of intersection control would include an all-way stop and a roundabout. The design will also need to be coordinated with the aforementioned DelDOT contract.
- Section 3.2.4.2 of the Manual addresses the placement of right-of-way monuments (markers) along the roads on which a property fronts, in this case Branch Road, Autumn Road and Route 24. Monuments sufficient to re-establish the permanent rights-of-way after the changes discussed below should be shown on the plan and provided in the field in accordance with this section.
- 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 Branch Road, Autumn Road and Route 24. By this regulation, this dedication is to provide a minimum of 30 feet of right-of-way from the road centerline on Branch Road and Autumn Road and 40 feet of right-of-way from the road centerline on Route 24. Additional rights-of-way may be needed to support the entrance-related improvements on Branch Road and Autumn Road and the DelDOT intersection improvement project. Any additional rights-of-way needed for the DelDOT project beyond the standard dedications and the construction would be compensable. If the developer wishes to be compensated, they should identify those right-of-way separately and show them as being reserved. 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 3.2.5.1.2 of the Development Coordination Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on both Autumn Road and Route 24. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, **"A 15-foot wide permanent easement is hereby established to the State of Delaware, as per this plat."**
- Referring to Section 3.4.2 of the Development Coordination Manual, the Initial Stage review fee shall be assessed to this project.

- In accordance with Section 3.4 of the Development Coordination Manual, a record plan shall be prepared prior to issuing “Letter of No Objection”. The following information will be required for the “Letter of No Objection” review:
 - Initial Stage Fee Calculation Form
 - Initial Stage Review Fee
 - Gate-Keeping Checklist – Site Plan
 - Design Checklist - Record Plan
 - Sight Distance Spreadsheet
 - Owners and Engineers’ name and e-mail address
 - Record Plan
 - Conceptual Entrance Plan
 - Submission of the Area-Wide Study Fee (If applicable)

- Referring to Section 3.4.1 of the Development Coordination Manual, because the proposed development would generate more than 200 vehicle trips per day, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request this meeting is available http://www.deldot.gov/information/business/subdivisions/Meeting_Request_Form.pdf.

- Referring to Section 3.4.2.1 of the Development Coordination Manual, the following items, among other things, are required on the Record Plan:
 - A Traffic Generation Diagram. See Figure 3.4.2-a for the required format and content.
 - Depiction of all existing entrances within 450 feet of the proposed entrance.
 - Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.

- Section 3.5 of the Development Coordination Manual provides DelDOT’s requirements with regard to connectivity. The requirements in Sections 3.5.1 through 3.5.3 shall be followed for all development projects having access to state roads or proposing DelDOT maintained public road for subdivisions. Private or municipal streets should follow the local land use agency’s requirements for connectivity.

- Section 3.5.4.2 of the Development Coordination Manual addresses requirements for shared-use paths and sidewalks. All projects that are located in Level 2 Investment Areas relative to the Strategies for State Policies and Spending, need Entrance Plan Approval and generate at least 2,000 Average Daily Trips are required to build shared-use paths or sidewalks along their State-maintained road frontage. Projects located in Level 3 Investment Areas are required to install a shared-use path or sidewalk along the State-maintained road frontage if the project abuts an existing facility except that the Subdivision Engineer may waive the requirement where there is no facility on an abutting parcel. From Google Earth photography, no such facilities are apparent.

According to the Investment Area Map, most of the parcel's area is in Level 2, including the road frontage. Accordingly DelDOT will require path or sidewalk construction along the Branch Road, Autumn Road and Route 24 frontage.

- Referring to Section 3.5.5 of the Development Coordination Manual, existing and proposed transit stops and associated facilities as required by the Delaware Transit Corporation (DTC) or DelDOT, in consultation with Sussex County, shall be shown on the Record Plan.
- In accordance with Section 3.8 of the Development Coordination Manual, storm water facilities, excluding filter strips and bioswales, shall be located a minimum of 20 feet from the ultimate State right-of-way along Branch Road, Autumn Road and Route 24.
- Referring to Section 4.3 of the Development Coordination Manual, the Construction Stage review fee shall be assessed to this project.
- Referring to Section 4.3 of the Development Coordination Manual, an entrance plan shall be prepared prior to issuing entrance approval. The following information will be required for Entrance Plan review:
 - Construction Stage Fee Calculation Form
 - Construction Review Fee
 - Gate-Keeping Checklist – Entrance Plan
 - Design Checklist - Entrance Plan
 - Auxiliary Lane Spreadsheet
 - Entrance Plan
 - Pipe/Angle Spreadsheet (If applicable)
 - SWM Report and Calculations (If applicable)
- In accordance with Section 5.2.5.6 of the Development Coordination Manual, Turning Movement Diagrams shall be provided to verify vehicles can safely enter and exit the site entrance. As per Section 5.2.3 of the Manual, the entrance shall be designed for the largest vehicle using the entrance.
- In accordance with Section 5.2.9 of the Development Coordination Manual, the Auxiliary Lane Worksheet should be used to determine whether auxiliary lanes are warranted at the site entrance and how long those lanes should be. The worksheet can be found at http://www.deldot.gov/information/business/subdivisions/auxiliary_lane_worksheet.xls.
- In accordance with Section 5.4 of the Development Coordination Manual, sight distance triangles are required and shall be established in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards. A spreadsheet has been developed to assist with this task. It can be found at

- <http://www.deldot.gov/information/business/subdivisions/Intersection-Sight-Distance.xls>.
- Section 7.7.2. of the Manual addresses the need to provide 20-foot wide drainage easements for all storm drainage systems, open or closed, that fall outside the existing right-of-way or the drainage/utility easement. In accordance with this section, metes and bounds and total areas need to be shown for any drainage easements. The easements should be shown and noted on the record plan.

Department of Natural Resources and Environmental Control – Contact Michael Tholstrup 735-3352

TMDLs.

- The project is located in the low nutrient reduction zone of the greater Inland Bays watershed. In this watershed, Total Maximum Daily Load (TMDL) pollutant reduction targets have been developed by the State of Delaware (under the auspices of Section 303(d) of the 1972 Federal Clean Water Act) for nutrients (e.g., nitrogen, phosphorus), and bacteria. 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 low reduction zone of the Inland Bays watershed calls for 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 40 percent reduction (17 percent for marine waters) in bacteria from baseline conditions. Please view the following web link for further information on the regulatory requirements and technical analysis involved in the development of the specific TMDLs for this watershed:

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

A nutrient management plan is required under the *Delaware Nutrient Management Law* (3 Del.C., 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 (302) 739-4811 for further information concerning this matter.

Water Supply.

- The project information sheets state that public 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 Public Water Supply (a.k.a. Tidewater Utilities) under Certificate of Public Convenience and Necessity (CPCN) 87-WR-04. DNREC recommends that the developer contact Tidewater Utilities to determine the availability of public water. Any public water utility providing water to the

site must obtain a 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, and it must also be located at least 150 feet from the outermost boundaries of the project. 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 DNREC 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. Should you have any questions concerning these comments, please contact Rick Rios, at (302) 739-9944.

Sediment and Stormwater Program.

- 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 Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees.
- DNREC records document a drainage concern on 8/14/13 where there was flooding on the parcel. Water was standing on the property for about a month. Infiltration as a method of a stormwater outlet will not work in times of a high water table. This area requires a secondary drainage outlet. Efforts to form a tax ditch to provide a much needed drainage outlet for the watershed have failed.

Hazardous Waste Sites.

- The proposed project is within the boundaries of one SIRS site. The Longneck Mercury Site (DE-1388) is an area wide study of water supplies for a mobile home development in Sussex County. Mercury contamination below the MCLs was detected in a public water supply well. DNREC and the USGS performed an extensive investigation but could not find the source. The well was turned off temporarily. DNREC reviewed monitoring reports and determined to allow the Department of Health and Social Services, Division of Public Health (DPH) handle the case do to Safe Drinking Water Act regulations. The Study Site had been closed and archived in September 2010.

DNREC reviewed the Peninsula Square project concerning the Longneck Mercury Site (DE-1388). No source for the mercury was found in the Longneck area and there was no additional formal investigation under SIRS of the Site. Most residents in the area are connected to municipal water and are monitored by DPH. Groundwater does meet all the DPH standards. SIRS still recommends that a Phase I be conducted and development be connected to a municipal water source.

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:

Table 1: Potential Regulatory Requirements	
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>.

Tank Management.

- 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.

There are no confirmed leaking underground storage tank (LUST) projects located within a quarter mile from the proposed project area.

- 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 Section by calling (302) 395-2500.

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known archaeological sites or National Register-listed property on this parcel. However, if the development project proceeds on this parcel, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law, which is in Title 7, of Chapter 54, of the Delaware Code.

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.

- 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.
- 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.

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 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.

 - Where a water distribution system is proposed for townhouse type dwelling sites, the infrastructure for fire protection water shall be provided, including the size of water mains.

- 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 both access roads to the subdivision from Branch Road and from Route 24 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, such as the paved area between proposed Buildings 6 and 7, shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
 - The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.

- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.
- 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)
 - 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

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 the suggestions can benefit the project.

Department of Transportation – Contact Bill Brockenbrough 760-2109

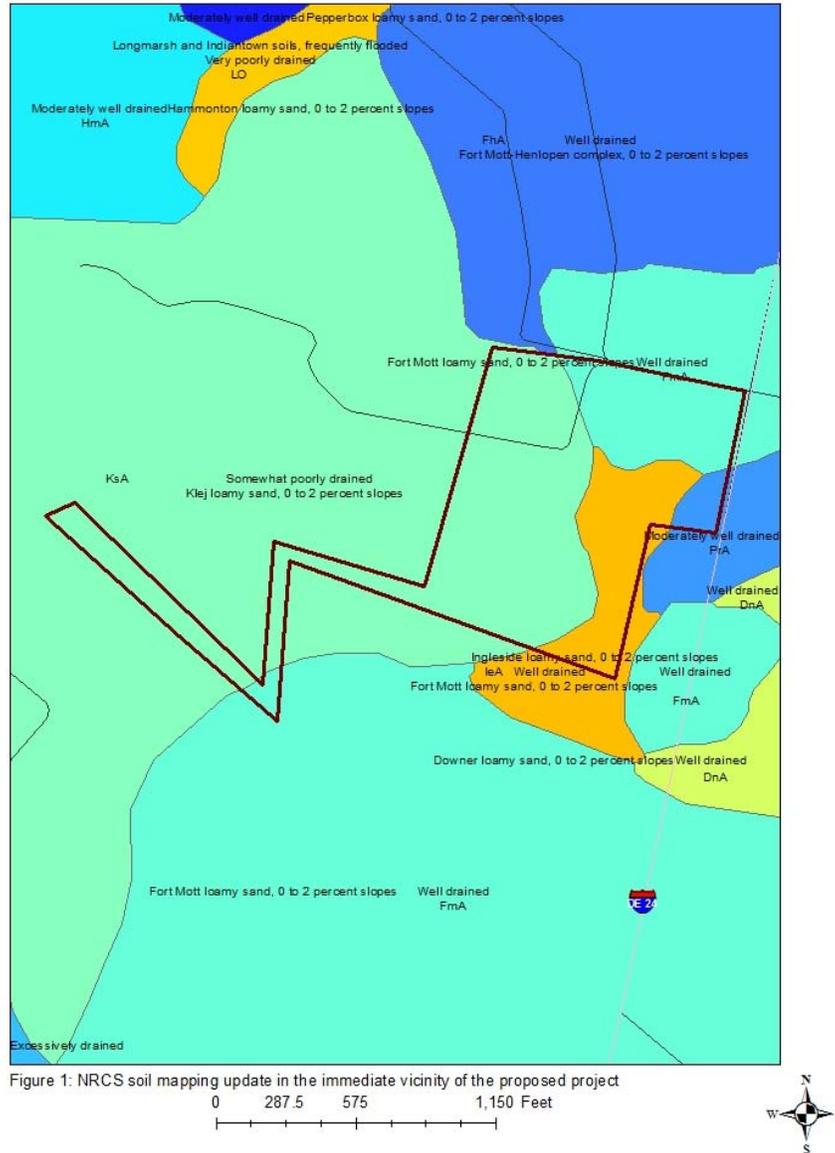
- The applicant should expect a requirement that any substation and/or wastewater facilities will be required to have access from the internal subdivision street with no direct access to Autumn Road or Route 24.
- Please be advised that as of August 1, 2015, all new plan submittals and re-submittals, including major, minor and commercial plans, shall now be uploaded via the PDCA (Planning Development Coordination Application) with any review fee paid online via credit card or electronic check. Guidance on how to do this is available on our website at <http://www.deldot.gov/information/business/subdivisions/>

- Be advised that the Standard General Notes have been updated and posted to the DeIDOT website. Please begin using the new versions and look for the revision date of July 31, 2015. The notes can be found at
- http://www.deldot.gov/information/business/subdivisions/DeIDOT_Development_Coordination_Plan_Sheet_Notes.doc
- Please check to determine whether any utilities will need to be relocated as part of this project.

Department of Natural Resources and Environmental Control – Michael Tholstrup 735-3352

Soils Assessment.

- Based on soils survey mapping update, the soil mapping unit with the most limitations for development is Klej (KsA). Klej is a somewhat poorly-drained mapping unit that may or may not contain hydric soils. Therefore, DNREC strongly recommends that the applicant contact a licensed (Delaware Class D) soil scientist to make a site specific assessment (i.e., soil survey mapping) of the soils on this site. A list of licensed soil scientists can be obtained from the Ground Water Discharges Branch; the Branch can be reached by phone at (302) 739-9947.



Habitat and Forest Preservation.

- DNREC has never surveyed the project area so it is unknown if there are state-rare or federally listed plants, animals or natural communities at this project site. However examination of aerial photographs and evaluation of the DNREC GIS database indicate that rare species are unlikely to occur at this project site.

It is most beneficial to wildlife if the forest is left intact. As such, DNREC recommends that tree clearing be limited as much as practicable, and it is best if site plans are configured in such a way as to limit fragmentation of the forest.

Additional information on TMDLs and water quality.

- Compliance with the specified TMDL nutrient and bacterial reduction requirements specified for the Inland Bays watershed can be facilitated by adherence to the strategies and requirements described in the Inland Bays Pollution Control Strategy, and the implementation of the following recommended BMPs:
 - Maintain/preserve as much of the existing forest cover in this parcel as possible. DNREC further suggests, wherever possible, additional native tree and/or native herbaceous plantings for purposes of creating additional environmentally-friendly open space.
 - A United States Army Corps of Engineers (USACE) approved wetlands delineation. According to information submitted by the applicant, wetland delineation has not been conducted or approved by the USACE.
 - Based on NRCS soil survey mapping and best professional judgement, the area proposed for development may contain some poorly-drained wetland-associated (hydric) soils. Hydric soils are considered unsuitable for development and should be avoided. Therefore, DNREC suggests that a site-specific soils evaluation by a licensed soil scientist be conducted to more precisely assess the potential presence of hydric soils in this parcel.
 - 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 strongly recommends that the applicant maintain/establish an upland buffer width of at least 100 feet from all waterbodies (including ditches) and wetlands (as determined by USACE approved wetlands delineation).
 - Use green-technology storm water management and a rain gardens (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant runoff increases that often track post-development increases in surface imperviousness. Please contact Lara Allison at (302) 739-9939 for further information about the possibility for installing rain gardens on this parcel.
 - 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. Omission of any of the above-stated forms of surface imperviousness will result in an underestimate of the actual post-development surface imperviousness and will understate the associated environmental impacts.

- Since this project will create additional surface imperviousness that will increase the probability for increased flooding and increased pollutant load runoff impacts to adjoining streams and wetlands in the greater Inland Bays watershed – DNREC strongly encourages the use of pervious paving materials (instead of conventional asphalt and concrete) to mitigate these impacts. Use pervious paving materials for all parking areas.
- 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) resulting from the conversion of individual or combined land parcels to a changed land use; thus providing applicants and governmental entities with quantitative information about the project’s impact on baseline water quality. DNREC strongly encourages the use of this protocol to help design and implement the most effective BMPs. Please contact John Martin or Jen Walls (Division of Watershed Stewardship) at (302)739-9939 for more information on the protocol.

Additional information on hazardous waste sites.

- DNREC strongly 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 or state.

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 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.

- The existing property is zoned General Business (BG) and is currently held as a farm in the Farmland Assessment Act, according to Sussex County. A study by the University of Delaware states that developers enroll in this program to reduce property taxes, while they are renting the land to farmers and waiting for a desirable opportunity to develop. The developer presently wishes the land to be zoned CR-1/AR-1 (Commercial Residential/Agricultural Residential) but does not indicate seeking a rezoning.

The existing property is generally lacking in access to multimodal transportation, as much of the surrounding land west of John J Williams Highway is undeveloped. There are no sidewalks, bike paths, or public transportation stops around the property, and the only shoulders are those on John J Williams Highway. The developer indicates that bike paths will be added but does not indicate whether sidewalks will be added, as well.

DNREC encourages developers and builders to consider all sustainable growth practices in their design, and they believe that the air quality impacts associated with the project should be completely considered. New homes and businesses may emit, or cause to be emitted, additional 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; Delaware currently violates federal health-based air quality standards for ozone.
 - The emission of greenhouse gases which are associated with climate change, and
 - The emission of air toxics.
- Air emissions generated from new homes and businesses 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, and
 - All transportation activity.
 - Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) were quantified. Table 2 – Projected Air Quality Emissions represents the actual impact Peninsula Square may have on air quality.

Table 2: Projected Air Quality Emissions for Peninsula Square					
Emissions Attributable to Peninsula Square (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NO _x)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Area source emissions	8.9	1.0	0.8	1.1	36.1

Power emissions	*	3.5	12.3	*	1,812.7
Mobile emissions	13.2	13.8	0.4	0.2	8,511.8
Total emissions	22.1	18.3	13.5	1.3	10,360.6

(*) *Indicates data is not available.*

Note that emissions associated with the actual construction of the apartment community, 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. Several charging stations exist nearby in Millsboro, Lewes, and Rehoboth Beach.
- **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 or bike path, 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.** Native 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 (DAQ) which addresses the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Peninsula Square project. The DAQ point of contact is Rachel Yocum, and she may be reached at (302) 739-9402.

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

Delaware State Housing Authority – Contact Karen Horton 739-4263

DSHA supports the site plan review for a 144-unit townhome community on 21 acres, located at the intersection of Route 24 and Oak Orchard Road in Sussex County, for the following reasons:

- DSHA supports the site plan review for a 288-unit rental community and 217,800 sf of commercial space on 30 acres located at the intersection of Rte. 24 and Autumn Road in Sussex County. The development of rental communities can be the most economical to construct and are needed to meet the needs of low- and moderate-income families. This is particularly true particularly in the coastal resort area of Sussex County where there is a lack of affordable housing. In addition, there is a growing body of research indicating a market shift away from the large suburban homes that dominated development in Delaware for many years. The Delaware Population Consortium (DPC) projections for the next ten years indicate that not only will there be a large amount of suburban homes placed on the market by baby boomers, but that there will be a decline in households in age ranges that typically seek large homes. These same DPC projections show growth in the younger age ranges most likely at stages in their life and income to support entry-level homes, such as those included in this proposal.

If you have questions or would like more information on the above recommendations, please feel free to call me at (302) 739-4263 ext. 251 or via e-mail at karenh@destatehousing.com.

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

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

Sincerely,



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

CC: Sussex County Planning