



## ENGINEERING CONSULTANTS INTERNATIONAL, LLC

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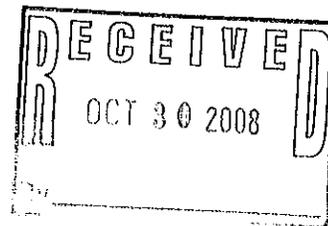
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October 27, 2008

Ms. Constance C. Holland, AICP  
Director  
State Planning Coordination  
Office of Management and Budget  
The State of Delaware  
122 William Penn Street  
Third Floor  
Dover, DE 19901



**RE: PLUS PROJECT NO. 2006-07-08  
HUNTERS WALK  
ECI PROJECT NO. 05-024**

Dear Ms. Holland:

Thank you for the opportunity to meet with the various State agency planners at your office on August 2, 2006, to discuss the above referenced project. We have reviewed the comments contained in your letter to us, dated August 28, 2006 and offer the following responses after having an opportunity to revise our plan as appropriate.

As a result of the PLUS review, the project has been reconfigured and the number of units has been reduced from 178 units to 144 units plus a Community Center resulting in approximately 146 EDU's. The existing Par 3 Golf Course is to remain in operation and will be classified as open space. The 12,000 SF Office Building remains a component of this project

On March 21, 2007, ECI met with Mr. Brian Hall, of the State Planning Office, to review the proposed revisions to the proposed plan. Mr. Lank, Director of Sussex County Planning and Zoning Department, received a letter from Mr. Hall dated, March 21, 2007, stating the Office of State Planning had no objections to the proposed plan revisions and an additional review of the plan was not required.

### EXECUTIVE SUMMARY

*The following section includes some site-specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The full text of this letter represents the official state response to this project. Our office notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.*

### STATE STRATEGIES/PROJECT LOCATION

*This project is located in Investment Levels 2 and 3 according to the Strategies for State Policies and Spending and within the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive plan. It appears that this parcel is within a level 3 area because of its proximity to the Pot Hook Creek and because*

of the forested areas on the site. The State appreciates that it appears from your site plan that most of the building will be outside the forested area. The State agencies have offered recommendations regarding the environmental issues related to this site. We ask that you consider these recommendations as you move forward. The Office of State Planning Coordination has no objection to the development of this project in accordance with relevant State and County regulations, we ask that you consider the environmental features of this site.

**With the redesign of the proposed plan a large part of the natural and forested areas existing on the site have been preserved. The plan contains a 50-foot buffer from the existing wetlands and the existing Par 3 Golf Course is to remain in operation and preserved as open space.**

#### **STREET DESIGN AND TRANSPORTATION**

- *DeIDOT will require a traffic impact study for this project.*
- *The site frontage on Kings Highway is quite close to a curve east of the site and relatively close to a curve west of the site. For this reason, if they have not done so, the developer's site engineer should verify that adequate sight distance exists at the proposed entrance and identify the necessary actions to provide it if it does not exist. DeIDOT will not permit an entrance that lacks adequate sight distance.*
- *The plan is characterized by relatively long, straight driveways lined on both sides with perpendicular head-in parking. This arrangement may be unavoidable given the constraints of the site, but it also is not especially safe. DeIDOT recommends that the developer include traffic calming in the plan to keep speeds low along the internal driveways.*

**A traffic Impact Study (TIS) has been submitted to DeIDOT. It has been reviewed and commented on. By letter dated October 20, 2008 an approval of the study was granted by DeIDOT.**

**ECI, along with the Owner/Developer and the Traffic Engineer, have met with DeIDOT and opened discussions on the future traffic plans of DeIDOT for this area. Appropriate off-site traffic improvement will be a part of the DeIDOT Entrance Approval of this proposed project.**

**The reconfiguration cited above resulted in the elimination of the relatively long straight driveways that were of concern.**

#### **NATURAL AND CULTURAL RESOURCES**

- *The DHCA would appreciate the opportunity to check the areas around the driving range to locate any sites and discover something about their nature and extent prior to any construction activities.*

**The DHCA is welcome to contact Mr. Paul Jones at (302) 698-1091 to make arrangements to visit the site.**

- *Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands along the headwater reaches of the Pot Hook Creek bounding the northern portion of this project. Non-riparian palustrine forested and palustrine unconsolidated bottom wetlands were also mapped in the northwestern and central portion of the site. These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. The developer should maintain a minimum 100-foot vegetated buffer from the edge of the wetland complex/forest edge.*

**In accordance with Sussex County Code, a 50-foot buffer has been included on the plan around the wetlands areas.**

- *To maximize the existing buffering capacity and wildlife habitat on site, community open space should be designated along the existing woodland edge.*

**As a result of the reconfiguration the existing Par 3 Golf Course will remain open space, including along the existing woodland edge referred to above.**

- *DNREC has not surveyed the project area; therefore, it is unknown if there are state-rare or federally listed plants, animals or natural communities at this project site. However, there are rare plants within a maple-gum swamp downstream that could be affected by run-off generated by this development. It is recommended that the proposed 50-foot wetland buffer along Pot Hook Creek be increased to at least 100 feet to protect water quality and preserve forested riparian habitat. Lot lines and stormwater management ponds should not be located within this buffer zone.*

**A 50-foot buffer has been included on the plan. The Stormwater Management Pond has been sited outside the 50-foot wetlands buffer. In many areas the actual distance to buildings and parking areas from the wetlands is much greater than 50 feet.**

- *The forested/marsh lands on the site are identified on the state designated Natural Area Inventory and are considered a State Resource Area (SRA) The natural area/SRA on this site is part of the larger Marshes of Wolfe Glade and Holland Glade Natural Area and the Cape Henlopen State Resource Area respectively.*

**As you know, the courts have overturned the natural area/SRA maps and/or regulations. Nonetheless, prior to their adoption the owner of this property has opted this property out of the State Resource Area.**

- *The Office of Nature Preserves respectfully requests the developer maintain the integrity of the forested/marsh lands by limiting development to the open areas on the site and providing an adequate buffer to the sensitive ecological features that border the site.*

**The majority of this development will occur in the open areas of the site. Of the 10.9 acres of woods on this site we propose to remove less than 16% of the wooded areas. None of the trees within the wetlands area are to be disturbed. Additional trees and landscaping will be provided in this development utilizing native trees and shrubs.**

**THE FOLLOWING ARE A COMPLETE LIST OF COMMENTS RECEIVED BY STATE AGENCIES:**

**OFFICE OF STATE PLANNING COORDINATION – CONTACT: HERB INDEN 739-3090**

*This project is located in Investment Levels 2 and 3 according to the Strategies for State Policies and Spending and within the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive plan. It appears that this parcel is within a level 3 area because of its proximity to the Pot Hook Creek and because of the forested areas on the site. The State appreciates that it appears from your site plan that most of the building will be outside the forested area. The State agencies have offered recommendations regarding the environmental issues related to this site. We ask that you consider these recommendations as you move forward. The Office of State Planning Coordination has no objection to the development of this project in accordance with relevant State and County regulations, we ask that you consider the environmental features of this site.*

**The developer of Hunter's Walk welcomes the approval of the project by the Office of State Planning. The plan as developed recognized the environmental features that the site projects and utilizes the features as a significant site design feature. The Plan as submitted features and preserves the environmental attributes of the site.**

**DIVISION OF HISTORICAL AND CULTURAL AFFAIRS – CONTACT: ALICE GUERRANT 739-5685**

*Nothing is known within this parcel. The earlier road to Lewes from Midway cut through this parcel, and two buildings appear along that road on the USGS 15' Rehoboth 1918 topographic map. One of these buildings might be the house just outside of this parcel to the north. This parcel contains areas of medium and high potential for prehistoric-period archaeological sites. However, large parts of this parcel have already been disturbed by the existing golf course.*

*The DHCA would appreciate the opportunity to check the areas around the driving range to locate any sites and discover something about their nature and extent prior to any construction activities.*

**The DHCA is welcome to contact Mr. Paul Jones at (302)698-1091 to make arrangements to visit the site.**

**DEPARTMENT OF TRANSPORTATION – CONTACT: BILL BROCKENBROUGH 760-2109**

- 1) *DelDOT will require a traffic impact study for this project. A scope of work was set for this study in July 2004 and updated in September 2005 (see copy of enclosed memorandum). From the discussion at the PLUS meeting, we understand that the necessary traffic counts were completed last summer and that the study is in progress. Normally, they would expect to receive the traffic counts for review within a few weeks of their being completed but their files do not indicate that that has occurred. DelDOT recommends that the developer have their traffic engineer contact Bill Brockenbrough to discuss their work. He may be reached at (302) 760-2109.*

**DelDOT has granted a TIS approval by letter dated October 20, 2008.**

- 2) *The plan for Bay Crossing includes a stub street leading to the southeast edge of the subject property, where the plan for this project shows the golf course being preserved. DelDOT strongly recommends that the plan be changed to tie the proposed condominium complex into Bay Crossing.*

**Bay Crossing is adjacent to the parcel containing the existing Par 3 Golf Course. The golf course is to remain in operation and will be designated as open space. An interconnection will be investigated but is highly unlikely to fit into the plan. As a connection would by necessity interrupt the golf course. Additionally, Bay Crossing is fully built out along the boundary and does not present an opportunity for interconnection that would not disrupt the existing golf course.**

- 3) *The site frontage on Kings Highway is quite close to a curve east of the site and relatively close to a curve west of the site. For this reason, if they have not done so, the developer's site engineer should verify that adequate sight distance exists at the proposed entrance and identify the necessary actions to provide it if it does not exist. DelDOT will not permit an entrance that lacks adequate sight distance.*

**ECI has been in contact with DelDOT concerning the entrance to this project. We have fully coordinated the entrance to the project with DelDOT.**

- 4) *The plan is characterized by relatively long, straight driveways lined on both sides with perpendicular head-in parking. This arrangement may be unavoidable given the constraints of the site, but it also is not especially safe. DelDOT recommends that the developer include traffic calming in the plan to keep speeds low along the internal driveways.*

**Traffic calming in the form of roadway geometry and the additions of traffic islands will be considered during the final design of this project.**

**The reconfiguration cited above resulted in the elimination of the relatively long straight driveways that were of concern.**

- 5) *The developer's site engineer should contact the DelDOT Subdivision Manager for Sussex County, Mr. John Fiori, regarding specific requirements for access. Mr. Fiori may be reached at (302) 760-2260.*

**ECI has been in contact with Mr. Fiori concerning the entrance to this project. We have coordinated the design of this entrance with DelDOT and Mr. Fiori.**

**THE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL – CONTACT: KEVIN COYLE 739-9071**

### **GREEN INFRASTRUCTURE**

*Portions or all of the lands associated with this proposal are within the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61 that represents a network of ecologically important natural resource lands of special state conservation interest.*

*Green infrastructure is defined as Delaware's natural life support system of parks and preserves, woodlands and wildlife areas, wetlands and waterways, productive agricultural and forestland, greenways, cultural, historic and recreational sites and other natural areas all with conservation value. Preserving Delaware's Green Infrastructure network will support and enhance biodiversity and functional ecosystems, protect native plant and animal species, improve air and water quality, prevent flooding, lessen the disruption to natural landscapes, provide opportunities for profitable farming and forestry enterprises, limit invasive species, and foster ecotourism.*

*Voluntary stewardship by private landowners is essential to green infrastructure conservation in Delaware, since approximately 80 percent of the State's land base is in private hands. It is in that spirit of stewardship that the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.*

**ECI and the Developer understand the need to protect and preserve the natural areas of this project. The development has been reconfigured and most of the proposed development now lies within the existing open space of the driving range. Less than 16% of the existing woods are proposed to be removed and much of that percentage will be replaced within the development utilizing native trees and vegetation. The existing Par 3 Golf Course will remain in operation.**

### **SOILS**

*Based on the Sussex County soil survey update Fort Mott, Downer, Hurlock, and Manahawkin were mapped in the immediate vicinity of the proposed construction. Fort Mott and Downer are well-drained upland soils that, generally, have few limitations for development. Hurlock and Manahawkin are poorly to very poorly drained wetland associated (hydric) indicative of the presence of non-tidal and tidally influenced wetlands, respectively.*

**ECI is aware of the existing soils on the site and has designed the plan to meet existing soil conditions.**

## WETLANDS

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands along the headwater reaches of the Pot Hook Creek bounding the northern portion of this project. Non-riparian palustrine forested and palustrine unconsolidated bottom wetlands were also mapped in the northwestern and central portion of the site.

These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. The developer should maintain a minimum 100-foot vegetated buffer from the edge of the wetland complex/forest edge. The developer should note that both DNREC and Army Corps of Engineers discourage allowing lot lines to contain wetlands to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

**In accordance with Sussex County Code a 50-foot buffer has been included on the plan. The Stormwater Management Pond has been sited outside the 50-foot wetlands buffer. In many areas the actual distance to buildings and parking areas from the wetlands is much greater than 50 feet**

As noted previously, this parcel contains SWMP-mapped headwater riparian wetlands. Headwater riparian wetlands are important for the protection of water quality and the maintenance/integrity of the ecological functions throughout the length of the stream, including the floodplain system and/or water bodies further downstream. Since such streams are a major avenue for nutrient-laden stormwater and sediment runoff their protection deserves the highest priority. In recognition of this concern, the Watershed Assessment Section strongly recommends the applicant consider preserving the existing riparian buffer in its entirety. Otherwise, a 100-foot minimum upland buffer (planted in native vegetation) from all water bodies (including all ditches) and wetlands is strongly recommended. Studies have shown that an upland buffer width of at least 100 feet is the minimum buffer width necessary to mitigate impacts from development.

**The Stormwater Management Plan for this project completely respects the Federal Jurisdictional Wetlands as delineated on the plan and will meet or exceed all applicable Sussex Conservation District and regulations.**

## WETLAND PERMITTING INFORMATION

PLUS application materials indicate that wetlands have been delineated (presumably a field delineation). This delineation should be verified by the Army Corps of Engineers through the Jurisdictional Determination process. Please note that impacts to palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In situations where the applicant believes that the delineated wetlands on their parcel are non-jurisdictional isolated wetlands, the Corps must be contacted to make the final jurisdictional assessment. They can be reached by phone at 736-9763.

**The wetlands have been delineated by Mr. Ed Launay of Environmental Resources, Inc, a recognized wetland biologist. The Wetland Delineation Report was submitted to the Army Corp of Engineers (ACOE) on January 12, 2007. An approved Jurisdictional Delineation for the site will be issued by the ACOE.**

In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process.

**As a result of Green Design ECI does not believe any 404 permits or nationwide permits will be required for this project.**

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-9943 to schedule a meeting.

### **IMPERVIOUS COVER**

Since studies link increases in impervious cover to decreases in water quality, the applicant is strongly encouraged to pursue best management practices (BMPs) that can mitigate or reduce some of the most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical BMPs that could easily be implemented to reduce surface imperviousness.

Based on the calculated surface imperviousness figure provided by the applicant (from PLUS application), post-development construction activities will render at least 17 percent of this parcel's surface area as impervious. However, given the scope and density of this project, this estimate is likely an underestimate of the likely amount of constructed post-development surface imperviousness. The applicant should recognize that all forms of constructed surface imperviousness (i.e., rooftops, sidewalks and roads) should be included in the calculation. The applicant should verify whether their calculation includes all said forms of constructed surface imperviousness.

**ECI believes the impervious calculations as stated on the PLUS application to be correct. The items listed above; rooftops, sidewalks and roads, were included in the calculation. Since the PLUS submittal the project has been reconfigured. The total units have been reduced from 178 units to 144 units and the impervious area is now approximately 16% of the Multifamily Project. The Commercial Project contains approximately 61% impervious surface.**

### **ERES WATERS**

This project is located adjacent to receiving waters of the Inland Bays designated as waters having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State, and shall be protected and/ or restored, to the maximum extent practicable, to their natural condition. Provisions in Section 5.6 of Delaware's "Surface Water Quality Standards" (as amended July 11, 2004), specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of pollutants through implementation of Best Management Practices (BMPs). Best Management Practices as defined in subsection 5.6.3.5 of this section, expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree achievable and, where practicable, implementation of a standard requiring no discharge of pollutants.

**Best Management Practices will be utilized during the final design of the stormwater management plan. All design will be in accordance with standard practices promulgated by Sussex County Conservation District.**

### **TMDLs**

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays 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 water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although federal law requires TMDLs, states are charged with developing and implementing standards to support these desired use goals. This project is located in the low nutrient reduction area requiring a 40 percent reduction in nitrogen and phosphorus, respectively.

## COMPLIANCE WITH TMDLS THROUGH THE PCS

*As stated above, Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. The TMDL calls for a 40% reduction in nitrogen and phosphorus from baseline conditions. A Pollution Control Strategy (PCS) will provide the regulatory framework for achieving them. The Department developed an assessment tool to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Additional reductions may be possible through the implementation of Best Management Practices such as wider vegetated buffers along watercourses, increasing passive, wooded open space, reducing forest cover removal, and the use of innovative stormwater management treatment trains. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.*

**We recognize the importance of addressing total maximum daily loads (TMDL's) as a method of reducing nutrients to the inland bays water shed. It is our intention to implement BMP's and nutrient removal in the Sussex County Wastewater System and Stormwater Management Facilities and comply with applicable TMDL regulations where physically possible. As note on the plan the wastewater needs for this project will be addressed by the connection of the project to existing public sewer owned and operated by Sussex County.**

**ECI will develop a stormwater management plan for the site that will incorporate BMP's and pollution control strategies throughout the system**

## WATER SUPPLY

*The information provided indicates that Tidewater Utilities will provide well water to the proposed projects through a central public water system. DNREC files reflect that Tidewater Utilities does not currently hold a certificate of public convenience and necessity (CPCN) to provide public water in these areas. They will need to file an application for a CPCN with the Public Service Commission, if they have not done so already. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at 302-739-4247. Should an on-site public well be needed, it must 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.*

**The parcels that comprise this development fall into Tidewaters and Artesian service areas. The water companies are currently in discussions as to which company will serve the project. The certificate of public convenience will be filed as required.**

*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.*

**The site contractor will be responsible for any and all permits, be it building permits or dewatering permits, during the construction of this project.**

*Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.*

## **SEDIMENT AND EROSION CONTROL/STORMWATER MANAGEMENT**

### **Standard Comments:**

*A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson, Program Manager, at (302) 856-7219 for details regarding submittal requirements and fees.*

*It is strongly recommended that you contact the Sussex Conservation District to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan. 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.*

*A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted to the Division of Soil and Water Conservation along with the \$195 NOI fee prior to plan approval.*

*Applying practices to mimic the pre-development hydrology on the site, promote recharge, maximize the use of existing natural features on the site, and limit the reliance on structural stormwater components, such as maintaining open spaces, should be considered in the overall design of the project as a stormwater management technique.*

*Each stormwater management facility should have an adequate outlet for release of stormwater. Any drainage conveyed onto this site from neighboring properties must be adequately conveyed through the site to the discharge point without interruption.*

*Clearly address how Stormwater Quality and Quantity Treatment will be provided. If this project is eligible for a Quantity Waiver, please make the request in the stormwater narrative citing the specific regulation.*

*Please indicate on the sediment and stormwater management plan who shall be responsible for maintenance of the stormwater management facilities both during construction and after. During the design of the sediment control and stormwater management plan, considerations should be made for maintenance (i.e. access, easements, etc.) of any structures or facilities.*

*If a stormwater management pond is going to be utilized as a sediment trap/basin during construction, it must be designed to accommodate 3600 cubic feet of storage per acre of contributing drainage area until project stabilization is complete.*

*All ponds are required to be constructed per Pond Code 378.*

*Please note that if the stormwater facilities will impact wetlands, a permit must be provided to the District prior to receiving approval. Please address.*

*DNREC regulations require no more than 20 acres to be disturbed at more time. A phased erosion and sediment control plan and sequence of construction will be required.*

*Under the DNREC Health and Safety Memo of 2000, all wet ponds are required to have an open space depth of 3 feet or more that comprises 50-75 percent of the area of the pond.*

*Consideration should be made for any adjacent properties during the design of the project, including drainage and erosion/sediment control.*

*When developing the Sediment and Erosion Control plans consideration should be made for minimizing impacts to sensitive areas such as wetlands and areas of significant slope. This should be clearly addressed in the Sediment and Erosion Control Plan and the phasing of this project.*

**We acknowledge the above comments. The stormwater management plan for this project will meet or exceed all requirements of the Sussex Conservation District and DNREC. Utilization of Best Management Practices and reduction of impervious surfaces will be made a part of the stormwater management plan. Post Development runoff will not exceed pre-development runoff and may possibly be less.**

#### **OPEN SPACE**

*To maximize the existing buffering capacity and wildlife habitat on site, community open space should be designated along the existing woodland edge. In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Doing so will provide wildlife habitat and it will create recreational opportunities for residents. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off into surface water, air quality improvements, and require much less maintenance than traditional turf grass, an important consideration if a homeowners association will take over responsibility for maintenance of community open spaces. Reforestation efforts should be targeted to open space areas adjacent to the forest. In addition, the community should be provided with a detailed landscape management plan that outlines how to manage each open space area, as well as how to manage for invasive species.*

**As a result of the reconfiguration the existing Par 3 Golf Course will remain open space, including along the existing woodland edge referred to above.**

**A landscape plan will be a part of the final design of this project. A homeowners association will be established and maintenance of the common open spaces will be a part of the final documents for this development.**

#### **RARE SPECIES**

*DNREC has not surveyed the project area; therefore, it is unknown if there are state-rare or federally listed plants, animals or natural communities at this project site. However, there are rare plants within a maple-gum swamp downstream that could be affected by run-off generated by this development. It is recommended that the proposed 50-foot wetland buffer along Pot Hook Creek be increased to at least 100 feet to protect water quality and preserve forested riparian habitat. Lot lines and stormwater management ponds should not be located within this buffer zone.*

**Issues pertaining to the presence of endangered or threatened species listed on the federal or state registers and proposed habitat protection areas are of great concern to ECI and our client. We have contacted the following agencies for information. The Natural Heritage and Endangered Species Program responded that their data base indicated that there are no records of state-rare or federally listed plants, animals or natural communities at or adjacent to this project site. The United States Department of the Interior has responded concerning federally listed endangered species or threatened species. They replied that there are no proposed or federally listed endangered or threatened species known to exist within this project impact area.**

**In accordance with Sussex County Code a 50-foot buffer has been included on the plan around the wetlands areas. There are no lot lines proposed within the delineated wetlands.**

*To reduce impacts to nesting birds and other wildlife species that utilize forests for breeding, we recommend that clearing not occur April 1st to July 31st. This clearing recommendation would only protect those species during the breeding season; once trees are cleared the result is an overall loss of habitat.*

**With the re-configuration of this project, most of the proposed development will occur within the open area of the existing driving range. Approximately 16% of the wooded area to be removed lies on the exterior of the wooded area thus limiting impact to the wildlife.**

#### **STATE NATURAL HERITAGE SITE**

*Because of the presence of rare plants and the existence of a State Natural Area, this project lies within a State Natural Heritage Site. This is one of the criteria used to determine the presence of Critical Resource Waters. The final decision regarding Critical Resource Waters, if this is an issue, will be made by the U.S. Army Corps of Engineers (USACE). The information above will aid the Corps in their determination.*

**We acknowledge your comment. In discussion with the Army Corp of Engineers no issue has been made related to critical resource waters.**

#### **NUISANCE WATERFOWL**

*If stormwater management ponds are planned they may attract waterfowl like resident Canada geese and mute swans that will create a nuisance for community residents. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species. However, native plantings, including tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (at least 50 feet) around ponds, are not as attractive to geese because they do not feel safe from predators and other disturbance when their view of the area is blocked. These plantings should be completed as soon as possible as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, geese problems can be minimized.*

**Creative landscaping techniques within the project site and specifically at the stormwater management pond(s) will diminish the attraction of nuisance waterfowl**

#### **STATE RESOURCE AREA/NATURAL AREA**

*The forested/marsh lands on the site are identified on the state designated Natural Area Inventory and are considered a State Resource Area (SRA). The natural area/SRA on this site is part of the larger Marshes of Wolfe Glade and Holland Glade Natural Area and the Cape Henlopen State Resource Area respectively.*

*Natural Areas involve areas of land or water, or of both land and water, whether in public or private ownership, which either retains or has reestablished its natural character (although it need not be undisturbed), or has unusual flora or fauna, or has biotic, geological, scenic or archaeological features of scientific or educational value.*

*State Resource Area lands include any open lands characterized by great natural scenic beauty, or whose existing openness, natural condition or present state of use, if retained, would maintain important recreational areas and wildlife habitat, and enhance the present or potential value of abutting or surrounding urban development, or would maintain or enhance the conservation of natural or scenic resources, including environmentally sensitive areas.*

*That said, the Office of Nature Preserves respectfully requests the developer maintain the integrity of the forested/marsh lands by limiting development to the open areas on the site and providing an adequate buffer to the sensitive ecological features that boarder the site.*

**With the re-configuration of this project, most of the proposed development will occur within the open area of the existing driving range. Approximately 16% of the wooded area to be removed lies on the exterior of the wooded area. A 50-foot buffer has been included on the plan along with the required Sussex County Code forested agricultural buffer.**

### **SOLID WASTE**

*Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average, each new house constructed generates an additional 10,000 pounds of construction waste. Due to Delaware's present rate of growth and the impact that growth will have on the state's existing landfill capacity, the applicant is requested to be aware of the impact this project will have on the State's limited landfill resources and, to the extent possible, take steps to minimize the amount of construction waste associated with this development.*

**ECI and the developer are aware of the current conditions in Delaware concerning solid waste and steps will be taken to minimize the construction waste impacts to this important issue.**

### **UNDERGROUND STORAGE TANKS**

*There are two inactive LUST site(s) located near the proposed project:*

*Uni-Mart # 02008, Facility # 5-000110, Project # S9706088  
Shore Distributors Inc, Facility # 5-000687, Project # S 9207180*

*No environmental impact is expected from the above inactive/active LUST site(s). However, should any underground storage tank or petroleum contaminated soil be discovered during construction, the Tank Management Branch must be notified as soon as possible. It is not anticipated that any construction specifications would need to be changed due to petroleum contamination. However, should any unanticipated contamination be encountered and PVC pipe is being utilized, it will need to be changed to ductile steel with nitrile rubber gaskets in the contaminated areas.*

**ECI and the developer are aware of this issue and will be cognizant of the site conditions during the construction phase of this proposed development. A limited Environmental Site Assessment Phase I was conducted on site resulting in no significant environmental issues being uncovered.**

### **AIR QUALITY**

*Once complete, vehicle emissions associated with this project are estimated to be 13.7 tons (27,321.1 pounds) per year of VOC (volatile organic compounds), 11.3 tons (22,620.1 pounds) per year of NOx (nitrogen oxides), 8.3 tons (16,689.5 pounds) per year of SO2 (sulfur dioxide), 0.7 ton (1,485.7 pounds) per year of fine particulates and 1,142.7 tons (2,285,378.8 pounds) per year of CO2 (carbon dioxide).*

*Emissions from area sources associated with this project are estimated to be 5.5 tons (11,019.9 pounds) per year of VOC (volatile organic compounds), 0.6 ton (1,212.5 pounds) per year of NOx (nitrogen oxides), 0.5 ton (1,006.2 pounds) per year of SO2 (sulfur dioxide), 0.6 ton (1,298.5 pounds) per year of fine particulates and 22.3 tons (44,672.0 pounds) per year of CO2 (carbon dioxide).*

*Emissions from electrical power generation associated with this project are estimated to be 2.2 tons (4,367.5 pounds) per year of NOx (nitrogen oxides), 7.6 tons (15,191.2 pounds) per year of SO2 (sulfur dioxide) and 1,120.4 tons (2,240,706.7 pounds) per year of CO2 (carbon dioxide).*

	VOC	NOx	SO <sub>2</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>
Mobile	13.7	11.3	8.3	0.7	1142.7
Residential	5.5	0.6	0.5	0.6	22.3
Electrical Power		2.2	7.6		1120.4
<b>TOTAL</b>	19.2	14.1	16.4	1.3	2285.4

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 2.2 tons of nitrogen oxides per year and 7.6 tons of sulfur dioxide per year.

A significant method to mitigate this impact would be to require the builder to construct Energy Star qualified homes. Every percentage of increased energy efficiency translates into a percent reduction in pollution. Quoting from their web page, <http://www.energystar.gov/>:

"ENERGY STAR qualified homes are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than state energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of:

- Building envelope upgrades,
- High performance windows,
- Controlled air infiltration,
- Upgraded heating and air conditioning systems,
- Tight duct systems and
- Upgraded water-heating equipment."

The Energy office in DNREC is in the process of training builders in making their structures more energy efficient. The Energy Star Program is excellent way to save on energy costs and reduce air pollution. They highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

They also recommend that the homebuilders offer geothermal and photo voltaic energy options. Applicable vehicles should use retrofitted diesel engines during construction. The development should provide tie-ins to the nearest bike paths, links to mass transit, and fund a lawnmower exchange program for their new occupants.

**The project will utilize Energy Star certifications for appliances, heating and air conditioning systems, insulation and other factors that directly impact power requirements and/or energy requirements to support the residences.**

**With regard to electrical power generation, although the residents of the development will purchase electrical power, the inhabitants of the residences located within the development have no direct control of the manner in which power is generated within the State of Delaware. The project provides significant opportunities for bicycling and walking throughout the project site. As the project is a condominium, grass cutting and landscape services will be contracted to a landscape firm.**

**STATE FIRE MARSHAL'S OFFICE – CONTACT: DUANE FOX 856-5298**

*These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. 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):*

❖ ***This Agency has no objection to the re-zoning request. The information provided below shall be considered when plans are being designed.***

**a. 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. (Business and Apartments)*
- *Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.*

**b. Fire Protection Features:**

- *All structures over 10,000 sqft. Aggregate will require automatic sprinkler protection installed.*
- *Buildings greater than 10,000 sqft, 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*

**c. Accessibility**

- *All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from King's Hwy and Hwy One must be constructed so fire department apparatus may negotiate it.*
- *Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.*
- *Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.*
- *The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.*
- *The 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.*

**d. Gas Piping and System Information:**

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

**e. 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*

*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.delawarestatefiremarshal.com](http://www.delawarestatefiremarshal.com), technical services link, plan review, applications or brochures.*

**All applicable regulations of the State Fire Marshal Office will be addressed during the design phase of this project. Preliminary meetings with fire protection specialists will be scheduled prior to the fire marshal plan submittal.**

**DEPARTMENT OF AGRICULTURE - CONTACT: MILTON MELENDEZ 698-4500**

*The Delaware Department of Agriculture has no objections to the proposed rezoning. The Strategies for State Policies and Spending encourages responsible development in areas within Investment Levels 2 and 3.*

*Right Tree for the Right Place*

*The Delaware Department of Agriculture Forest Service encourages the developer to use the "Right Tree for the Right Place" for any design considerations. This concept allows for the proper placement of trees to increase property values in excess of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.*

*Native Landscapes*

*The Delaware Department of Agriculture and the Delaware Forest Service encourages the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants. To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.*

**A landscape plan utilizing native trees and shrubs will be a part of the final design of this project.**

**PUBLIC SERVICE COMMISSION - CONTACT: ANDREA MAUCHER 739-4247**

*Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.*

**We acknowledge your comment. All regulations regarding natural gas or propane gas service will be strictly adhered to.**

**DELAWARE STATE HOUSING AUTHORITY – CONTACT KAREN HORTON 739-4263**

*This proposal is to develop 178 condominium units to the existing golf course and driving range in Lewes at the Midway Par 3 Golf Course. The proposal is located east of SR 1 in Lewes. We support units being set aside for first time homebuyers. According to the most recent real estate data collected by DSHA, the median home price in Lewes is \$375,000. Families earning 100% of Sussex County's median income only qualify for mortgages of \$171,216, thus creating an affordability gap of \$203,784. The provision of units within reach of families earning at least 100% of Sussex County's median income would help increase housing opportunities for first time homebuyers.*

**We acknowledge your comment and will investigate the possibility of providing some consideration to affordability.**

**DEPARTMENT OF EDUCATION – CONTACT: JOHN MARINUCCI 739-4658**

*This proposed development is within the Cape Henlopen School District boundaries. DOE offers the following comments on behalf of the Cape Henlopen School District.*

- 1. Using the DOE standard formula, this development will generate an estimated 89 students.*
- 2. DOE records indicate that the Cape Henlopen School Districts' elementary schools are not at or beyond 100% of current capacity based on September 30, 2005 elementary enrollment.*
- 3. DOE records indicate that the Cape Henlopen School Districts' secondary schools are not at or beyond 100% of current capacity based on September 30, 2005 secondary enrollment.*
- 4. While the Cape Henlopen School District secondary and elementary schools are not currently beyond capacity, the district does NOT have adequate student capacity to accommodate the additional students likely to be generated from this development given the number of planned and recorded residential sub divisions within district boundaries. Continued development will cause significant burden to the Cape Henlopen School District without the provision for additional educational infrastructure.*
- 5. The developer is strongly encouraged to contact the Cape Henlopen School District Administration to address the issue of school over-crowding that this development will cause.*
- 6. DOE requests developer work with the Cape Henlopen School District transportation department to establish developer supplied bus stop shelter ROW and shelter structures, interspersed throughout the development as determined and recommended by the local school district.*

**The Cape Henlopen School District will be contacted. The developer does not expect this project to have a large impact to the local school district, as the anticipated market for the housing will be the retirement community.**

**SUSSEX COUNTY - CONTACT: RICHARD KAUTZ 855-7878**

*In addition to the traffic calming measures suggested by DelDOT for the long, straight streets, the significant amount of parking that requires backing out into those streets should be reduced or eliminated through redesign of the layout due to safety concerns. Also, the long run of street and parking is boring and unattractive.*

**As a result of PLUS comments and the owner/developer's desire to keep the existing Par 3 Golf Course in operation, the plan has been re-configured. The long, boring and unattractive road has been eliminated. The majority of the development now lies within the open space area of the driving range and most of the required parking is off street in parking lots either beside or behind the buildings. The parking lots will be attractively landscaped to enhance the views of the development.**

*The Sussex County Zoning Ordinance Section 115-166 C states, "Parking within front yard setback shall be discouraged and subject to site plan review." The developer should be aware that the Planning and Zoning*

Commission is reluctant to approved parking in the front setback, especially where adjacent property is vacant. The design for the Commercial site should be revised to show compliance with the setback requirement. Furthermore, moving the parking to the side and rear allows for an attractive presentation of the building to the passing traffic.

**The parcel containing the proposed commercial building has been redesign. Parking has been moved from the front of the building to the sides and to the rear.**

*Per page 15 of the Comprehensive Plan, "any increased density by rezoning should only be permitted with proper environmental safeguards." Because this project includes a rezoning from AR-1 to MR and C-1 and is situated in an Environmentally Sensitive Development Area, the required report should include how this requirement and the PLUS comments have been addressed and how the plan has been revised accordingly.*

**The plan has been re-configured and the majority of the proposed development now lies within the open space of the existing driving range. The existing Par 3 Golf Course will remain in operation and the area preserved as open space. The housing units have also been reduced from 178 units to 144 units with a community center building. The proposed commercial building area has also been re-configured and the parking has been relocated to the sides and to the rear of the building.**

**The wetlands have been respected and a 50-foot buffer has been included on the plan. Along the perimeter of the wetlands in many areas the distance to buildings and parking areas is much greater than the required 50 feet.**

**This re-configured layout saves over 84% of the existing woods on the site. Additional landscaping will be a part of the final design of this project utilizing native trees and shrubs.**

**A central public water system will be designed to provide potable and firewater and an Ordinance 38 gravity sanitary sewer system will be designed and approved by Sussex County and connected to the existing Sussex County sewer system.**

**THE SUSSEX COUNTY ENGINEER COMMENTS:**

*The project proposes to rezone and add an additional 178 residential condominium units and commercial building to the existing golf course and driving range. The project includes two additional parcels for a total project size of 46.45 ± acres. The proposed project is within the West Rehoboth Expansion Area for central sewer and connection to the sewer system is mandatory.*

*The project is within planning study and system design assumptions for sewer service. The proposed development will require a developer installed collection system in accordance with Sussex County's standard requirements and procedures. The Sussex County Engineer must approve the connection point. A sewer concept plan must be submitted for review and approval prior to construction plan approval. A checklist for preparing sewer concept plans was handed out at the PLUS meeting.*

*The maximum number of EDUs shall not exceed 186.0 EDUs (4.0 EDUs per acre) including the 178 dwelling units, 2.5 EDUs for the existing pro shop and apartment and proposed commercial building. All capacity has been allocated. No additional capacity will be available to redevelop the golf course.*

*Onetime System Connection Charges will apply. Please contact Mrs. Christine Fletcher at 302 854-5086 for additional information on charges.*

*For questions regarding these comments, contact Rob Davis, Sussex county Engineering Department at (302) 855-7820.*

**ECI and the owner/developer are aware of the issues raised by the County Engineer. The project has been reduced from 178 units to 144 units. A sanitary concept plan will be submitted as required and ECI will arrange a meeting prior to the sanitary concept design to learn where the sanitary connection will be permitted. At present, there are 146 EDU's associated with the project.**

It is our pleasure to have had the opportunity for the Comprehensive Review. As you can see, we have incorporated many of the comments into our plan.

We hope that these responses and related revisions meet with your approval. If you have any further questions or comments, please don't hesitate to contact me.

Sincerely,

**Engineering Consultants International, LLC**

A handwritten signature in black ink, appearing to read 'G. Cuppels', written over the company name.

Gary T. Cuppels, PLS, PP  
President