



208 Delaware Street
 New Castle, DE 19720
 Phone: 302.351.3421
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Letter of Transmittal

Project #: 001.01

DATE: 6/27/2006

To: Constance C. Holland
 AICP Director
Phone: 302.739.3090
Fax: N/A
Cc: File

FROM: Andrew C. Hayes

ForeSite Associates, Inc.
 208 Delaware Street
 New Castle, DE 19720

- For Review
- For Your Use
- For Approval
- As Requested
- Please Return

- Hand Delivery
- Overnight
- U.S. Postal Service

QUANTITY	DATE	DESCRIPTION
1	6/26/06	PLUS response letter - PLUS 2005-11-12; The Highlands at Middletown
1	11/01/06	11x17 PLUS Plans - revised 6/26/06

Please find enclosed, the above reference materials in response to PLUS comments received by your office.

RECEIVED
 OFFICE OF THE SUDGET
 02 3 PM 3 20


 Andrew C. Hayes P.E.



208 Delaware Street
New Castle, DE 19720
Phone: 302.351.3421
Fax: 302.351.3456

June 26, 2006

Constance C. Holland
AICP Director
Delaware State Planning Coordination
540 S. DuPont Highway
Dover, DE 19901

RE: PLUS review – PLUS 2005-11-12; The Highlands at Middletown

Dear Ms. Holland:

The following are a complete list of comments provided by State agencies with our responses in italics beneath:

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

- This project is located in Investment Level 1 according to the 2004 State Strategies for Policies and Spending. This site is also located in the Town of Middletown. Investment Level 1 reflects areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy. Our office supports development projects in Investment Level 1 as essential to the Livable Delaware strategy of concentrating growth in and around existing communities and infrastructure.
- We compliment the use of a grid-like development design and the noted expectations of connections to the surrounding communities and future communities.

Division of Historic and Cultural Affairs – Contact: Alice Guerrant 739-5685

- Nothing is known within this parcel. Historic maps and aerials show no buildings in this area, and it is far enough removed from the 19th c. farmsteads that it is not likely to contain a family cemetery related to them. There are areas of high potential for both prehistoric-period and early historic-period (17th and 18th centuries) archaeological sites.
- We would like the opportunity to look for any sites that may be here, to learn something about their location, extent, and nature prior to any ground-disturbing activities

No historical features are known to exist on this site.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

The land is zoned R-2 and R-3 and the R-2 areas would need to be rezoned to R-3 to Permit the proposed development. The present proposal would replace an existing plan approved in 1996 for a comparable development (692 townhouses, 192 duplex houses, and 240 apartments).

We are currently in the process of re-zoning the entire parcel to R-3, permitting the proposed development. Please note that the correct number of units is 708 stacked townhome units, 206 duplex units, and 336 apartment/condo units.

1. This development clearly meets DeIDOT's warrants a traffic impact study (TIS). As the developer pointed out at the PLUS meeting, a TIS was done for the 1996 plan under the name Villagebrook II. From the letter commenting on that study, DeIDOT finds that the following recommendations are still relevant:

- The developer should be required to enter a signal agreement for the intersection of Main and New Streets and to build a protected eastbound left turn lane on Main Street at New Street.

The developer has been involved in discussions with the Town of Middletown and DeIDOT concerning the improvements and mitigation measures that are being provided as part of this plan.

- The developer should be required to enter a signal agreement for the intersection of Main Street and Cleaver Farm Road and improve the intersection to provide for double left turns out of Cleaver Farm Road.

The developer has been involved in discussions with the Town of Middletown and DeIDOT concerning the improvements and mitigation measures that are being provided as part of this plan.

- The developer should be required to build sidewalks throughout the development and on both sides of Cleaver Farm Road from the development to Main Street.

The developer intends to install sidewalks on both sides of each street in the development and along the portions of future connector roads that lie within his responsibility. Walk -ability is a key feature of the development.

- The developer should be required to connect their project to Ashland Street in the Greenlawn development.

The developer has already constructed a connector between Cleaver Farm Road and Ashland Street in the Greenlawn development. This connection point will be realigned as part of this project but a connection to Ashland Street will be provided.

- Of these recommendations, the improvements to Main Street and Cleaver Farm Road will require further study because DeIDOT currently does not plan to add a second eastbound through lane on Main Street and Cleaver Farm Road may be too close to Silver Lake Road (New Castle Road 442) to otherwise accommodate the double left turn.

The developer has been involved in discussions with the Town of Middletown and DeIDOT concerning the improvements and mitigation measures that are being provided as part of this plan.

2. As the developer mentioned at the PLUS meeting, DeIDOT is studying alternatives for improving east-west capacity in the Main Street (Delaware Route 299) corridor. These alternatives include a parallel street that would, in part, run through the subject development. DeIDOT appreciates the developer's willingness to accommodate this connection, and other possible connections, which may require modifications to the plan, specifically to the southernmost street. The results of our study could affect our 1996 recommendations regarding the New Street and Cleaver Farm Road intersections.

The developer has and will continue to work with the Town of Middletown and DeIDOT concerning Main Street traffic mitigation. Please note that the plan has been revised to show a connection to Lake Street and a new connection to Main Street through the proposed Shops at Middletown site. The project now provides four points of interconnection to adjoining properties in addition to Cleaver Farm Road.

3. DeIDOT commends the developer for providing the two roundabouts proposed on Cleaver Farm Road. They understand that speeding is a significant problem there and the proposed roundabouts should help to address that problem.
4. DeIDOT further commends the developer for providing the three stub streets that are proposed. These streets as well as other connections, currently under study with the Town will provide for better circulation in the area north of Route 299.

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

Soils

Based on the New Castle County soil survey Reybold-Sassafras, Matapeake, and Zekiah-Longmarsh were mapped on subject parcel. Reybold-Sassafras and Matapeake are well drained uplands soils that, generally, have few limitations for development. Zekiah- Long marsh is a very poorly-drained wetland associated (hydric) that has the highest severity level for development.

Preliminary field studies are in agreement with your remarks and the soils appear well suited for development. Poorly drained soils to the north of the site bordering Saw Mill Branch will remain largely undisturbed.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands on this parcel.

These wetlands provide water quality benefits, attenuate flooding, and provide important habitat for plants and wildlife. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex. 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.

The land plan for this project concentrates the more intense aspects of the development to the southern end of the property such as to reduce woodland impact and to provide buffering from the adjacent wetlands. No lots are proposed to include wetland areas.

Wetland Permitting Information

PLUS application materials indicate that wetlands have been delineated (presumably 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 nonjurisdictional isolated wetlands, the Corps must be contacted to make the final jurisdictional assessment. They can be reached by phone at 736-9763.

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.

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.

The developer intends to comply with State and Federal wetland permitting processes.

Impervious Cover

The Watershed Assessment Section feels that the amount of imperviousness (approximately 50%) generated by this project is excessive and should be reduced. Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline. Since the amount of imperviousness generated by this project will be well over this 10 percent threshold, the applicant is strongly advised to pursue best management practices (BMPs) that mitigate and reduce its predictable 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 additional native tree and shrub plantings - are examples of practical BMPs that could easily be implemented to reduce surface imperviousness. Even better, reducing the amount of constructed structural imperviousness (i.e., building and parking lots) in the first place is probably the best BMP and should also be considered.

The impervious cover on the site will fall within the limits of the local jurisdiction and in many places reflects the access requirements of the Office of State Fire Marshal. Our proposed BMPs, once implemented are designed to provide recharge in existing sump areas and the overall preliminary stormwater management plan manages post development peak flows, including the 100-year storm, to below that of existing conditions, significantly exceeding the State's requirements. Where possible, paving widths and radii have been minimized however requirements for emergency equipment access require wide paved streets, alleys, and large paved turning radii. We have specified reinforced grass pavers for the turning radius into the proposed alleys in an attempt to address these access concerns while minimizing paving widths.

TMDLs

With the adoption of Total Maximum Daily Loads (TMDLs) as a "nutrient-runoff mitigation strategy" for reducing nutrients in the Appoquinimink River watershed, reduction of nitrogen and phosphorus loading will be mandatory. 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 TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. Based on the water quality goals desired for the Appoquinimink, a TMDL reduction level of 60 percent will be required for both nitrogen and phosphorus. In order for the applicant to verify compliance with the TMDL mandate, a full nutrient accounting process known as a nutrient budget should be prepared. The protocol used for calculating the nutrient budget involves a computer-based model to calculate post-development nutrient loading utilizing a variety of land use scenarios in combination with a variety (or absence) of BMP types and intensities. This post-development loading rate is then compared with the pre-development loading rate as a means to assess whether the project meets the acceptable TMDL reduction levels. Based on a preliminary evaluation of this project using said model, the development as currently conceived does **not meet** the TMDL reduction requirements for phosphorus. The applicant should realize that extensive forestland clearing, little or no wetland buffering, and the creation of large amounts of impervious cover – can increase a given parcel's nutrient runoff significantly above the acceptable or prescribed TMDL nutrient reduction levels. It is recommended, therefore, that the applicant consider some of the above-suggested BMPs in conjunction with other applicable redesign changes to ensure that these reductions are attained. We suggest that the applicant verify their project's compliance with the specified TMDL loading rates by running the model themselves. Please contact Lyle Jones of Watershed Section at 739- 9939 for the acceptable model protocol.

The developer intends to work with the State.

Water Resource Protection Areas

The DNREC Water Supply Section has determined that most of the proposed development falls within an area of excellent groundwater recharge. The northern section of the development is not in an excellent recharge area (see following map and attached map).

The proposed development would change the total impervious cover from approximately 0.01% to approximately 49.60%. These numbers were provided by the developer on the PLUS application. This number far exceeds the values set forth by New Castle County. The parcel is located in the Town of Middletown. Currently, the Town of Middletown does not have a Source Water Protection Component to their comprehensive plan that limits impervious cover.

DNREC Water Supply Section recommends that that portion of the new development within the excellent recharge area not exceed 20% impervious cover. Further, some allowance for augmenting ground-water recharge should be considered if the impervious cover exceeds 20% but is less than 50% of that portion of the parcel within this area. The purpose of an impervious cover threshold is to minimize loss of recharge (and associated increases in storm water) and protect the quality and quantity of ground water and surface water supplies.

We have implemented infiltration practices in pre-development sump infiltration areas to mitigate recharge losses. Existing areas on the west side of Cleaver Farm Road have low and sump areas that appear to infiltrate the runoff from frequent storm events. The preliminary stormwater management design provides for

infiltration of up to the post-development 10-year storm runoff volume from significant portions of these areas.

41.71 acres are proposed as open space in the development. The areas are spread throughout the development with a larger section in the northern part of the proposed development area. Steps could be taken to increase the open space in the excellent recharge area to decrease the amount of impervious cover in the proposed development.

We have since increased open space areas to 48.34 acres located throughout the development. See response above to address recharge mitigation in the southeast portion of the site.

Should the Town of Middletown approve the development plan as proposed, DNREC Water Supply Section strongly recommends that augmentation of groundwater recharge be required through engineering to achieve the impervious cover goals. Recommended engineering includes rooftop run-off systems that limit the potential for contamination of precipitation. These recommendations are made due to existence of the parcel entirely within an excellent recharge area and close proximity to a wellhead protection area.

See responses above. The preliminary stormwater management plan provides for recharge of significant post-development runoff volumes on the southeastern portion of the site.

For more information refer to the Final: Source Water Protection Guidance Manual for the Local Governments of Delaware: and Ground-Water Recharge Design Methodology:

Water Supply

The project information sheets state water will be provided to the project by the Town of Middletown via a central water system. Records indicate that the project is located within the public water service area granted to the Town of Middletown under Certificate of Public Convenience and Necessity 91-CPCN-12.

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.

Should dewatering permits be needed during any phase of construction the developer intends to obtain a dewatering well construction permit as required.

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 Erosion Control/Stormwater Management

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 Town of Middletown. Contact Town of Middletown at (302) 378-9120 for details regarding submittal requirements and fees.

A detailed sediment and stormwater plan will be prepared.

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

After completion of the preliminary plan and as part of the final construction permitting process, we intend to file a Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity to the DNREC Division of Soil and Water Conservation.

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. Green Technology BMPs must be given first consideration for stormwater quality management. Each stormwater management facility should have an adequate outlet for release of stormwater. It is strongly recommended that you contact the reviewing agency to schedule a preliminary 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.

We intend to work with the review agency on the sediment and erosion control and stormwater management components of the plan and have submitted a preliminary stormwater management plan and design report as part of our Preliminary Plan submission.

Floodplains

Portions of the proposed project are located within the 100-year floodplain. It is recommended that development be limited to those areas which are outside of the 100- year floodplain.

The land plan does not propose development within the 100-yr flood plain.

Forest Preservation

According to 2002 aerial photos there is a forested area in this parcel. PLUS materials indicate that 18.26 acres will be removed. The forest provides important riparian habitat, wildlife connectors, and air quality and water quality benefits. This forest tract is extremely beneficial to the region. Fragmentation of this forest can have irreversible effects to the regional ecosystem. Lot lines should be redesigned to avoid all impacts to the forested area. The developer is strongly encouraged to preserve, and where possible, enhance forested resources on site. This includes removing lot lines and infrastructure (such as storm water management ponds) from forested areas to the extent possible and minimizing any clearing activities. The forested areas on-site should be viewed as a community asset and managed appropriately.

It is our intent to preserve the vast majority of the mature forest on this site. The land plan concentrates the most intense portions of the development to the south, away from the mature woodlands. A significant portion of the area referred to in your comment, particularly the "wooded" area to the west of Cleaver Farm Road, and south of Villagebrook II is second growth scrub and is primarily multiflora rose, green briar, and other invasive brush species. These areas are not slated for preservation. The developer has a long track record of providing significant

landscaping and planting improvements on projects. An example of such a project might be the St. Andrews development off of Route 40, in New Castle County. This developer has nearly completed the project and it provides a good example of the significant plantings that can be expected.

Open Space

PLUS materials indicate that 41.71 acres are proposed for open space. In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. 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.

The developer intends to consider the above recommendations.

Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should also be demarked to avoid infringement by homeowners.

The developer intends to consider the above recommendations.

Underground Storage Tanks

There is one inactive LUST site located near the proposed project:

Redding Middle School, Facility # 3-001107, Project #s N8705012, N8705013, and N0002025.

No environmental impact is expected from the above inactive LUST sites. 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 be 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.

Should any underground storage tank or petroleum contaminated soil be discovered during construction, the developer intends to notify the Tank Management Branch as soon as possible.

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.

The developer is aware of the impacts this project will have on the State's landfill resources and intends to consider means to minimize the amount of construction waste.

Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 95.9 tons (191,708.5 pounds) per year of VOC (volatile organic compounds), 79.4 tons (158,721.6 pounds) per year of NOx (nitrogen oxides), 58.6 tons (117,107.7 pounds) per year of SO2 (sulfur dioxide), 5.2 ton (10,424.6 pounds) per year of fine particulates and 8,018.1 tons (16,036,169.0 pounds) per year of CO2 (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 38.7 tons (77,324.7 pounds) per year of VOC (volatile organic compounds), 4.3 ton (8,508.1 pounds) per year of NOx (nitrogen oxides), 3.5 ton (7,060.5 pounds) per year of SO2 (sulfur dioxide), 4.6 ton (9,111.2 pounds) per year of fine particulates and 156.7 tons (313,457.2 pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 15.3 tons (30,646.0 pounds) per year of NOx (nitrogen oxides), 53.3 tons (106,594.7 pounds) per year of SO2 (sulfur dioxide) and 7,861.4 tons (15,722,711.8 pounds) per year of CO2 (carbon dioxide).

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 15.3 tons of nitrogen oxides per year and 53.3 tons of sulfurdioxide 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 webpage, <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. We highly recommend this project development and other residential proposals increase the energy efficiency of their homes. They also recommend that the home builders 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 developer intends to take all of the above listed recommendations into consideration. The dense nature of this project, its walk-ability, and pedestrian connections with adjacent residential, recreational, and commercial properties is intended to aid in significantly reducing air pollution over that of the previously approved plan and that of a conventional suburban subdivision.

State Fire Marshal's Office – Contact: John Rossiter 302-323-5365

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):

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. (Assembly, Apartments, and Townhouses) Where a water distribution system is proposed for single family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required. (One & Two Family Dwelling) 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.

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 of more or 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 for townhouse buildings; provide a section / detail and the UL design number of the 2 hour fire rated separation wall on the Site plan.

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 Cleaver Farm Road 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.

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) Townhouse 2-hr separation wall details shall be shown on site plans Note indicating if building is to be sprinklered Name of Water Provider Letter from

Water Provider approving the system layout Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered Provide Road Names, even for County Roads

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

We have had preliminary meetings with the State Fire Marshal's office and have applied their comments and suggestions into our Preliminary Plan. As a result of these early meetings, the project received specific conditions for emergency access. Our revised plan incorporates these requirements and will be reviewed as part of our Fire Protection Plan approval.

Department of Agriculture - Contact: Milton Melendez 698-4500

Neither the Delaware Department of Agriculture nor the Delaware Forest Service has any objections to the Highlands at Middletown application. The site is located within a longrange designated controlled development area. The *Strategies for State Policies and Spending* encourages responsible development in areas within a Growth Level 1 Zone. DDA requests that you consider limiting impervious cover as much as possible when designing this site. This site is a part of a "good recharge" area. The State of Delaware has mapped all ground water potential recharge areas. A "good" rating is the second highest rating and designates an area as having important groundwater recharge qualities. Maintaining pervious cover in "Excellent" and "Good" recharge areas is crucial for the overall environmental health of our state and extremely important to efforts which ensure a safe drinking water supply for future generations. Retention of pervious cover to ensure an adequate future water supply is also important for the future viability of agriculture in the First State. The loss of every acre of land designated as "excellent" and "good" recharge areas adversely impacts the future prospects for agriculture in Delaware.

We have implemented infiltration practices in pre-development sump infiltration areas encouraging recharge. Existing areas on the west side of Cleaver Farm Road have low and sump areas that appear to infiltrate the runoff from frequent storm events. The preliminary stormwater management design provides for infiltration of up to the post-development 10-year storm runoff volume from significant portions of these areas.

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 upwards of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.

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.

Tree Mitigation

The Delaware Forest Service encourages the developer to implement a tree mitigation program to replace trees at a 1:1 ratio within the site and throughout the community. This will help to meet the community's forestry goals and objectives and reduce the environmental impacts to the surrounding natural resources. To learn more, please contact our offices at (302) 349-5754.

The developer intends to plant new trees and landscaping throughout the development to provide the community with not only aesthetic improvements but ecological improvements as well.

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.

Any expansion of natural gas or installation of a closed propane system will adhere to the Pipeline Safety guidelines.

Delaware State Housing Authority – Contact Jimmy Atkins 739-4263

This proposal is to develop 1,246 units on 124 acres located on Cleaver Farm Road, north of Main Street, in Middletown. According to the State Strategies Map, the proposal is located in an Investment Level 1 area. DSHA supports this proposal because residents will have proximity to services, markets, and employment opportunities. The proposal also targets first time homebuyers. For informational purposes, the most recent real estate data collected by DSHA, the median home price in Middletown is \$243,258. However, families earning 80% of New Castle County's median income only qualify for mortgages of \$199,283. The provision of units within reach of families earning at least 80% of New Castle County's median income would help increase housing opportunities for first time homebuyers

The developer and design team appreciate the Authority's support for the project and are committed to providing quality communities for families of varied income levels.

Sincerely,


Andrew C. Hayes, P.E.

Cc: Jerry Heisler, Reybold Group XII
Todd Frey, KCI
Morris Deputy, Town of Middletown