



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF
STATE PLANNING COORDINATION

October 15, 2004

Mr. Roger Gross
Merestone Consultants
4343 Highway One, Ste. 204
Rehoboth Beach, DE 19971

RE: PLUS review – PLUS #2004-09-07; Hazel Farm

Dear Mr. Gross:

Thank you for meeting with State agency planners on September 22, 2004 to discuss the proposed plans for the Hazel Farm project to be located at the NE corner of DE Route 42 and DE Route 1. According to the information received, you are seeking a site plan review for 204 single family residential lots on 115 acres.

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

This office has received the following comments from State agencies:

Office of State Planning Coordination – Contact: David Edgell 739-3090

This project represents a major land development application that will result in more than 204 residential units East of Route 1 in Kent County (outside the growth zone). This project is located in Investment Levels 4 according to the 2004 State Strategies for Policies and Spending. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are

not supported in Investment Level 4. The project's location East of State Route 1 is of particular concern.

It is the State's policy to discourage new growth East of State Route 1. Starting with the historic Coastal Zone Act, State actions have encouraged natural resource and agricultural preservation rather than growth and development in this area of Kent County. Tens of millions of dollars have been spent by the State and Federal governments and by private conservation organizations to protect and preserve the natural environment and sustain a vibrant agricultural area that occupies some of the best farmland in the State.

Our office would like to further note that Kent County is party to a Memorandum of Understanding dated April 13, 1999 between the State, the City of Dover and the County. This MOU originated due to the events surrounding the State allocating funding to purchase the Garrison Tract for economic development purposes (at the time it was proposed to be a computer chip manufacturing plant). Understanding that the location of this parcel was East of SR1, and that the location of a major economic development site in this area would impact our long standing policy regarding development East of Route 1 the MOU was developed. The purpose of the MOU was to articulate the understanding and desire among all parties that the Garrison Tract would be the only developed area East of Route 1. Towards this end, all parties agreed to not extend utilities to any project East of Route 1 unless all jurisdictions updated their plans to indicate that such an extension is desirable. The MOU also obligates Kent County to "strongly adhere to the existing comprehensive plan and zoning designation for the remaining areas east of SR1 which support agricultural uses and low density development." The State is on record with the County objecting to the provision of sewer to this project.

To summarize our current position, the State is strongly opposed to this project as presented. It is a violation of the long standing State policy of encouraging natural resource and agricultural preservation in this area of Kent County, and appears to be a violation of the existing Memorandum of Understanding dated April 13, 1999 due to the provision of County sewer to the site. At the PLUS meeting the applicant's attorney indicated that this project was "grandfathered in" due to the fact that it was zoned prior to the enactment of the MOU. Any determination of whether a particular project has been "grandfathered" or otherwise excluded from the terms of the MOU will have to be determined by the parties to that agreement, in this case the State and Kent County. There have been no discussions between the parties regarding the status of this project to date. State funding will not be available to support this project.

State Historic Preservation Office (SHPO) – Contact: Anne McCleave 739-5685

The State Historic Preservation Office does support this project because it is east of Route 1. However, if the development takes place they have the following comments:

There are archeological sites throughout the subject property, especially on the north edge along and within the forested area. It is suggested that the development stay out of

the wooded area and some open space be retained between the lots and the woods in order to preserve the archaeological sites. It is strongly encouraged that the applicant and developer to contact Anne McCleave in at 302-739-5685 to meet with archaeologists and discuss the best ways to diminish the harm to the sites.

There is a potential historic property across Rt 42 from the development. Its historic significance is its agricultural and rural context. This development would affect this context. It is suggested that some open space and landscaping be provided on the south edge of the proposed development, as shown on the plan, to minimize any visual effects to the historic property.

If there is any federal involvement with this project, in the form of permits, licenses or funds, the federal agency must comply with Section 106 of the National Historic Preservation Act and consider the project's effects on historic resources.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Because the proposed development is located east of Delaware Route 1, it is inconsistent with the Strategies for State Policies and Spending and the 1999 Garrison Tract Memorandum of Understanding. Both documents discourage growth east of SR 1. Therefore, because DelDOT is opposed to this development, we will not participate in the cost of any road improvements needed to support this development. The comments that follow are technical, and are not intended to suggest that DelDOT supports this development proposal.

- 1) A traffic impact study (TIS) was completed in 2000 for the subdivision previously recorded on this site. While DelDOT would not have required a TIS for a development of that size, the developer at that time had the project included in a TIS they were having done for another, larger, development in the same general area. Perhaps not surprisingly, that study found no significant issues associated with the development traffic. The development proposed now does not warrant a TIS either.
- 2) A sight distance analysis will be required as part of the entrance plan approval process.
- 3) Route 42 is classified as a collector road and the current right-of-way width is not indicated on the plan presented. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 40 feet from the centerline on collector roads. Therefore we will require any additional dedication needed to provide the minimum right-of-way width from this project.
- 4) A noise study will be required to determine what the developer will need to do to mitigate the traffic noise from Route 1. The developer of the previously recorded

- subdivision did a noise study and was required to provide a noise berm. Because of the time that has elapsed since then, a new noise study will be necessary.
- 5) The 24-foot wide ingress lane will not be permitted. The maximum width of pavement will be 16 feet.
 - 6) The maximum width we will permit for the boulevard island is 10 feet, not the 20 feet shown.
 - 7) The plan also calls for the boulevard island to be landscaped. All landscaping must be reviewed and approved by DelDOT prior to planting.
 - 8) DelDOT will require that a multi-modal path, located in a 15-foot wide permanent easement, be provided across the frontage of the site.
 - 9) The portion of Route 42 that does not presently meet the minimum requirements for a Collector Road (two 12-foot lanes and two 8-foot shoulders) must be brought up to those standards, across the frontage of this development.
 - 10) The plan calls for parking spaces backing into the streets, located around the Recreational Area. That will not be permitted.
 - 11) The Typical Section for the proposed 80-foot right-of-way boulevard is not correct. The graded aggregate base course must go completely under the curbing and extend beyond the back of the curb by at least 6 inches, as shown on the Typical Section for the 50-foot street.
 - 12) The developer's engineer should contact the DelDOT project manager for Kent County, Mr. Brad Herb of Johnson, Mirmiran & Thompson, regarding their requirements for access street design. Mr. Herb may be reached at (302) 266-9080.

**The Department of Natural Resources and Environmental Control – Contact:
Kevin Coyle 739-3091**

Soils

According to the Kent County soil survey, the following soils were found in the immediate vicinity of the proposed construction and grouped on the basis of drainage class:

Excessively well drained - Evesboro
Well drained – Sassafra & Matapeake
Moderately well drained – Mattapex
Poorly drained (**hydric**) – Elkton

Very poorly drained (**hydric**) – Johnston (floodplain) & Pocomoke

According to the Kent County soil survey, Evesboro, Sassafra, Matapeake, Mattapex, Elkton, Johnston, and Pocomoke were mapped in the immediate vicinity of the proposed construction.

Evesboro is an excessively well-drained upland soil that has moderate limitations on account of its rapid permeability. Sassafra and Matapeake are well-drained upland soils that have few limitations for development. Mattapex is a moderately well-drained soil of low-lying uplands that has moderate limitations for development. Elkton is a poorly-drained wetland associated (**hydric**) soil that has severe limitations for development. Pocomoke is a very poorly drained (**hydric**) soil that has severe limitations for development. Johnston is a very poorly-drained (**hydric**) soil associated with floodplain wetlands.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of Palustrine Forested and farmed wetlands along Alston branch and in the southeastern portion of the project site. The PLUS application materials indicate that the wetlands have been delineated, but have not been verified by the U.S. Army Corps of Engineers. The developer is strongly encouraged to verify these lines through the U.S. Army Corps of Engineers.

Site plans show that wetlands will not be impacted directly by construction activities; however, secondary impacts of construction could be detrimental to the health of these wetlands and their associated streams. To mitigate these impacts DNREC recommends a vegetated buffer of no less than 100' from the edge of wetlands and waterbodies. Because this property is located within a State Resource Area, additional forest protection is warranted. The developer should seek to maximize forest preservation on this site. Lot lines should exclude all wetlands and buffer zones to ensure against potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

It should also be noted that this parcel contains sensitive headwater riparian wetlands associated with the Alston Branch of Leipsic River subwatershed. Headwater riparian wetlands and their associated streams 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 downstream. Since headwater streams are a major avenue for nutrient-laden stormwater and sediment runoff, their protection deserves the highest priority. **In recognition of this concern, the Department strongly recommends that the applicant preserve, in its entirety, the existing natural forested buffer adjacent to said Alston Branch headwater tributary.**

TMDLs

Although Total Maximum Daily Loads (TMDLs) as a “pollution runoff mitigation strategy” to reduce nutrient loading have not yet been developed for most of the tributaries or subwatersheds of the Delaware Bay watershed to date, work is continuing on their development. TMDLs for the Leipsic River subwatershed, of which this parcel is part, are scheduled for completion in December 2006.

Therefore, until the specified TMDL reductions and pollution control strategies are adopted, it shall be incumbent upon the developer to employ best available technologies (BATS) and/or best management practices (BMPs) as “methodological mitigative strategies” to reduce degradative impacts associated with development.

Water Supply

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.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-3665.

Stormwater Management

1. Land disturbing activities in excess of 5,000 square feet are regulated under the Delaware Sediment and Stormwater Regulations. A detailed sediment and stormwater management plan must be reviewed and approved by the Kent Conservation District prior to any land disturbing activity (i.e. clearing, grubbing, filling, grading, etc.) taking place. The review fee and a completed Application for a Detailed Plan are due at the time of plan submittal to the Kent Conservation District. Construction inspection fees based on developed area and stormwater facility maintenance inspection fees based on the number of stormwater facilities are due prior to the start of construction. Please refer to the fee schedule for those amounts.
2. This project was previously approved by the Kent Conservation District; however that approval recently passed its three year expiration date. A revised sediment and stormwater plan must be submitted for review and approval.

3. The designer is encouraged to consider the conservation design approach and limit the amount of tree clearing required for the development of the site including the stormwater management facilities shown in the wooded areas.
4. Access to the proposed stormwater facility must be provided for periodic maintenance. This access should be at least 12 feet wide to leading to the facility and around the facility's perimeter.
5. It is recommended that the stormwater management areas be incorporated into the overall landscape plan to enhance water quality and to make the stormwater facility an attractive community amenity.
6. A letter of no objection to re-recording will be provided once the detailed Sediment and Stormwater Management plan has been re-approved.
7. Proper drainage of developed lots and active open space should be considered in the development of the grading plan for this subdivision.
8. Based on the site characteristics, a pre-application meeting is suggested to discuss stormwater management and drainage for this site.

Drainage

The Drainage Section is not aware of any existing drainage concerns associated with this project. The Drainage Section requests for any area designated as a drainage/utility easement be open space and not owned by the individual landowners. Structures, decks, buildings, sheds, kennels, fences or trees should not be placed within the drainage easement to allow for maintenance. The Drainage Section requests that all precautions be taken to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of on site storm water.

Floodplain

Kent County's Subdivision regulations prohibit the subdividing of land within the floodplain. This project appears to encroach within the floodplain. FEMA requires a detailed flood study to be performed by the applicant if the development proposal is greater than 5 acres or 50 lots, and the floodplain has not been studied in detail by FEMA.

State Resource Areas

This project contains land currently identified as part of a proposed State Resource Area. State Resource Areas are comprised of lands that contain a variety of natural, cultural and open space resources significant to the state. Consideration should be given to protecting

the Alston Branch and its corridor during design and construction of this project. For more information, please contact Ron Vickers, Land Protection Office, 739-3423.

It is recommended that the lot lines be pulled out of steep slopes (and remain vegetative buffers) to reduce the environmental impacts along the Alston Branch.

Open Space

Site plans show significant forest impacts resulting from installation of stormwater management ponds. These ponds should be removed from forested areas and the developer should strongly consider utilizing the forested area for innovative stormwater best management practices that will minimize the need for ponds.

The site plan depicts approximately 2.5 acres of open space along Fast Landing Road. It is presumed that this area will be landscaped to provide an attractive entrance to the neighborhood and to provide a buffer to Fast Landing Road. The developer is encouraged to consider establishment of additional forested areas and/or meadows in this area. 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.

Open space containing forests 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.

Revegetation/Landscaping

DNREC requests that no invasive species be used in the revegetation of disturbed areas. A list of species considered invasive in Delaware can be found on the DNHP web site, www.dnrec.state.de.us/fw/invasive.htm. They further recommend the use of native plants and our Botanist, Bill McAvoy can be contacted at (302) 653-2880 to assist you in developing a plant list. It is recommended that native woody or herbaceous plant materials be used exclusively in all revegetation or landscaping activities.

Nuisance Species

Stormwater management ponds found within the project area will likely attract waterfowl like resident Canada geese and mute swans that will create a nuisance for community residents. Although small numbers of these species are enjoyed by residents, geese and swans can quickly multiply and overwhelm the area. 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. The pond should be landscaped to deter nuisance species. 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 around ponds, are not as attractive to geese because they do not feel as safe from predators and other disturbance when their view of the area is blocked. 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 the proper landscaping, monitoring, and other techniques, geese problems can be minimized.

Recreation

It is recommended that sidewalks be built fronting every residence and stub streets. A complete system of sidewalks will: 1) fulfill the recreation need for walking and biking facilities 2) provide opportunities for neighbors to interact in the community and 3) facilitate safe, convenient off-road access to neighboring communities, public mass transit stops, schools, stores, work, etc.

Air Quality

Air pollution threatens the health of human beings and other living things on our planet. While often invisible, pollutants in the air create smog and acid rain, cause cancer or other serious health effects, diminish the protective ozone layer in the upper atmosphere, and contribute to the potential for world climate change. Breathing polluted air can have numerous effects on human health, including respiratory problems, hospitalization for heart or lung disease, and even premature death. Some can also have effects on aquatic life, vegetation, and animals.

Once complete, vehicle emissions associated with this project are estimated to be 15.7 tons (31,311.9 pounds) per year of VOC (volatile organic compounds), 13.0 tons (25,924.1 pounds) per year of NO_x (nitrogen oxides), 9.6 tons (19,127.3 pounds) per year of SO₂ (sulfur dioxide), 0.9 ton (1,702.7 pounds) per year of fine particulates and 1,309.6 tons (2,619,198.1 pounds) per year of CO₂ (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 2.5 tons (5,005.4 pounds) per year of NO_x (nitrogen oxides), 8.7 tons (17,410.2 pounds) per year of SO₂ (sulfur dioxide) and 1,284.0 tons (2,568,001.0 pounds) per year of CO₂ (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 6.3 tons (12,629.5 pounds) per year of VOC (volatile organic compounds), 0.7 ton (1,389.6 pounds) per year of NO_x (nitrogen oxides), 0.6 ton (1,153.2 pounds) per year of SO₂ (sulfur dioxide), 0.7 ton (1,488.1 pounds) per year of fine particulates and 25.6 tons (51,197.2 pounds) per year of CO₂ (carbon dioxide).

	VOC	NO _x	SO ₂	PM _{2.5}	CO ₂
Mobile	15.7	13.0	9.6	0.9	1309.6
Residential	6.3	0.7	0.6	0.7	25.6
Electrical Power		2.5	8.7		1284.0
TOTAL	22.0	16.2	18.9	1.6	2619.2

The Department of Natural Resources and Environmental Control is asking that local jurisdictions consider mitigation to help resolve this issue. Mitigation might involve limiting large new developments to growth zones, focusing development to urban areas capable of providing mass transit services, requiring more energy efficient homes which would lessen air quality impacts, and promoting walkability and bikability within and between developments and town centers.

Underground Storage Tanks

There are no LUST sites located near the proposed project. 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 in the contaminated areas.

State Fire Marshal's Office – Contact: John Rossiter 739-4394

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):

- 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. (Assembly)
 - 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.

b. **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

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 Fast Landing Rd 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.
- If the use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.

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

Public Service Commission - Contact: Andrea Maucher 739-4247

It has been verified that project is in a certificated area for Artesian Water Company, Inc.

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.

Delaware State Housing Authority – Contact Karen Horton 739-4263

As a general rule, we do not support development east of SR 1 and would prefer to see residential development west of SR 1 where the residents would be better connected to the services, markets, and opportunities offered by either Dover or Smyrna.

Delaware Emergency Management Agency – Contact: Don Knox 659-3362

Due to the large number of residential units being proposed, a significant impact to public safety is foreseen by implementation of this project. The developer should notify the police, fire service, and emergency medical response organization serving this portion of Kent County, to keep them apprised of all development activities.

A small portion of this property is located in the Special Flood Hazard Area inundated by the 100 and 500-year flood. It is also in an area of possible flooding from a category 2 hurricane. Routes 1, 13, and 42 are coastal storm evacuation routes and this development will add to the traffic volume on these routes during a coastal storm event.

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

PLUS 2004-09-07

October 15, 2004

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

Sincerely,

A handwritten signature in cursive script that reads "Constance C. Holland".

Constance C. Holland, AICP
Director

CC: Kent County
Town of Cheswold