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April 9, 2018

Constance C. Holland, AICP  
State of Delaware  
Office of Planning Coordination  
Haslet Armory – Third Floor  
122 Martin Luther King Jr Boulevard- South  
Dover, DE 19901

RE: **PLUS 2018-02-04 Developer Response to State Comments**  
**LANDS OF CHING, ADDITIONAL REZONING**  
Milford, Delaware  
2018004.00

Dear Ms. Holland:

Below you will find the required response to your PLUS comment letter dated March 28, 2018 in reference to the Lands of Ching project located at 1973 Bay Road in Milford, DE. Please note your comment letter identifies the property as being “adjacent to the intersection of Bay Road and Spring Hill Road in Kent County.” For clarity, Spring Hill Road extends east from Bay Road thus the property has no frontage on Spring Hill. The property is in fact on the west side of Bay Road, with frontages on Old Cemetery Road, Bay Road, and Cicada Lane. This is an important distinction given that Bay Road defines the eastern edge of the Kent County Growth Zone.

Each State comment below is followed by an associated response in italics.

Strategies for State Policies and Spending

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

This rezoning is for a parcel located along the Route 1 corridor between two major transportation infrastructure investments, the South Frederica and Thompsonville grade separated intersections. In addition, this parcel is in the vicinity of "The Turf" sports complex that is intended to provide a positive economic development impact for Kent County. Thus, request may be in response to the enhanced transportation infrastructure, perceived new economic opportunities, or a combination of both.

It is understood that the County will review this request on its merits in the context of the Comprehensive Plan. However, it is encouraged that the County carefully consider this corridor during the ongoing comprehensive plan update process. A well planned overall approach to the future development of this corridor which considers transportation infrastructure, environmental concerns, and economic potential is preferable to individual, incremental rezoning requests such as this one.

*The applicant believes this project is supported by the current comprehensive plan as well as recent rezonings in the area.*

### **Code Requirements/Agency Permitting Requirements**

#### **Department of Transportation Contact Bill Brockenbrouuh 760-2109**

- The subject property is adjacent to Delaware Route 1 and is therefore subject to the Department's Corridor Capacity Preservation Program. The Program was established in accordance with the provisions of Title 17, Section 145 of the Delaware Code. The main goal of the Program is to maintain the capacity of the existing highway. Program policy states if a property has reasonable alternative access to a secondary road, no direct access to the corridor will be permitted. Therefore, expanding the site's existing direct access along Delaware Route 1 would not be permitted. However, given the site has frontage along a secondary road, the property owner may be able to develop a full access along Old Cemetery Road (Kent Road 402) and/or Cicada Lane (Kent Road 403) depending on what turning lanes are required to serve the proposed use.

If a full access is developed on Old Cemetery Road, the site's existing access along Delaware Route I would have to be closed.

The Corridor Capacity Preservation Program policy and the Delaware Route 1 , Thompsonville Grade Separated Intersection Project can be viewed on Department's website at [www.deldot.gov](http://www.deldot.gov).

*This project is seeking rezoning of multiple parcels. Access to each parcel will be addressed during the site development process.*

- The site access on Old Cemetery Road and/or Cicada Lane must be designed in accordance with DelDOT's Development Coordination Manual. A copy of the Manual is available at <http://www.deldot.gov/information/business/subdivisions/changes/index.shtml>.

*Acknowledged.*

- Per Section 2.2.2. I of the Development Coordination Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. A development generating this much traffic certainly appears feasible on an assemblage of this size. If the County approves this rezoning, we will revisit the need for a TIS when a site plan is presented.

*Acknowledged.*

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

## Executive Summary

Rezoning of this parcel represents an anticipated future increase in use-intensity/density, increased impervious surface, and new sources of greenhouse gas emissions. Opportunities exist to reduce the environmental impact of future development, on-site. Maintaining natural resource protections and conservation measures will improve long term regional sustainability and protect the overall health of the community.

The State of Delaware is threatened by climate change and has a goal of reducing greenhouse gas emissions by 30 percent by 2030. Appropriate land use decisions should be informed by expected future impacts, protective of air and water quality, and promote the preservation natural habitat.

The following pages provide information about applicable regulations and detailed recommendations associated with this project, from various DNREC Divisions. We would like to be a partner in creating appropriate development that protects and highlights the environment as a natural amenity of the landscape. The Department has resources and expertise that are available to help make this a reality, often at no expense to the landowner.

### Source Water Protection.

- The DNREC Water Supply Section has reviewed the above referenced PLUS project and determined that it falls within an excellent groundwater recharge area for the Kent County.

Excellent Ground-Water Recharge Areas are those areas mapped by the Delaware Geological Survey where the first 20 feet of subsurface soils and geologic materials are exceptionally sandy. These soils are able to transmit water very quickly from the land surface to the water table. This map category (excellent) is an indicator of how fast contaminants will move and how much water may become contaminated (Andres, 2004). Land use activities or impervious cover on areas of excellent ground-water recharge potential may adversely affect ground water in these areas.

### *Acknowledged.*

In addition, because the excellent ground water recharge area can readily affect the underlying aquifer if contaminants are spilled or discharged across the area, the storage of hazardous substances or wastes should not be allowed within the area unless specific approval is obtained from the relevant state, federal, or local program.

### *Acknowledged.*

### References:

Andres, A. Scott, 2004, Ground-Water Recharge Potential Mapping in Kent and Sussex Counties, Delaware: Delaware Geological Survey Report of Investigations No. 66, p. 14.

<http://www.udel.edu/dgs/1ublications/pubform.html#nvestigations>

**Water Quality: TMDLs.**

- The project is located in the greater Delaware River and Bay drainage area, specifically within the Mispillion River watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria (under the auspices of Section 303(d) of the Clean Water Act). A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited waterbody" can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; State of Delaware Surface Water Quality Standards, as amended July 11, 2004) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the Mispillion River watershed calls for a 57 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for an 87 percent reduction in bacteria from baseline conditions.

*Acknowledged.*

- A nutrient management plan is required under the Delaware Nutrient Management Law (3 Del.C. Chapter 22) for all persons or entities who apply nutrients to lands or areas of open space in excess of 10 acres. This project's open space may exceed this 10-acre threshold. Please contact the Delaware Nutrient Management Program at (302) 739-4811 for further information concerning compliance requirements, or view additional information here: <http://dda.delaware.gov/nutrients/index.shtml>

*Acknowledged.*

**Water Supply.**

- DNREC records indicate that the project is located within the public water service area granted to Artesian Water Company under Certificate of Public Convenience and Necessity 07-CPCN-06. We recommend that the future developer contact Artesian Water Company to determine the availability of public water. Any public water utility providing water to the site must obtain a certificate of public convenience and necessity (CPCN) from the Public Service Commission. Information on CPCN's and the application process can be obtained by contacting the Public Service Commission at (302) 736-7500.

*Acknowledged.*

- Should an on-site Industrial/Public well be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area, storm water management ponds, and it must also be located at least 150 feet from the outermost boundaries of the project. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

*Acknowledged.*

- 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.

*Acknowledged.*

- 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 four weeks to process, which allows the necessary time for technical review and advertising.

*Acknowledged.*

- Potential Contamination Sources exist in the area, and any well permit applications will undergo a detailed review that may increase turnaround time and may require site specific conditions/recommendations. In this case, there is an Underground Storage Tank site associated with Shore Stop #256 is located within 1,000 feet of the proposed project. Should you have any questions concerning these comments, please contact Rick Rios, at (302) 739-9944.

*Acknowledged.*

#### 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. Contact the reviewing agency to schedule a preapplication 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. The plan review and approval as well as construction inspection will be coordinated through the Kent Conservation District. Contact Jared Adkins, Program Manager, at (302) 741-2600, ext. 3, for details regarding submittal requirements and fees.

*Acknowledged.*

#### Groundwater Discharge.

- Individual on-site systems proposed; the GWDS has no letter of intent or feasibility study determining the feasibility of this project or the soils at this point.

*Acknowledged.*

#### State Historic Preservation Office — Contact Terrence Burns 736-7404

- There is an archaeological site 7K-F-076 part of the Voshell Borrow Pit Site (K00778) in the project area. The archaeological site was recorded in 1975, but its boundaries and significance are not known. Therefore, we're recommending an archaeological survey of the area.

*Acknowledged.*

- If any project or development proceeds, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law. Prior to any demolition or ground disturbing activities, the developer should hire an archaeological consultant, to examine the parcel for archaeological resources, including unmarked human burials or human skeletal remains, to avoid those sites or areas.

*Acknowledged.*

- Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, within or near the boundary, of a historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (Del. C. Title 7, Ch. 54), and such remains, or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to see more information, please review the following websites: [www.history.delaware.gov/preservation/umhr.shtml](http://www.history.delaware.gov/preservation/umhr.shtml) and [www.history.delaware.gov/preservation/cemeteries.shtml](http://www.history.delaware.gov/preservation/cemeteries.shtml)

*Acknowledged.*

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

*Acknowledged.*

### **Recommendations/Additional Information**

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

#### Department of Transportation — Contact Bill Brockenbrough 760-2109

- Depending on the proposed use, improvements to the existing campground entrance on Cicada Lane could conflict with the existing Lasertone entrance immediately north of it, creating a need for a shared access.

*This will be addressed during the site development process.*

#### Department of Natural Resources and Environmental Control — Michael Tholstruo 7353352 Soils Assessment

- Based on NRCS soil survey mapping update, the primary soil mapping units of concern mapped in subject parcel are Fallsington (FaA), Carmichael (CaA) & Longmarsh (LO). These soil mapping units contain mostly poorly to very poorly drained, wetland-associated hydric-soils that are considered to have severe limitations for development and should be avoided (considered unsuitable for development; Figure 1).

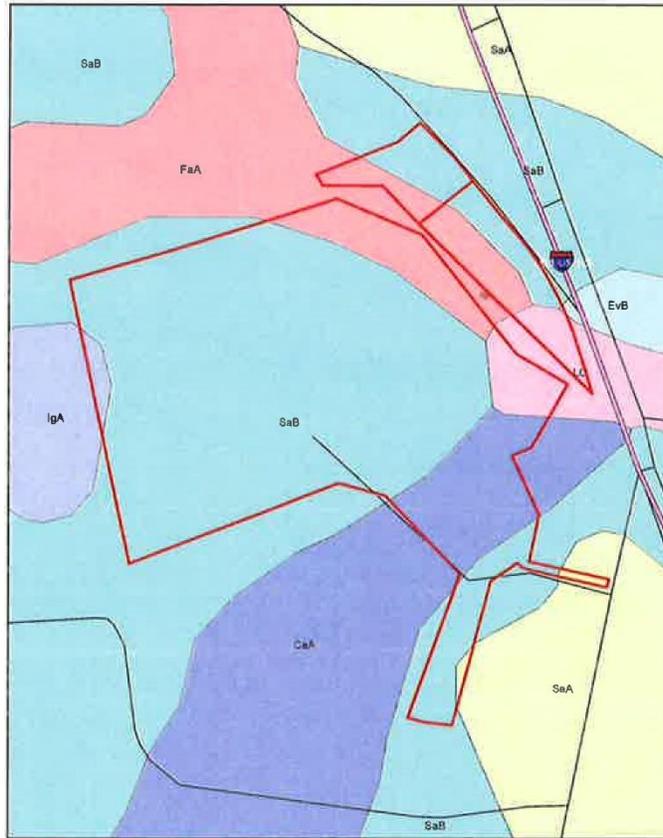


Figure 1: NRCS soil survey mapping in the immediate vicinity of the proposed construction

0 175 350 700 Feet  
175 350 700 Feet  
1 inch = 281 feet

*Acknowledged.*

Additional information on TMDLs and water quality.

- In response to concerns about the need for reducing nonpoint source nutrient (nitrogen and phosphorus) and bacterial pollutants to levels sufficient to meet the prescribed TMDL reduction requirements in the Mispillion watershed, a multifaceted and comprehensive process known as a pollution control strategy (PCS) has been developed to enable such reductions. Specifically, a PCS is a combination of best management practices and control technologies that reduce nutrient and bacterial pollutant runoff loading in waters of a given watershed to level(s) consistent with the TMDL(s) reduction levels specified for that watershed. The PCS for the Mispillion River watershed consists of recommendations from the following three areas: agriculture, stormwater, and wastewater. Additional information about Mispillion River PCS is available here:

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

*Acknowledged.*

In further support of the PCS, the applicant is also strongly urged to reduce nutrient and bacterial pollutants through voluntary commitment to the implementation of the following recommended best management practices:

- Preserve and/or maintain as much of the existing forest cover and open space as possible; we further suggest additional native tree, shrub and/or native herbaceous vegetation plantings, wherever possible.

*This will be addressed during the site development process.*

- When development is proposed, conduct a United States Army Corps of Engineers (USACE) approved (field-based) wetlands delineation. State-Wide Wetland Mapping Project (S WMP) maps indicate wetlands are present in this parcel (Figure 2). A licensed Class-D soil scientist with experience in wetland delineations can be obtained here:  
<http://www.dnrec.delaware.gov/wr/Information/GWDInfo/Pages/GroundWaterDischargesLicensesandLicensees.aspx>

*Acknowledged.*

- Establish a vegetated buffer of at least 100 feet from the adjoining wetlands and waterbodies. Based on a review of existing buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. Wetland and Stream Buffer Requirements — A Review. J. Environ. Qual. 23: 878-882.), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. A vegetated buffer (planted in native vegetation) from all waterbodies (including all ditches and ponds) and all non-tidal (USACE approved wetlands delineation) and tidal wetlands (State-approved wetlands delineation for tidal wetlands) is recommended.

*This will be addressed during the site development process.*



Figure 2: SWMP mapping

0 175 350 700 Feet

1 inch = 281 feet

- Employ green-technology storm water management and a rain gardens, in lieu of open-water management structures, as a best management practice to mitigate or reduce nutrient and bacterial pollutant runoff. If open-water stormwater management is approved for use, the pond(s) should be minimally employed to meet the management of stormwater. Open-water stormwater ponds are problematic because they attract nuisance geese and help create conditions conducive for growth of nuisance algae (via nutrients from goose waste and nutrient runoff from residential development) while further contributing to the degradation of overall water quality in the watershed.

*This will be addressed during the site development process.*

- Use pervious paving materials (when compatible or consistent with water quality concerns in designated areas of excellent recharge and/or well-head protection areas via determination by a DNREC hydrogeologist) instead of conventional paving materials to help reduce the amount of water and pollutant runoff draining to adjoining streams and wetlands.

*This will be addressed during the site development process.*



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- Assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the "Nutrient Load Assessment protocol." The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) resulting from the conversion of individual or combined land parcels to a changed land use; thus providing applicants and governmental entities with quantitative information about the project's impact(s) on baseline water quality. We strongly encourage the applicant/developer use this protocol to design and implement the most effective best management practices. Please contact John Martin of the DNREC Division of Watershed Stewardship, at (302) 739-9939 for more information on the protocol.

*This will be addressed during the site development process.*

If you have any questions regarding our response to your comments, please don't hesitate to contact me.

Sincerely,

BECKER MORGAN GROUP, INC.

A handwritten signature in blue ink, appearing to read "Gregory V. Moore".

Gregory V. Moore, P.E.  
Vice President

CJW/rlh

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