



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF MANAGEMENT AND BUDGET
STATE PLANNING COORDINATION

July 24, 2006

Mr. Michael Riemann, P.E.
Becker Morgan Group, Inc.
309 South Governors Avenue
Dover, De 19904

RE: PLUS review – PLUS 2006-06-07; KRM Development Corp.

Dear Mr. Riemann:

Thank you for meeting with State agency planners on June 28, 2006 to discuss the proposed plans for the KRM Development project to be located at 1511 Paddock Road and 166 Brickstore Landing Road, between Route One and Route 13 near Smyrna.

According to the information received, you are seeking a rezoning and site plan approval to place 200 residential units, and industrial/office park, and a hotel on 164 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 the Town of Smyrna is the governing authority of a portion of the land and Kent County is the governing authority over the other portion of the land. The developers will need to comply with any and all regulations/restrictions set forth by the governing authority.

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 area is designated as an “Area of Dispute” according to the *Strategies for State Policies and Spending*. At the time the current version of the Strategies was being developed, the status of this area was unsettled due to an ongoing annexation dispute between the Town, the State and New Castle County. Since that time, the dispute has been settled amicably by all parties. There is a multi-party memorandum of understanding in place governing development in this area, and the State certified an amendment to Smyrna’s plan effective March 31, 2006 which includes this area as an annexation area. Our office considers the Town of Smyrna to be in compliance with the *Strategies*. We have no objections to this development proposal as it is consistent with Smyrna’s certified plan.
- The Town has submitted a Plan of Services for this parcel. However, our office has not accepted the Plan of Services as of this date. There is a pending legal agreement between the State and the Town regarding sewer service to this parcel. Upon finalization of this agreement our office will accept the Plan of Services, and consider this parcel to have met all annexation requirements as per Title 22, Section 101 of the Del. Code

Street Design and Transportation

- DelDOT opposes the proposed rezoning and development of the land north of Paddock Road for residential use. There is the desire to retain an alternative truck and bus access into the rest stop. Such an access would be incompatible with a residential use. DelDOT does not object to this parcel being used for commercial or industrial purposes.
- Presently, there are about 18 small residential and commercial lots along northbound US Route 13 between Duck Creek and Paddock Road. While some of the commercial lots may be occupied by viable businesses, none of them generate a large amount of traffic. When sewer becomes available, these homes and businesses will probably be replaced by uses that will generate more traffic. Therefore, to prevent this portion of Route 13 from becoming congested, DelDOT would like to work with the developer and the Town to establish a service road running south from Paddock Road along the west side of the property. There are various ways that this could be done but the objectives are to provide rear access

to the parcels fronting on Route 13 and to locate the intersection with Paddock Road far enough east to allow for full access there.

- DelDOT will require a traffic impact study for these developments. While they do not anticipate the results of this study having any bearing on the proposed rezonings, they would urge the Town to withhold plan approvals pending the results of the study.
- Paddock Road is classified as a collector road and Brick Store Landing Road is classified as a local road. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 feet from the centerline on local roads and 40 feet from the centerline on collector roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.

In addition to the rights-of-way mentioned above, the developer should provide a 15-foot wide permanent easement across the Paddock Road frontages for a future shared use path.

- The office park and the townhouse development together are a large amount of development to be served by only one access. Brick Store Landing Road, located along the north edge of the property, is well situated to serve as a second access. As discussed at the PLUS meeting, the Emergency Operations Center (EOC) does seek to close off part of Brick Store Landing Road to public access for security purposes, but that part begins about 750 feet in from Paddock Road, where a large antenna is located. From the antenna out to Paddock Road, the developer should consider Brick Store Landing Road available for site access.
- A separate but related issue is the proximity of the proposed development to the EOC. The EOC is a secure facility and DelDOT will require that a berm be provided to separate the development from it. The design and construction of this berm should be to the satisfaction of DEMA and the DelDOT Traffic Section. Chief Traffic Engineer, Mr. Donald Weber, will serve as an initial contact for our Traffic Section. He may be reached at (302) 659-2002.
- Road improvements along Paddock Road, including bicycle and pedestrian facilities, will be required along the site frontage on Paddock Road and, possibly, Brick Store Landing Road. Because the proposed mixed use development has the potential to attract new transit users to our existing Route 301 Service along US

13, inclusion of accessible pedestrian facilities and bicycle facilities within development and along Paddock Road is especially important.

Natural and Cultural Resources

- PLUS materials state that there will be no ground disturbance within 100 feet of wetlands; however, wetland lines as shown in Paddock Village are clearly abutting lot lines. 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. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex.
- Based on acreage information disclosed in the PLUS application, calculated post-development surface imperviousness on this parcel will exceed 65%. Since the amount of surface imperviousness generated by this project will significantly exceed the desirable watershed threshold of 10 percent, the applicant is strongly advised to pursue best management practices (BMPs) that 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 via additional tree plantings are examples of practical BMPs that could easily be implemented to help reduce surface imperviousness.
- The Drainage Program requests a 20-foot drainage easement for storm drains, 10 feet per side within subdivisions.

On open channels within subdivisions, a 20-foot drainage easement as measured from top of bank would allow maintenance or reconstruction.

Swales within subdivisions would require a 20-foot drainage easement measures from the centerline of the swale, or the width of the swale, whichever is greater.

Prohibit the routing of major stormwater pipes through yards within a subdivision.

- The Drainage Program encourages the elevation of rear yards in subdivisions to direct water towards the streets where storm drains are accessible for maintenance. However, the Drainage Program recognizes the need for catch basins in rear yards in certain cases. Therefore, catch basins placed in rear yards will need to be clear of obstructions and be accessible for maintenance. Decks,

sheds, fences, kennels, and other structures placed along the storm drains, or within 10 feet of the catch basins, can hinder drainage patterns as well as future maintenance to the storm drains or catch basins. Deed restrictions, along with drainage easements recorded on deeds, should ensure adequate future maintenance access.

- The Drainage Program requests a 15-foot side yard setback on all subdivision lots with a storm drain on the side. A 15-foot side yard setback will allow room for equipment to utilize the entire 10-foot drainage easement and maneuver free of obstructions if the drainage conveyance requires periodic maintenance or future re-construction.
- The Drainage Program requests a 10-foot drainage easement around all catch basins located on private property to ensure adequate room for maintenance. The Drainage Program recommends restrictions on fences, sheds, and other structures within the easement to prevent obstructions from being placed within 10 feet of the catch basin

Record all drainage easements on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction.

- The developer should consider increasing the amount of open space along Duck Creek. These areas should be clearly marked to avoid infringement by homeowners. Any lands set aside for conservation purposes should be placed into a permanent conservation easement or other binding protection mechanism. These areas should be clearly marked and delineated so that residents understand their importance and so that homeowner activities do not infringe upon these areas.
- The application indicates that 2 acres out of 23.5 acres of forest will be removed for this project. It is unclear where these two acres are located, but it appears as if the applicant has attempted to preserve the majority of forest on this site and we recommend that this aspect of the site plan remain unchanged as the project moves forward through the process. Trees that are cleared should not be removed from April 1st to July 31st to reduce impacts to birds and other species of wildlife that utilize forests for breeding. This recommendation would only protect those species during the breeding season; because once trees are cleared the result is an overall loss of habitat.

- A review of our database indicates the following state-rare or federally listed plants, animals or natural communities within or adjacent to project boundaries:

Cornus foemina (marsh dogwood), S2, G5

Schoenoplectus novae-angliae (saltmarsh bulrush), S1, G5

Biddens laevis-*Leersia orzoides*-*Polygonum arifolium* (beggar's tick-rice cut grass-tearthumb pondweed), S2

Satyroides eurydice (eyed brown), SH, G4

State Rank: S1- extremely rare within the state (typically 5 or fewer occurrences); S2- very rare within the state (6 to 20 occurrences); SH- Historically known, but not verified for an extended period (usually 15+ years); there are expectations that the species may be rediscovered;

Global Rank: G4 - apparently secure globally but uncommon in parts of its range; G5 - secure on a global basis but may be uncommon locally;

The majority of these species occur within the tidal wetlands along Duck Creek. Maintaining an adequate riparian buffer is extremely important if these species are to persist, especially at a site with 108 acres of impervious surface. The existing trees that border the wetlands should also be left intact. The applicant indicates that there will not be disturbance within 100 feet of wetlands. At least 12 lots within Paddock Village are within 100 feet of wetlands. These lots should be pulled out of the 100-foot buffer zone. Also, one of the two stormwater management ponds associated with Duck Creek Village appears to be within 100 feet of wetlands and, if so, should be relocated. We further recommend that Duck Creek and associated wetlands not be used as a stormwater outlet. The 100-foot upland buffer zone should be placed in a permanent conservation easement so that future clearing will not occur.

Because of the presence of the species listed above, a portion of this project lies within a State Natural Heritage Site. However it does not lie within a Delaware National Estuarine Research Reserve. 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.

The following are a complete list of comments received by State agencies:

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

This area is designated as an “Area of Dispute” according to the *Strategies for State Policies and Spending*. At the time the current version of the Strategies was being developed, the status of this area was unsettled due to an ongoing annexation dispute between the Town, the State and New Castle County. Since that time, the dispute has been settled amicably by all parties. There is a multi-party memorandum of understanding in place governing development in this area, and the State certified an amendment to Smyrna’s plan effective March 31, 2006 which includes this area as an annexation area. Our office considers the Town of Smyrna to be in compliance with the *Strategies*. We have no objections to this development proposal as it is consistent with Smyrna’s certified plan.

The Town has submitted a Plan of Services for this parcel. However, our office has not accepted the Plan of Services as of this date. There is a pending legal agreement between the State and the Town regarding sewer service to this parcel. Upon finalization of this agreement our office will accept the Plan of Services, and consider this parcel to have met all annexation requirements as per Title 22, Section 101 of the Del. Code.

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

There are a number of known archaeological sites within this project area due to the archaeological survey done for the Route 1 construction. There are also areas of high potential for both prehistoric-period and historic-period archaeological sites in areas that were not included in the archaeological survey. Beers’s Atlas of 1868 shows the J. Stephenson House, known as Bellmont, within the northern parcel across Paddock Rd, the J. Stephenson Tenant House where the existing house is on the south side of Paddock Rd., the A. Cavender House where the existing agricultural complex is within the southern parcel, and the A. Cavender Tenant House on Old Brick Store Landing Rd. There may be intact archaeological sites associated with these properties. There is one historic house across Old Brick Store Landing Rd. from the parcel.

Small, rural, family cemeteries often are found in relation to historic farm complexes, such as the Stephenson and Cavender houses, usually a good distance behind or to the side of the house. The developer should be aware of Delaware’s Unmarked Human Remains Act of 1987, which governs the discovery and disposition of such remains. The unexpected discovery of unmarked human remains during construction can result in significant delays while the process is carried out. The DHCA will be happy to discuss

these issues with the developer; the contact person for this program is Faye Stocum, 302-736-7400.

The Division of Historical and Cultural Affairs will provide the developer with a GIS layer mapping the known sites. They would appreciate the opportunity to examine the remaining buildings and to document them if they are historic, prior to any demolition activities. In addition, they would appreciate the opportunity to look for additional archaeological sites and to examine the known ones, to learn something about their nature, extent, and location prior to any ground-disturbing activities. They also recommend that the developer include sufficient landscaping along Old Brick Store Landing Rd. to block the view of this development from the historic property on Old Brick Store Landing Rd.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

This area is designated as an “Area of Dispute” according to the *Strategies for State Policies and Spending*. At the time the current version of the Strategies was being developed, the status of this area was unsettled due to an ongoing annexation dispute between the Town, the State and New Castle County. Since that time, DelDOT understands that the dispute has been settled amicably by all parties. They further understand that the Office of State Planning Coordination considers the Town’s planning for this area to be consistent with the objectives of the *Strategies*.

It may be noted that items 1, 2 and 6 below were not mentioned in our comments at the PLUS meeting. These items were discussed with the developer’s engineer at a meeting with DelDOT and Delaware Emergency Management Agency (DEMA) which the developer’s engineer did mention at the PLUS meeting.

- 1) DelDOT opposes the proposed rezoning and development of the land north of Paddock Road for residential use. While DelDOT does not have an active project to do so, it would be a significant public benefit to provide an additional means of access to the Smyrna Rest Area, providing for truck and bus access to it from Paddock Road. Preliminarily, the most direct alignment, and the one with the least environmental impact, would go through the subject land. If the land is developed residentially, however, that would probably preclude its use for that purpose and force us to either select a longer and more impactful route or abandon the effort entirely. To be clear, DelDOT recognizes the developer’s right to the use of their property and they would not object to a commercial or industrial use.

- 2) Presently, there are about 18 small residential and commercial lots along northbound US Route 13 between Duck Creek and Paddock Road. While some of the commercial lots may be occupied by viable businesses, none of them generate a large amount of traffic. When sewer becomes available, these homes and businesses will probably be replaced by uses that will generate more traffic. Therefore, to prevent this portion of Route 13 from becoming congested, DelDOT would like to work with the developer and the Town to establish a service road running south from Paddock Road along the west side of the property. There are various ways that this could be done but the objectives are to provide rear access to the parcels fronting on Route 13 and to locate the intersection with Paddock Road far enough east to allow for full access there. The developer's site engineer, should contact our Subdivision Engineer, Mr. Marc Cote', to discuss the alignment of this service road. Mr. Cote' may be reached at (302) 760-2165.
- 3) DelDOT will require a traffic impact study for these developments. While they do not anticipate the results of this study having any bearing on the proposed rezonings, they would urge the Town to withhold plan approvals pending the results of the study. The developer's traffic engineer should contact Mr. Todd Sammons, of our Development Coordination Section, to schedule a scoping meeting for the study. Mr. Sammons may be reached at (302) 760-2134.
- 4) Paddock Road is classified as a collector road and Brick Store Landing Road is classified as a local road. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 feet from the centerline on local roads and 40 feet from the centerline on collector roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.
- 5) In addition to the rights-of-way mentioned above, the developer should provide a 15-foot wide permanent easement across the Paddock Road frontages for a future shared use path.
- 6) The office park and the townhouse development together are a large amount of development to be served by only one access. Brick Store Landing Road, located along the north edge of the property, is well situated to serve as a second access. As discussed at the PLUS meeting, the Emergency Operations Center (EOC) does seek to close off part of Brick Store Landing Road to public access for security purposes, but that part begins about 750 feet in from Paddock Road, where a large antenna is located. From the antenna out to Paddock Road, the developer should consider Brick Store Landing Road available for site access.

- 7) A separate but related issue is the proximity of the proposed development to the EOC. The EOC is a secure facility and DelDOT will require that a berm be provided to separate the development from it. The design and construction of this berm should be to the satisfaction of DEMA and the DelDOT Traffic Section. Chief Traffic Engineer, Mr. Donald Weber, will serve as an initial contact for our Traffic Section. He may be reached at (302) 659-2002.
- 8) Road improvements along Paddock Road, including bicycle and pedestrian facilities, will be required along the site frontage on Paddock Road and, possibly, Brick Store Landing Road. Because the proposed mixed use development has the potential to attract new transit users to our existing Route 301 Service along US 13, inclusion of accessible pedestrian facilities and bicycle facilities within development and along Paddock Road is especially important.
- 9) The developer should contact the DelDOT project manager for Kent County and Smyrna, Mr. Brad Herb, regarding specific requirements for road improvements and access. He may be reached at (302) 266-9600.

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 forest land, 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.

Soils

According to the New Castle County soil survey, Sassafras, Reybold, Woodstown, Mattapex, and Fallsington-Blackiston complex were mapped on subject parcel. Sassafras and Reybold are well-drained upland soils that, generally, have few limitations for development. Woodstown and Mattapex are well-drained upland soils that have moderate limitations for development. Fallsington-Blackiston complex is a poorly to very poorly drained wetland associated (hydric) soil that has severe limitations for development.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine forested wetlands, palustrine open water and palustrine emergent wetlands on the parcel. These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife.

PLUS materials state that there will be no ground disturbance within 100 feet of wetlands; however, wetland lines as shown in Paddock Village are clearly abutting lot lines. 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. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex.

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 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.

This project is located directly adjacent to sensitive headwater or near headwater riparian wetlands associated with Duck Creek, greatly increasing the probability of harmful impacts to surface and groundwater quality of all waters within the greater Smyrna River watershed, and reducing the probability that the State will achieve the required TMDL nutrient reductions. Headwater streams and their associated 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 downstream. In recognition of this concern, the Watershed Assessment Section strongly recommends the applicant consider preserving as much of the existing forested buffer as possible. Otherwise, a buffer width of at least 100-foot should be retained or enhanced to protect the water and habitat quality of this waterway and its wetlands.

Impervious Cover

Based on acreage information disclosed in the PLUS application, calculated post-development surface imperviousness on this parcel will exceed 65%. Since the amount of surface imperviousness generated by this project will significantly exceed the desirable watershed threshold of 10 percent, the applicant is strongly advised to pursue best management practices (BMPs) that 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 via additional tree plantings are examples of practical BMPs that could easily be implemented to help reduce surface imperviousness.

TMDLs

A Total Maximum Daily Load (TMDL) is the maximum level of pollution for which a water quality limited water body can assimilate without compromising use and recreational goals such as swimming, fishing, drinking water, and shell fish harvesting. Compliance with TMDL nutrient loading reduction requirements will ultimately be assessed via nutrient budget protocol, a computer-based model that quantifies post-development nutrient loading under 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. Although TMDLs have not yet

been finalized for the Smyrna River watershed to date, the applicant should be made aware that they will be available in the near future (before December 2006), and may be applicable to this project given the large backlog of other projects pending County review. It is strongly advised, therefore, that the applicant be proactive and employ best management practices (BMPs) and Best Available Technologies (BATs) as methodological mitigative strategies to reduce the likely degradative impacts associated with this development, and help ensure that this development meets imminent TMDL nutrient reduction targets. Examples of BMPs or BATs that should be used to significantly reduce nutrient loading from this project, include practices that prevent, mitigate or minimize created surface imperviousness; maintenance of recommended wetland buffer widths; preservation of a majority of the existing forested acreage; and use of innovative “green-technology” stormwater methodologies rather than conventional open-water stormwater management structures. We suggest that the applicant periodically contact our office regarding the status of the nutrient budget protocol and obtain it as soon as possible. When it becomes available, we suggest that the applicant then verify their project’s compliance with the specified TMDL loading rates by running the model themselves. The contact person for obtaining the protocol is Lyle Jones at 739-9939.

Water Supply

The information provided indicates that the Town of Smyrna will provide water to the proposed projects through a central public water system. Our files reflect that Town of Smyrna 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 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 302-739-9944.

Sediment and Erosion Control/Stormwater Management

Requirements:

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. The following notes must appear on the record plan:
 - The Kent Conservation District reserves the right to enter private property for purposes of periodic site inspection.
 - The Kent Conservation District reserves the right to add, modify, or delete any erosion or sediment control measure, as it deems necessary.
 - A clear statement of defined maintenance responsibility for stormwater management facilities must be provided on the Record Plan.
3. Ease of maintenance must be considered as a site design component and a maintenance set aside area for disposal of sediments removed from the basins during the course of regular maintenance must be shown on the Record Plan for the subdivision.
4. All drainage ways and storm drains should be contained within drainage easements and clearly shown on the plan to be recorded by Kent County.
5. A soils investigation supporting the stormwater management facility design is required to determine impacts of the seasonal high groundwater level and soils for any basin design.

Comments:

1. The Kent Conservation District has no objection to the rezoning of the above mentioned property.
2. From the plans provided, it's not clear of type of stormwater facility (wet, dry, infiltration etc.) is proposed for the industrial section of the site. There does not appear to be an adequate outfall for that section as well.
3. The application indicates that there may be tidal water bodies located on the residential section of the site; this must be verified. If so, that portion of the site may qualify for a quantity waiver. Quality must be addressed as well.
4. 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.
5. 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.
6. 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.
7. A letter of no objection to re-recording will be provided once the detailed Sediment and Stormwater Management plan has been re-approved.
8. Proper drainage of developed lots and active open space should be considered in the development of the grading plan for this subdivision.
9. Based on the site characteristics, a pre-application meeting is suggested to discuss stormwater management and drainage for this site.

Drainage

The Drainage Program requests a 20-foot drainage easement for storm drains, 10 feet per side within subdivisions.

On open channels within subdivisions, a 20-foot drainage easement as measured from top of bank would allow maintenance or reconstruction.

Swales within subdivisions would require a 20-foot drainage easement measures from the centerline of the swale, or the width of the swale, whichever is greater.

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Record all drainage easements on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction.

Open Space

The Delaware Coastal Programs supports alternative management of open space, including the use of vegetated buffers. The developer is strongly urged to consider alternatives to mowed grass within community open space areas. Mowing and other maintenance costs from lawn areas can become a substantial burden for community maintenance associations. There may be areas within the development that are appropriate for warm or cool season grasses, especially around storm water management ponds. The maintenance costs associated with meadow type grasses are much lower than those of lawn grasses, provide food and habitat for birds and other wildlife, and can help reduce non-point source pollution.

The developer should consider increasing the amount of open space along Duck Creek. These areas should be clearly marked to avoid infringement by homeowners. Any lands set aside for conservation purposes should be placed into a permanent conservation easement or other binding protection mechanism. These areas should be clearly marked and delineated so that residents understand their importance and so that homeowner activities do not infringe upon these areas.

Forest Preservation

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Rare Species

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Cornus foemina (marsh dogwood), S2, G5

Schoenoplectus novae-angliae (saltmarsh bulrush), S1, G5

Biddens laevis-*Leersia orzoides*-*Polygonum arifolium* (beggar's tick-rice cut grass-tearthumb pondweed), S2

Satyroides eurydice (eyed brown), SH, G4

State Rank: S1- extremely rare within the state (typically 5 or fewer occurrences); S2- very rare within the state (6 to 20 occurrences); SH- Historically known, but not verified for an extended period (usually 15+ years); there are expectations that the species may be rediscovered;

Global Rank: G4 - apparently secure globally but uncommon in parts of its range; G5 - secure on a global basis but may be uncommon locally;

The majority of these species occur within the tidal wetlands along Duck Creek. Maintaining an adequate riparian buffer is extremely important if these species are to persist, especially at a site with 108 acres of impervious surface. The existing trees that border the wetlands should also be left intact. The applicant indicates that there will not be disturbance within 100 feet of wetlands. At least 12 lots within Paddock Village are

within 100 feet of wetlands. These lots should be pulled out of the 100-foot buffer zone. Also, one of the two stormwater management ponds associated with Duck Creek Village appears to be within 100 feet of wetlands and, if so, should be relocated. We further recommend that Duck Creek and associated wetlands not be used as a stormwater outlet. The 100-foot upland buffer zone should be placed in a permanent conservation easement so that future clearing will not occur.

Because of the presence of the species listed above, a portion of this project lies within a State Natural Heritage Site. However it does not lie within a Delaware National Estuarine Research Reserve. 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.

Nuisance Waterfowl

Stormwater management ponds that remain in the site plan 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. 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 a reduction in the number of ponds, proper landscaping, monitoring, and other techniques, geese problems can be minimized.

Mosquito Control

Development projects that result in increased housing densities within 2 miles of large expanses of salt marshes or brackish wetlands, or within 1 mile of large expanses of freshwater wetlands, can often lead to increased demands for mosquito control services, going beyond what DNREC's Mosquito Control Section currently has the budget or resources to provide. Adverse impacts upon the State's allocation of public funds for mosquito control services must be realistically recognized as the frequent consequence of approving these types of development projects; and State and local governments should then be prepared to deal with the increased budget demands for mosquito control

services. Additionally, even though the EPA has scientifically determined that EPA-registered mosquito control insecticides can be applied “without posing any unreasonable risks to human health, wildlife or the environment” (when used in accordance with all product label instructions), avoiding or reducing the use of such pesticides should be employed whenever possible. Limiting development that is too close to wetlands will aid in achieving a reduction in pesticide use.

State Resource Areas/Natural Areas

The Office of Nature Preserves commends the applicant’s efforts to remain out of the Lower Delaware River State Resource Area and the Duck Creek Natural Area. Both the Open Space Council and the Natural Areas Advisory Council recently moved to amend the State Resource Area map and the Natural Areas Inventory map and identified the riparian/forested area on the site as both a State Resource Area and a State designated Natural Area.

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.

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.

Two stormwater facilities will outfall to Duck Creek. The Office of Nature Preserves strongly urges the applicant to consider the ecological significance of the riparian/forested resource areas just below the proposed stormwater facilities, and design stormwater management outfalls that will not pose any negative impacts to existing sensitive downstream environments.

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.

Underground Storage Tanks

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

Former Nelson Mobil, Facility # 1-000184, Project # K0002037

Kings Smyrna, Facility # 3-000214, Project # N8707070

Econo Tire, Facility # 3-001965, Project # N9902036

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.

Site Investigation and Restoration

Two SIRB sites were found within a 1/2-mile radius:

- Carter Homes (DE-1020) is located south of the proposed site. A Facility Evaluation (FE) was conducted in 1993. There was no indication of a threat to public health or the environment. No further action was taken.
- Ennis Dump (DE-0127) is located south of the proposed site. An FE was conducted in 1993. There was no indication of a threat to public health or the environment. No further action was taken.

The Site Investigation and Restoration Branch does not foresee any negative impact on the proposed site due to the above SIRB sites.

Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 15.3 tons (30,697.9 pounds) per year of VOC (volatile organic compounds), 12.7 tons (25,415.8 pounds) per year of NO_x (nitrogen oxides), 9.4 tons (18,752.2 pounds) per year of SO₂ (sulfur dioxide), 0.8 ton (1,669.3 pounds) per year of fine particulates and 1,283.9 tons (2,567,841.3 pounds) per year of CO₂ (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 6.2 tons (12,381.9 pounds) per year of VOC (volatile organic compounds), 0.7 ton (1,362.4 pounds) per year of NO_x (nitrogen oxides), 0.6 ton (1,130.6 pounds) per year of SO₂ (sulfur dioxide), 0.7 ton (1,459.0 pounds) per year of fine particulates and 25.1 tons (50,193.3 pounds) per year of CO₂ (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 2.5 tons (4,907.3 pounds) per year of NO_x (nitrogen oxides), 8.5 tons (17,068.8 pounds) per year of SO₂ (sulfur dioxide) and 1,258.8 tons (2,517,648.0 pounds) per year of CO₂ (carbon dioxide).

	VOC	NO _x	SO ₂	PM _{2.5}	CO ₂
Mobile	15.3	12.7	9.4	0.8	1283.9
Residential	6.2	0.7	0.6	0.7	25.1
Electrical Power		2.5	8.5		1258.8
TOTAL	21.5	15.9	18.5	1.5	2567.8

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 2.5 tons of nitrogen oxides per year and 8.5 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 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. They 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.

State Fire Marshal's Office – Contact: John Rossiter 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):

❖ *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 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Mercantile)
- 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. (Hotel, Business 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.

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 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
- For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan.

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 Paddock 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.

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)
- 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

Department of Agriculture - Contact: Milton Melendez 698-4500

The Delaware Department of Agriculture has no objections to rezoning of this property. It is the Department's understanding that this area will be annexed into the Town of Smyrna, and its development is in compliance with the *Strategies for State Policies and Spending*.

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.

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.

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.

Delaware State Housing Authority – Contact Karen Horton 739-4263

This proposal is for a rezoning and site plan review for 200 residential units, an 18-unit business/industrial park and a hotel on 232.00 acres. This is located on 1511 Paddock Road and 116 Brick Store Landing Road, north of Smyrna, west of SR 1. The proposal targets the full range of incomes including first time homebuyers. DSHA encourages the use of mixed income and supports a variety of housing. According to the most recent real estate data collected by DSHA, the average home price in New Castle County is \$205,000. However, families earning respectively 80% of New Castle County's median income only qualify for mortgages \$183,233, thus creating an affordability gap of \$21,767. The provisions 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.

Department of Education – Contact: John Marinucci 739-4658

1. This proposed development is within the Smyrna School District.
2. DOE offers the following comments on behalf of the Smyrna School District.
3. Using the DOE standard formula, this development will generate an estimated 100 students.
4. In a letter dated March 20, 2006, addressed to Commissioner David R. Burris, President, Kent County Levy Court, the Superintendent of the **Smyrna School District** officially informed the Kent County Levy Court that it does not have capacity to accommodate the students resulting from any continued development.

5. The developer is strongly encouraged to contact the Smyrna School District Administration to discuss the issue of school over-crowding that this development will exacerbate and potential resolutions.

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

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

Sincerely,

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

Constance C. Holland, AICP
Director

CC: Town of Smyrna