

SM 609-07

Kingston Manor Smith

~~VAR~~ VAR

07-0716 Building Permit

10/31/07

S1829-6797

Comment
11/5/07 KS

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor



Margaret G. McHale
Chair

Ren Serey
Executive Director

**STATE OF MARYLAND
CRITICAL AREA COMMISSION
CHESAPEAKE AND ATLANTIC COASTAL BAYS**

1804 West Street, Suite 100, Annapolis, Maryland 21401

(410) 260-3460 Fax: (410) 974-5338

www.dnr.state.md.us/criticalarea/

November 5, 2007

Ms. Yvonne Chaillet
St. Mary's County Government
Department of Land Use and Growth Management
P O Box 653
Leonardtown, Maryland 20650

Re: Variance Application 07-0716; Smith
23600 Gross Drive

Dear Ms. Chaillet:

Thank you for providing information on the above referenced variance. The applicant is requesting a variance to disturb the 100-foot Buffer in order to install a replacement septic system. The parcel is 4.25 acres in size and located within the Limited Development Area (LDA).

Based on the information provided, this office does not oppose this request. Due to the presence of two tributary streams and adjacent steep slopes and highly erodible soils, nearly the entire property is located within the Buffer or expanded Buffer. Given other constraints on the site including the location of the well, the selected area is the only place available to install the replacement septic system. Finally, the submittal includes mitigation at a ratio of 3:1 for the area of disturbance within the Buffer. As a condition of approval, I recommend the Board of Appeals require the applicant apply to Maryland Department of the Environment's Bay Restoration Fund for financial assistance to upgrade the proposed system using denitrification technology. They may contact Shan Abeywickrama at 410-537-3921 for further information.

Thank you for the opportunity to provide comments. Please include this letter in your file and submit it as part of the record for this variance. Also, please notify the Commission in writing of the decision made in this case.

Sincerely,

A handwritten signature in cursive script that reads "Kate Schmidt".

Kate Schmidt
Natural Resource Planner
SM609-07

ST. MARY'S COUNTY GOVERNMENT
DEPARTMENT OF LAND USE
AND GROWTH MANAGEMENT

Denis D. Canavan, Director

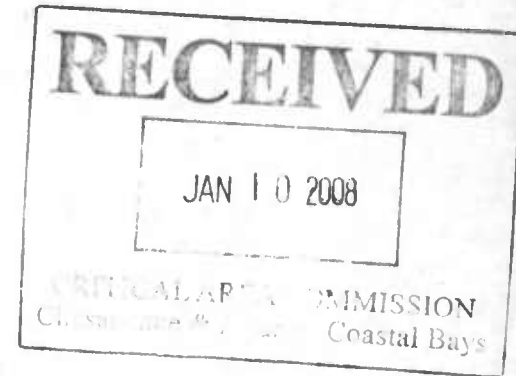
Phillip J. Shire, Deputy Director



Francis Jack Russell, President
Kenneth R. Dement, Commissioner
Lawrence D. Jarboe, Commissioner
Thomas A. Mattingly, Sr., Commissioner
Daniel H. Raley, Commissioner

MEMORANDUM

DATE: November 9, 2007
TO: Denis Canavan, Director
FROM: Yvonne Chaillet, Zoning Administrator
Jenn Ballard, Environmental Planner
SUBJECT: AD VAAP # 07-0716, Smith – Septic System Replacement
Administrative Hearing of November 8, 2007
Supplemental Report



I. DEVELOPMENT DATA

REQUEST: Variance from Section 71.8.3 of the Comprehensive Zoning Ordinance to disturb the expanded Critical Area Buffer to replace a septic system.
OWNER: Shannon and Katherine Smith (Owners)/ Paul DiBenedetto ("the Applicant")
LOCATION: 23600 Gross Drive, California, MD 20619
TAX MAP: 35 ELECTION DISTRICT: 8
BLOCK: 7 ACREAGE: 4.25 acres
PARCEL: 138 USE: 11, single-family dwelling, detached
ZONING: Residential Low Density (RL) District, Resource Conservation Area (RCA) Overlay.

II. NOTIFICATION: The property and variance request were advertised in *The Enterprise* on October 24, 2007 and October 31, 2007.

III. APPLICABLE REGULATIONS

St. Mary's County Comprehensive Zoning Ordinance (Ordinance)

1. Section 20.4 Director of Planning and Zoning. Powers and Duties
2. Section 24.4 Specific Standards for Granting Variances in the Critical Area
3. Section 71.8.3 The 100-Foot Critical Area Buffer

IV. STAFF COMMENTS:

1. The subject property (Property) is in the Kingston Manor Subdivision which was recorded in 1972, prior to the adoption of the Maryland Critical Area regulations on December 1, 1985. The Property contains an existing one-story single-family dwelling, which was constructed in 1977, an attached deck, driveway loop and concrete walk. The Property is nearly entirely constrained by an expanded stream buffer, which has been expanded for steep slopes and highly erodible soils (Evesboro

Westphalia complex – EwE2). The two streams on the property are intermittent and flow into Kingston Creek.

2. The amount of existing impervious surface is 5,582 square feet or 3.1 percent of the Property. The Applicant plans to install a new septic system to replace a failing system. No new impervious surface will be added to the property. The allowable amount of impervious surface on a grandfathered lot greater than one acre is 15 percent.
3. The amount of existing vegetative cover on the Property is 167,330 square feet or 90.4 percent of the Property. The Applicant needs to clear 7,625 square feet or 4.6 percent of the existing vegetative cover on the Property in order to install the replacement septic system. Of the 7,625 square feet of clearing, 7,105 square feet of clearing (4.3 percent of existing vegetative cover) will occur within the Buffer in order to install the replacement septic system.
4. The Health Department and Soil Conservation District approved the site plan on October 18, 2007 and August 24, 2007 respectively. The Critical Area Commission does not oppose the variance request, but recommends that the Applicant upgrade the septic system to include de-nitrification technology. The County, however, does not have regulations or a process in place to address de-nitrification.
5. If the variance is granted, it shall lapse one year after the date of approval unless there is an active building permit.
6. Following is staff's analysis of the Standards for granting a variance in the Critical Area:
 - a. *That special conditions or circumstances exist that are peculiar to the land or structure involved and that strict enforcement of the Critical Area provisions of this Ordinance would result in unwarranted hardship.*

Staff Analysis: The Property is a grandfathered lot and is constrained by an expanded stream buffer, steep slopes and highly erodible soils. The existing house was constructed in 1977, prior to the adoption of the Critical Area regulations.

A strict enforcement of the Critical Area provisions of the Ordinance would prohibit any new development activities in the Critical Area Buffer. The only portions of the lot that are outside the Buffer are occupied by the existing house, existing septic field and a portion of the replacement septic system. In fact, there is little room outside the Buffer to construct or install anything.

For these reasons, staff finds that special conditions exist that are peculiar to the Property and that strict enforcement of the Critical Area provisions would result in unwarranted hardship.

- b. *That strict interpretation of the Critical Area provisions of this Ordinance will deprive the applicant of rights commonly enjoyed by other properties in similar areas within the Critical Area of St. Mary's County.*

Staff Analysis: Other property owners on grandfathered properties in the LDA, whose properties were nearly entirely constrained by the expanded Critical Area Buffer, have obtained variances to replace failing septic systems to serve existing homes. A strict enforcement of the Critical Area

provisions of the Ordinance would deny the Applicant the ability to install a functioning septic system, which would deprive the Applicant of rights commonly enjoyed by other property owners.

- c. *The granting of a variance will not confer upon an applicant any special privilege that would be denied by the Critical Area provisions of this Ordinance to other lands or structures within the Critical Area of St. Mary's County.*

Staff Analysis: The granting of the variance will allow the Applicant to clear a modest percentage of vegetative cover on the Property in the Critical Area Buffer to replace a failing septic system with a functioning system. This is not a special privilege that would otherwise be denied to other property owners as noted in Standard "b."

- d. *The variance request is not based upon conditions or circumstances that are the result of actions by the applicant.*

Staff Analysis: The variance request is based on the adoption of the Maryland Critical Area regulations and the County's Critical Area program after the Property was recorded and the house was constructed.

- e. *The granting of a variance will not adversely affect water quality or adversely impact fish, wildlife, or plant habitat within the Critical Area, and that the granting of a variance will be in harmony with the general spirit and intent of the Critical Area program.*

Staff Analysis: The Applicant will be required to implement sediment control measures during construction and to mitigate for clearing of vegetative cover and disturbance in the Buffer.

Staff finds that if the variance is granted, a Critical Area Buffer Planting Agreement and Planting Plan will be necessary to alleviate any impacts to water quality due to the disturbance in the Buffer. Staff believes that the required plantings will assist in improving and maintaining the functions of the Buffer. The Planting Agreement requires mitigation at a ratio of three to one (3:1) per square foot of the variance granted in accordance with Section 24.4.2.b of the Ordinance.

The required plantings will improve plant diversity and habitat value for the site and will improve the runoff characteristics for the Property, which should contribute to improved infiltration and reduction of non-point source pollution leaving the site.

For these reasons, staff finds that the granting of the variance to clear vegetative cover and install a replacement septic system in the Critical Area Buffer will not adversely affect water quality or adversely impact fish, wildlife, or plant habitat within the Critical Area, and that the granting of the variance will be in harmony with the general spirit and intent of the Critical Area program.

- f. *The variance is the minimum necessary to achieve a reasonable use of the land or structures.*

Staff Analysis: Staff finds that the variance to clear 7,105 square feet of vegetative cover in the Critical Area Buffer to install a septic system is the minimum necessary to achieve a reasonable use of the land. Nearly the entire lot is constrained by the expanded Buffer. The proposed clearing will

result in a 4.3 percent loss of vegetative cover in the Critical Area Buffer and 4.6 percent loss of vegetative cover on the Property.

Staff finds that the proposed septic system replacement is a reasonable improvement to a property which has a house that was constructed 30 years ago.

- V. **STAFF RECOMMENDATION:** Staff finds that the Applicant has met the Standards for granting a variance in the Critical Area and recommends approval of VAAP #07-0716 to clear vegetative cover and install a septic system in the Critical Area Buffer, subject to the Applicant complying with the Critical Area Planting Agreement.
- VI. **CONCLUSION:** The public hearing was held as advertised and was attended by Shannon and Katherine Smith, Paul DiBenedetto, and Peter DiBenedetto. Paul presented the variance request, and submitted a letter from John Casana, P.E. and Diplomate, American Academy of Water Resources Engineers. Mr. Casana surveyed the subject property on October 21, 2007 and concluded that "the existence of an overland flow channel at the base of each of the two slopes adjacent to the site is not sufficient to conclude that overland flow occurs, at any given time, in continuity, from the subject site to Kingston Creek." Staff did not receive comments from any of the neighboring property owners.

Approval Decision Date 11/13/07

Denis W. Canavan
Denis Canavan, Director

- VII. **ATTACHMENTS:**
Attachment #1- Critical Area Comments
Attachment #2- Site Plan
- Variance Application Date: October 1, 2007

GENERAL NOTES

1. This parcel/lot is to be served by an innovative and alternative sewage disposal system. The design is based on a sewage flow rate of a maximum of 600 gallons per day (4 bedroom residential use) and a land application rate of 0.25 gallons per day per square foot. Advanced treatment of septic tank effluent is required prior to release into subsurface disposal system. The septic disposal system design is based on computations by Mehaffey & Associates, P.C. dated September 14th, 2007 and approved.
2. This site is to be served by an individual well drilled into an approved aquifer.
3. This plan is in compliance with the St. Mary's County Comprehensive Water and Sewerage Plan.
4. All work to be performed in accordance with applicable regulations of the St. Mary's County Health Department standard and specification.
5. Contact "Miss Utility" at 1-800-251-1111 at least forty-eight hours prior to any work on the project. Utilities not covered by "Miss Utility" are to be contacted separately. Existing utilities such as water, service lines, telephone, and television cable shall be moved as necessary for proper installation of septic disposal system.
6. The contractor shall take all necessary measurements to assure proper fabrications and installation of the work shown.
7. Information shown on the contract drawings relating to boundary and existing conditions and/or locations of existing structures, utilities, or other site improvements has been compiled from available information, record maps, and location surveys and is not guaranteed correct. This plan was prepared without the benefit of a Title Report, which may show additional conveyances, easements, rights-of-way, or existing restriction lines not shown hereon. The locations and elevations shall be verified by the contractor prior to the start of construction. If any conflicts exist between actual field conditions and the plan the contractor shall notify the Engineer immediately for resolution.
8. Any damages to service roads, pavement areas, trees, landscape items, utilities or other facilities shall be repaired by the contractor. All disturbed areas shall be restored in kind and to a condition equal or better than that which existed prior to construction at no additional cost to the owner.
9. Unless otherwise shown, there are no known wells or septic systems within 100' of the proposed septic system. This parcel/lot contains an area of at least 20,000 square feet which does not include rights-of-way (existing or proposed), 50 year flood plain, or grades of 25% or greater.
10. Health Department approval certifies that this lot is in conformance with pertinent Health Department laws and regulations as of the approval date; however, this is subject to change in such laws and regulations. Changes in topography or site designations may void this approval. The designated perc area is the dilly area approved by the St. Mary's County Health Department for sewage disposal purposes. Improvements of any nature, including but not limited to the installation of other utility lines in this area may render the lot undevelopable. To determine the exact area of the lot approved for sewage disposal purposes or to establish a different area for such purposes, the Owner should contact St. Mary's County Health Department, Office of Environmental Health.

MATERIAL SPECIFICATIONS

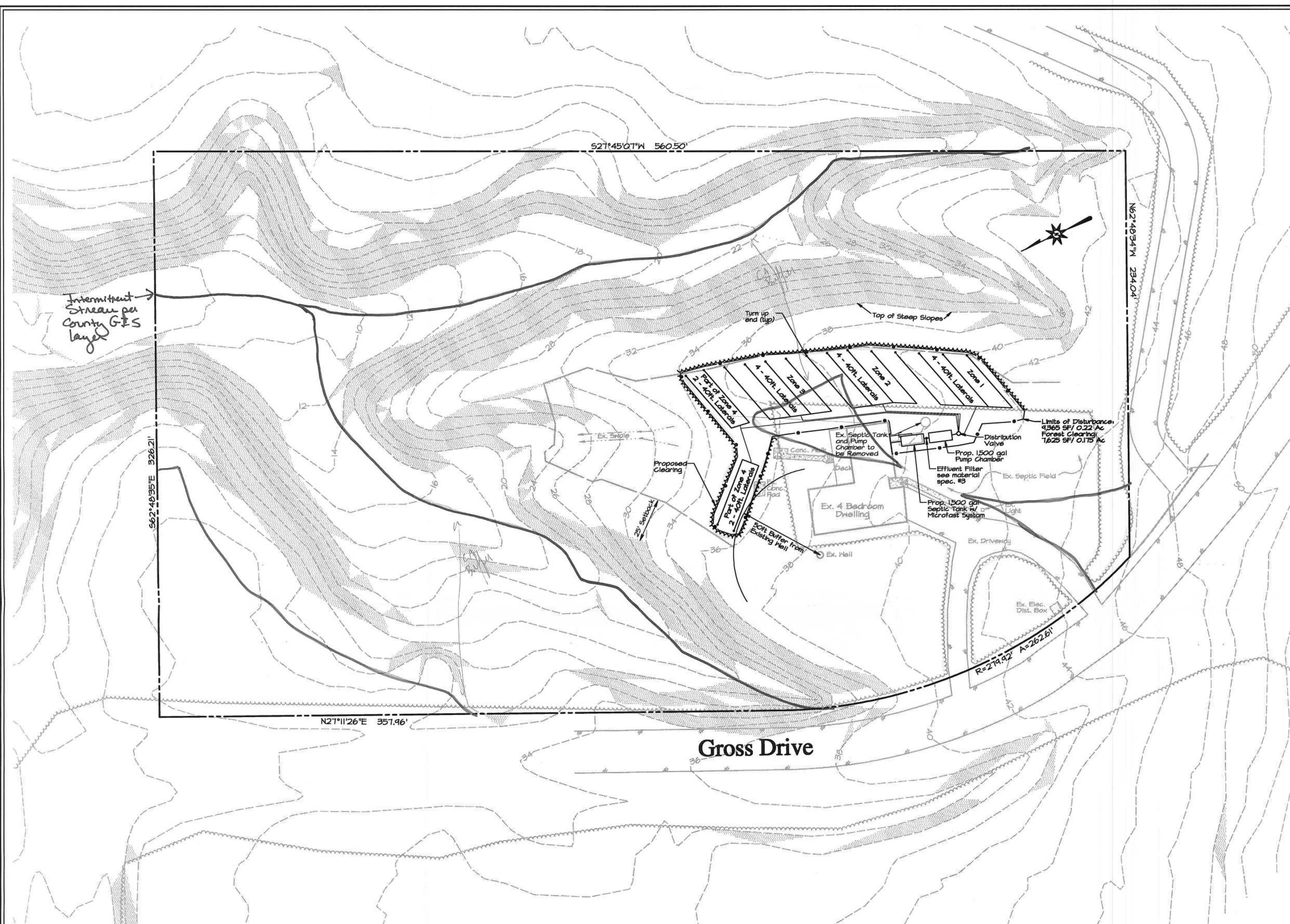
Treatment System

1. A Bio-Microtics, Inc. Model MicroFast(R) 0.75 shall be installed per manufacturers instructions. See drawings for details and specifications. Contractor to coordinate shop drawing of concrete tank with MicroFast Manufacturers representative to assure proper installation and operation.
- Contact: David Dineen (410) 875-4110 or (443) 348-6185
Advance Systems
37 York Street
Towson Maryland 21287

2. The advanced treatment unit shall be capable of treating 600 gallons per day. The effluent from the treatment unit shall meet NSF 40, BOD(5), 30 mg/l, TSS, 30 mg/l, TKN, 30 mg/l, TN 30mg/l.
3. For OSI V6404A distribution valve installation the contractor shall contact Orenco Systems at 1-800-348-4849 or install at specifications as shown.
4. Effluent filter used to be Orenco FTB 0436-012. Filter to be inspected and cleaned every two years and changed if damaged.
5. After the system installation is complete, a qualified person shall perform start-up, regularly inspect and maintain the system to assure compliance with NSF certification.
6. The septic tank/treatment unit shall be installed with 1500 gallon concrete tank with seams and joints above the high water table and protected against buoyant forces. If high ground water is a problem during construction, the contractor shall contact the engineer for resolution.
7. The system shall be equipped with effluent pump to convey the treated effluent to the sub-surface disposal area. The pump shall be capable of pumping 65 gpm at 28 feet TDH (total dynamic head) (Sovis Model HEO12H).
8. The pump chamber shall be a 1500 gallon concrete tank with seams and joints above the high water table and protected against buoyant forces.
9. The pump chamber shall be equipped with a 3 float system which controls 1. high level alarm 2. pump on 3. pump off. Control/operation elevations to be per detail. Control panel shall include a non-resettable elapsed time run meter and event counter. The control panel shall be provided to automatically operate the sewage disposal system.
10. A 24-hour leakage test shall be required to be conducted to demonstrate water tightness of the discharge piping prior to final construction approval.
11. Any deviations from the approved plans and/or specifications must be recorded in the field by the contractor, and an accurate As-Built drawing submitted to the SMCHD after installation is complete.

Legend

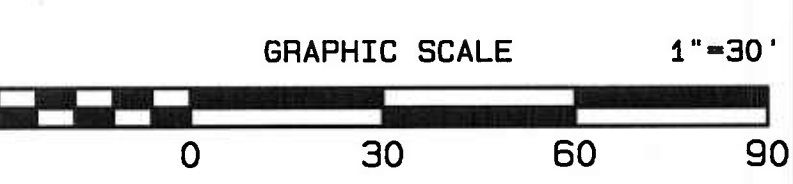
Existing	Proposed
Property Line	Property Line
R.O.W.	R.O.W.
Contours	Contours
Pavement	Pavement
Ditch	Ditch
Wood Line	Wood Line
25% Slopes	25% Slopes
Electrical Line	Electrical Line
Limits of Disturbance	Limits of Disturbance



Gross Drive

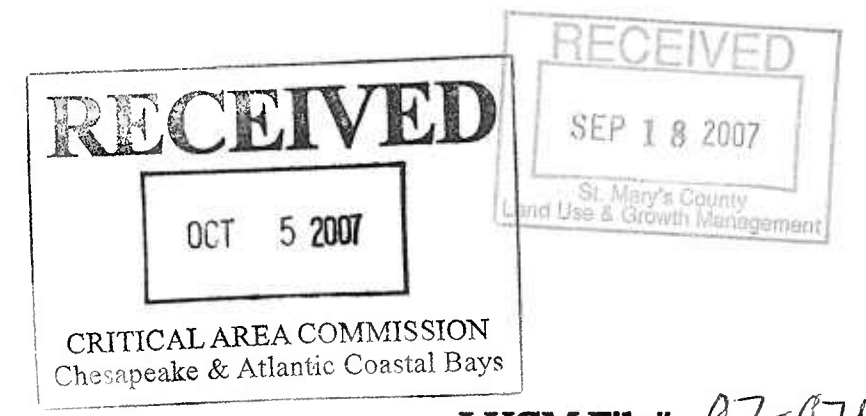
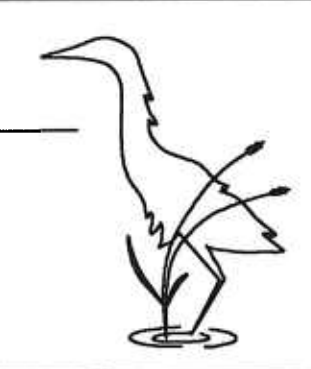


I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17626, EXPIRATION DATE 12/31/07



Designed By: B. Norris	Date: 8/28/07	Scale: 1"=30'
Approved By: W. Mehaffey		
Revised per Health Dept. Comments	9/14/07	
Revised per Health Dept. Comments	9/17/07	
Revision		DATE

MEHAFFEY & ASSOCIATES, P.C.
Civil & Environmental Engineering • Land Planning
41650 Courthouse Drive, Suite 100 ~ P.O. Box 2450
Leonardtown, Maryland 20650
301.475.0406 Fax 301.475.2822



LUGM File#: 07-0716
HD File# 566-02 Sheet 1 of 2

Sewage Disposal System
Kingston Manor - Lot 20
23600 Gross Drive, California, Maryland
Tax Map 35, Block 7, Parcel 138
for: Paul DiBenedetto
8th Election District St. Mary's Co., Maryland