

LAYOUT 8/18/09 INSP 4 _____
INSP 2 8/15/09 INSP 5 _____
INSP 3 _____ INSP 6 _____

ISSUE DATE: 8/18/2009

**PERMIT- HOOT H-600 –
BRF SYSTEM**

P 531880

APPROVAL DATE: 8/20/09

SEPTIC TANK UPGRADE
TAX ID #

A BRF _____

**ON-SITE SEWAGE DISPOSAL SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH**

Garland Brian IS PERMITTED TO INSTALL ALTER

ADDRESS: _____ PHONE NUMBER: _____

SUBDIVISION _____ LOT 13

ADDRESS: 11795 Old Frederick Road PROPERTY OWNER: Al Starr

HOOT H-600 (GALLONS): 1500 **Top Seamed Two Compartment Tank w/
Aerobic Pretreatment**

PUMP CHAMBER CAPACITY (GALLONS): 750

******THE REST OF THE SEPTIC SYSTEM IS SUBJECT TO INSPECTION FOR PROPER OPERATION. A SUITABLE REPAIR MUST BE PERFORMED IF THE SYSTEM IS NOT FUNCTIONING PROPERLY OR AT THE POINT OF FAILURE. PERCOLATION TESTING AND ADDITIONAL FEES MAY APPLY IF ADDITIONAL WORK IS REQUIRED FOR THE SEPTIC SYSTEM TO FUNCTION PROPERLY.******

LOCATION:	Install New pretreatment tank as specified on approved site plan.
NOTES:	A test of the sensors, pump, alarm and unit itself is required. Install Hoot unit per manufacturer's specifications. System is designed for a maximum of three to four bedrooms. A clean out/observation port should be installed on the dist. Box/drywell for functionality of the pretreatment system.

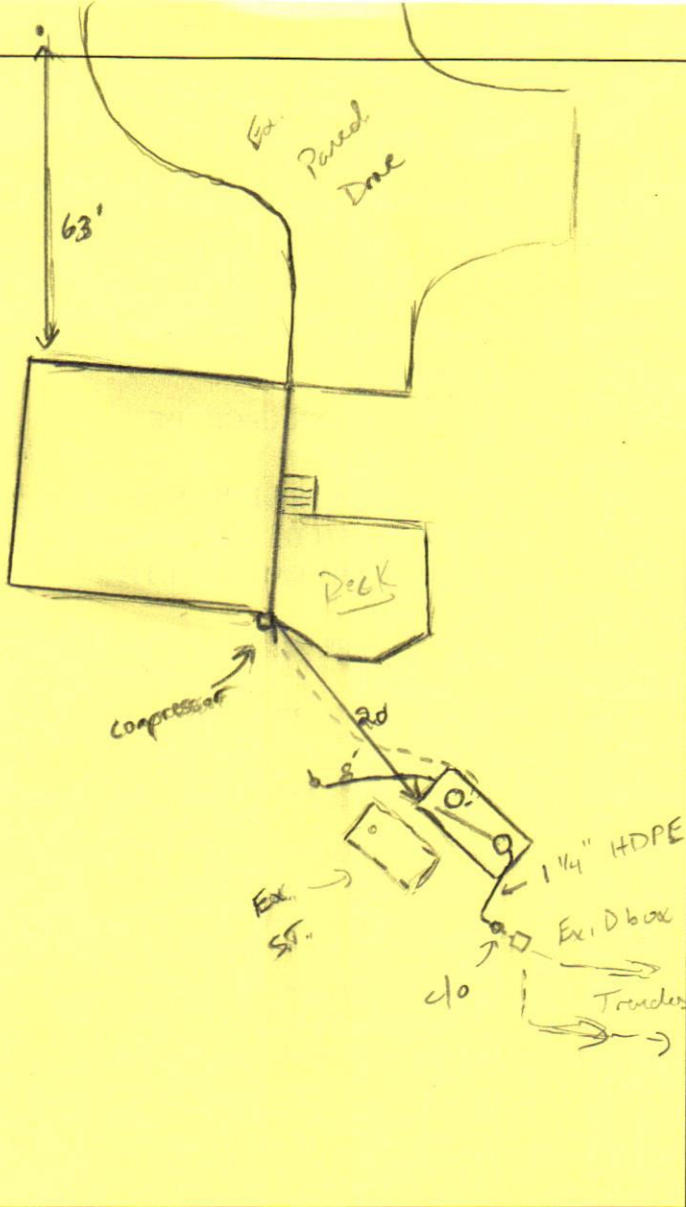
Note: * Certification start-up letter from the manufacturer needs to be submitted to the Health Dept. before the Hoot system can be approved for funding *

PLANS APPROVED: Kevin Wolf DATE: 8/17/2009

NOTES: PERMIT VOID AFTER 2 YEARS
CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION INSPECTION FOR ALL INSTALLATIONS
WATERTIGHT SEPTIC TANKS REQUIRED
ALL PARTS OF SEPTIC SYSTEM SHALL BE 100 FEET FROM ANY WATER WELL UNLESS SPECIFICALLY AUTHORIZED
MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS UNLESS SPECIFICALLY AUTHORIZED
CONTRACTOR RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE REGULATIONS, GUIDELINES AND THE TERMS OF THIS PERMIT

**NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM
PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT
CALL 410-313-1771 FOR INSPECTION OF SEPTIC SYSTEM**

170-81-1120



TRENCH/DRAINFIELD DATA

(If Installed/Needed)

WIDTH	INLET	BOTTOM
_____	_____	_____

NUMBER OF TRENCHES _____

TOTAL LENGTH _____

ABSORPTION AREA _____

DIST. BOX LEVEL _____

DIST. BOX BAFFLE _____

DIST. BOX PORT _____

HOOT 600 GPD BNR SYSTEM

BAY RESTORATION FUND

MANUFACTURER Mayer Bros

CAPACITY ~2100 GAL

SEAM LOCATION Top

TANK LID DEPTH 3"

FRONT BAFFLES 6"

MANHOLE LOC Front / Rear

6" PORT LOC _____

WATERTIGHT TEST _____

AERATOR FUNCTIONING yes

ALARM FUNCTIONING yes

DATE ON LID _____

8/18/09 Installation of Hoot H-600 BNR set next to existing tank.

8/19/09 Everything hooked up. Need verification of system start-up. High water down 8/15/09 spike w/ Ed muller who was performing the start-up, told me there was not enough H₂O in tank to verify pumping to D box/drain fields. Will final upon verification from

8/20/09 Certification letter received. (R)

FINAL INSPECTOR

J. Wolf

DATE OF APPROVAL

8/20/09



MAYER BROS., INC.
Precast Concrete Products
6264 Race Rd. Elkridge, MD 21075
Federal ID 52-0706744

Letter of Satisfaction
Hoot System Installation

Address of Property: 11795 Old Frederick Rd
Marnettsville MD

Date of Final Inspection: 8-19-09

Installer: Carlson Brown

Hoot Technician/Inspector: Ed Mcullen

I hereby certify that the Hoot system installed at the property listed above has been installed according to proper Hoot installation practices. I also have verified the start up of the system and it is in proper working order.

Sincerely,

Name of Inspector
Mayer Bros., Inc.

Brian
HawCo HD

410-313-2648

As requested

Ed

H: 410-796-1434

TX: 410-796-1438

NPCA C

Grease Interceptors, Grease Solutions, Hoot Aerobic Treatment Units, Sequence Valves, Sectional Valve Vaults, Top Slabs, Curb Heads, Curb Bump

act
om
lcr
ds

000101

**AGREEMENT AND EASEMENT FOR INSTALLATION
OF BEST AVAILABLE TECHNOLOGY SYSTEMS
WITH BAY RESTORATION FUNDS.**

THIS AGREEMENT is made this 9th ~~25th~~ day of July ~~June~~, among Alvin J. Starr, hereinafter referred to as "Owner," the Howard County Health Department hereinafter collectively referred to as the "County," and the Department of the Environment, hereinafter referred to as the "Department."

WHEREAS, Owner owns a tract of land located on 11795 Old Frederick Raod, in the Election District of Howard County, Maryland, and the deed to same is recorded among the Land Records of Howard County, Maryland, in Ellicott City and in Liber 1373 Folio 695.

WHEREAS, the Bay Restoration Fund (BRF) may provide a grant for the cost attributable to upgrading an onsite sewage disposal system to the Best Available Technology (BAT) for the removal of nitrogen.

WHEREAS, the BRF may also provide a grant for the cost difference between a traditional onsite sewage disposal system and a system that utilizes the BAT for the removal of nitrogen.

WHEREAS, Owner understands that participation in the Bay Restoration Fund is voluntary.

NOW, THEREFORE, the parties hereto agree as follows:

- A. Owner hereby grants to the Department and the County the right to enter upon the property at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data requested and needed by the Department to develop accurate and thorough test results.
- B. Owner acknowledges and agrees that a manufacturer-approved installer will install the BAT system.
- C. Owner acknowledges and agrees the manufacturer will provide for Operation and Maintenance of the BAT for a period of 5 years as a condition of sale of the BAT. After the 5 year

period the Operation and Maintenance contract can be further extended at the behest of the property owner. The Department and County encourage the property owner to continuously maintain an Operation and Maintenance contract during the lifetime of the system.

- D. Owner acknowledges and agrees that the manufacturer appointed Operation and Maintenance provider will have access to the BAT system at all times.
- E. Owner acknowledges and agrees that the manufacturer or manufacturers designee will have access to sample the effluent of the BAT system. Owner acknowledges and agrees that the proposed installation of a BAT system funded by the BRF is voluntary. Owner agrees that there shall be no liability on the part of the County or Department to Owner if this BAT system fails, and that the County and the Department do not warrant or guarantee that the BAT system will adequately or properly function.
- F. Owner acknowledges and agrees that neither the County nor the Department nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.
- G. The Owner will devote such care and effort to the maintenance of the BAT system so that any malfunction is not the result of poor maintenance, faulty operation, or neglect.
- H. The Department agrees to grant \$ 13,100.00 toward the cost of installation of the BAT System, and financial responsibility is limited to this amount. Owner will present to the Department a signed contract from the demonstrating the total cost of installation. Operating costs will be at the Owner's expense.
- I. The Owner acknowledges that the BRF grant can only be used for that portion of the OSDS attributable to (BAT) for the removal of nitrogen.

- J. Owner acknowledges in the event the total project cost is greater than \$25,000 the proposal will have to be approved by the Maryland State Board of Public Works.
- K. The Owner agrees to contact both the Water Management Administration, On-Site Systems Division of the Wastewater Permits Program and the County at least forty-eight (48) hours prior to system installation, so that the Department has the opportunity to be present at the time of installation or thereafter for inspection.
- L. The Owner must install BAT system according to the manufacturer recommended plans and specifications approved by the Department.
- M. The Owner agrees and acknowledges that if installation deviates substantially from the approved plans or changes such that performance of the system is compromised or reduced, BRF funding will not be provided.
- N. This agreement shall run with the land and binds the Owner, his heirs, successors, assigns except that the provisions of paragraph A, C, D and E shall be binding for a period of 5 years only after installation of the system and occupation of the home. Owner further agrees that he shall inform in writing any purchaser or lessee of the property that the system may require maintenance or other attention. The Owner agrees to record this agreement in the land records of Howard County.
- O. This agreement shall not be construed to limit any authority of the Department to protect the public health, safety or comfort or to issue any other orders to take any other action that is now or may hereafter be within its authority.
- P. This agreement may be voided at the discretion of the Department if the system construction is not completed within forty-five (45) days of the effective date of this agreement.
- Q. This agreement contains the entire agreement and understanding between the County and the Owner and the Department. There are no additional terms other than as contained in this

agreement. This agreement may not be modified except in writing signed by each of the parties or by their authorized representatives.

R. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

IN WITNESS WHEREOF, the parties have signed and sealed this agreement on the date indicated

above.

DATE: 7/17/09 (40)

Alvin J. Starr
Owner / Alvin J. Starr

DATE: 7/9/09

Jay Prager
Jay Prager, Deputy Program Manager
Wastewater Permits Program
Maryland Department of the Environment

DATE: 7/23/09

Beet Nyeen
/ Howard County Health Department

IMP FD SURE \$	20.00
RECORDING FEE	20.00
TOTAL	40.00
Res# H083	Rcpt # 73588
NDR KNC	BK # 44
JUL 31, 2009	04:13 PM

Hoot BNR Series Treatment System

Energy efficient, environmental protection

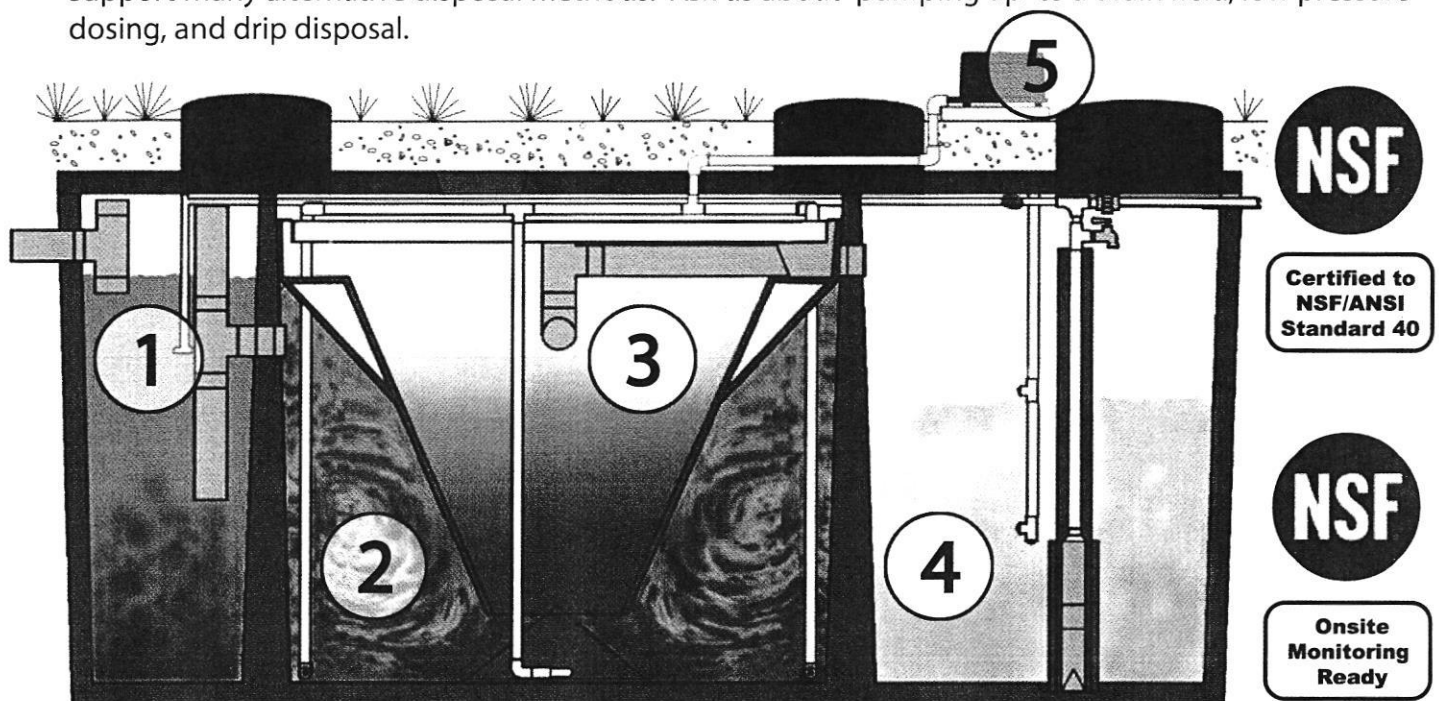
The BNR series features an energy efficient linear compressor for its oxygen supply, using less energy than the average light bulb (2.1 kWh/day). The precast concrete tank is made from locally produced precast concrete in a controlled plant environment. The polyethylene clarifier tank is manufactured from recycled milk jugs. Hoot protects the environment both in its operation and in its manufacture.

Easy installation, low cost and maintenance

The Hoot System can be installed in a single day by local contractors. It requires only semi-annual maintenance visits (also by local providers) and includes alarm systems to alert you if necessary. The cost of purchase, installation, and maintenance may be subsidized by state funds currently available through the Maryland Department of the Environment and the Bay Restoration Fund.

Flexibility in disposal options

The Hoot BNR system is unique in offering a variety of disposal options, with which to disperse the effluent. While many systems rely on a traditional gravity drain field, the Hoot pump chamber can support many alternative disposal methods. Ask us about "pumping up" to a drain field, low pressure dosing, and drip disposal.



- 1 Pretreatment Chamber:** where all waste from your home is collected and settled out. Anaerobic (without oxygen) decomposition begins here.
- 2 Aeration Chamber:** where oxygen is introduced through fine air diffusers. This is the heart of your activated waste treatment system. The aeration actively mixes the organic materials of the sewage with the microbial population in the tank, allowing the organic materials to be reduced internally.
- 3 Clarifier Section:** where solid particles settle to the bottom, allowing a clear, odorless effluent to rise and overflow into the pump chamber.

- 4 Pump Chamber:** where the clear effluent is collected. The pump then sends the effluent out to the disposal field, while also recycling a portion of the effluent back to the pretreatment chamber to optimize de-nitrification.
- 5 Blower:** which quietly and efficiently provides the oxygen that feeds the aerobic process at the heart of your system. It is normally installed below the control panel near your house.