

Bureau of Environmental Health  
 7178 Gateway Drive Columbia, MD 21046  
 (410) 313-2640 Fax (410) 313-2648  
 TDD (410) 313-2323 Toll Free 1-866-313-6300  
 website: www.hchealth.org

Maura J. Rossman, M.D., Health Officer

RECEIPT DATE: 10-17-14 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 5552750

INSTALLATION APPROVAL DATE: 12/18/14 SEC

**PERMIT  
CONSTRUCTION**

A \_\_\_\_\_

PROPERTY ADDRESS: 13007 High Grove Road  
 SUBDIVISION: Schooley Mill Farm LOT: 3 TAX ID: \_\_\_\_\_  
 CONTRACTOR: South Carroll Backhoe EMAIL: ken@skbackhoe.com  
 CONTRACTOR ADDRESS: 4410 Salem Bottom Road PHONE: 410-596-3618  
 PROPERTY OWNER: NVR Inc. EMAIL: \_\_\_\_\_  
 OWNER ADDRESS: 9720 Patuxent Woods Drive, Columbia, MD 21046 PHONE: 410-379-5956

BAT UNIT MODEL: Hoot 600 BNR BAT UNIT SIZE: 750 GPD  
 PUMP CHAMBER CAPACITY (GALLONS): \_\_\_\_\_ PUMP SIZE: \_\_\_\_\_  
 NUMBER OF BEDROOMS: 6 HOUSE SQ. FT. ±3900 APPLICATION RATE: 1.2  
 DISTRIBUTION SYSTEM: GRAVITY FED  LOW PRESSURE DOSED

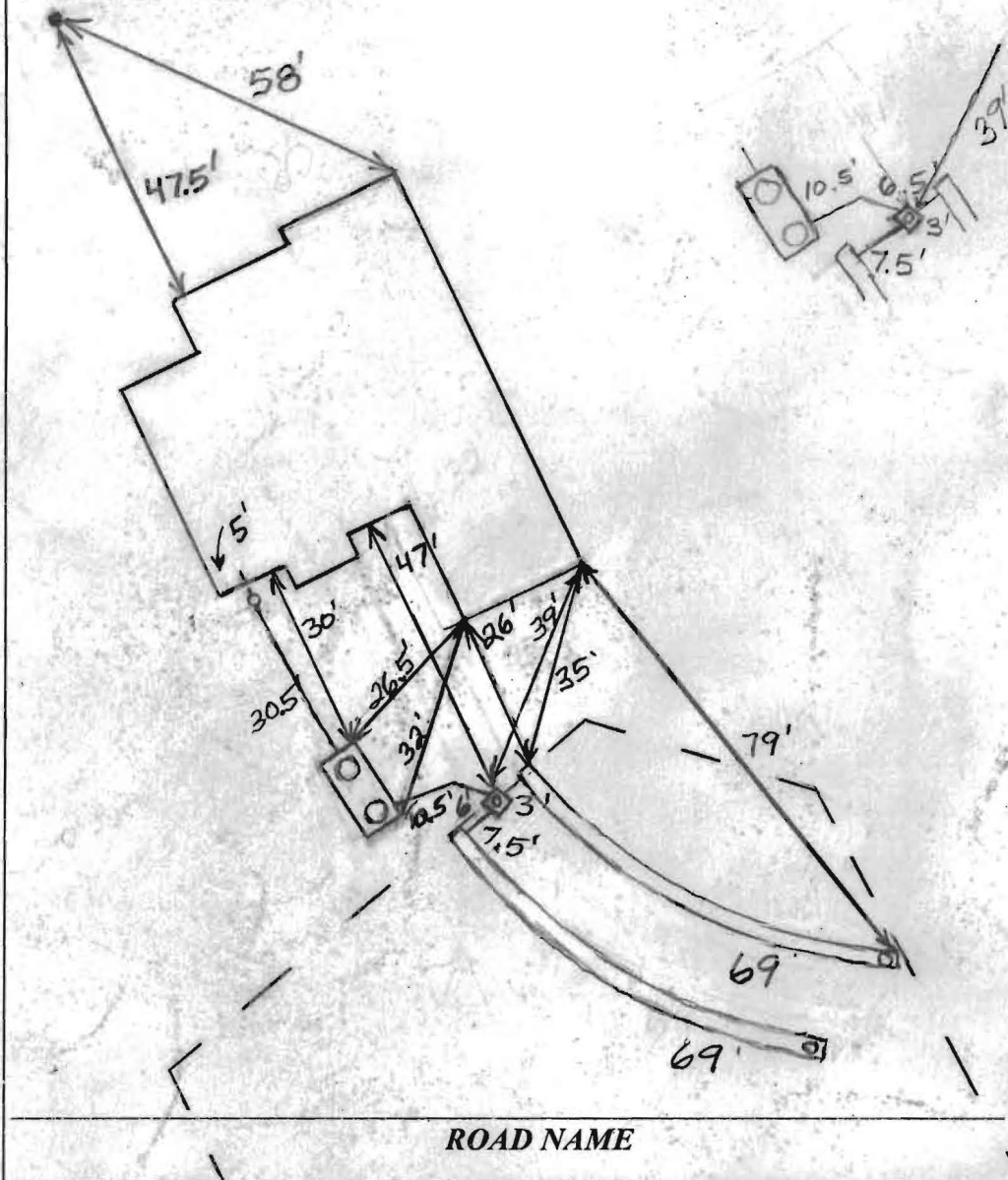
TRENCHES:	LINEAR FEET REQUIRED: <u>138</u>	INLET DEPTH: <u>SEE BAT PLAN 4'</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>SEE BAT PLAN 8'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>SEE BAT PLAN 5'</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	Set BAT unit per plan. Set distribution box per plan. Install 103.33 feet of trench on contour. <u>2x69'</u>	

ISSUED BY: Hank Oswald ISSUE DATE: 10-17-14 EXPIRATION DATE: 10-17-15

- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING
- NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.
- NOTE: WATERTIGHT SEPTIC TANKS REQUIRED
- NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADIENT FROM ANY WATER WELL
- NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS
- NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM

**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 TO SCHEDULE INSPECTIONS.**

HO-95-2438 NOT TO SCALE



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	4'	8'
NUMBER OF TRENCHES 2		
TOTAL LENGTH 138'		
ABSORPTION AREA 4/4 + Sidewall		
DISTRIBUTION BOX LEVEL Yes		
DISTRIBUTION BOX BAFFLE Elbow		
DISTRIBUTION BOX PORT Yes		

SEPTIC TANK DATA	
SEPTIC TANK I LEVEL	Yes
MANUFACTURER	Mayer Bros. Hoot
CAPACITY	~2,100 GAL
SEAM LOC	Top
TANK LID DEPTH	0.5'-2'
BAFFLES	Front
BAFFLE FILTER	No
MANHOLE LOC	Front + Rear
6" PORT LOC	None
WATERTIGHT TEST	No
SLOTTED	N/A
DATE ON LID	Dry
<del>PUMP/SEPTIC TANK LEVEL N/A</del>	
<del>MANUFACTURER _____</del>	
<del>CAPACITY _____ GAL</del>	
<del>SEAM LOC _____</del>	
<del>TANK LID DEPTH _____</del>	
<del>BAFFLES _____</del>	
<del>BAFFLE FILTER _____</del>	
<del>MANHOLE LOC _____</del>	
<del>6" PORT LOC _____</del>	
<del>WATERTIGHT TEST _____</del>	
<del>SLOTTED _____</del>	
<del>DATE ON LID _____</del>	

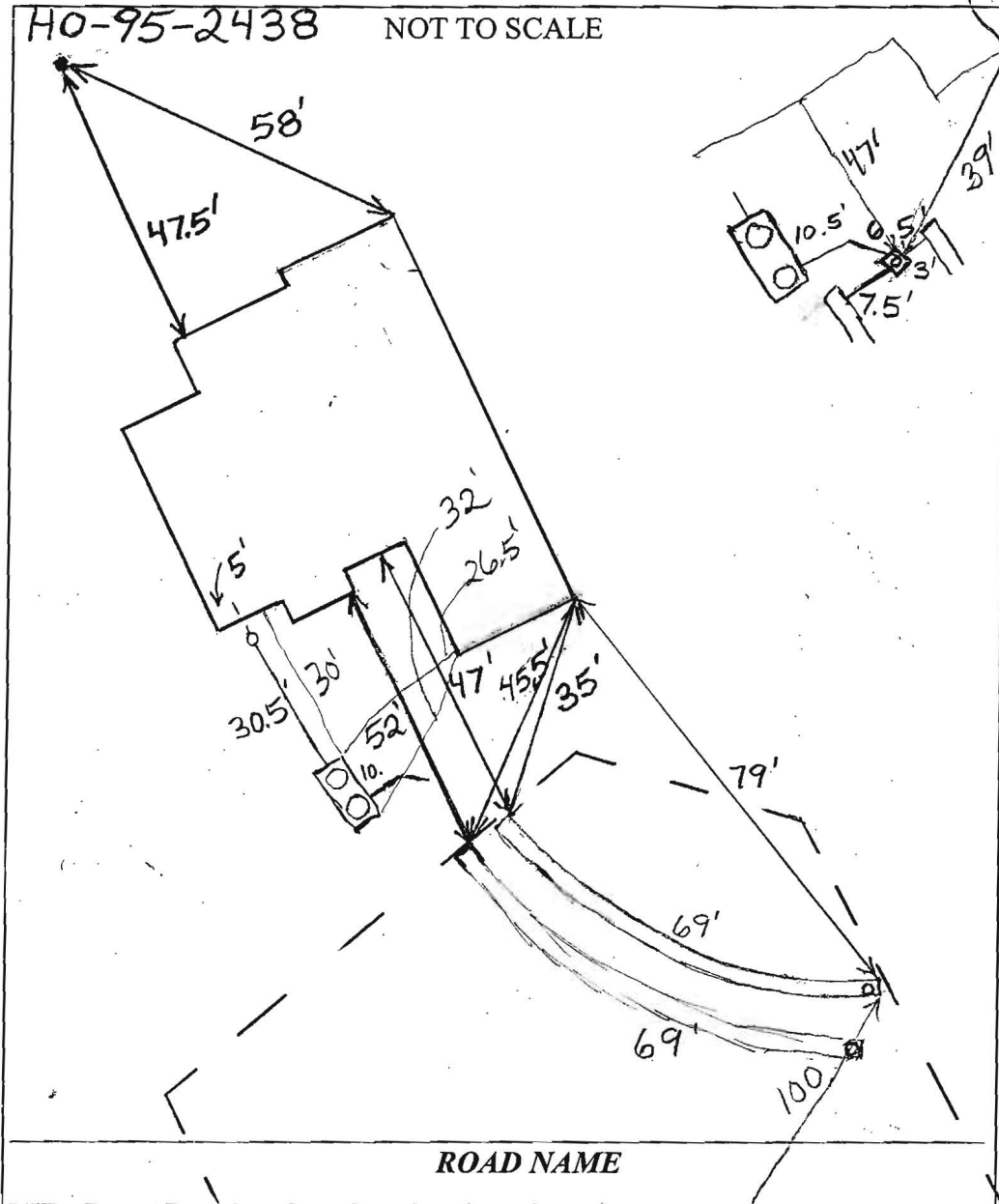
PRE-CONSTRUCTION: 10/20/2014 Install two 69' trenches on contour across highest possible easement area. Set tank per plan. (BB)

INSTALLATION: 10/23/2014 Trenches finished. Still need to install tank and rest of plumbing. (BB)

11/21/2014 Tank and dist. box installed. Rest of plumbing finished except for house connection. Need BAT approval from Hoot inspector. (BB) 12/18/14 BAT tank startup prior to visit. Grading complete, no alarms. (S) 12/18/14 BAT startup certification received.

FINAL INSPECTOR Sarah Gillis DATE OF APPROVAL 12/18/14

HO-95-2438 NOT TO SCALE



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3	4'	8'
NUMBER OF TRENCHES		2
TOTAL LENGTH _____		
ABSORPTION AREA _____		
DISTRIBUTION BOX LEVEL		Yes
DISTRIBUTION BOX BAFFLE		Elbow
DISTRIBUTION BOX PORT		Yes

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	Yes
MANUFACTURER	Mayer Bros. / Root
CAPACITY	~2,100 GAL
SEAM LOC	Top
TANK LID DEPTH	0.5'-2'
BAFFLES	Front
BAFFLE FILTER	No
MANHOLE LOC	Front+Rear
6" PORT LOC	None
WATERTIGHT TEST	No
SLOTTED	N/A
DATE ON LID	Dry
PUMP/SEPTIC TANK LEVEL N/A	
MANUFACTURER	_____
CAPACITY	_____ GAL
SEAM LOC	_____
TANK LID DEPTH	_____
BAFFLES	_____
BAFFLE FILTER	_____
MANHOLE LOC	_____
6" PORT LOC	_____
WATERTIGHT TEST	_____
SLOTTED	_____
DATE ON LID	_____

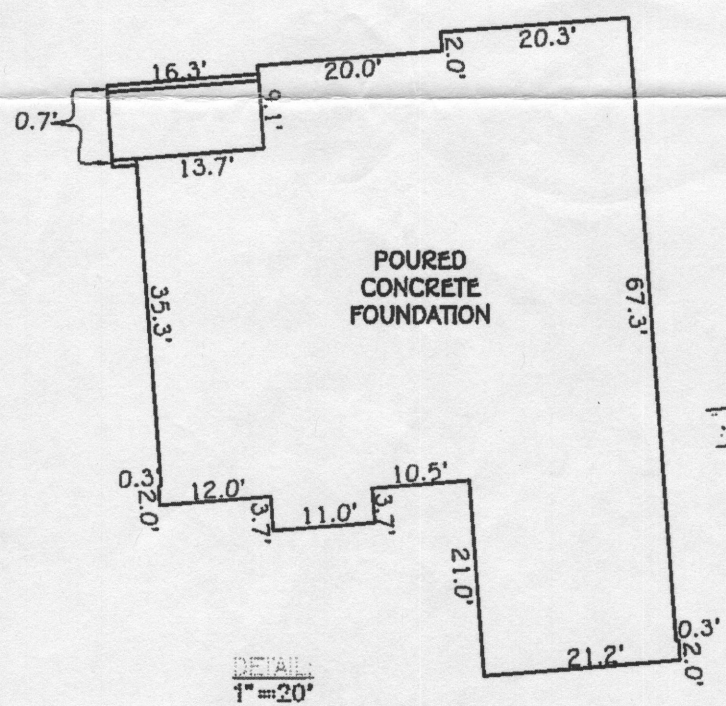
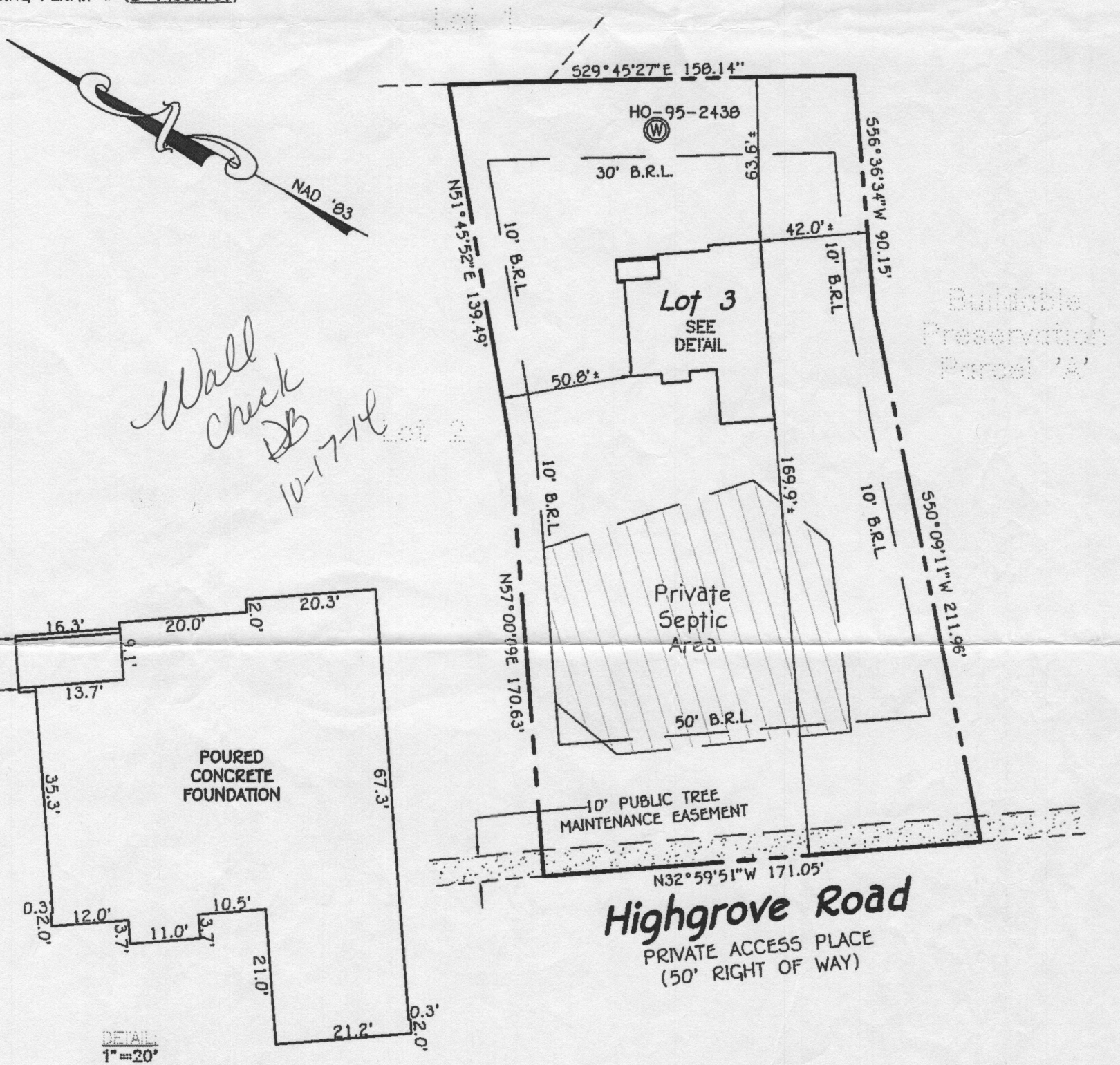
PRE-CONSTRUCTION: 10/20/2014 Install two 69' trenches on contour across highest possible easement area. Set tank per plan. (BB)

INSTALLATION: 10/23/2014  
11/21/2014 Need house connection.

FINAL INSPECTOR \_\_\_\_\_ DATE OF APPROVAL \_\_\_\_\_

**GENERAL NOTES:**

- 1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INSOFAR AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS INDICATED AS BEING A BOUNDARY SURVEY, THIS LOCATION DRAWING IS NOT INTENDED FOR USE IN THE ESTABLISHMENT OF PROPERTY LINES AND IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATIONS OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS. AS A RESULT, THIS LOCATION DRAWING DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING FOR RE-FINANCING.
- 2) SUBJECT PROPERTY IS SHOWN IN ZONE X ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 24027C0140D EFFECTIVE NOV. 6, 2013.
- 3) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 1'.
- 4) NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- 5) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-95-2438) HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
- 6) PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 339, EXPIRATION DATE 10/04/2014.
- 7) BUILDING PERMIT # (B-14002761)



#13007 HIGHGROVE ROAD  
TOP OF FOUNDATION ELEVATION = 509.6'±

LOT 3  
SCHOOLEY MILL FARM  
LOTS 1 THRU 11,  
BUILDABLE PRESERVATION  
PARCEL 'A' & NON-BUILDABLE  
PRESERVATION PARCELS 'B'  
THRU 'D'  
PLAT NOS. 22506 AND 22507  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

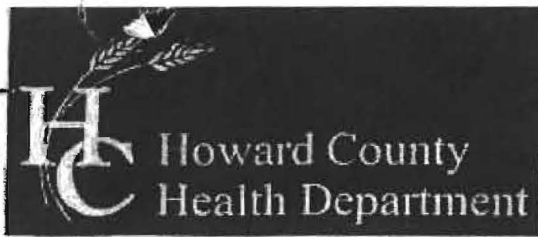
**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21042  
(410) 461 - 2855

STATE OF MARYLAND  
MARK L. ROBEK  
PROPERTY LINE SURVEYOR  
13333  
9/26/14  
PROPERTY LINE SURVEYOR  
REG. #339

**HOUSE LOCATION DRAWING**

FOUNDATION LOCATION: 4/14/14  
FINAL LOCATION: 9/25/14  
BOUNDARY SURVEY: \_\_\_\_\_

SCALE: 1"=50'  
DATE: 9/26/14  
DRAWN BY: GAD  
CHECKED BY: MLR  
PROJECT No.: 05037-6001



## Bureau of Environmental Health

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[www.hchealth.org](http://www.hchealth.org)

Facebook: [www.facebook.com/hocohealth](https://www.facebook.com/hocohealth)

Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

### OPERATION AND MAINTENANCE AGREEMENT FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM HAVING AN ADVANCED PRE-TREATMENT SYSTEM

THIS AGREEMENT is made this <sup>9<sup>th</sup> day of May 2014</sup> ~~18<sup>th</sup>~~ day of ~~November 13~~ among NVR, Inc., hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 13007 Highgrove Rd., Highland, Maryland 20777, in the 5<sup>th</sup> Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber 10230 Folio 00678.

WHEREAS, The Lot is suitable for the installation of a conventional on-site sewage disposal system with an advanced pre-treatment system, utilizing best available technology to perform nitrogen reduction, in accordance with the Code of Maryland Regulations 26.04.02.07, effective January 1, 2013.

NOW, THEREFORE, the parties hereto agree as follows:

- A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County to develop accurate and thorough test results.
- B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.
- C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.
- D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.
- E. This agreement shall run with the land and upon Owner's taking title to the Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as



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Clerk of the Circuit Court for  
Howard County  
Land Records/Licensing

The Thomas Dorsey Building  
9250 Bendix Road  
Columbia, MD 21045  
410-313-5850

=====  
LR - Agreement Recording Fee  
1x 20.00 20.00

Grantor/Grantee Name: nvr  
Reference/Control #: 41

LR - Agreement Surcharge  
1x 40.00 40.00

LR - Agreement Recording Fee  
1x 20.00 20.00

Grantor/Grantee Name: nvr  
Reference/Control #: 42

LR - Agreement Surcharge  
1x 40.00 40.00

=====  
SubTotal: 120.00  
Total: 120.00

=====  
REV-Check-BOA 120.00  
Number : 3628

05/12/2014 09:50 CC13-TR  
#2775196 /396/109

\*\*\*\*\* DUPLICATE #001 \*\*\*\*\*

05/12/2014 09:51 CC13-TR  
~ Thank you for visiting us today ~



**MAYER BROS., INC.**  
Precast Concrete Products  
6264 Race Rd. Elkridge, MD 21075

## Letter of Satisfaction Hoot System Installation

Address of Property: 13007 Highgrove Rd. Lot #3  
Highland, MD 20777

Date of Final Inspection: 12/18/14

Installer: South Carroll Backhoe Service

Hoot Technician/Inspector: Mike Sample

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

Sincerely,

Name of Inspector  
Mayer Bros., Inc.

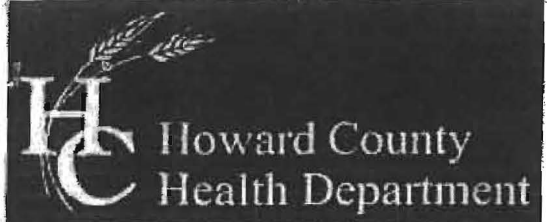
PH: 410-796-1434

FX: 410-796-1438

**WBE**  
**NPCA Certified Plant**

mayerbro@connect.ri  
www.mayerbrosprecast.co

LOT 3



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000042

LIBER 15579 FOLIO 12

Maura J. Rossman, M.D., Health Officer

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FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM  
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- C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.
- D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.
- E. This agreement shall run with the land and upon Owner's taking title to the Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as

20  
40  
T02

long as the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Lot that the system shall require maintenance or other attention. Upon taking title to the Lot, the Owner agrees to cause this agreement to be recorded in the Land Records of Howard County and assure that it becomes part of the Deed for the subject property in order that prospective buyers may be aware of the special conditions affecting this property.

F. This agreement shall not be construed to limit any authority of the County to protect the public health, safety or comfort or to issue any other orders to take any other action which is now or may hereafter be within its authority.

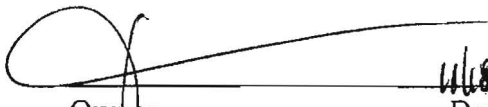
G. This agreement may be voided at any time at the discretion of the County.

H. This agreement contains the entire agreement and understanding between the County and the Owner. 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.

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

J. Owner acknowledges and agrees that interior renovations to increase the number of bedrooms or an increase in living space shall not be permitted without approval from the County.

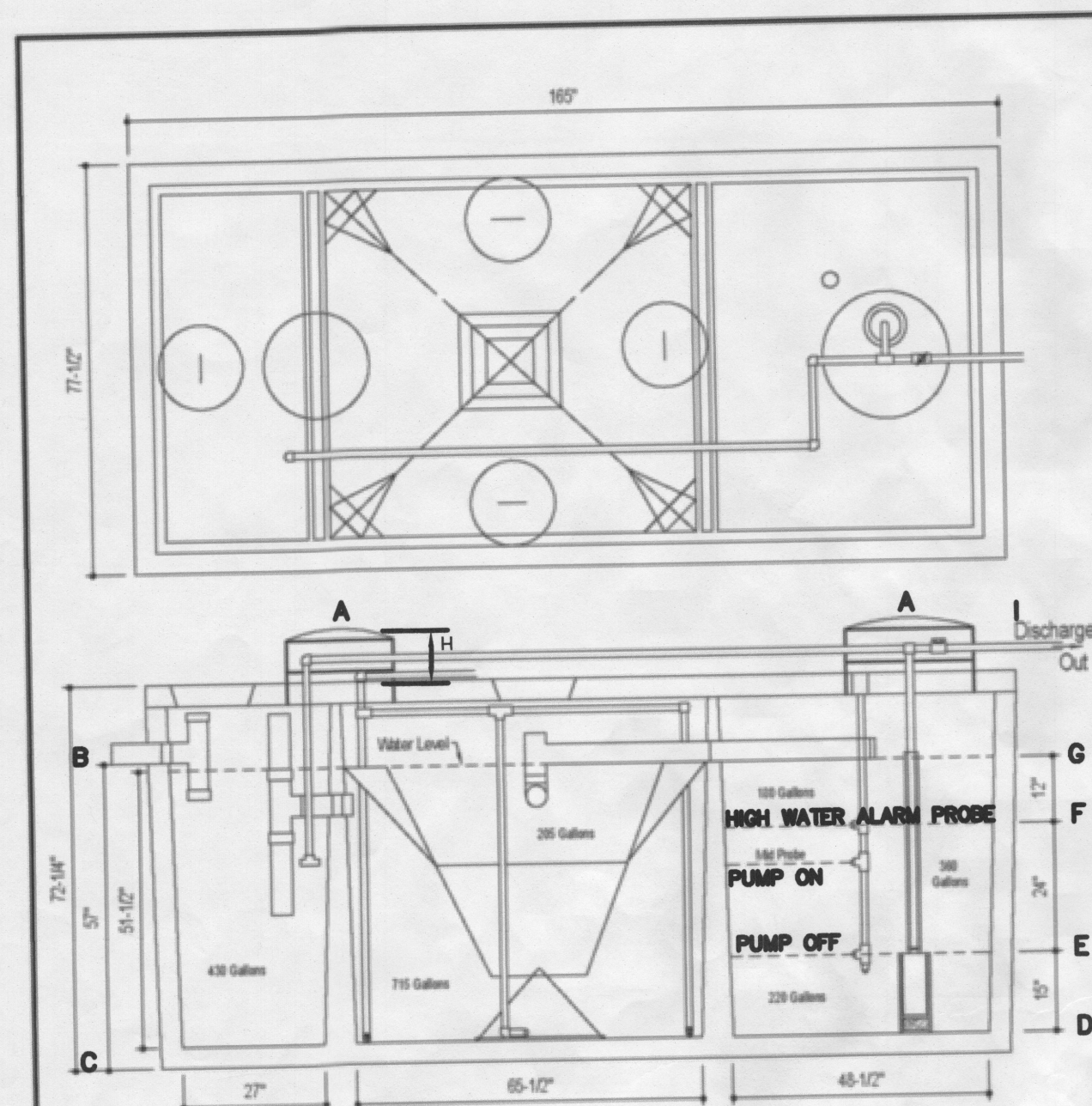
IN WITNESS WHEREOF, the parties have signed and sealed this agreement on the date indicated above.

  
 Owner Tim Naughton Date 11/8/12  
 V.D. NUR

\_\_\_\_\_  
 Owner Date

Bert Nufon 5/9/2014  
 Howard County Health Department

LR - Agreement 20.00  
 Recording Fee 20.00  
 Grantor/Grantee Name:  
 NVR  
 Reference/Control #: 42  
 LR - Agreement  
 Surcharge 40.00  
 SubTotal: 60.00  
 Total: 120.00  
 #2775198-5  
 05/12/2014 09:51  
 #2775198 C08503 - C013-TR  
 Howard Co  
 Columbia/CO5.03.01 -  
 Register 01 398



**DESIGN DATA & GENERAL NOTES**

- (1) Concrete strength F=4,000 p.s.i., @ 28 days, Density = 150 pcf.
- (2) Concrete: Portland Type I/II per ASTM C 150.
- (3) Adhesives & sealants per ASTM C 898 & C 884-02.
- (4) Reinforcing per ASTM A 615, Min. 1/2" cover.

**Mayer Brothers, Inc.**  
 606 River Road  
 Elkhart, Maryland 21029  
 Tel. 410.766.1628  
 Fax. 410.766.1439  
 www.mayerbrothers.com

**600 GPD BNR SYSTEM  
 H-600 BNR  
 WITH 750 GALLON PUMP CHAMBER**

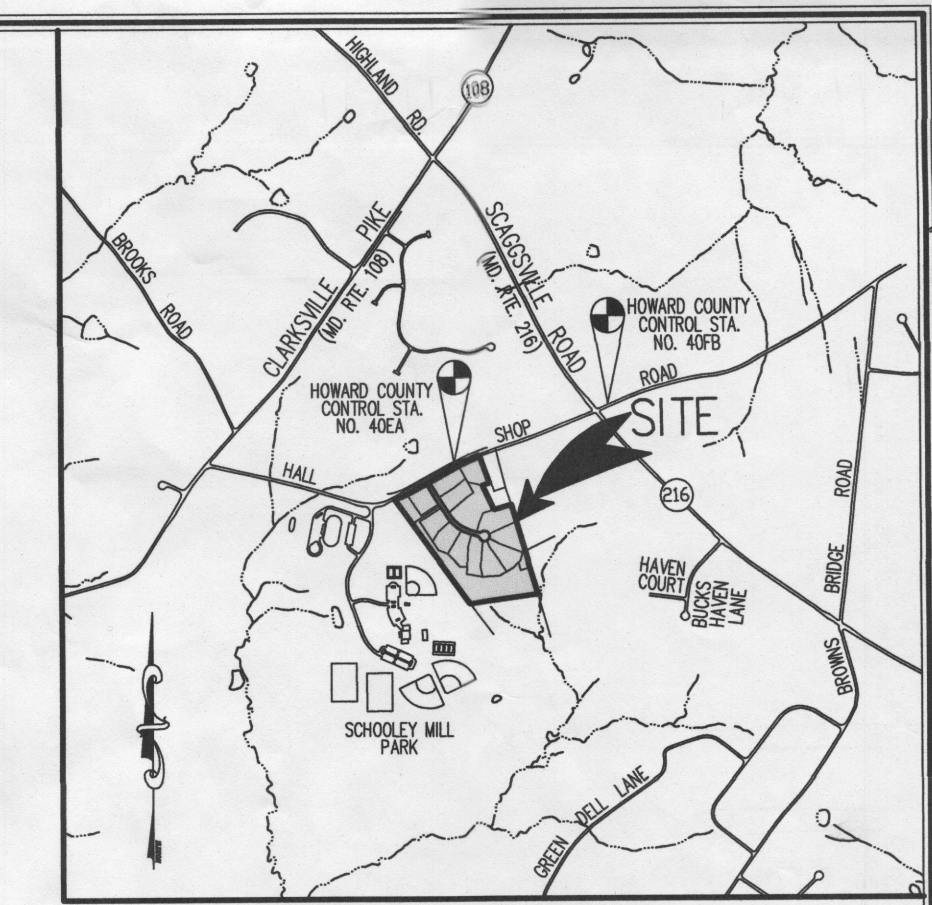
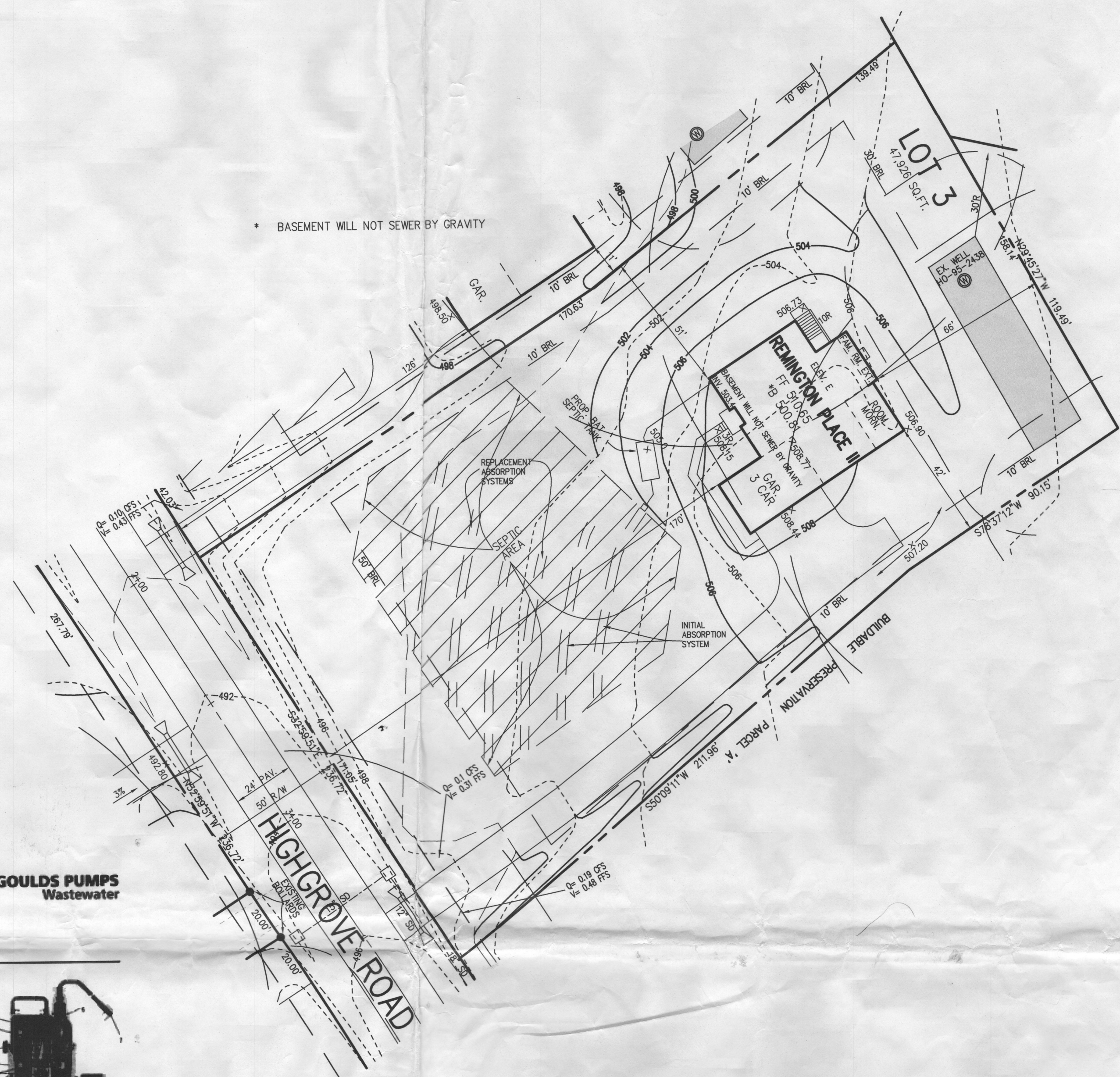
Eng. No. Heat Form #1 No Scale March 18, 2009

- SEPTIC SYSTEM ELEVATIONS**
- A= 505.00
  - B= 502.73 (INV. INTO TANK)
  - C= 498.98
  - D= 499.31
  - E= 500.56
  - F= 502.56
  - G= 503.56
  - H= 1.27' (7" MIN.)
  - I= 503.95 (INV. OUT OF TANK)
- FFE = 510.65  
 BSE = 500.81  
 INV. OUT OF HOUSE = 503.4  
 INV. INTO DISTRIBUTION BOX = 500.9  
 TOP OF TANK ELEV. = 503.73

**NOTE:**  
 THE PROPOSED HOUSE IS TO HAVE 5 BEDROOMS.

**BAT NOTES**

- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- THE MAXIMUM COVER OVER THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET. IF COVER EXCEEDS 3 FEET, THEN A TRAFFIC BEARING TANK IS REQUIRED.
- THE BLOWER MAY NOT BE LOCATED MORE THAN 100 FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
- THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
- THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
- WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) IN A MANNER ACCEPTABLE TO MDE, THE ADDRESS AND DATE OF COMPLETION OF THE BAT INSTALLATION AND THE TYPE OF BAT INSTALLED.
- ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- AN AGREEMENT AND EASEMENT HAS BEEN COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, LIBER 14780, FOLIO 067.
- THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.
- SURFACE RUNOFF SHALL BE DIRECTED AROUND THE BAT TANK.
- AT HIGH WATER ALARM PROBE, PUMP WILL HAVE CONTINUOUS OPERATION UNTIL LEVEL GOES BENEATH PROBE.
- IF WATER LEVEL RISES ABOVE THE ALARM PROBE, AN AUDIBLE AND VISUAL ALARM WILL SOUND. SEE MANUFACTURER SPECS FOR ADDITIONAL INFORMATION.
- ALARM TO BE WIRED TO A CIRCUIT SEPARATE FROM THE PUMP CIRCUIT.



**VICINITY MAP**  
 SCALE: 1" = 2000'  
 HO. CO. ADC MAP NO. 5051  
 GRIDS G-3 & G-4 & H-3 & H-4

Approved Septic System Plan  
 Howard County Health Department

Signature: Hank Oswald 9/2/14  
 Date

- BENCH MARKS**
- T.P. 404A  
 N. 547,911.391  
 E. 1,324,510.091  
 LOC. NEAR INTERSECTION OF  
 HALL SHOP ROAD & ENTRANCE  
 TO SCHOOLEY MILL PARK
  - T.P. 40FB  
 N. 548,470.386  
 E. 1,326,000.805  
 LOC. NEAR INTERSECTION  
 OF HALL SHOP ROAD &  
 SCAGOVILLE ROAD

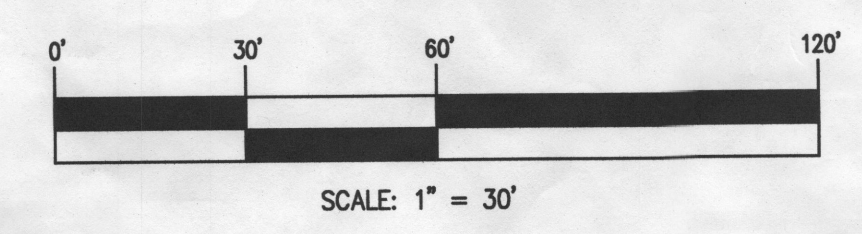
**SEWAGE DISPOSAL SYSTEM DATA (PERMIT FOR 5 BEDROOMS, DESIGN FOR 6 BEDROOMS)**

- PROP. INVERT AT FOUNDATION WALL: 503.4
- (MAX. NO. BDRMS.=6)  
 EX. GRADE OVER TANK: 505.0  
 PROP. GRADE OVER TANK: 505.0  
 INVERT IN: 502.73  
 INVERT OUT: 503.95
  - DISTRIBUTION BOX:  
 EX. GRADE: 503.6  
 PROP. GRADE: 503.6  
 INVERT IN: 500.6
  - TRENCH DESIGN:  
 (6 BDRM X 150 GPD/BDRM = 900 GPD)  
 900 / 1.2 APP. RATE = 750 SF  
 USE 3' WIDE TRENCH AND 10' MIN. SPACING BETWEEN TRENCH EDGES.  
 750 SF / 3' WIDTH = 250 L.F. X 0.55 = 138 L.F. MIN. TRENCH  
 USE 2- 69' LONG TRENCHES = 130 L.F.

**TRENCH DATA:**

TRENCH 1:  
 EX. GROUND ABOVE = 503.5  
 INV. IN = 500.5  
 BOTTOM TRENCH = 496.5

TRENCH 2:  
 EX. GROUND ABOVE = 503.0  
 INV. IN = 500.0  
 BOTTOM TRENCH = 496.0



**ITT** **GOULDS PUMPS**  
 Wastewater

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 Wastewater

- APPLICATIONS**  
 Specifically designed for the following uses:
- Effluent systems
  - Homes
  - Farms
  - Heavy duty sump
  - Water transfer
  - De-watering
- SPECIFICATIONS**
- Solids handling capability: 1/2" maximum.
  - Capacity: up to 60 GPM.
  - Total head: up to 31 feet.
  - Discharge size: 1 1/2" NPT.
  - Mechanical seal: carbon-rotary/ceramic-stationary, BURMA-H elastomers.
  - Temperature: 104° F (40° C) continuous, 140° F (60° C) intermittent.
  - Fasteners: 300 series stainless steel.
  - Capable of running dry without damage to components.

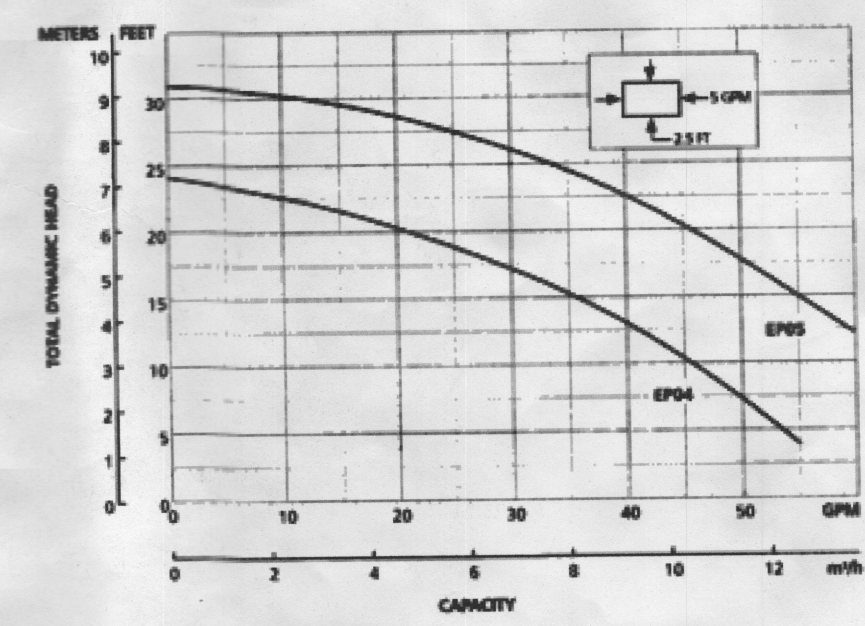
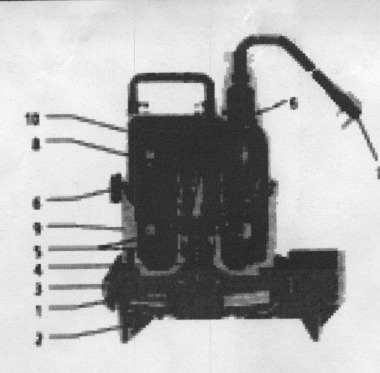
- Motor:**
- EP04 Single phase: 0.4 HP 115 or 230 V 60 Hz 1550 RPM, built in overload with automatic reset.
  - EP05 Single phase: 0.5 HP 115 V or 230V, 60 Hz, 1550 RPM, built in overload with automatic reset.
  - Power cord: 10 foot standard length, 16/2 SJTW with three prong grounding plug. Optional 20 foot length, 16/2 SJTW with three prong grounding plug (standard on EP05).
  - Fully submerged in high grade turbine oil for lubrication and efficient heat transfer.
- Available for automatic and manual operation.  
 Automatic models include Mechanical Float Switch assembled and preset at the factory.

**PERFORMANCE RATINGS**

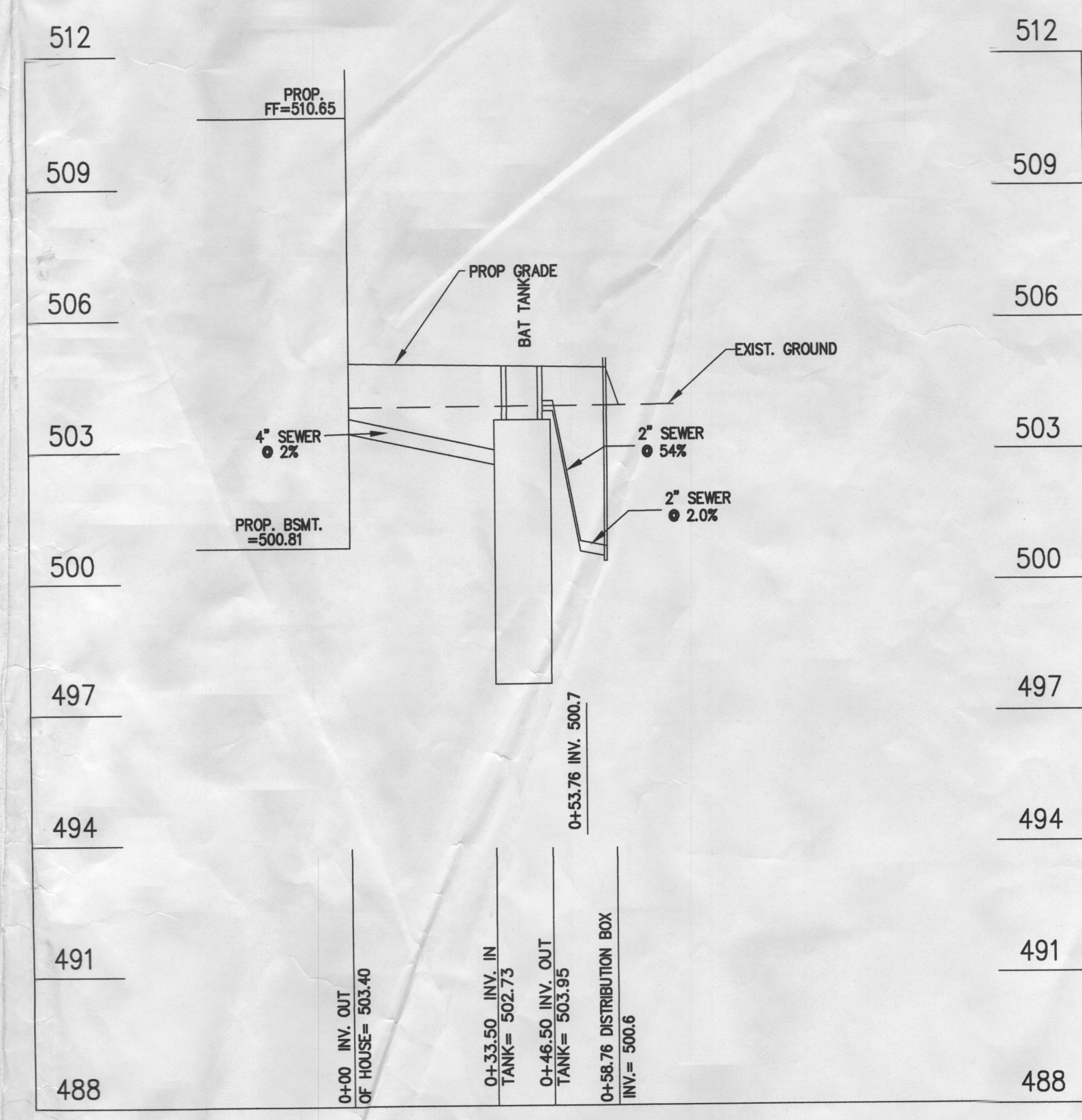
Total Head (ft. of water)	Gallons Per Minute	EP04	EP05
5	10	46	62
10	15	36	55
20	20	27	40
25	25	18	30
30	30	11	-

**COMPONENTS**

Item No.	Description
1	Impeller
2	Shaft
3	Pump Casing
4	Mechanical Seal
5	Ball Bearings
6	O-Rings
7	Power Cord
8	Oil Filled Motor
9	Motor Housing/ Motor Assembly
10	Motor Cover



**PLAN**  
 SCALE: 1" = 30'



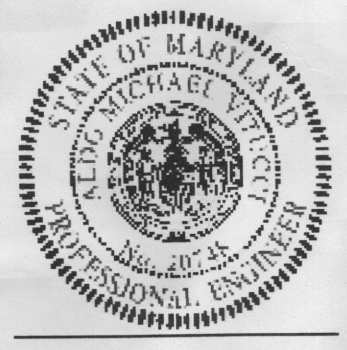
**SEPTIC SYSTEM PROFILE**  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 3'

**WELL CERTIFICATION:**  
 THE EXISTING WELL, TAG NO. HO-95-2438, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461-2855

**BUILDER/DEVELOPER**  
 NV HOMES  
 9720 Patuxent Woods  
 COLUMBIA, MARYLAND 21046  
 410-379-5956

**PROFESSIONAL CERTIFICATION**  
 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. 20748, EXPIRATION DATE: 2/22/15.  
 Signature: Aldo M. Vitucci  
 ALDO M. VITUCCI  
 DATE: 9/2/14



**SCHOOLEY MILL FARM**  
 SITE PLAN FOR BAT INSTALLATION  
 FOR LOT 3  
 13007 HIGHGROVE ROAD  
 Zoned: RR-DEO  
 Tax Map No. 40, Grid No. 10 & 11; Parcel No. 115 & 149  
 Fifth Election District - Howard County, Maryland  
 Date: AUGUST 92, 2014 Scale: As Shown