



Howard County
Health Department

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: 7/14/14

ONSITE SEWAGE DISPOSAL SYSTEM

P 554540

INSTALLATION

APPROVAL DATE: 9/24/2014

**PERMIT
CONSTRUCTION**

A _____

PROPERTY ADDRESS: 13029 High Grove Road

SUBDIVISION: Schooley Mill Farm

LOT: 4

TAX ID: _____

CONTRACTOR: _____

EMAIL: _____

CONTRACTOR ADDRESS: _____

PHONE: _____

PROPERTY OWNER: _____

EMAIL: _____

OWNER ADDRESS: NVR Inc.

PHONE: 410-379-5956

9720 Patuxent Woods Drive, Columbia, MD 21046

BAT UNIT MODEL: Hoot 600 BNR

BAT UNIT SIZE: 600 GPD

PUMP CHAMBER CAPACITY (GALLONS): _____

PUMP SIZE: _____

NUMBER OF BEDROOMS: _____

HOUSE SQ. FT. _____

APPLICATION RATE: _____

DISTRIBUTION SYSTEM: GRAVITY FED

LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>See Bat Plan 128'</u>	INLET DEPTH: <u>See Bat Plan 4'</u>
	TRENCH WIDTH: <u>See Bat Plan 3'</u>	MAXIMUM BOTTOM DEPTH: <u>See Bat Plan 7'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>See Bat Plan</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>See Bat Plan</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. <u>2x 64'</u> Install trenches per plan.	

ISSUED BY: Jeff Williams

ISSUE DATE: 7/14/14

EXPIRATION DATE: 7/14/15

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

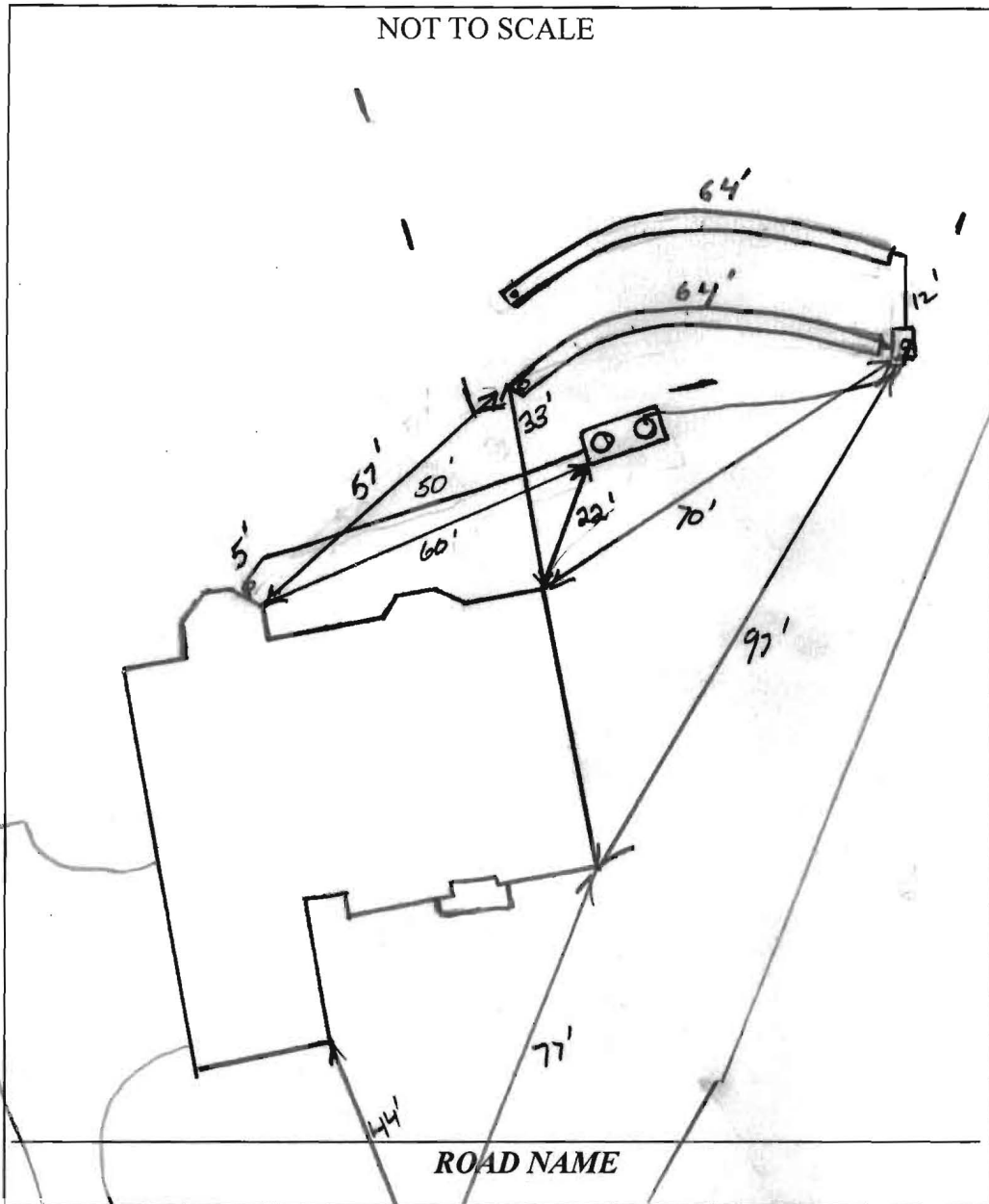
NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM

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.

NOT TO SCALE



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3	4'	7'
NUMBER OF TRENCHES		2
TOTAL LENGTH		128'
ABSORPTION AREA		
DISTRIBUTION BOX LEVEL		
DISTRIBUTION BOX BAFFLE		Yes
DISTRIBUTION BOX PORT		Yes

SEPTIC TANK DATA	
SEPTIC TANK I LEVEL	Yes
MANUFACTURER	Mayer Bros
CAPACITY	Half GAL
SEAM LOC	Top
TANK LID DEPTH	2'
BAFFLES	Yes
BAFFLE FILTER	
MANHOLE LOC	Front/Rear
6" PORT LOC	None
WATERTIGHT TEST	
SLOTTED	Yes
DATE ON LID	N/A
PUMP/SEPTIC TANK LEVEL	
MANUFACTURER	
CAPACITY	
SEAM LOC	
TANK LID DEPTH	
BAFFLES	
BAFFLE FILTER	
MANHOLE LOC	
6" PORT LOC	
WATERTIGHT TEST	
SLOTTED	
DATE ON LID	

PRE-CONSTRUCTION:

7/21/14 OK to set BAT tank per plans. No layout given. (KW)

INSTALLATION:

7/22/14 House sewers installed up to tank (KW) 7/23/14 BAT unit set, layout issued. Set Dbox for corner of SRA, install 2x64' trenches contour running back towards house. (KW)
 7/25/14 Top trench complete. (KW) 7/28/14 Trenches complete. Need F.M. Need BAT start-up (KW) 7/31/14 F.M. installed to D box. Re-wire. In installed. no electrical (KW)

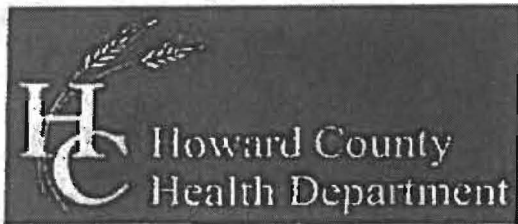
9/24/2014 Approval of BAT unit received from Mayer Bros. (BB)

FINAL INSPECTOR

B. Baker

DATE OF APPROVAL

9/24/2014



Bureau of Environmental Health
 7178 Columbia Gateway Drive, Columbia, MD 21046-2147
 Main: 410-313-2640 | Fax: 410-313-2648
 TDD 410-313-2323 | Toll Free 1-866-313-6300
 www.hchealth.org
 Facebook: www.facebook.com/hocohealth
 Twitter: HowardCoHealthDep

000005

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 18th day of December, among NVR, Inc., hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

20
46
DS

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 13029 Highgrove Road, Highland, Maryland 20777, in the 5th 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 0678.

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

LIBER 15404 FOLIO 06

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.

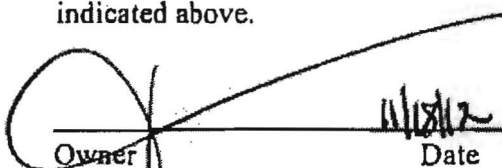
G. This agreement may be voided at any time at the discretion of the County.

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.

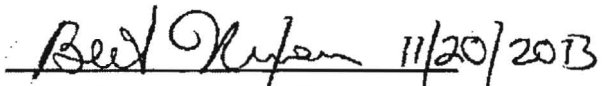
I. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

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 _____ Date 11/18/12
Timothy Naughton
V.P. NVR Inc.

Owner _____ Date _____


Howard County Health Department

LR - Recording Fee (No Taxes) 20.00
Grantor/Grantee Name: No Co Health Depart
Reference/Control #: 95
LR - Surcharge 40.00
SubTotal: 60.00
Total: 100.00
#2343618-5
01/08/2014 10:35
#2343618 CC0503 - CC13-DS
Howard Co
Columbia/CC05.03.04 -
Register 04 486

Williams, Jeffrey

From: Williams, Jeffrey
Sent: Thursday, April 03, 2014 1:59 PM
To: 'Dave Harward, III'
Subject: RE: Schooley Mill Lots 6, 7, & 9

We reviewed Schooley Mill lots 4,5,6,7, and 9. Following are comments:

- All of the plans need to show the pump on elevation and dose volume.
- All plans need to show trench details: ground elevation, invert elevation, bottom elevation for each.
- Lot 6: hoot tank location is in the middle of a proposed swale. They could move it over right by perc hole 1663.
- Lot 7: the building permit states 5 bedrooms, you revised the plan down to 4 bedrooms
- Lot 9: the sewer grade states 7%, but is really 4.7% (FYI, anything greater than 5% should level off to 2% in the last few feet before the tank)
- Lot 9: the d-box should go at the top edge of the easement for an end feed to the trenches.
- Lot 4: the d-box should go to the corner of the easement for end fed trenches.

From: Dave Harward, III [mailto:DaveH@fcc-eng.com]
Sent: Monday, March 24, 2014 11:16 AM
To: Williams, Jeffrey
Subject: Schooley Mill Lots 6, 7, & 9

Jeff,

I just had Frank from our office bring down BAT Installation Site Plans for Lots 6, 7, & 9. I will get you new plans tomorrow that have a couple of minor things we omitted. First, the plans you are getting today are not signed and sealed by an engineer. The other thing is that Robert Bricker had sent a memo that he also wanted to see the blower & control panel locations shown on the plan. Generally these will be shown at the closest corner of the house to the tank. We will add that to the plans that I send to you tomorrow. So you may want to discard the plans I've sent today. Frank was in a rush to get going, so we rushed these out a little earlier than I'd have liked to. Also, I'll just mention that the no. of bedrooms on Lot 7 per the trench design was for a 5 bedroom house. So we have revised the length for a 4 bedroom house.

So I'll get you new prints for these 3 lots tomorrow.

Thanks,

Dave Harward
Fisher, Collins, & Carter, Inc.
Centennial Square Office Park
10272 Baltimore National Pike
Ellicott City, Maryland 21042
Ph. 410-461-2855, Ext. 1818

Williams, Jeffrey

From: Williams, Jeffrey
Sent: Friday, April 11, 2014 10:29 AM
To: 'Dave Harward, III'
Cc: Bricker, Robert
Subject: Schooley Mill

Hi Dave. I reviewed the Schooley Mill plans. I had Andrew review them and I apologize that I didn't catch the following issues for lot 7 and 9 on earlier reviews. I was focused on the septic design that I missed the well problem. Lot 9 wellbox is within the 30' setback to the house location. Lot 7 wellbox is within the 10' setback to the driveway.

For lot 6, it looks like on the site plan that you moved the proposed graded swale over to keep the tank on the side slope, but the septic profile still shows the proposed grade with the swale directly over the tank. I think the profile may need to be updated to match the new proposed grading?

Otherwise, for all lots the approved trench bottom depth is 7', but on all you have trench bottom depths at 8'. Also, we need the trench invert elevations for all. We also need the trenches within each system to be exactly equal length. I don't think that will be a problem on any of these. What is helpful to us is to include a chart or note indicating the trench depths and specs. I've attached a copy of an example that we like.

Also, I've learned that the Hoot system pump probes are at set locations, but the length of time the pump is on can be programmed, which is what gives the dose. I had asked for an elevation of the pump on float and a dose volume. We didn't get the pump elevation on these revised, but what we could get is a note under the dose stating the run time correlating to the rate of the pump selected that matches the dose given. A rule of thumb for a dose going to a d-box could be about 1/6 design flow or around 100g. For example, lot 7 has a pump with a rate of 53gpm. You could specify a dose of 106g and a runtime of 2 minutes.

I know these have had a few revisions. If you prefer, we could schedule a meeting to make sure everything is as we need it for approval prior to the next submission so that we can move forward. Let me know. Thanks
Jeff

Jeff Williams
Program Supervisor, Well & Septic Program
Bureau of Environmental Health
Howard County Health Dept.
410-313-4261
jewilliams@howardcountymd.gov

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Williams, Jeffrey

From: Williams, Jeffrey
Sent: Thursday, January 30, 2014 11:47 AM
To: 'Dave Harward, III'
Cc: Bricker, Robert
Subject: FW: Schooley Mill Farm Lots 6 and 7
Attachments: Specifications Sheet SMF-Lot 7.pdf; 13022 High Grove Road_Schooley Mill Farm-Lot 7.doc; 13026 High Grove Road_Schooley Mill Farm-Lot 6.doc; Specifications Sheet SMF-Lot 6.pdf

Attached are Roberts comments and spec sheets for lots 6 and 7. Additionally, as we discussed, we need a hydraulic profile on all of the plans. We also need to see the blower motor location on all the plans. And, we need to see the trench layout with elevations for the initial as well as the two reserve systems.

As we also discussed, we are working towards a consistent response for these plans. I met with both Dana and Robert today to verify that moving forward, we will follow the requirements of our BAT site plan guidance document, which specifies a hydraulic profile, the layout of the initial and reserve drainfield with elevations, as well as the location of all BAT components. For a Hoot unit (and possibly some others) with a detached blower motor, we need to see where that location is being proposed.

We are working with the builder to get accurate floor plans for a few of the lots (5,6,7,9). If any of them are confirmed as 4 bedrooms instead of the five you indicate on all of your plans, we will let you know.

Also, none of the plans were signed. Thanks
Jeff

From: Bricker, Robert
Sent: Tuesday, January 28, 2014 4:58 PM
To: Williams, Jeffrey
Subject: Schooley Mill Farm Lots 6 and 7

See attached

ROBERT BRICKER, CPSS, REHS/RS
ENVIRONMENTAL HEALTH SPECIALIST
DEVELOPMENT COORDINATION SECTION, WELL AND SEPTIC PROGRAM
HOWARD COUNTY BUREAU OF ENVIRONMENTAL HEALTH
8930 STANFORD BOULEVARD
COLUMBIA, MD 21045

410-313-2691; fax, 410-313-2648
rbricker@howardcountymd.gov

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MAYER BROS., INC.

Precast Concrete Products

6264 Race Rd. Elkridge, MD 21075

Letter of Satisfaction Hoot System Installation

Address of Property: Lot #4 HighGrove
13029 Highgrove Rd. Highland, MD

Date of Final Inspection: 9/24/14

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@connext.net

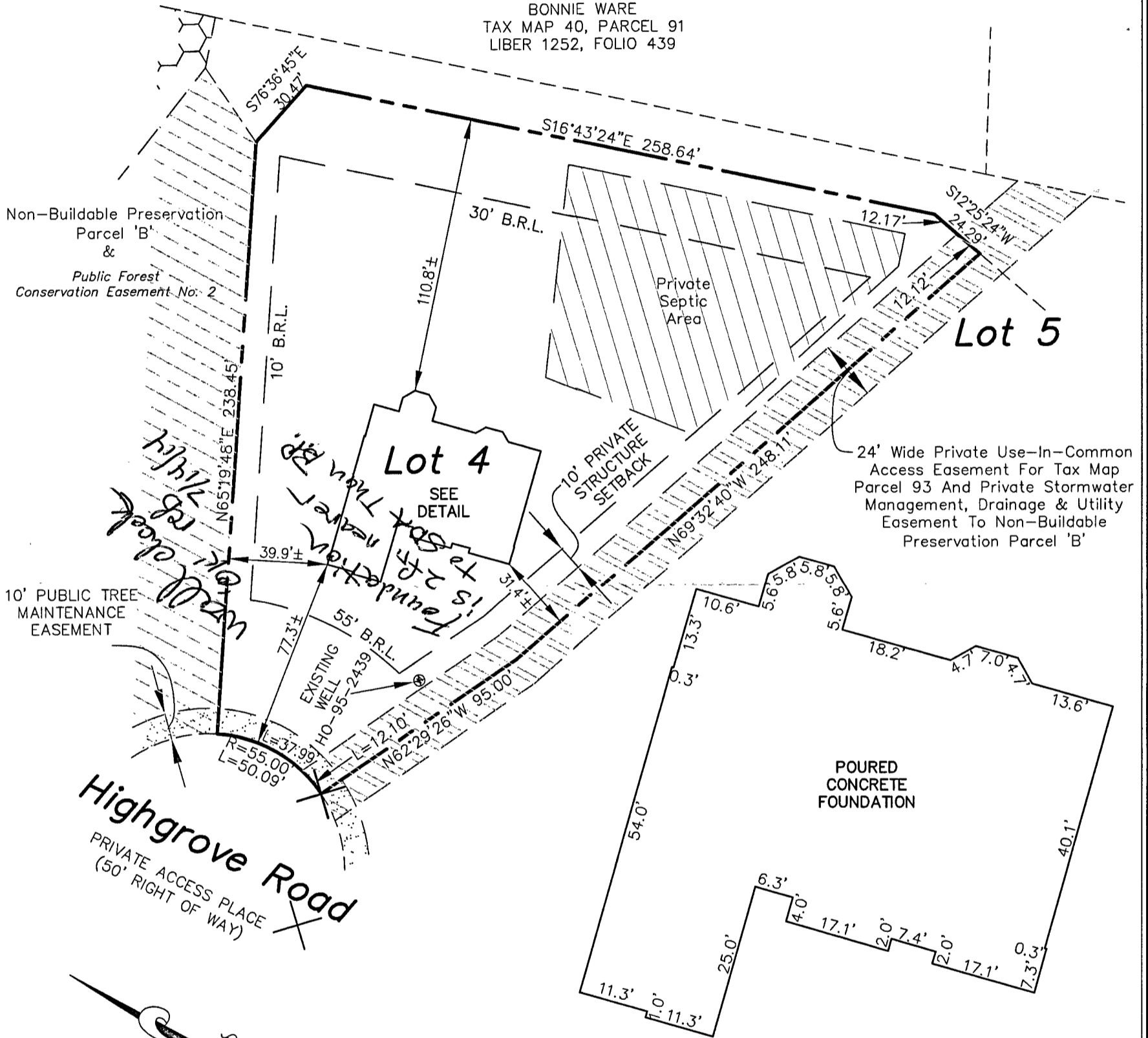
www.mayerbrosprecast.com

Grease Interceptors, Grease Solutions, Aerobic Treatment Units, Septic Tanks, Holding Tanks, Storm Water Structures, Hydroceptors,
Bench Barrier, Water Meter Vaults, Sectional Valve Vaults, Top Slabs, Curb Heads, Curb Bumpers, PermaEntry Basement Entries,
Scapewell Window Wells, Custom Precast Products

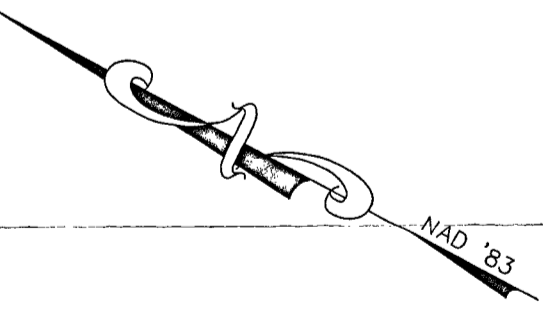
GENERAL NOTES:

- 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-95-2439 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 # (B14000169)

PROPERTY OF
 GEORGE J. DEGENNARO AND
 BONNIE WARE
 TAX MAP 40, PARCEL 91
 LIBER 1252, FOLIO 439



Highgrove Road
 PRIVATE ACCESS PLACE
 (50' RIGHT OF WAY)

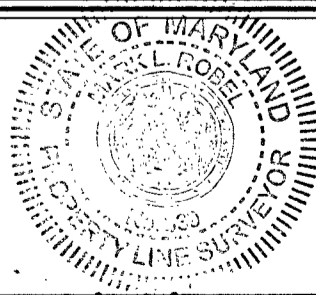


LOT 4
 SCHOOLEY MILL FARM
 LOTS 1 THRU 11,
 BUILDABLE PRESERVATION PARCEL 'A'
 & NON-BUILDABLE PRESERVATION
 PARCELS 'B' THRU 'D'
 PLAT NOS. 22506 THRU 22507
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

#13029 HIGHGROVE ROAD
 TOP OF FOUNDATION ELEVATION = 499.4'±

DETAIL:
 1"=20'

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

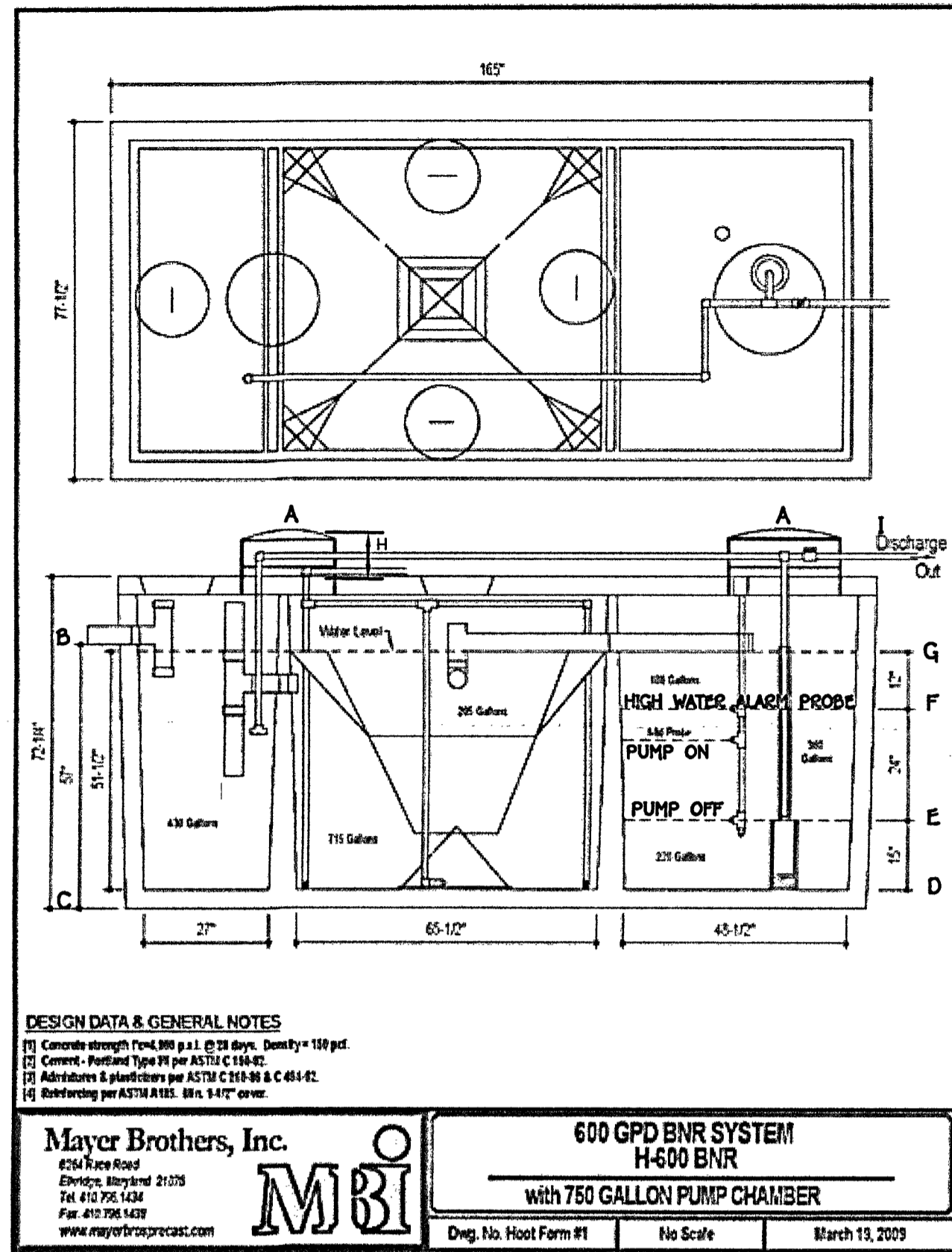


Mark L. Robel
 PROPERTY LINE SURVEYOR
 REG. #339
 DATE: 6/12/14

HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 6/4/14
 FINAL LOCATION: _____
 BOUNDARY SURVEY: _____

SCALE: 1"=50'
 DATE: 6/12/14
 DRAWN BY: J.M.P.
 CHECKED BY: M.L.R.
 PROJECT No.: 05037-6001

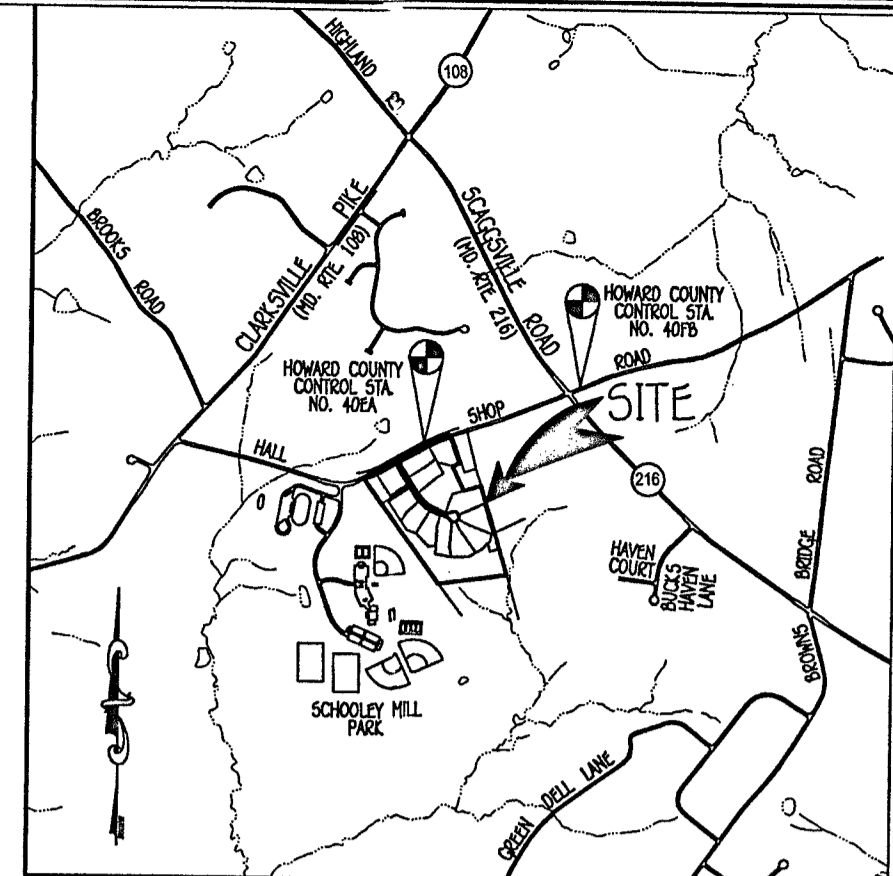
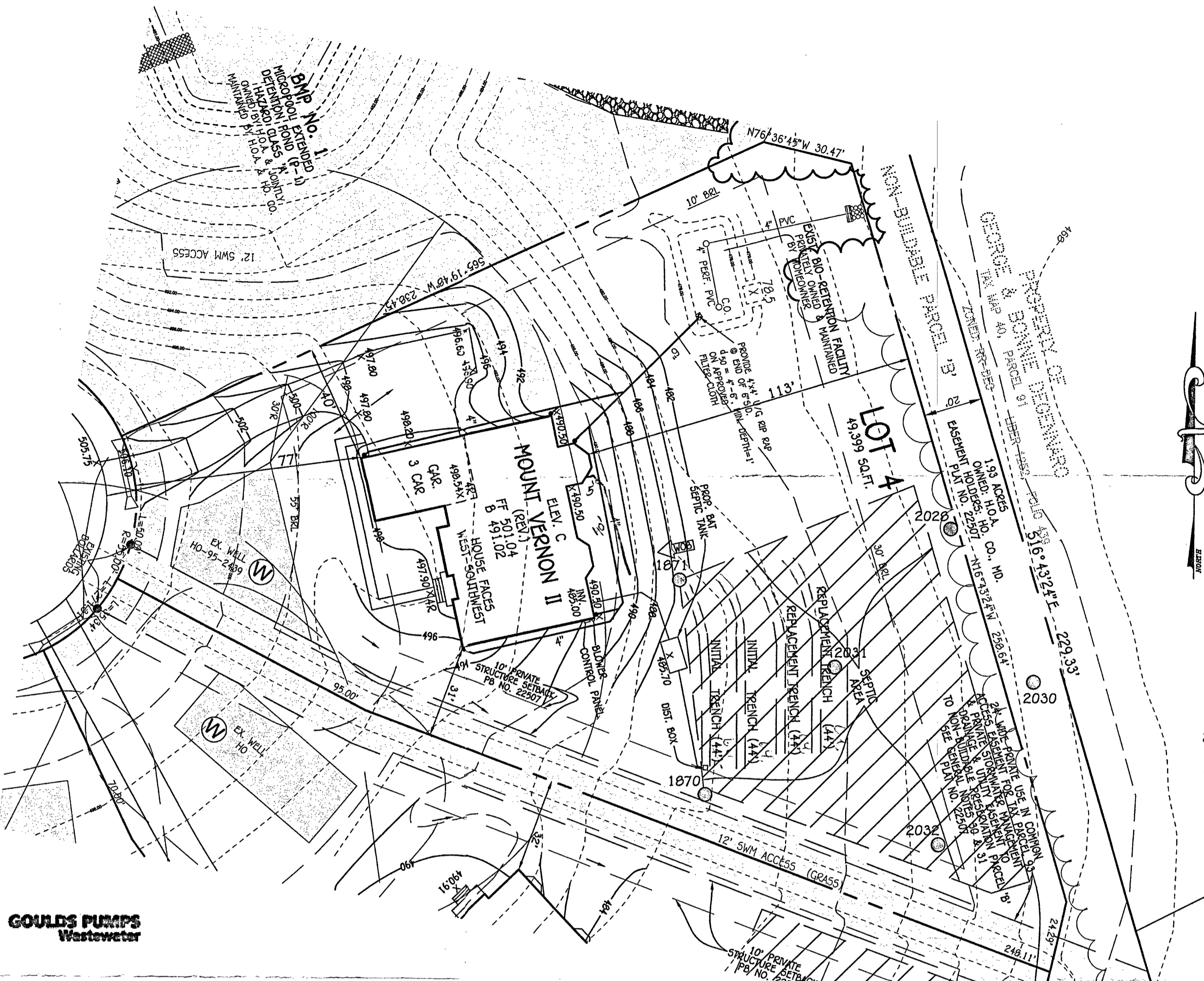


SEPTIC SYSTEM ELEVATIONS
 A= 485.70
 B= 483.43 (INV. INTO TANK)
 C= 477.41
 D= 477.74
 E= 478.99
 F= 480.99
 G= 481.99
 H= 1.27' (7" MIN.)
 I= 484.70 (INV. OUT OF TANK)

FFE = 501.04
 BSE = 491.02
 INV. OUT OF HOUSE = 495.00
 INV. INTO DISTRIBUTION BOX = 481.40
 TOP OF TANK = 484.70
 DOSE VOLUME = 50 GAL.
 TIME PER DOSE = 1 MIN

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 PUMP 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, UNDER 14780, FOLD 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 AWAY FROM 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'S SPECS FOR ADDITIONAL INFORMATION.
 - ALARM TO BE WIRED TO A CIRCUIT SEPARATE FROM THE PUMP CIRCUIT.



BENCH MARKS
 T.P. 406A
 N. 547511.391
 E. 1,324,510.091
 LOC. NEAR INTERSECTION OF HALL SHOP ROAD & ENTRANCE TO SCHOOLEY HILL PARK.
 T.P. 407B
 N. 548,470.386
 E. 1,326,000.805
 LOC. NEAR INTERSECTION OF HALL SHOP ROAD & SCAZEVILLE ROAD

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

DESIGN DATA & GENERAL NOTES

- 1) Cover strength 7500 P.S.I. ALL 12" DEEP. QUANTITY = 100 sq. ft.
- 2) Concrete: Portland Type IV per ASTM C 150-02
- 3) Admixtures: 1) plasticizer per ASTM C 1191-04 & C 484-02
- 4) Reinforcing per ASTM A618, Gr. 60, 1/2" x 12"

Mayer Brothers, Inc.
 6754 Rice Road
 Ellicott City, Maryland 21074
 Tel: 410-776-1434
 Fax: 410-776-1438
 www.mayerbrothers.com

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

Emp. No. Hoot Form #1 No Scale March 13, 2013



APPLICATIONS
 Specifically designed for the following uses:
 • Wetland systems
 • Homes
 • Farms
 • Heavy duty pump
 • Water transfer
 • Dewatering

SPECIFICATIONS

- Solid handling capacity: 1/2" maximum.
- Capacity: up to 60 GPM.
- Total head: up to 91 feet.
- Discharge pipe: 1 1/2" NPT.
- Mechanical seal: carbon-earrangement-stainless steel.
- Bearings: 150° F (60° C) continuous, 140° F (60° C) intermittent.
- Motors: 303 series stainless steel.
- Capable of handling dry without damage to components.

NOTES:

- EPSS Single phase: 0.4 HP 115 V or 230 V 47 Hz, 1550 RPM, built in overcast with automatic reset.
- EPSS Single phase: 0.5 HP 115 V or 230V 60 Hz, 1550 RPM, built in overcast with automatic reset.
- Pump used: 90 Watt standard length, 100% SPTW with three phase ground ring plug. Optional 50 foot length, 150 SPTW with three phase ground ring plug. Standard on EPSS.
- Fully submerged in high grade tubular oil for lubrication and efficient heat transfer.

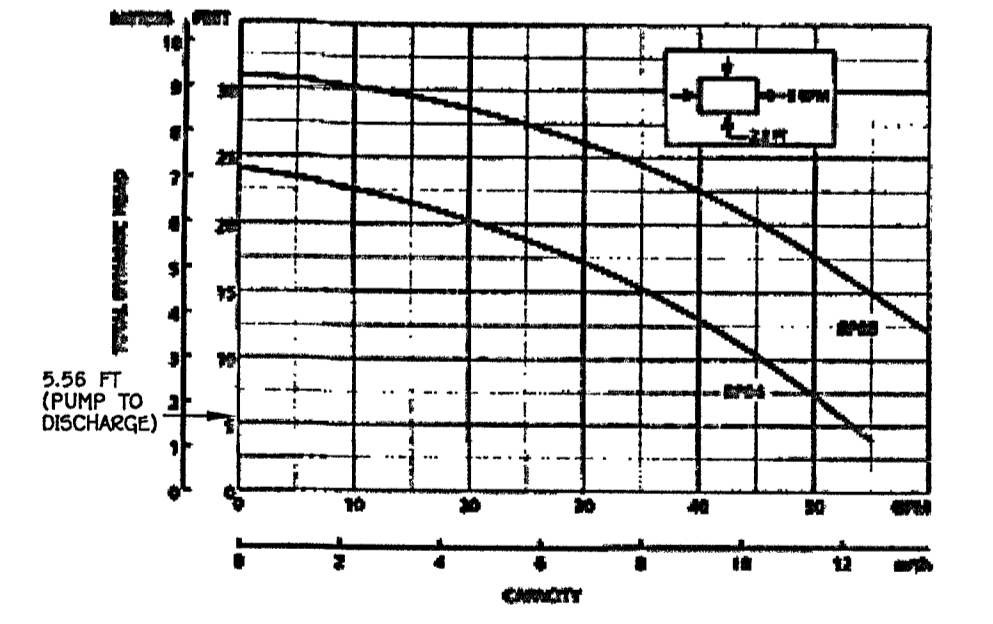
Available for automatic and manual operation. Automatic models include Mechanical Float Switch assembled and preset at the factory.

PERFORMANCE DATA

Head (ft. of water)	Gallons Per Minute (GPM)
10	55
20	45
30	35
40	25
50	15

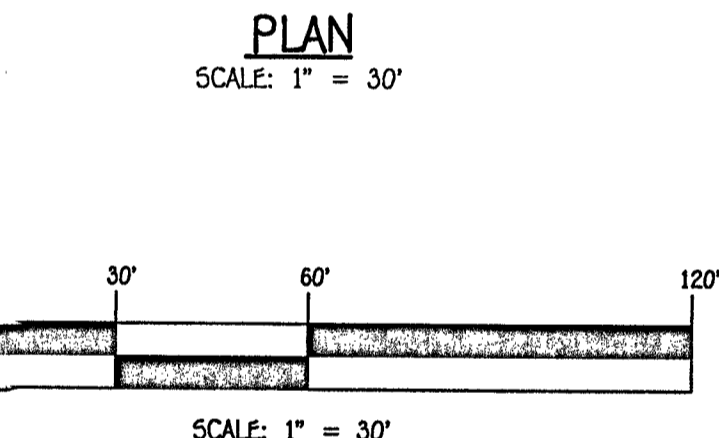
COMPONENTS

Item	Description
1	Motor
2	Impeller
3	Shaft
4	Frame Casting
5	Discharge Seal
6	Ball Bearings
7	G-Drive
8	Pump Cover
9	Motor Assembly
10	Motor Cover



MODEL INFORMATION

Order No.	EP	Units	Capacity	Phase	Head	Flow	Material	Weight	Dimensions	Shipping
EPH11	A	1	115	1	115	55	Cast Iron	15	12" x 12" x 12"	20/15.1
EPH16	A	1	115	1	115	45	Cast Iron	15	12" x 12" x 12"	21/16.3
EPH17	A	1	115	1	115	35	Cast Iron	15	12" x 12" x 12"	20/15.1
EPH18	A	1	115	1	115	25	Cast Iron	15	12" x 12" x 12"	21/16.3
EPH19	A	1	115	1	115	15	Cast Iron	15	12" x 12" x 12"	20/15.1
EPH20	A	1	115	1	115	5	Cast Iron	15	12" x 12" x 12"	21/16.3
EPH21	A	1	115	1	115	3	Cast Iron	15	12" x 12" x 12"	22/17.6
EPH22	A	1	115	1	115	2	Cast Iron	15	12" x 12" x 12"	22/17.6

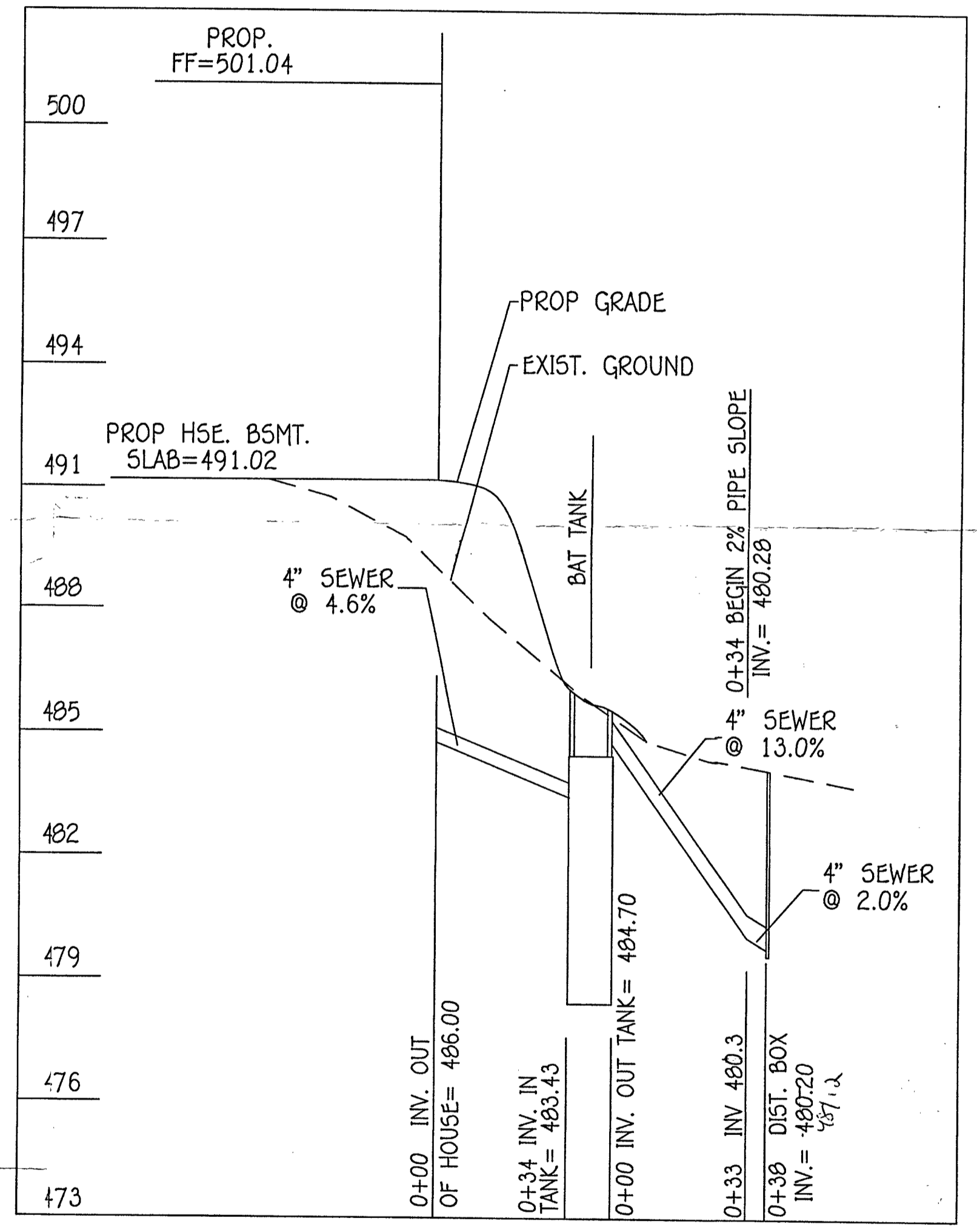


SEWAGE DISPOSAL SYSTEM DATA: PERMIT 5 BEDROOMS

PROP. INVERT AT FOUNDATION WALL: 486.00
 1. HOOT 750 BNR (MAX. NO. BDRMS.=5)
 EX. GRADE OVER TANK: 485.70
 PROP. GRADE OVER TANK: 485.70
 INVERT INTO TANK: 483.43 INVERT (DISCHARGE ELEV.) OUT TANK: 484.70

2. DISTRIBUTION BOX:
 EX. GRADE: 484.20
 PROP. GRADE: 484.20
 INVERT IN: 476.20 - 1/8" dia.

3. TRENCH DESIGN:
 (5' BDRM X 150 GPD/80RM = 750 GPD)
 750 / 1.2 APP. RATE = 625 SF
 USE 3' WIDE TRENCH AND 9' MIN. SPACING BETWEEN TRENCH EDGES.
 625 SF / 3' WIDTH = 208.33 L.F. X 0.42" = 87.5' L.F. MIN. TRENCH
 USE 2- 44" LONG TRENCHES = 88' L.F. MIN.



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

Approved Septic System Plan
 Howard County Health Department
 Signature: [Signature] Date: 5/9/14

SCHOOLEY MILL FARM
 SITE PLAN FOR BAT INSTALLATION FOR LOT 4
 13029 HIGHGROVE ROAD
 Zoned: RR-DEO
 Tax Map No. 40; Grid No. 10 & 11; Parcel No. 115 & 149
 Fifth Election District - Howard County, Maryland
 Date: March, 2014 Scale: As Shown

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2895

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20746, EXPIRATION DATE: 12/21/15.
 Signature: [Signature] DATE: 5/14/14
 ALDO H. VITUCCI



WELL CERTIFICATION:
 THE EXISTING WELL, TAG NO. HO-95-2439, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

BUILDER/DEVELOPER
 NV HOMES
 9720 Patuxent Woods
 COLUMBIA, MARYLAND 21046
 410-379-9956