



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: 13030 High Grove Road

SUBDIVISION: Schooley Mill Farm LOT: 5 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</u>	INLET DEPTH: <u>3'</u>
	TRENCH WIDTH: <u>3'</u>	MAXIMUM BOTTOM DEPTH: <u>7'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>See Bat Plan</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3'</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 trenches per plan. <u>2x52' Trenches</u>	

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

See As-Built Drawing
On Separate Sheet

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	3'	7'
NUMBER OF TRENCHES <u>2</u>		
TOTAL LENGTH <u>104</u>		
ABSORPTION AREA <u>812'x5W</u>		
DISTRIBUTION BOX LEVEL _____		
DISTRIBUTION BOX BAFFLE _____		
DISTRIBUTION BOX PORT <u>Yes</u>		

SEPTIC TANK DATA

SEPTIC TANK I LEVEL Yes
 MANUFACTURER Mayer Bros
 CAPACITY 4600 GAL
 SEAM LOC Top
 TANK LID DEPTH _____
 BAFFLES Yes
 BAFFLE FILTER -
 MANHOLE LOC Front/Rear
 6" PORT LOC None
 WATERTIGHT TEST -
 SLOTTED Yes
 DATE ON LID _____

PUMP/SEPTIC TANK LEVEL

MANUFACTURER _____
 CAPACITY _____ GAL
 SEAM LOC _____
 TANK LID DEPTH _____
 BAFFLES _____
 BAFFLE FILTER _____
 MANHOLE LOC _____
 6" PORT LOC _____
 WATERTIGHT TEST _____
 SLOTTED _____
 DATE ON LID _____

PRE-CONSTRUCTION:

7/15/2014 Install BAT unit at staked location. Make sure tank is at least 20' from the house. Push down weeds so that trenches can be laid out. (BB) 7/17/2014
 Two 52' trenches laid out on contour. Install similar to plan. (BB) 7/18/2014

INSTALLATION:

7/21/14 BAT unit set. SHL installed up to tank.
 7/24/14 Dbox set, trades completed. OK to backfill trenches. (KW)
 Need F.M. + BAT start up (KW) 8/4/14 F.M. complete.
 Need BAT start-up fuel

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

FINAL INSPECTOR B. Baker DATE OF APPROVAL 9/24/2014

HO-95-2440

49'

105'

13030
Highgrove
Road

Lot 5

3.5'

40'

54'

10'

3'

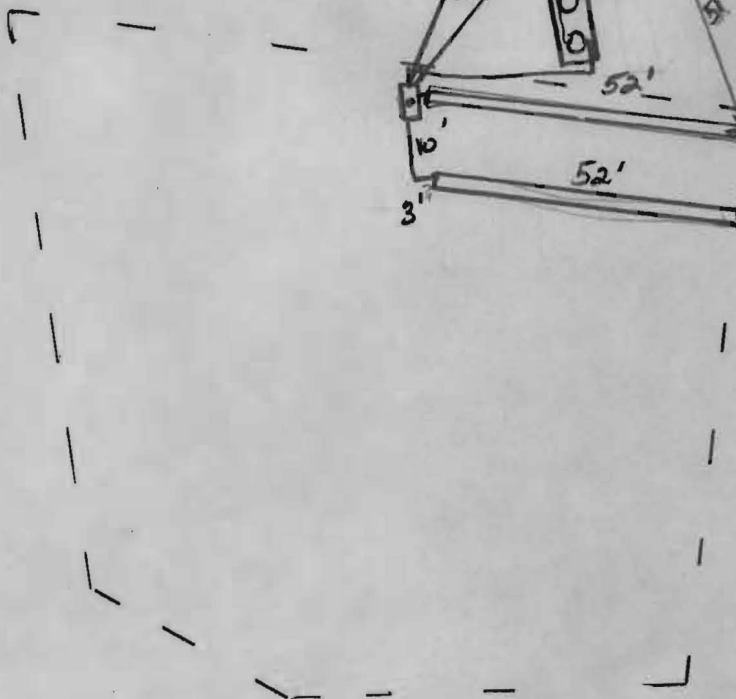
24'

26'

52'

52'

6'





MAYER BROS., INC.

Precast Concrete Products
6264 Race Rd. Elkridge, MD 21075

Letter of Satisfaction Hoot System Installation

Address of Property: Lot # 5

13030 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.

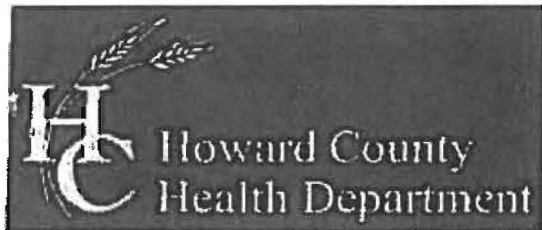
PH: 410-796-1434

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, PermEntry Basement Entries, Scapewel Window Wells, Custom Precast Products



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Twitter: HowardCoHealthDep

000150

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 11th day of November, 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 13030 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 0067B.

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 15391 FOLIO 213

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.

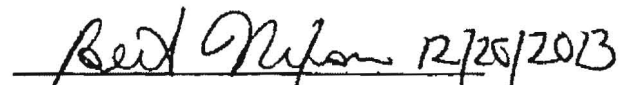
J. Owner acknowledges and agrees that interior renovations to increase the number of bedrooms or an increase in living space shall not be permitted without approval from the County.

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


Owner
Timothy C. Naughton
NVR Inc.


Date

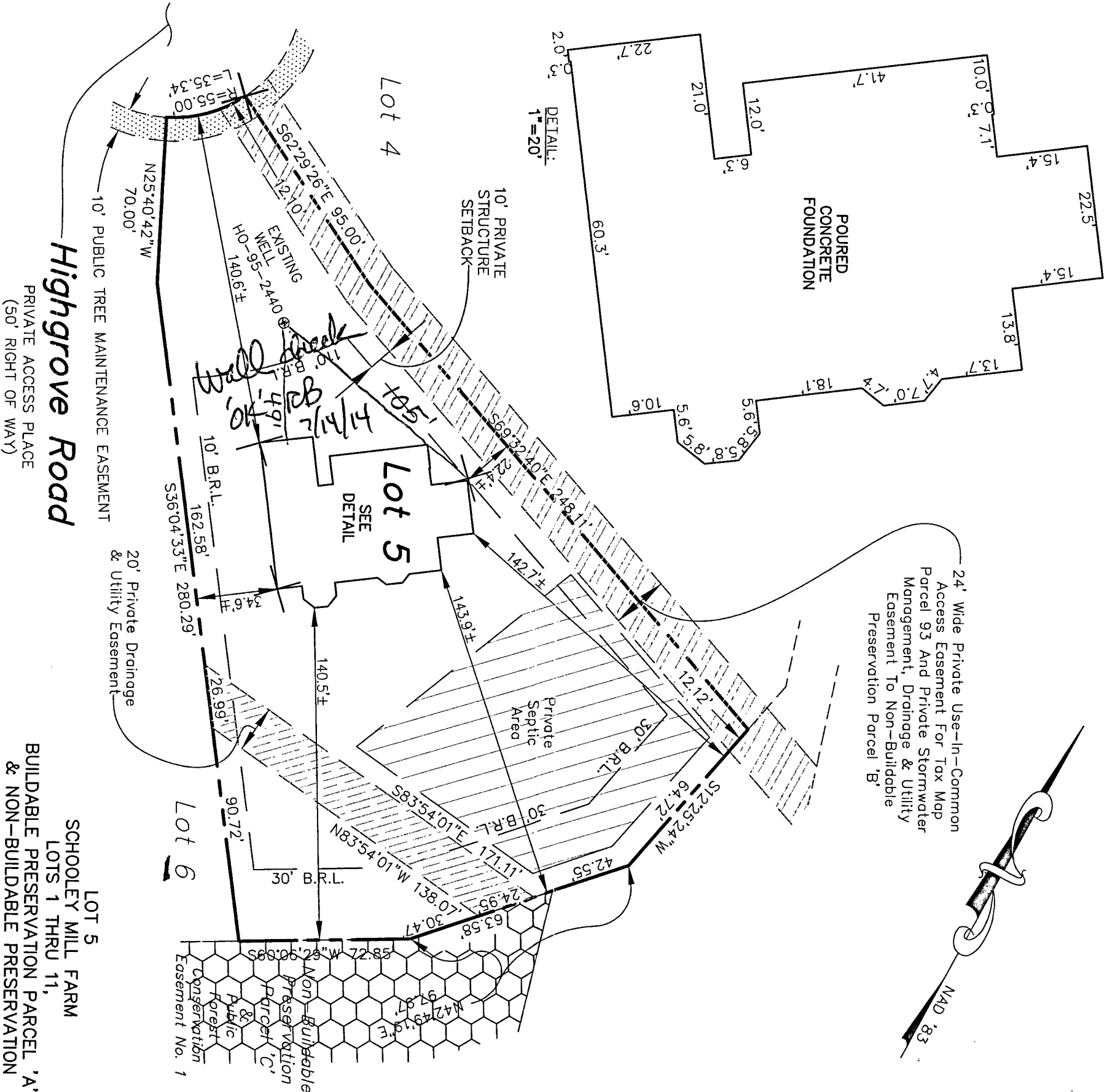
Owner Date


Howard County Health Department

LR - Agreement
Recording Fee 20.00
Grantor/Grantee Name:
NVR
Reference/Control #: 150
LR - Agreement Surcharge 40.00
SubTotal: 60.00
Total: 150.00
#2312725-1
12/20/2013 01:13
#2312725 000503
Howard Co
Columbia/CC05.03.02 -
Register 02 494
CC13-NM

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. 24022C0140D, 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 0.3'±.
- 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-95-2440) 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 # (B133004389)

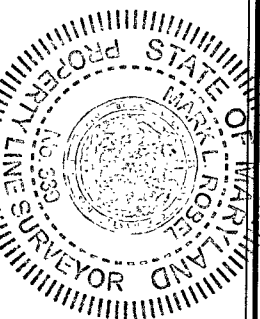


#13030 HIGHGROVE ROAD
TOP OF FOUNDATION ELEVATION = 491.9'±

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

LOT 5
SCHOOLLEY 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

**HOUSE LOCATION
DRAWING**



Mark L. Rogel
PROPERTY LINE SURVEYOR
REG. #339

FOUNDATION LOCATION: 6/4/14
FINAL LOCATION: _____
BOUNDARY SURVEY: _____
SCALE: 1"=50'
DATE: 6/12/14
DRAWN BY: JMB
CHECKED BY: MLR
PROJECT NO.: 05037-6001

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

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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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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