



APPLICATION

FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) _____ TEST TIME _____

AP 544592

AGENCY REVIEW: _____

DATE 4-3-13

DO NOT WRITE ABOVE THIS LINE

I HEREBY APPLY FOR THE NECESSARY TESTING/EVALUATION PRIOR TO ISSUANCE OF SEWAGE DISPOSAL SYSTEM PERMIT(S) TO:

CHECK AS NEEDED:

- CONSTRUCT NEW SEPTIC SYSTEM(S)
- REPAIR/ADD TO AN EXISTING SEPTIC SYSTEM
- REPLACE AN EXISTING SEPTIC SYSTEM

CHECK AS NEEDED:

- NEW STRUCTURE(S)
- ADDITION TO AN EXISTING STRUCTURE
- REPLACE AN EXISTING STRUCTURE

CHECK ONE:

- CREATE NEW LOT(S)
- BUILD ON AN EXISTING LOT IN A SUBDIVISION
- BUILD ON AN EXISTING PARCEL OF RECORD

NEW 4 BED ROOM HOUSE

IS THE PROPERTY WITHIN 2500' OF ANY RESERVOIR?

- YES
- NO

THE TYPE OF STRUCTURE IS:

- RESIDENTIAL WITH _____ PROPOSED BEDROOMS IN THE COMPLETED STRUCTURE (NOTE **UNKNOWN** IF APPROPRIATE)
- COMMERCIAL (PROVIDE DETAIL OF NUMBERS AND TYPES OF EMPLOYEES/ CUSTOMERS ON ACCOMPANYING PLAN)
- INSTITUTIONAL/GOVERNMENT (PROVIDE DETAIL OF NUMBERS AND TYPES OF EMPLOYEES/USERS ON ACCOMPANYING PLAN)

PROPERTY OWNER(S) ADA A. BOHN

DAYTIME PHONE _____ CELL _____ FAX _____

MAILING ADDRESS 7200 THIRD AVE, FAIRHAVEN C-01, SYKESVILLE MD. 21784
STREET CITY/TOWN STATE ZIP

APPLICANT DAN RICKER

DAYTIME PHONE _____ CELL (443) 463-4777 FAX _____

MAILING ADDRESS 13019 FORSYTHE RD. SYKESVILLE MD. 21784
STREET CITY/TOWN STATE ZIP

APPLICANT'S ROLE: DEVELOPER BUILDER BUYER RELATIVE/FRIEND REALTOR CONSULTANT

PROPERTY LOCATION
SUBDIVISION/PROPERTY NAME ADA BOHN PROPERTY LOT NO. _____

PROPERTY ADDRESS 215A MCKENDREE RD. WEST FRIENDSHIP, MD. 21794
STREET TOWN/POST OFFICE

TAX MAP PAGE(S) 15 GRID 1 PARCEL(S) 150 PROPOSED LOT SIZE 1 AC

AS APPLICANT, I UNDERSTAND THE FOLLOWING: THE SYSTEM INSTALLED SUBSEQUENT TO THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS APPLICATION IS COMPLETE WHEN ALL APPLICABLE FEES AND A SUITABLE SITE PLAN HAVE BEEN RECEIVED. I ACCEPT THE RESPONSIBILITY FOR COMPLIANCE WITH ALL M.O.S.H.A. AND "MISS UTILITY" REQUIREMENTS. APPROVAL IS BASED UPON SATISFACTORY REVIEW OF A PERC CERTIFICATION PLAN.

TEST RESULTS WILL BE MAILED TO APPLICANT. [Signature]
SIGNATURE OF APPLICANT

HOWARD COUNTY HEALTH DEPARTMENT, BUREAU OF ENVIRONMENTAL HEALTH, WELL AND SEPTIC PROGRAM
7178 COLUMBIA GATEWAY DRIVE COLUMBIA, MARYLAND 21046 (410) 313-2640 FAX (410) 313-2648
TDD (410) 313-2323 TOLL FREE 1-877-4MD-DHMH

A/P _____

Empty rectangular box for notes or data.

Large empty rectangular box for detailed notes or diagrams.

Empty rectangular box for notes or data.

Empty rectangular box for notes or data.

Empty rectangular box for notes or data.

Empty rectangular box for notes or data.

Empty rectangular box for notes or data.

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H

RECEIVED

REMARKS _____

SANITARIAN _____ BACKHOE _____ OTHERS **0 3 2013**

TEST HOLES USED IN SDA _____ AVG. PERC TIME _____ SQ. FT/BR _____

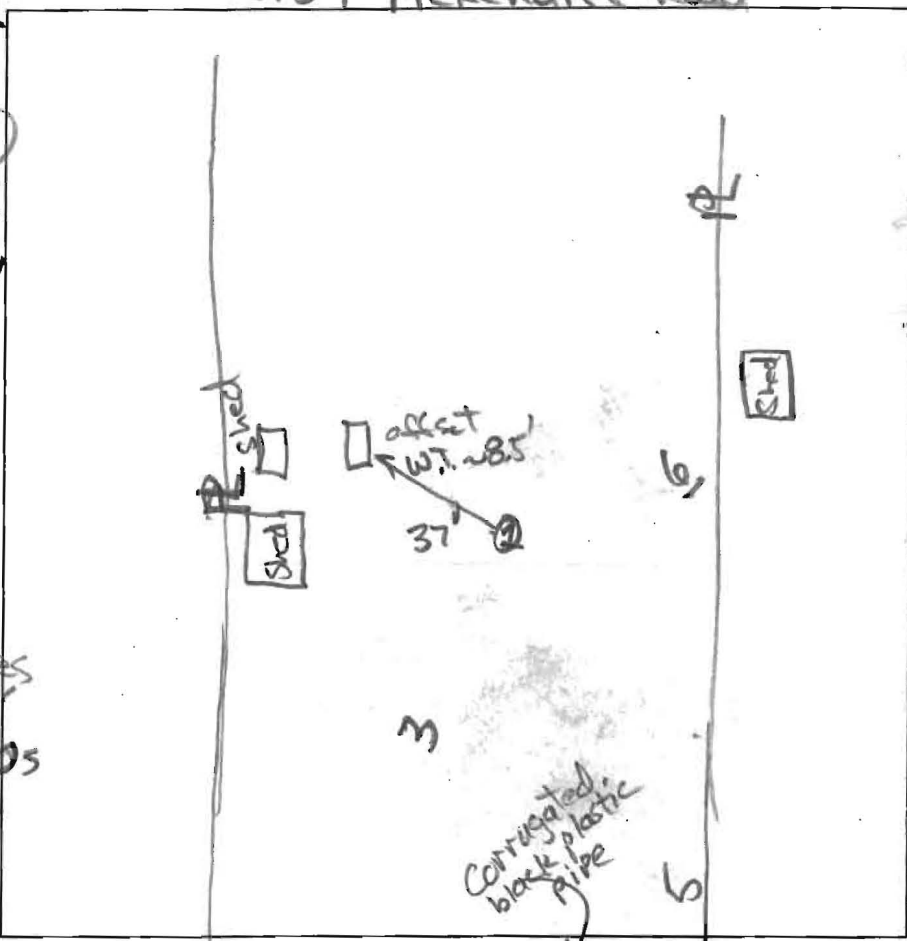
TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH **RD COUNT** EFFECTIVE SW/T _____

BUREAU OF ENVIRONMENTAL HEALTH

2154 Mckendree Road

#1 offset

AP 544592



#1
water seeps 3'
Fe depletions

wall failure 5.5'
grey soil
black coats

#5
fine textures
to ~4'-5'

7.5 water seeps
grey soil

#6
depleted matrix 4.5'
water seeps
wall failure

#3

water seeps 3'
grey & red fs
many mica
water seeps
yel-red sl
many mica
wall failure
grey soil
black coats

0.2' dk brnl
1.4' yel-brnl
2' yel-brnl
2msbk
yel-brnl sl
heavy 7msbk
3.5' redd grey
7' sl, many mica
yel-red
grey sl
8.5' yel-red sl
m 4 #2 d (grey)
many Mn
silt bodies
many mica
10' moist

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
6/14/13	4	5.5'	Water seeps				F
6/14/13	5	7.5'	Water seeps				F
6/14/13	6	6'	Water seeps				F
6/14/13	3	3' #6.8	Water seeps				F
6/14/13	1	3.5'	Fe depletions begin 85' - apparent Water Table OK for Sand Mound Tests				F

REMARKS #2 not dug well in pit at back of house, covered with plastic
Pit floor is soil; no standing water

SANITARIAN R Bricker BACKHOE Bill Ingram OTHERS Mark Hufnagel

TEST HOLES USED IN SDA _____ AVG. PERC TIME _____ SQ. FT/BR _____

TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH _____ EFFECTIVE SW _____

MOUND TEST DATA SHEETS

Property I.D. 2154 McKendree Rd. Lot #

Date 7/5/2013

Sanitarian R Bricker

Landscape Position Side Slope

% Slope 8

Soil Type _____

Contractor Bill Ingram

HOLE # 7

DEPTH OF TEST 15"

START TIME 2:06

min/inch

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate(ET/MD)	% Change
brn L, 2fg & v/sbk					
8" brn L, 2/sbk	9 16/16	0	Begin	—	—
16" yel-brn cl, 2msbk	9 13/16	10	3/16	53.3	—
20" yel-brn cl, 1msbk	9 10/16	10	3/16	53.3	0
26" yel-brn gr L, 1/sbk	9 7/16	10	3/16	53.3	0
30" yel-red grsl, Øm, common mica					
38" yel-red, pale brn & pale yel sl, Øsg, common mica					
48" pale brn & pale red fsl, Øm w/ pale yellow & red striations many fine mica					

profile is 0-25% depleted of moisture

Begin equilibration, 1:47

HOLE # 8

DEPTH OF TEST 12"

START TIME 12:53

min/inch

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate(ET/MD)	% Change
3" dk brn L, 2fg & v/sbk					
8" brn L, 2/sbk	9 16/16	0	Begin	—	—
13" yel-brn L, 2msbk	9 12/16	10	4/16	40	—
17" yel-brn cl, 2msbk	9 8/16	10	4/16	40	0
31" yel-brn L, 2msbk	9 5/16	10	3/16	53.3	33.25
11" yel-brn grsl, 1/sbk	9 3/16	10	2/16	80	50.1
14" pale brn & pale red fsl, Øm w/ pale yellow & red striations	9 1/16	10	2/16	80	0
	8 15/16	10	2/16	80	0

Begin equilibration, 12:46

profile is 0-25% depleted of moisture

80 min/inch

MOUND TEST DATA SHEETS

Property I.D. 2154 McKendree Rd, Lot # Date 7/5/13

Sanitarian R Bricker Landscape Position Side Slope

% Slope 9 Soil Type _____ Contractor Bill Ingram

HOLE # 9 DEPTH OF TEST 15" START TIME 12:52
min/inch

7" dk brn L, 2 fsbk
 15" dk brn L, 2 fsbk
 brn L, 2 fsbk
 few stones/boulders
 26" brn L, 1 fsbk
 few mica
 pale brn & pink red
 fsl, many mica, ϕ m
 pale yellow & red striations
 32" yel-red sl, ϕ m
 many mica
 45" +

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate(ET/MD)	% Change
9 16/16	\emptyset	Begin	—	—
9 13/16	5	3/16	26.6	—
9 9/16	5	4/16	20	-24.8
9 9/16	10	5/16	32	-60
8 15/16	10	5/16	32	\emptyset
8 14/16	10	5/16	32	\emptyset

profile is \emptyset -25% depleted of moisture

Begin equilibration, 12:41

HOLE # 10 DEPTH OF TEST 13" START TIME 12:51
min/inch

3" dk grey-brn L
 2mg
 9" dk brn sl, 2 fsbk
 13" brn L, 2 fsbk
 few stones
 23" brn gr L, 2 msbk
 42" brn fsl, 1 msbk
 common mica
 brn fsl, ϕ m
 many mica

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate(ET/MD)	% Change
9 16/16	\emptyset	Begin	—	—
9 9/16	5	8/16	10.7	—
9 7/16	5	7/16	10.7	—
8 3/16	10	15/16	10.7	\emptyset
9 14/16	\emptyset	Reset	—	\emptyset
9 7/16	10	15/16	10.7	\emptyset

profile is \emptyset -25% depleted of moisture

Begin equilibration, 12:36

32 min/inch

SITE INSPECTION SHEET

OWNER: _____ PHONE #: _____
 ADDRESS: 2154 McKendree CONTRACTOR: Mark Hufnagle
 _____ WELL TAG #: _____
 SUBDIVISION: _____ LOT: _____ COUNTY #: _____
 PROPOSAL: Soil moisture check; Potential for
infiltrometer tests.

LOCATION DIAGRAM

at stake #7, maintained grass
 0-7 in. Loam, ribbons easily (brn L, 2fssbk to 2fsbk)
 35-40% depleted pliable ball; cracks, doesn't break
 7-11 in. Loam, no free water on ball (brn L, 2msbk)
 0-25% depleted wet outline on hand
 11-16 in. Clay loam, no free water on ball (yel-brn cl, 2msbk)
 0-25% depleted wet outline on hand
 16-20 in clay loam, no free water on ball (yel-brn cl, 1msbk)
 0-25% depleted wet outline on hand
 20-24 in. loam, no free water on ball (yel-brn, 2fsbk)
 0-25% depleted
 0-4 in. fine sandy loam; (dk grey-brn, fsl, 2fssbk)
 4-12 in. fine sandy loam; (brn, fsl, 1fsbk)
 12-16" loam; (yel-brn, 2fsbk, few mica)
 16-24" loam; (yel-brn, 2msbk, common mica, slightly sticky)
 24" → sandy loam

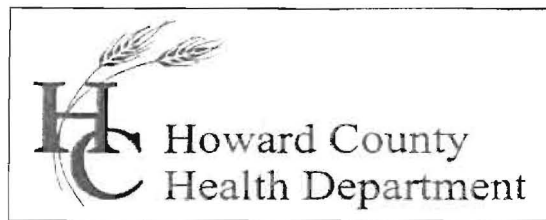
at stake #10
woods edge

0-25% depleted
 no free water on ball
 wet outline on hand

Force st:

COMMENTS: 80% chance rain, maybe up to 1" (locally heavier)
OK to do infiltrometer tests on 7/3/2013, ref.
Soil moisture is currently 0 to 25% depleted;

DATE: 7/1/2013 INSPECTOR: R Bicker



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
Main: 410-313-6300 | Fax: 410-313-6303
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

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

July 9, 2013

To: Dan Ricker, applicant
13898 Forsythe Road, Sykesville, MD 21784

RE: Percolation Test Report: Ada Bohn Property; 2154 McKendree Road (Tax Map 15, Parcel 150). A544592

Percolation tests were scheduled on Parcel 150 on June 14 and July 5, 2013. Pits for standard percolation tests were dug and observed on June 14. On July 5, two pairs of infiltrometer tests for sand mounds were conducted.

On June 14, four standard percolation test pits ('3', '4', '5' and '6') were dug at staked locations, and location '1' was offset from the stake. At each location shallow water tables were observed. No tests were conducted as the soil 4 feet above water table was judged to be too fine-textured to have percolation rate less than 30 minutes per inch. All locations FAIL for standard subsurface trenches.

Soil moisture was determined to be adequate for testing and infiltrometer tests were conducted on July 5. All four test locations PASS, but with mixed results. Test locations '7' and '8' have an infiltration rates of 53.3 min/in and 80 min/in, respectively. The soil layers tested were 15 inches and 13 inches deep, respectively. This sand mound site is approvable with a non-conventional rate of 80 minutes per inch. Test locations '9' and '10' have infiltration rates of 32 min/in and 10.7 min/in, respectively. The soil layers tested were 15 inches and 12 inches deep, respectively. This sand mound site is approvable with an infiltration rate of 32 minutes/inch, and it should be the primary sand mound.

A Percolation Certification Plan for the subject property may be submitted at this time. Elevation contours must be represented according to survey (re: field-run) data at one-foot vertical intervals. The Health Department may require that the sand mound corners and the gravel bed corners be staked before signature approval of the Percolation Certification Plan. The sand mound corners and gravel bed corners will have to be staked and inspected prior to building permit approval. Going forward we recommend that wheeled vehicles not be permitted in the areas of approvable sand mounds during periods that the soil is saturated.

On the Percolation Certification Plan, locate the sand mound footprints so that the lower corners are at the same elevation. Represent the location of the gravel bed within the sand mound footprint. (The existing grade can have no more than 1 foot of elevation difference along the lower limit of the gravel bed.) The area extending

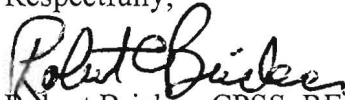
downslope of the sand mound footprint is to be protected for a distance of 20-to-25 feet. Include the downslope infiltration area as part of the sewage disposal area (SDA).

Show all test locations, pass or fail. Three different symbols and/or designations will be needed: standard tests, FAIL; infiltrometer tests, PASS (nonconventional), and PASS (conventional). The Percolation Test Application and three Field Worksheets are enclosed with this report.

During testing, the existing well's location was observed. The well is located in a shallow pit, the pit having a soil floor. The casing and pump equipment were covered in plastic beneath a fragile conglomerate cover. The casing does not extend above the grade of soil surrounding the pit. Please indicate on the Percolation Certification Plan whether this well will be upgraded, or replaced and sealed.

Should you have any questions regarding this evaluation or requirements for a Percolation Certification Plan, please contact me at the above address or by calling (410) 313-2691.

Respectfully,



Robert Bricker, CPSS, REHS/RS
Environmental Health Specialist
Well and Septic Program

RB
Enclosures (4 sheets)

Copy: Scott Shanaberger, L.L.S., Shanaberger & Lane, Inc.
Mark Hufnagle, owner
File

2154 McKendree
Sand Mound 7'-8'

SAND MOUND CALCULATIONS

Total mound width:	<u>44.0</u>	feet
Total mound length:	<u>87.2</u>	feet

SITE SPECIFIC INFORMATION

Slope Percent:	<u>2</u>	%
Z- Restictive Depth to rock or water:	<u>53</u>	inches
Percolation Rate:	<u>60</u>	minutes/inch
Design Flow:	<u>600</u>	gallons per day

BED/MOUND CALCULATIONS

Design infiltration rate for sand (1.2 for comar sand spec or 1.0 for alt sand spec):	<u>1</u>	gal. per sq. ft. per day
Absorption bed: Design flow / Design infiltration rate =	<u>600</u>	square feet
A- Bed width (12 for comar sand/less than 9 for alt sand):	<u>9.00</u>	feet
B- Bed length: Absorption bed (sq.ft)/Bed width (ft) = (21 to 101 feet)	<u>66.67</u>	feet
D- Upslope sand fill depth: 48 in - Z =	<u>12</u>	inches
E- Downslope sand fill depth: 12 A x % slope + D in. =	<u>14</u>	inches
H- Cap + topsoil at bed center =	<u>18</u>	inches
G- Cap + topsoil at bed edge =	<u>12</u>	inches
F- Total Bed Depth:	<u>10</u>	inches
K- Sideslope setback: { ((D + E) / 2] + 28 in.) / 12 } x 3 =	<u>10.27</u>	feet
Upslope correction factor (from chart):	<u>0.94</u>	
J- Upslope setback: ((22 in + D) / 12) x 3 x Upslope corr. Factor =	<u>7.99</u>	feet
Downslope correction factor (from chart):	<u>1.06</u>	
I- Downslope setback: ((22 in + E) / 12) x 3 x Downslope corr. Factor =	<u>9.58</u>	feet
W- Preliminary Width of Mound: A + J + I =	<u>26.6</u>	feet
L- Total Length of Mound: B + 2K =	<u>87.2</u>	feet

LOADING RATE AND BASAL AREA CALCULATIONS

Linear loading rate: Design flow / Bed Length =	<u>9.0</u>	gallons per linear ft.
Soil infiltration rate based on percolation rate:	<u>0.25</u>	gal. per sq. ft. per day
*Basal area required: Design flow / infiltration =	<u>2400</u>	square feet
Basal area provided with preliminary width: Level Site = L x W; Slope Site (A+I)xB	<u>1239</u>	square feet

Modified downslope setback : $(\text{Basal area required} / A) - B = 27 \text{ feet}$
 New mound width = $A + J + \text{Modified downslope setback} = \underline{44} \text{ feet}$

2154 Mckendree
 Sand Mound '9'-10', PRIMARY SAND MOUND
 SAND MOUND CALCULATIONS

Total mound width:	<u>36.8</u>	feet
Total mound length:	<u>94.1</u>	feet

SITE SPECIFIC INFORMATION

Slope Percent:	<u>9</u>	%
Z- Restrictive Depth to rock or water:	<u>26</u>	inches
Percolation Rate:	<u>32</u>	minutes/inch
Design Flow:	<u>600</u>	gallons per day

BED/MOUND CALCULATIONS

Design infiltration rate for sand (1.2 for comar sand spec or 1.0 for alt sand spec):	<u>1</u>	gal. per sq. ft. per day
Absorption bed: Design flow / Design infiltration rate =	<u>600</u>	square feet
A- Bed width (12 for comar sand/less than 9 for alt sand):	<u>9.00</u>	feet
B- Bed length: Absorption bed (sq.ft)/Bed width (ft) = (21 to 101 feet)	<u>66.67</u>	feet
D- Upslope sand fill depth: 48 in - Z =	<u>22</u>	inches
E- Downslope sand fill depth: 12 A x % slope + D in. =	<u>32</u>	inches
H- Cap + topsoil at bed center =	<u>18</u>	inches
G- Cap + topsoil at bed edge =	<u>12</u>	inches
F- Total Bed Depth:	<u>10</u>	inches
K- Sideslope setback: { ([(D + E) / 2] + 28 in.) / 12 } x 3 =	<u>13.72</u>	feet
Upslope correction factor (from chart):	<u>0.77</u>	
J- Upslope setback: ((22 in + D) / 12) x 3 x Upslope corr. Factor =	<u>8.47</u>	feet
Downslope correction factor (from chart):	<u>1.44</u>	
I- Downslope setback: ((22 in + E) / 12) x 3 x Downslope corr. Factor =	<u>19.34</u>	feet
W- Preliminary Width of Mound: A + J + I =	<u>36.8</u>	feet
L- Total Length of Mound: B + 2K =	<u>94.1</u>	feet

LOADING RATE AND BASAL AREA CALCULATIONS

Linear loading rate: Design flow / Bed Length =	<u>9.0</u>	gallons per linear ft.
Soil infiltration rate based on percolation rate:	<u>0.75</u>	gal. per sq. ft. per day
Basal area required: Design flow / infiltration =	<u>800</u>	square feet
Basal area provided with preliminary width: Level Site = L x W; Slope Site (A+I)xB	<u>1889</u>	square feet

August 21, 2013

Mr. Michael J. Davis, Assistant Director
Bureau of Environmental Health
Howard County health Department
7178 Columbia Gateway Drive
Columbia, MD 21046
Project: 2154 McKendree Road
A-544592

Dear Mr. Davis:

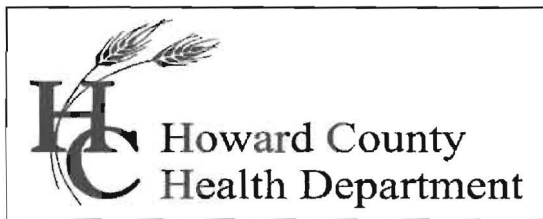
I request a variance for my property at 2154 McKendree Road in Howard County. My property has been successfully for a sand mound system. The property is small and narrow, and I request that the sand mound setback to my northeastern property line be reduced to 3 feet in order to allow for construction where testing was approved. Thank you.

Sincerely,



Mark Hufnagel
13845 Forsythe Road
Sykesville, MD 21784

9/9/13
M. Davis
Approved



Bureau of Environmental Health

7178 Columbia Gateway Drive, Columbia, MD 21046-2147

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www.hchealth.org

Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

August 6, 2013

To: Scott Shanaberger, Shanaberger & Lane, Inc..
home@shanlane.com

From: Robert Bricker, REHS/R.S.
Environmental Health Specialist
Well and Septic Program

RE: Property of Mark Hufnagel, 2154 McKendree Road, perc cert comment

The following additions, deletions or corrections are needed on the referenced plan:

1. Add a purpose statement.
2. Add a symbol for 'fence' in the LEGEND note.
3. Correct Note 5, as follows (cut and paste):

THE SAND MOUND AREAS DELINEATED AND IDENTIFIED ON THIS PARCEL MUST BE STAKED BY A SURVEYOR, AND A FIELD REVIEW CONDUCTED BY THE HOWARD COUNTY HEALTH DEPARTMENT TO VERIFY THE AREAS HAVE NOT BEEN IMPACTED PRIOR TO BUILDING PERMIT APPROVAL. IN ADDITION, THESE AREAS MUST BE PROTECTED BY A FIXED BARRIER AT ALL TIMES DURING DEMOLITION, GRADING, AND CONSTRUCTION ACTIVITIES. THEREAFTER PROTECTIVE MEASURES SHOULD BE IMPLEMENTED TO PROTECT THESE AREAS FROM EROSION AND ENCROACHMENT BY WHEELED VEHICLES. SUBSEQUENT BUILDING PERMIT APPLICATIONS MAY BE DENIED SHOULD THE SAND MOUND AREAS BE EVALUATED AND FOUND TO BE UNSATISFACTORY FOR THE INTENDED USE. IN ADDITION, A SUPPLEMENTAL SITE PLAN WITH ALL OF THE NECESSARY DETAILS FOR INSTALLATION OF THE SYSTEM WILL BE REQUIRED PRIOR TO THE RELEASE OF THE SEPTIC SYSTEM INSTALLATION PERMIT.

4. Add the phrase 'OR REPLACED PRIOR TO BUILDING PERMIT APPROVAL' to Note 10.

5. Add this Note:

THE EXISTING SEPTIC SYTEM WILL BE REPLACED AND ABANDONED PRIOR TO BUILDING PERMIT APPROVAL.

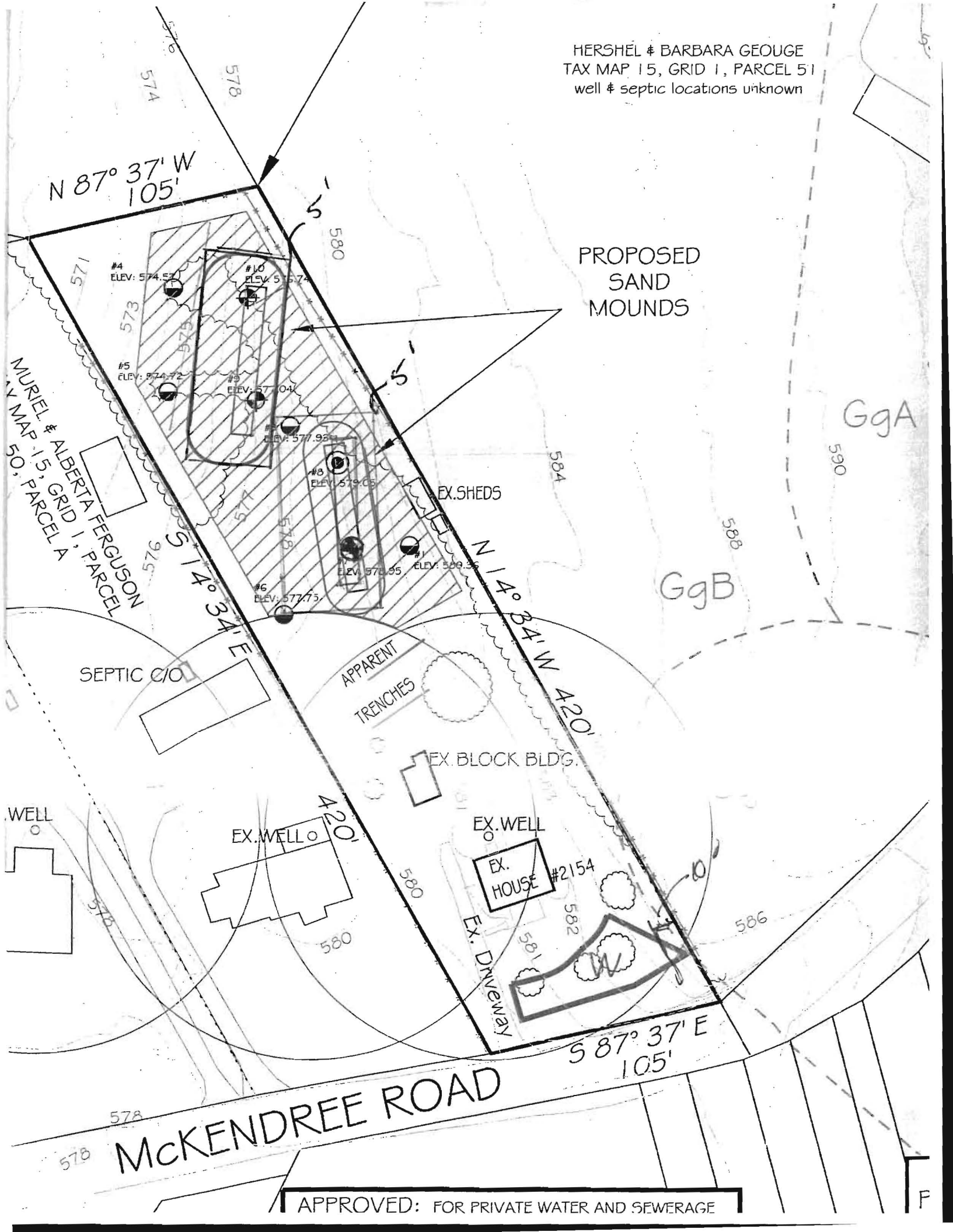
6. Square the corners of the proposed sand mounds. The lower corners need to be at equal elevation, and the elevation of the soil under the low side of the gravel bed may not vary by more than 1 foot.
7. Correct the width dimension of Sand Mound '7,8' to 44 feet. (The last three lines of the spreadsheet do not print. The width of this mound is modified because of the very slow infiltration rate.)
8. Correct the symbol for location '7'; it has a conventional rate. (Only location '8' has a nonconventional rate.)
9. Add the phrase 'TO BE ABANDONED' to the label for "APPARENT TRENCHES".
10. The proposed wellbox is supposed to be setback 10 feet from the driveway, 30 feet from the house foundation, 15 feet from the public R-O-W, and 10 feet from the side (re: property) line. Discrete well locations may be more appropriate.
11. Add a 100-ft elliptical radius around the proposed wellbox.
12. I believe the well location at the church is incorrect. See picture (attached).

Notice that the northwest corner of each sand mound is within 10 feet of the North property line. It is necessary for Mr. Hufnagel to request a waiver to reduce the setback to the upper property line to as little as 3 feet. This is to accommodate the sand mound locations without having them to overlap. The waiver request is in writing and signed by the owner, Mr. Hufnagel. Address it to Michael J. Davis. This request should be attached with the revision of the perc cert.

RB

Copy: Mark Hufnagel, hufster9@aol.com
file

HERSHEL & BARBARA GEOUGE
TAX MAP 15, GRID 1, PARCEL 51
well & septic locations unknown



N 87° 37' W
105'

PROPOSED
SAND
MOUNDS

MURIEL & ALBERTA FERGUSON
TAX MAP 15, GRID 1, PARCEL
50, PARCEL A

GgA

GgB

SEPTIC C/O

APPARENT
TRENCHES

EX. BLOCK BLDG.

EX. WELL

EX. WELL

EX. HOUSE #2154

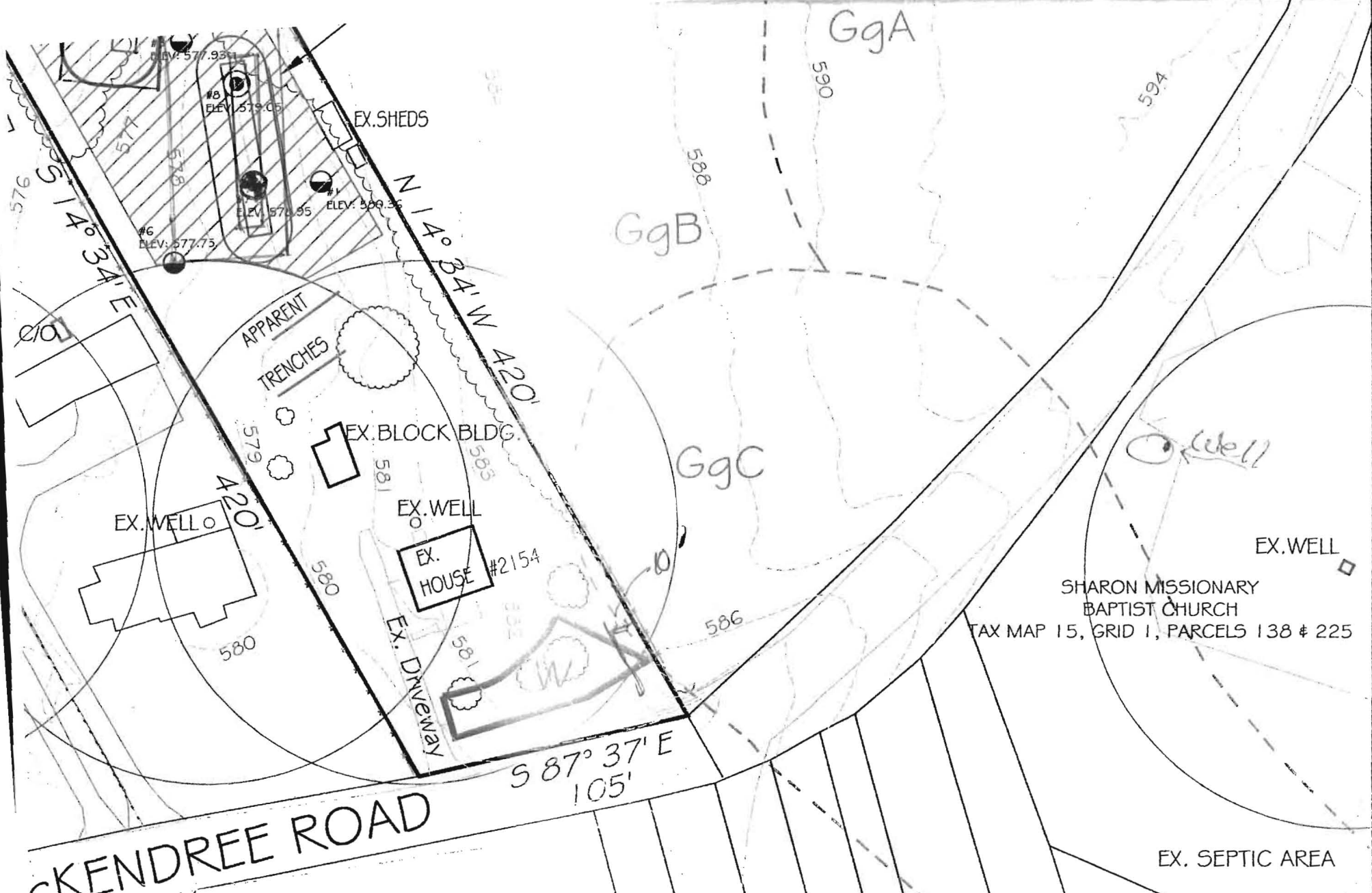
EX. DRIVEWAY

S 87° 37' E
105'

MCKENDREE ROAD

APPROVED: FOR PRIVATE WATER AND SEWERAGE

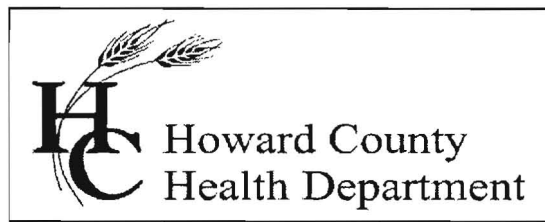
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APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS

PERC CERTIFICATION PLAN
 PROPERTY OF MARK HUFNAGLE
 2154 MCKENDREE ROAD
 TITLE DEED: 14879/169
 TAX MAP 15, GRID 1, PARCEL 50
 4TH ELECTION DISTRICT, HOWARD COUNTY, MD.
 SCALE: 1" = 50' DATE: 7/23/2013

COUNTY HEALTH OFFICE



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
Main: 410-313-6300 | Fax: 410-313-6303
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

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

September 3, 2013

To: Scott Shanaberger, Shanaberger & Lane, Inc..
home@shanlane.com

From: Robert Bricker, REHS/R.S.
Environmental Health Specialist
Well and Septic Program

RE: Property of Mark Hufnagel, 2154 McKendree Road, perc cert comment

The following additions, deletions or corrections are needed on the referenced plan:

1. In Note 7, the correct statement is this LOT...COMPLIES...
2. In Note 11, add this statement. THE REPLACEMENT SYSTEM WILL INCLUDE A BAT UNIT.
3. Add this Note:
THE SUBJECT PROPERTY HAS A LIMITATION OF 4 BEDROOMS. IF MORE BEDROOMS ARE DESIRED THE HEALTH DEPARTMENT WILL CONSIDER A TECHNICAL DESIGN SHOWING THAT THE SAND MOUND AREA WILL ACCOMMODATE A SYSTEM DESIGN ADEQUATE FOR THE AMOUNT OF WASTEWATER DISCHARGE FROM THE PROPOSED STRUCTURE.

RB

Copy: Mark Hufnagel, hufster9@aol.com
file

Bernard, Dana

From: Bernard, Dana
Sent: Thursday, May 30, 2013 5:22 PM
To: 'Shanaberger & Lane'
Subject: 2154 McKendree Road

Scott,

I have reviewed your plan and we are ready to schedule percolation testing for your property. I will not be in the office on Friday, May 31, 2013. However, I will be in the office Monday, June 3, 2013. Give me a call or shoot me an e-mail so we can schedule your percolation testing. My first available is June 26, 2013.

Thanks

Dana Bernard, REHS/RS
Environmental Specialist II
Bureau of Environmental Health
Well and Septic Program
Phone (410) 313-2775
E-mail: DBernard@howardcountymd.gov

Shanaberger & Lane

From: "Bernard, Dana" <dbernard@howardcountymd.gov>
To: "Shanaberger & Lane" <home@shanlane.com>
Sent: Thursday, April 11, 2013 8:56 AM
Subject: 2154 McKendree Road
 Good Morning Scott,

I have reviewed your percolation certification plan and several items are missing. I have included a checklist of site plan requirements for you to use when preparing percolation certification plan. I have also highlighted the items needed for the Mc Kendree Property. Your percolation testing will not be scheduled until all site plan requirements are met.

Thanks

Dana Bernard, REHS/RS
 Bureau of Environmental Health
 Well and Septic Program
 Phone (410) 313-2775
 Fax (410) 313-2648
 E-mail: DBernard@howardcountymd.gov

SITE PLAN

Submit a site plan (prepared by a professional surveyor or engineer, surveyors plats may also be used at the homeowner's discretion). The site plan should be submitted along with an application for percolation testing. The site plan **MUST** be drawn to an appropriate scale (1:30 – 1:100) and must show the following:

- Identification of the property, road, street address if applicable, subdivision name, etc.
- Name address and telephone number of the owner, developer, and the person preparing the plan
- If the lot was created *AFTER* March 1972 a minimum area of 10,000 sq. ft. is required as designated septic reserve area. For lots created *PRIOR* to March 1972 a septic reserve area large enough to accommodate 3 systems (an initial and 2 replacements) must be proposed. An adequate number of test locations (may be determined by the approving authority) must be proposed within the septic area.
- Any adjustments/modifications to the existing septic easement showing area lost and area gained
- Topography at two-foot intervals and statement verifying such
- The existing well and/or any proposed wells on the property and the existing septic system (i.e. septic tank, drywell, trenches)
- All existing and any proposed property lines
- Landscape features such as swales, ponds, streams, etc., slopes greater than 25%, soil type boundaries, etc. (wet season soil will be limited to testing during a designated time of year)
- All existing structures on the property (if necessary label structures to remain or to be removed) (**Property Next door**)
- Location(s) of proposed structure/addition
- All wells and septic systems within 100' of the property boundaries and all existing or proposed wells less than 200' down-gradient of a septic system and/or septic easement

5/20/2013

SHANABERGER & LANE

Surveying

Land Planning

Construction Stakeout

8726 Town & Country Blvd., Suite 201

Ellicott City, Md. 21043

(410) 461-9563

fax: (410) 461-9693

home@shanlane.com

TRANSMITTAL

DATE: 5/20/2013

FROM: G. Scott Shanaberger

TO: Bureau of Environmental Health

PROJECT: 2154 McKendree Road

ATTENTION: Dana Bernard

PROJECT NO. our # 1313

Revised Perc Test Application Plat

4 copies of plan updated to show all wells and septic systems per field investigation and public information request findings

Submitted by Mark Hufnagle

Received -----

Date -----

Bernard, Dana

From: Bernard, Dana
Sent: Thursday, April 11, 2013 8:56 AM
To: 'Shanaberger & Lane'
Subject: 2154 McKendree Road

Good Morning Scott,

I have reviewed your percolation certification plan and several items are missing. I have included a checklist of site plan requirements for you to use when preparing percolation certification plan. I have also highlighted the items needed for the Mc Kendree Property. Your percolation testing will not be scheduled until all site plan requirements are met.

Thanks

Dana Bernard, REHS/RS
Bureau of Environmental Health
Well and Septic Program
Phone (410) 313-2775
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fax: (410) 461-9693

home@shanlane.com

TRANSMITTAL

DATE: 7/25/2013

FROM: G. Scott Shanaberger

TO: Bureau of Environmental Health

PROJECT: 2154 McKendree Road

ATTENTION: Robert Bricker

PROJECT NO. A-544592

Perc Certification Plat

4 copies of plan

Submitted by Mark Hufnagel

Received -----

Date -----

SHANABERGER & LANE

Surveying

Land Planning

Construction Stakeout

8726 Town & Country Blvd., Suite 201
Ellicott City, Md. 21043
(410) 461-9563
fax: (410) 461-9693
home@shanlane.com

TRANSMITTAL

DATE: 6/25/2013

FROM: G. Scott Shanaberger

TO: Bureau of Environmental Health

PROJECT: 2154 McKendree Road

ATTENTION: Robert Bricker

PROJECT NO. our # 1313

Revised San Mound Testing Application Plat

2 copies of plan updated as requested



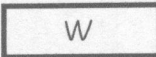



Submitted by Mark Hufnagel

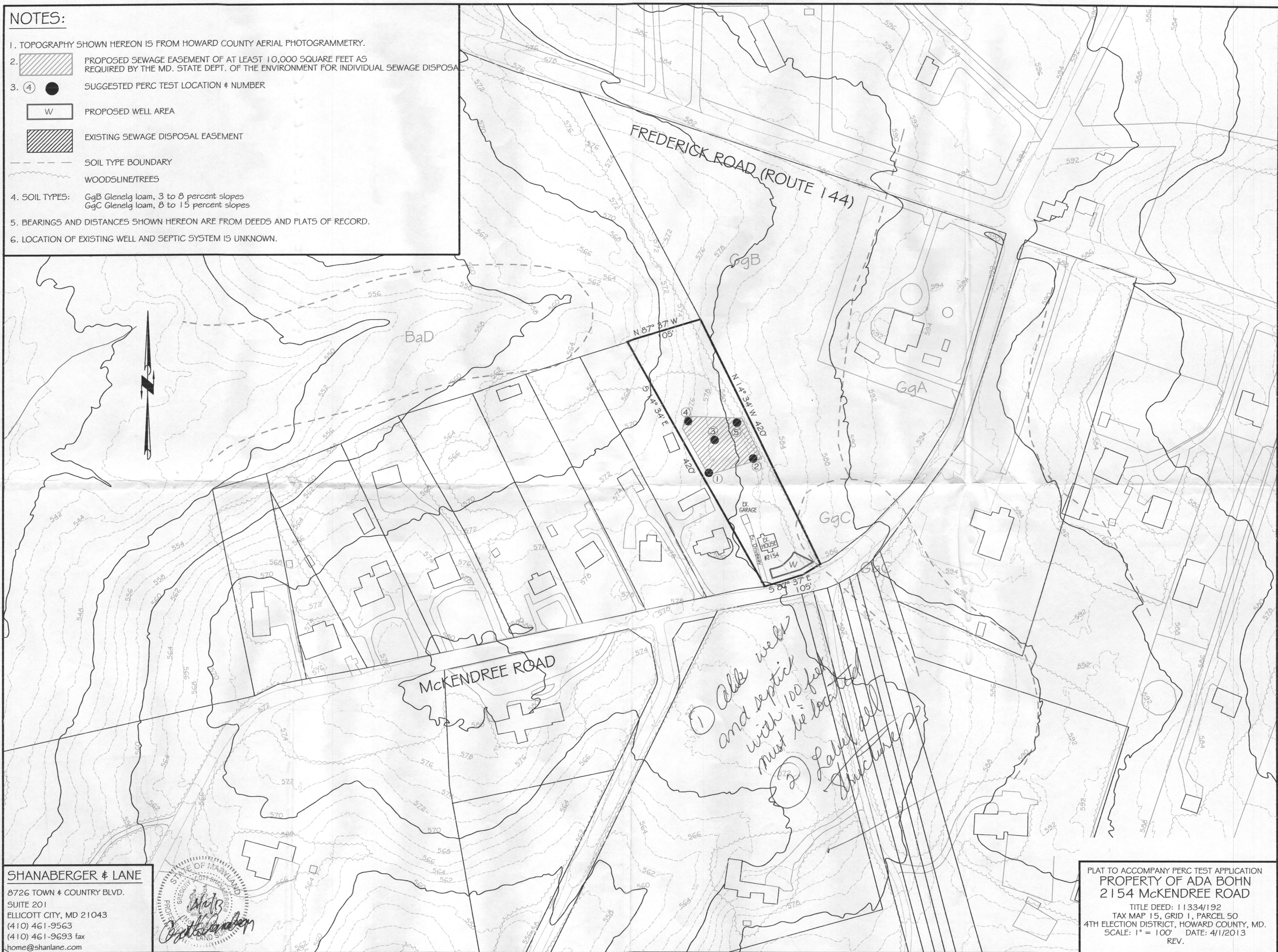


Received -----

Date -----

NOTES:

1. TOPOGRAPHY SHOWN HEREON IS FROM HOWARD COUNTY AERIAL PHOTOGRAMMETRY.
2.  PROPOSED SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MD. STATE DEPT. OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL.
3.  SUGGESTED PERC TEST LOCATION # NUMBER
-  PROPOSED WELL AREA
-  EXISTING SEWAGE DISPOSAL EASEMENT
-  SOIL TYPE BOUNDARY
-  WOODSLINE/TREES
4. SOIL TYPES: GgB Glenelg loam, 3 to 8 percent slopes
GgC Glenelg loam, 8 to 15 percent slopes
5. BEARINGS AND DISTANCES SHOWN HEREON ARE FROM DEEDS AND PLATS OF RECORD.
6. LOCATION OF EXISTING WELL AND SEPTIC SYSTEM IS UNKNOWN.





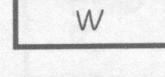



1) All well and septic with 100 feet must be located
2) Label all structure

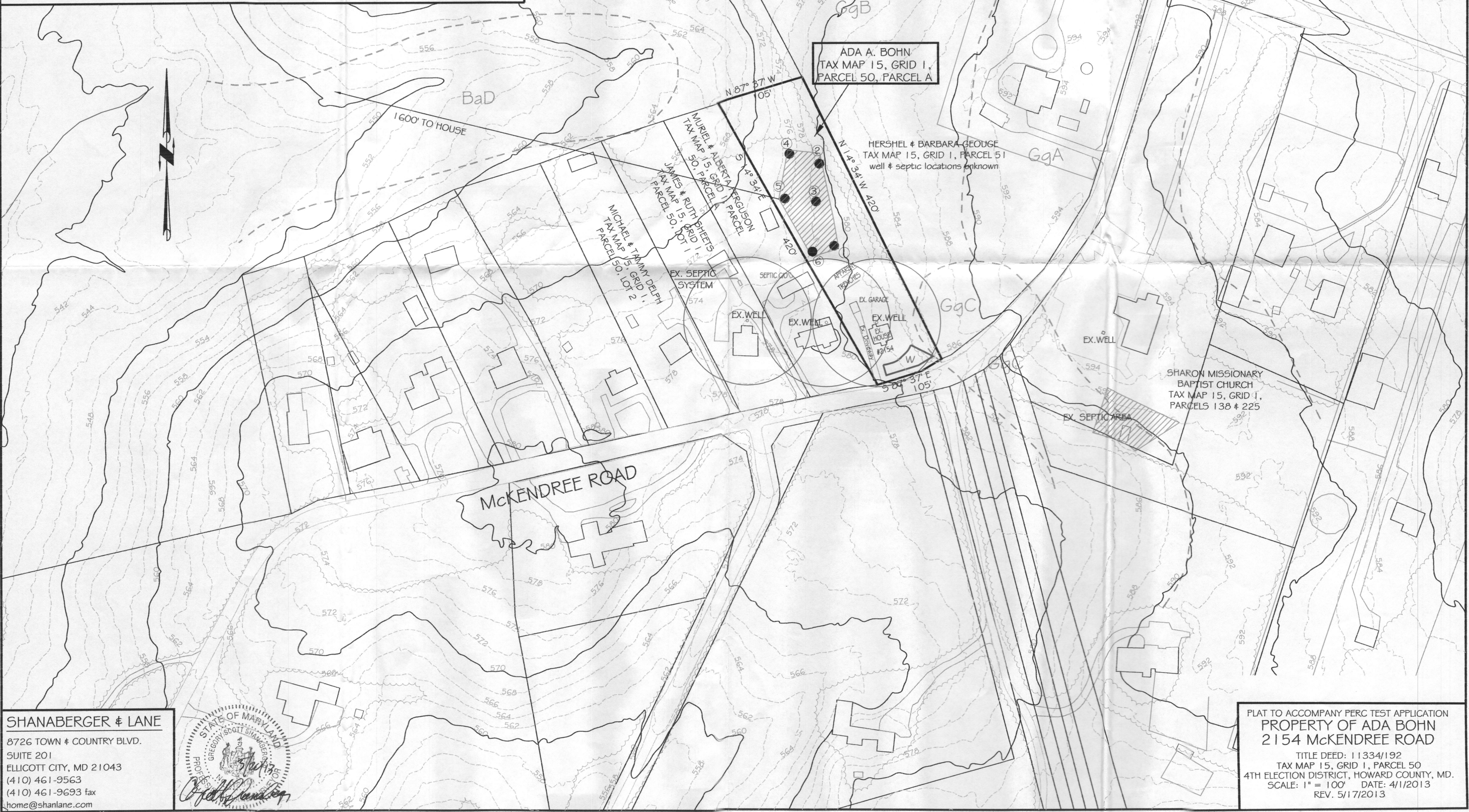
SHANABERGER & LANE
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 home@shanlane.com



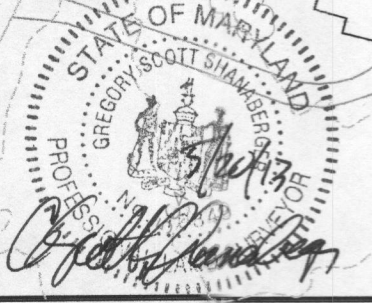
PLAT TO ACCOMPANY PERC TEST APPLICATION
 PROPERTY OF ADA BOHN
 2154 MCKENDREE ROAD
 TITLE DEED: 11334/192
 TAX MAP 15, GRID 1, PARCEL 50
 4TH ELECTION DISTRICT, HOWARD COUNTY, MD.
 SCALE: 1" = 100' DATE: 4/1/2013
 REV.

NOTES:

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2.  PROPOSED SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MD. STATE DEPT. OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL.
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PLAT TO ACCOMPANY PERC TEST APPLICATION
PROPERTY OF ADA BOHN
2154 MCKENDREE ROAD
 TITLE DEED: 11334/192
 TAX MAP 15, GRID 1, PARCEL 50
 4TH ELECTION DISTRICT, HOWARD COUNTY, MD.
 SCALE: 1" = 100' DATE: 4/1/2013
 REV. 5/17/2013

NOTES:

1. TOPOGRAPHY SHOWN ON THE SUBJECT PROPERTY WAS FIELD-RUN BY SHANABERGER & LANE ON 7/18/2013. TOPOGRAPHY SHOWN ON ADJOINING PROPERTIES IS FROM HOWARD COUNTY AERIAL PHOTOGRAMMETRY.

- 2. STANDARD TEST - FAILED
- INFILTRMETER TEST (CONVENTIONAL) - PASSED
- INFILTRMETER TEST (NONCONVENTIONAL) - PASSED

- PROPOSED SAND MOUND
- PROPOSED WELL AREA
- EXISTING SEWAGE DISPOSAL EASEMENT

- SOIL TYPE BOUNDARY
- WOODSLINE/TREES
- FENCES

3. SOIL TYPES:
 GgB Glenelg loam, 3 to 8 percent slopes
 GgC Glenelg loam, 8 to 15 percent slopes

4. BEARINGS AND DISTANCES SHOWN HEREON ARE FROM DEEDS AND PLATS OF RECORD. A BOUNDARY SURVEY IS ADVISED BEFORE STAKING OR CONSTRUCTING SAND MOUNDS OR WELLS.

5. THE SAND MOUND AREAS DELINEATED AND IDENTIFIED ON THIS PARCEL MUST BE STAKED BY A SURVEYOR, AND A FIELD REVIEW CONDUCTED BY THE HOWARD COUNTY HEALTH DEPARTMENT TO VERIFY THE AREAS HAVE NOT BEEN IMPACTED PRIOR TO BUILDING PERMIT APPROVAL. IN ADDITION, THESE AREAS MUST BE PROTECTED BY A FIXED BARRIER AT ALL TIMES DURING DEMOLITION, GRADING, AND CONSTRUCTION ACTIVITIES. THEREAFTER PROTECTIVE MEASURES SHOULD BE IMPLEMENTED TO PROTECT THESE AREAS FROM EROSION AND ENCROACHMENT BY WHEELED VEHICLES. SUBSEQUENT BUILDING PERMIT APPLICATIONS MAY BE DENIED SHOULD THE SAND MOUND AREAS BE EVALUATED AND FOUND TO BE UNSATISFACTORY FOR THE INTENDED USE. IN ADDITION, A SUPPLEMENTAL SITE PLAN WITH ALL OF THE NECESSARY DETAILS FOR INSTALLATION OF THE SYSTEM WILL BE REQUIRED PRIOR TO THE RELEASE OF THE SEPTIC SYSTEM INSTALLATION PERMIT.

6. LOCATIONS OF ALL KNOWN EXISTING WELLS AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND WELLS WITHIN 200' DOWNSLOPE OF THE PROPOSED SDA HAVE BEEN SHOWN FROM FIELD OBSERVATION OR FROM AVAILABLE PUBLIC RECORDS.

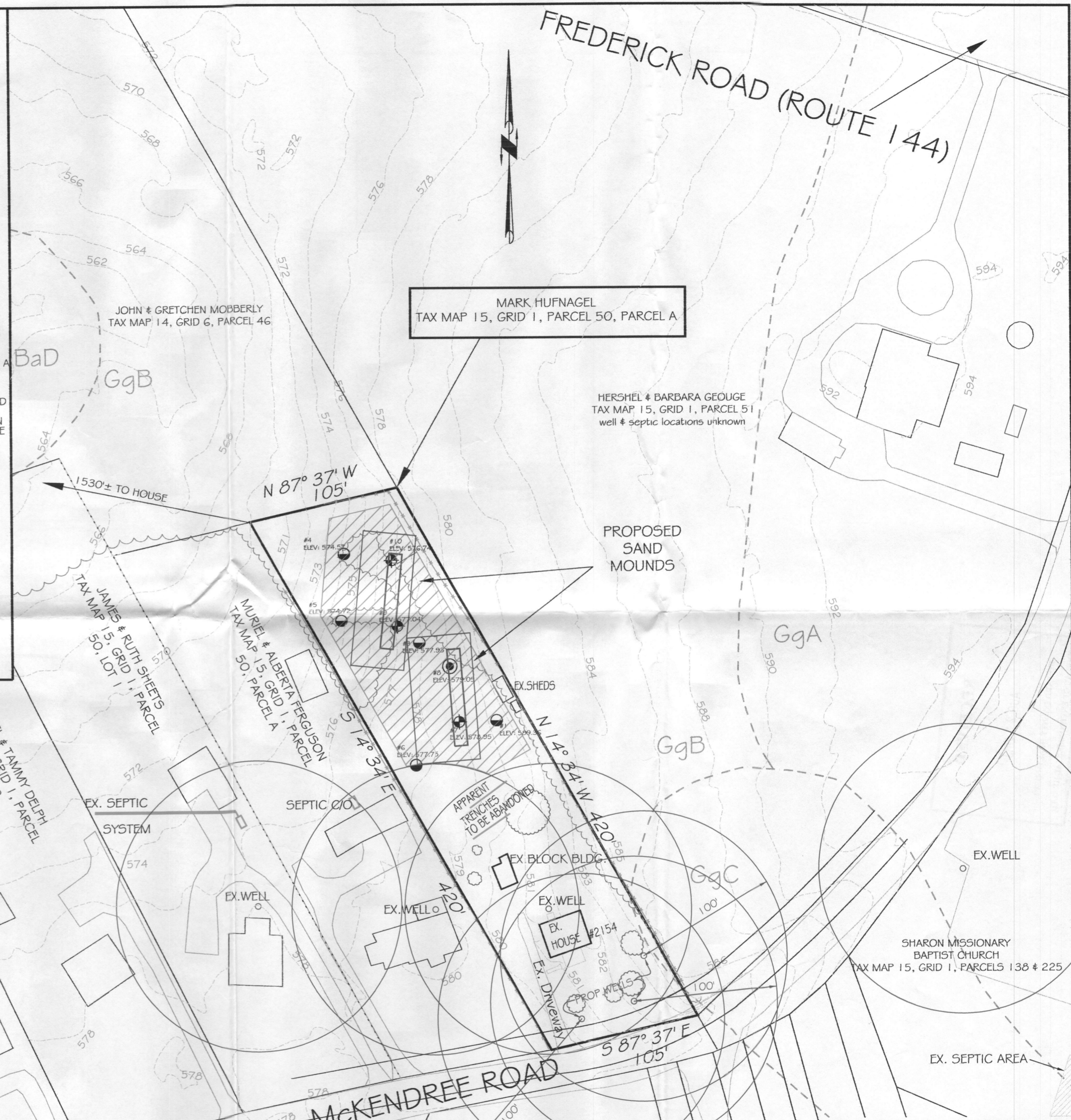
7. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.

8. ANY CHANGE TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.

9. THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

10. THE EXISTING WELL MUST BE UPGRADED TO CURRENT STANDARDS OR REPLACED PRIOR TO BUILDING PERMIT APPROVAL.

11. THE EXISTING SEPTIC SYSTEM WILL BE REPLACED AND ABANDONED PRIOR TO BUILDING PERMIT APPROVAL.



SHANABERGER & LANE

8726 TOWN & COUNTRY BLVD.
 SUITE 201
 ELLICOTT CITY, MD 21043
 (410) 461-9563
 (410) 461-9693 fax
 home@sharlane.com

PERC CERTIFICATION: I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON REFLECTS FIELD WORK DONE BY ME OR UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.

G. SCOTT SHANABARGER
 PROFESSIONAL LAND SURVEYOR #10849

PURPOSE: TO OBTAIN APPROVAL FOR A SAND MOUND SYSTEM AND WELL AREA FOR AN EXISTING DWELLING.

APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER: rcb DATE

PERC CERTIFICATION PLAN
 PROPERTY OF MARK HUFNAGLE
 2154 MCKENDREE ROAD

TITLE DEED: 14879/169
 TAX MAP 15, GRID 1, PARCEL 50
 4TH ELECTION DISTRICT, HOWARD COUNTY, MD.
 SCALE: 1" = 50' DATE: 7/23/2013
 REV. 8/21/2013 #A544592

NOTES:

1. TOPOGRAPHY SHOWN ON THE SUBJECT PROPERTY WAS FIELD-RUN BY SHANABERGER & LANE ON 7/18/2013. TOPOGRAPHY SHOWN ON ADJOINING PROPERTIES IS FROM HOWARD COUNTY AERIAL PHOTOGRAMMETRY.

- 2. STANDARD TEST - FAILED
- INFILTRMETER TEST (CONVENTIONAL) - PASSED
- INFILTRMETER TEST (NONCONVENTIONAL) - PASSED

- PROPOSED SAND MOUND
- PROPOSED WELL AREA
- EXISTING SEWAGE DISPOSAL EASEMENT
- SOIL TYPE BOUNDARY
- WOODSLINE/TREES

3. SOIL TYPES: GgB Glenelg loam, 3 to 8 percent slopes
GgC Glenelg loam, 8 to 15 percent slopes

4. BEARINGS AND DISTANCES SHOWN HEREON ARE FROM DEEDS AND PLATS OF RECORD.

5. THE SAND MOUND AREA(S) DELINEATED AND IDENTIFIED ON THIS PARCEL MUST BE STAKED BY A SURVEYOR, AND A FIELD REVIEW CONDUCTED BY THE HOWARD COUNTY HEALTH DEPARTMENT TO VERIFY THE AREAS HAVE NOT BEEN IMPACTED, PRIOR TO BUILDING PERMIT APPROVAL. IN ADDITION, THESE AREAS HAVE NOT BEEN IMPACTED, PRIOR TO BUILDING PERMIT APPROVAL. IN ADDITION, THESE AREAS MUST BE PROTECTED BY A FIXED AREA AT ALL TIMES DURING DEMOLITION, GRADING, AND CONSTRUCTION ACTIVITIES. THEREAFTER PROTECTIVE MEASURES SHOULD BE IMPLEMENTED TO PROTECT THESE AREAS FROM EROSION AND ENCROACHMENT BY WHEELED VEHICLES. SUBSEQUENT BUILDING PERMIT APPLICATIONS MAY BE DENIED SHOULD THE SAND MOUND AREAS BE EVALUATED AND FOUND TO BE UNSATISFACTORY FOR THE INTENDED USE. IN ADDITION, A SUPPLEMENTAL SITE PLAN WITH ALL OF THE NECESSARY DETAILS FOR INSTALLATION OF THE SYSTEM WILL BE REQUIRED PRIOR TO THE RELEASE OF THE SEPTIC SYSTEM INSTALLATION PERMIT.

6. LOCATIONS OF ALL KNOWN EXISTING WELLS AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND WELLS WITHIN 200' DOWNSLOPE OF THE PROPOSED SDA HAVE BEEN SHOWN FROM FIELD OBSERVATION OR FROM AVAILABLE PUBLIC RECORDS.

7. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.

8. ANY CHANGE TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.

9. THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

10. THE EXISTING WELL MUST BE UPGRADED TO CURRENT STANDARDS.



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PERC CERTIFICATION: I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON REFLECTS FIELD WORK DONE BY ME OR UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.

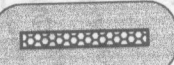
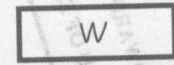
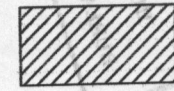
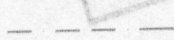

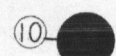
DATE 7/23/13
G. SCOTT SHANABERGER
PROFESSIONAL LAND SURVEYOR #10849

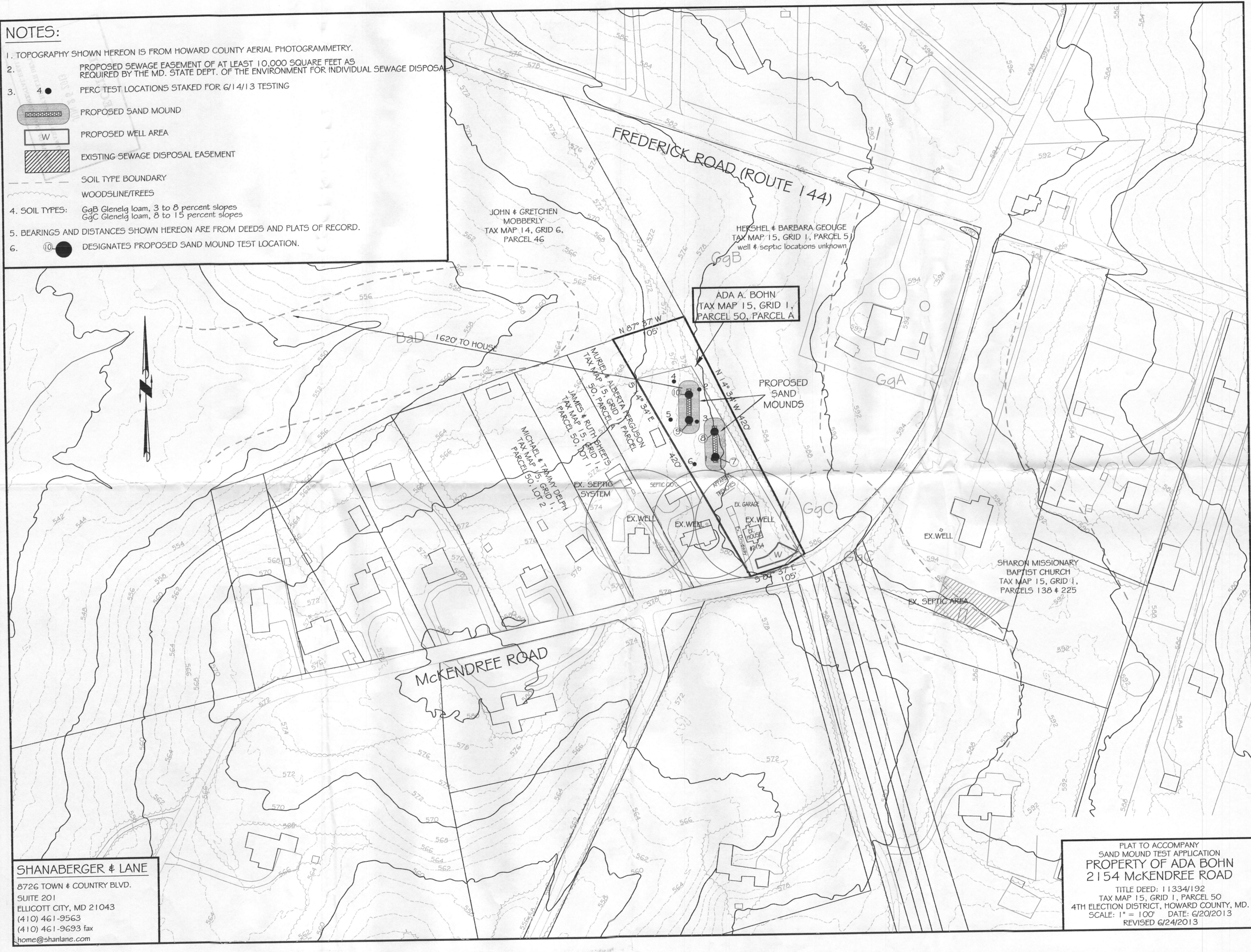
APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER _____ DATE _____

PERC CERTIFICATION PLAN
PROPERTY OF MARK HUFNAGLE
2154 MCKENDREE ROAD
TITLE DEED: 14879/169
TAX MAP 15, GRID 1, PARCEL 50
4TH ELECTION DISTRICT, HOWARD COUNTY, MD.
SCALE: 1" = 50' DATE: 7/23/2013
#A544592

NOTES:

1. TOPOGRAPHY SHOWN HEREON IS FROM HOWARD COUNTY AERIAL PHOTOGRAMMETRY.
2. PROPOSED SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MD. STATE DEPT. OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL.
3. PERC TEST LOCATIONS STAKED FOR 6/14/13 TESTING
4.  PROPOSED SAND MOUND
5.  PROPOSED WELL AREA
6.  EXISTING SEWAGE DISPOSAL EASEMENT
7.  SOIL TYPE BOUNDARY
8.  WOODLINE/TREES
9. SOIL TYPES: GgB Glenelg loam, 3 to 8 percent slopes
GgC Glenelg loam, 8 to 15 percent slopes
10. BEARINGS AND DISTANCES SHOWN HEREON ARE FROM DEEDS AND PLATS OF RECORD.
11.  DESIGNATES PROPOSED SAND MOUND TEST LOCATION.



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 home@shanlane.com

PLAT TO ACCOMPANY
 SAND MOUND TEST APPLICATION
 PROPERTY OF ADA BOHN
 2154 MCKENDREE ROAD
 TITLE DEED: 11334/192
 TAX MAP 15, GRID 1, PARCEL 50
 4TH ELECTION DISTRICT, HOWARD COUNTY, MD.
 SCALE: 1" = 100' DATE: 6/20/2013
 REVISED 6/24/2013

NOTES:

1. TOPOGRAPHY SHOWN ON THE SUBJECT PROPERTY WAS FIELD RUN BY SHANABERGER & LANE ON 7/18/2013. TOPOGRAPHY SHOWN ON ADJOINING PROPERTIES IS FROM HOWARD COUNTY AERIAL PHOTOGRAMMETRY.

- 2. STANDARD TEST - FAILED
- INFILTRMETER TEST (CONVENTIONAL) - PASSED
- INFILTRMETER TEST (NONCONVENTIONAL) - PASSED

- PROPOSED SAND MOUND
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- SOIL TYPE BOUNDARY
- WOODSLIME/TREES
- FENCES

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7. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.

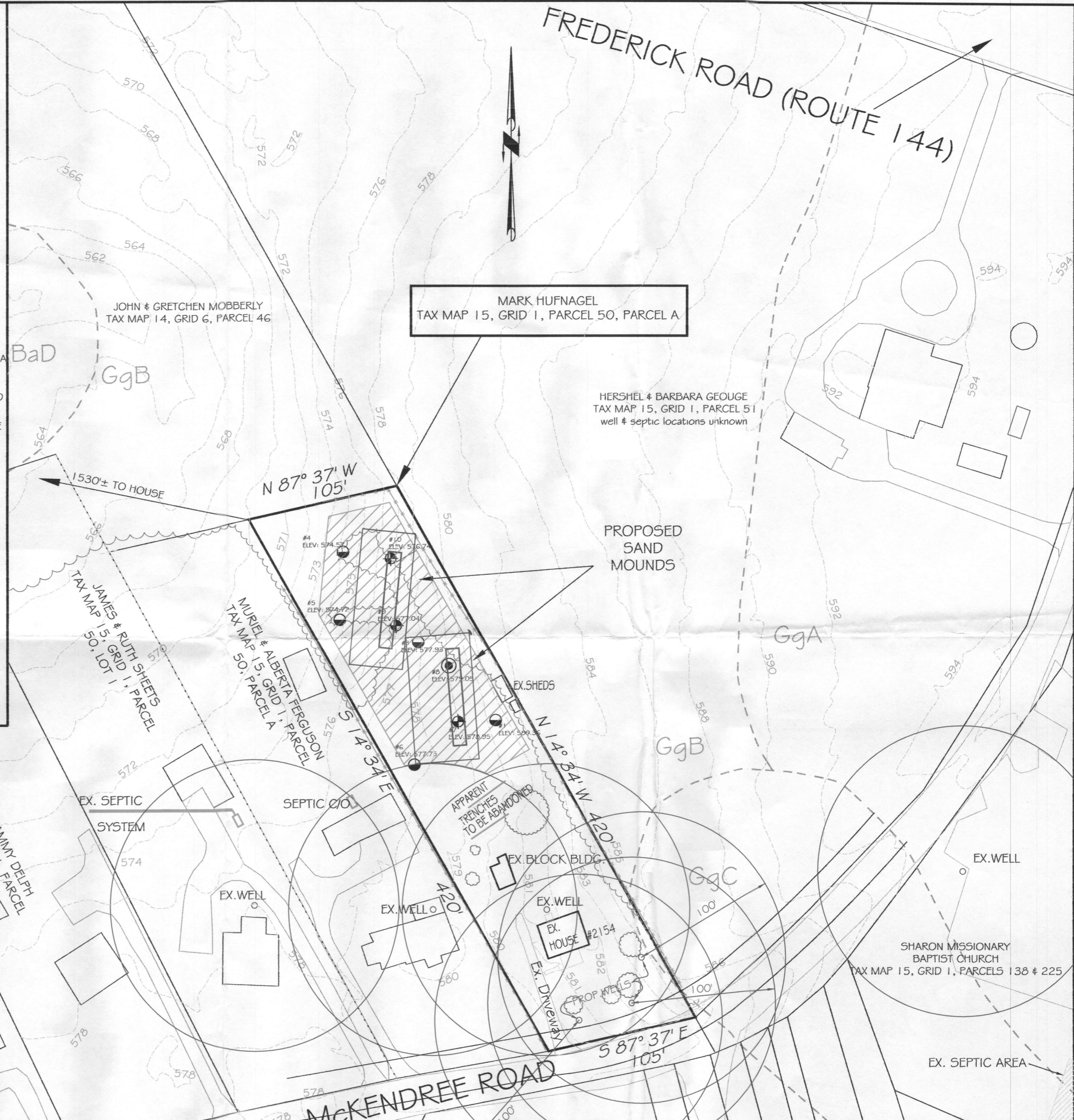
8. ANY CHANGE TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.

9. THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

10. THE EXISTING WELL MUST BE UPGRADED TO CURRENT STANDARDS OR REPLACED PRIOR TO BUILDING PERMIT APPROVAL.

11. THE EXISTING SEPTIC SYSTEM WILL BE REPLACED AND ABANDONED PRIOR TO BUILDING PERMIT APPROVAL. THE REPLACEMENT SYSTEM WILL INCLUDE A BAT UNIT.

12. THE SUBJECT PROPERTY HAS A LIMITATION OF 4 BEDROOMS. IF MORE BEDROOMS ARE DESIRED THE HEALTH DEPARTMENT WILL CONSIDER A TECHNICAL DESIGN SHOWING THAT THE SAND MOUND AREA WILL ACCOMMODATE A SYSTEM DESIGN ADEQUATE FOR THE AMOUNT OF WASTEWATER DISCHARGE FROM THE PROPOSED STRUCTURE.



SHANABERGER & LANE
8726 TOWN & COUNTRY BLVD.
SUITE 201
ELLCOTT CITY, MD 21043
(410) 461-9563
(410) 461-9693 fax
home@sharlane.com

PERC CERTIFICATION: I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON REFLECTS FIELD WORK DONE BY ME OR UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.

Scott Shanaberger
SCOTT SHANABERGER
PROFESSIONAL LAND SURVEYOR #10849

PURPOSE: TO OBTAIN APPROVAL FOR A SAND MOUND SYSTEM AND WELL AREA FOR AN EXISTING DWELLING.

APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS

Walter M. ...
COUNTY HEALTH OFFICER
DATE 9/17/2013

PERC CERTIFICATION PLAN
PROPERTY OF MARK HUFNAGLE
2154 MCKENDREE ROAD
TITLE DEED: 14879169
TAX MAP 15, GRID 1, PARCEL 50
4TH ELECTION DISTRICT, HOWARD COUNTY, MD.
SCALE: 1" = 50' DATE: 7/23/2013
REV. 8/21/2013, 9/3/2013 #A544592

NOTES:

1. TOPOGRAPHY SHOWN ON THE SUBJECT PROPERTY WAS FIELD RUN BY SHANABERGER & LANE ON 7/18/2013. TOPOGRAPHY SHOWN ON ADJOINING PROPERTIES IS FROM HOWARD COUNTY AERIAL PHOTOGRAMMETRY.

- 2. STANDARD TEST - FAILED
- INFILTRMETER TEST (CONVENTIONAL) - PASSED
- INFILTRMETER TEST (NONCONVENTIONAL) - PASSED

- PROPOSED SAND MOUND
- PROPOSED WELL AREA
- EXISTING SEWAGE DISPOSAL EASEMENT
- SOIL TYPE BOUNDARY
- WOODSLIME/TREES
- FENCES

3. SOIL TYPES:
GgB Glenelg loam, 3 to 8 percent slopes
GgC Glenelg loam, 8 to 15 percent slopes

4. BEARINGS AND DISTANCES SHOWN HEREON ARE FROM DEEDS AND PLATS OF RECORD. A BOUNDARY SURVEY IS ADVISED BEFORE STAKING OR CONSTRUCTING SAND MOUNDS OR WELLS.

5. THE SAND MOUND AREAS DELINEATED AND IDENTIFIED ON THIS PARCEL MUST BE STAKED BY A SURVEYOR, AND A FIELD REVIEW CONDUCTED BY THE HOWARD COUNTY HEALTH DEPARTMENT TO VERIFY THE AREAS HAVE NOT BEEN IMPACTED PRIOR TO BUILDING PERMIT APPROVAL. IN ADDITION, THESE AREAS MUST BE PROTECTED BY A FIXED BARRIER AT ALL TIMES DURING DEMOLITION, GRADING, AND CONSTRUCTION ACTIVITIES. THEREAFTER PROTECTIVE MEASURES SHOULD BE IMPLEMENTED TO PROTECT THESE AREAS FROM EROSION AND ENCROACHMENT BY WHEELED VEHICLES. SUBSEQUENT BUILDING PERMIT APPLICATIONS MAY BE DENIED SHOULD THE SAND MOUND AREAS BE EVALUATED AND FOUND TO BE UNSATISFACTORY FOR THE INTENDED USE. IN ADDITION, A SUPPLEMENTAL SITE PLAN WITH ALL OF THE NECESSARY DETAILS FOR INSTALLATION OF THE SYSTEM WILL BE REQUIRED PRIOR TO THE RELEASE OF THE SEPTIC SYSTEM INSTALLATION PERMIT.

6. LOCATIONS OF ALL KNOWN EXISTING WELLS AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND WELLS WITHIN 200' DOWNSLOPE OF THE PROPOSED SDA HAVE BEEN SHOWN FROM FIELD OBSERVATION OR FROM AVAILABLE PUBLIC RECORDS.

7. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.

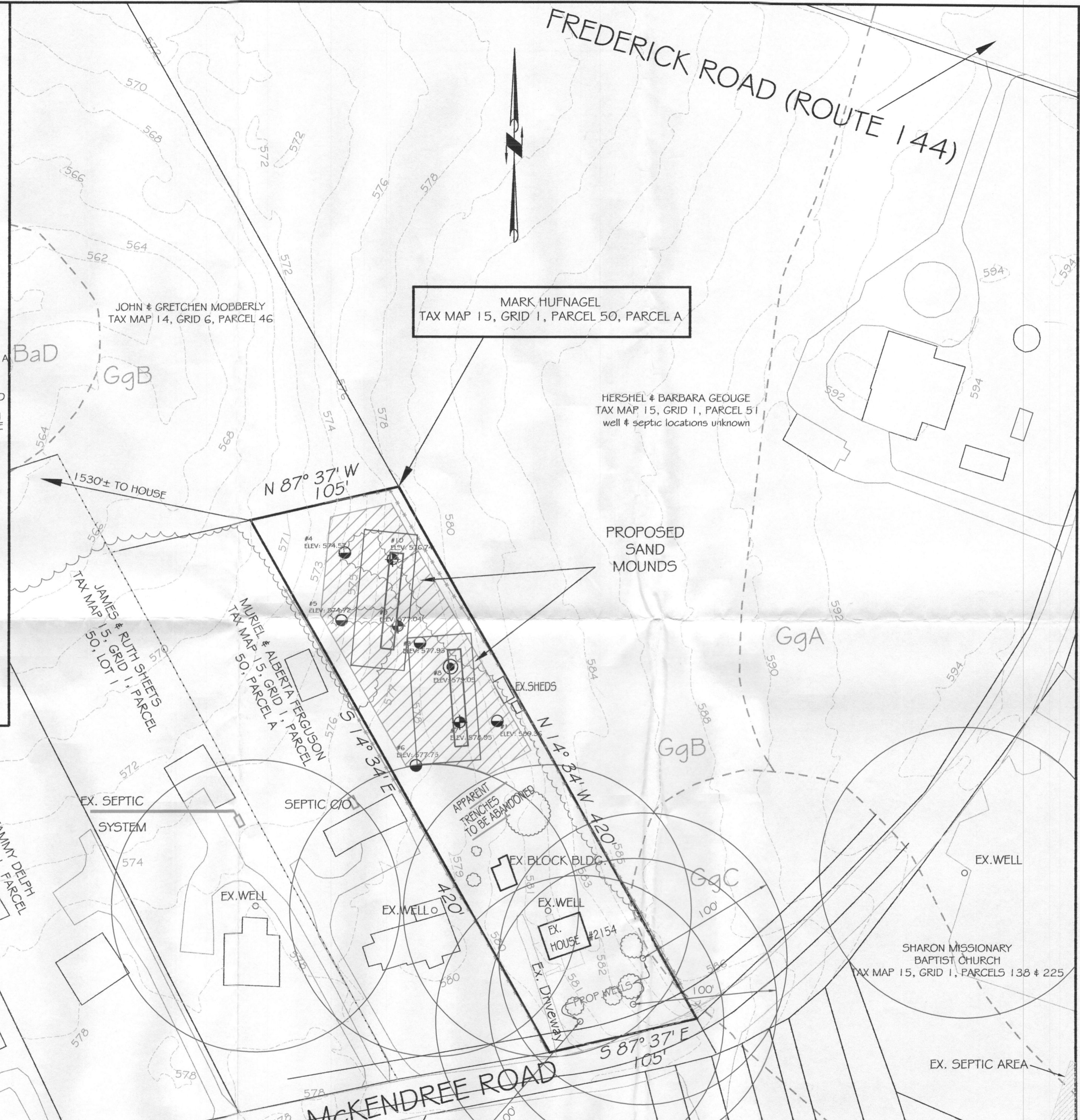
8. ANY CHANGE TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.

9. THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

10. THE EXISTING WELL MUST BE UPGRADED TO CURRENT STANDARDS OR REPLACED PRIOR TO BUILDING PERMIT APPROVAL.

11. THE EXISTING SEPTIC SYSTEM WILL BE REPLACED AND ABANDONED PRIOR TO BUILDING PERMIT APPROVAL. THE REPLACEMENT SYSTEM WILL INCLUDE A BAT UNIT.

12. THE SUBJECT PROPERTY HAS A LIMITATION OF 4 BEDROOMS. IF MORE BEDROOMS ARE DESIRED THE HEALTH DEPARTMENT WILL CONSIDER A TECHNICAL DESIGN SHOWING THAT THE SAND MOUND AREA WILL ACCOMMODATE A SYSTEM DESIGN ADEQUATE FOR THE AMOUNT OF WASTEWATER DISCHARGE FROM THE PROPOSED STRUCTURE.



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G. Scott Shanaberger
G. SCOTT SHANABERGER
PROFESSIONAL LAND SURVEYOR #10849




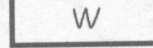
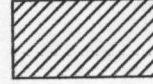

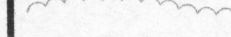
PURPOSE: TO OBTAIN APPROVAL FOR A SAND MOUND SYSTEM AND WELL AREA FOR AN EXISTING DWELLING.

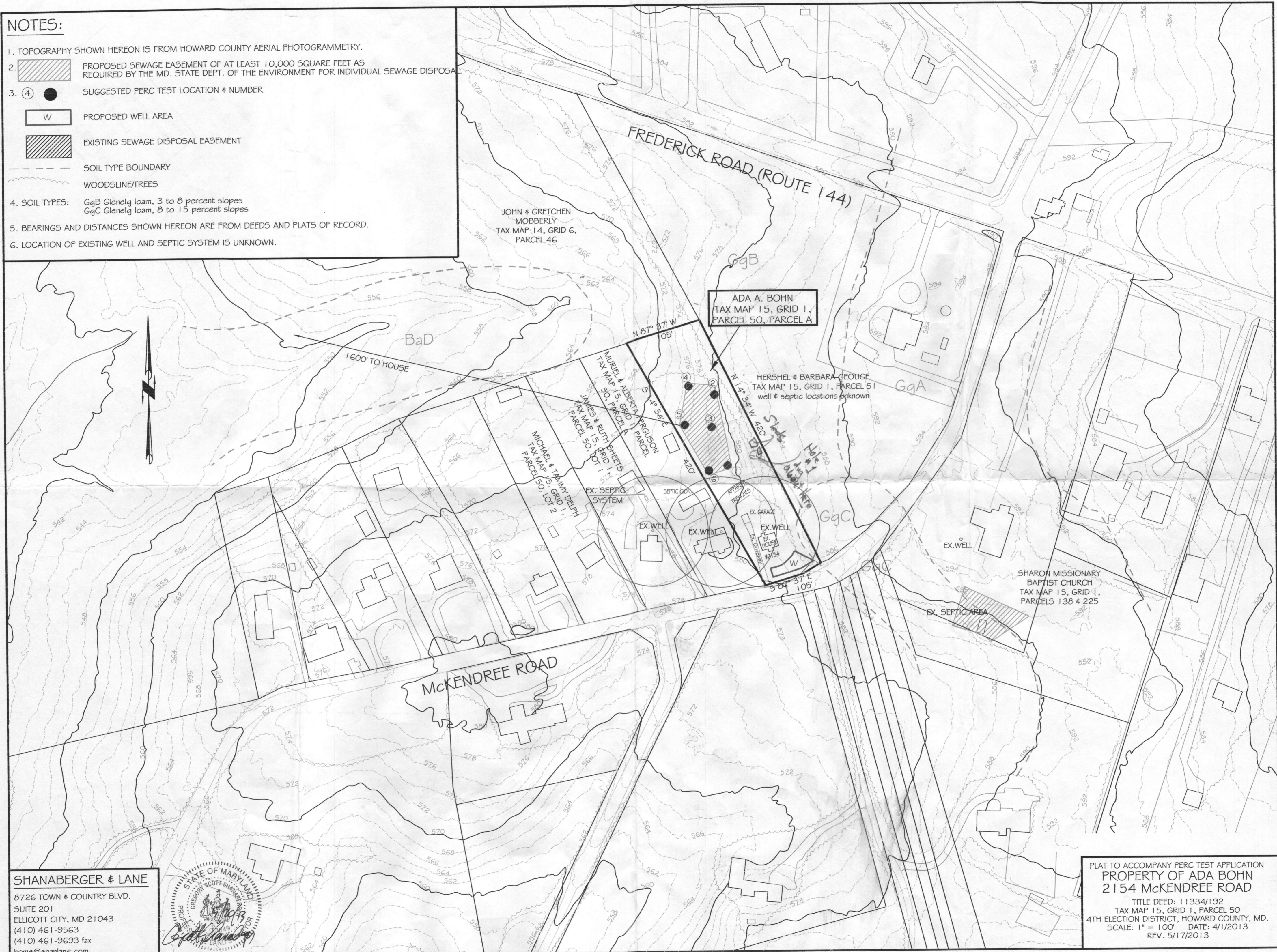
APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS

Wilson for Maura Pearson 9/17/2013
COUNTY HEALTH OFFICER *WJ* DATE *9/17/2013*

PERC CERTIFICATION PLAN
PROPERTY OF MARK HUFNAGLE
2154 MCKENDREE ROAD
TITLE DEED: 14879/169
TAX MAP 15, GRID 1, PARCEL 50
4TH ELECTION DISTRICT, HOWARD COUNTY, MD.
SCALE: 1" = 50' DATE: 7/23/2013
REV. 8/21/2013, 9/3/2013 #A544592

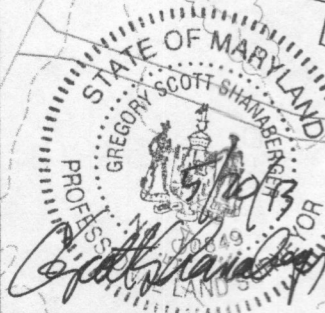
NOTES:

1. TOPOGRAPHY SHOWN HEREON IS FROM HOWARD COUNTY AERIAL PHOTOGRAMMETRY.
2.  PROPOSED SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MD. STATE DEPT. OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL.
3.   SUGGESTED PERC TEST LOCATION # NUMBER
-  PROPOSED WELL AREA
-  EXISTING SEWAGE DISPOSAL EASEMENT
-  SOIL TYPE BOUNDARY
-  WOODSLINE/TREES
4. SOIL TYPES: GgB Glenelg loam, 3 to 8 percent slopes
GgC Glenelg loam, 8 to 15 percent slopes
5. BEARINGS AND DISTANCES SHOWN HEREON ARE FROM DEEDS AND PLATS OF RECORD.
6. LOCATION OF EXISTING WELL AND SEPTIC SYSTEM IS UNKNOWN.



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PLAT TO ACCOMPANY PERC TEST APPLICATION
PROPERTY OF ADA BOHN
2154 McKENDREE ROAD
TITLE DEED: 11334/192
TAX MAP 15, GRID 1, PARCEL 50
4TH ELECTION DISTRICT, HOWARD COUNTY, MD.
SCALE: 1" = 100' DATE: 4/1/2013
REV. 5/17/2013