

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

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

MEMORANDUM

TO: Kent Sheubrooks, Chief
Division of Land Development

FROM: Jeff Williams
Program Supervisor, Well & Septic Program
Bureau of Environmental Health

DATE: August 7, 2019

RE: PB 447 Clifton Link

The Health Department has reviewed the above referenced application and has the following comment.

- The most recent Health Department approved perc certification plan was approved on 2/13/2019. There was no plan sent with the application, so I can't state whether the planning board proposal matches that perc certification plan.



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8930 Stanford Boulevard, Columbia, MD 21045

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

**APPLICATION FOR VARIANCE
TO COMAR ONSITE WATER/SEWER FOR MDE APPROVAL**

Date Submitted 12/26/18

13630 Nichols Drive, Clarksville, MD 21029

Property Address

Clifton C. Link Property, Lot 1 (Proia Property)	11	34	9	368	357780
Subdivision	Lot	Tax Map	Grid	Parcel	Tax Account #

Provide a brief site history including previously submitted and active plans with the Health Department or the County (subdivision plans, perc test applications, Building Permit applications):

This property is under current subdivision review to create Lots 10 & 11 from the original Lot 1. Lot 11 is improved by an existing residence, well and sewage disposal system, the well will be disconnected and used for Lot 10.

In the area below, list the specific section of the Code of Maryland Regulations (COMAR) to which a variance is being requested and provide a brief summary of the regulation and an explanation of why the variance is being requested (Attach a separate sheet if necessary).

Regulation Section	Summary and Explanation
1. <u>COMAR 26.04.02.05.B.(2)</u>	<u>Specifies that on-site sewage disposal system is to be located downgradient from a private water well.</u> <u>The proposed location of the well area for this lot is greater than 300 feet from the existing sewage disposal area for this lot. No other wells or sewage disposal areas are affected.</u>
2. _____	_____
_____	_____
_____	_____

Property Owner's Signature

Health Department Use Only

Reviewed by HCHD Staff 1/16/2019 Date

Recommendation: Recommended [] Not Recommended

HCHD Supervisor 1/22/19 Date

Comments/Conditions: _____

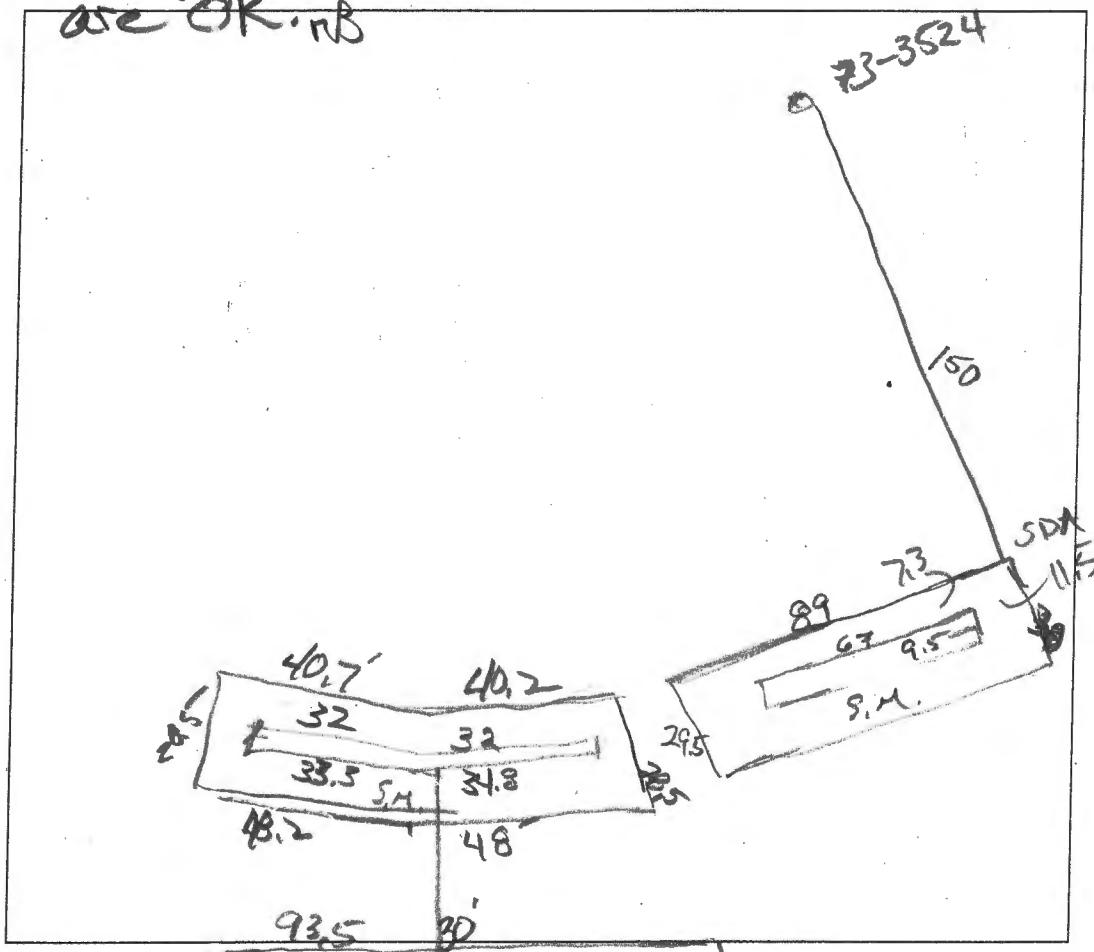
Approved by: _____ MDE Representative _____ Date

SITE INSPECTION SHEET

OWNER: Proia PHONE #: _____
ADDRESS: 13630 Nichols Dr CONTRACTOR: _____
WELL TAG #: HO-73-3524
SUBDIVISION: _____ LOT: _____ COUNTY #: _____

PROPOSAL: Field Review Sand Mound sites/SDA for 'lot 10'
for Perc Cent & Final Plat; layout and relative
elevations.
are OK. NB

LOCATION DIAGRAM



COMMENTS: _____
_____ 89' 34' _____
_____ 93.2 _____
_____ in filtration strip _____
_____ 103.2 _____

DATE: 2/26/19 INSPECTOR: _____

R Bricker
w/ Spencer Freeman

MOUND TEST DATA SHEETS

Clifton C. Link

Property I.D. Proje Lot # 10 Date 4/21

Sanitarian RB Landscape Position Sideslope

% Slope 4% Soil Type _____ Contractor Chuck Zapp / Sergey Rutter

HOLE # 4001A DEPTH OF TEST 15" START TIME 2:52

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
10YR 5/4 dry 3 fg many roots 3"	9 16/16	0	—	—	—
	9 11/16	12	5 1/16	38.4	—
10YR 4/6 dry 2 fsbk, many roots 7"	9 6/16	12	5 7/16	38.4	0
	9 2/16	10	4 1/16	40	4.2
	8 14/16	10	4 1/16	40	0
	8 10/16	10	4 1/16	<u>40</u>	0

3:04
3:16
3:26
PASS

10YR 5/8
2 msbk loam
slightly sticky
few mica
25"

10YR 5/6 scl
& 7.5YR 5/6
many fine mica
29"

10YR 5/8
& 2.5YR 4/8
many fine mica
31"

36" to 8.5'
Clay loams
8.5' mottled sl
water at 9'2"
Begin equilibration 2:30

cid 10YR 7/1 & 10YR 8/2
cid 10YR 2/2 (M/N)
31"

HOLE # 4002 ADEPTH OF TEST 14" START TIME 3:48

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
10YR 4/4 dry 3 fg, many roots 3"	9 16/16	0	—	—	—
	9 4/16	12	1 7/16	16	—
10YR 4/4 dry 2 v fsbk many roots 7"	8	24	20/16	19.2	—
	7 7/16	15	9 1/16	26	—
	7 1/16	10	6 1/16	26	—
	8 14/16	5	2 1/16	<u>26</u>	—

4:00
4:24
4:39
4:49
4:54

PASS

10YR 5/8 & 10YR 6/6
stl, c. mica
32"

5YR 5/8 & 10YR 6/3
common mica
36"

begin equilibration 3:25

MOUND TEST DATA SHEETS


Property I.D. Clifton C. Link Lot # 10 Date 4/20/2012
Proia

Sanitarian RB Landscape Position _____

% Slope 4% Soil Type _____ Contractor Chuck Zapp / Jeremy Reiter

HOLE # 4004 DEPTH OF TEST _____ START TIME _____

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
10YR 6/3 (dry) loam 3fg 7"					
10YR 5/6 loam 2fsbk 13"					
10YR 5/6 loam csp 10YR 6/3 Common mix					
10YR 5/8 & 10YR 6/3, cl ft 10YR 7/2 23"					
7.5 YR 5/8 23"					
MRP 10 YR 6/2 grscl 30"					


Fail, perched water


HOLE # 4009 DEPTH OF TEST 12" START TIME 7:18

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
10YR 5/4 dry loam 3fg 3"	9 16/16				
10YR 5/4 dry 3fsbk 7"	9 2/16	12	2/16	24	
7.5 YR 5/6 loam 2msbk 16"	8 2/16	12	6/16	32	
10YR 5/6 1msbk loam 27"	8 19/16	10	4/16	40	
7.5 YR 5/8 & 10YR 6/3 csp 10YR 7/2 (Mn) loam 36 - 48"	8 12/16	5	2/16	(40)	

4:42
4:52
4:57

Pass

5YR 5/6 & 7.5YR 6/3
grscl
Begin equilibration 4:12


54" moist
grscl
csp Mn
7.5 YR 5/8
7.5 YR 6/2

MOUND TEST DATA SHEETS

Clifton C. Link

Property I.D. Probs Lot # 10 Date 4/20/2012

Sanitarian RR Landscape Position Sideslope-foot slope

% Slope 4% Soil Type _____ Contractor Chuck Fegg / Serenity Rutter

HOLE # 4006 DEPTH OF TEST 16" START TIME 11:26

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate <i>min/inch</i>	% Change
10YR 6/4 (dry)	9 4/16	Begin	0	—	—
loam 3fg to 3 v s/bk	9 7/16	5	2/16	53	—
	9 5/16	10	2/16	80	-33.75
10YR 5/8	9 2/16	15	3/16	53	+33.75
3 f s/bk & m s/bk slightly sticky few gravel	8 15/16	10	3/16	53	0
	8 11/16	20	4/16	80	-33.75
	8 9/16	10	2/16	80	0
	8 7/16	10	2/16	80	0

Fail

31" above boundary (a 22"); ~35% gravel
Begin Equilibration, 10:55
3p 2.5 Y 6/3 grs (heavy)
c 2.5 Y 6/1
35"

HOLE # 4005 DEPTH OF TEST 11" START TIME 11:55 Reset/Restart 12:05

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
7.5YR 5/3 (dry)	9 4/16	Begin	0	—	—
loam 3fg	9 5/16	10	1/16	14.5	—
7.5 YR 5/8	8 10/16	10	9/16	17.7	+22
3 f s/bk grl	7 12/16	20	16/16	20	+13
common fine roots	7 3/16	12	9/16	21.3	+6.5
7.5YR 5/8 & 10YR 6/4	Abort Test - Reset Infiltrator				
3rd 10YR 2/2 (m)					

12:05
12:15
12:35
12:45
Soil moist around base

10YR 6/3
2 m pl and 7.5YR 5/8
m 7d 10YR 2/2 (m)

Begin equilibration, 11:34

MOUND TEST DATA SHEETS

Property I.D. Clinton C. Link Lot # 10 Date 4/20/2012

Sanitarian RB Landscape Position Sideslope

% Slope 4% Soil Type _____ Contractor Chuck Zepp / Jeremy Rutter

HOLE # 4007 DEPTH OF TEST 18" START TIME 2:45

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate <i>min/inch</i>	% Change	
7.5VR 4/4 dry 3fg, loam many roots	9 1/16	0	—	—	—	
7.5VR 4/6 dry 3fg, loam many fine roots	9 2/16	15	15/16	17.14	—	3:15
	8 6/16	15	12/16	20	-16.7	3:30
	7 12/16	15	14/16	17.14	+14.3%	3:45
	7 2/16	15	10/16	24		3:55
5VR 5/6 grcl 2msbk few stones mica	6 11/16	10	3/16	22.8		4:01
	6 7/16	6	4/16	24		
	6 3/16	6	4/16	(24)		
7.5VR 5/6						
2p 10VR 2/2 (Mn) common mica few gravel						
7.5VR 5/6 cl, 1fgsbk 2p 10VR 2/2 (Mn)						
7.5VR 5/6 cl more dense qm many fine mica						

Pass

Begin equilibration, 2:05

HOLE # 4008 DEPTH OF TEST 19" START TIME 2:49

	Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate <i>min/inch</i>	% Change	
10VR 5/4 dry 3fg many fine loam roots	9 1/16	0	—	—	—	
	8	15	2"	7.5	—	3:04
10VR 5/4 dry gr, 2fgsbk	6 17/16	10	20/16	8	-6.7	3:14
	5 10/16	10	18/16	8.88	-11	
			reset gauge			
7.5VR 5/6 grcl 2msbk few mica few roots	8 14/16	0	—	—	—	3:26
	8 4/16	6	12/16	8	+10	3:32
	7 4/16	10	10/16	10		3:42
	5 19/16	12	24/16	8.7		3:54
	4 12/16	12	18/16	10.6		4:06
			reset gauge			
7.5VR 5/8 sd 2 5VR 5/6 2p 10VR 2/2 (Mn) common mica						

Pass

Begin equilibration, 2:15

SAND MOUND CALCULATIONS

Total mound width:	<u>27.5</u>	feet
Total mound length:	<u>104.4</u>	feet

SITE SPECIFIC INFORMATION

Slope Percent:	<u>4</u>	%
Z- Restrictive Depth to rock or water:	<u>36</u>	inches
Percolation Rate:	<u>40</u>	minutes/inch
Design Flow:	<u>750</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>750</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>83.33</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>16</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>10.54</u>	feet
Upslope correction factor (from chart):	<u>0.89</u>	
J- Upslope setback: ((22 in + D) / 12) x 3 x Upslope corr. Factor =	<u>7.57</u>	feet
Downslope correction factor (from chart):	<u>1.14</u>	
I- Downslope setback: ((22 in + E) / 12) x 3 x Downslope corr. Factor =	<u>10.92</u>	feet
W- Preliminary Width of Mound: A + J + I =	<u>27.5</u>	feet
L- Total Length of Mound: B + 2K =	<u>104.4</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>1000</u>	square feet
Basal area provided with preliminary width: Level Site = L x W; Slope Site (A+I)xB	<u>1660</u>	square feet



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Peter L. Beilenson, M.D., M.P.H., Health Officer

May 2, 2012

To: **Jeremy Rutter, Applicant**
Jeremy@rutterpm.com

RE: **Perc Test Report, PROPOSED LOT 10, PROIA PROPERTY, [a re-subdivision of Clifton C. Link Property, Lot 1], receipt number A536791**

Percolation testing was conducted on the referenced property on April 20, 2012. The purpose for conducting these percolation tests was to delineate septic reserve areas for a proposed subdivision of existing Lot 1.

All percolation tests conducted were infiltrometer tests conducted in the soil layer most restricting to infiltration in the upper 24 inches of the soil profile. The test was a 'falling head' test measuring rate of infiltration in minutes per inch after an equilibration period. Soil conditions either satisfactory or unsatisfactory for onsite wastewater disposal were observed at each of eight test locations on the subject property. Areas that may be included in a septic reserve are represented by test locations having satisfactory soil conditions. The area of the septic reserve must be at least 10,000 square feet, though Howard County Code [3.805.A.2.X] requires that the area be large enough to accommodate an initial drainfield (or sand mound) and two repair drainfields (or sand mounds) for the planned residence.

Soil conditions observed were satisfactory for onsite wastewater treatment and disposal on the proposed lot. A test location ('4009') was added to pair with location '4005' and represent a sand mound area which Passed with an infiltration rate of 40 minutes per inch. Locations 4001A and 4002 A represent a second sand mound area that Passes with an infiltration rate of 40 minutes per inch. A third sand mound area represented by locations '4007' and '4008' Passes with an infiltration rate of 24 minutes per inch.

Seasonal water table was observed at 23 inches at test location '4004', thus that location Failed. Infiltration rate greater than 60 minutes per inch occurred at location '4006'; therefore that location Failed and the proposed sand mound area represented by '4004' and '4003'(which was not tested) Failed.

For approval as a septic reserve serving the proposed lot, all three of the approvable sand mound areas are to be enclosed within a septic reserve area which will also include the area downslope of each sand mound for a distance of 25 feet. The plan showing this proposal is a Percolation Certification Plan. Other required content includes three (3) well locations or a 1500 square-foot wellbox, a building envelope 55' x 75', proposed lot line, the building restriction limits, soil map unit delineations (2008 Soil Survey of Howard County), 2-foot elevation contours and 1-foot elevation contours in the area of the proposed sand mounds.

On the proposed Lot 11 where the existing residence is located, a 10,000 square foot septic reserve is to be presented on the Percolation Certification Plan along with the existing well and two alternate well locations (or a 1500 square-foot wellbox). The footprint of the house and all other structures need to be shown on the plan. The pond and any streams or wetlands also should be shown.

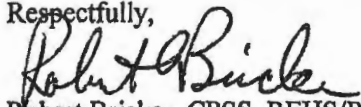
The Health Department has a file for the existing property. Percolation tests were conducted in 1976 to define a septic reserve area for the residence, however soil profiles were not recorded and the Health Officer did not certify the area. To be approved, a Percolation Certification Plan that includes the area of the existing residence will have to include soil profile

descriptions that support the reserve area defined by those tests. The location of the area and the tests conducted on 1976 may be observed on the building permit proposal that is also a part of the Health Department file.

Field data collected are shown on two Percolation Test Worksheets enclosed with this letter. Recommended Inlet and Trench Bottom depths, and Usable Sidewall all are based on observed soil properties and characteristics at respective test locations as well as the particular soils materials tested. The values for the drainfield parameters will be documented during the Percolation Certification Plan process, and then maintained in the Health Department file for the subject property.

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

Respectfully,



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

Enclosures (6)

Copy: Donald Proia, owner
File

SITE INSPECTION SHEET

OWNER: Donald Proia PHONE #: _____

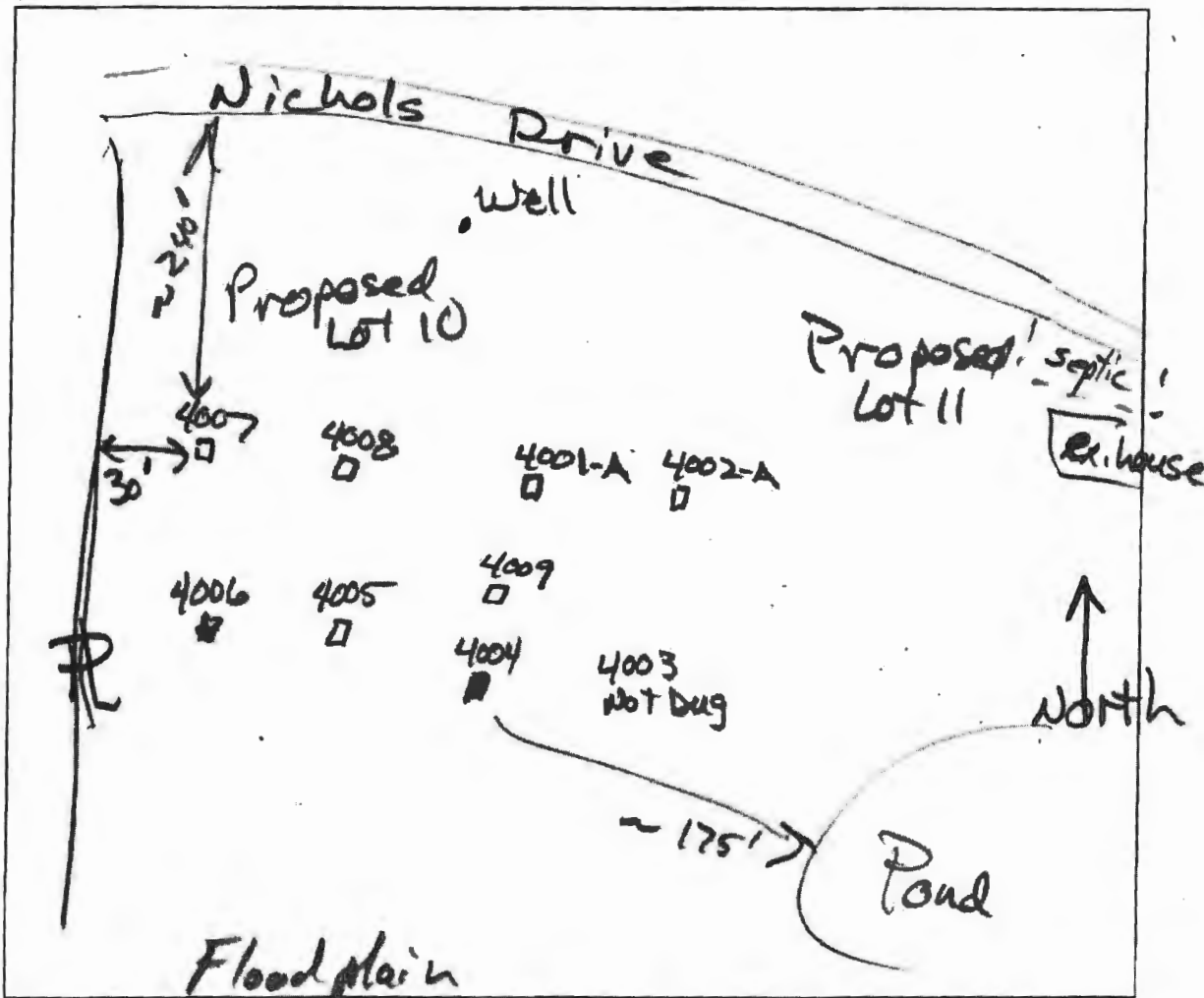
ADDRESS: 13630 Nichols Drive CONTRACTOR: _____

Clarksville 21029 WELL TAG #: _____

SUBDIVISION: Clifton Link LOT: 10 COUNTY #: _____

PROPOSAL: Infiltration tests to establish septic reserve for re-subdivision to lots 10 & 11 completed 4/23/12

LOCATION DIAGRAM




COMMENTS: 2 Tests Fail; #4004 for water table within 24" of surface

6 Tests Pass

DATE: 4/23/12 INSPECTOR: R. Bunker

GENERAL NOTES:

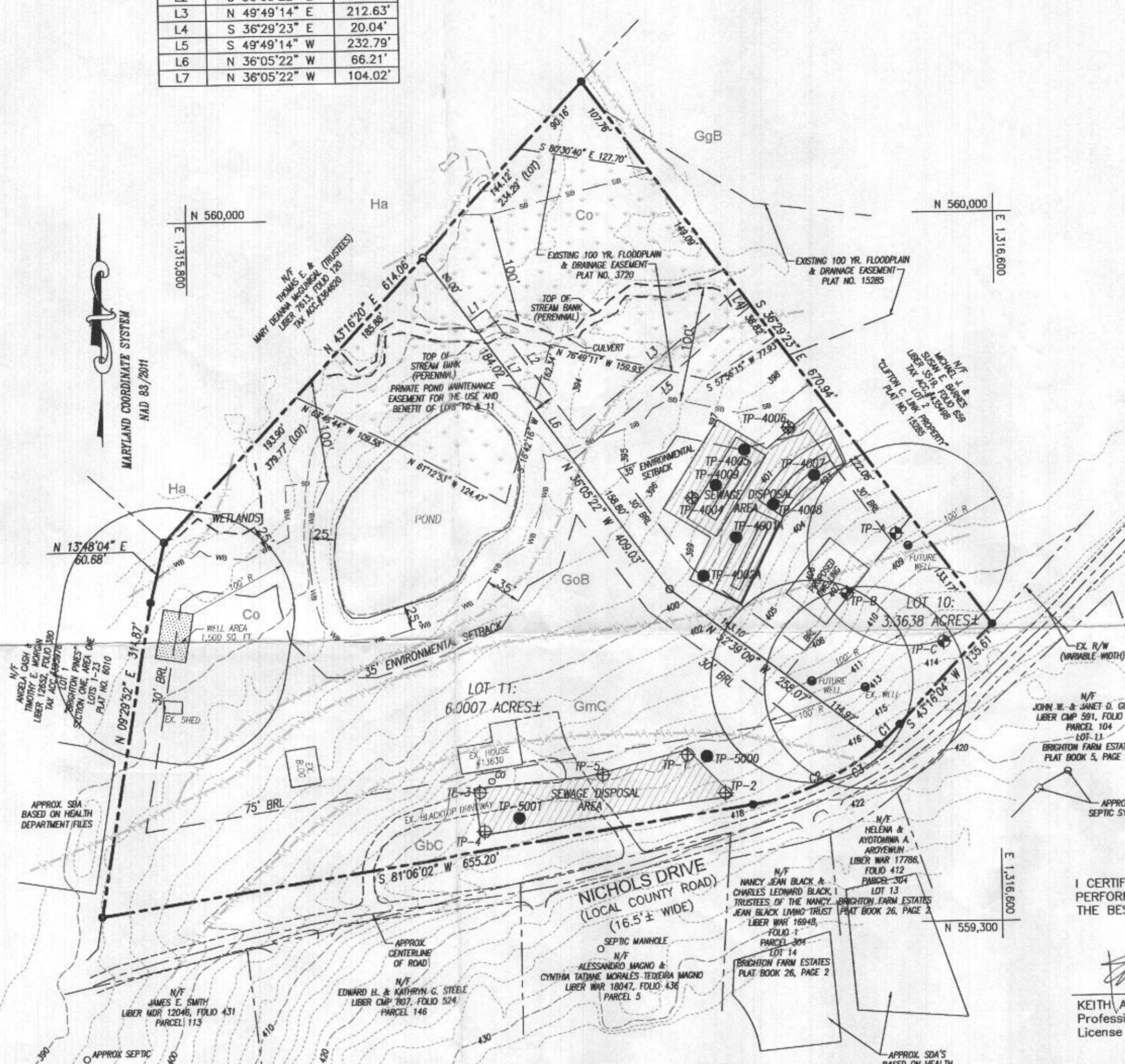
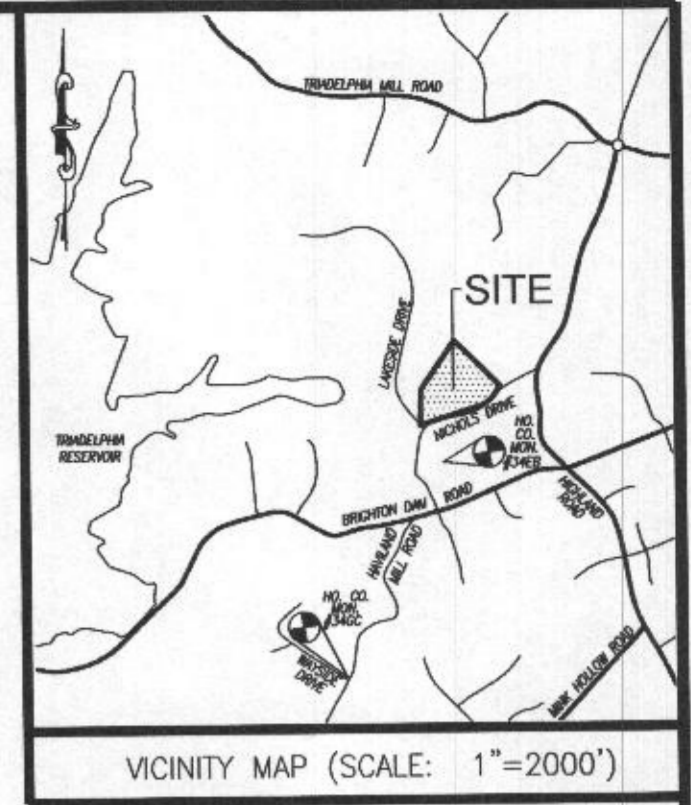
- CURRENT TITLE INFORMATION:
OWNERS: DONALD S. PROIA & JUDITH ANN MARIE PROIA
DEED REFERENCE: LIBER CMP 844, FOLIO 341
DATE: SEPTEMBER 8, 1977
- THIS PLAT IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT SEPTEMBER, 2017 BY KEITH A. HEINDEL AND HANOVER LAND SERVICES, INC.
-  THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF AT LEAST 10,000 SQ. FT. AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.
- ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- THE TWO FOOT INTERVAL CONTOURS SHOWN HEREON ARE TAKEN FROM HOWARD COUNTY GIS AERIAL TOPOGRAPHY FLOWN IN 2011 AND WERE FIELD VERIFIED TO ACCURATELY REPRESENT THE RELATIVE CHANGES ON THE SUBJECT PROPERTY. THE ONE (1) FOOT CONTOURS SHOWN HEREON IN THE AREA FOR SAND MOUND LOCATION WERE FIELD RUN BY HANOVER LAND SERVICES, INC. IN FEBRUARY, 2017.
- ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND ANY WELLS 200 FEET DOWN GRADIENT OF THE SEPTIC SYSTEMS ON THE SUBJECT PROPERTIES ARE SHOWN HEREON.
- THE PROPOSED SEWAGE DISPOSAL AREAS SHOULD BE LARGE ENOUGH TO ACCOMMODATE AN INITIAL AND TWO REPLACEMENT SYSTEMS.
- THE LOTS SHOWN HEREIN COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT.
- THE EXISTING DRIVEWAY SERVING THE RESIDENCE AT 13630 NICHOLS DRIVE IS PARTIALLY WITHIN THE BOUNDARY OF THE SEWAGE DISPOSAL AREA AND MAY BE DAMAGED IF TRENCHES ARE REQUIRED TO BE INSTALLED IN THE SAME PLACE.
- THE EXISTING WELL IS TO REMAIN AND WILL SERVE THE NEW RESIDENCE ON LOT 10.
- PRIOR TO SUBMITTAL OF THE FINAL PLAN MYLAR, THE EXISTING DRY-WELL WHICH SERVES THE RESIDENCE AT 13630 NICHOLS DRIVE WILL BE PROPERLY ABANDONED. A DISTRIBUTION BOX SHALL BE INSTALLED, CONNECTING TO THE TWO EXISTING TRENCHES. THE HEALTH DEPARTMENT MAY APPROVE THE SUBDIVISION WHEN THE ATTENDING SANTARIAN APPROVES THE INSTALLATION OF THE DISTRIBUTION BOX AND THE PROPER ABANDONMENT OF THE DRY WELL.
- PREVIOUS TEST PIT LOCATIONS ARE SHOWN AS INDICATED IN THE HEALTH DEPARTMENT RECORDS FOR THE SUBJECT PROPERTY.
- ALL WELLS SHALL BE DRILLED PRIOR TO FINAL PLAT RECORDATION. IT IS THE DEVELOPERS RESPONSIBILITY TO SCHEDULE THE WELL DRILLING PRIOR TO FINAL PLAT SUBMISSION. IT WILL NOT BE CONSIDERED "GOVERNMENT DELAY" IF THE WELL DRILLING HOLDS UP HEALTH DEPARTMENT SIGNATURE OF THE RECORD PLAT.
- THE EXISTING WELL, WHICH CURRENTLY SERVES 13630 NICHOLS DRIVE, MUST BE SAMPLED AND THE SAMPLE ANALYZED FOR NITRATES AND BACTERIA PRIOR TO HEALTH DEPARTMENT SIGNATURE OF THE FINAL PLAT. SHOULD THE RESULTS EXCEED POTABILITY STANDARDS, ADDITIONAL TESTS MAY BE REQUIRED AND/OR ABANDONMENT OF THE EXISTING WELL MAY BE REQUIRED DUE TO CONTAMINATION ORIGINATING FROM THE SEWAGE DISPOSAL AREA OF LOT 13 (BRIGHTON FARM ESTATES).
- THE SAND MOUND AREAS DELINEATED AND IDENTIFIED ON PROPOSED LOT 10 ON THIS PLAN MUST BE STAKED BY A SURVEYOR AND FIELD VISIT MADE BY THE HOWARD COUNTY HEALTH DEPARTMENT TO VERIFY THE AREAS HAVE NOT BEEN IMPACTED, PRIOR TO FINAL PLAT APPROVAL AND FOR SUBSEQUENT 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 BUILDING PERMIT (IF APPLICABLE) AND SEPTIC SYSTEM INSTALLATION PERMIT.
- THE MARYLAND DEPARTMENT OF THE ENVIRONMENT HAS GRANTED A VARIANCE TO ALLOW THE FUTURE WELL LOCATIONS ON PROPOSED LOT 10 TO BE DOWNGRADIENT OF THE SEPTIC SYSTEMS ON LOTS 11, 13 AND 14 OF THE BRIGHTON FARM ESTATES SUBDIVISION, WITH THE FOLLOWING CONDITIONS:
 - ANY NEW WELL INSTALLED ON LOT 10 MUST BE AT LEAST 200 FEET DISTANT FROM ANY SEWAGE DISPOSAL AREA OR ONSITE SEWAGE DISPOSAL SYSTEM IN THE BRIGHTON FARMS ESTATES SUBDIVISION.
 - ANY NEW WELL INSTALLED ON LOT 10 MUST HAVE STEEL CASING. THE STEEL CASING IS REQUIRED TO EXTEND TO 50-FOOT DEPTH OR 10 FEET INTO COMPETENT ROCK, WHICHEVER IS DEEPER.

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	TANGENT	CHORD BEARING
C1	254.72'	28.35'	06°22'39"	14.19'	S 46°27'24" W 28.34'
C2	254.72'	139.84'	31°27'21"	71.73'	S 65°22'24" W 138.09'
C3	254.72'	166.71'	37°29'55"	86.46'	S 62°00'52" W 163.75'

LINE TABLE		
LINE	BEARING	LENGTH
L1	N 53°54'38" E	19.97'
L2	S 36°05'22" E	148.75'
L3	N 49°49'14" E	212.63'
L4	S 36°29'23" E	20.04'
L5	S 49°49'14" W	232.79'
L6	N 36°05'22" W	66.21'
L7	N 36°05'22" W	104.02'

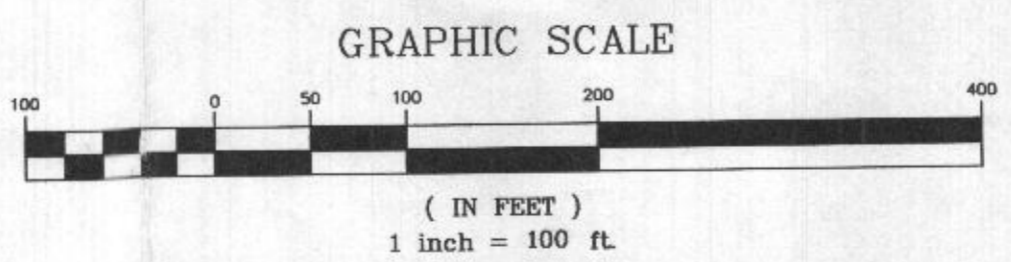
SOIL TYPES

- Co - CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES
- GbC - GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES
- GmC - GLENVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES
- GoB - GLENVILLE-CODORUS SILT LOAMS, 0 TO 8 PERCENT SLOPES
- Ha - HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES



LEGEND

- PROPERTY BOUNDARY LINE
- - - - - EXISTING CONTOURS
- SOILS BOUNDARY
- ⊕ PREVIOUS TEST PIT, FAILED, (3/11/92)
- ⊕ PREVIOUS TEST PIT, PASSED, (4/25/76)
- TEST PIT PASSED, (4/20/12)
- ⊕ TEST PIT FAILED, (4/20/12)



I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Keith A. Heindel
 KEITH A. HEINDEL
 Professional Land Surveyor No. 21189
 License Expiration: December 31, 2019
 DATE: 07/09/19

APPROVED FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS

Paula M. Ratzman
 HEALTH OFFICER, HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 2/28/2019

PURPOSE NOTE: THE PURPOSE OF THIS PERCOLATION CERTIFICATION PLAN IS TO ESTABLISH A SEWAGE DISPOSAL AREA AND WELL LOCATIONS FOR LOTS 10 AND 11 AS SHOWN HEREON.

HLS engineering land + designing the future

HANOVER LAND SERVICES, INC.

Hanover Office:
585 McAllister Street
Hanover, PA 17331
Ph: (717) 637-5674
Fax: (717) 633-1987
www.hanoverlandservices.com

Westminster Office:
194 East Main Street
Westminster, MD 21157
Ph: (410) 751-8795

REVISIONS		
NO.	DATE	DESCRIPTION
1	12/20/18	CHANGE WELL AREAS, REVISE NOTES
2	1/11/19	REVISE NOTES
3	2/8/19	ADD MOUNDS & BEDS, REV. NOTE 16

OWNER / DEVELOPER:
 DONALD S. &
 JUDITH ANN MARIE PROIA
 13630 NICHOLS DRIVE
 CLARKSVILLE, MD 21029
 (301) 854-2118

PLAN PREPARATION

DRAWN BY: WFB DATE: 10/11/18
 CHECKED BY: KAH JOB NO. W1153

PERCOLATION CERTIFICATION PLAN

CLIFTON C. LINK PROPERTY
 LOTS 10 & 11
 TAX MAP 34, GRID 9, PARCEL 368
 5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE
 1" = 100'
 SHEET NO.
 1 of 1