Howard County Health Department

APPLICATION

FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) _____ TEST TIME _____ (A)P 53101

AGENCY REVIEW: _____ DATE 5-21-09

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:
- [x] CONSTRUCT NEW SEPTIC SYSTEM(S)
- [ ] REPAIR/ADD TO AN EXISTING SEPTIC SYSTEM
- [ ] REPLACE AN EXISTING SEPTIC SYSTEM

CHECK AS NEEDED:
- [x] 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
- [x] BUILD ON AN EXISTING PARCEL OF RECORD

IS THE PROPERTY WITHIN 2500' OF ANY RESERVOIR?
- [ ] YES
- [x] NO

THE TYPE OF STRUCTURE IS:
- [x] RESIDENTIAL WITH 4 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) GEORGE E. & KATHRYN A. HALL

DAYTIME PHONE 410.269.5588 (W) CELL 410.991.7991 FAX 410.269.5766

MAILING ADDRESS 387 YORKSHIRE LANE (STREET) RIVA, MD (CITY/TOWN) 21140 (STATE/ZIP)

APPLICANT LDE, INC.

DAYTIME PHONE 410.715.1070 CELL 410.274.6568 FAX 410.715.9540

MAILING ADDRESS 9250 RUMSEY ROAD #106 (STREET) COLUMBIA, MD (CITY/TOWN) 21045 (STATE/ZIP)

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

PROPERTY LOCATION
SUBDIVISION/PROPERTY NAME HALL PROPERTY LOT NO. —

PROPERTY ADDRESS HALL SHOP ROAD NR. SIMPSON (STREET) CLARKSVILLE, MD. 21140 (TOWN/POST OFFICE)

TAX MAP PAGE(S) 41 GRID 1 PARCEL(S) 133 PROPOSED LOT SIZE 1.28 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.

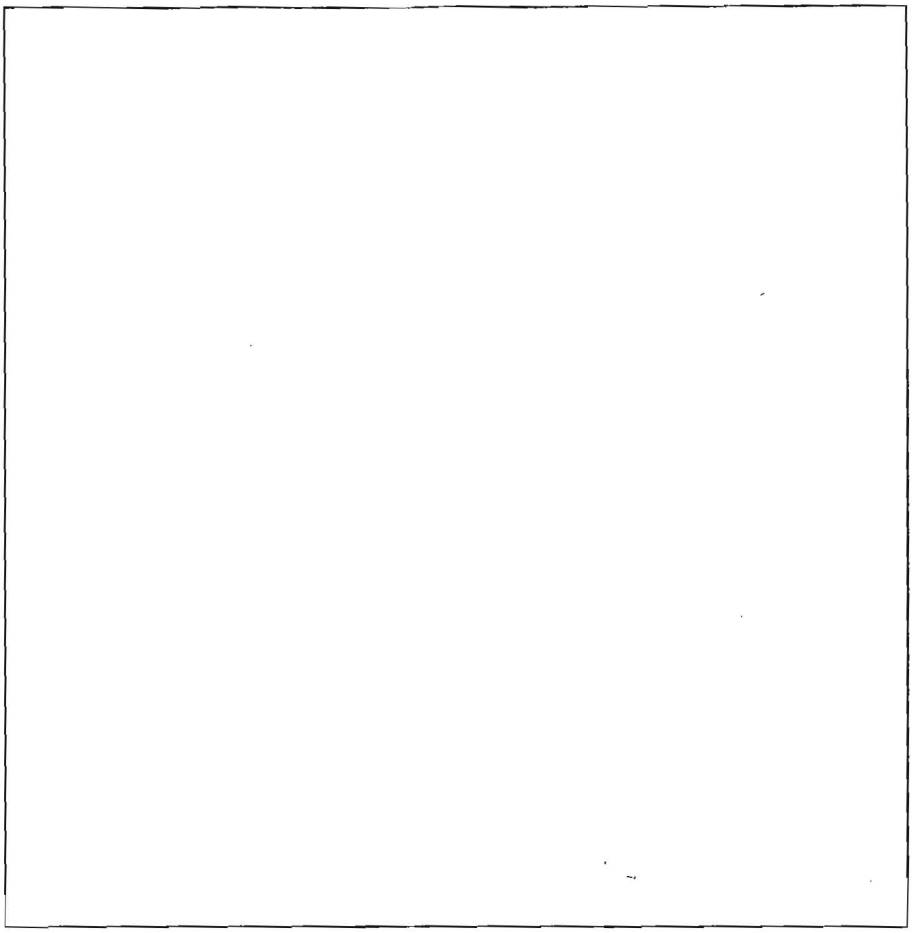
TEST RESULTS WILL BE MAILED TO APPLICANT. BRUCE D. LUTON

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

PLEASE SUBMIT ORIGINALS ONLY (BY MAIL OR IN PERSON)

A/P_____



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

REMARKS _____

SANITARIAN _____ BACKHOE _____ OTHERS _____

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

TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH _____ EFFECTIVE S/W_____

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

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

Date: July 7th, 2009

To: Bruce Burton
LDE, Inc.

From: Heidi Scott
Development Coordination Section
Well & Septic Program

RE: PERCOLATION TEST RESULTS A#~~530987~~ A 531011
Hall Shop Road, Hall Property

Sand mound testing was conducted at the above referenced property on June 9th, 2009 & June 24th, 2009 during a declared wet season. Results indicate satisfactory soil conditions for onsite wastewater disposal. Area was identified for an initial system and one replacement system while maintaning100' from proposed well sites. Tests "B", "C", "G", "J", "K" & "Q" had passing rates and test "F" passed for an alternative sand mound rate. The Health Dept. requires that a total of 3 systems are identified for new construction. Due to the limited area found on the property the Health Dept. will require that a pre-treatment unit is installed that uses an approved technology for each sand mound system.

Further infiltrometer tests indicate a potentially suitable sound mound site located at the front of the property which includes tests "N"& "P". This area could be delineated as a future sand mound site when the initial systems reach failure. However, for these alternative sites to be utilized, the well would most likely have to be relocated at a distance of 100' or greater.

Field data collected is shown on the Sand Mound Worksheets enclosed with this letter. Further review of this project is contingent upon submission of a Percolation Certification Plan. Future submittals should include the following site specific notes:

- An advanced pre-treatment system, which utilizes best available technology to perform nitrogen reduction, must be installed on the septic system located on the subject property due to insufficient soil resources to support three sand mound systems. A supplemental plan site plan with all of the necessary details for installation of the system will be required prior to release of the building permit and septic system installation permit. In addition, an operation and maintenance contract agreement must be filed with Howard County Land Records.
- The sand mound area delineated and identified on this parcel must be protected by a barrier at all times during grading and construction activities. Thereafter, protective measures should be implemented to protect this area from erosion, rutting or compaction. Subsequent building permit applications may be denied should the sand mound area be evaluated and found unsatisfactory for the intended use.

If you have any questions regarding this evaluation or requirements for the Percolation Certification Plan, please contact me at (410) 313-6287.

Cc:
George Hall, owner
File

MOUND TEST DATA SHEETS

Property I.D. Hall Lot # _____ Date 6/9/09

Sanitarian RB Landscape Position Side Slope

% Slope 4% Soil Type _____ Contractor Legacy

HOLE # C DEPTH OF TEST 14" START TIME 12:20

8" grey-brn loam 2 fg
yel-brn cl 1 mpr to 2msbk firm (moist)
19" brn-yel grcl m1f pale yellow
29" wavy
brn yel 7.5YR 6/8 m2p grey 2.5Y 7/1 grloam
48" grey & brn-yel grsl 2mpl
50"

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate(ET/MD)	% Change	
10 16/16					
10 5/16	15	11/16			12:35
9 6/16	15	14/16			12:50
8 9/16	15	13/16			1:05
7 14/16	15	11/16			1:20

Seep at 30" (a.m. rain)

PASS

Began equilibration at 10:32

HOLE # C-7 DEPTH OF TEST 15" START TIME 1:52

brn l 2fsbk
9" yellowish/org brn scl 2msbk 25% equal channers
19" yellowish brn grsl
40" Yellow/org brn gl fsl 30% gravel
49"

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate(ET/MD)	% Change	
10 16/16					
9 12/16	10	20/16			2:02
8 12/16	10	16/16			2:12
7 12/16	10	16/16			2:22
6 12/16	10	16/16			2:32
				11	2:42
					2:52
					3:02

PASS equilibrate @ 1.44

MOUND TEST DATA SHEETS

Property I.D. Hall Shop Rd Lot # _____ Date 6-9-09

Sanitarian HS / RB Landscape Position side slope

% Slope 4 Soil Type _____ Contractor Legacy

HOLE # D DEPTH OF TEST 18" START TIME 12:19

brn l 2f sbk — 8"

yellowish brn cl 2f sbk — 25"

yellowish brn scl common mica — 38"

whitish/yellow lcpl ~10% gravel — 5'

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 16/16	Begin	—		
9 15.5/16	10	0.5/16		
9 15/16	10	0.5/16		
9 14/16	10	1/16		
9 13/16	10	1/16	.375 in/hr	
9 11.5/16	10	1.5/16		
9 10.5/16	10	1.5/16	.56 in/hr	

Fail RB 2

equilibrate @ 11:38am

HOLE # H DEPTH OF TEST 22" Fail START TIME —

11" dk grey-brn loam 1fg — 4

grey-brn gr l 1vfsbk — 9"

yel brn gr scl 1msbk — 15"

yel-brn & lt. pale brn gr scl c7d 1fsbk pale yellow — 22"

yel-red & lt. grey grcl, sticky Ø m — 28"

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change

23" water seeps

Fail RB

MOUND TEST DATA SHEETS

Property I.D. 43M Hall Shop Lot # _____ Date 6-24-09

Sanitarian HS / RB Landscape Position _____

% Slope _____ Soil Type _____ Contractor _____

HOLE # J DEPTH OF TEST 13" START TIME 10:12

dk brn l fsbk

dense yellow brn cl lmsbk

mottled brn gr scl

dense yellow brn fsl massive

faint / prominent mottles

9" 20" 32" 52" 4.5'

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 16/16	0	Begin	—	
9 8.5/16	5	7.5/16		
9 4/16	10	4.5/16		
8 12/16	10	8/16		
8 4/16	10	8/16		
7 12/16	10	8/16		
7 7/16	10	5/16		
7	10	7/16		
6 10.5/16	10	5.5/16		
6 4/16	10	6.5/16		
9 16/16	0	Reset		
9 5/16	10	11/16		
8 4/16	10	10/16		
8 3/16	10	8/16		
7 10/16	10	9/16		
7 1/16	10	9/16		
6 9/16	10	8/16		
6 2/16	10	8/16		

10:27

Pass

11:40 equilibrate @ 9:42 am

8/16" x 60 min/hr / 10 min = 4.8"/hr ~ 5 in/hr.

HOLE # K DEPTH OF TEST 16" START TIME 10:38

flaggy channers & gravel

dense slightly sticky org brn scl

gr scl

org brn gr sl

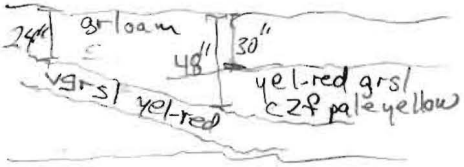
dense pale vch yellow brn sl common

11" 22" 30" 4.4'

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 16/16	0	Begin	—	
9 5.5/16	10	10.5/16		
8 12/16	10	9.5/16		
8 5/16	10	7/16		
7 13/16	10	8/16		
7 6/16	10	7/16		
6 14/16	10	8/16		
6 7/16	10	7/16		

Pass

15/16" x 60 min/hr / 20 min = 2 13/16"/hr



equilibrate 10:13

MOUND TEST DATA SHEETS

Property I.D. Hall Lot # _____ Date 6/9/09

Sanitarian RB/HS Landscape Position Side Slope

% Slope 4 Soil Type _____ Contractor Legacy

HOLE # F DEPTH OF TEST 19" START TIME 12:18

8" dk grey brn sl 1fg
yel brn scl few stones few mica
16" 1 mpr to 2msbk
brn-yel cl firm, 10% gravel
26" yel-brn loam 1fsbk
32" brn yel grsl micaceous
Øm pale yellow
48" 1mpr f2p grey
ltgrey fsl micaceous
54"

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate(ET/MD)	% Change
9 16/16	Begin	—		
9 14.5/16	10	1.5/16		
9 12.5/16	10	2/16		
9 10.5/16	10	2/16		
9 8.5/16	10	2/16		
9 6.5/16	10	2/16	.75 in/hr	
9 4.5/16	10	2/16		
9 2.5/16	10	2/16		

Aft. Rate End 1:28pm

Begin equilibration at 11:13

HOLE # B DEPTH OF TEST 19" START TIME 12:21

7" dk brn loam 1fg
Ht yel brn scl 2fsbk
17" 1mpr to 2msbk few stones
brn scl
19" yel-brn scl 1msbk few gravel firm
36" yel-red 1 very pale brn csl Øm few gravel
50" yel-red 1 pale brn grsl
54" f2d grey

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate(ET/MD)	% Change
9 16/16	Begin	—		
9 7/16	10	9/16		
8 14/16	10	9/16		
8 6/16	10	8/16		
7 15/16	10	7/16		
7 8/16	10	7/16		
7 1/16	10	7/16		
6 11/16	10	6/16		
6 5/16	10	6/16		
5 15/16	10	6/16		
5 10/16	10	5/16	1.875 in/hr	
5 5/16	10	5/16		
5 -	10	5/16		
4 11/16	10	5/16		

Pass RB

5/16 60/10

Begin equilibration at 12:09

MOUND TEST DATA SHEETS

Property I.D. Hall Shop Rd Lot # _____ Date 6-9-09

Sanitarian HS / RB Landscape Position side slope

% Slope _____ Soil Type _____ Contractor legacy

HOLE # A DEPTH OF TEST 14" START TIME 12:13

8" brn l lfsbk

18" dense yellow brn cl lmsbk

brownish w/ lt yellow cl/sicl grey 2msbk 15% gravel

26" reddish/ yellow brn/mottles scl 25% channels 4.5'

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change	
10 16/16					
10 15/16	15	1/16			12:28
10 15/16	15	Ø			12:43
10 14/16	15	1/16			12:58
10 14/16	15	Ø			1:13
					1:28
					1:43

FAIL

equilibrate @ 10:08 am

HOLE # E DEPTH OF TEST 16" START TIME 12:14

10" brn l 2fsbk

yellowish brn cl lmsbk moist

24" dense Ø grayish/ yellowish brn 36" restriction

37" reddish/ pale yellow brn scl 25% quartz channers C3p 4'

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change	
10 16/16					
10 11/16	15	5/16			12:29
10 8/16	15	3/16			12:44
10 5/16	15	3/16			12:59
10 2/16	15	3/16			1:14
					1:29
					1:44

FAIL

equilibrate @ 10:53 am

MOUND TEST DATA SHEETS

Property I.D. Hall Shop Rd Lot # _____ Date 6-24-09

Sanitarian HS/RB Landscape Position _____

% Slope _____ Soil Type _____ Contractor Legacy

HOLE # N DEPTH OF TEST 16" START TIME 11:33

brn l lfsbk 10"

yellow brn scl sticky dense w/ large prominent mottles 20"

stickly sicl micaceous

reddish yellow fsl w/ distinct mottles 31"

wet 4'

H_2O

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change	
10 16/16	Begin				
10 16/16	10	Ø			11:44
10 14/16	10	2/16			11:54
10 11/16	10	3/16			:04
10 8/16	10	3/16			:14
10 4/16	10	4/16			:24
10 3/16	10	1/16			:34
9 14/16	20	5/16			:54
9 11.5/16	10	2.5/16			:04
9 8.5/16	10	3/16			:14
9 6/16	10	2.5/16			
9 2.5/16	10	3.5/16	15"/16/hr		
9	10	2.5/16			
8 13.5/16	10	2.5/16			

Pass

equilibrate 11:01 am

sun 16.5/16/hr ~1"/hr.

HOLE # P DEPTH OF TEST 16" START TIME 12:20

brn l lfsbk 16"

gray sticky scl 15"

reddish yellow grsl w/ mottles

seep @ 34"

dense sticky sicl 33"

H_2O 41'

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change	
10 16/16	0	Begin			
9 6/16	30	26/16			:56
8 12.5/16	10	9.5/16			:06
8 5/16	10	7.5/16			:16
7 15/16	10	6/16			:26
7 9/16	10	6/16			:36
7 3/16	10	6/16	3/8"/hr		:46 equilibrate

Pass

11:58 am

16"/16 / interval × 60 min/hr / 10 min/interval ≈ 18/8"/hr = 2¼"/hr

LETTER OF TRANSMITTAL

LDE INC.
9250 RUMSEY ROAD, SUITE 106
COLUMBIA, MARYLAND 21045
(410) 715-1070 (301) 596-3424
(410) 715-9540 FAX

2562

DATE 5/21/09 | JOB NO. 09-000.02.01

ATTENTION HEIDI SCOTT

RE: GEORGE HALL PROPERTY
HALL SHOP ROAD

TO HOWARD CO. HEALTH DEPT.
7178 COLUMBIA GATEWAY DRIVE
COLUMBIA, MD. 21046

WE ARE SENDING YOU ☒ ATTACHED ☐ UNDER SEPARATE COVER VIA DIRECT THE FOLLOWING ITEMS:

☐ SHOP DRAWINGS ☒ PRINTS ☐ COPY OF LETTER ☐ SAMPLES ☐ SPECIFICATIONS
☐ CHANGE ORDER ☐ PLANS ☐ _____

COPIES	DATE	NO.	DESCRIPTION
2		1	PERC APPLICATION PLAN
1		1	APPLICATION
1		1	CHECK ($550.00)
1		1	PRELIMINARY MOUND CALCULATIONS

REASON FOR TRANSMITTAL CHECKED BELOW:

☒ FOR APPROVAL ☐ APPROVED AS SUBMITTED ☐ RESUBMIT _____ COPIES FOR APPROVAL
☐ FOR YOUR USE ☐ RETURNED FOR CORRECTIONS ☐ SUBMIT _____ COPIES FOR DISTRIBUTION
☐ AS REQUESTED ☐ FOR REVIEW AND COMMENT ☐ RETURN _____ CORRECTED PRINTS
☐ APPROVED AS NOTED ☐ _____
☐ FOR BIDS DUE _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS

REC. BY _____

COPY TO GEORGE & KATHRYN HALL

SIGNED: BRUCE D. BURTON

PLEASE NOTIFY US AT ONCE IF ENCLOSURES ARE NOT AS NOTED.

240035

HOWARD COUNTY HEALTH DEPARTMENT

Joyce M. Boyd, M.D., County Health Officer

May 26, 1995

Mr. George Hall
387 Yorkshire Lane
Riva, Maryland 21140

RE: Percolation Test Results
Application Number: A50645
Proposed Use: Recorded Lot
Property ID: Hall Shop Road
Tax Map: 41 Parcel: #133

Dear Mr. George Hall:

Percolation testing conducted May 10, 1995 on the referenced property indicated unsatisfactory soil conditions. Shallow depth to groundwater and slow percolation rates in the rates in the upper 4 feet precluded any reasonable expectation for approval. Copies of the percolation test results are enclosed.

If you wish reconsideration of this finding, further review is contingent upon submission by a registered engineer of a percolation certification plat showing actual locations and elevations of all excavated test holes and a suitable house and well site. The plat should also include the location of all existing wells and septic systems on the property as well as the location of any other relevant features such as streams, swales, or existing structures. A note must be included certifying that all wells and septic systems within 100 feet of property boundaries have been shown.

If you have any questions regarding this matter, please feel free to contact me at the below address or by calling 313-2640.

Very truly yours,

Donna K. Soe

Donna K. Soe, Sanitarian
Water and Sewerage Program

DKS:jr

Enclosures

File

Bureau of Environmental Health
3525-H Ellicott Mills Drive Ellicott City, Maryland 21043-4544
Water and Sewerage, Permits (410) 313-2640 Community Environmental Health (410) 313-2644
Food Protection Program (410) 313-2642 TDD (410) 313-2323

4/12/95

9 30

APPLICATION

PERCOLATION TESTING

A 50645

P _____

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
3525-H ELLICOTT MILLS DRIVE/ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 313-2640

PREVIEW OK
PERC FOR
COMBINED LOTS 5+6
(CW)

DISTRICT _____

DATE 4-12-95

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I HEREBY APPLY FOR THE NECESSARY TEST PRIOR TO APPLICATION FOR PERMIT TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER George E. HALL KATHRYN A. HALL

ADDRESS 387 yorkshire Lane Riva Md PHONE 410-956-6788

AGENT OR PROSPECTIVE BUYER Same

ADDRESS Same PHONE _____

PROPERTY LOCATION:

SUBDIVISION NA. LOT NO. _____

ROAD AND DESCRIPTION HALL Shop Rd North Side 10FT STRIP
Deed 1177 FOLIO 585

TAX MAP _____ PARCEL # _____

SIZE OF LOT 1.280 Acres TYPE BLDG. None Currently
(SINGLE FAMILY DWELLING OR COMMERCIAL)

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE. I FULLY UNDERSTAND THE FEE CONNECTED WITH THE FILING OF THIS PERC TEST APPLICATION IS NON-REFUNDABLE UNDER ANY CIRCUMSTANCES. I ALSO AGREE TO COMPLY WITH ALL M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT. George E. Hall
(SIGNATURE OF APPLICANT)

APPROVED BY _____ FOR _____ DATE _____

DISAPPROVED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____

REASONS FOR REJECTION OR HOLDING _____

PERCOLATION TEST PLAT/PRELIMINARY PLAT - TITLE OR I.D. # _____ DATE _____

SITE DEVELOPMENT PLAN/FINAL PLAT - TITLE OR I.D. # _____ DATE _____

THIS IS NOT A PERMIT

HD-216 (3/92)

50645
COUNTY #

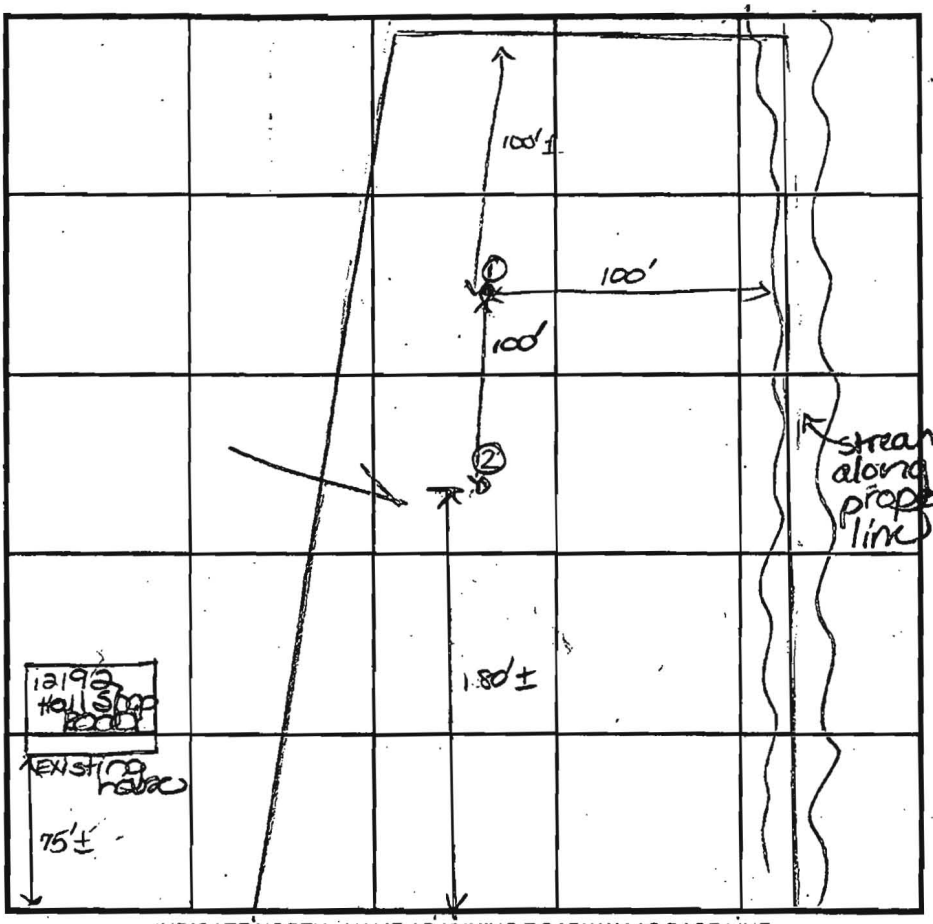
SOIL PROFILE

(1)

0'
1' topsoil
red or br cl lm
lt or br to beige to grey si cl lm
7'
88" seepage
12'

(2)

0'
1' topsoil
red br cl lm
or red br to red br to maj si cl lm
6' seepage
11.5' water
12' water



SOIL PROFILE
0'

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.
Hall Shop Road

DATE	TEST NO.	DEPTH	PRE-WET START	PRE-WET STOP	TEST - 1" DROP START	TEST - 1" DROP STOP	TIME
5-10-95	1	4'4" S	2:46.30	less than 1" @3:16	→	→	F
		12' D					
	2	12.0'D	WATER	→	→	→	F

REMARKS _____

TYPE OF SOIL _____

TESTED BY D. Soe ALSO PRESENT owner, Arnold's men

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

INLET DEPTH _____ MAXIMUM BOTTOM DEPTH _____ SQ. FT/BEDROOM _____

MOUND TEST DATA SHEETS

Property I.D. Hall Shop Rd Lot # _____ Date 6-24-09

Sanitarian HS / RB Landscape Position _____

% Slope _____ Soil Type _____ Contractor Legacy

HOLE # Q DEPTH OF TEST _____ START TIME _____

brn l
2fsbk

13"

vgr yellowish
cl bm

18"

vgr org brn
scl dense
1msbk

yellowish rod 29"
sl

vgr scl
w/ 15% stones

4'

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
		VISUAL		

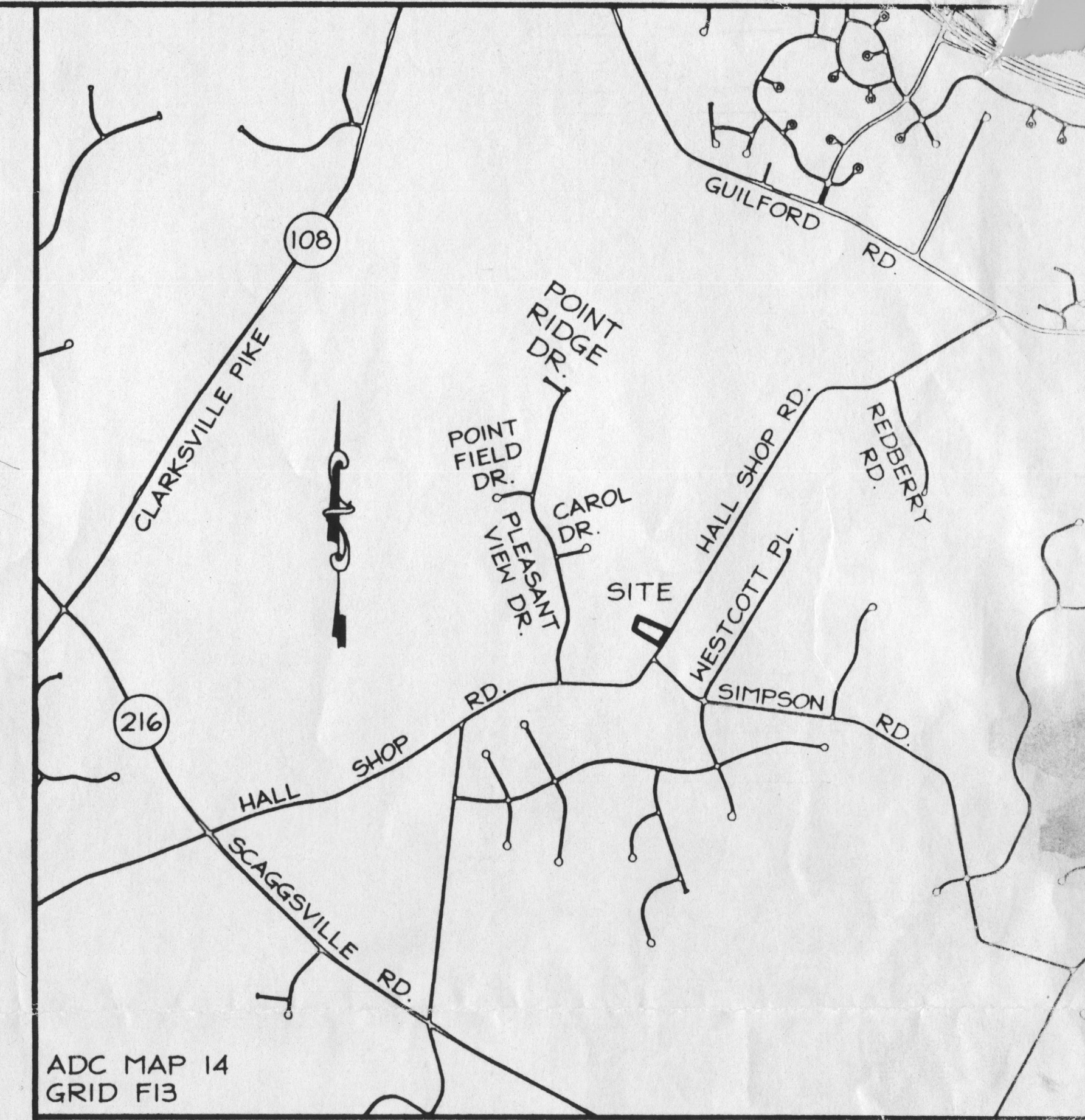
PASS

HOLE # _____ DEPTH OF TEST _____ START TIME _____

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change

SAND MOUND PERC RESULTS 6/9/09		
TEST	ELEV.	RESULT
A	480.3	FAIL
B	480.1	SATISFACTORY
C	478.5	SATISFACTORY
D	478.9	FAIL
E	477.3	FAIL
F	476.7	SATISFACTORY (ALTERNATIVE SAND MIX)
G	478.5	SATISFACTORY
H	478.2	FAIL

SAND MOUND PERC RESULTS 6/24/09		
TEST	ELEV.	RESULT
J	475.3	SATISFACTORY
K	475.5	SATISFACTORY
N	482.2	SATISFACTORY
P	482.1	SATISFACTORY
Q	477.6	OBSERVATION SATISFACTORY



VICINITY MAP

SCALE: 1"=2000'

SITE NOTES:

1. An advanced pre-treatment system, which utilizes best available technology to perform nitrogen reduction, must be installed on the septic system on the subject property due to insufficient soil resources to support three sand mound systems. A supplemental plan with all of the necessary details for installation of the system will be required prior to the release of the building permit and septic installation permit. In addition, an operation and maintenance contract agreement must be filed and recorded in the Howard County Land Records.
2. The sand mound areas delineated and identified on this parcel must be protected by a barrier at all times during grading and construction activities. Thereafter, protective measures should be implemented to protect this area from erosion, rutting or compaction. Subsequent building permit applications may be denied should the sand mound area be evaluated and found unsatisfactory for the intended use. A supplemental plan with all of the necessary details for installation of the system will be required prior to the release of the building permit.

LEGEND

- PROPOSED SEWAGE DISPOSAL EASEMENT
- EXISTING TREE
- PRIMARY WELL LOCATION
- ALTERNATE WELL LOCATION
- EXISTING WELL
- EXISTING CONTOUR (5' INTERVAL)
- EXISTING CONTOUR (1' INTERVAL)

SAND MOUND CALCULATIONS

1. Design Requirement: Proposed dwelling with 4 bedrooms
2. Design Flow: 4 bedrooms x 150 gpd = 600 gdp
3. Absorption Bed size using alternate sand media: Design Flow / Loading Rate = Area of Bed

a. Loading Rate: 1.0 gdp/SF (Alternate sand media)
b. Minimum Bed Area: 600gdp / 1.0 gdp/SF = 600 SF (1.0 gdp/SF)
c. Minimum Bed Dimensions: Total Area / Max. Width = Min. Length or 600SF / 10 FT = 60 FT

1) Use 10' wide (Max. Width) x 60' long Sand Bed
2) Upslope Sand Fill Depth: 12" minimum or 1'
3) Downslope Sand Fill Depth (7% slope): 20.4" or 1.7'
4) Cap + Topsoil Fill @ Bed Center: 18" or 1.5'
5) Cap + Topsoil Fill @ Bed Edge: 12" or 1'
6) Total Bed Depth: 10" or 0.83'
7) Sideslope Setback: 132.6" or 11.1'
8) Upslope Setback (0.83 Corr. factor for 7% slope): 84.7" or 7.1'
9) Downslope Setback (1.27 Corr. factor for 7% slope): 161.5" or 13.5'
10) Total Mound Width: 366.2" or 30.5' use 30'
11) Total Mound Length: 985.2" or 82.1' use 82'
12) Use Mound Size of 30' x 82'
13) Check Basal Area: 1200 SF required
   a) Area provided:
      Bed Width + Downslope Setback x Bed Length = Basal Area
      10' + 13.5' x 60' = 1410 SF > 1200 required

CONVENTIONAL PERC TESTS 5/26/95

- FAILED/WATER TABLE

SAND MOUND PERC TESTS 6/9 & 6/24/09

- SATISFACTORY TEST
- FAILED TEST

NOTES:

1. Existing Zoning: RR per 2-2-04 Comprehensive Zoning Plan
2. Deed Reference: Liber 3262, Folio 20
3. Total Area of Lot: 1.28 Ac.±
4. The lot shown hereon complies with the minimum lot area and ownership width as required by the Maryland Department of the Environment.
5. All existing wells and septic systems within 100 feet of the lot which may effect this proposal have been shown.
6. The topography shown is field run by LDE, INC. in 6/15/2009
7. Any changes to the Private Sewage Easement shall require a Revised Percolation Certification Plat.
8. The well for this lot shall be drilled prior to approval of the building permit.
9. The limitations of soil properties are such that a house with no more than four (4) bedrooms could be supported by the described easements.
10. SOIL BOUNDARIES. Entire property is Gladstone Loam 3 - 8% slopes (GbB) USDA Soil Survey Howard County, Maryland

THIS AREA DESIGNATES A PRIVATE SEWAGE AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT.

Approved: For Private Water and Private Sewerage
Howard County Health Department

BNfhen for Peter Beilenson 11/30/2009
Howard County Health Officer KS Date mgd

PERC CERTIFICATION

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.

D. Wayne Weller 11/16/09
D. Wayne Weller, Professional Land Surveyor Date
MD Reg. NO. 10685

STATE OF MARYLAND · DONALD WAYNE WELLER · No. 10685 · REGISTERED · PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISIONS
1	10/29/09	Revised per Health Department comments
2	11/16/09	Revised per Health Department comments

LDE Inc.
Engineers, Surveyors, Planners
9250 Rumsey Road, Suite 106 Columbia, Maryland - 21045
(410)715-1070 - (301)596-3424 - FAX(410)715-9540

DESIGNED BDB	PERCOLATION CERTIFICATION PLAN A#530987	SCALE 1" = 50'
DRAWN LDE	PROPERTY OF GEORGE E. & KATHRYN A. HALL	DRAWING 1 OF 1
CHECKED BDB	TAX MAP 41 GRID 1 PARCEL 133 5th ELECTION DISTRICT HOWARD COUNTY, MD	JOB NO. 09-200-02-1
DATE 10/2009	OWNER: George E. & Kathryn A. Hall, 387 Yorkshire Lane, Riva, MD 21140, 410-269-5588	FILE NO.