

Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

APPLICATION

FOR PERCOLATION TESTING AND SITE EVALUATION

PROPERTY LOCATION

SUBDIVISION/PROPERTY NAME Liber MDR 9907 Folio 195 First Part, TAX ACCT #03-290883

PROPERTY ADDRESS 2920 MD-32 West Friendship, MD 21794
STREET TOWN ZIP

TAX ACCOUNT # 03-290883 TAX MAP _____ GRID _____ PARCEL _____ LOT NO. _____ EXISTING PROPOSED LOT
SIZE (ACRES) 6.6263

ZONING CATEGORY _____ TIER _____

PROPERTY OWNER(S) Andrew P. Wetten and Kimberly A. Drnec

DAYTIME PHONE 443-864-2751 CELL 443-415-9969 EMAIL _____

MAILING ADDRESS 4645 Arthur Shipley Road Sykesville, MD 21784
STREET CITY, STATE ZIP

APPLICANT c/o Ms. Lijun Zhang D. Eng., P.E. | zhang20@sha.state.md.us
Maryland Department of Transportation, State Highway Admin RELATIONSHIP TO OWNER: _____

DAYTIME PHONE 443-572-5078 CELL _____ EMAIL _____

MAILING ADDRESS 7450 Traffic Drive Hanover, MD 21076
STREET CITY, STATE ZIP

CO-APPLICANT c/o Luke E. Smeltz, CPSS
Skelly and Loy, Inc. 449 Eisenhower Boulevard, Suite 300, Harrisburg, PA 17111 (CONSULTANT) 717-576-3471

lsme1tz@skellyloy.com

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

PROPERTY:

- ☐ SUBDIVISION: NUMBER OF LOTS INCLUDING RESIDUE: _____
SUBDIVISION CLASSIFICATION (PER DEPT. OF PLANNING AND ZONING) ☐ MAJOR ☐ MINOR
- ☐ CONSTRUCT NEW OSDS ON UNDEVELOPED LOT
- ☒ REPAIR OR REPLACE FAILING OSDS AN EXISTING SEPTIC SYSTEM
- ☐ UPGRADE EXISTING OSDS

BUILDING:

- ☒ RESIDENTIAL WITH 5 EXISTING OR PROPOSED BEDROOMS IN THE COMPLETED STRUCTURE
- ☐ COMMERCIAL (PROVIDE DETAIL OF TYPE OF USE AND NUMBERS OF EMPLOYEES/CUSTOMERS ON ACCOMPANYING PLAN)

IS THE PROPERTY WITHIN 2500 FEET OF ANY RESERVOIR?

- ☐ YES
- ☒ NO

AS APPLICANT, I UNDERSTAND THE FOLLOWING:

- THIS APPLICATION IS VALID FOR TWO(2) YEARS FROM DATE OF FEE PAYMENT AND APPROVAL IS BASED UPON HEALTH OFFICER SIGNATURE OF A PERC CERTIFICATION PLAN PRIOR TO EXPIRATION OF THIS PERMIT.
- THE APPLICATION FEE IS NON-REFUNDABLE
- THIS APPLICATION MUST BE ACCOMPANIED BY ALL APPLICABLE FEES AND A SUITABLE SITE PLAN IN ORDER TO BE PROCESSED
- THIS IS A PUBLIC DOCUMENT

I declare and affirm that to the best of my knowledge, the information contained herein is correct. I declare that I am the owner of the property or duly authorized to make this application on behalf of the owner. I agree to comply with all applicable state and county regulations.

By signature of this application, I hereby grant Howard County Health Department officials the right to enter onto the property for the purpose of inspecting the property as directly related to the requested permit/service.

Luke E. Smeltz, CPSS
SIGNATURE OF APPLICANT

June 14, 2017

DATE

29.20 Rte 32

AP 561429

1A

dk brn L

2 v f sbk

0.3'

brn L, 2 sbk

0.8'

red brn L, 2 usbk

common mica

1.4'

yel-red s

medium platy

common mica

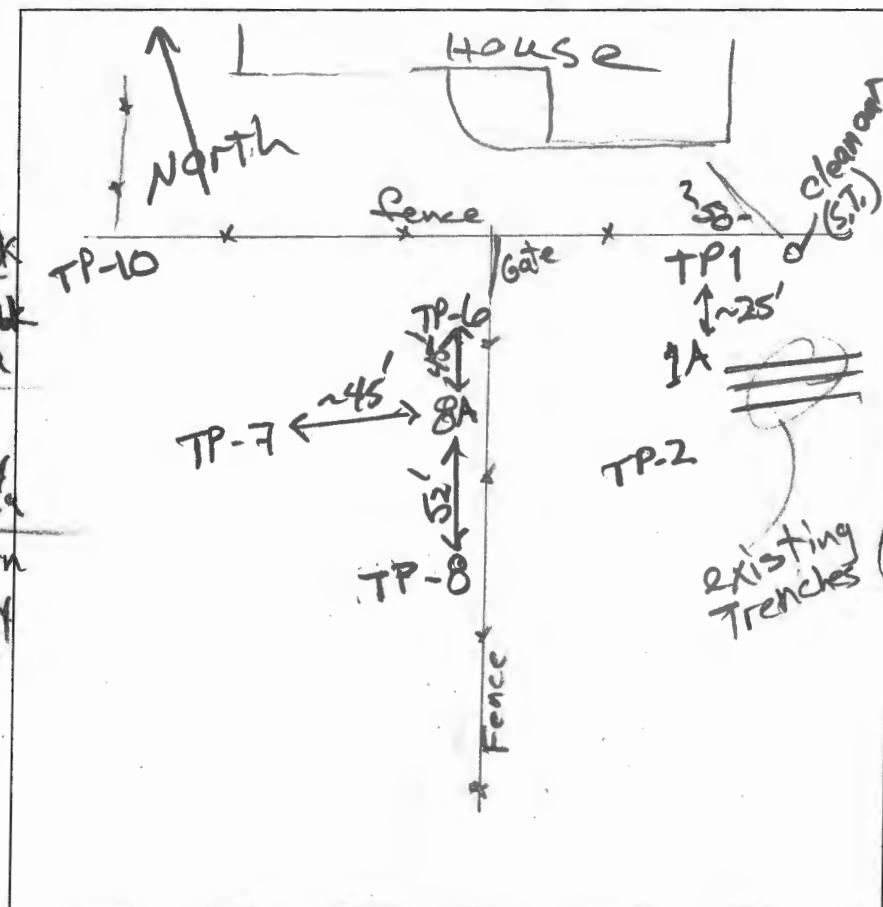
2.4'

yel-red & brn

ls, thin platy

many mica

12.4'



8A

dk brn L

0.4' 2 v f sbk

red-brn L, 0.1

few mica

1'

yel-red L

1 m sbk

common mica

2'

yel-red

chsl, platy

common mica

3'

red ls

thin platy

4' many mica

yel-red & brn

chls, medium

platy

3-8%

Flags (20-30% rock)

12'

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
7/11/17	1A	4.3' / 12.4'	3:13	3:14:30	3:16:10	- repair	
repair	1A	4.3' / 12.4'	3:17	3:18:50	3:21	2.2	P
7/11/17	8A	12'	Visual		3' to 8' sidewalk 1.2 gpd / sq ft		P

REMARKS

SANITARIAN

R Bricker

BACKHOE

Fagle's

OTHERS

Luke Smeltz

TEST HOLES USED IN SDA

Take, Dennis

AVG. PERC TIME

Bill

SQ. FT/HR

TRENCH WIDTH

INLET DEPTH

MAX. BOT DEPTH

EFFECTIVE SW

3

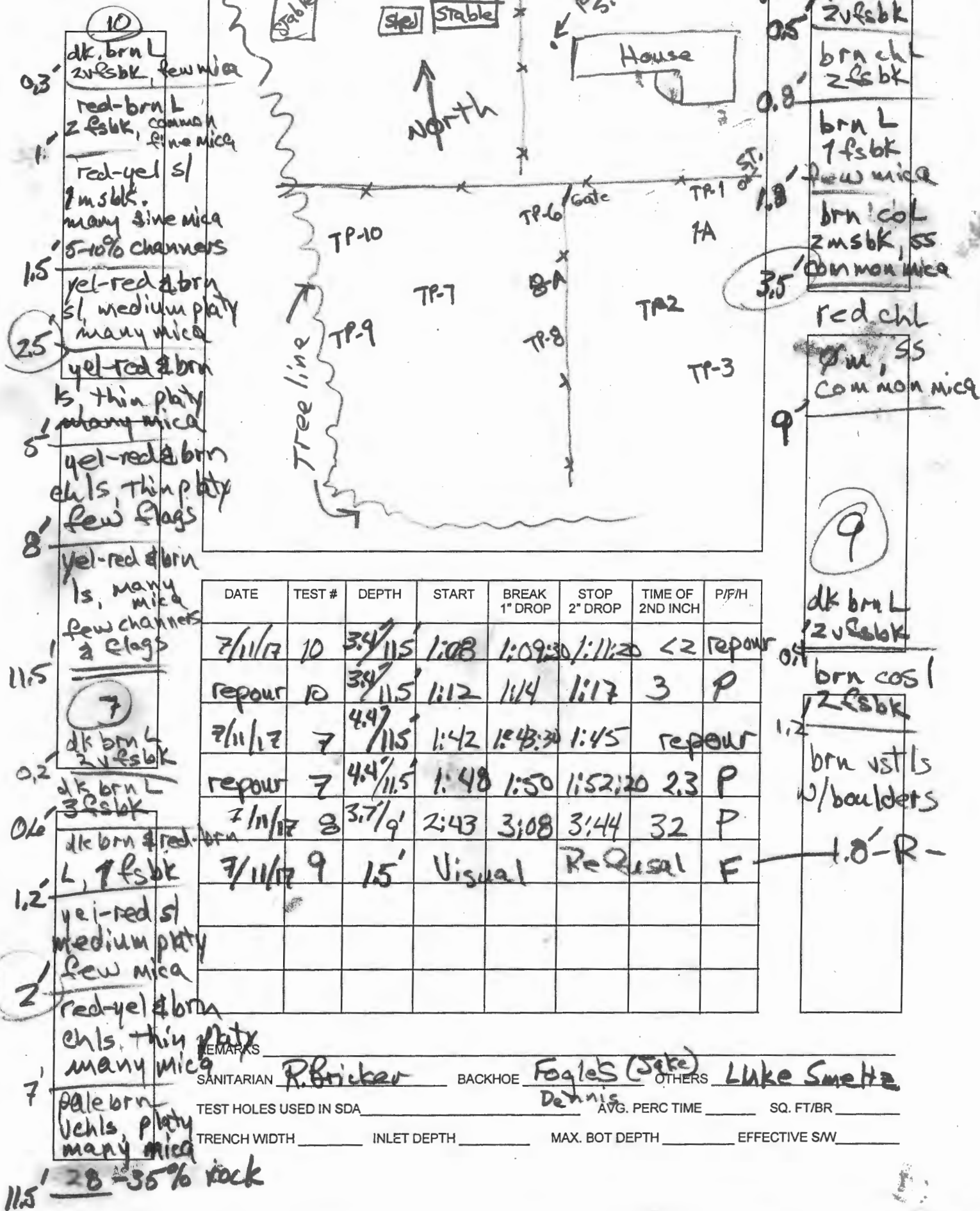
2

12

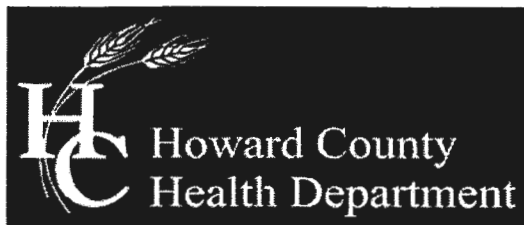
1 flags & channers

dk brn L
20 ssbk to dm
0.5
1
brn L, dm
1
red-brn L
1/6
2m sbk
4
yel-red s
thick platy
ss, many mic
5-10% rock
4.5
brn chls
thin platy
many mic
8-
pale brn
1
chls, platy
2.5
many mic

④ 561429



11.5' 28 - 35% rock



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SEWAGE DISPOSAL SYSTEM SPECIFICATIONS WORKSHEET

Address: 2920 RT 32

Subdivision: Tax Map 15 Parcel 160 Lot: _____

6.8A Initial system: Application rate: 1.2 Effective area beginning depth: 4 Bottom maximum depth: 8
8A, 7.2 1st Replacement: Application rate: 1.2 Effective area beginning depth: 3 Bottom maximum depth: 8
7.2 2nd Replacement: Application rate: 1.2 Effective area beginning depth: 2.5 Bottom maximum depth: 7

Design Flow = 150 gallons per day per bedroom

Design flow ÷ application rate = square footage of drainfield required

Linear length of trench required = drainfield square footage x sidewall reduction percentage ÷ trench width

Sidewall reduction credit formula:

$$\frac{W + 2}{W + 1 + 2D} \times 100 = \text{Percent of length of standard trench where } W = \text{trench width and } D = \text{depth between effective area beginning depth and trench bottom.}$$

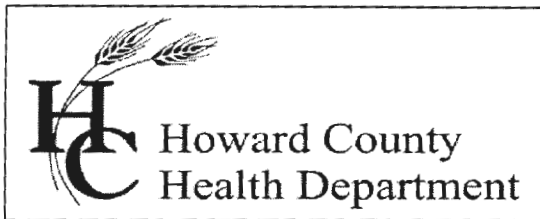
Standard design requirements:

- Trenches must be located to provide room for 3 systems in the disposal area
- All trenches must be equal length unless low pressure dosed
- All trenches must be on contour
- Tank and trenches must be placed as shallow as possible while maintaining 2% fall in pipe from house and at least 18" cover over trenches. If 2% fall from house is not possible, the minimum allowable fall is 1%.
- Minimum trench spacing: 10' for all trenches utilizing sidewall reduction credit. Additional spacing may be necessary for any trench using over 3.5' of effective sidewall. In those cases, the spacing formula is $2D + W$ up to a maximum spacing of 18'.
- Minimum trench spacing for trenches with no sidewall credit (bottom area only) is 6' for a 2' wide trench and 9' for a 3' wide trench (spacing is measured edge to edge)
- Maximum trench length is 100'
- Maximum pipe depth is 4'

Additional requirements:

Approved: F. Bricker

Date: 12/20/2019



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

July 21, 2017

TO: Lijun Zhang, P.E., Maryland State Highways Administration, Applicant

RE: Percolation Test Results, 2920 Route 32, Andrew Wetten and Kimberley Drnec Property, A561429

Dear Ms. Zhang,

Percolation testing was conducted on July 11 at 2920 Route 32 Lane for the purpose of reconfiguring the existing sewage disposal area (SDA) to accommodate a realignment of the Route 32 right-of-way.

Overall ten locations were dug and tested, or the soil profile described and judged. Locations 1, 2, 3, 6, 7, and 8 were dug at locations where stakes were set prior to the date of testing. Locations 9 and 10 were each re-located slightly uphill and further north from their respective staked locations. Location 1A was added about 20-25 feet downhill of location 1, and location 8A was added on line between locations 6 and 8, and on line between locations 1A and 7. Because two locations were moved and two locations were added, it is imperative that the percolation test locations be field-located by survey.

Locations 3 and 9 FAIL due to bedded rock at shallow depth, and location 1 is a FAIL due to relatively slow absorption rate of the soil layers above 8 feet depth.

Locations 1A, 2, 6, 7, 8, 8A and 10 all PASS. The soil at location 8 has a much slower absorption rate, and location 8 is at a lower elevation, than all of the other tests that PASS. With exception for location 8, locations that PASS represent areas that may be included in a proposed sewage disposal area (SDA). The trenches that remain after adjustment of the right-of-way may also be included in the proposed SDA. Should the whole of the existing trenches be abandoned, the area they occupy shall not be included in a proposed SDA.

A Percolation Certification Plan must be submitted that meets state and county requirements including sizing and location of drainfield systems. Signature of the Percolation Certification Plan by the Director, Bureau of Environmental Health (the Approving Authority) certifies the percolation test results and area approvable for wastewater discharge. When the Percolation Certification Plan is approved, Health Department staff may release a permit to replace septic system components.

ISSUES RELATED TO THE PERCOLATION CERTIFICATION PLAN AND RECORD PLAT PROCESSES

Content of the Percolation Certification Plan must include the locations of both septic systems that were installed in 1973. One system was installed west of the original residence, while the other was installed northwest (in back) of the original residence. Each system consisted of a septic tank and a trench. Likely, each tank had 1000-gallon capacity. The trench

for the system west of the residence was replaced by three trenches in 2005. (These replacement trenches are now the ones that are to be at least partially abandoned.) The tank west of the residence was described in 2005 as having a "midseam". The trench installed northwest of the residence in 1973 is described as having a bottom at 12-feet depth. A 4-foot soil buffer has not been described for this trench: neither then, nor now.

Evaluation and replacement of the existing septic system would include the following:

1. Replace the entire drainfield or a part of it. Should existing trenches remain in service, they must be truncated 10 feet from the realigned right-of-way boundary. This will require the following activities:
 - a. Marking the proposed right-of-way boundary
 - b. Locating each end of each of three trenches.
 - c. Exposing each trench 10 feet from the proposed boundary.
 - d. Cutting the Distribution Pipe in each trench
 - e. Removing gravel from several linear feet of each trench.
 - f. Replacing the excavated gravel with soil (compacted at the cut end of the trench to prevent a seep).
 - g. Replacing the abandoned trench length with new trench having equal capacity and similar design as the remaining trenches. The resulting capacity of the distribution system must be adequate for the peak estimated daily discharge (750 gallons per day) from the existing 5-bedroom residence.
2. The septic tank west of the residence must have at least 1500 gallons capacity. Confirm the capacity of each existing septic tank (which may be documented on an invoice by a pumper/hauler). If the tank west of the residence does not have 1500-gallon capacity, it will have to be replaced.
3. Any septic tank that is to remain in service must be evaluated for watertightness. A watertight test must be observed by Health Department staff.
4. The cleanout for the septic tank west of the residence can be lifted out of the soil by hand as it is not attached to the septic tank. Should this septic tank remain, this condition must be corrected. Include the following note on the Percolation Certification Plan:

ANY SEPTIC TANK THAT IS INSTALLED OR THAT REMAINS MUST BE FITTED WITH A MANHOLE ACCESS PER HOWARD COUNTY CODE 3.810(D)(2).
5. Prove that there is a 4-foot soil buffer in the vicinity of the trench that is in back of the residence. This would involve locating the ends of the trench and excavating a soil profile nearby to a depth of 16 feet.

The Health Department recommends an alternative to items 2, 3 and 4 above. The alternative is to update the two sewer house connections and join them, directing the combined flow into a modern 1500-gallon, two-chamber, top-seam septic tank.

Should the choice be made to keep the two systems separate at this time, the following note must be included on the Percolation Certification Plan:

THE SEPTIC SYSTEM WEST OF THE RESIDENCE IS TO BE RECONSTRUCTED WITH ADEQUATE SIZE TO ACCOMMODATE THE ESTIMATED PEAK DAILY FLOW FROM A 5-BEDROOM RESIDENCE. WHEN THE SEPTIC SYSTEM AT THE BACK OF THE RESIDENCE FAILS, THE COMPONENTS OF THAT SYSTEM ARE TO BE PROPERLY ABANDONED AND THE DISCHARGE DIRECTED TO THE SEPTIC TANK INSTALLED WEST OF THE RESIDENCE.

The existing well must be illustrated accurately and two replacement well locations must be included as content on the Percolation Certification Plan. An alternative would be to define a 1500 square-foot well zone that includes the existing well location near one of the proposed well zone's boundaries.

The locations of the two 'horse waterers' near the pasture fence, and the frost -proof hydrant at the fence, must be illustrated on the Percolation Certification Plan. As a water line is believed to join these devices, the proposed SDA must be at least 10 feet from a line between them. Similarly, a septic tank installed in this area must be at least ten feet away from any of these devices. An alternative would be to sever and seal the water line serving these devices. A Health Department Inspector would need to inspect the water line seal and document the location.

The entire (Tax Map 15) Parcel 160 must be illustrated on the Percolation Certification Plan. In addition to the proposed right-of-way realignment, the Percolation Certification Plan must include illustration of the proposed Limit-of-Disturbance for Route 32 right-of-way, and the new access road associated with SHA project #HO7562313 Option 12M.

After the Percolation Certification Plan is approved, an Onsite Sewage Disposal System Plan must be submitted to the Health Department and approved prior to modification of the septic systems serving the residence. All issues regarding the septic system(s) and the well must be resolved prior to Health Department signature of a Record Plat that revises the subject property boundaries. If you have questions related to these content, you may reply to me via email, rbricker@howardcountymd.gov , or call my desk, 410-313-2691.

Respectfully,



Robert Bricker, CPSS, REHS/R.S., L.E.H.S.

Environmental Sanitarian II

Well and Septic Program, Bureau of Environmental Health

Howard County Health Department

8930 Stanford Boulevard

Columbia, MD 21045

Enclosures (4 pages): one Percolation Test Application and three (3) Percolation Test Field Worksheets

Attachments (4 files): 1973 PerApp, 1973 Septic Permit, 2005 PercApp, 2005 Septic Permit

Copy: Luke Smeltz, Skelley and Loy
File



HOWARD COUNTY HEALTH DEPARTMENT

61429

DATE

6/15/77

A5

Received
From

Skelly & Coy, Inc.

PHONE #

717-232-0873

For

Per App - 2920 Rt. 32

☐ CASH

☒ CHECK

NO.

102914

Five hundred Sixty

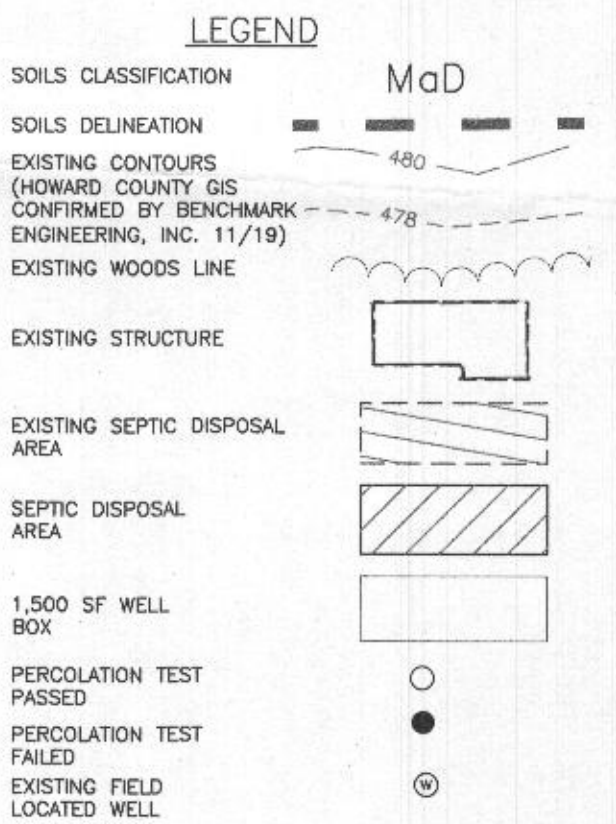
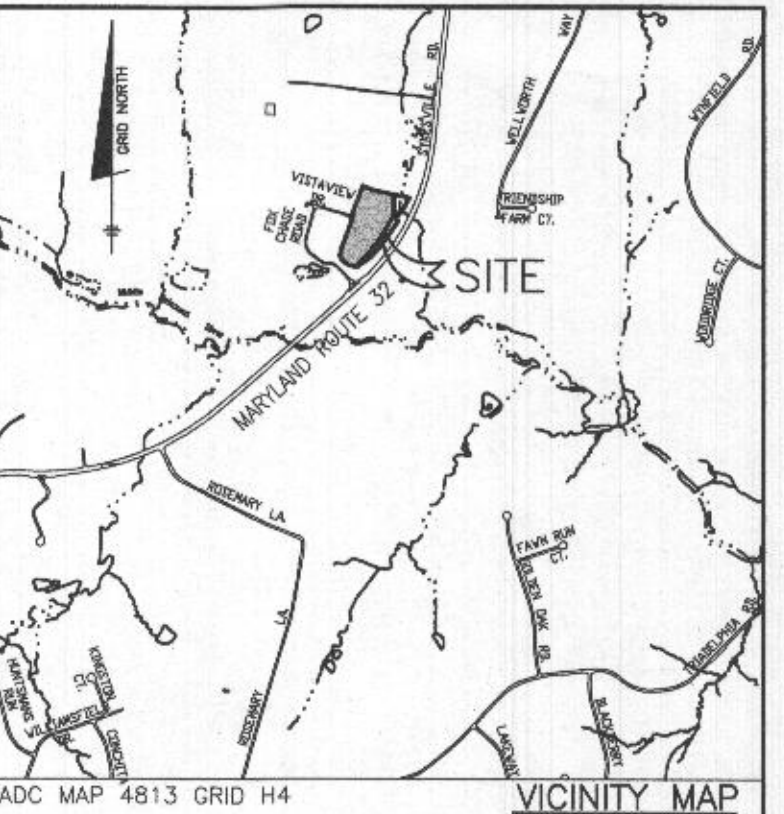
Dollars

\$

506.10

Received By

J. Kemp



GENERAL NOTES

- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THE LOT SIZE FOR THESE LOTS WILL FULFILL THE REQUIREMENTS OF THE ZONING REGULATIONS.
- UNDER THIS AREA, THERE IS A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONSTRUCTION OF PUBLIC SEWERAGE. THE HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.
4. TOPOGRAPHY SHOWN IS BASED ON HOWARD COUNTY GIS AND IS VERIFIED BY BENCHMARK ENGINEERING, INC., AT TIME OF PERMITS.
5. TO THE BEST OF OUR KNOWLEDGE, ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELL AND/OR SEPTIC HAVE BEEN SHOWN.
6. ANY LOT SHALL REQUIRE A REPAIR/RELOCATION CERTIFICATION PLAN.
7. PERCOLATION TEST FEET NUMBER, REFERENCED IN THE APPROVING AUTHORITY CORRESPONDENCE, IS A561429.
8. ANY MICRO-BORSTENTION FACILITIES WITHIN 100 FEET OF A WELL AS MEASURED FROM THE WELL BOX TO THE FILTER MEDIA, SHALL BE LIMITED TO 10 FEET. ANY MICRO-BORSTENTION FACILITIES EXCEEDING 10 FEET SHALL BE REMOVED. THE FINAL CONSTRUCTION PLAN, MICRO-BORSTENTION FACILITIES ARE NOT ALLOWED WITHIN 50' OF WELL OR WELL BOXES.
9. HEALTH DEPARTMENT INSPECTION OF THE EXISTING WELL REVEALED THAT THE WELL TERMINAL MUST BE UPDATED WITH A 2" PIPED END CAP. THE EXISTING WELL REPAIRS AND RELOCATION OF THE WELL TERMINAL MUST BE APPROVED BY THE HEALTH DEPARTMENT APPROVAL OF A FINAL PLAN OR ANY BUILDING PERMIT FOR 2920 RT 32. THE WELL MUST BE UPDATED AND PASS RE-INSPECTION BY A HEALTH DEPARTMENT ENVIRONMENTAL HEALTH SPECIALIST.
10. THE EXISTING SEPTIC TANK AND SEPTIC LINES ARE SHOWN. THE EXISTING HOUSE ON THIS PARCEL DOES NOT REVEAL ANY COMPONENTS EXCEPT THE SEPTIC TANKS AND CLEAN OUTS. THE SUBSURFACE COMPONENTS ARE SHOWN AS APPROXIMATE AND THEIR ACTUAL LOCATION WILL VARY FROM THE PLAN.
11. THE EXISTING TANKS AND SEPTIC LINES ARE SHOWN AND THE SEPTIC LINES ARE TO BE PLUGGED WHERE THE NEW SEWER HOUSE CONNECTIONS JOIN THE LINES FROM THE HOUSE.

[illegible]

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 45577, Expiration Date: 06-08-2020.

OWNER:
ANDREW WETTEN AND
KIMBERLY DRNEC
2920 ROUTE 32
WEST FRIENDSHIP, MD 21794-9304
443-415-9969

2920 ROUTE 32

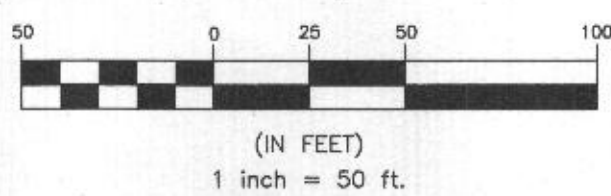
PARCEL 160

TAX MAP: 15, GRID: 23, PARCEL: 160, ZONED: RR-DEO
ELECTION DISTRICT NO. 4TH HOWARD COUNTY, MARYLAND
2920 ROUTE 32
WEST FRIENDSHIP, MD 21794

PERCOLATION CERTIFICATION PLAN

DATE: DECEMBER 31, 2019	BEI PROJECT NO. 2997
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DESIGN: JC	DRAFT: JC	SCALE: AS SHOWN	SHEET 1 OF 1
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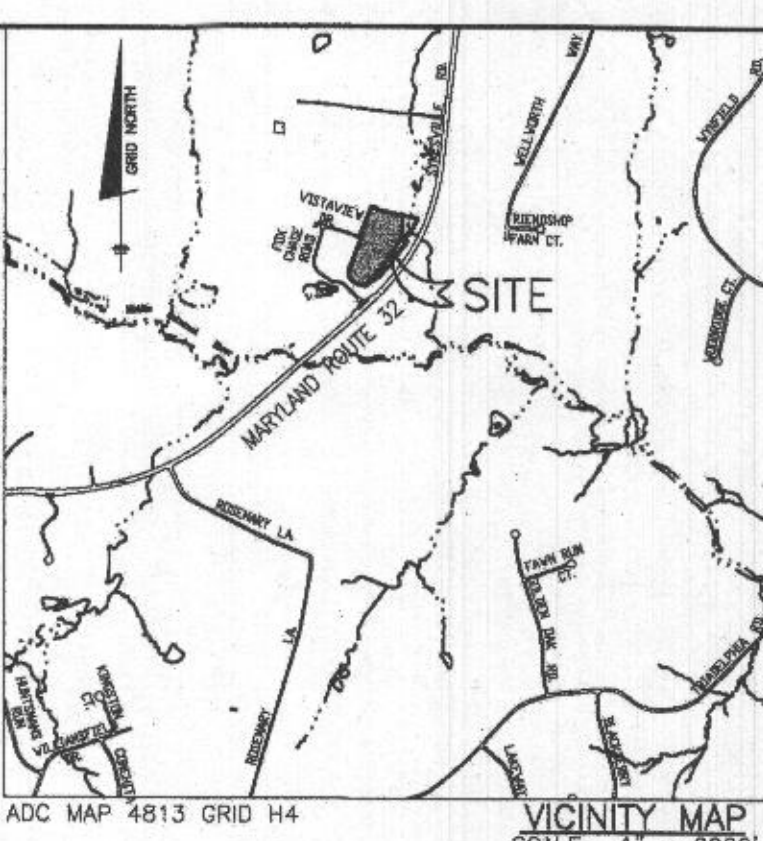
SOILS CHART					
SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME	k-VALUE
Co*		C	D	CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT	0.37/0.37
GgB		B		GLENELG LOAM, 3 TO 8 PERCENT SLOPES	0.20
GoB		B		GLENVILLE-CODORUS SILT LOAMS, 0 TO 8 PERCENT SLOPES	0.37
MaC		B		MANOR LOAM, 8 TO 15 PERCENT SLOPES	0.24
MaD		B		MANOR LOAM, 15 TO 25 PERCENT SLOPES	0.24

APPROVED:
APPROVED FOR PRIVATE WATER SYSTEM AND
PRIVATE SEWER SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

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.

PLAN PREPARER: JOHN M. CARNEY
FOR BENCHMARK ENGINEERING, INC.

PLAN PREPARER: JOHN M. CARNEY
FOR BENCHMARK ENGINEERING, INC.



- LEGEND**
- SOILS CLASSIFICATION
SOILS DELINEATION
EXISTING CONTOURS
(HOWARD COUNTY GIS
CONFIRMED BY BENCHMARK
ENGINEERING, INC. 11/19)
EXISTING WOODS LINE
- EXISTING STRUCTURE
- EXISTING SEPTIC DISPOSAL AREA
- SEPTIC DISPOSAL AREA
- 1,500 SF WELL BOX
- PERCOLATION TEST PASSED
- PERCOLATION TEST FAILED
- EXISTING FIELD LOCATED WELL

- GENERAL NOTES**
1. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
 2. THE LOT SIZE FOR THESE LOTS WILL FULFILL THE REQUIREMENTS OF THE ZONING REGULATIONS.
 3. THIS AREA DESIGNATES A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE 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.
 4. TOPOGRAPHY SHOWN IS BASED ON HOWARD COUNTY GIS AND IS VERIFIED BY BENCHMARK ENGINEERING, INC. AT TIME OF PERCOLATION TEST STAKEOUT.
 5. TO THE BEST OF OUR KNOWLEDGE, ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELL AND/OR SEPTIC HAVE BEEN SHOWN.
 6. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
 7. PERCOLATION TEST FEE RECEIPT NUMBER, REFERENCED IN THE APPROVING AUTHORITY CORRESPONDENCE, IS A561429.
 8. ANY MICRO-BIOTRETENTION FACILITIES WITHIN 100 FEET OF A WELL, AS MEASURED FROM THE WELL BOX TO THE FILTER MEDIA, SHALL BE LINED. Lining will be in accordance with the stormwater management detail as shown on the final construction plan. MICRO-BIOTRETENTION FACILITIES ARE NOT ALLOWED WITHIN 50' OF WELL OR WELL BOXES.
 9. HEALTH DEPARTMENT INSPECTION OF THE EXISTING WELL REVEALED THAT THE WELL TERMINAL MUST BE UPDATED WITH A 2-PIECE METAL CAP AND THE ELECTRICAL CONDUIT MUST BE REPAIRED AND INSERTED SNUGLY INTO THE NEW CAP. PRIOR TO HEALTH DEPARTMENT APPROVAL OF A FINAL PLAN OR ANY BUILDING PERMIT FOR 2920 RT 32, THE WELL MUST BE UPGRADED AND PASS RE-INSPECTION BY A HEALTH DEPARTMENT ENVIRONMENTAL HEALTH SPECIALIST.
 10. FIELD INVESTIGATION INTO THE LOCATION OF THE EXISTING SEPTIC COMPONENTS FOR THE EXISTING HOUSE ON THIS PARCEL DID NOT REVEAL ANY COMPONENTS EXCEPT THE SEPTIC TANKS AND CLEAN OUTS. THE SUBSURFACE COMPONENTS ARE SHOWN AS APPROXIMATE AND THEIR ACTUAL LOCATION WILL VARY FROM THE PLAN.
 11. THE EXISTING SEPTIC TANKS ARE TO BE PROPERLY ABANDONED AND THE SEPTIC LINES ARE TO BE PLUGGED WHERE THE NEW SEWER HOUSE CONNECTIONS JOIN THE LINES FROM THE HOUSE.

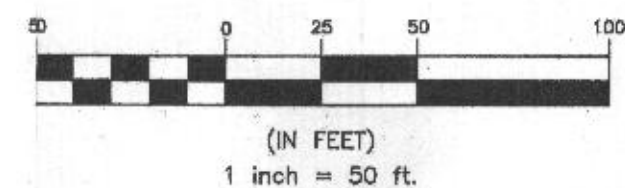
PURPOSE STATEMENT: THE PURPOSE FOR THIS PERCOLATION CERTIFICATION PLAN IS TO CREATE A 10,000 SF SEWAGE DISPOSAL AREA AND A 1,500 SF WELL BOX FOR THIS PARCEL. AS THE EXISTING TRENCHES ARE BEING ABANDONED AS THEY ENCRUSCH ONTO A WIDENED ROAD RIGHT-OF-WAY.

APPROVED: FOR PRIVATE WATER SYSTEM AND PRIVATE SEWER SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

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.

12/31/19

PLAN PREPARED: JOHN M. CARNEY
FOR BENCHMARK ENGINEERING, INC.



SOILS CHART				
SYMBOL	HYDRIC	HYDROLOGIC GROUP	ALTERNATE GROUP	NAME
Co*		C	D	CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT
GgB		B		GLENELG LOAM, 3 TO 8 PERCENT SLOPES
GoB		C		GLENVILLE-CODORUS SILT LOAMS, 0 TO 8 PERCENT SLOPES
MaC		B		MANOR LOAM, 8 TO 15 PERCENT SLOPES
MaD		B		MANOR LOAM, 15 TO 25 PERCENT SLOPES
				k-VALUE
				0.37/0.37
				0.20
				0.37
				0.24
				0.24

NO.	DATE	REVISION
BENCHMARK ENGINEERING, INC. ENGINEERS & LAND SURVEYORS & PLANNERS 8480 BALTIMORE NATIONAL PIKE & SUITE 315 • ELICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BD-ONLINEENGINEERING.COM		
OWNER: ANDREW WETTEN AND KIMBERLY DRNEC 2920 ROUTE 32 WEST FRIENDSHIP, MD 21794-9304 443-415-9969		
2920 ROUTE 32 PARCEL 160 TAX MAP: 15, GRID: 23, PARCEL: 160, ZONED: RR-DEO ELECTION DISTRICT NO. 4TH HOWARD COUNTY, MARYLAND 2920 ROUTE 32 WEST FRIENDSHIP, MD 21794		
PERCOLATION CERTIFICATION PLAN		
DATE: DECEMBER 31, 2019 BEI PROJECT NO. 2997		
DESIGN: JC	DRAFT: JC	SCALE: AS SHOWN SHEET 1 OF 1