

## Bureau of Environmental Health

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

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### MEMORANDUM

TO: Scott Arterburn  
Rainmaker Development  
6755 Business Parkway, Suite 103  
Elkridge, MD 21075

CC: Clarence and Alberta McCullough  
2101 Millers Mill Road  
Cooksville, MD 21723

FROM: Jeff Williams  
Program Supervisor, Well & Septic Program

RE: Percolation Testing and Proposed Development at 2101 Millers Mill Road

DATE: May 29, 2015

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The Health Department is in receipt of percolation testing applications for parcels 1 and 3 at 2101 Millers Mill Road. Upon review of the test plan, we have determined that the proposed area for sewage disposal on Parcel 3 is located upgradient of the well serving 2210 Millers Mill Road. Locating a sewage disposal area upgradient of a well requires a variance to the Code of Maryland Regulations (COMAR) 26.04.02 from the Maryland Department of the Environment (MDE) upon recommendation from the local Health Department. We cannot recommend that variance at this time due to the substandard construction of the existing well (hand dug well in pit).

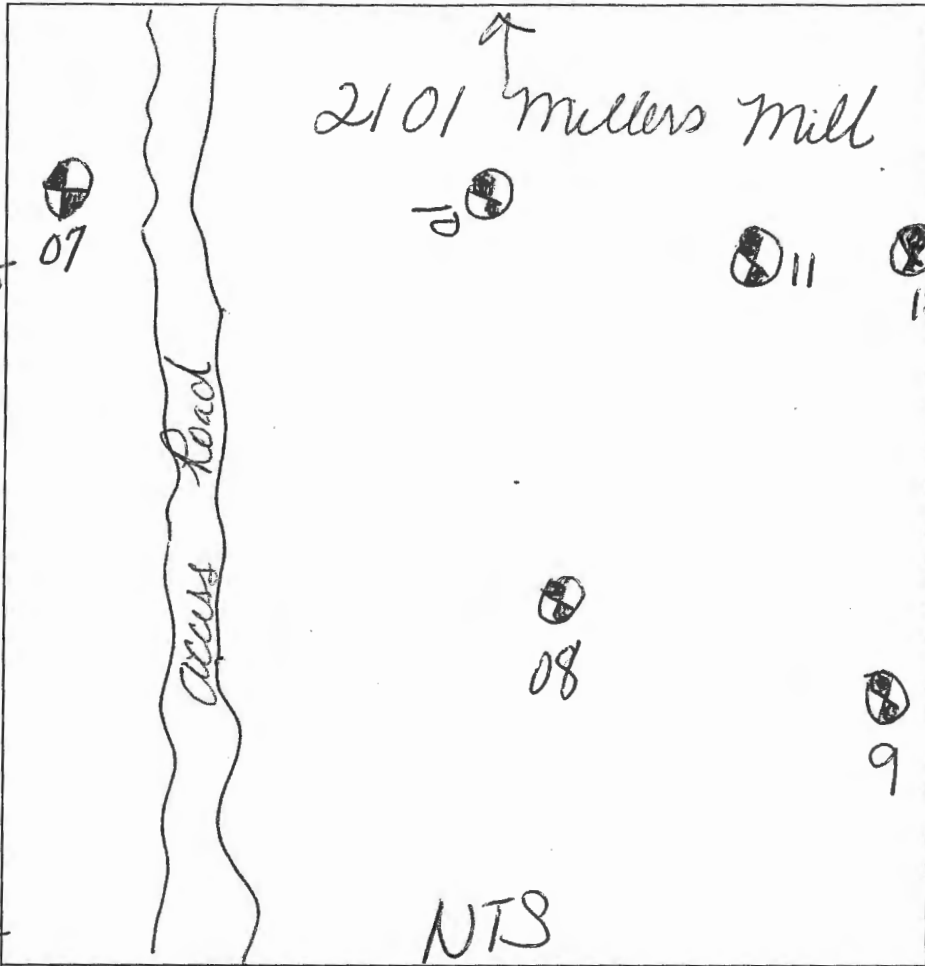
One possible solution is to have a new well meeting current well construction requirements drilled on the neighboring property. I have agreed to allow percolation testing on parcel 3 to determine if the soil is suitable for sewage disposal prior to any discussion with the neighbor regarding possible well replacement. This will be done with the understanding that any suitable soil found will not be usable for a sewage disposal area under the current conditions and without a variance.

A/P

#12  
Red Brown  
yellow  
SL  
4.5'  
Red Brown  
yellow  
SL  
5-10%  
R4  
↓  
14'

#11  
Red Brown  
yellow  
SL  
4.5'  
Red Brown  
yellow  
FSL  
5-10%  
R4  
↓  
14'

#10  
Red Brown  
yellow  
5-10%  
R4  
5'  
Red Brown  
yellow  
SL  
Rock  
0-20%  
R4  
↓  
12'



#7  
Red Brown  
yellow  
SL  
5-10%  
R4  
4.5'  
Red Brown  
yellow  
SL  
10-20%  
R4  
H2O  
in the  
Bottom @ 10'  
11.5'

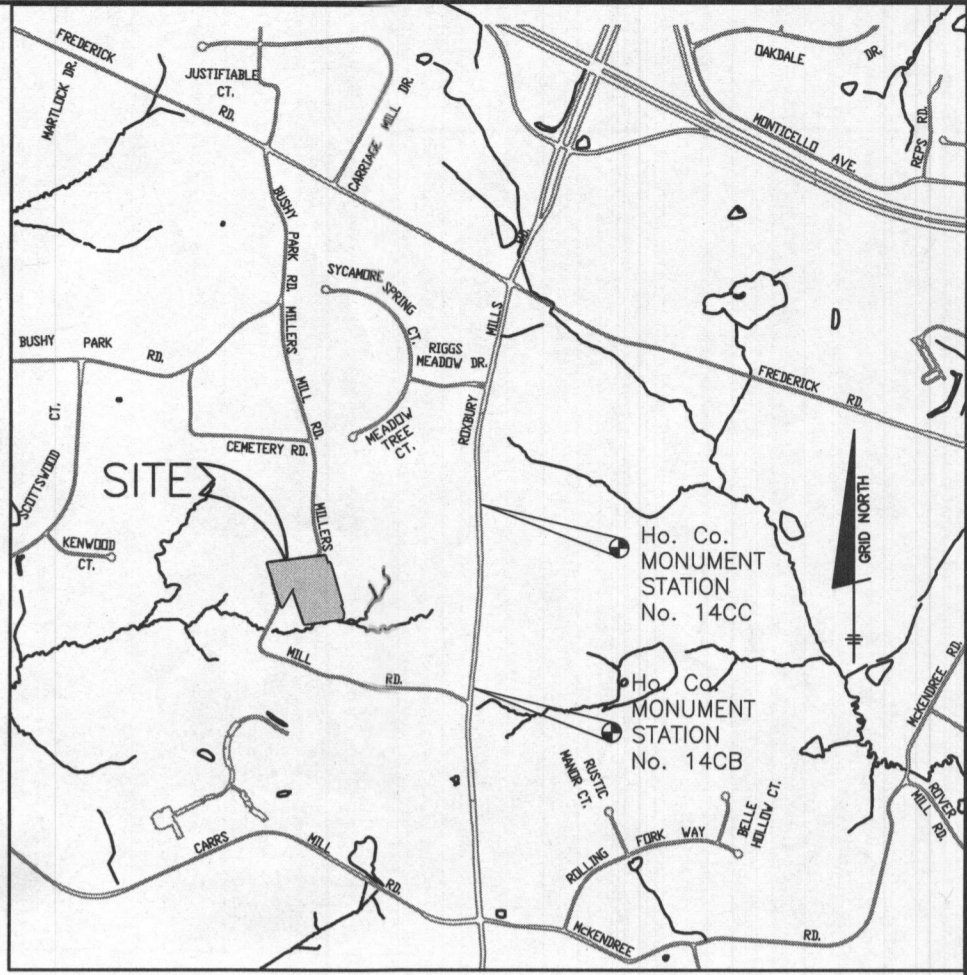
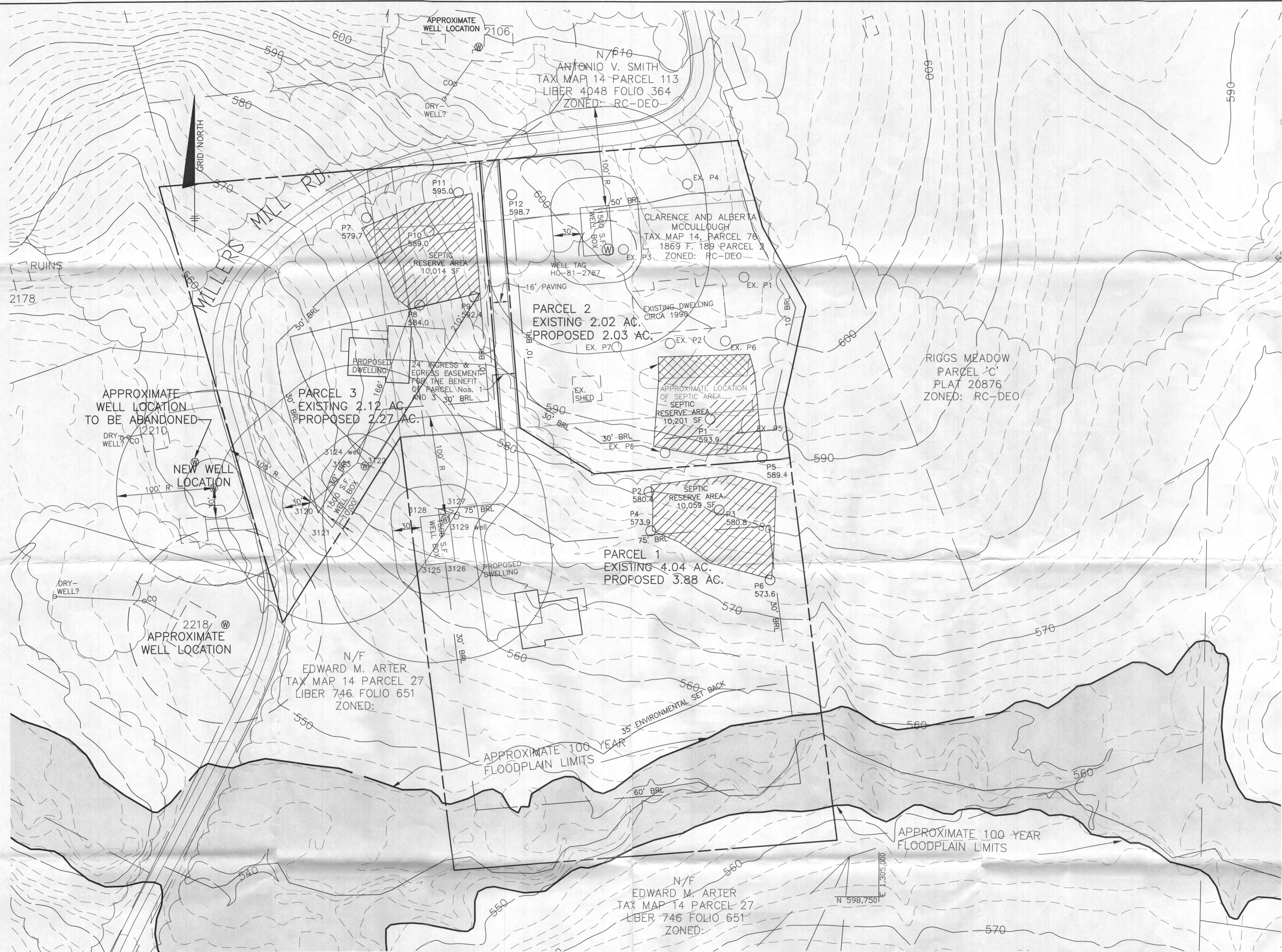
P-5  
Red Brown  
yellow  
SL  
4.5'  
Red Brown  
yellow  
SL  
5-10%  
R4  
↓  
15'

P-8  
Red Brown  
yellow  
SL  
4.5'  
Red Brown  
yellow  
SL  
5-10%  
R4  
↓  
14.5'

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
6-3-15	P-12	5.5 / 14	10:03	10:05	10:16	9 min	P
6-3-15	P-11	5.5 / 14	10:06	10:09	10:11	2 min	P
6-3-15	P-10	6 / 14	1:45	1:56	2:10	14 min	P
6-3-15	P-7	5.5 / 11.5	10:28	10:30	10:34	4 min	P
6-3-15	P-?	5.5 / 15	10:34	10:51	11:16	20 min	P
6-3-15	P-8	5 / 14.5	10:54	11:00	11:16	16 min	P

NTS

REMARKS  
 SANITARIAN Bernard BACKHOE Hatfields OTHERS \_\_\_\_\_  
 TEST HOLES USED IN SDA \_\_\_\_\_ AVG. PERC TIME \_\_\_\_\_ SQ. FT/BR \_\_\_\_\_  
 TRENCH WIDTH \_\_\_\_\_ INLET DEPTH \_\_\_\_\_ MAX. BOT DEPTH \_\_\_\_\_ EFFECTIVE SW \_\_\_\_\_



ADC MAP 17 - GRID A2  
VICINITY MAP  
SCALE: 1" = 2000'

BENCHMARK INFORMATION NAD83	
Ho. Co. STATION 14CB STAMPED DISC SET ON TOP OF CONCRETE COLUMN 3.2' EAST OF THE EDGE OF PAVING FOR MD ROUTE 97 AND 92.7' SOUTH OF BG&E POLE No. 18 526413/C&P POLE No. 18 NORTHING: 598079.769' EASTING: 1306428.226' ELEVATION: 590.999'	Ho. Co. STATION 14CC STAMPED DISC SET ON TOP OF CONCRETE COLUMN 9.4' EAST OF THE EDGE OF PAVING FOR MD ROUTE 97 AND 28.1' NORTH OF C&P POLE No. 11 526413/C&P POLE No. 11 NORTHING: 599950.258' EASTING: 1306317.786' ELEVATION: 602.899'

**GENERAL NOTES**

- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA IS RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT 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 SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE NECESSARY.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT. THE LOT SIZE FOR THESE LOTS WILL FULFILL THE REQUIREMENTS OF THE ZONING REGULATIONS.
- ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THE PROPERTY'S BOUNDARIES EXCEPT THAT WHICH ARE SHOWN. INFORMATION HAS BEEN REQUESTED FROM THE BUREAU OF ENVIRONMENTAL HEALTH CONCERNING THE ADJOINING PROPERTIES.
- THE EXISTING TOPOGRAPHY SHOWN IS TAKEN FROM HOWARD COUNTY GIS WITH TWO-FOOT CONTOUR INTERVALS. TRACT OUTLINE WILL BE ESTABLISHED BY FIELD WORK PERFORMED BY BENCHMARK ENGINEERING, INC. TOPOGRAPHY FOR THE SEPTIC RESERVE AREAS FIELD VERIFIED BY BENCHMARK ENGINEERING, INC.
- ALL WELLS TO BE DRILLED PRIOR TO BUILDING PERMIT APPROVAL. IT IS THE DEVELOPER'S RESPONSIBILITY TO SCHEDULE WELL DRILLING PRIOR TO BUILDING PERMIT SUBMISSION. IT WILL NOT BE CONSIDERED GOVERNMENT DELAY IF THE WELL-DRILLING HOLDS UP THE HEALTH DEPARTMENT APPROVAL OF THE BUILDING PERMIT.
- AN ADVANCED PRE-TREATMENT SYSTEM, WHICH UTILIZES CURRENTLY ACCEPTABLE TECHNOLOGY TO PERFORM NITROGEN REDUCTION, MUST BE INSTALLED ON THE SEPTIC SYSTEMS FOR THIS SUBDIVISION. THESE ADVANCED PRE-TREATMENT SYSTEMS SHALL BE LIMITED TO THE SYSTEMS LISTED IN THE WEBSITE FOR BAY RESTORATION FUND (BRF) BEST AVAILABLE TECHNOLOGY FOR REMOVING NITROGEN FROM ONSITE SYSTEMS. A SUPPLEMENTAL SITE PLAN WITH ALL OF THE NECESSARY DETAILS FOR INSTALLATION OF THE SEPTIC SYSTEM WILL BE REQUIRED PRIOR TO THE RELEASE OF THE BUILDING PERMIT AND SYSTEM INSTALLATION PERMIT.
- PERCOLATION TEST FEE RECEIPT NUMBER, REFERENCED IN THE APPROVING AUTHORITY CORRESPONDENCE IS A556453 FOR PARCEL 1; AND A556463 FOR PARCEL 3.
- THE PURPOSE OF THIS PERCOLATION CERTIFICATION IS TO ESTABLISH PRIVATE 10,000 SQUARE FOOT SEWERAGE EASEMENTS AND TO ESTABLISH THREE (3) PROPOSED WELL SITES OR 1500 SQ. FT. OF WELL ZONE WITH ELLIPTICAL RADIUS OF 100 FEET AROUND THE ENTIRE SET/WELL ZONES FOR THESE PROPERTIES.
- MARYLAND DEPARTMENT OF THE ENVIRONMENT HAS GRANTED A VARIANCE FOR THE INSTALLATION OF WELLS ON ADJOINING #2210 MILLERS MILL ROAD AND SUBJECT PARCEL 3 THAT ARE DOWN GRADIENT OF THE SEPTIC SYSTEM ON SUBJECT PARCEL 3. THIS VARIANCE IS GRANTED WITH THE FOLLOWING CONDITIONS: THE INITIAL AND REPLACEMENT WELLS ON #2210 MILLERS MILL ROAD AND PARCEL 3 WILL BE INSTALLED AS STEEL CASINGS TO A DEPTH OF 50 FEET, OR 10 FEET INTO COMPETENT BEDROCK, WHICHEVER IS DEEPER, AND THE SEPTIC SYSTEM ON SUBJECT PARCEL 3 IS TO INCLUDE A BEST AVAILABLE TECHNOLOGY UNIT FOR NITROGEN REMOVAL AND ALL DRAINFIELDS INSTALLED AS LOW-PRESSURE DISTRIBUTION OR EQUIVALENT.
- PARCEL 3 SEPTIC RESERVE AREA CONFIGURATION IS ONLY ALLOWED FOR VARIANCE APPROVAL ONCE THE DOWN GRADIENT WELL IS APPROVED ON THE NEIGHBORING PROPERTY (2210 MILLERS MILL ROAD).
- THIS PLAN SHOWS A RECONFIGURATION OF THE PARCELS IN ORDER TO ACCOMMODATE THE SEPTIC RESERVE AREAS ON PARCELS 1 THROUGH 3. THIS RECONFIGURATION WILL BE DONE BY PLAT OR ADJOINER TRANSFER. IF THE ADJOINER TRANSFER OR PLAT IS NOT COMPLETED THEN A REVISED PERCOLATION CERTIFICATION PLAN SHOWING THE EXISTING PARCEL LINES AND WELLS AND SEPTIC RESERVE AREAS THAT MEET THE REGULATIONS WILL BE REQUIRED.

PLAN VIEW  
SCALE: 1" = 50'

LEGEND

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  
*Clarence McCullough*

**BENCHMARK**  
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WWW.BE-CIVILENGINEERING.COM

OWNER:  
CLARENCE AND ALBERTA MCCULLOUGH  
2101 MILLERS MILL ROAD

**MILLERS MILL ROAD**