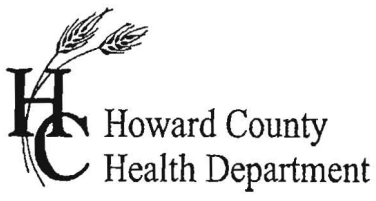


\$ 500



APPLICATION

FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) _____ TEST TIME _____

AP 530325

AGENCY REVIEW: _____

DATE 3/6/09

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:
- 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

Due 3/20

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

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

THE TYPE OF STRUCTURE IS: 5 (adding 2) 5 total

- RESIDENTIAL WITH 5 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) Marc and Julie Rothermel

DAYTIME PHONE 301-596-9929 CELL 240-304-6942 FAX _____

MAILING ADDRESS 7514 Greenwood Dr, Highland MD 20777
STREET CITY/TOWN STATE ZIP

APPLICANT SAME
DAYTIME PHONE _____ CELL _____ FAX _____

MAILING ADDRESS _____
STREET CITY/TOWN STATE ZIP

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

PROPERTY LOCATION
SUBDIVISION/PROPERTY NAME GREENWOOD FARMS LOT NO. 21

PROPERTY ADDRESS 7514 Greenwood Drive Highland
STREET TOWN/POST OFFICE

TAX MAP PAGE(S) _____ GRID _____ PARCEL(S) _____ PROPOSED LOT SIZE _____

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. Marc J. Rothermel
SIGNATURE OF APPLICANT

HOWARD COUNTY HEALTH DEPARTMENT, BUREAU OF ENVIRONMENTAL HEALTH, WELL AND SEPTIC PROGRAM
7178 COLUMBIA GATEWAY DRIVE COLUMBIA, MARYLAND 21046 (410) 313-1771 FAX (410) 313-2648
TDD (410) 313-2323 TOLL FREE 1-877-4MD-DHMH



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
(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

April 27, 2009

To: Marc and Julie Rothermel
Owners

From: Robert Bricker, CPSS, RS
Environmental Sanitarian
Well and Septic Program

RE: 7514 Greenwood Drive (Greenwood Farms, Lot 21) Percolation Test Results,
A530325

Dear Mr. & Mrs. Rothermel,

Percolation testing was conducted on the referenced property on April 22, 2009. All percolation tests conducted were standard tests, measuring rate of fall for a pre-wet period followed by measurement and recordation of the time required for the water level to drop 1 inch. The soils tested are within soil map unit GbB (Gladstone loam, 3% to 8% slopes). Percolation Test Results indicate areas of soils' conditions that are both satisfactory and marginal for onsite wastewater disposal. Subsequently, a limited area could be designated as having properties suitable for inclusion in a septic easement.

Three test holes were dug for profile description and standard percolation tests. Two test locations, #2 and #4, 'Pass' (with less than 30 minutes per inch of fall), and the other, #3, has a very slow rate of permeability (60 minutes per inch). Depth of percolation test was affected by the depth to groundwater at locations #2 and #3. The observed seasonal water table at location #2 is 14 feet, and at location #3 it is 9.5 feet. The restriction at #4 was densely consolidated materials at 11 feet.

Field data collected are shown on the Percolation Test Results Worksheets enclosed with this letter. Recommended Inlet and Trench Bottom depths, and Usable Sidewall are all based on observed soil properties and characteristics at respective test locations as well as the particular soils materials tested.

Health Department records indicate the existing drainfield (12/15/1983) is a 6' X 75' leech bed having an Inlet at 3 feet and a Bottom at 4.5 feet. As it happens, the attempted observation of the leech bed condition was dug very near to its uphill side. No gravel was exposed during the excavation, however at 4 foot depth black and grey soil with standing water was encountered. There were not any noticeable indications of drainfield failure at or near the soil surface either at the leech bed location or downslope of it. I am of the opinion that the subsurface soil conditions observed indicate the system is accumulating some wear, but the remaining capacity of the system will likely provide safe wastewater disposal for an undetermined amount of time.

The leech bed is designed to serve the existing 3-bedroom residence. As the proposal being prepared expands the residence to 5 bedrooms, additional absorption area (re: additional trench area) will be required prior to Building Permit approval.


The Howard County Code (3.805.A.2.X) requirement for an initial drainfield system and 2 replacement systems may not be achievable. Implementation of pre-treatment will be required as a condition of approval of the subsequent Building Permit application, or a Use & Occupancy Permit. (Please see the enclosed brochure for the MDE Bay Restoration Fund.)

The COMAR requirement (26.04.02.02.B.1.b.i) for an initial system and one replacement appears to be achievable. [As the original residence on Lot 21 was built in 1958, the subject property apparently predates the effective date (November 17, 1985) of regulations requiring approval by the Department of Health and Mental Hygiene of septic disposal areas large enough to accommodate an initial system and two repair systems.]

The existing water source is a 'pit well', which will have to be upgraded prior to submittal of a Building Permit Application. The required upgrade is for installation of a pitless adapter at 36 inches or more depth and extension of the casing to at least 8 inches above the soil surface.

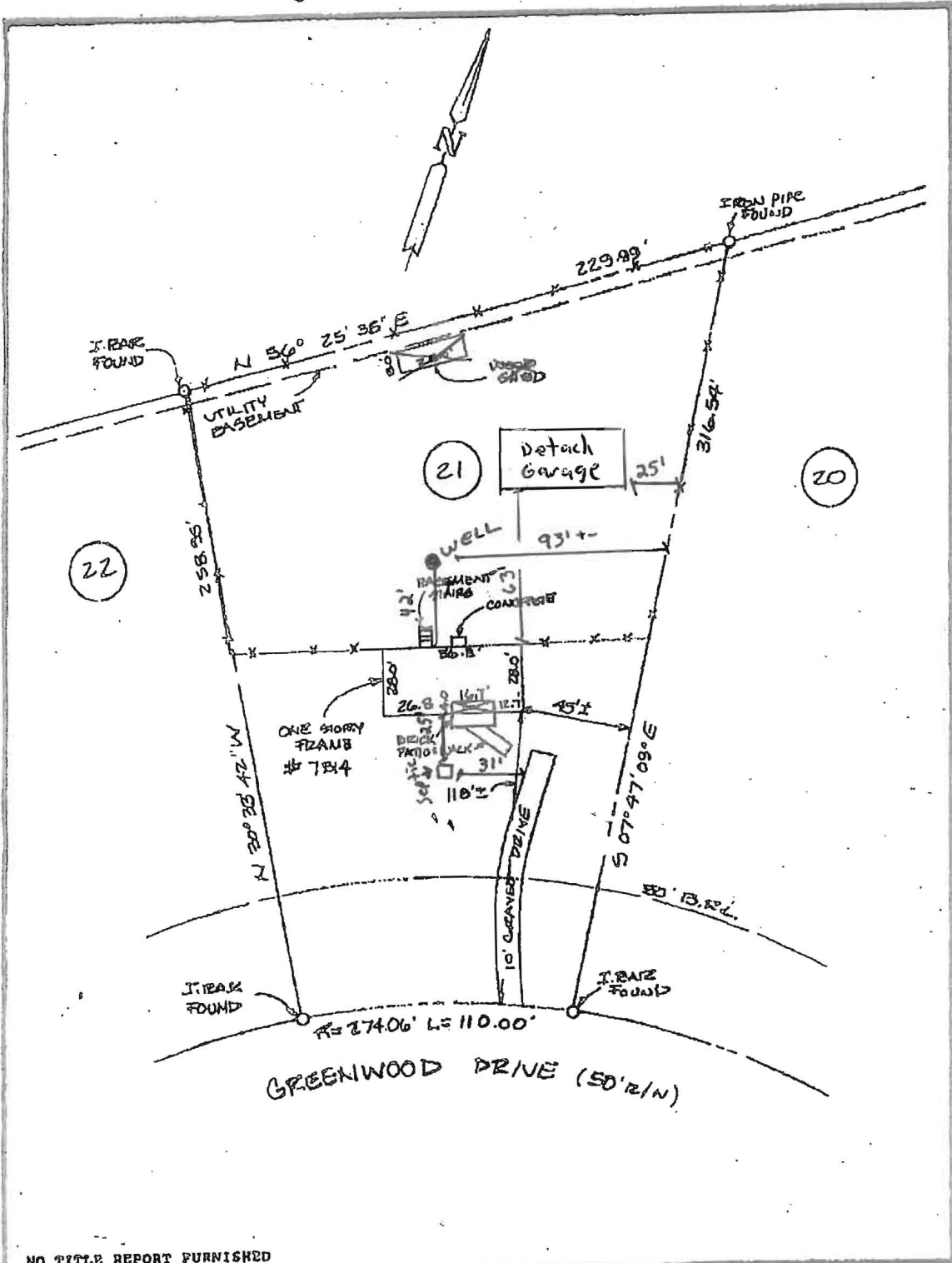
If you have any questions regarding this evaluation or requirements for the Percolation Certification Plan, please contact me at the above address or by calling (410) 313-2691.

Respectfully,


Robert Bricker, CPSS, RS
Well and Septic Program
Development Coordination Section

Enclosure: field data sheet and site sketch

Copy: File



NO TITLE REPORT FURNISHED

7514 GREENWOOD DRIVE
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SUBJECT PROPERTY IS SHOWN IN SOME
 ON THE NATIONAL FLOOD INSURANCE PROGRAM.
 FLOOD INSURANCE RATE MAP OF HOWARD
 COUNTY, MARYLAND, PANEL # 2104
 COMMUNITY PANEL # 2104
 EFFECTIVE DATE: DEC 4, 1980

LOCATION SURVEY

THIS IS TO CERTIFY THAT I HAVE SURVEYED THE PROPERTY KNOWN
 AS LOT 21, SECTION THREE
 MAP OF GREENWOOD FARMS
 RECORDED IN P.B. 5 FOLIO 88
 AMONG THE
 LAND RECORDS OF HOWARD COUNTY, MD FOR THE
 PURPOSE OF LOCATING THE IMPROVEMENTS THEREON.

THIS PLAN SHOWS ONLY THAT THE IMPROVEMENTS ARE
 CONTAINED WITHIN THE OUTLINE OF THE LOT AND IS
 NOT TO BE USED TO ESTABLISH PROPERTY LINES.



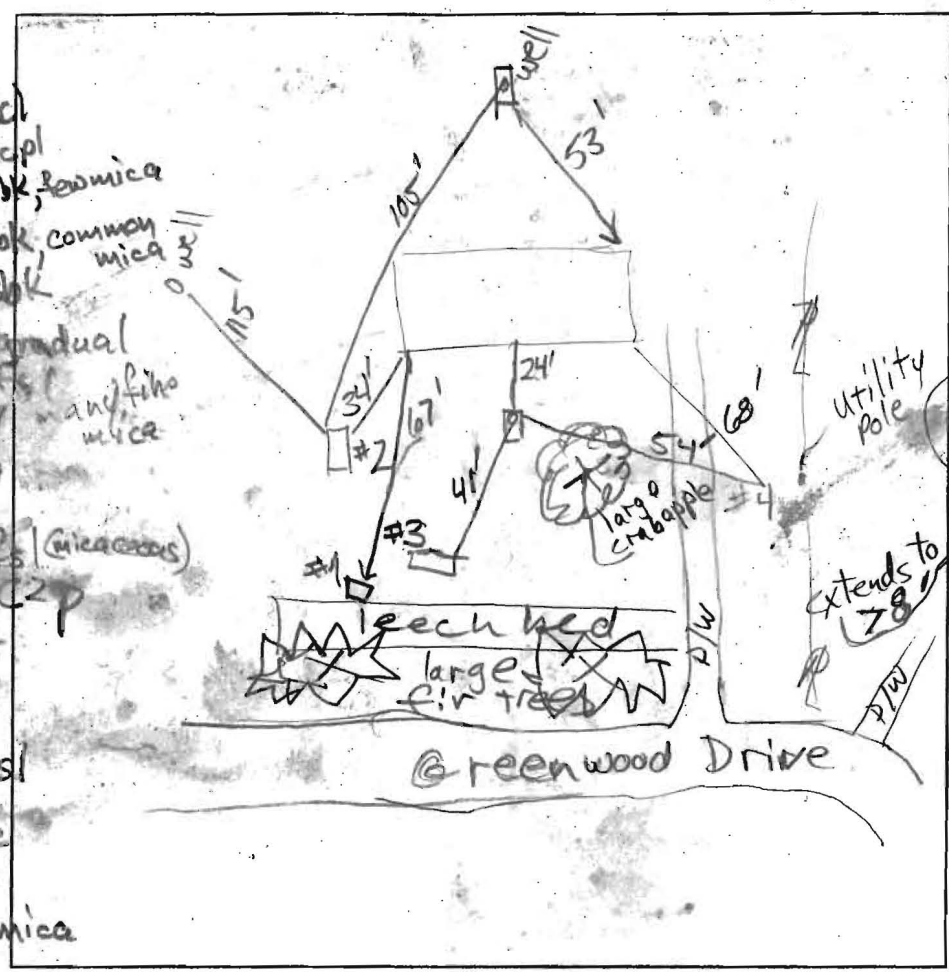
SCALE 1" = 50' FILE #
 DATE 7/16/94 JOB # 2494074

RH SURVEYS
 LOCATION & PROPERTY
 SURVEYS
 1303 TEN BROOK ROAD
 ODENTON, MD 21113
 410-3328

3
 0.8 dk brn & yel-red scl
 many mica, 1 cpl
 1.5 dk brn sl, 2 fsl, mica
 2.5 brn scl 2 msbk, common mica
 fine brn fsl, 1 msbk
 many mica gradual
 3.5 m, brn fsl
 many fine mica
 6.5 red & brn fsl
 many fine mica
 9.5 dk grey-brn sl (micaceous)
 w/ pale red fsl (2p)
 w/ white sil
 very moist
 water

4
 0.7 dk grey vgr sl
 1 brn scl, dense
 common mica
 2 brn sl many mica
 heavy
 3.5 yel-red, pale yellow
 dk grey fsl many fine mica
 5
 lt grey, yellow
 & yel brn sl
 many mica
 8.5 dk brn fsl
 micaceous
 10.5 grey, white & black
 chis

11 Hard Bottom
 7 platy
 8.5 black
 fsl



2
 1 dk brn scl
 1 yel-red scl
 2 yel-red
 & yel grsl
 dense, brittle
 3' yel-red & white
 & yel grsl
 30% small
 quartzite
 common mica
 large inclusion
 (or dipping layer)
 ? intrusion
 of white
 vgr cs
 quartzite, common mica

5 grey & white
 with many
 small pale yellow
 inclusions
 fsl, many mica
 7
 lt. brn &
 yellow fsl
 many mica
 10
 brn fsl
 few, small
 Mn conc.
 many fine mica

4'
 micaceous
 fsl, very moist
 dk grey-brn
 common
 Mn conc
 15lb - Free Water

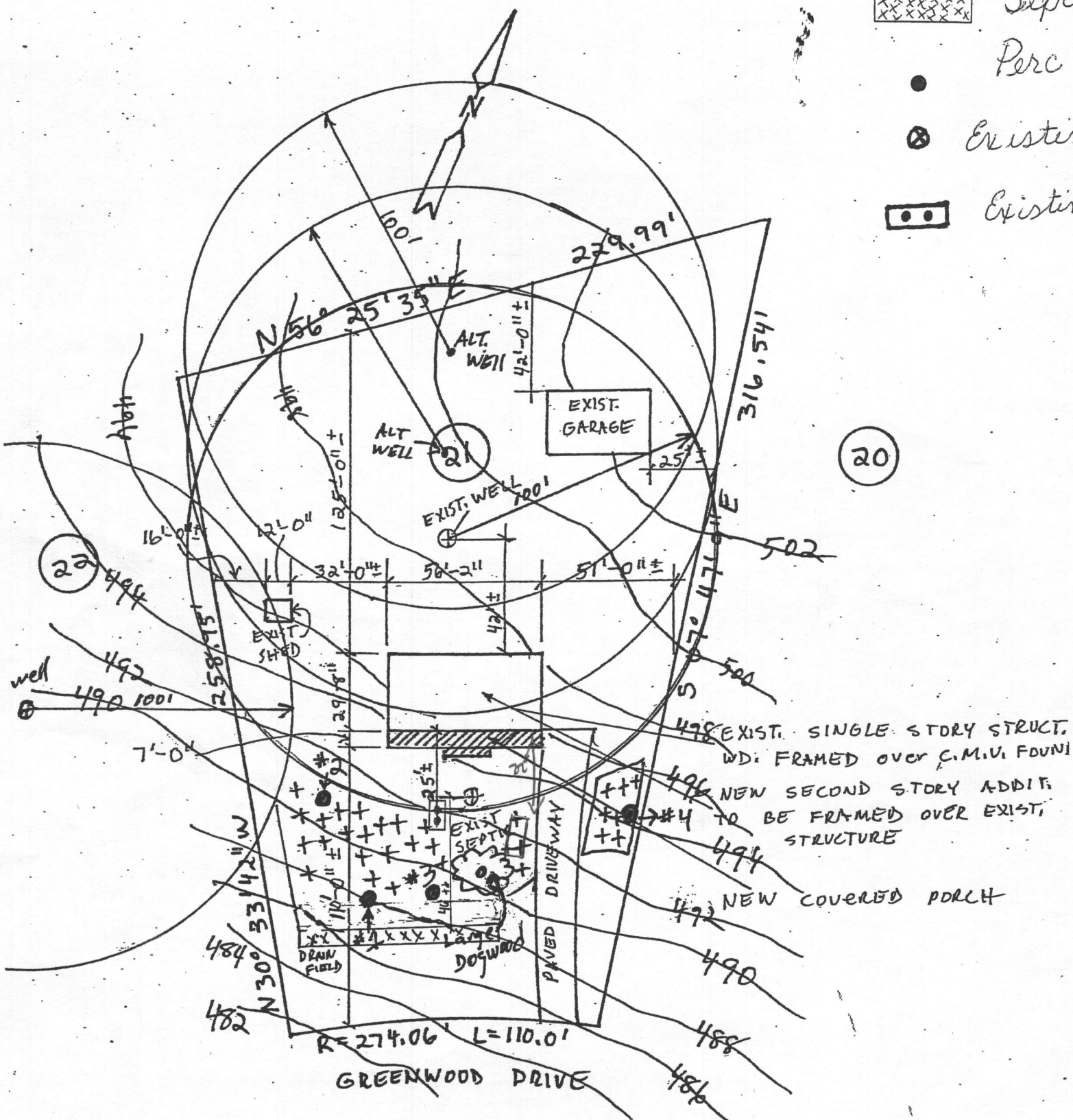
DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
4/22/09	3	5.1' / 9.5'	0	35	95	60	Alt.
4/22/09	4	4.5' / 11'	0	4.5	10.5	6	P
4/22/09	2	6' / 14'	0	20+	pulled		F
reshelf	2	8' / 14'	0	4	8.5	4.5	P

REMARKS micaceous subsoils, 15-16% slope #2 sidewall 3' to 10' minus 5' to 7'





SANITARIAN RB BACKHOE Jamie OTHERS John

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

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



PROPOSED PLOT PLAN
 SCALE: 1" = 50'-0"
 7514 GREENWOOD DRIVE
 HIGHLAND, MD 20777

-  Septic Field
-  Perc Holes
-  Existing Wells
-  Existing Septic Tank

20

NOTES

1. THIS AREA DESIGNATES A PRIVATE SEWAGE AREA 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 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.
2. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
3. EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
4. TOPOGRAPHY SHOWN AS TWO-FOOT CONTOUR INTERVALS IS FROM HOWARD COUNTY GIS AND IS CONFIRMED AS AN ACCURATE REPRESENTATION OF THE RELATIVE ELEVATION RELATIONSHIPS ON AND AROUND THE SUBJECT PROPERTY.
5. THE ENTIRE SUBJECT PROPERTY IS WITHIN SOIL MAP UNIT Gbb.
6. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
7. THE WELL SHALL BE UPGRADED PRIOR TO SUBMITTAL OF THE BUILDING PERMIT APPLICATION.
8. 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 DRAINFIELD SYSTEMS. A SUPPLEMENTAL SITE PLAN WITH THE NECESSARY DETAILS FOR INSTALLATION OF THE SYSTEM WILL BE REQUIRED PRIOR TO THE 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 PRIOR TO HEALTH DEPARTMENT APPROVAL OF THE BUILDING PERMIT.
9. PRIOR TO BUILDING PERMIT APPROVAL, THE SEPTIC DISTRIBUTION SYSTEM MUST BE UPGRADED TO ACCOMMODATE WASTEWATER DISCHARGE FOR A 5-BEDROOM RESIDENCE.
10. THE SUBJECT PROPERTY HAS A LIMITATION OF 5 BEDROOMS. IF MORE BEDROOMS ARE DESIRED THE HEALTH DEPARTMENT WILL CONSIDER A TECHNICAL DESIGN SHOWING THAT THE SEPTIC EASEMENT AREA WILL ACCOMMODATE A SYSTEM DESIGN ADEQUATE FOR THE AMOUNT OF WASTEWATER DISCHARGE FROM THE PROPOSED STRUCTURE.

PERCOLATION CERTIFICATION PLAN
 7514 GREENWOOD DRIVE
 Tax Map 40, Parcel 157, Lot 21

OWNERS: MARC AND JULIE ROTHERMEL
 7514 GREENWOOD DRIVE
 HIGHLAND, MD 20777

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON WORK PERFORMED IN MY PRESENCE OR BY MY DIRECTION, AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Marc J. Rothermel 3/8/11
 (SIGNATURE) (DATE)

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS.
B. W. [Signature] 3/18/2011
 (SIGNATURE) (DATE)