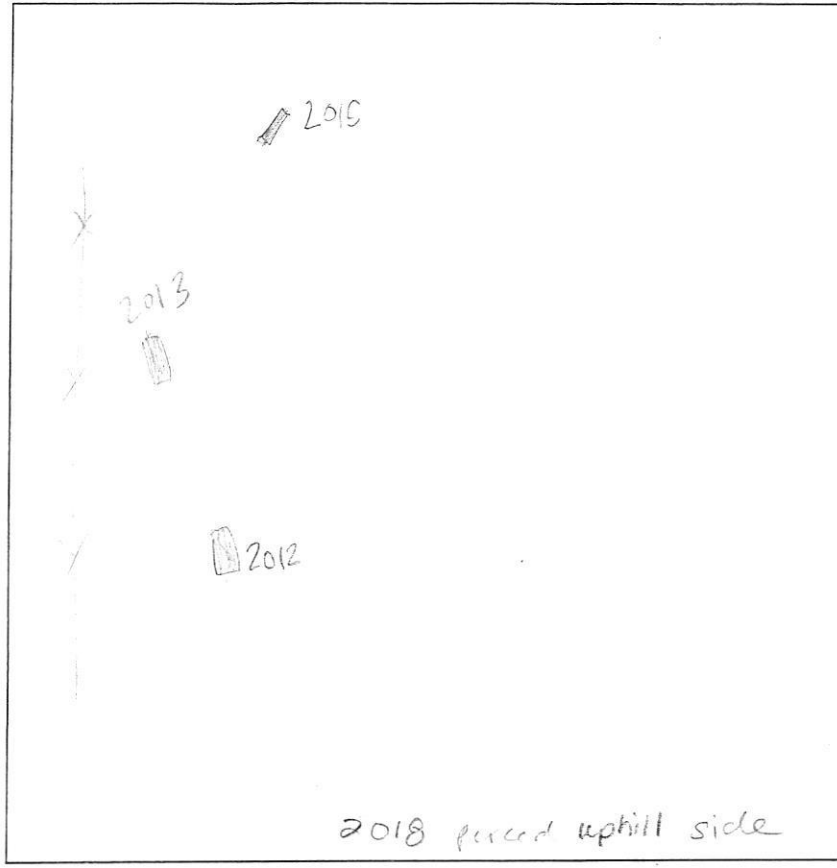


A/P

2013
 10" bm Csbk
 yellow grsl
 4'
 yellow bm fl
 micaceous
 ↓
 yellow bm vfgl
 10.5'

2015
 Same as 2013
 10.5' brn vfgl

2012
 wts org bml
 org brn pmsbk sl
 3'
 yellow long brn fl
 Saprotik
 ↓
 yellow brn vfgl
 11'
 micaceous Saprotik



2018
 brn l
 2msbk
 org brn grsl
 2'
 11' wet @5' org brn grsl
 moist
 quartz
 chsl
 7'
 ↓
 brn vfgl
 30% v
 11'

2016
 brn l
 sbk
 1'
 red brn sl moist
 3'
 red brn fl
 ↓
 ~40% v
 @6'
 9-10'
 brn ch vfgl
 fl
 chsl
 10.5'

2017
 brn heavy l
 8"
 red brn
 Saprotik
 5'
 brn vfgl
 ↓
 brn vfgl
 8.5'
 10'

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
10-25-10	2013	4.5' / 10.5'	Ø	1:40	3:45	2+	P
	2015	4.5' / 12'	Ø	1:54	3:01	2+	P
	2012	4' / 11'	Ø	1:51	4:53	3	P
	2018	4' / 11'	1:42	NO movement			F
	2016	3.2' / 10.5'	Ø	2:00	5:19	3+	P
	2017	3.5' / 10'	Ø	1:15	3:40	~2.5	P
	2018	3' / 11'	Ø	2:45	5:15	2.5	P

REMARKS Lot 2 & Lot 2 used stopwatch
 SANITARIAN B BACKHOE Chad Lepp OTHERS Zach Cleveland
 TEST HOLES USED IN SDA _____ AVG. PERC TIME _____ SQ. FT/BR _____
 TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH _____ EFFECTIVE S/W _____

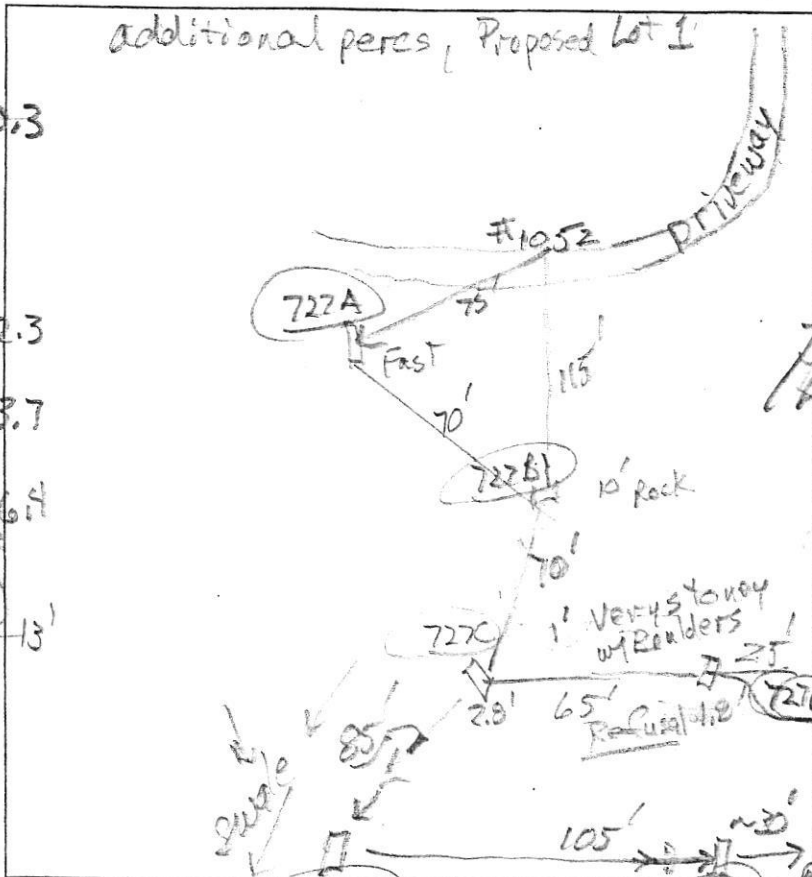
A/P

727A

dk grey sl 0.3
 brn scl
 2 f sbk
 yel red scl
 2 msbk
 yel red scl
 2 msbk 2.3
 yel red scl
 micaceous 3.7
 brn ls
 micaceous
 few stones 6.4
 lt brn & white
 ls (lighter
 texture) 13'

RECEIVED
 FORWARD COUNTY HEALTH DEPT
 ENVIRONMENTAL HEALTH

2010 MAR -8 PM 4:52



727B

0.8
 1' Lm scl
 3 f sbk
 2' brn sl.
 2 msbk many mica
 1.5 lt. brn & yellow
 ls
 3.8 dk, brn & yellow
 ls, micaceous
 dense strata 5.7'
 6'
 10' brn ls

13'
 2' brn scl firm
 2 msbk
 4.2' brn grsl
 1' yel-red &
 yel-brn lfs
 7' moisture
 increasing
 8' yel-brn
 yel-red
 & pale yellow
 w/ black
 ls micaceous
 moist
 9.4' water
 seeps
 coming
 out of
 10' 1' platy water level

1.3
 1.8
 50%
 4' brn scl
 2 msbk
 w/ roots
 brn grsl
 many mica
 vfl & by ls
 7ep1
 10' yel-red
 dk brn & white
 w/ black ls
 micaceous
 dk brn
 & dk grey sl
 moist

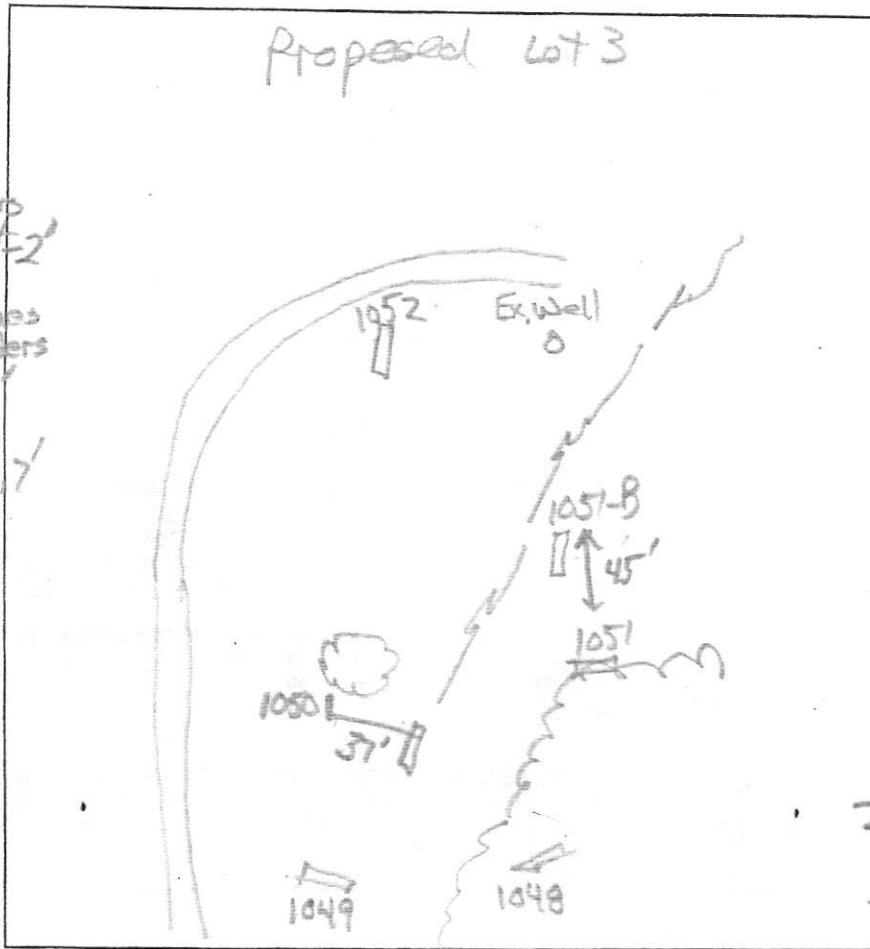
DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
7/27/10	727A	6.8 / 13'	9:32	9:33:30	9:35:05	1.2	repair
		6.8 / 13'	9:32	9:33:30	9:35:05	1.6	repair
	727A	6.8 / 13'	9:36	9:37:30	9:39:15	1.8	F
7/27/10	727B	5.7 / 10'	11:05:35	11:06:30	11:08:15	1.7	F
7/27/10	727E	4.2 / 8'	11:34	11:35:25	11:37:27	2.2	reshel f
	727E	5.7 / 8'	11:38:30	11:59:15	12:02:15	3	
7/27/10	727F	5.4 / 12.8'	12:11:30	12:12:10	12:13:05	0.9	F
7/27/10	727C & D	1'					50% rock 1' to 24' Refusal at 1.8' & 2.8' F

REMARKS Heavy storm 44 hours prior to testing
 SANITARIAN RB BACKHOE Mike Johnson OTHERS Tim Sosinski
 TEST HOLES USED IN SDA _____ AVG. PERC TIME Mike Johnson SQ. FT/BR
 TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH _____ EFFECTIVE SW _____

1051

dk brn
st
30% & 15% boulders
1.6'-2'
red-yel
st
con. stones
& boulders
4.7'
red-yel st
micaceous
R-4.7'

Proposed Lot 3



1048

dk brn loam
to brn st sl
3msbk
16-25
yel-red st sl
35'
grey-brn
15' sl, m
6'
dense, platy
grey brn ls
sl pro life
25% wk con
6.5'
dk grey brn
st sl
25% dk con
15% glass (cement)

1049

dk brn loam
to brn st sl
3msbk, few stones
2'
yel-brn loam
4'
dense, sl, m
yel-red st
many mica, dense
5.7'
yel-brn st
many mica
2.5'
grey brn ls
micaceous
10'
brn ls
micaceous
12'
↓

1051-B

brn st
to brn heavy
sl
3'
brn & lt brn
sl, micaceous
7'
dk brn ls
2mpl
micaceous
10'
brn st sl
13'
micaceous

RECEIVED
TOWARD COUNTY HEALTH DEPT.
ENVIRONMENTAL HEALTH
2010 MR - 8 PM 4:52

1050 offset
37'

dk brn loam
to yel-red

yel-red st
many fine mica

5.7'
dk brn st
micaceous
2mpl

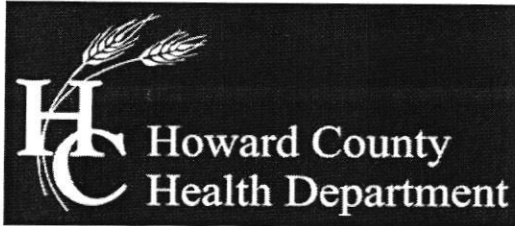
10
dk brn & lt brn
ls, 2mpl
micaceous

1052

brn st 2msbk
2.2'
Variegated
micaceous sl, m
24'
brn ls
micaceous
9'
brn ls, 1mpl
13'

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
7/20/10	1049	6 1/2'	10:59	11:07	11:40	33'	F reshet
7/20/10	1050	5.3 1/3'	11:13	11:14:40	11:17:20	2.7	P
7/20/10	1052	5 1/3'	11:28:30	11:30	11:32:10	2.1	P
7/20/10	1049	7 1/2'	11:57	11:53	11:58	5	P reshet
7/20/10	1051-B	13'	Visual	side wall	3' to 8'	OK	P
7/20/10	1048	7'	Refusal	compacted rock			F
7/20/10	1051	4.7'	Refusal	rock boundary			F

REMARKS _____
 SANITARIAN RB BACKHOE Mike Johnson OTHERS Mike Johnson
 TEST HOLES USED IN SDA _____ AVG. PERC TIME _____ SQ. FT/BR _____
 TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH _____ EFFECTIVE S/W _____



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

SEWAGE DISPOSAL SYSTEM SPECIFICATIONS WORKSHEET

Address: 11540 Chapel Rise

Subdivision: Chapel Rise Lot: 2

Initial system:	#2013 #2015	Application rate: <u>1.2</u>	Effective area beginning depth: <u>2</u>	Bottom maximum depth: <u>5</u>
1 st Replacement:	#2015 #1052	Application rate: <u>1.2</u>	Effective area beginning depth: <u>2.5</u>	Bottom maximum depth: <u>5</u>
2 nd Replacement:	#1052 #2012	Application rate: <u>1.2</u>	Effective area beginning depth: <u>3</u>	Bottom maximum depth: <u>5</u>

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:

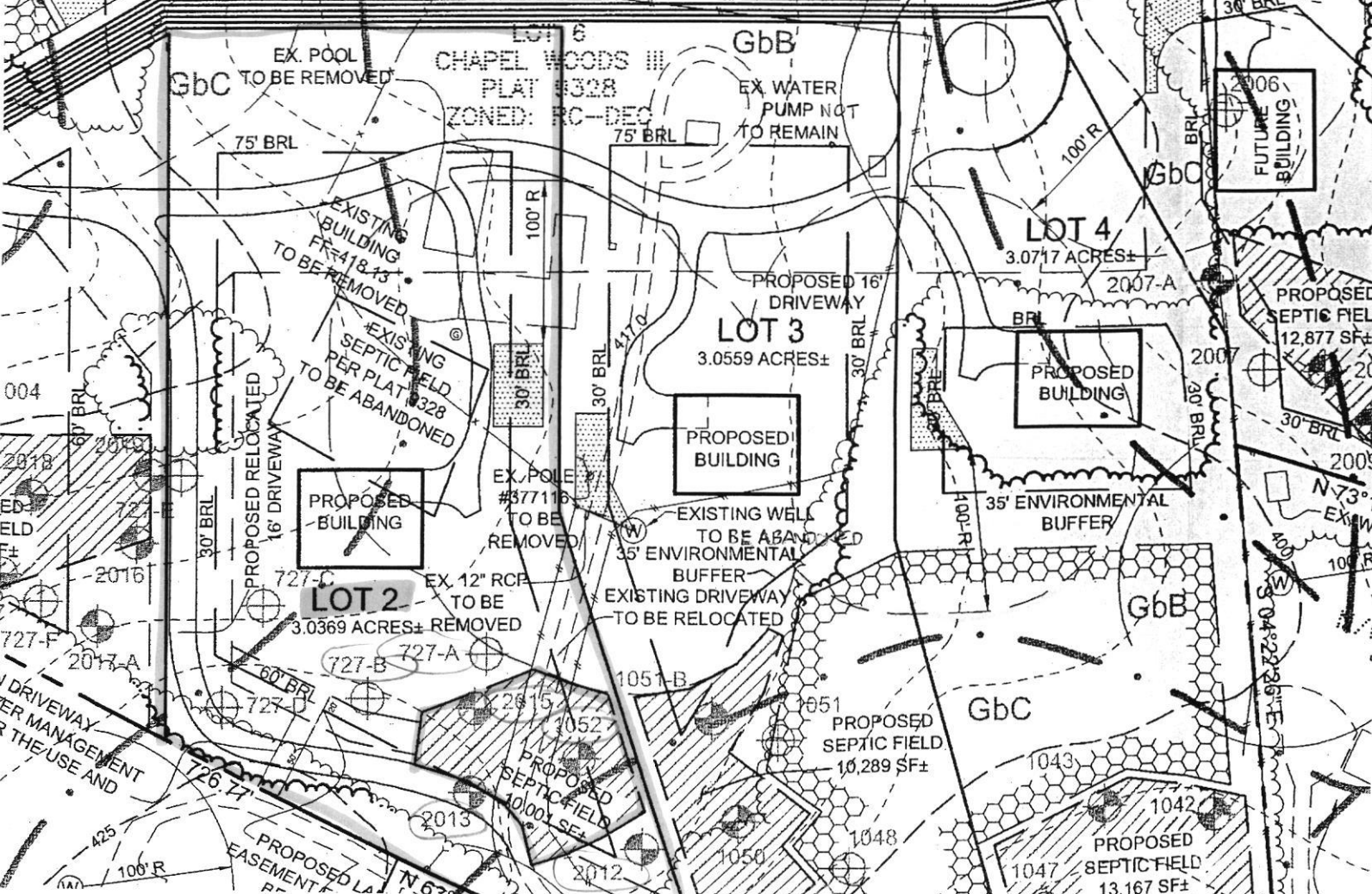
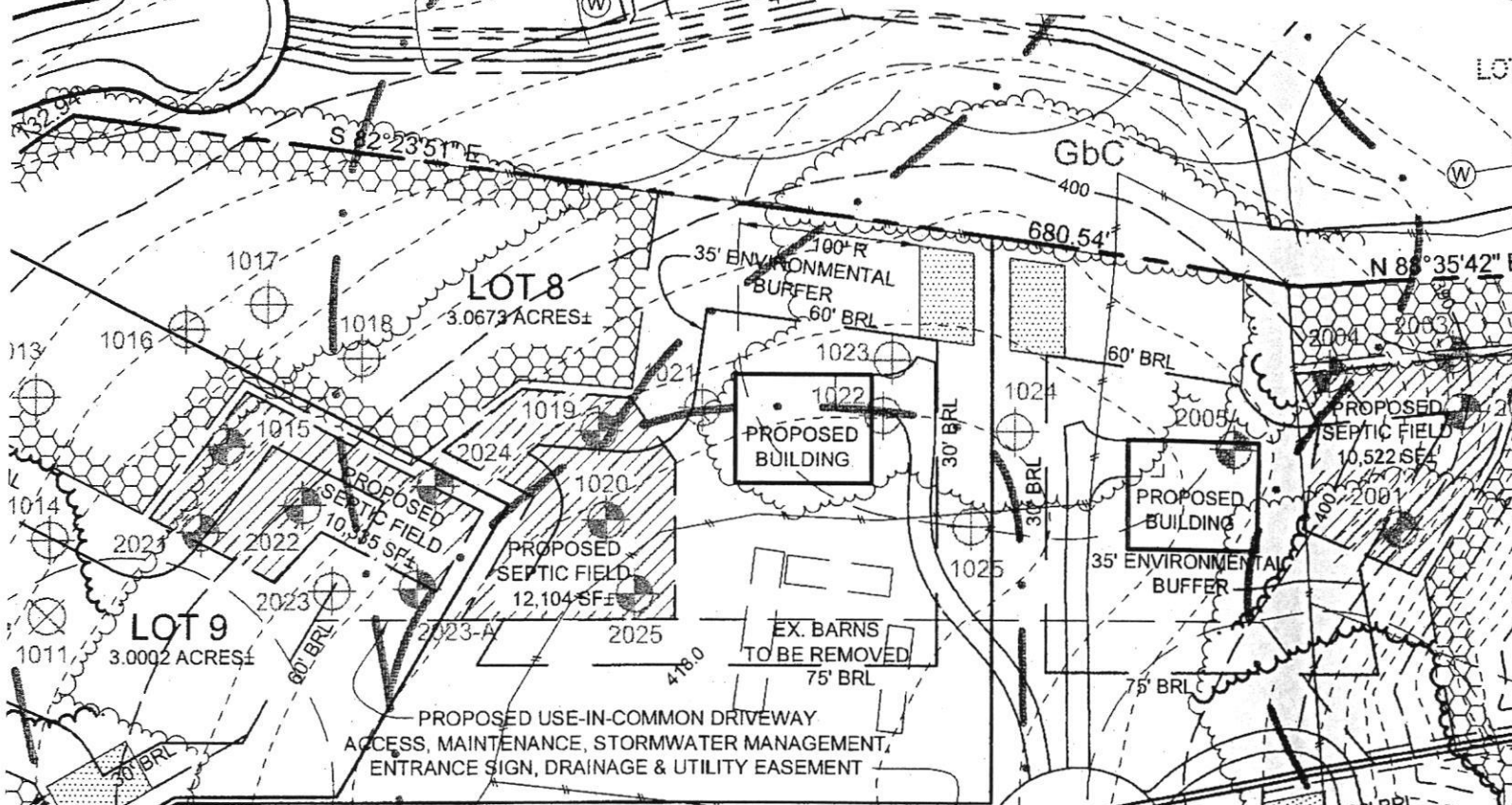
- Trenches must be located to provide room for 3 systems in the disposal area
- All trenches must be equal length unless low pressure dosed
- All trenches must be on contour
- Minimum trench spacing: 10' for all trenches utilizing sidewall reduction credit. Additional spacing may be necessary for any 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:


*Use highest elevations of SDA for Initial System
Advanced Pre-Treatment system (BAT)
with Low-Pressure Distribution (LPD)
Pump Tank or Chamber of adequate volume & Pump*

Approved: R Bricker Date: 6/30/2017

LOT 31 100' R
Gbc LOT 37
CHapel Woods III
PLAT 14274
ZONED: RC-DEC
EX. HOUSE LOT 38
EX. HOUSE LOT 39
EX. HOUSE LOT 32
* Copy of P.C. signed 11/4/11



GENERAL NOTES

1. SUBJECT PROPERTY ZONED RC-DEO PER 02/02/04 COMPREHENSIVE ZONING PLAN.
2. TOTAL AREA OF PROPERTY = 33.55 AC.±
3. PRIVATE WATER AND PRIVATE SEWER WILL BE USED WITHIN THIS SITE.
4.  THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT, OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS 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 EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
6. BOUNDARY SHOWN HEREON IS BASED ON HOWARD COUNTY TAX MAP INFORMATION.
7. THE TOPOGRAPHY SHOWN ON LOT 7 HAS BEEN FIELD RUN BY SILL, ADCOCK & ASSOCIATES, LLC. IN APRIL, 2010. THE REMAINING EXISTING TOPOGRAPHY IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FLOWN IN 1993 AND WAS FIELD VERIFIED IN JANUARY 2011.
8. PROPERTY ADDRESS: 11795 BRAGDON WOOD
9. DEED REFERENCE: LIBER 3503, FOLIO 615; LIBER 3503 FOLIO 620; PLAT 9328
10. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
11. ANY CHANGES TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
12. ALL EXISTING WELLS, SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND ALL EXISTING AND PROPOSED WELLS THAT ARE LOCATED WITHIN 200 FEET DOWN-GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS HAVE BEEN FIELD LOCATED.
13. THE HOUSE ON EXISTING LOT 6, CHAPEL WOODS II, AND ITS SEPTIC SYSTEM ARE TO BE ABANDONED ACCORDING TO THE HOWARD COUNTY HEALTH DEPARTMENT REGULATIONS. THE EXISTING HOUSE LOCATED ON PARCEL 353 (PROPOSED LOT 6) IS TO REMAIN. THE SEPTIC SYSTEM SERVING THIS HOUSE IS TO REMAIN AND HAS A 10,000 SQUARE FOOT SEPTIC EASEMENT APPROVED IN 1987. THE WELL SERVING PARCEL 353 (PROPOSED LOT 6) WILL BE PROPERLY ABANDONED AND A NEW ONE CONSTRUCTED IN THE LOCATION SHOWN.
14. MARYLAND DEPARTMENT OF THE ENVIRONMENT HAS APPROVED A VARIANCE TO ALLOW SEWAGE DISPOSAL SYSTEMS LOCATED ON LOTS 1, 2, 3, 4, 8 & 9 TO BE LOCATED UPGRADIENT FROM THE PRIVATE WATER SUPPLY ON LOT 1 AND NEIGHBORING PARCELS 30, 31 37, 45 & 47. THIS IS SUBJECT TO THE FOLLOWING CONDITIONS: AN ADVANCED PRE-TREATMENT SYSTEM, WHICH UTILIZES BEST AVAILABLE TECHNOLOGY TO PERFORM NITROGEN REDUCTION, MUST BE INSTALLED ON THE SEWAGE DISPOSAL SYSTEMS ON LOTS 1, 2, 3, 4, 8 & 9. THE WELLS ON LOT 1, 6 & 9 MUST BE CONSTRUCTED USING A STEEL WELL CASING, WHICH MUST BE INSTALLED AT A MINIMUM DEPTH OF 50' BELOW GROUND SURFACE OR 10' INTO THE COMPETENT BEDROCK. A LOW PRESSURE DOSING SYSTEM WILL BE REQUIRED FOR THE SEWAGE DISPOSAL SYSTEMS ON LOTS 1, 2, 3, 4, 8 & 9.
16. ALL WELLS MUST BE DRILLED PRIOR TO FINAL RECORD PLAT RECORDATION.
17. THE PURPOSE OF THIS AMENDED PERCOLATION CERTIFICATION PLAN IS TO SHOW THE ADJUSTMENTS TO THE PROPOSED LOT LINES, EASEMENTS, WELL AREAS FOR LOTS 1 AND 4, SEPTIC EASEMENT FOR LOT 2 AND USE IN COMMON DRIVEWAY CONFIGURATION.

Revised PC

Signed
2/2/21

LEGEND

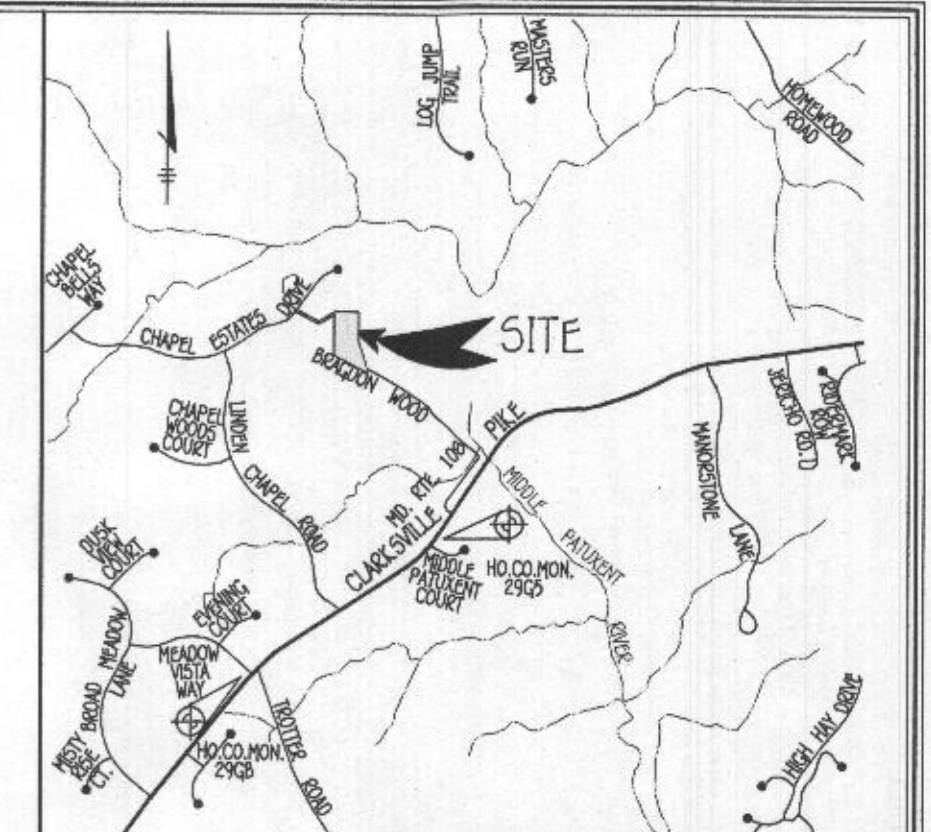
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING TREE LINE
- CL&B M.C.C. SOIL LINES AND TYPES
- ⊙ DENOTES EXISTING WELL
- ⊙ DENOTES FAILED PERC
- ⊙ DENOTES PASSED PERC

SOILS LEGEND

SOIL	NAME	CLASS
Gbb	Gladstone loam, 3 to 8 percent slopes	B
Gbc	Gladstone loam, 8 to 15 percent slopes	B

NOTES:

- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas



VICINITY MAP
SCALE: 1" = 2000'

GENERAL NOTES:

1. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS 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 SHALL NOT BE NECESSARY.
2. ADJUSTMENTS TO SEPTIC EASEMENT AREA IS NOT PERMITTED WITHOUT ADDITIONAL TESTING.
3. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
4. EXISTING WELLS AND/OR SEWERAGE EASEMENTS WITHIN 100 FEET OF THE PROPERTY HAVE BEEN SHOWN FROM ALL REASONABLE EFFORTS.
5. ALL HOUSE SITES SHOWN COMPLY WITH MINIMUM BUILDING RESTRICTION REGULATIONS.
6. TOPOGRAPHY SHOWN IS FROM HOWARD COUNTY GIS TOPOGRAPHY 2' CONTOUR INTERVAL VERIFIED BY FIELD TOPOGRAPHIC SURVEY OF TEST SITE ELEVATIONS BY FISHER, COLLINS & CARTER, INC., MAY, 2015.
7. BOUNDARY OUTLINE BASED ON AVAILABLE DEED OF RECORD WITHOUT THE THE BENEFIT OF A FIELD SURVEY AT THIS TIME.
8. ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
9. DEED REFERENCE LIBER 16927 FOLIO 274.
10. ALL WELLS HAVE BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC.

THE PURPOSE OF THIS PLAN IS TO REVISE LOT 2 WELL BOX TO A EXISTING WELL AND 2 ALT WELL SITES

PERC CERTIFICATION
I certify that the locations shown hereon were field locations done under my direct supervision and are correct to the best of my professional knowledge and belief.

Mark L. Robel
Signature of Property Line Surveyor
Mark L. Robel, Property Line Surveyor

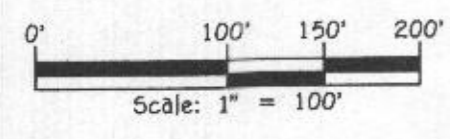
11/05/21
Date

Expires 10/04/22

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT.

William for Maria Rossman
COUNTY HEALTH OFFICER

2/8/2021
DATE



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2895

**PERC RECERTIFICATION PLAT
CHAPEL RISE LOT 2**

PARCEL 50
ZONED: RC-DEO
TAX MAP NO.: 29 GRID NO.: 8 & 14 PLAT NO.: 22022
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' DATE: JANUARY 5, 2021

LEGEND

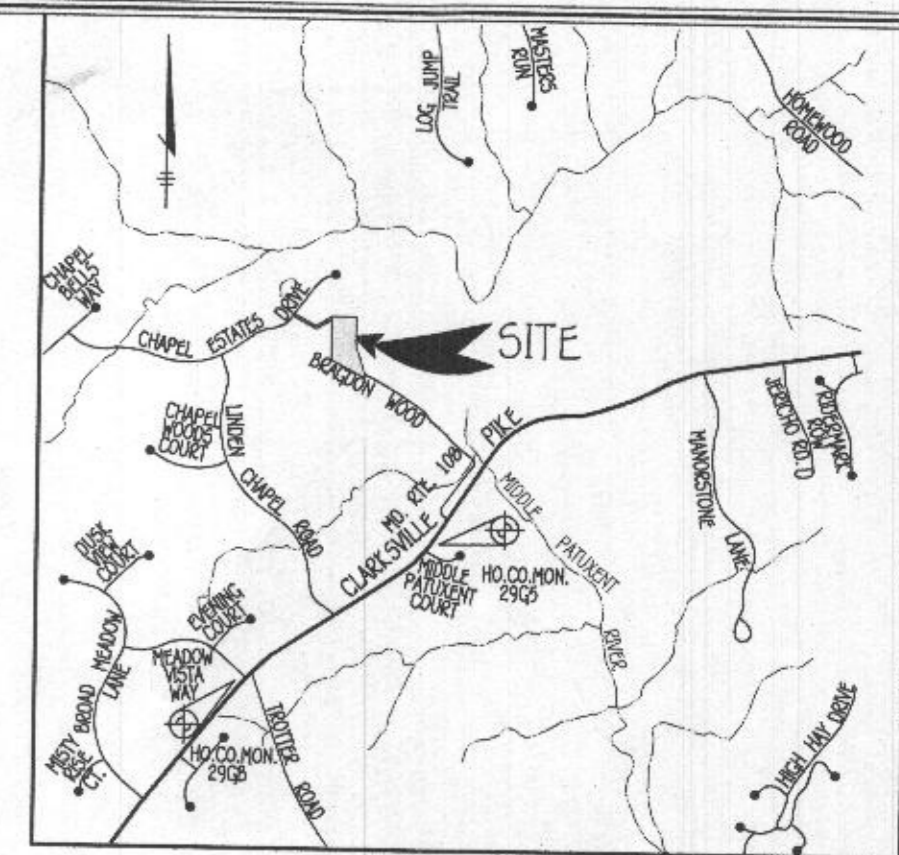
- EXISTING 2' CONTOURS
- - - EXISTING 10' CONTOURS
- - - EXISTING TREE LINE
- GLB2
MLZ2 SOIL LINES AND TYPES
- ⊙ DENOTES EXISTING WELL
- ⊙ DENOTES FAILED PERC
- ⊙ DENOTES PASSED PERC

SOILS LEGEND

SOIL	NAME	CLASS
GbB	Gladstone loam, 3 to 8 percent slopes	B
GbC	Gladstone loam, 8 to 15 percent slopes	B

NOTES:

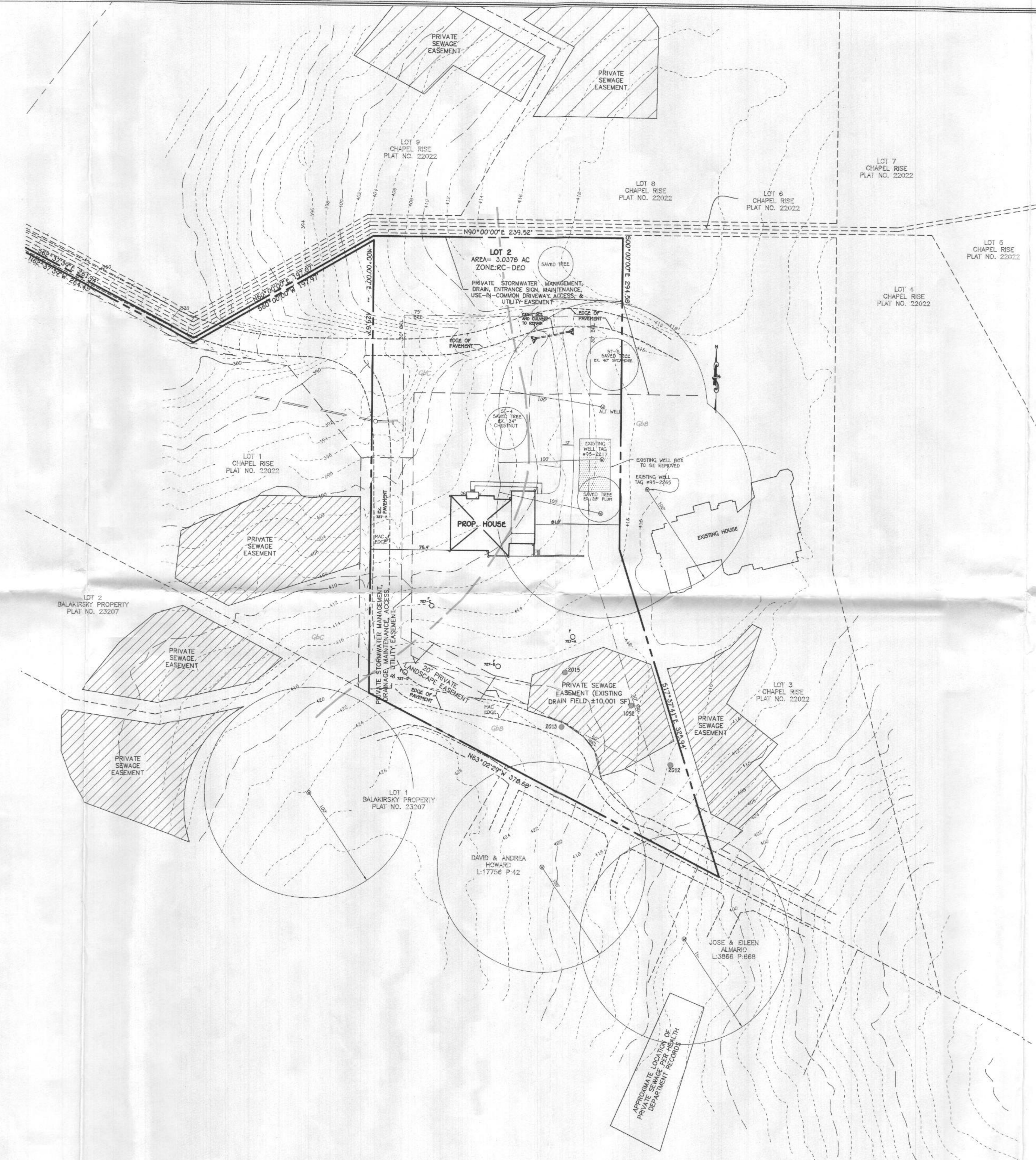
- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas



VICINITY MAP
SCALE: 1" = 2000'

GENERAL NOTES:

1. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS 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. RECORDED OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
2. ADJUSTMENTS TO SEPTIC EASEMENT AREA IS NOT PERMITTED WITHOUT ADDITIONAL TESTING.
3. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
4. EXISTING WELLS AND/OR SEWERAGE EASEMENTS WITHIN 100 FEET OF THE PROPERTY HAVE BEEN SHOWN FROM ALL REASONABLE EFFORTS.
5. ALL HOUSE SITES SHOWN COMPLY WITH MINIMUM BUILDING RESTRICTION REGULATIONS.
6. TOPOGRAPHY SHOWN IS FROM HOWARD COUNTY GIS TOPOGRAPHY 2' CONTOUR INTERVAL VERIFIED BY FIELD TOPOGRAPHIC SURVEY OF TEST SITE ELEVATIONS BY FISHER, COLLINS & CARTER, INC., MAY, 2015.
7. BOUNDARY OUTLINE BASED ON AVAILABLE DEED OF RECORD WITHOUT THE BENEFIT OF A FIELD SURVEY AT THIS TIME.
8. ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
9. DEED REFERENCE LIBER 16927 FOLIO 274.
10. ALL WELLS HAVE BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC.



THE PURPOSE OF THIS PLAN IS TO REVISE LOT 2 WELL BOX TO A EXISTING WELL AND 2 ALT WELL SITES

PERC CERTIFICATION
I certify that the locations shown hereon are based on field locations done under my direct supervision and are correct to the best of my professional knowledge and belief.

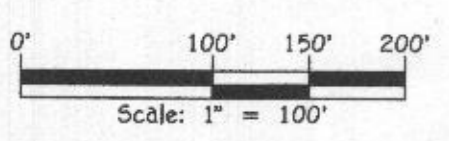
Mark L. Robel
Signature of Property Line Surveyor
Mark L. Robel, Property Line Surveyor, License No. 1105/21 Expires 10/04/22

Date: 11/05/21

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT.

Maureen Rossman
COUNTY HEALTH OFFICER H.D.

Date: 2/2/2021



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALAKIRSKY NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2000

PERC RECERTIFICATION PLAT
CHAPEL RISE LOT 2

PARCEL 50
ZONED: RC-DEO
TAX MAP NO.: 29 GRID NO.: 8 & 14 PLAT NO.: 22022
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 50'
DATE: JANUARY 5, 2021