

APPLICATION

PERCOLATION TESTING

A 516084
P _____

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

DISTRICT _____

DATE _____

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 SECURITY DEVELOPMENT, L.L.C.
P.O. BOX 417
ADDRESS ELLICOTT CITY, MD 21041 PHONE 410-465-4244

AGENT OR PROSPECTIVE BUYER _____
ADDRESS _____ PHONE _____

PROPERTY LOCATION:

SUBDIVISION HOMEWOOD LOT NO. 73

ROAD AND DESCRIPTION HOMEWOOD ROAD

TAX MAP 23 & 29 PARCEL # 20 & 86

SIZE OF LOT 1 ACRE ± TYPE BLDG. SINGLE FAMILY DETACHED
(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.

SECURITY DEVELOPMENT LLC
BY: [Signature] MEMBER
(SIGNATURE OF APPLICANT) STEVEN K BISHOP

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

516084

COUNTY#

SOIL PROFILE

73C

0' DK rd brn
Sticky
hvy Lm
almost CLM
Rx < 5%

3' White, brn
fan y brn
Sandy
Loam
Coarse
Rx 5-10%

15' Bottom

73E

Strong brn
SANDY
Coarse
hvy Lm
Rx < 15% - 20%

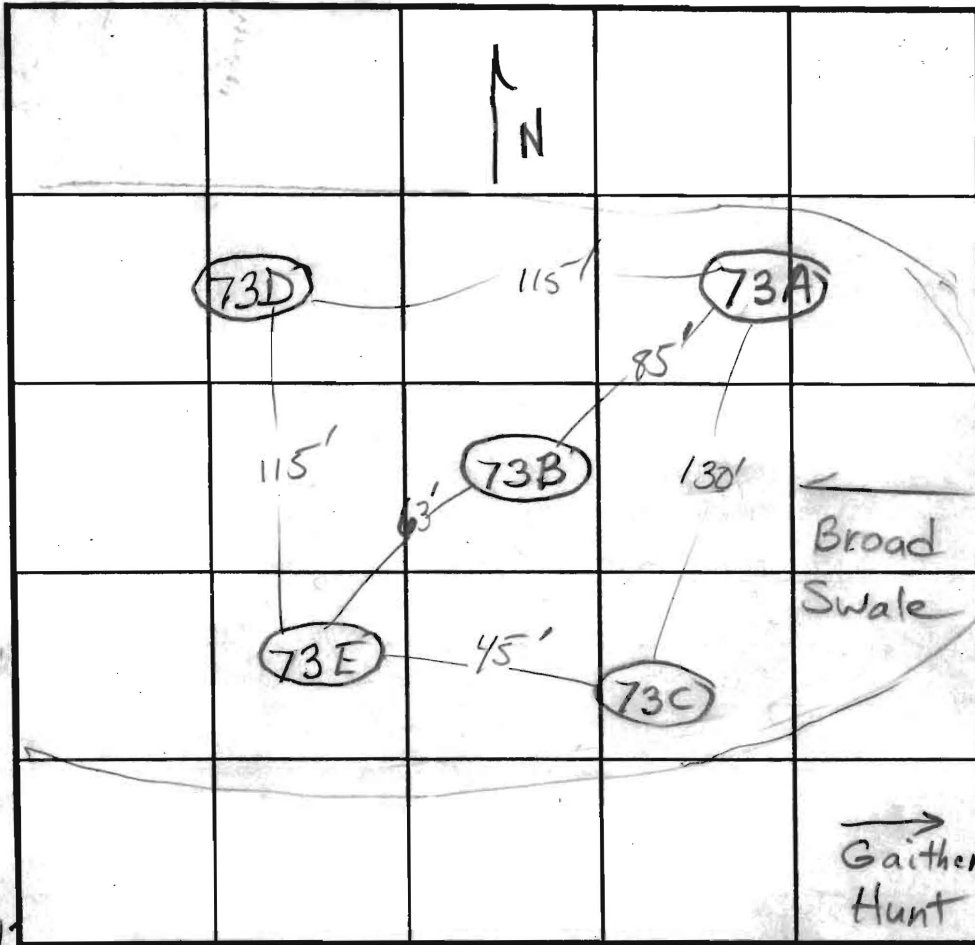
pink
beige
coarse
sand
Rx < 15%

H₂O goeey
Mottles
org/white
Bottom

73B

Strong
org brn
CLM
SCLM
Rx < 5%

SE 7/2
14 brn
beige
white
fine
SLM



SOIL PROFILE

73D

0' DK brn
Choc. brn
DENSE
SLM < 10%

3' layer of
tan CLM

7' 14 brn
wk y brn
SLM
coarsest
med sized
grains
Rx 10-15%

13' Bottom

73A

DK brn
CLM
hvy Lm
Rx < 5%

56.5' white
SAND
Rx 5-10%

15' Bottom

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
7/15/02	73C	6' / 15' v	2:31	2:37	2:37	2:49	12
			2:31	2:31:30	2:31:30	2:33:30	2 min OK
	73E	7' / 14' v	2:35:00	100 SLOW	Pulled		(F)
	73B	8' / 15.5' v	2:40	2:42		2:44:30	2 1/2
	73D	7' 10" / 13' v	2:41	pulled too slow	7/8" movement in 29 min		(F)
	73A	7' / 15' v	2:46	pulled too slow			(F)

REMARKS Holes Dug Per Plan

TYPE OF SOIL _____

TESTED BY B. Baker / K. Noonan ALSO PRESENT Hatfields

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

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

depth 13 1/2 ?

all Test → 73B shallower

14

SE 7/2

Bottom 15 1/2

COUNTY #

SOIL PROFILE

(846)

Red Br
Loam and
Topsoil

2.5'-3'

Red Br
and
Tan Sa
Loam
10-15%
Saprolite

13.5'

(845)

Or Br Loam
Dense Or
Br and
Beige Sa
Loam

2.5'-3'

8'

~35%
Rock
~50%
Rock

9.5'

13'

(844)

Dense Or
Br Loam
Dense Or
Br Sa
Loam

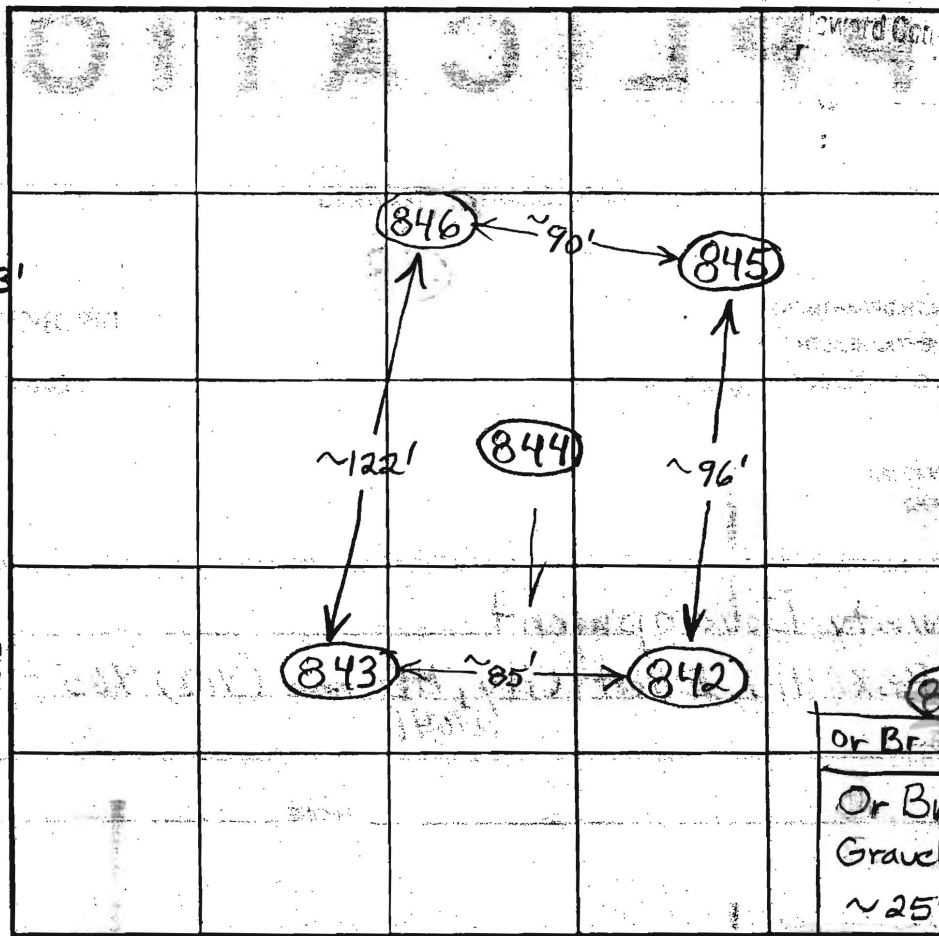
35'

~35%
Rock

10'

~50%
Rock
Hard
Bottom

10.5'



SOIL PROFILE

(843)

Red Br
Loam

3'-4'

Olive
and Tan
Sa Loam
20-25%
Saprolite

14'

(842)

Or Br Loam
Or Br and Beige
Gravelly Loam
~25% Rock

3.5'-4.5'

13'

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1' DROP		TIME	
			START	STOP	START	STOP		
12/3/03	846	3' / 13.5' V	11:54	11:56:45	11:56:45	12:00:15	3 1/2	O.K.
		7'	11:53:45	11:54:45	11:54:45	11:56:45	2	
	845	3' 9" / 13' V	12:05:30	Not to 2nd Peg After 25 minutes			Slow	(F)
		6.5'	12:05:15	12:30:30	< 1/4" in 15 min		Slow	
	844	5.5' / 12.5' V	12:32:15	12:34:15	12:34:15	12:37:15	3	(F)
		7'	12:30	Not to 2nd Peg After 25 minutes			Slow	
		4'	12:41	~1/4" in 15 minutes			Slow	
	843	3' 9" / 14' V	1:11	1:14:30	1:14:30	1:21:30	7	O.K.
		6.5'	1:03:30	1:07	1:07	1:16	9	
	842	3' 10" / 13' V	1:26	1:27:30	1:27:30	1:30:30	3	O.K.
		5' 8"	1:30:45	1:37:30				

REMARKS _____

TYPE OF SOIL _____

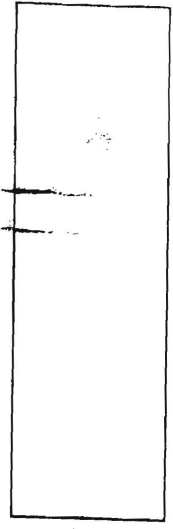
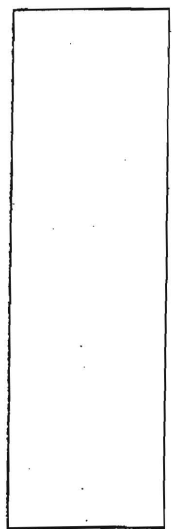
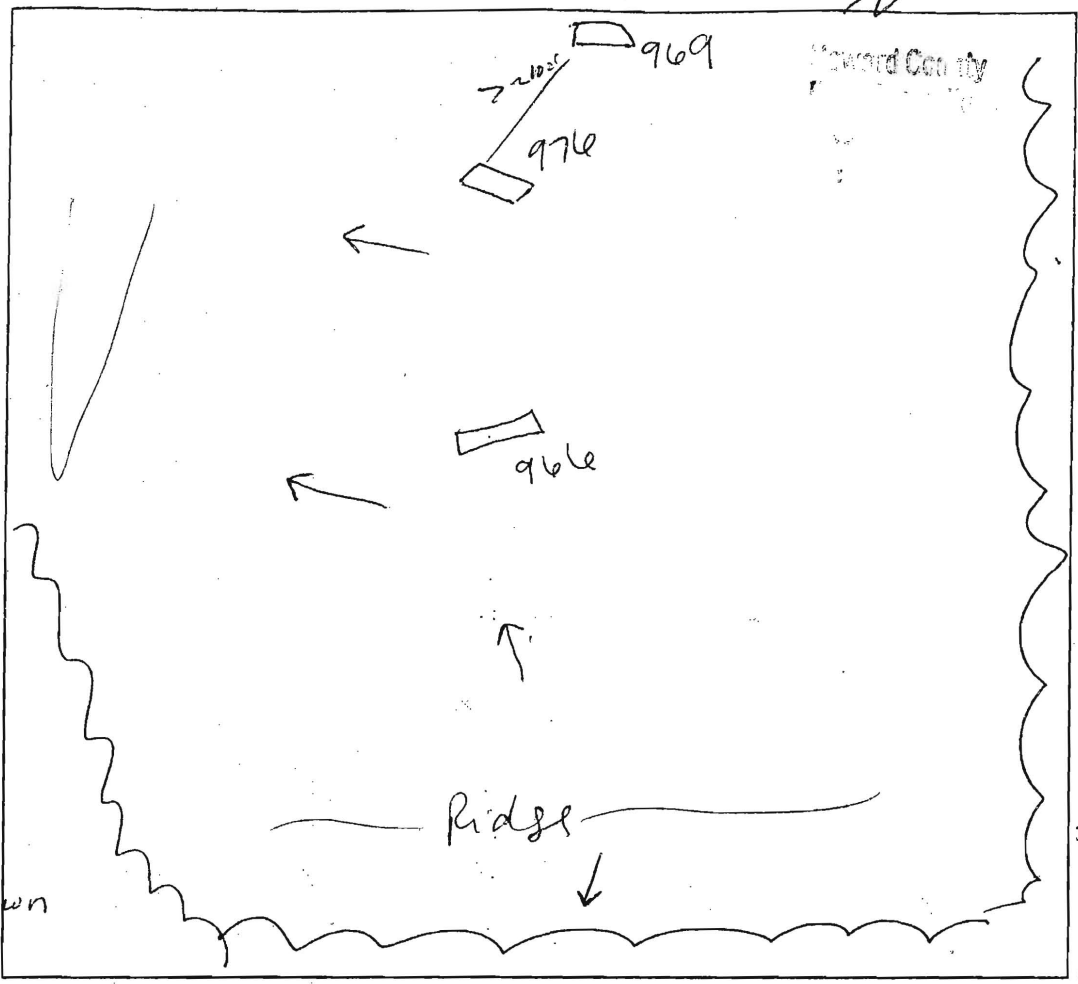
TESTED BY B. Baker ALSO PRESENT _____

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

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

Open Run Cut
N

A/P let 6/1/02



966
brown L
1' yellow/orange
scl coarse
3' 3" gray/orange brown
dsl
very micaceous
7' gray/white
sil/s
sg
14' 976
brown L
9" orange brown
scl sbk
25" white quartz
sand vein
3' brown
dsl
micaceous
sil sg
micaceous
13'

969
brown L
sbk
2' orange/yellow
brown
scl
5' orange brown
scl
coarse
6' gray/white
dsl
coarse
grainy
13' decomposing
rock

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2nd INCH	P/F/H
10/13/05	966	6' / 14'	9:30 ⁵⁰	9:38	9:55	17	P
	976	6' / 13'	9:42 ³²	9:45 ¹²	9:50	5	P
	969	6' 3" / 13'	10:01	10:16	too slow		-
		8' /	1:08	1:13	1:19	6	P

REMARKS _____

SANITARIAN SF BACKHOE Mike J. (AEC) OTHERS Bob Sheedley

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

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

MOUND TEST DATA SHEETS Howard County

Property I.D. Riverwood Lot # 76 Date 12/2/03

Sanitarian B. Baker Landscape Position _____

% Slope _____ Soil Type _____ Contractor Hatfields

HOLE # 50 DEPTH OF TEST 19" START TIME 11:04

Br Loam and
Topsoil
Very Little Rock

2.5'

Red Br Sa
Cl Loam
Very Little
Rock

4.5'

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
7"	Start	0		
6 11/16"	11:24 (20)	5/16"		
6 8/16"	11:44 (20)	3/16"		
6 13/32"	12:00 (16)	3/32" = 0.35 inch/hour		

Fail

HOLE # 51 DEPTH OF TEST 21" START TIME 11:20

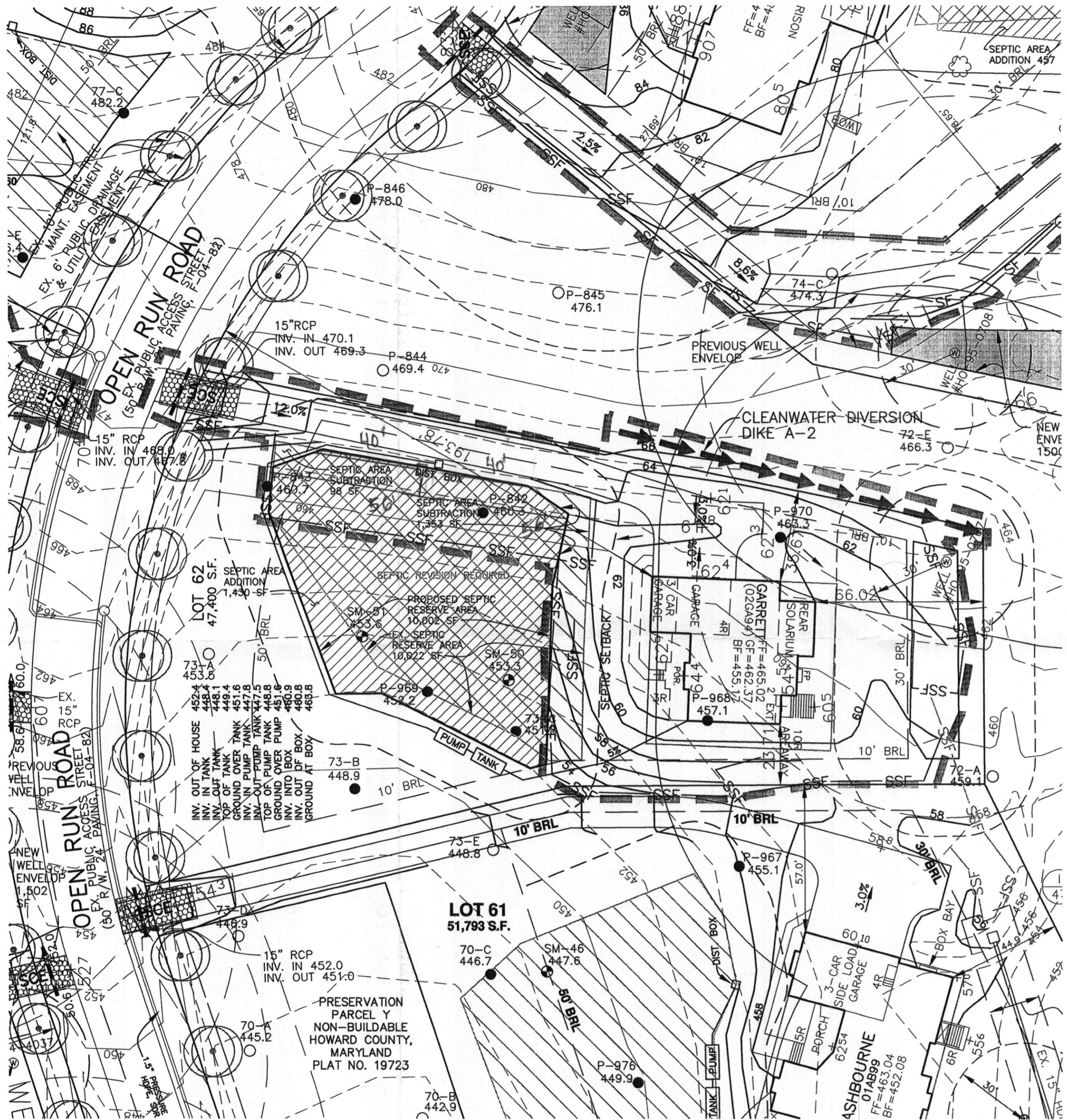
Br Topsoil
and Heavy Loam
~10% Rock

Br Sa Cl
Loam
~10% Rock

4.5'

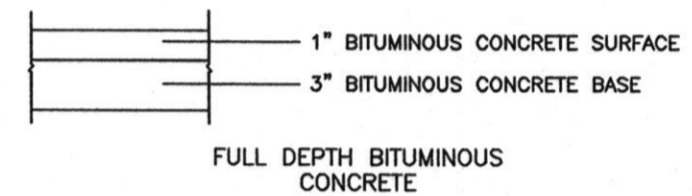
Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
7"	Start	0		
6 3/4"	11:40 (20)	1/4"		
6 21/32"	11:56 (16)	3/32" = 0.35 inch/hour		

Fail



NOTES:

1. THE LOT SHOWN HEREON WAS RECORDED ON THE PLAT FOR RIVERWOOD, PLAT No. 18038. REFER TO THE PLAT FOR LOT DIMENSIONS, LOT AREAS AND ALL EASEMENTS.
2. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 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. ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE NECESSARY.
3. SEDIMENT AND EROSION CONTROLS WERE APPROVED BY HOWARD SOIL CONSERVATION DISTRICT UNDER A GRADING PLAN AND MODIFIED FOR THIS SPECIFIC HOUSE.
4. TOPOGRAPHY SHOWN HEREON IS TAKEN FROM THE APPROVED ROAD CONSTRUCTION PLANS AND HAS BEEN FIELD VERIFIED BY J.A. RICE, INC., ON OR ABOUT SEPTEMBER 2002.
5. EXACT LENGTH OF SEPTIC TRENCHES ARE BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
6. SPOIL FROM THE TRENCHING OF THE SEPTIC AREA IS TO BE PLACED ON THE UPHILL SIDE OF THE EXCAVATION FOR EACH INDIVIDUAL LOT.
7. ALL SEDIMENT AND EROSION CONTROL FEATURES USED ON THIS SITE SHALL COMPLY WITH 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
8. ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE APPROVED ROAD CONSTRUCTION PLANS.
9. SEPTIC TANK FOR THIS LOT TO BE 2,000 GALLONS.
10. THE EXISTING WELL SHOWN ON THIS PLAN, HO-95-0707, HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING, INC. AND IS ACCURATELY SHOWN.
11. THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
12. ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
13. STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED IN POND #6 OF F-04-082, A WET ED POND.
14. THE PURPOSE FOR THIS PERCOLATION CERTIFICATION PLAN IS TO REVISE THE SEPTIC AREA FOR GRADING ASSOCIATED WITH THE HOUSE CONSTRUCTION.



LEGEND

- EXISTING CONTOURS ESTABLISHED UNDER F-04-082
- FIELD SURVEYED WELL LOCATION
- PASSED PERCOLATION TEST PER TEST NOTES
- FAILED PERCOLATION TEST PER TEST NOTES
- EXISTING APPROVED SEPTIC RESERVE AREA
- PROPOSED REVISED SEPTIC RESERVE AREA
- FAILED SAND MOUND TEST PER TEST NOTES

PAVING SECTION
NOT TO SCALE

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 KNOWLEDGE AND BELIEF.

John M. Carney 2/14/11
PLAN PREPARER
JOHN M. CARNEY FOR BENCHMARK ENGINEERING, INC.

APPROVED:
FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

Brian Peter Beilenson 2/18/2011
COUNTY HEALTH OFFICER
DATE


BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE ▲ SUITE 418
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 ▲ FAX: 410-465-6644
EMAIL: benchmark@cais.com

OWNER/BUILDER: CAMBERLEY HOMES, INC. 6905 ROCKLEDGE DRIVE SUITE 800 BETHESDA, MD 20817 PHONE: 301-803-4800 FAX: 301-803-4929	PROJECT: RIVERWOOD LOT 62
LOCATION: 12039 OPEN RUN ROAD ELLCOTT CITY, MD 21042 TAX MAP No. 29 - BLOCK Nos. 3, 4, 9 & 10 - PARCEL No. 20 3rd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND	TITLE: BUILDING PERMIT AND REVISED PERCOLATION CERTIFICATION PLAN
HOUSE TYPE: GARRETT	DATE: JUNE, 2010 FEBRUARY 14, 2011
DESIGN: JMC DRAFT: JMC	PROJECT NO. 1950 SCALE: 1" = 30' DRAWING 1 OF 1



NOTES:

1. THE LOT SHOWN HEREON WAS RECORDED ON THE PLAT FOR RIVERWOOD, PHASE 1, PLAT Nos. 18031 - 18045 OR PHASE 2, PLAT Nos. 19720 - 19726. REFER TO THE PLAT FOR LOT DIMENSIONS, LOT AREAS AND ALL EASEMENTS.
2.  THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 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. ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE NECESSARY.
3. TOPOGRAPHY SHOWN HEREON IS TAKEN FROM THE APPROVED ROAD CONSTRUCTION PLANS.
4. SEPTIC TANK FOR THIS LOT TO BE 2,000 GALLONS.
5. THE EXISTING WELL SHOWN ON THIS PLAN, HO-95-0707, HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING, INC. AND IS ACCURATELY SHOWN.

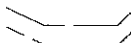

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF KNOWLEDGE AND BELIEF.

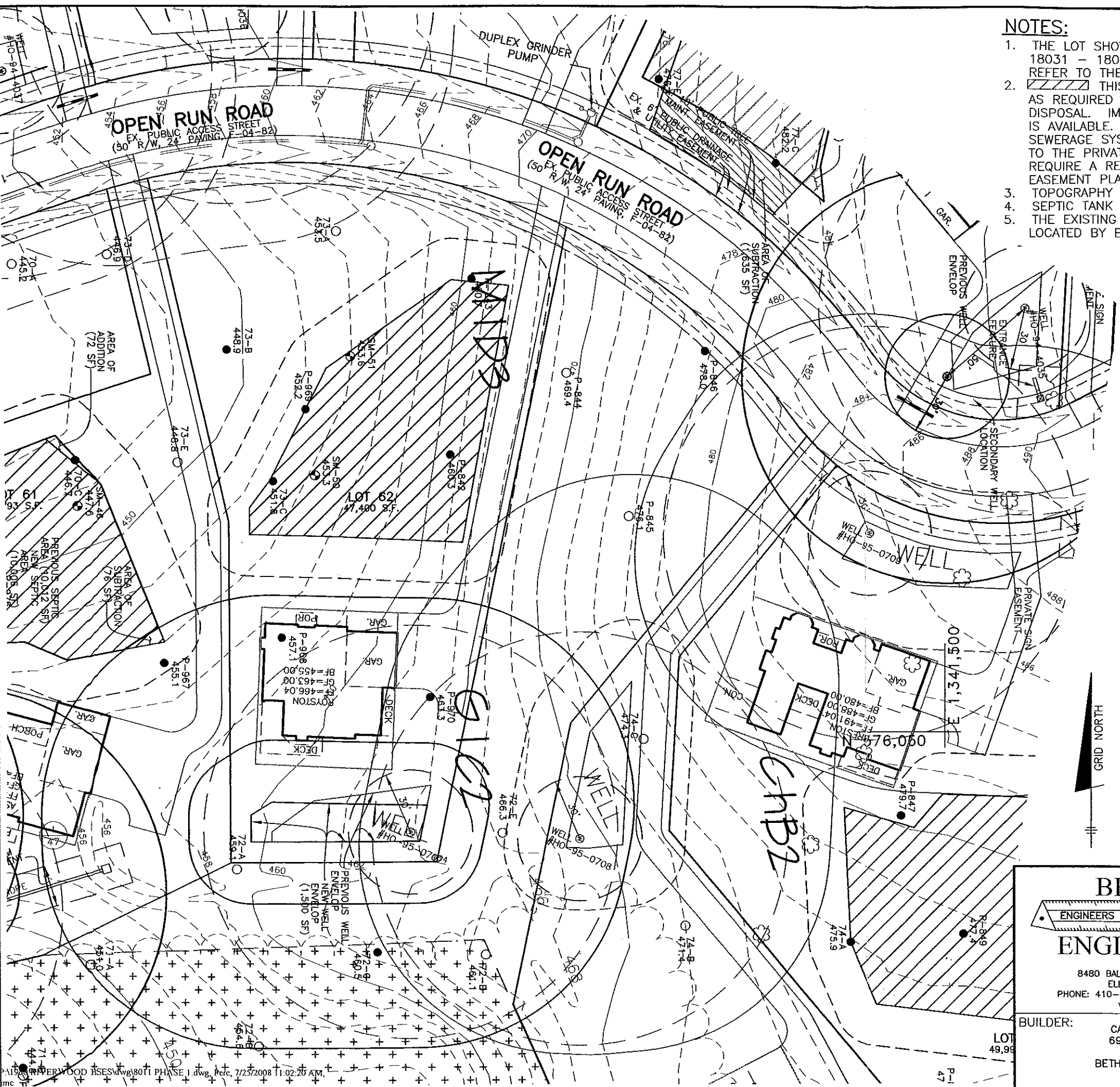
John M. Carney 7/25/08
 PLAN PREPARER
 JOHN M. CARNEY FOR BENCHMARK ENGINEERING, INC.

APPROVED:
 FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT

Michael J. Davis 8/7/08
 COUNTY HEALTH OFFICER SS DATE

LEGEND

-  EXISTING CONTOURS ESTABLISHED UNDER F-04-082
-  FIELD SURVEYED WELL LOCATION
- 7001A ● PASSED PERCOLATION TEST PER CERTIFICATION PLANS
- 402.8 ● PASSED PERCOLATION TEST PER CERTIFICATION PLANS
- 62-A ○ FAILED PERCOLATION TEST PER CERTIFICATION PLANS
- 397.1 ○ FAILED PERCOLATION TEST PER CERTIFICATION PLANS
- SM-32 ● FAILED SAND MOUND TEST PER CERTIFICATION PLANS
- 397.1 ● FAILED SAND MOUND TEST PER CERTIFICATION PLANS



BENCHMARK
 ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE ▲ SUITE 418
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6644
 www.bei-civilengineering.com

RIVERWOOD
LOT 62
 12039 OPEN RUN ROAD
 ELLICOTT CITY, MD 21042
 TAX MAP 29, GRIDS 3, 4, 9 & 10 - PARCEL 20
 3rd ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

BUILDER:
 CAMBERLEY HOMES, INC.
 6905 ROCKLEDGE DRIVE
 SUITE 800
 BETHESDA, MARYLAND 20817
 301-803-4929

REVISED
PERCOLATION CERTIFICATION PLAN

DATE:	JULY 25, 2008	PROJECT NO.	1950
SCALE:	1" = 50'	DRAWING	1 OF 1

