

# APPLICATION

## FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) \_\_\_\_\_ TEST TIME \_\_\_\_\_ A/P \_\_\_\_\_

AGENCY REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

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

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:

- ☐ RESIDENTIAL WITH \_\_\_\_\_ 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) MOHAMED KAMAL & GWENNEETH WESTERN EL SAWI

DAYTIME PHONE 301 854 0474 CELL \_\_\_\_\_ FAX \_\_\_\_\_

MAILING ADDRESS 13942 CLARKSVILLE PIKE HIGHLAND MD 20717  
STREET CITY/TOWN STATE ZIP

APPLICANT BENCHMARK ENG. INC. c/o BRIAN F. CLEARY

DAYTIME PHONE 410 465 6405 CELL \_\_\_\_\_ FAX \_\_\_\_\_

MAILING ADDRESS 8480 BALTIMORE NAT'L PIKE STE 35 ELICOTT CITY MD 21243  
STREET CITY/TOWN STATE ZIP

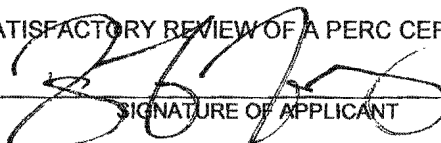
APPLICANT'S ROLE: DEVELOPER BUILDER BUYER RELATIVE/FRIEND REALTOR CONSULTANT

PROPERTY LOCATION  
SUBDIVISION/PROPERTY NAME SAME AS OWNER ABOVE LOT NO. 1

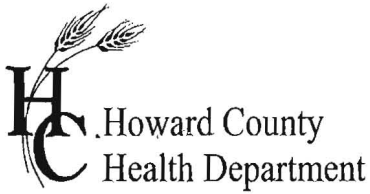
PROPERTY ADDRESS \_\_\_\_\_  
STREET TOWN/POST OFFICE

TAX MAP PAGE(S) 40 GRID 15 PARCEL(S) 139 PROPOSED LOT SIZE 4.37 AC

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.

  
SIGNATURE OF APPLICANT

HOWARD COUNTY HEALTH DEPARTMENT, BUREAU OF ENVIRONMENTAL HEALTH, WELL AND SEPTIC PROGRAM  
7178 COLUMBIA GATEWAY DRIVE COLUMBIA, MARYLAND 21046 (410) 313-2640 FAX (410) 313-2648  
TDD (410) 313-2323 TOLL FREE 1-877-4MD-DHMH



# APPLICATION

## FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) \_\_\_\_\_ TEST TIME \_\_\_\_\_ A/P \_\_\_\_\_

AGENCY REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

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CHECK ONE:

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- ☐ 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:

- ☐ RESIDENTIAL WITH \_\_\_\_\_ 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) MOHAMED KAMAL & GWENNETH WESTERN EL SAWI

DAYTIME PHONE 301 854 0474 CELL — FAX —

MAILING ADDRESS 13942 CLARKSVILLE PIKE HIGHLAND MD 20777  
STREET CITY/TOWN STATE ZIP

APPLICANT BENCHMARK ENB. INC. CO BRIAN F. CLEARY

DAYTIME PHONE 410 465 6105 CELL \_\_\_\_\_ FAX \_\_\_\_\_

MAILING ADDRESS 8480 BALTIMORE NAT'L PIKE STE 305 ELKTON CITY MD 21043  
STREET CITY/TOWN STATE ZIP

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

PROPERTY LOCATION  
SUBDIVISION/PROPERTY NAME SAME AS OWNER ABOVE LOT NO. 2

PROPERTY ADDRESS \_\_\_\_\_  
STREET TOWN/POST OFFICE

TAX MAP PAGE(S) 40 GRID 15 PARCEL(S) 139 PROPOSED LOT SIZE 3.68AC

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.

SIGNATURE OF APPLICANT

HOWARD COUNTY HEALTH DEPARTMENT, BUREAU OF ENVIRONMENTAL HEALTH, WELL AND SEPTIC PROGRAM  
7178 COLUMBIA GATEWAY DRIVE COLUMBIA, MARYLAND 21046 (410) 313-2640 FAX (410) 313-2648  
TDD (410) 313-2323 TOLL FREE 1-877-4MD-DHMH

A/P

P-1

Red Brown  
yellow  
Sh

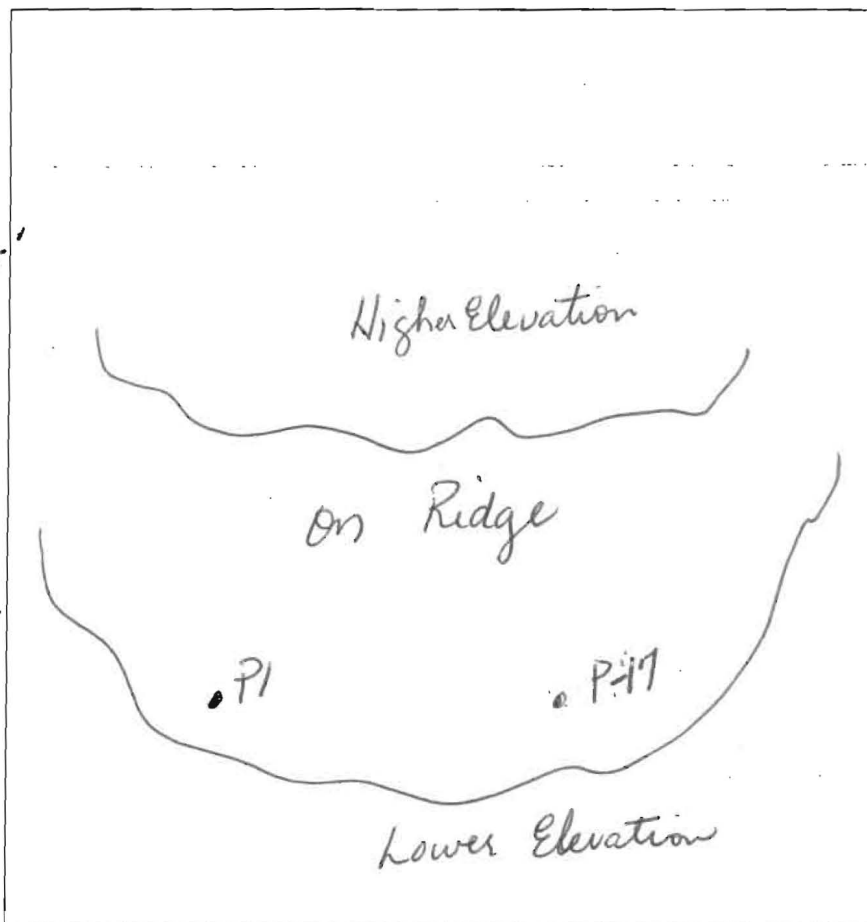
15'

Red Brown  
yellow  
Sh

10-20%

R<sub>4</sub>Big Boulder  
@ 10'

P-17

Red Brown  
yellow  
Sh  
many  
mud 2Red Brown  
Sandy  
Clay  
Heavy20-30%  
R<sub>4</sub>  
Shale @ 11'  
12'

| DATE    | TEST # | DEPTH   | START | BREAK<br>1" DROP | STOP<br>2" DROP | TIME OF<br>2ND INCH | P/F/H |
|---------|--------|---------|-------|------------------|-----------------|---------------------|-------|
| 8-14-14 | P-1    | 4/10    | 10:19 | 10:22            | 10:24           | 2min                | P     |
| 8-14-14 | P-17   | 4.5/125 | 10:39 | 10:41            | 10:48           | 7min                | P     |
|         |        |         |       |                  |                 |                     |       |
|         |        |         |       |                  |                 |                     |       |
|         |        |         |       |                  |                 |                     |       |
|         |        |         |       |                  |                 |                     |       |
|         |        |         |       |                  |                 |                     |       |
|         |        |         |       |                  |                 |                     |       |
|         |        |         |       |                  |                 |                     |       |
|         |        |         |       |                  |                 |                     |       |

REMARKS Good Soil. Rock around 11' in P-17SANITARIAN Barard BACKHOE Denny OTHERS \_\_\_\_\_

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

TRENCH WIDTH \_\_\_\_\_ INLET DEPTH \_\_\_\_\_ MAX. BOT DEPTH \_\_\_\_\_ EFFECTIVE SW \_\_\_\_\_



A/P

P-8

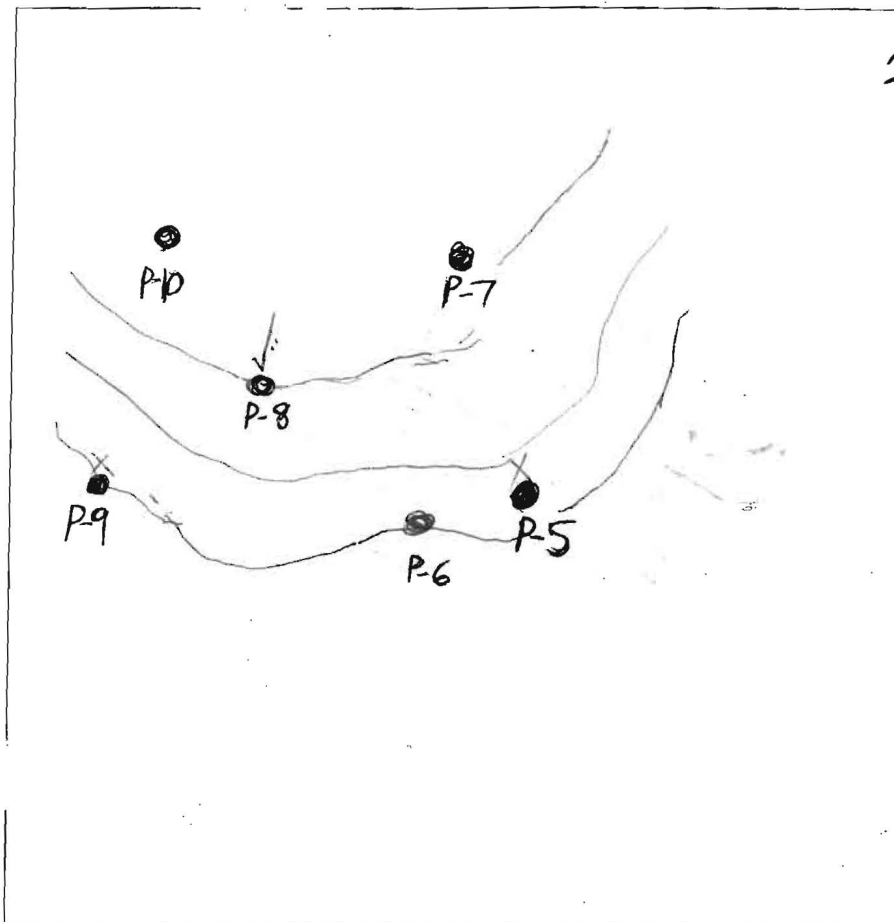
0' Beam/Red  
SiL  
1' Red Loam  
w/ mica  
3' Red Loam  
w/ increasing  
mica  
8' 8' + over  
50% rock  
horizontal  
2' thick  
bands  
sat  
down  
to  
8'

P-6

2' Red/orange/Beam  
organic SiL loam  
Red/orange  
Loam w/ mica  
5 1/2' 30% rock  
Red SiL loam  
7' 50% or  
greater  
hard Rock  
Loam

P-5

unsat  
2' Hard Platy  
Mica/shale  
80% hard  
Platy shale  
5' All Rock



P-9

1 1/2' SiL Red/Beam  
loose  
4 1/2' Platy Mica  
hard unsat  
Hard Platy  
Mica > 40%  
10'

P-7

Beam  
SiL loose sat  
w/ mica 0-5'  
5' 5' +  
80%  
horizontal  
Plates mica  
shale  
(unsat)

P-10

SiL soft  
mica platy  
tight  
5' Hard Rock  
70%

| DATE           | TEST # | DEPTH | START                       | BREAK<br>1" DROP   | STOP<br>2" DROP    | TIME OF<br>2ND INCH | P/F/H |
|----------------|--------|-------|-----------------------------|--------------------|--------------------|---------------------|-------|
| <del>P-8</del> |        |       |                             |                    |                    |                     |       |
| 5/9/14         | P-8    | 5'    | 10:05 <sub>a</sub>          | 10:07 <sub>a</sub> | 10:10 <sub>a</sub> | 3 min               | P     |
|                | P-6    | 4'    | 10:17 <sub>a</sub>          | 10:28 <sub>a</sub> | 10:56 <sub>a</sub> | 28 min              | P     |
|                | P-5    |       | not tested too much Rock    |                    |                    |                     | F     |
|                | P-9    |       | not enough depth for trench |                    |                    |                     | F     |
|                | P-7    | 4'    | 11:02 <sub>a</sub>          | 11:14 <sub>a</sub> | 11:32 <sub>a</sub> | 18 min              | P     |
|                | P-10   | 4'    | 11:38 <sub>a</sub>          | 11:39 <sub>a</sub> | 11:42 <sub>a</sub> | 3 min               | P     |
|                |        |       |                             |                    |                    |                     |       |
|                |        |       |                             |                    |                    |                     |       |

REMARKS

SANITARIAN BACKHOE OTHERS

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

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

3' wide

9

A/P

P-11

0' Red/Orange  
SIL  
sat to 11'

4' R/O  
SIL tighter  
than above

7' SIL w/ mica  
Plating increasing

11' >40% rock

13'

P-12

3' Brown/Rd  
SIL loose

Red/Brown  
SIL w/ mica

sat to 10'

6' harder  
SIL w/  
Mica Plates

9' 10' >40%  
Rock

P-13

2 1/2' Red/Brown  
orange SIL

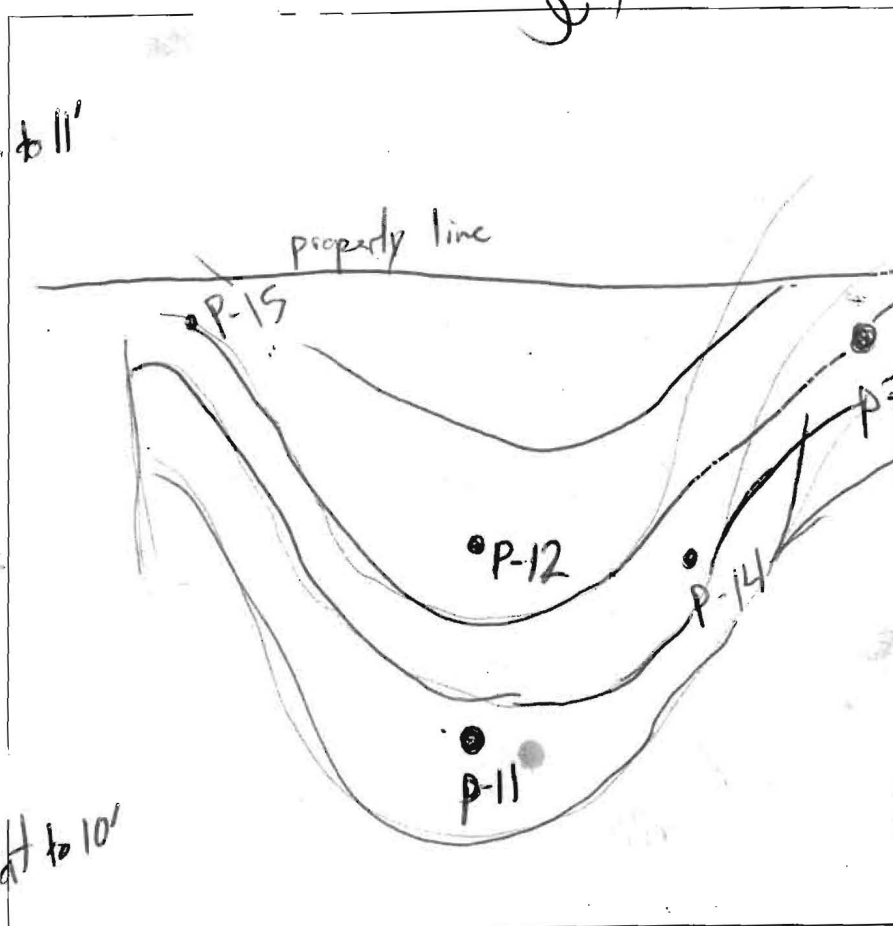
Red SIL  
w/ soft mica  
Plates

5' Platy SIL  
w/ mica

sat to  
10 1/4'

10 1/2' >40%  
Hard Rock

12'



P-14

Brown/Rd  
SIL loose

4' sat to 7'  
Red/Brown  
SIL tighter  
w/ mica Plates

7'  
Red w/  
Mica Plates  
strong

P-15

Tan/Brown  
S.C.L

2'  
Red/Orange  
S.C.L w/ mica  
soft Plates



13'

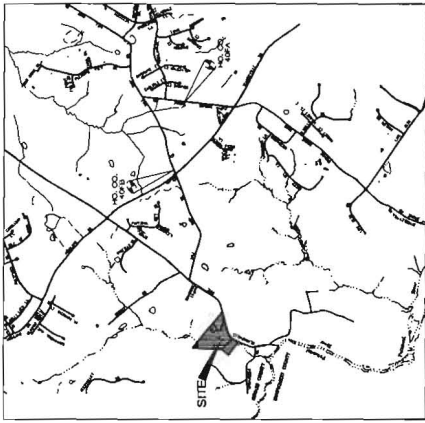
| DATE | TEST # | DEPTH  | START  | BREAK<br>1" DROP | STOP<br>2" DROP | TIME OF<br>2ND INCH | P/F/H |
|------|--------|--------|--------|------------------|-----------------|---------------------|-------|
|      | P-11   | 4 1/2' | 12:16p | 12:18p           | 12:20p          | 2min                | P     |
|      | P-12   | 4'     | 12:30p | 12:31p           | 12:33p          | 2min                | P     |
|      | P-13   | 4'     | 1:13p  | 1:16p            | 1:19p           | 3min                | P     |
|      | P-14   | 3.5'   | 1:37p  | 1:33p            |                 |                     |       |
|      | P-15   |        |        |                  |                 |                     |       |
|      |        | 4'     | 1:57p  | 2:04p            | 2:22            | 18min               | P     |
|      |        |        |        |                  |                 |                     |       |
|      |        |        |        |                  |                 |                     |       |
|      |        |        |        |                  |                 |                     |       |
|      |        |        |        |                  |                 |                     |       |

REMARKS

SANITARIAN BACKHOE OTHERS

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

TRENCH WIDTH INLET DEPTH MAX. BOT DEPTH EFFECTIVE SW



VICINITY MAP  
SCALE: 1" = 1,000'

**GENERAL NOTES**

1. ALL EXISTING UTILITIES SHOWN ON THIS MAP ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS OF THE EXISTING UTILITIES AND HAS FOUND THEM TO BE IN GOOD CONDITION. THE ENGINEER HAS NOT CONDUCTED ANY TESTS OF THE EXISTING UTILITIES.

2. THE PROPOSED SEPTIC SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) AND THE MARYLAND DEPARTMENT OF TRANSPORTATION (MDOT).

3. THE PROPOSED SEPTIC SYSTEM SHALL BE DESIGNED TO TREAT AND DISPOSE OF THE WASTEWATER FROM THE PROPOSED BUILDING AND ITS ASSOCIATED OUTBUILDINGS.

4. THE PROPOSED SEPTIC SYSTEM SHALL BE INSTALLED IN A MANNER THAT DOES NOT CAUSE ANY ADVERSE IMPACTS TO THE SURROUNDING ENVIRONMENT.

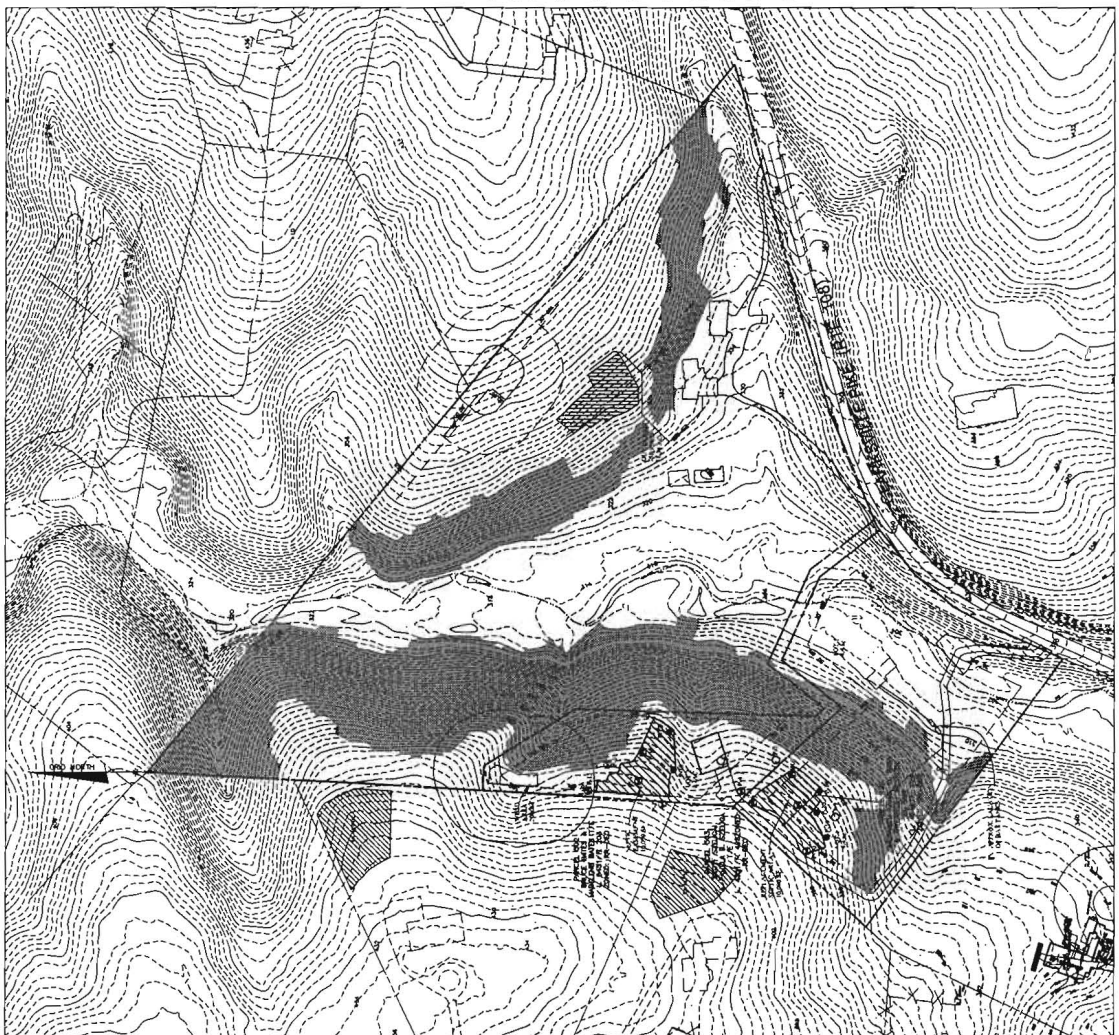
5. THE PROPOSED SEPTIC SYSTEM SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE ITS PROPER OPERATION.

**LEGEND**

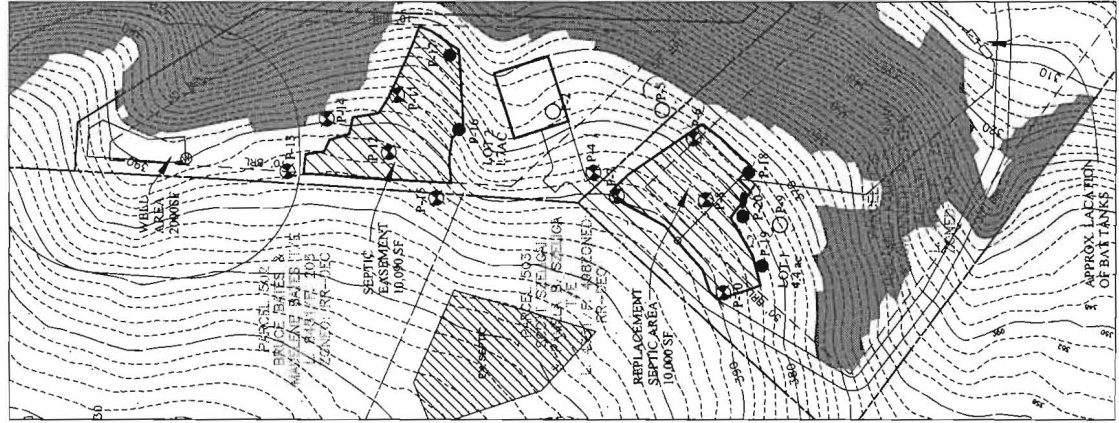
- EXISTING CONTOURS
- EXISTING TIELINE
- EXISTING STREAM
- EXISTING STRUCTURE
- PROPOSED STRUCTURE
- SLOPES 25% OR GREATER
- PROPOSED WELL
- PERCOLATION TEST LOCATION
- PASSED PERCOLATION TEST
- FAILED PERCOLATION TEST
- PROPOSED SEPTIC AREA

**BENCHMARK ENGINEERING, INC.**  
13942 CLARKSVILLE ROAD  
CLARKSVILLE, MD 21031  
(410) 326-1111  
WWW.BENCHMARKENGINEERING.COM

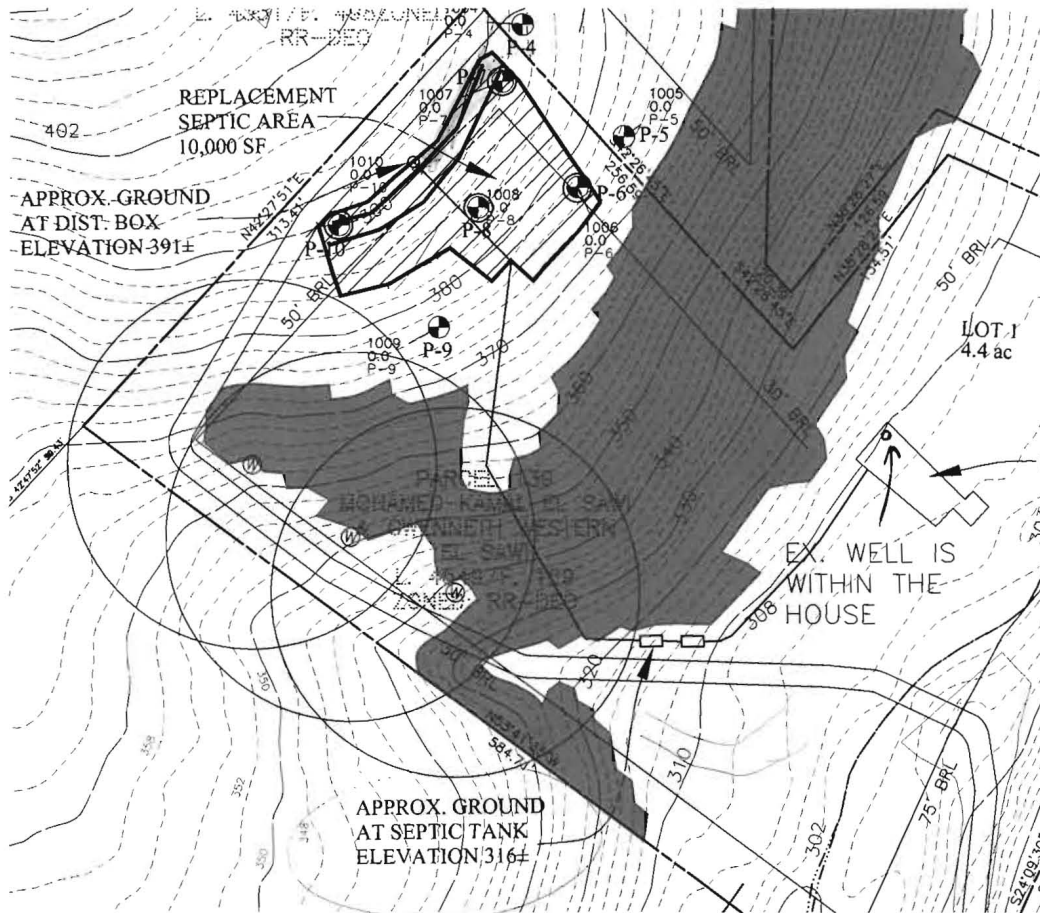
**PROJECT:** 13942 CLARKSVILLE ROAD  
**LOCATION:** 13942 CLARKSVILLE ROAD, CLARKSVILLE, MD 21031  
**TITLE:** PERCOLATION TEST PLAN  
**DATE:** 08/20/2017  
**SCALE:** AS SHOWN  
**PROJECT NO.:** 2017  
**DRAWING NO.:** 01



PLAN VIEW  
SCALE: 1" = 100'



PLAN VIEW  
SCALE: 1" = 50'



PLAN VIEW

SCALE: 1" = 50'




Bureau of Environmental Health  
7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
Main: 410-313-2640 | Fax: 410-313-2648  
TDD 410-313-2323 | Toll Free 1-866-313-6300  
[www.hchealth.org](http://www.hchealth.org)  
Facebook: [www.facebook.com/hocohealth](https://www.facebook.com/hocohealth)  
Twitter: HowardCoHealthDep

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

## **MEMORANDUM**

Sent via email to [cogle@bei-civilengineering.com](mailto:cogle@bei-civilengineering.com) on 10/3/2014

**TO:** Benchmark Engineering  
Attn: Chris Ogle

**FROM:** Kevin M. Wolf, R.E.H.S./R.S., LEHS   
Environmental Health Specialist Supervisor  
Groundwater Mgmt. Sec.

**DATE:** October 2, 2014

**RE:** Percolation Certification Plan Comments:  
13942 Clarksville Pike – *El Sawi Property*

The following comments need to be addressed on the Percolation Certification Plan. Please revise and resubmit for review:

1. Newly installed septic system needs to be shown on the perc cert plan as per the completed as-built. BAT unit and pump tank may be encroached by the proposed drive.
2. Label plan "Subdivision" or indicate a purpose statement.
3. Proposed well site locations 1, 2, and 3 on Lot 1 need to be revised to meet 100' from septic and 200' down-gradient from septic. Move to add 1500ft<sup>2</sup> well box in far southwest corner of property on Lot 1. Proposed drive to Lot 2 may need to be adjusted some.
4. Add note to state on Lot 1, a 'sleeve' will be installed under drive prior to drive installation for proposed well line install. Turn-ups will be installed at either end of the sleeve as to serve as markers.
5. Add note to state Septic Reserve Area (SRA) for Lot 1 must be fenced off and protected prior to proposed drive installation. Protection devices (fencing) must remain in place during the entire construction phases of Lot 2.
6. Add note to state on Lot 2 septic install will require Low Pressure Dosing (LPD).
7. Please add on plan proposed grading for the drive-way install around Lot 1 SRA.
8. On Lot 2, please show the well line proposal to the house. Must meet 10' setback from the SRA. If not, note to state well line on Lot 2 must be sleeved within 10' of SRA.

KMW

Cc: File



Christopher A. Malagari, P.E., President  
Donald A. Mason, P.E., L.S., Vice President

410-465-6105 301-371-3505  
410-465-6644 FAX

October 13, 2014

Mr. Kevin Wolf  
Howard County Health Department  
7178 Columbia Gateway Drive  
Columbia, MD 21046

Re: **14342 Clarksville Pike**

Dear Mr. Wolf:

This letter is in response to your comments for the above referenced project. The following is a point by point response to your comments:

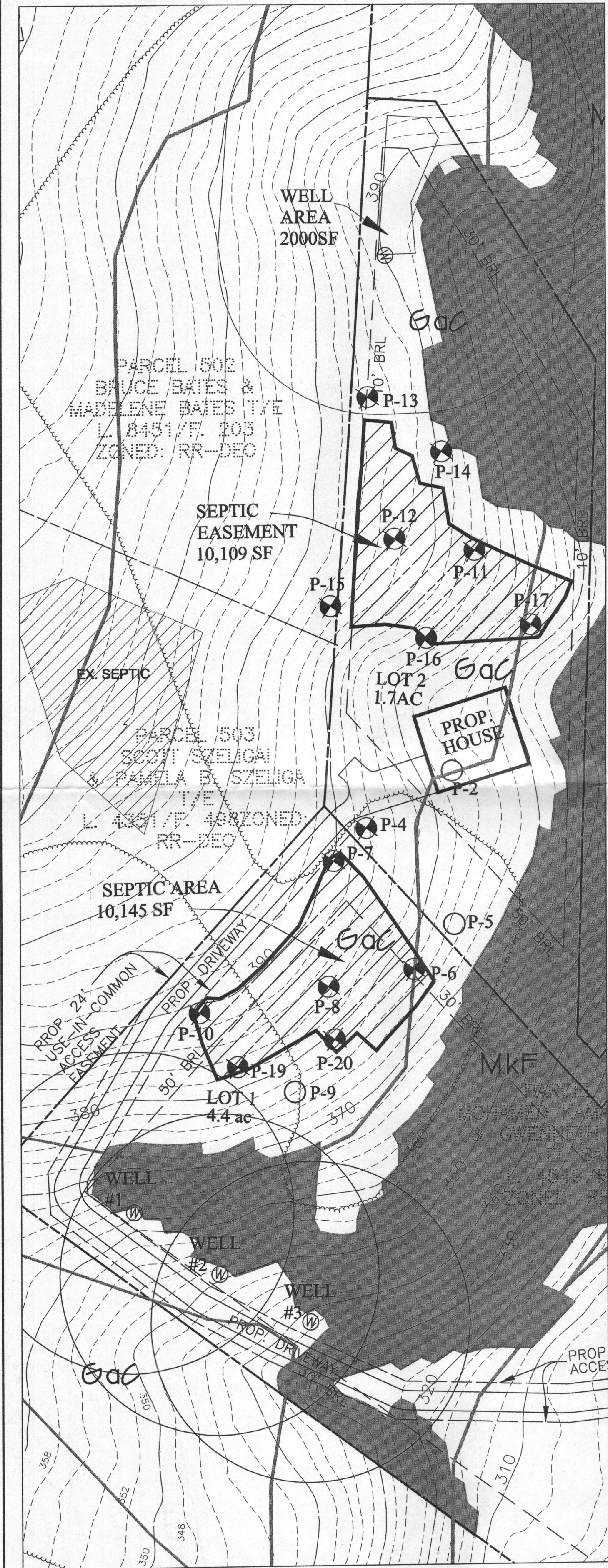
1. The existing septic tanks are shown based on the painted locations previously provided by the Health Department on the property.
2. The project is now titled as "subdivision" in the project block.
3. The replacement well #3 has been relocated to the southwest corner. The other 2 locations are not down-gradient of the septic easement but 100' adjacent to the easement.
4. A note has been added on the plan and in the general notes as requested.
5. The fencing note for Lot 1 is provided in the general notes.
6. The LPD note for Lot 2 is provided in the general notes.
7. The conceptual grading for the proposed driveway is now provided.
8. The approximate location of the well line for Lot 2 is now shown. A note is added to the plan and in the general notes that a sleeve must be provided where the line is within 10' of the SRA.

Should you have any questions or need additional information please contact this office.

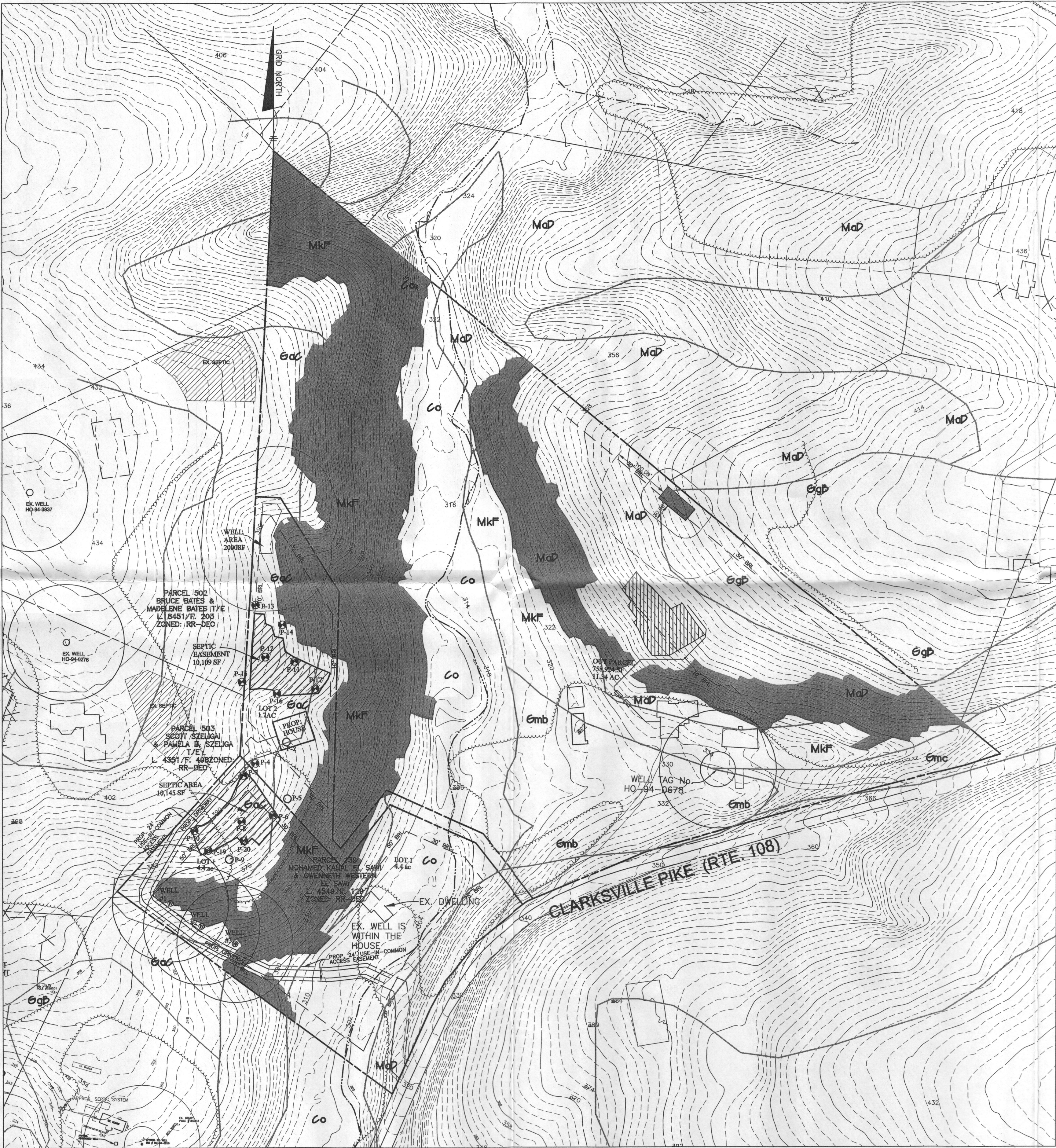
Sincerely,

J. Chris Ogle  
Project Manager

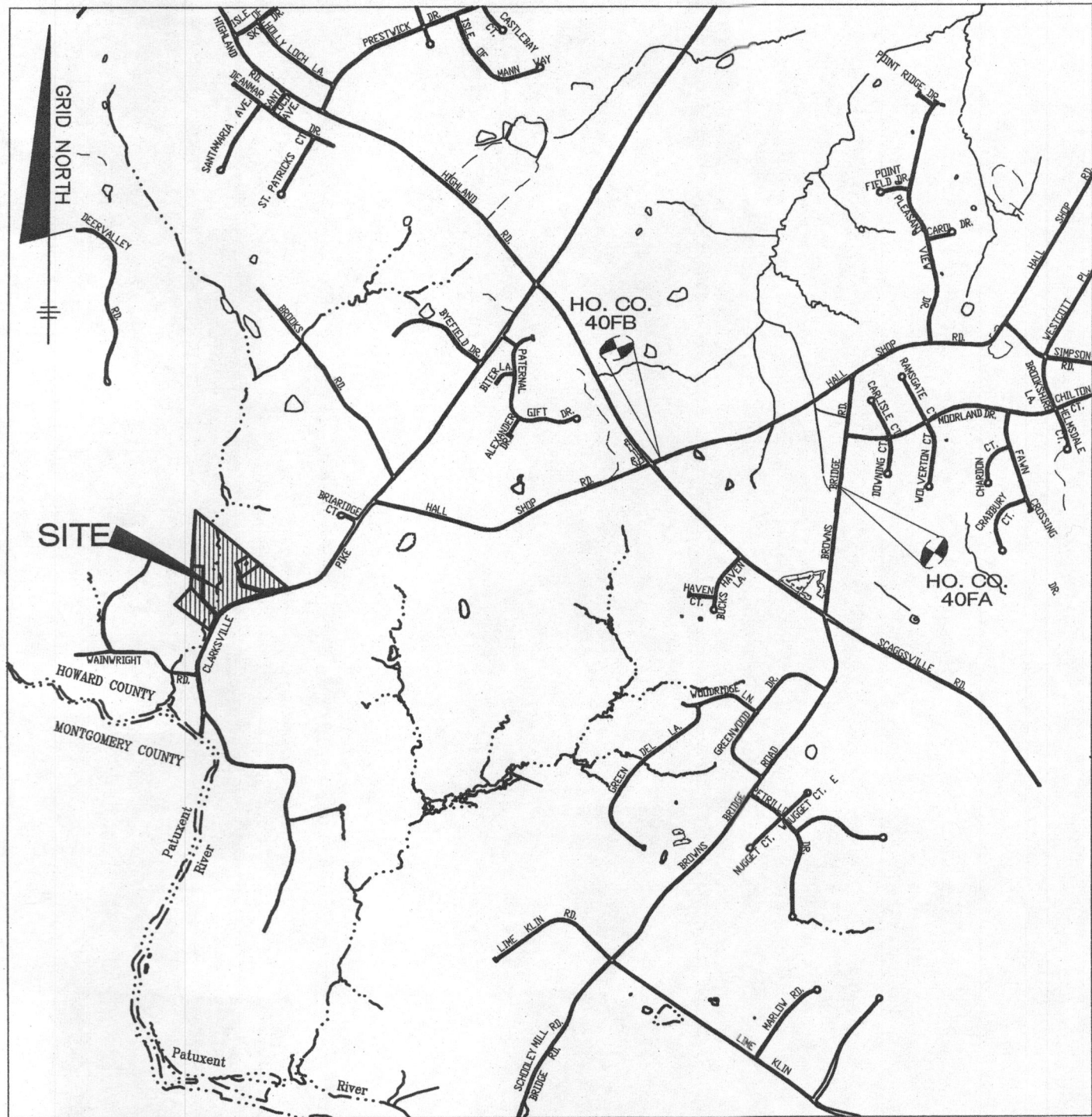
| SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND PAGE |        |                  |                 |  |
|--|--------|------------------|-----------------|--|
| SYMBOL   | HYDRIC | HYDROLOGIC GROUP | ALTERNATE GROUP | NAME   |
| Co   |        | C                | D               | CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT |
| Gac  |        | B                |                 | GAILA LOAM, 8 TO 15 PERCENT SLOPES             |
| Ggb  |        | B                |                 | GLENELG LOAM, 3 TO 8 PERCENT SLOPES            |
| Gmb  | YES    | C                |                 | GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES     |
| Gmc  | YES    | C                |                 | GLENVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES    |



PLAN VIEW  
SCALE: 1" = 50'



PLAN VIEW  
SCALE: 1" = 100'

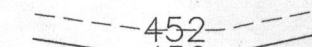


ADC MAP 30 GRID F7 & 31 GRID A7

VICINITY MAP  
SCALE: 1"=2000'

### LEGEND

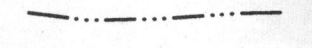
EXISTING CONTOURS



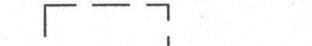
EXISTING TREELINE



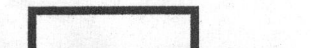
EXISTING STREAM



EXISTING STRUCTURE



PROPOSED STRUCTURE



SLOPES 25% OR GREATER



PROPOSED WELL



PASSED PERCOLATION TEST



FAILED PERCOLATION TEST



PROPOSED SEPTIC AREA



### GENERAL NOTES

- 1.) THE LOT SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- 2.) THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 S.F. 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 SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER 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 REQUIRED.
- 3.) EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
- 4.) TOPOGRAPHY SHOWN IS BASED ON HOWARD COUNTY GIS AND IS TO BE VERIFIED BY BENCHMARK ENGINEERING, INC.
- 5.) EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE 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.
- 6.) ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- 7.) ALL WELLS SHALL BE DRILLED PRIOR TO FINAL PLAT RECORDATION. IT IS THE DEVELOPER'S RESPONSIBILITY TO SCHEDULE THE WELL DRILLING PRIOR TO FINAL PLAT SUBMISSION. IT WILL NOT BE CONSIDERED "GOVERNMENTAL DELAY" IF THE WELL DRILLING HOLDS UP HEALTH DEPARTMENT SIGNATURE OF THE RECORD PLAT.

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM  
HOWARD COUNTY HEALTH DEPARTMENT

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON PREVIOUS WORK PERFORMED BY SHANABERBER & LANE AND IS CORRECT, TO THE BEST OF KNOWLEDGE AND BELIEF AND BASED ON PREVIOUS PERCOLATION CERTIFICATION PLAN APPROVED JULY 16, 1998 BY THE HEALTH DEPARTMENT.

HOWARD COUNTY HEALTH OFFICER

DATE

PLAN PREPARED BY J. CHRIS OGLE  
BENCHMARK ENGINEERING, INC.

NO. DATE

REVISION

**BENCHMARK**  
ENGINEERS • LAND SURVEYORS • PLANNERS  
**ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE • SUITE 315 • ELLICOTT CITY, MARYLAND 21043  
(P) 410-465-6105 (F) 410-465-6644  
WWW.BEI-CIVLENGINEERING.COM

OWNER:

Mohamed Kamal and  
Gwenneth Western El Sawi  
13942 Clarksville Pike  
Highland, Maryland 20777

PROJECT:

**13942  
CLARKSVILLE ROAD**

LOCATION: TAX MAP-40 GRID-15 PARCELS-40 AND 139  
ZONED-RR-DEO 5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE:  
**PERCOLATION CERTIFICATION PLAN**

DATE: SEPTEMBER 2014

PROJECT NO. 2517

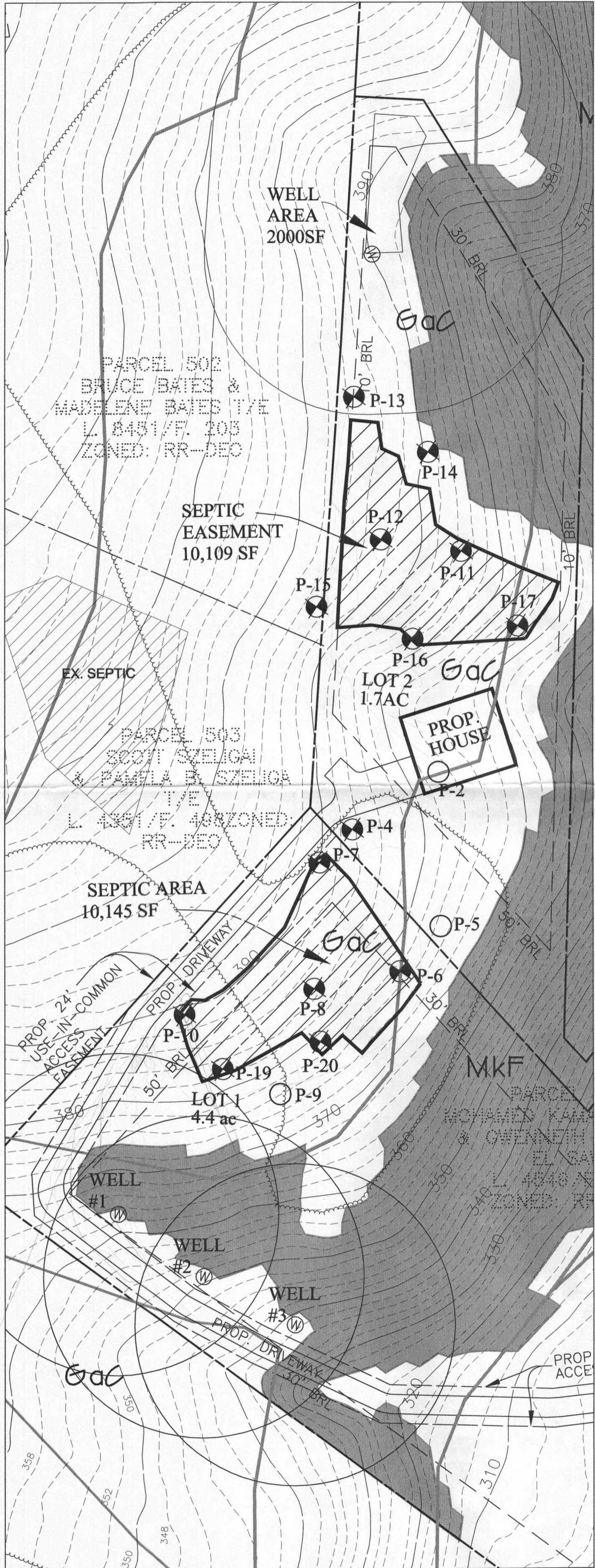
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DRAFT: EDD/JCO

SCALE: AS SHOWN

DRAWING 1 OF 1

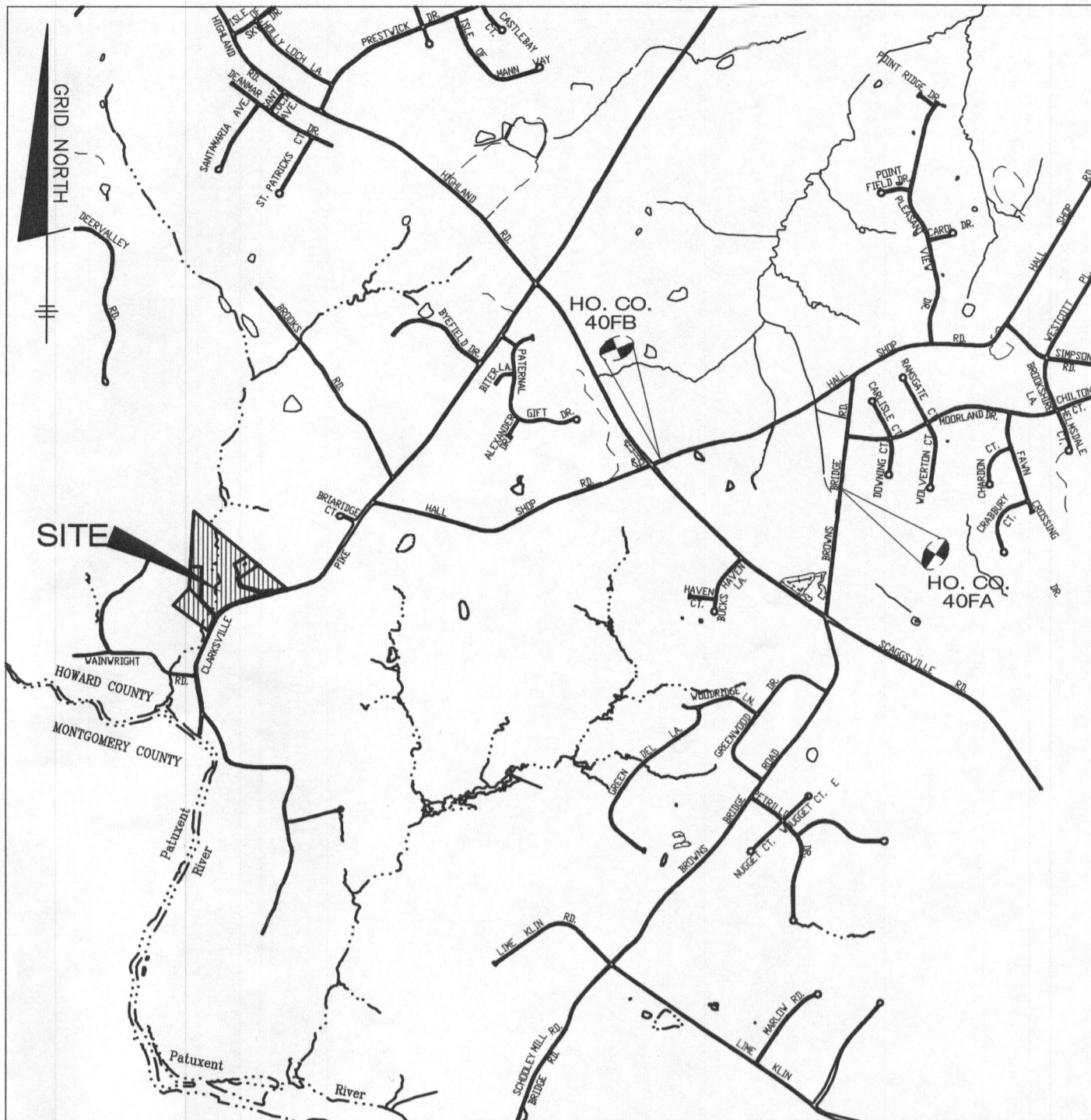
| SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND PAGE |        |                  |  |
|--|--------|------------------|--|
| SYMBOL   | HYDRIC | HYDROLOGIC GROUP | ALTERNATE GROUP NAME                           |
| Co*  |        | D                | CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT |
| GaC  |        | B                | GAILA LOAM, 8 TO 15 PERCENT SLOPES             |
| GgB  |        | B                | GLENELG LOAM, 3 TO 8 PERCENT SLOPES            |
| GmB*   | YES    | C                | GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES     |
| GmC  |        | C                | GLENVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES    |



PLAN VIEW  
SCALE: 1" = 50'



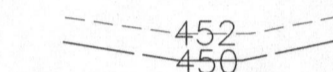
PLAN VIEW  
SCALE: 1" = 100'



VICINITY MAP  
SCALE: 1" = 2000'

#### LEGEND

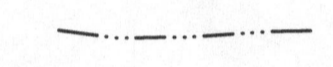
EXISTING CONTOURS



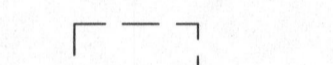
EXISTING TREELINE



EXISTING STREAM



EXISTING STRUCTURE



PROPOSED STRUCTURE



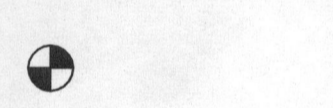
SLOPES 25% OR GREATER



PROPOSED WELL



PASSED PERCOLATION TEST



FAILED PERCOLATION TEST



PROPOSED SEPTIC AREA



#### GENERAL NOTES

- 1) THE LOT SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- 2) THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10.00 SF, 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 SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICE SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE REQUIRED.
- 3) EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
- 4) TOPOGRAPHY SHOWN IS BASED ON HOWARD COUNTY GIS AND IS TO BE VERIFIED BY BENCHMARK ENGINEERING, INC.
- 5) EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE 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.
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APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM  
HOWARD COUNTY HEALTH DEPARTMENT

HOWARD COUNTY HEALTH OFFICER DATE

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON PREVIOUS WORK PERFORMED BY SHANABERGER & LANE AND IS CORRECT, TO THE BEST OF KNOWLEDGE AND BELIEF AND BASED ON PREVIOUS PERCOLATION CERTIFICATION PLAN APPROVED JULY 16, 1998 BY THE HEALTH DEPARTMENT.

PLAN PREPARED BY J. CHRIS DGLE DATE  
BENCHMARK ENGINEERING, INC.

NO. DATE REVISION

**BENCHMARK**  
ENGINEERS • LAND SURVEYORS • PLANNERS  
**ENGINEERING, INC.**  
8480 BALTIMORE NATIONAL PIKE SUITE 315 • ELLICOTT CITY, MARYLAND 21043  
(P) 410-465-6105 (F) 410-465-6644  
WWW.BEI-CIVILENGINEERING.COM

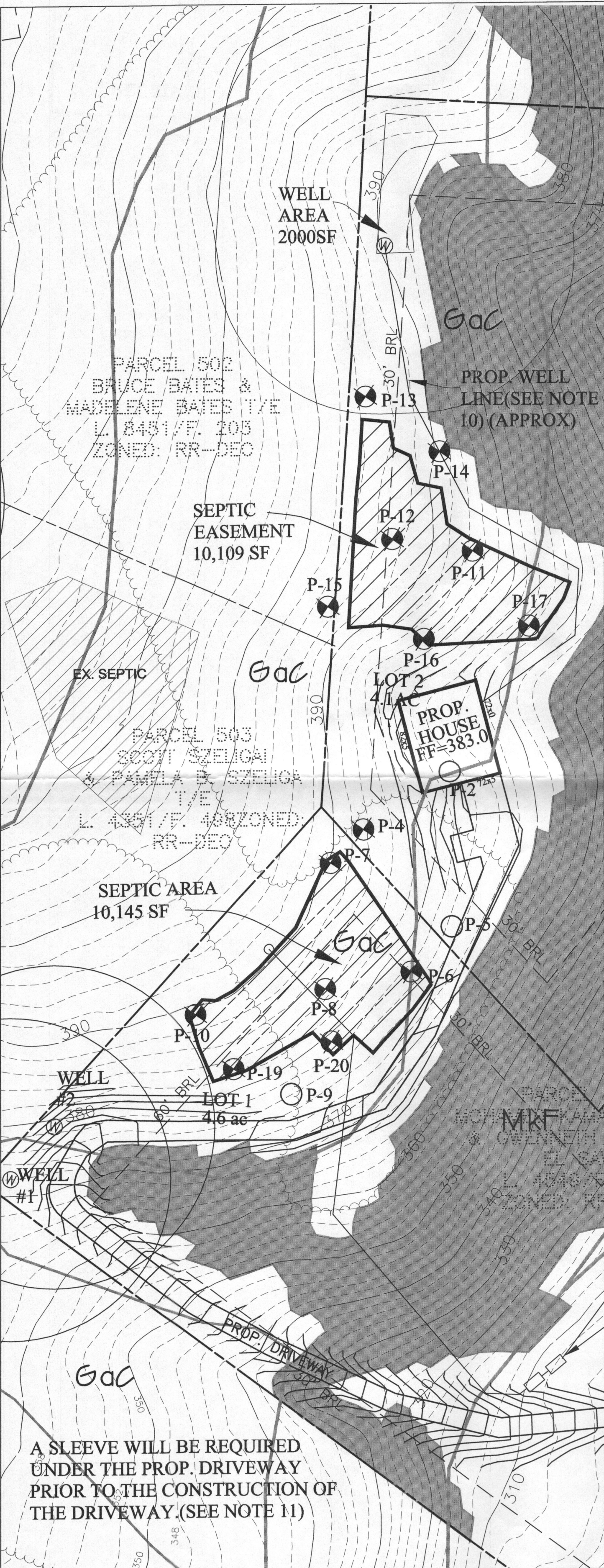
OWNER:  
  
Mohamed Kamal and  
Gwenneth Western El Sawi  
13942 Clarksville Pike  
Highland, Maryland 20777

PROJECT:  
**13942  
CLARKSVILLE ROAD**  
  
LOCATION:  
TAX MAP-40, GRID-15 PARCELS-40 AND 139  
ZONED-RR-DEO, 5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE:  
**PERCOLATION CERTIFICATION PLAN**

DESIGN: BC/JCO DRAFT: EDD/JCO  
DATE: SEPTEMBER 2014 PROJECT NO. 2517  
SCALE: AS SHOWN DRAWING 1 OF 1

| SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND PAGE |        |                  |                 |  |
|--|--------|------------------|-----------------|--|
| SYMBOL   | HYDRIC | HYDROLOGIC GROUP | ALTERNATE GROUP | NAME   |
| Co*  |        | C                | D               | CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT |
| GaC  |        | B                |                 | GAILA LOAM, 8 TO 15 PERCENT SLOPES             |
| GgB  |        | B                |                 | GLENELG LOAM, 3 TO 8 PERCENT SLOPES            |
| GmB*   | YES    | C                |                 | GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES     |
| GmC  |        | C                |                 | GLENVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES    |



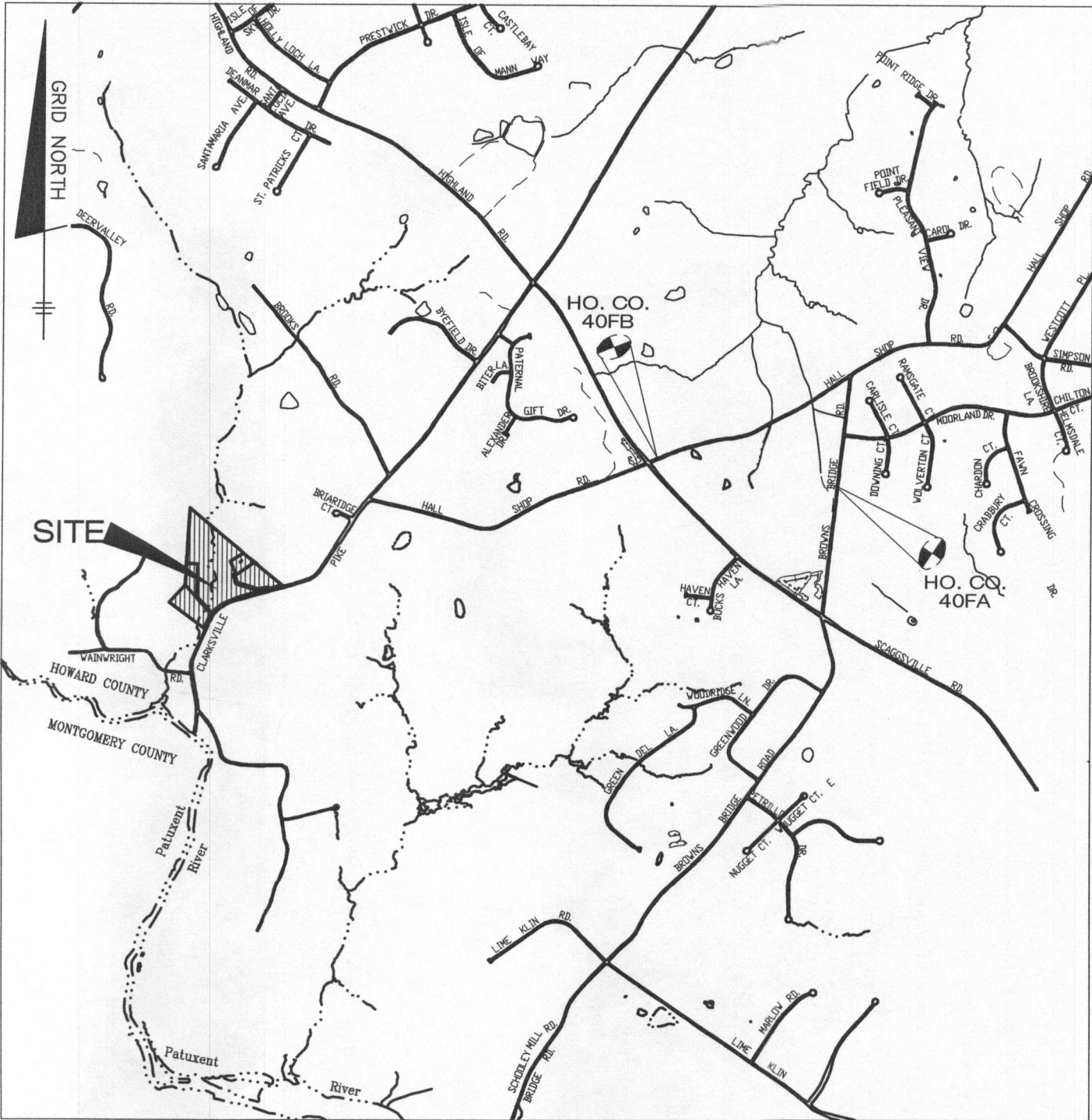
PLAN VIEW

SCALE: 1" = 50'



PLAN VIEW

SCALE: 1" = 100'



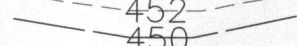
ADC MAP 30 GRID F7 & 31 GRID A7

VICINITY MAP

SCALE : 1"=2000'

LEGEND

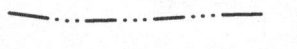
EXISTING CONTOURS



EXISTING TREELINE



EXISTING STREAM



EXISTING STRUCTURE



PROPOSED STRUCTURE



SLOPES 25% OR GREATER



PROPOSED WELL



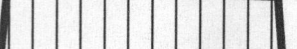
PASSED PERCOLATION TEST



FAILED PERCOLATION TEST



PROPOSED SEPTIC AREA



GENERAL NOTES

- 1.) THE LOT SHOWN HEREIN COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- 2.) THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10.000 S.F. 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 SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER 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 REQUIRED.
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- 4.) TOPOGRAPHY SHOWN IS BASED ON HOWARD COUNTY GIS AND IS TO BE VERIFIED BY BENCHMARK ENGINEERING, INC.
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- 8.) THE SEPTIC RESERVE AREA FOR LOT 1 MUST BE FENCED OFF AND PROTECTED PRIOR TO THE INSTALLATION OF THE PROPOSED DRIVEWAY FOR LOT 2. THE PROTECTIVE FENCING MUST REMAIN FOR THE ENTIRE CONSTRUCTION OF LOT 2 AS WELL.
- 9.) LOT 2 SEPTIC INSTALL WILL REQUIRE LOW PRESSURE DOSING (LPD).
- 10.) THE WELL LINE FOR LOT 2 WILL REQUIRED TO BE SLEEVED WITHIN 10' OF THE SEPTIC RESERVE AREA.
- 11.) PROVIDE A SLEEVE UNDER THE PROPOSED DRIVEWAY FOR LOT 2 PRIOR TO THE CONSTRUCTION OF THE DRIVEWAY. PROVIDE TURN-UPS AT EITHER SIDE FOR MARKERS.

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM  
HOWARD COUNTY HEALTH DEPARTMENT

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON PREVIOUS WORK PERFORMED BY SHANABRER & LAKE AND IS CORRECT, TO THE BEST OF KNOWLEDGE AND BELIEF AND BASED ON PREVIOUS PERCOLATION CERTIFICATION PLAN APPROVED JULY 16, 1998 BY THE HEALTH DEPARTMENT.

HOWARD COUNTY HEALTH OFFICER

DATE

PLAN PREPARED BY: J. CHRIS OGLE  
BENCHMARK ENGINEERING, INC.  
DATE: 10/13/14

NO.

DATE

REVISION

**BENCHMARK**  
ENGINEERS • LAND SURVEYORS • PLANNERS  
**ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE • SUITE 315 • ELLICOTT CITY, MARYLAND 21043  
(P) 410-465-6105 (F) 410-465-6644  
WWW.BEI-CIVILENGINEERING.COM

OWNER:

Mohamed Kamal and  
Gwenneth Western El Sawi  
13942 Clarksville Pike  
Highland, Maryland 20777

PROJECT:

**13942 CLARKSVILLE ROAD  
SUBDIVISION LOTS 1 & 2**

LOCATION:

TAX MAP-40 GRID-15 PARCELS-40 AND 139  
ZONED-RR-DEC 5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE:

**PERCOLATION CERTIFICATION PLAN**

DATE: OCTOBER 2014

PROJECT NO. 2517

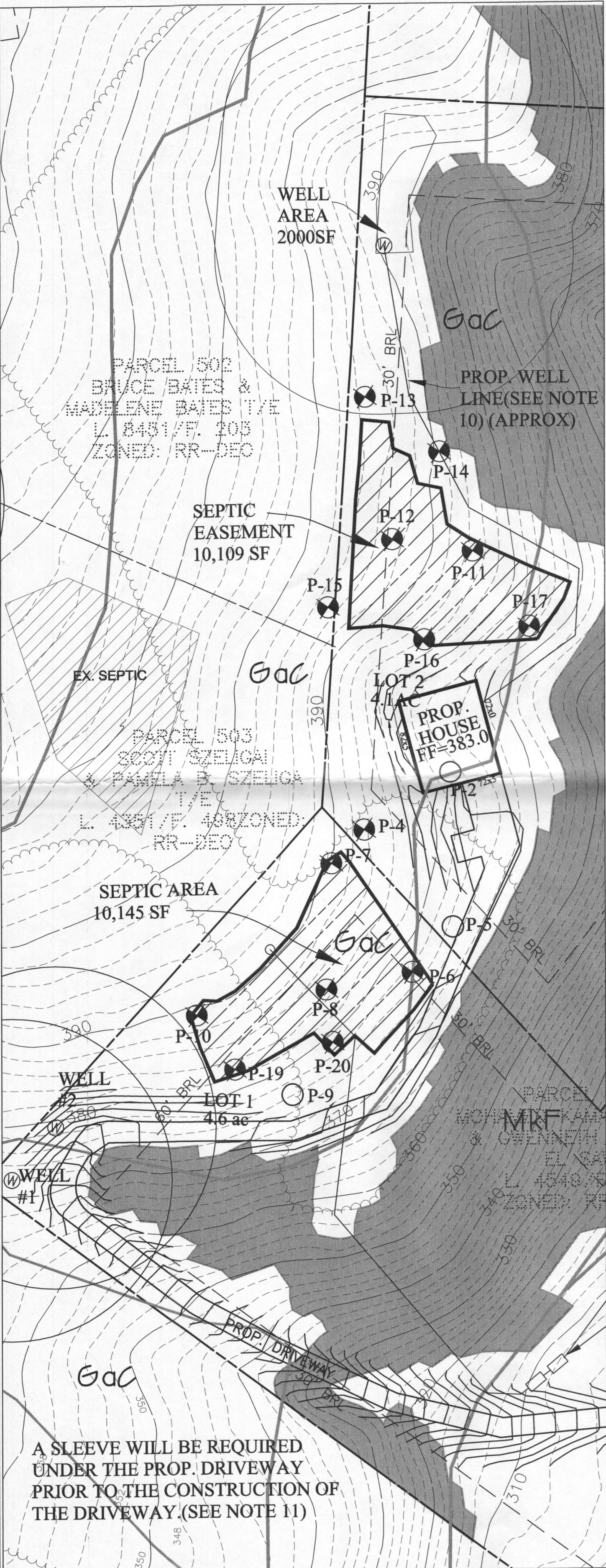
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DRAFT: EDD/JCO

SCALE: AS SHOWN

DRAWING 1 OF 1

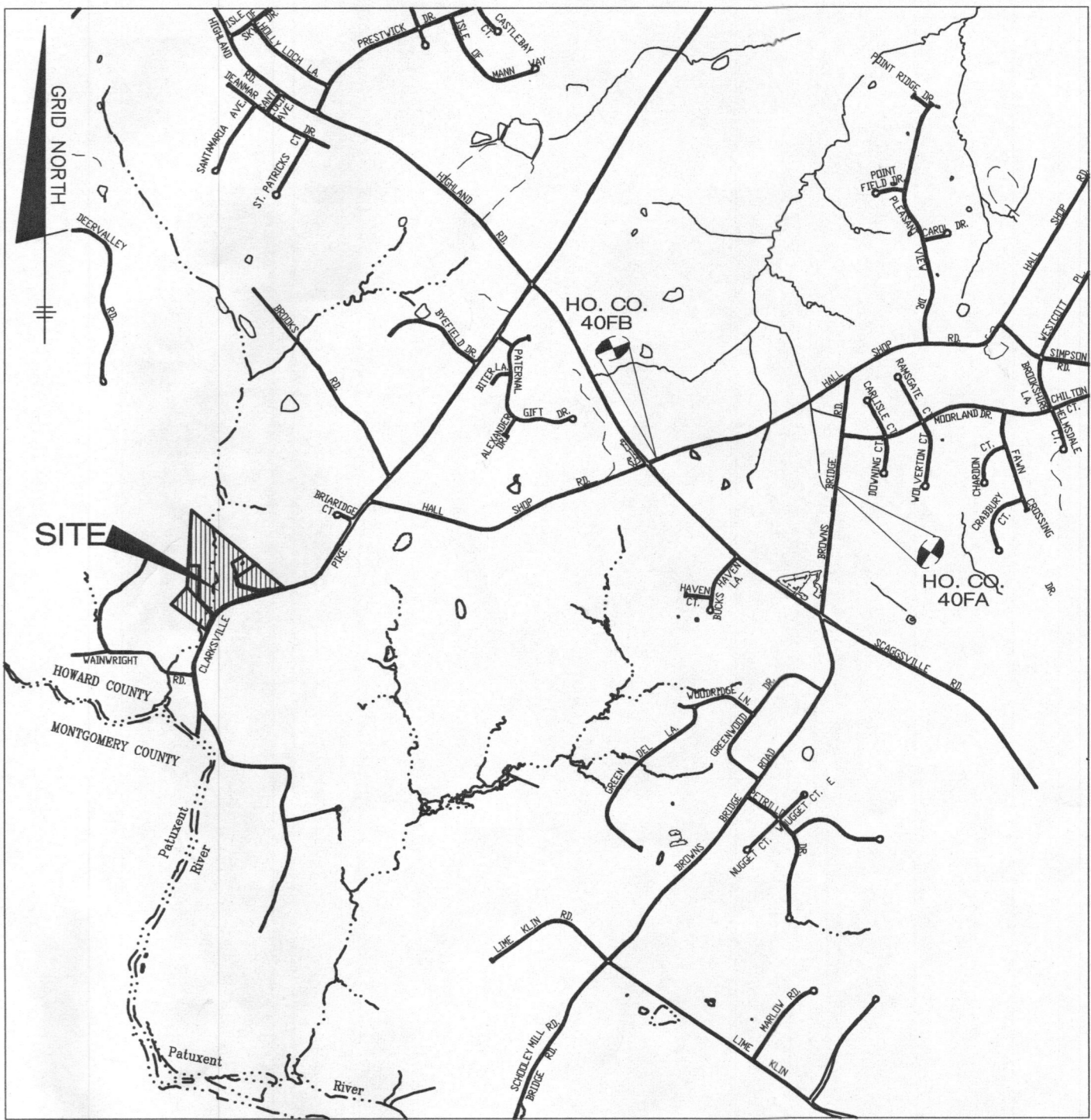
| SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND PAGE |        |                  |                 |
|--|--------|------------------|-----------------|
| SYMBOL   | HYDRIC | HYDROLOGIC GROUP | ALTERNATE GROUP |
| Co*  |        | C                | D               |
| GaC  |        | B                |                 |
| GgB  |        | B                |                 |
| GmB*   | YES    | C                |                 |
| GmC  |        | C                |                 |
| NAME   |        |                  |                 |
| CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT         |        |                  |                 |
| GAILA LOAM, 8 TO 15 PERCENT SLOPES                     |        |                  |                 |
| GLENELG LOAM, 3 TO 8 PERCENT SLOPES                    |        |                  |                 |
| GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES             |        |                  |                 |
| GLENVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES            |        |                  |                 |



PLAN VIEW  
SCALE: 1" = 50'



PLAN VIEW  
SCALE: 1" = 100'



VICINITY MAP  
SCALE: 1" = 2000'

LEGEND

EXISTING CONTOURS

EXISTING TREELINE

EXISTING STREAM

EXISTING STRUCTURE

PROPOSED STRUCTURE

SLOPES 25% OR GREATER

PROPOSED WELL

PASSED PERCOLATION TEST

FAILED PERCOLATION TEST

PROPOSED SEPTIC AREA

GENERAL NOTES

1.) THE LOT SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.

2.) THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 S.F. 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 SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICE SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE REQUIRED.

3.) EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.

4.) TOPOGRAPHY SHOWN IS BASED ON HOWARD COUNTY GIS AND IS TO BE VERIFIED BY BENCHMARK ENGINEERING, INC.

5.) EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE 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.

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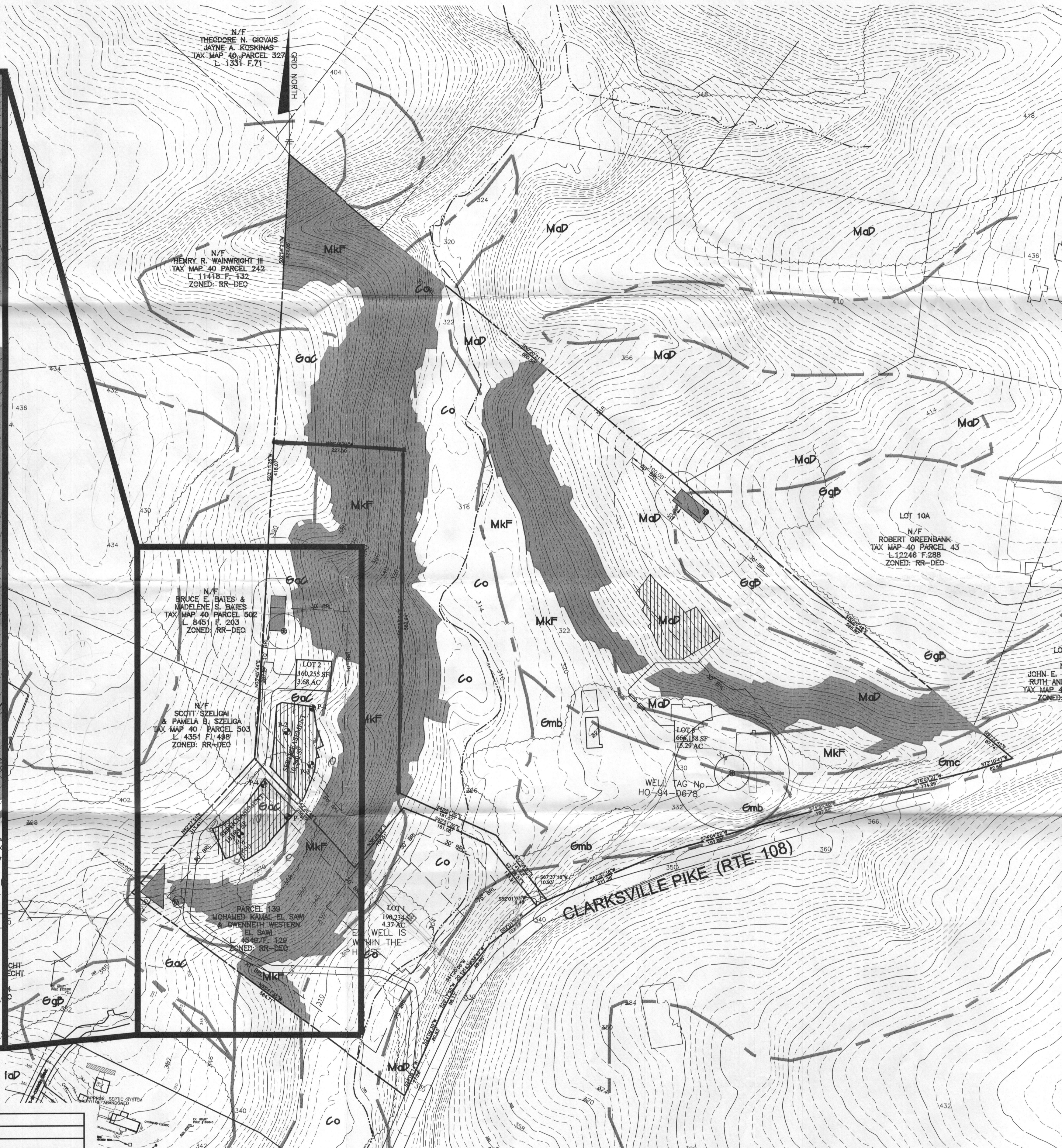
8.) THE SEPTIC RESERVE AREA FOR LOT 1 MUST BE FENCED OFF AND PROTECTED PRIOR TO THE INSTALLATION OF THE PROPOSED CONSTRUCTION FOR LOT 2. THE PROTECTIVE FENCING MUST REMAIN FOR THE ENTIRE CONSTRUCTION OF LOT 2 AS WELL.

9.) LOT 2 SEPTIC INSTALL WILL REQUIRE LOW PRESSURE DOSING (LPD).

10.) THE WELL LINE FOR LOT 2 WILL BE REQUIRED TO BE SLEEVED WITHIN 10' OF THE SEPTIC RESERVE AREA.

11.) PROVIDE A SLEEVE UNDER THE PROPOSED DRIVEWAY FOR LOT 2 PRIOR TO THE CONSTRUCTION OF THE DRIVEWAY. PROVIDE TURN-UPS AT EITHER SIDE FOR MARKERS.

|  |      |   |  |
|--|------|---|--|
| APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM<br>HOWARD COUNTY HEALTH DEPARTMENT  |      | I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON PREVIOUS WORK PERFORMED BY SHANABERBER & LANE AND IS CORRECT, TO THE BEST OF KNOWLEDGE AND BELIEF AND BASED ON PREVIOUS PERCOLATION CERTIFICATION PLAN APPROVED JULY 16, 1998 BY THE HEALTH DEPARTMENT.   |  |
| HOWARD COUNTY HEALTH OFFICER   | DATE | PLAN PREPARED BY J. CHRIS OGLE<br>BENCHMARK ENGINEERING, INC.   |  |
| NO. DATE   |      | REVISION  |  |
| <b>BENCHMARK</b><br>ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS<br><b>ENGINEERING, INC.</b><br>8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315 ▲ ELLICOTT CITY, MARYLAND 21043<br>(P) 410-465-6105 (F) 410-465-6644<br>WWW.BEI-CVLENGINEERING.COM |      |   |  |
| OWNER:<br><br>Mohamed Kamal and<br>Gwenneth Western El Sawi<br>13942 Clarksville Pike<br>Highland, Maryland 20777  |      | PROJECT:<br><b>13942 CLARKSVILLE ROAD<br/>SUBDIVISION LOTS 1 &amp; 2</b><br>LOCATION:<br>TAX MAP-40 GRID-15 PARCELS-40 AND 139<br>ZONED-RR-DEO 5th ELECTION DISTRICT<br>HOWARD COUNTY, MARYLAND<br>TITLE:<br><b>PERCOLATION CERTIFICATION PLAN</b><br>DATE: OCTOBER 2014 PROJECT NO. 2517<br>SCALE: AS SHOWN DRAWING 1 OF 1 |  |



PLAN VIEW

---

SCALE: 1" = 100'

### GENERAL NOTES

- PROPOSED SEPTIC AREA


- 1) THE LOT SHOWN HEREIN COMPLY WITH THE MINIMUM OUPHONED WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENTAL & NATURAL RESOURCES.
- 2) AT LEAST 10,000 S.F. AS DESIGNATED A PRIVATE SEWERAGE EASEMENT OF THE ENVIRONMENTAL & NATURAL RESOURCES BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENTAL & NATURAL RESOURCES.
- 3) THE NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BE FOR THE USE OF THE SEWER SYSTEM. THE COUNTY HEALTH OFFICIAL SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT, RECOGNITION OF A MODIFIED SEWERAGE EASEMENT.
- 4) EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE BENCHMARK ENGINEERING AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
- 5) THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THE PROPOSED EXISTING PERCOLATION TEST PLAN ON HOWARD COUNTY GIS AND IS TO BE VERIFIED BY BENCHMARK ENGINEERING, INC.
- 6) THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THE PROPOSED EXISTING PERCOLATION TEST PLAN ON HOWARD COUNTY GIS AND IS TO BE VERIFIED BY BENCHMARK ENGINEERING, INC.
- 7) THE PURPOSE FOR THIS PERCOLATION TEST PLAN IS TO CREATE A SEWAGE DISPOSAL EASEMENT IN SUPPORT OF BUILDING PERMIT APPLICATION
- 8) THE EXISTING WELL SHOWN ON THIS PLAN IS TO BE LOCATED BY BENCHMARK ENGINEERING, INC.
- 9) ANY CHANGES TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION TEST PLAN.

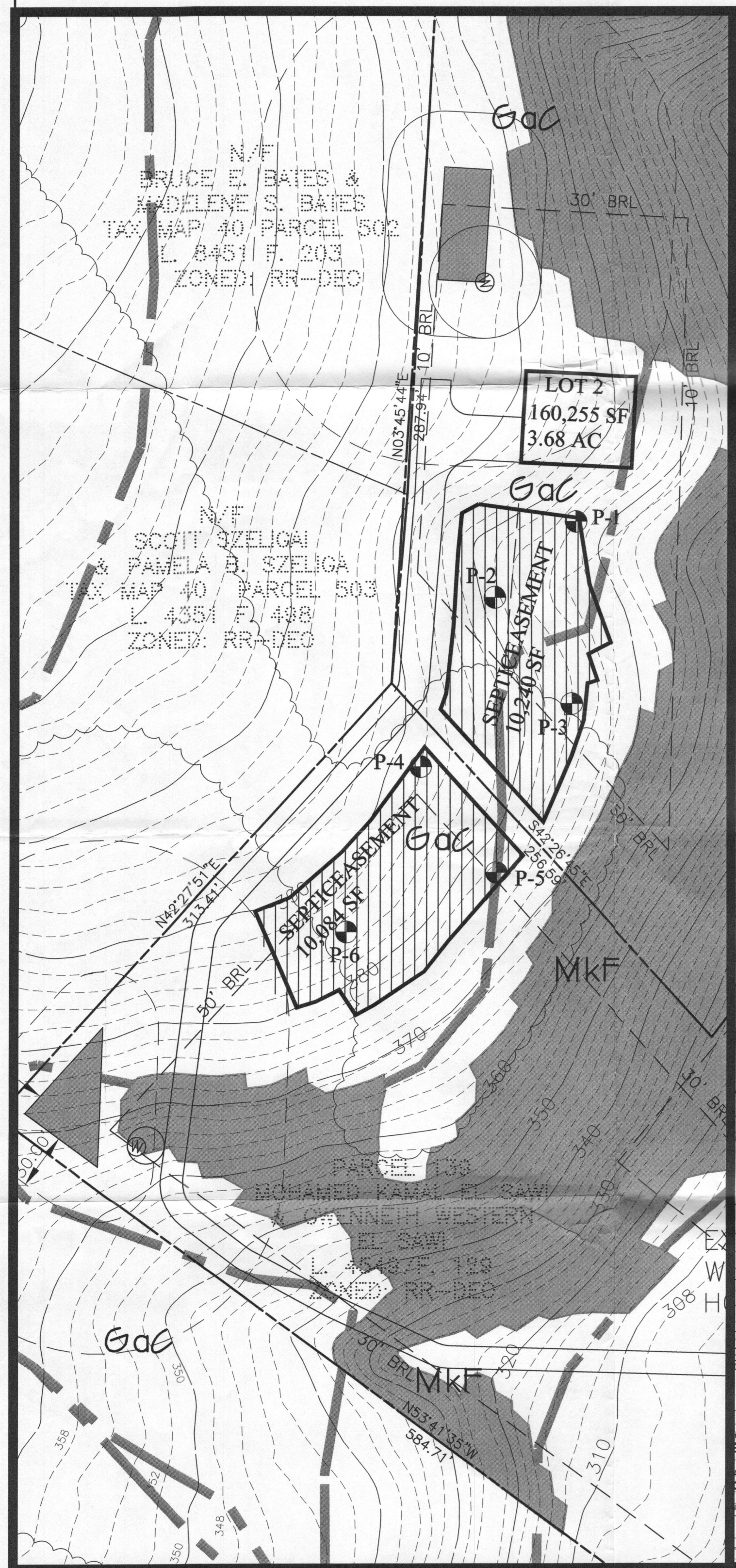
I CERTIFY THAT THE INFORMATION SHOWN HEREON IS  
BASED ON FIELD WORK PERFORMED BY ME OR UNDER  
MY DIRECT SUPERVISION, AND IS CORRECT, TO THE  
BEST OF KNOWLEDGE AND BELIEF.

PLAN PREPARED BY BRIAN F. CLEARY FOR BENCHMARK  
ENGINEERING, INC.)

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM  
HOWARD COUNTY HEALTH DEPARTMENT

HOWARD COUNTY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

|  |  |             |   |                  |  |
|--|--|-------------|---|------------------|--|
| NO.  |  | DATE        |   | REVISION         |  |
| <div style="text-align: center;">  <p><b>BENCHMARK</b></p> <p>ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS</p> <p><b>ENGINEERING, INC.</b></p> </div> <p>8480 BALTIMORE NATIONAL PIKE ▲ SUITE 418 ▲ ELLICOTT CITY, MARYLAND 21043<br/>(P) 410-465-6105 (F) 410-465-6644</p> <p>60 THOMAS JOHNSON DRIVE ▲ FREDERICK, MARYLAND 21702<br/>(P) 301-371-3505 (F) 301-371-3506</p> <p>WWW.BEI-CIVILENGINEERING.COM</p> |  |             |   |                  |  |
| OWNER:   |  |             | PROJECT:  |                  |  |
| Mohamed Kamal and<br>Gwenneth Western El Sawi<br>13942 Clarksville Pike<br>Highland, Maryland 20777  |  |             | 13886 AND 13942<br>CLARKSVILLE ROAD   |                  |  |
|  |  |             | LOCATION: TAX MAP--40 GRID--15 PARCELS--40 AND 139<br>ZONED--RR--DEO 5th ELECTION DISTRICT<br>HOWARD COUNTY, MARYLAND |                  |  |
|  |  |             | TITLE:<br>PERCOLATION TESTING PLAN  |                  |  |
| DATE:  |  | MARCH, 2014 |   | PROJECT NO. 2517 |  |
| DESIGN: BC   |  | DRAFT: EDD  |   | SCALE: AS SHOWN  |  |
|  |  |             |   | DRAWING 1 OF 1   |  |

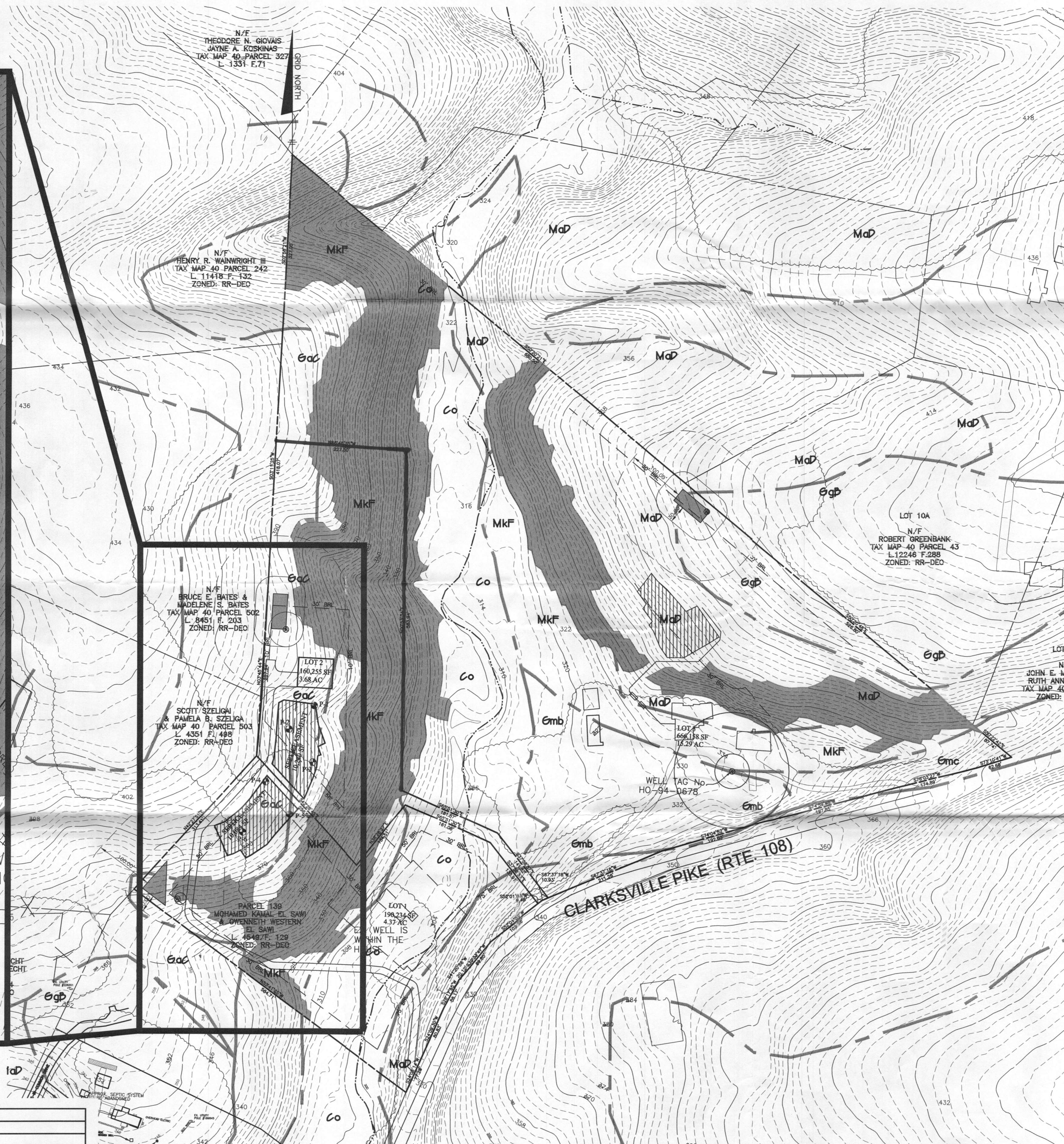


PLAN VIEW

SCALE: 1" = 50'

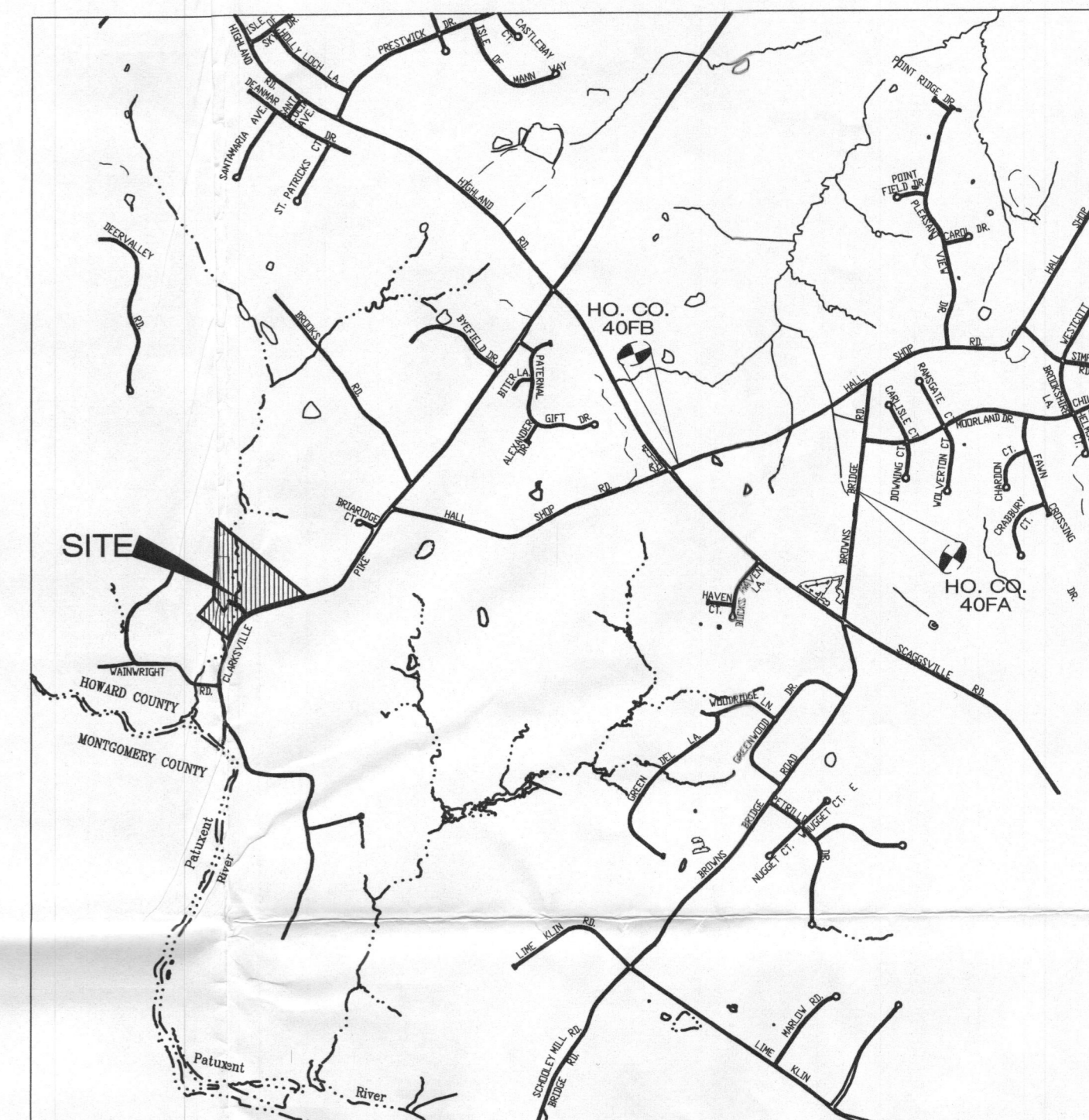
| SOILS CHART |        |                  |
|-------------|--------|------------------|
| SYMBOL      | HYDRIC | HYDROLOGIC GROUP |
| Co*         |        | C                |
| GaC         |        | B                |
| GgB         |        | B                |
| GmB*        | YES    | C                |
| GmC         |        | C                |
| MaD         |        | B                |
| MkF         |        | B                |

| NAME  |
|---|
| CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES       |
| GAILA LOAM, 8 TO 15 PERCENT SLOPES                          |
| GLENELG LOAM, 3 TO 8 PERCENT SLOPES                         |
| GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES                  |
| GLENVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES                 |
| MANOR LOAM, 15 TO 25 PERCENT SLOPES                         |
| MANOR-BRINKLOW COMPLEX, 25 TO 65 PERCENT SLOPES, VERY ROCKY |



PLAN VIEW

SCALE: 1" = 100'



VICINITY MAP

SCALE: 1" = 2000'

- LEGEND**
- EXISTING CONTOURS
- EXISTING TREELINE
- EXISTING STREAM
- EXISTING STRUCTURE
- PROPOSED STRUCTURE
- SLOPES 25% OR GREATER
- PROPOSED WELL
- PERCOLATION TEST LOCATION
- PROPOSED SEPTIC AREA
- GENERAL NOTES**
- 1) THE LOT SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
  - 2) THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 S.F. 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 SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER 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 REQUIRED.
  - 3) EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
  - 4) TOPOGRAPHY SHOWN IS BASED ON HOWARD COUNTY GIS AND IS TO BE VERIFIED BY BENCHMARK ENGINEERING, INC.
  - 5) THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
  - 6) THE PURPOSE FOR THIS PERCOLATION TEST PLAN IS TO CREATE A SEWAGE DISPOSAL EASEMENT IN SUPPORT OF BUILDING PERMIT APPLICATION.
  - 7) THE EXISTING WELL SHOWN ON THIS PLAN IS TO BE LOCATED BY BENCHMARK ENGINEERING, INC.
  - 8) ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION, CERTIFICATION PLAN.
- 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.
- PLAN PREPARED BY BRIAN F. CLEARY FOR BENCHMARK ENGINEERING, INC.

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM  
HOWARD COUNTY HEALTH DEPARTMENT

HOWARD COUNTY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

|     |      |          |
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| NO. | DATE | REVISION |
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| <b>BENCHMARK</b><br>ENGINEERS • LAND SURVEYORS • PLANNERS<br><b>ENGINEERING, INC.</b><br>8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043<br>(P) 410-465-6105 (F) 410-465-6644<br>60 THOMAS JOHNSON DRIVE • FREDERICK, MARYLAND 21702<br>(P) 301-371-3505 (F) 301-371-3506<br>WWW.BEI-CIVILENGINEERING.COM | <b>OWNER:</b><br><br>Mohamed Kamal and<br>Gwenneth Western El Sawi<br>13942 Clarksville Pike<br>Highland, Maryland 20777 | <b>PROJECT:</b><br><br>13886 AND 13942<br>CLARKSVILLE ROAD<br><br><b>LOCATION:</b><br>TAX MAP-40 GRID-15 PARCELS-40 AND 139<br>ZONED-RR-DEO 5th ELECTION DISTRICT<br>HOWARD COUNTY, MARYLAND<br><br><b>TITLE:</b><br>PERCOLATION TESTING PLAN<br><br><b>DATE:</b> MARCH, 2014<br><b>PROJECT NO.</b> 2517<br><b>SCALE:</b> AS SHOWN<br><b>DRAWING</b> 1 OF 1 |
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DESIGN: BC DRAFT: EDD