

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

Date: October 26th, 2010

To: Zacharia Fisch, P.E.
FSH Assoc.

From: Heidi Scott, R.S.
Development Coordination Section
Well & Septic Program

RE: PERCOLATION TEST RESULTS
6717 Mink Hollow Rd – Cowan Property

Percolation testing was conducted at the above referenced property on Oct. 20th, 2010. Results indicate unsatisfactory soil conditions for conventional onsite wastewater disposal.

All proposed tests on Lot 2 failed (606 thru 610). A four foot treatment zone could not be identified due to evidence of a shallow water table and deep clays with slow perc times. Sand mound testing can be considered during a declared wet season.

Test 605 on Lot 1 had a satisfactory perc rate and suitable soils. Tests 601 thru 604 failed due to excessive rock at shallow depths and test 605 passed.

Field data collected is shown on the Percolation Test Worksheets enclosed with this letter. Further review of this project is contingent upon submission of a new Percolation Test plan. If you have any questions regarding this evaluation please contact me at (410) 313-6287.

Enclosures
Cc:
File



APPLICATION

FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) _____ TEST TIME _____ AP 53404

AGENCY REVIEW: _____ DATE 9-28-10

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) Margaret Q. & Edward J. COWAN

DAYTIME PHONE _____ CELL _____ FAX _____

MAILING ADDRESS 6717 MINK HOLLOW ROAD HIGHLAND MD. 20777
STREET CITY/TOWN STATE ZIP

APPLICANT FSH Associates c/o Zach Fisch

DAYTIME PHONE (410) 567-5200 CELL _____ FAX (410) 796-1562

MAILING ADDRESS 6339 Howard Lane Elkridge MD. 21075
STREET CITY/TOWN STATE ZIP

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

PROPERTY LOCATION

SUBDIVISION/PROPERTY NAME COWAN PROPERTY LOT NO. 2

PROPERTY ADDRESS 6717 MINK HOLLOW RD. HIGHLAND MD. 20777
STREET TOWN/POST OFFICE

TAX MAP PAGE(S) 34 GRID 21 PARCEL(S) 287 PROPOSED LOT SIZE 4.7 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. Zacharia J. Fisch
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 _____

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H

REMARKS _____

SANITARIAN _____ BACKHOE _____ OTHERS _____

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

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



APPLICATION

FOR PERCOLATION TESTING AND SITE EVALUATION

TEST DATE(S) _____ TEST TIME _____

AP 534044

AGENCY REVIEW: _____

DATE 9-28-10

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) Margaret a. & Edward J. Cowan

DAYTIME PHONE _____ CELL _____ FAX _____

MAILING ADDRESS 6717 MINK HOLLOW ROAD HIGHLAND MD. 20777
STREET CITY/TOWN STATE ZIP

APPLICANT FSH Associates c/o Zach Fisch

DAYTIME PHONE (410) 567-5200 CELL _____ FAX (410) 796-1562

MAILING ADDRESS 6339 Howard Lane Elkridge MD. 21075
STREET CITY/TOWN STATE ZIP

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

PROPERTY LOCATION
SUBDIVISION/PROPERTY NAME COWAN PROPERTY LOT NO. 1

PROPERTY ADDRESS 6717 MINK HOLLOW RD. HIGHLAND MD. 20777
STREET TOWN/POST OFFICE

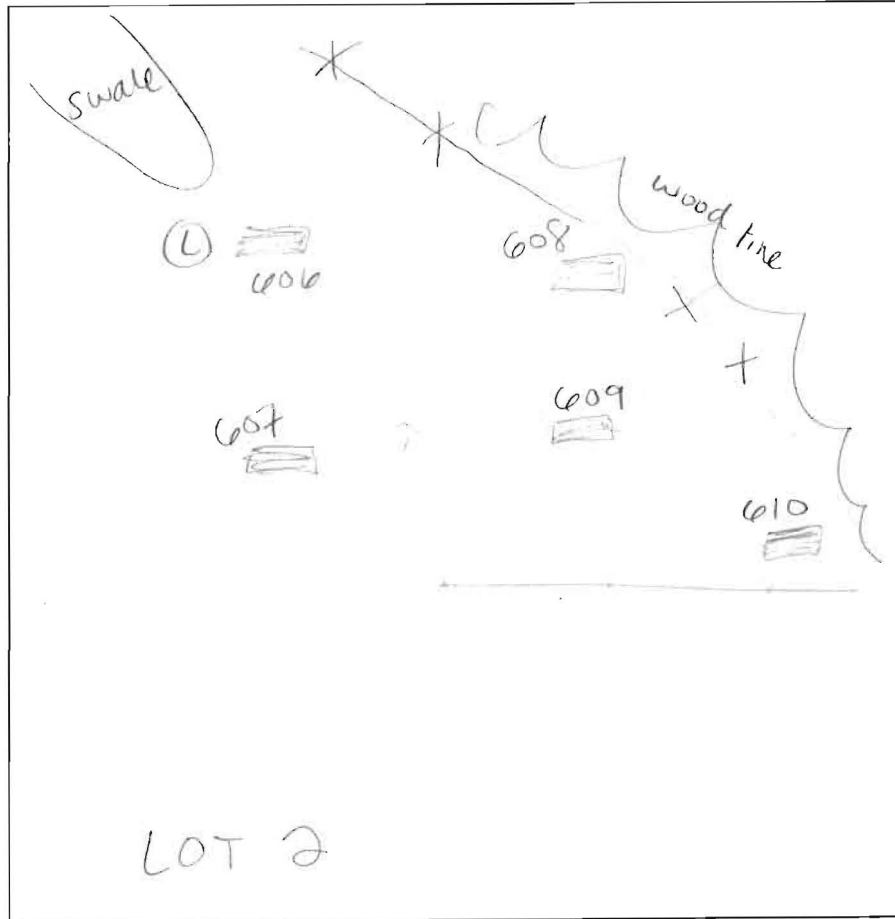
TAX MAP PAGE(S) 34 GRID 21 PARCEL(S) 287 EXISTING HOUSE PROPOSED LOT SIZE 6.3 Ac. ±

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. Zacharia Y. Fisch
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

AP _____



608
dk bml
5' yellow
brn sil
compact
yellow
brn
cl
green mottles
@ 7'
11' massive
Fe + Mn
dry

606
10" bml
sbk
red brn
scl
icsbk
↓
blue
cl
massive
Fe & Mn @ 9'
moist

10.5' red/pink
sl saprolite
common mica

607
bml
2csbk
yellow/red
brn cl
few boulders
↓
bml sl
yellow
brn sl
mottles @ 9'
yellow
fsl
bottom

Same as 607
cl & mica
yellow
sl
yellow
platy
mica
schist

610
red
fl scl
vf1
red scl
yellow
brn scl
platy mica
schist
vf1 scl
common mica

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
10-20-10	608	4' 11"	10:21	no movement			F
	606	10.5'	VISUAL				F
	607	4.5' / 11"	10:45	not to 2nd inch in 30 min			F
	609	11'	VISUAL				F
	610	9'	VISUAL		RX		F

REMARKS Lot 2

SANITARIAN HS BACKHOE Garland OTHERS _____

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

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

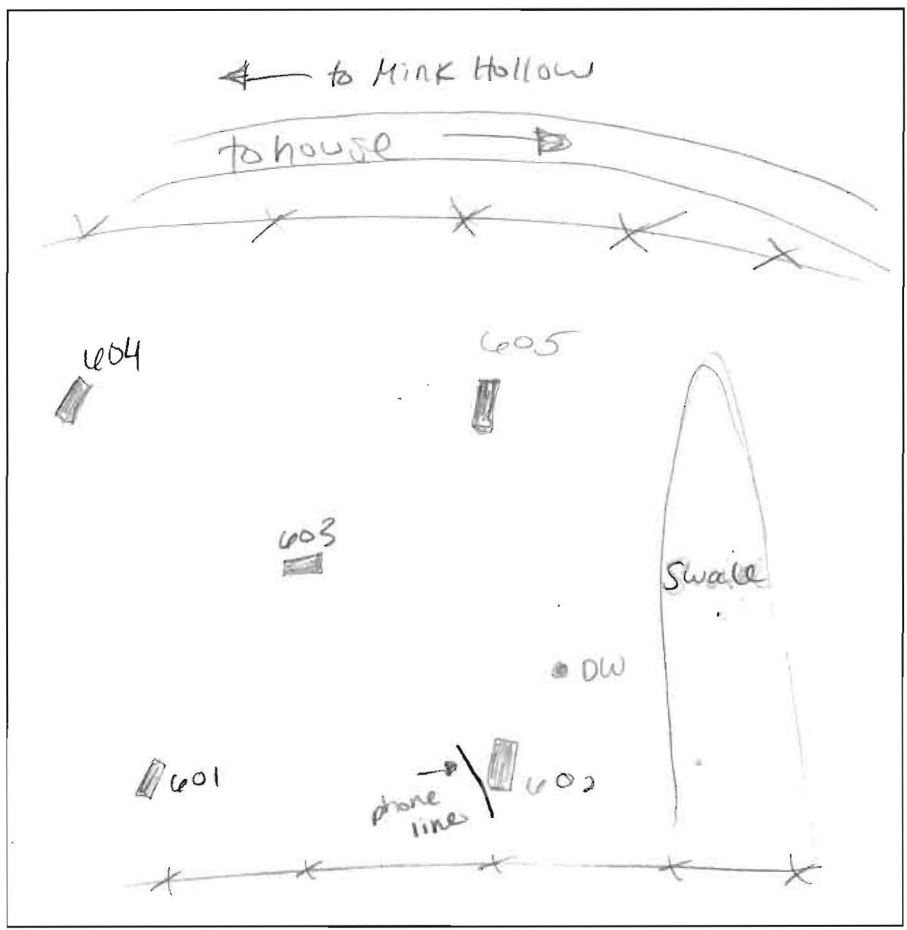
HP ↑

AP _____

10" **605**
 2.5' bm & sbl
 2 pl bm
 sel
 red bm
 sel
 ↓
 9' pink/bm
 fsl
 mica schist
 many mica
 & Saponite
 25% rx
 11'

604
 > 50% rx
 vpl sel
 large
 shale
 3'
 bottom

6" **603**
 3' dk bm &
 yellow/or
 sel
 yellow bm
 vch sel
 ↓
 red/pink
 vch fsl
 getting
 rockier ↓
 8.5' flaggy
 boulders
 HB

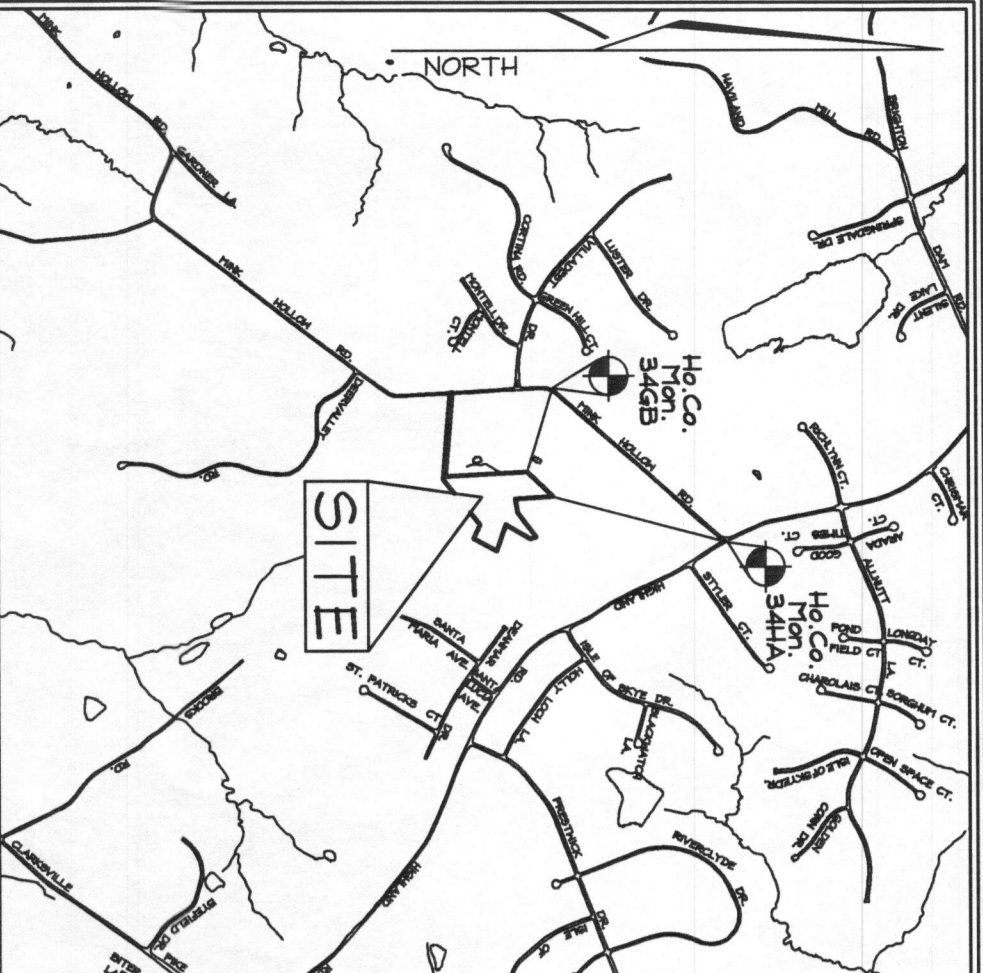


601
 platy
 sidewall
 fsl
 75%
 flaggy shale
 on upper side
 HB 6'

602
 ch bm &
 yellow
 ch sel
 3.5'
 yellow bm
 vch sel
 weathered
 rx (compact)
 ↓
 60% shale ~ 7.5'
 bm ↓
 vpl sel 8'

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
10-20-10	605	4' / 11"	11:31	11:33	11:36	3	P
	604	3'	VISUAL				F
	603	8.5'	VISUAL				F
	601	6'	VISUAL				F
	602	8'	VISUAL				F

REMARKS Ex. house
 SANITARIAN HS BACKHOE Carland OTHERS _____
 TEST HOLES USED IN SDA _____ AVG. PERC TIME _____ SQ. FT/BR _____
 TRENCH WIDTH _____ INLET DEPTH _____ MAX. BOT DEPTH _____ EFFECTIVE SW _____



LEGEND

Existing Contour	---
Existing Spot Elevation	○
Existing Trees to Remain	○
Existing Stream Buffer	—
Existing Soil Boundary Line	---
Existing Wetlands	○
Existing Septic Clean Out	○
Existing Drywell	○
Existing Septic Easement	○
Proposed Septic Easement	○
Existing Well	○
Proposed Well Area	○
Proposed House	○
Percolation Test Hole (PASSED)	○
Percolation Test Hole (FAILED)	○
Slope Slopes (Greater Than 25%)	○

GEODETIC SURVEY CONTROLS

Howard County Monument 3414
 N 57° 7' 40.1657" E 1,319,355.5442" E.I. 595.160
 Howard County Monument 3463
 N 85° 9' 46.7394" E 1,317,752.5006" E.I. 595.078

GENERAL NOTES

1. This property is zoned RR-DEG per the 02/02/04 Comprehensive Zoning Plan and the Camp Hill Zoning Regulations Amendments effective 07/28/06.
2. Private water and sewer will be used within this site.
3. Private water and sewer will be used within this site.
4. This area designates a private sewage easement, of at least 10,000 square feet as required by the Maryland State Department of the Environment, for individual sewage disposal. Improvements of any nature in this area are restricted. The County Health Officer shall have authority to grant adjustments to the private sewage easement. Recordation of a revised sewage easement shall not be necessary.
5. Existing utility, septic systems and sewage disposal easements within 100 feet of the site shall be shown.
6. Howard County Soil Map 134.
7. Existing well on Lot 1 to be Utilized.
8. The lots shown herein comply with the minimum ownership, width and lot area as required by the Maryland Department of the Environment.
9. Topography based on Howard County Aerial Topographic Survey flown in 2006, with two foot contours.
10. Any changes to a private sewage easement shall require a Revised Percolation Certification.
11. Deed dated 2004 to Present - Margaret G. Cowan and Edward J. Cowan.
 June, 1982 to July, 2004 - Margie B. Allison
 January 1973 to June, 1982 - Thomas Dawson Carby
 May, 1971 to January, 1973 Robert O. Keenan and Sarah G. O'Keefe
 March, 1964 to May, 1971 Douglas L. O'Keefe and Sarah G. O'Keefe.
12. Existing and proposed utility septic systems and sewage disposal systems located within systems have been shown.
13. All reasonable efforts to find the location of all surrounding wells and septic have been utilized by the engineer prior to building permit approval. It is the developer's responsibility to schedule the well drilling prior to building permit submission. It will not be considered 'government delay' if the well drilling holds-up the Health Department signature of the permit.

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
---	Glacioluvial loam, 3 to 15 percent slopes	B
---	Glacioluvial loam, 8 to 15 percent slopes	B
---	Glacioluvial loam, 0 to 3 percent slopes	B
---	Glacioluvial loam, 3 to 8 percent slopes	B
---	Glacioluvial silt loam, 3 to 8 percent slopes	C
---	Glacioluvial silt loam, 3 to 8 percent slopes	C
---	Higher loam, 8 to 15 percent slopes	B
---	Higher loam, 15 to 25 percent slopes	B
---	Higher silt loam, 0 to 3 percent slopes	C
---	Willshire silt loam, 0 to 3 percent slopes	C



Maryland State Grid (NAD 83/91)
 N 552 900
 1,318,400
 E



I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD SURVEY AND RECORDED BY THE OR UNDER THE DIRECT SUPERVISION AND BELIEF, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

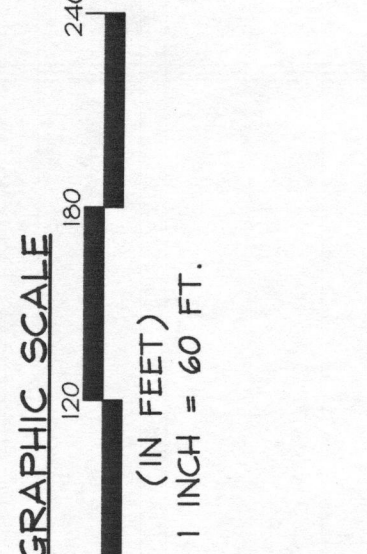
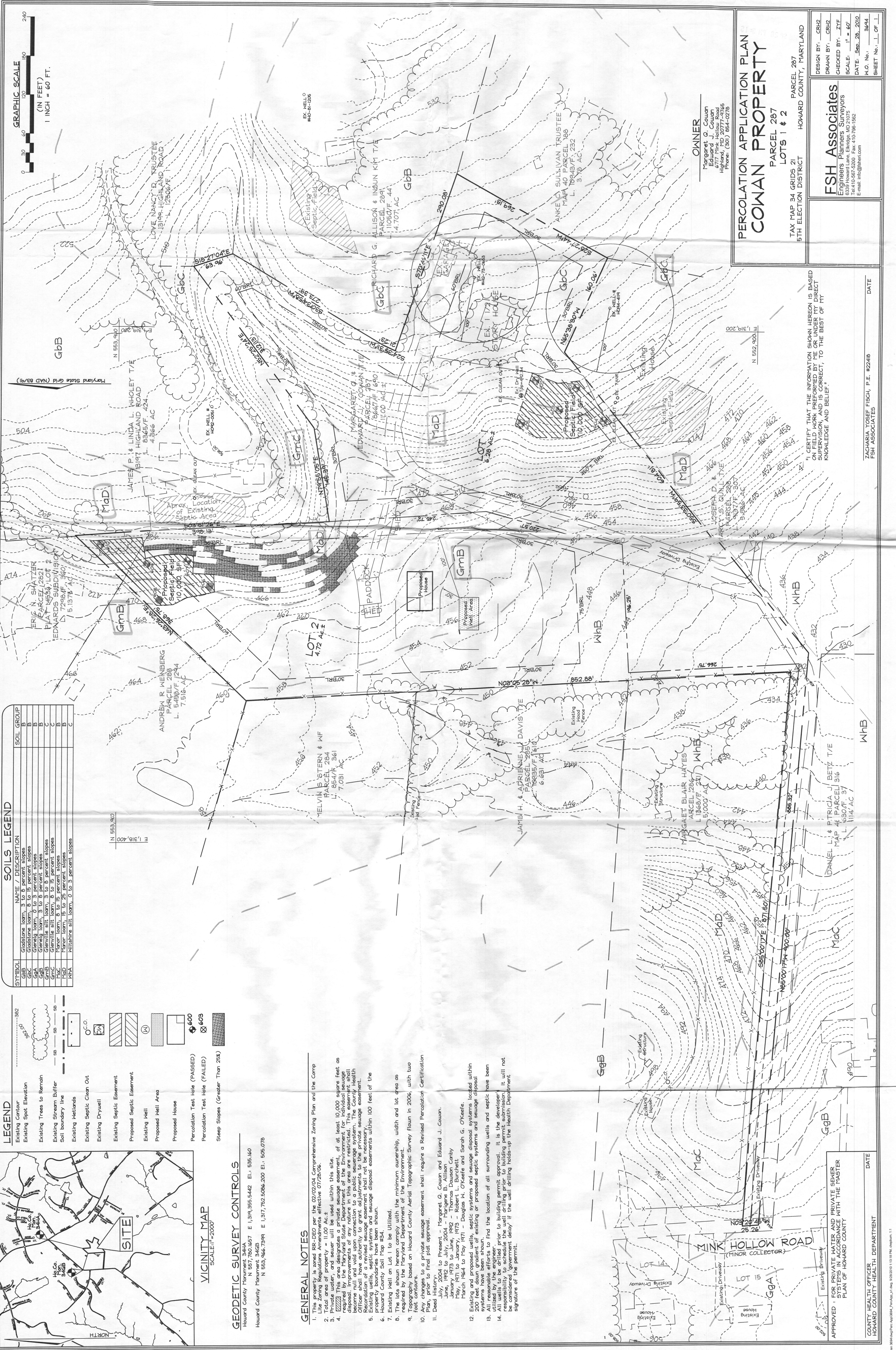
ZACHARIA TOSEF FISCH, P.E. #22416
 FSH ASSOCIATES
 DATE

PERCOLATION APPLICATION PLAN
COMAN PROPERTY
 PARCEL 287
 LOTS 1 & 2
 PARCEL 287
 TAX MAP 34 GRIDS 21
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER
 Margaret G. Cowan
 Edward J. Cowan
 6717 Pink Hollow Road
 Highland, MD 21769
 Phone: (301) 587-0216
 Fax: (301) 587-0216

DESIGN BY: CR12
CHECKED BY: ZTF
SCALE: 1" = 60'
DATE: Sep. 28, 2010
M.O. No.: 3694
SHEET No.: 1 OF 1

FSH Associates
 Engineers Planners Surveyors
 6339 Howard Lane, Elkridge, MD 21075
 Tel: 410-587-5200 Fax: 410-786-1982
 E-mail: info@fish.com

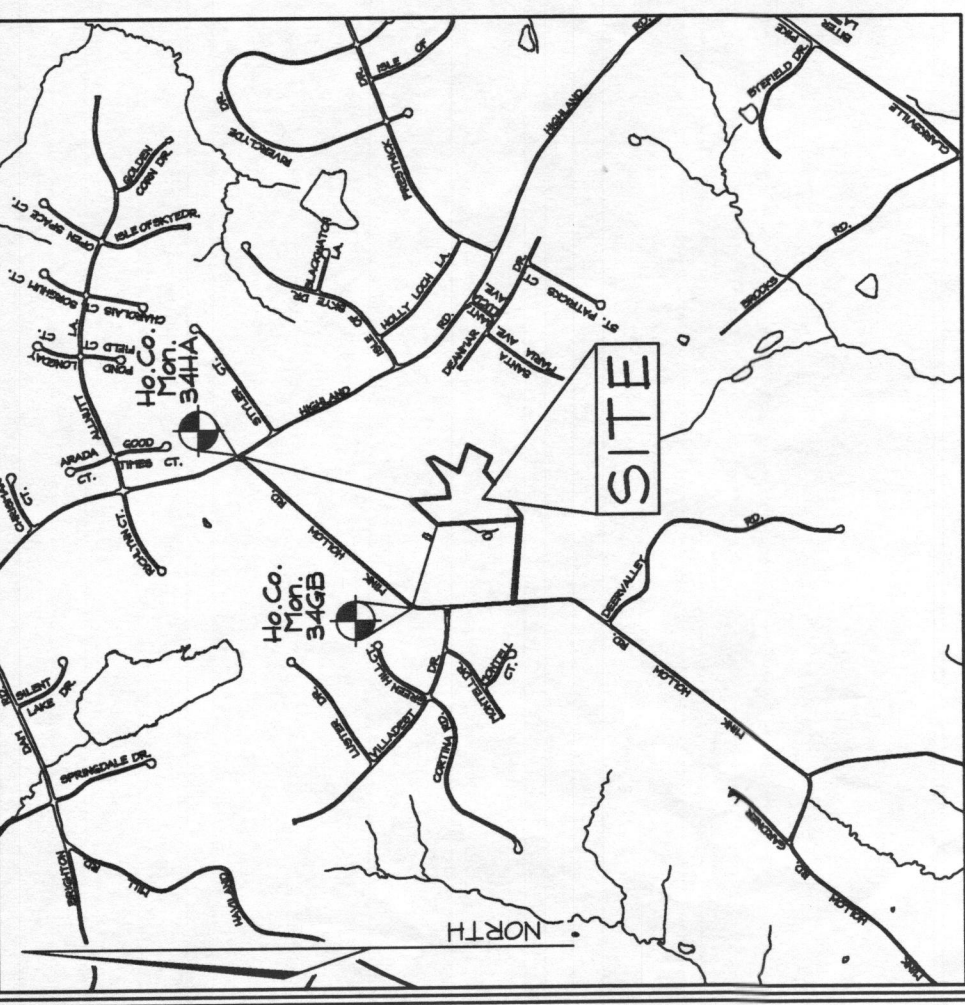


SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
(Symbol)	Claystone loam, 3 to 15 percent slopes	B
(Symbol)	Claystone loam, 8 to 15 percent slopes	B
(Symbol)	Glenoid loam, 0 to 3 percent slopes	B
(Symbol)	Glenoid loam, 3 to 8 percent slopes	B
(Symbol)	Glenville silt loam, 3 to 8 percent slopes	C
(Symbol)	Glenville silt loam, 15 to 25 percent slopes	C
(Symbol)	Factor loam, 15 to 25 percent slopes	C
(Symbol)	Factor loam, 15 to 25 percent slopes	C
(Symbol)	Killashine silt loam, 0 to 3 percent slopes	C

LEGEND

- Existing Contour
- Existing Spot Elevation
- Existing Trees to Remain
- Existing Stream Buffer
- Soil boundary line
- Existing Wetlands
- Existing Septic Clean Out
- Existing Drywell
- Existing Septic Easement
- Proposed Septic Easement
- Existing Well
- Proposed Well Area
- Proposed House
- Percolation Test Hole (PASSED)
- Percolation Test Hole (FAILED)
- Slope Stakes (Greater Than 25%)



GEODETIC SURVEY CONTROLS
Howard County Monument 344A
N 557,790.687 E 1,319,355.5442 El.: 535.160
Howard County Monument 346B
N 553,966.7599 E 1,317,752.5086-200 El.: 505.079

GENERAL NOTES

- This property is zoned RR-BEO per the 02/02/04 Comprehensive Zoning Plan and the Camp Life Zoning Regulations Amendments effective 07/26/06.
- Total area of property shown will be used within this site.
- This area designates a private sewage easement, of at least 10,000 square feet as required by the Maryland State Department of the Environment for individual sewage disposal. Improvements of any nature in this area are restricted. This easement shall be recorded with the deed for the property. The easement shall be subject to the authority of the Health Department to grant adjustments to the private sewage easement. Recondition of a revised sewage easement shall not be necessary.
- Existing wells, septic systems and sewage disposal easements within 100 feet of the Howard County Soil Map 58A.
- Existing Well on Lot 1 to be Utilized.
- The lots shown herein comply with the minimum ownership, width and lot area as required by the Maryland Department of the Environment.
- Topography based on Howard County Aerial Topographic Survey flown in 2006, with two foot contours.
- Any changes to a private sewage easement shall require a Revised Percolation Certification Plan, prior to final bid approval.
- Deed historic 2004 to Present - Margaret Q. Cowan and Edward J. Cowan.
June, 1992 to July, 2004 - Margene B. Allison
January 1973 to June, 1992 - Thomas Dawson Carby
May, 1971 to January, 1973 - Robert L. Burchett
March 1964 to May 1971 - Douglas M. O'Keefe and Sarah G. O'Keefe.
- Existing and proposed wells, septic systems and sewage disposal systems located within systems have been shown.
- Existing and proposed wells, septic systems and sewage disposal systems located within systems have been shown.
- All reasonable efforts to find the location of all surrounding wells and septic have been utilized by the engineer prior to building permit approval. It is the developer's responsibility to schedule the well drilling prior to building permit submission. It will not be considered a 'government delay' if the well drilling holds-up the Health Department signature of the permit.

PERCOLATION APPLICATION PLAN
COWAN PROPERTY
PARCEL 287
LOTS 1 & 2
TAX MAP 34 GRIDS 21
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

OWNER
Margaret Q. Cowan
Edward J. Cowan
6717 Pine Hollow Road
Hollywood, MD 21075
Phone: (301) 954-0278

DESIGN BY: CRH2
DRAWN BY: CRH2
CHECKED BY: ZTF
SCALE: 1" = 60'
DATE: Sep. 28, 2010
H.C. No.: 3654
SHEET No.: 1 OF 1

FSH Associates
Engineers Planners Surveyors
6539 Howard Lane, Elkridge, MD 21075
Tel: 410-581-5200 Fax: 410-796-1562
E-mail: info@fshe.com

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.

TACHARIA YOSHEE FISCH, P.E. #22418
DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWER SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER
HEALTH DEPARTMENT

DATE