

12-14-98
10:00 C.O.
12-15-98
11:00 C.O.

PERMIT

SEWAGE DISPOSAL SYSTEM

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

P 51147

A 48766

DISTRICT 3rd

HOWARD COUNTY HEALTH DEPARTMENT

BUREAU OF ENVIRONMENTAL HEALTH

~~XXXXXX~~ 410-313-2640

DATE 12/11/98

DATE SYSTEM APPROVED 12/15/98

INSPECTOR AU

INDEXED

Van Sant Plumbing & Heating IS PERMITTED TO INSTALL ALTER

ADDRESS 3 N. Main Street Mt. Airy, MD 21771 PHONE 682-6726

SUBDIVISION West Friendship Estates LOT 66 ROAD 3302 Fox Valley Drive

PROPERTY OWNER Hamilton Reed, LLC JAMES SIMMS

BUILDING PERMIT SIGNED

ADDRESS _____ **AND RETURNED** _____

SEPTIC TANK CAPACITY 1250 GALLONS 3-11-04-800146124-FINISH BASEMENT

NUMBER OF BEDROOMS 4

210 SQUARE FEET PER BEDROOM

LINEAR FEET OF TRENCH REQUIRED 210

TRENCHES - Trench to be 2 feet wide. Inlet 4.0 feet below original grade. Bottom maximum depth 8.0 below original grade. Effective area begins at 4.0 feet below original grade. 4 feet of stone below distribution pipe.

LOCATION - Begin trenches 145 feet up the (277.97') lot line and 40 feet off that same lot line as seen when facing the lot from Fox Valley Drive. Run trenches on contour toward the back right lot corner.

NOTES - No trench to exceed 100 feet in length. Provide 6" - 8" diameter cleanout and cap to grade or above on septic tank.

OK KM 8/28/98

*OK to install 2, 105' trenches AU

PLANS APPROVED BY Amy McMillen/Glen Savage

REVISED _____

DATE 8/26/98

COVER NO WORK UNTIL INSPECTED AND APPROVED

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM

NOTE: CLEANOUT REQUIRED EVERY 70 FEET OF SEWER LINE AND/OR AT 90° SWEEPS IN LINES FROM HOUSE TO DRAIN FIELDS. 90° ELBOWS NOT ACCEPTABLE.

NOTE: ALL PARTS OF SEPTIC SYSTEMS (I.E. TANK, DISTRIBUTION BOX TRENCHES) TO BE 100 FEET FROM WELL (UNLESS OTHERWISE SPECIFICALLY AUTHORIZED)

NOTE: IF DEEP TRENCH(ES) ARE USED CALL FOR INSPECTION BEFORE AND AFTER PLACING GRAVEL IN TRENCH(ES) 800 135016 J CALGABRE

NOTE: NO DRY WELL SHALL EXCEED 15 FOOT IN DIAMETER NO ABSORPTION TRENCH TO EXCEED 100 FEET IN LENGTH

NOTE: ALL PIPE FROM HOUSE TO SEPTIC TANK MUST BE CAST IRON OR SCHEDULE 35/40 PVC OR ABS **AND RETURNED**

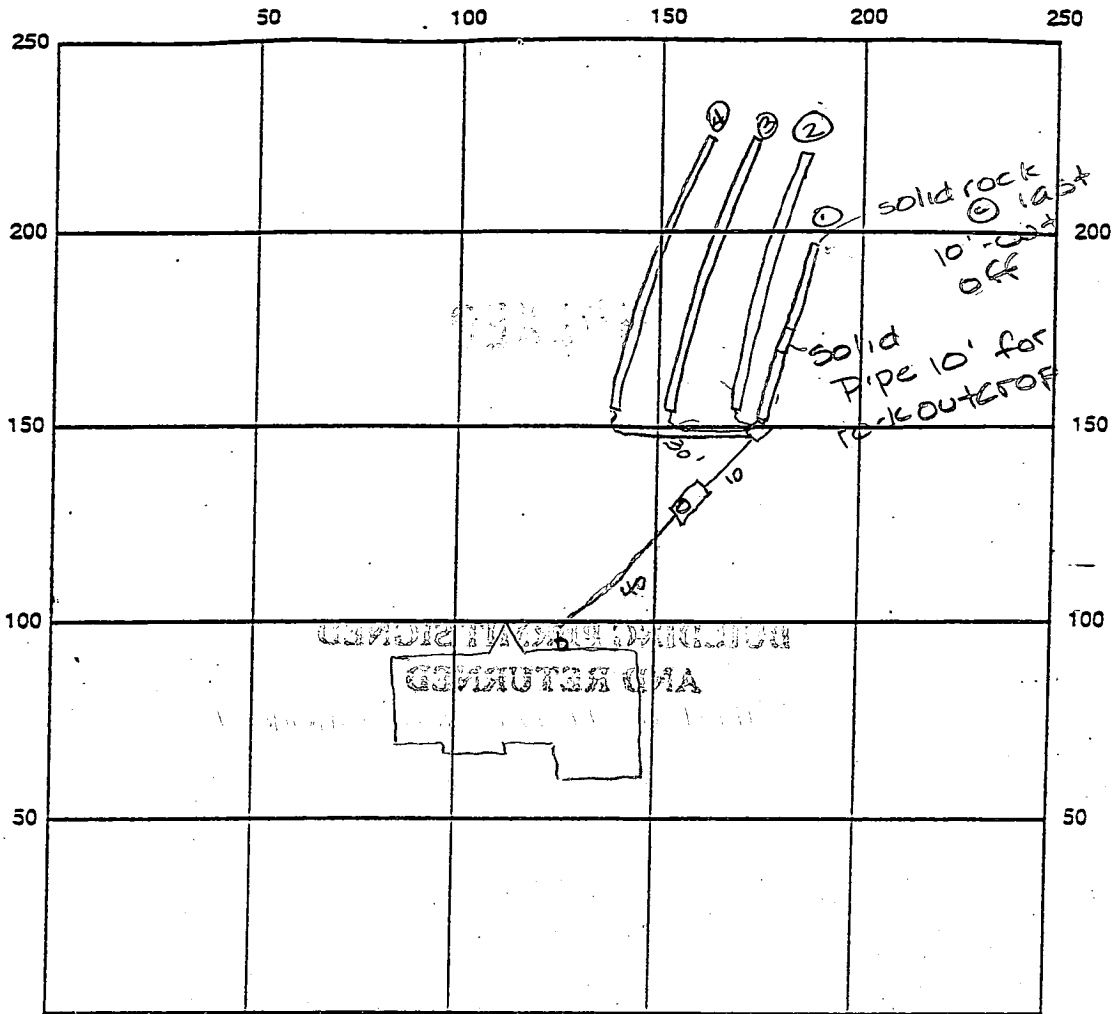
PERMIT VOID AFTER TWO YEARS

NOTE: INSTALL STAND PIPE ON SEPTIC TANK AND DRY WELL STAND PIPES MUST BE 6 INCHES IN DIAMETER CAST IRON, CONCRETE OR TERRA COTTA OR PVA OR ABS ACCEPTED. IF TOP OF SEPTIC TANK IS DEEPER THAN 3 FEET, MANHOLE TO GRADE REQUIRED. 119304

NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

*INSTALLER IS RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT

11/27/98



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

SEPTIC TANK LEVEL 1250 gal CLEANOUTS OK

DISTRIBUTION BOX LEVEL OK baffles in

DRAIN FIELD/TITLE DEPTH

1	2	3	4
5	5	5	5

 FT.

TRENCH WIDTH

1	2	3	4
2	3	3	3

 FT.

INLET DEPTH

1	2	3	4
4	3	3	3

 FT.

EFFECTIVE GRAVEL DEPTH

1	2	3	4
4	2	1	1

 FT.

TOTAL LENGTH

1	2	3	4
40	15	15	15

 FT. = 265 total

$40 \times 4 = 160$
 $225 \times 3 = 675$
 $160 + 675 = 835$ SQ. FT. $\leftarrow \frac{210}{4} = 240$

NUMBER OF TRENCHES 4

ONE SIDEWALL/BOTTOM AREA

1	2	3	4
4	2	1	1

 FT.

DRYWALL INSIDE DIAMETER FT.

EFFECTIVE DEPTH BELOW INLET

1	2	3	4
4	2	1	1

 FT.

ABSORBENT AREA SQ. FT.

REMARKS: 12/14/98 Specs changed to inlet @ 3.0 bottom @ 5.0 rock encountered
in trenches (40' of deep trench installed, solid over small rock patch)
OK to cover house to tank & 2 trenches 12/15/98 OK to cover all work
final

DATE SYSTEM APPROVED 12/15/98

INSPECTOR A McMiller

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

E. J. DeLoe 7-20-98
SIGNATURE OF ENGINEER DATE

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Steve Farnay 7-20-98
SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

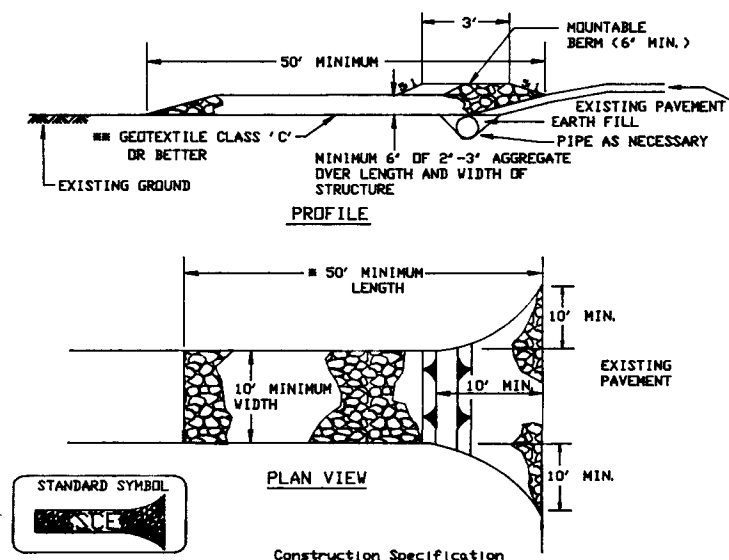
Christina Simms 7/28/98
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John W. Kelly 7/29/98
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1695).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, Dikes, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, (b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), 50D (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
TOTAL AREA OF SITE _____ ACRES
AREA TO BE ROOFED OR PAVED _____ ACRES
AREA TO BE VEGETATIVELY STABILIZED _____ ACRES
TOTAL CUT _____ CU.YDS.
TOTAL FILL _____ CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION _____ CU.YDS.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY OR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.



- Length - minimum of 50' (#30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. Write the plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or recycled on recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

STABILIZED CONSTRUCTION ENTRANCE - 2

NOT TO SCALE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
410-481-2955

F.C.C.#60527PLOTPLAN-LOT66.DWG

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSTALL SEDIMENT CONTROLS AS SHOWN ON PLAN. (1 day)
- PERFORM NECESSARY GRADING AND STABILIZE THE SITE. (2 days)
- CONSTRUCT DWELLING ON SITE. (90 days)
- AFTER THE SITE IS STABILIZED AND PERMISSION IS GRANTED FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROLS AND STABILIZE ANY REMAINING DISTURBED AREAS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION

LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS

APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ. FT.)

SEEDING

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 1 1/2 BUSHEL PER ANNUAL RYE (32 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS./ACRE OF WEEPING LOVEGRASS (07 LBS./1000SQ.FT.) FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28. PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELLS ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE 50D.

MULCHING

APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GALLONS PER ACRE (9 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES, ON SLOPES 8 FEET OR HIGHER, USE 340 GALLONS PER ACRE (9 GAL./1000 SQ.FT.) FOR ANCHORING.

PERMANENT SEEDING NOTES

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

SEEDING PREPARATION

LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS

APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 500 LBS. PER ACRE 0-20 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.) AND 500 LBS. PER ACRE (11.5 LBS./1000 SQ.FT.) OF 10-20-20 FERTILIZER.

SEEDING

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 80 LBS./ACRE (1.8 LBS./1000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS, DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROJECT SITE BY OPTION (1) - TWO TONS PER ACRE OF WELLS ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OPTION (2) - USE 50D; OPTION (3) - SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELLS ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEED.

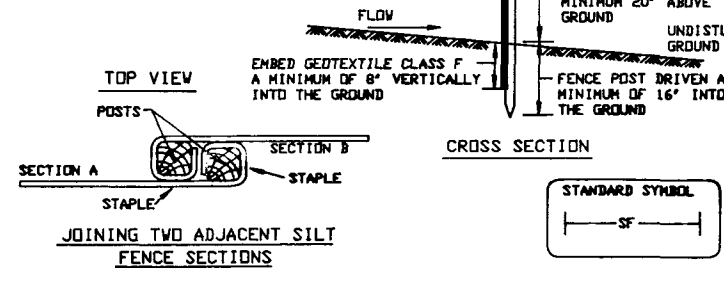
MULCHING

APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (9 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES, ON SLOPES 8 FEET OR HIGHER, USE 340 GALLONS PER ACRE (9 GAL./1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE

INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVETCH AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS./ACRE AT THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.



- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
Tensile Strength 50 lbs/in (min.) Test: HSNT 509
Tensile Modulus 20 lbs/in (min.) Test: HSNT 509
Flow Rate 0.9 gal./sq. ft./minute (max.) Test: HSNT 502
Filtering Efficiency 75% (min.) Test: HSNT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

SILT FENCE

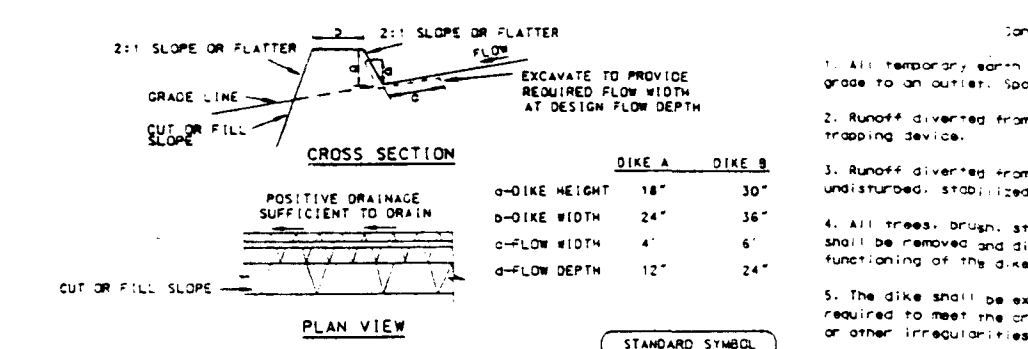
NOT TO SCALE

TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPEAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURE SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.

TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

WHERE THE TOPSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

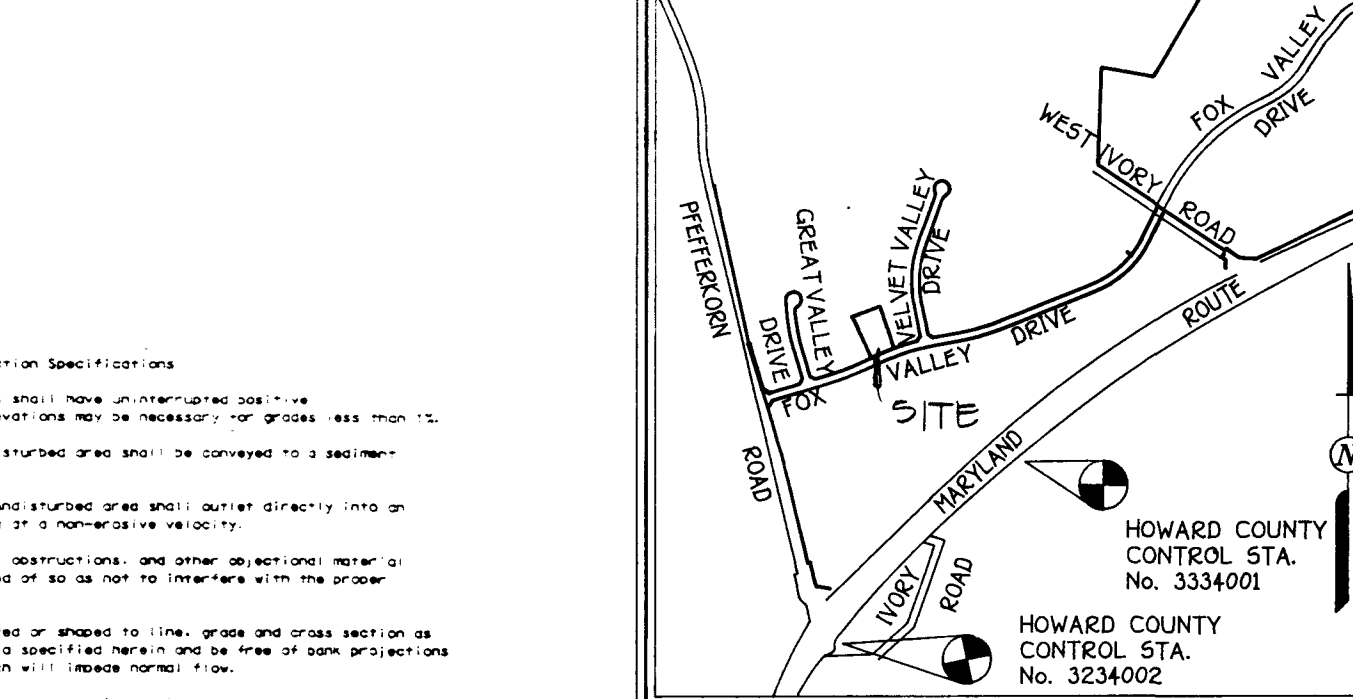
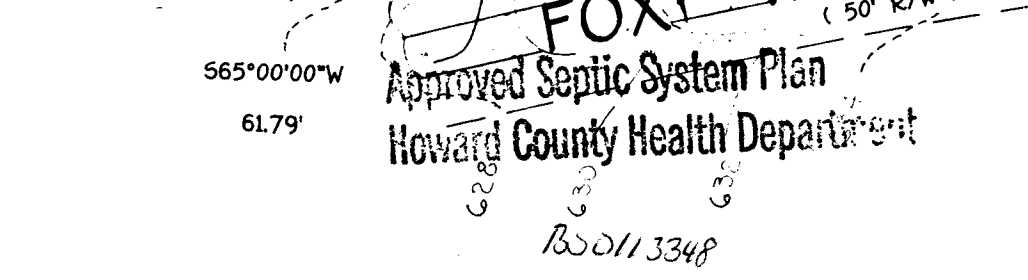
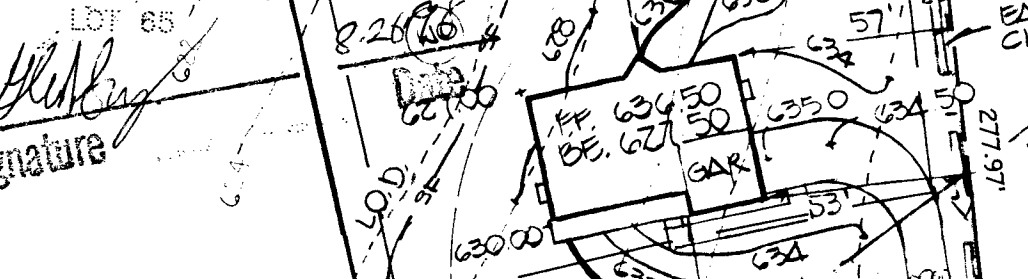
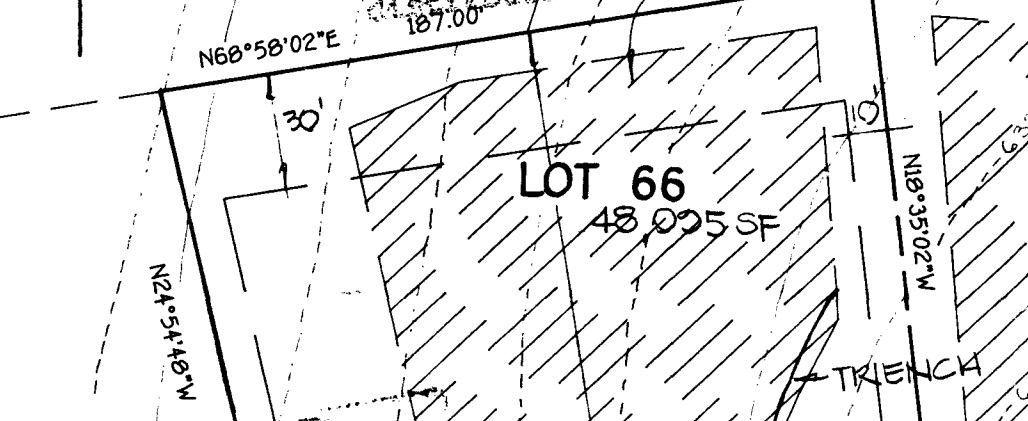
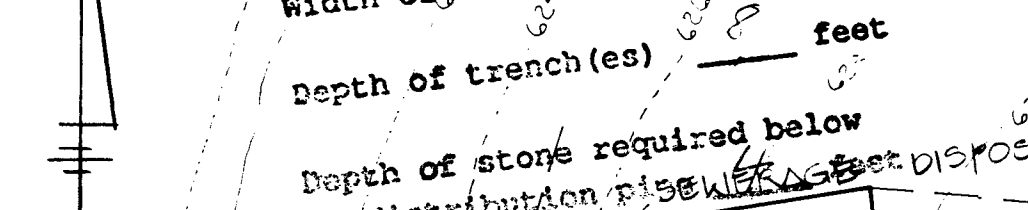


- All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
- Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
- Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area of a non-erosive velocity.
- All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
- The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of any projections or other irregularities which will impede normal flow.
- Fill shall be compacted by earth moving equipment.
- All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
- Inspection and maintenance must be provided periodically and after any construction event.

FLOW CHANNEL STABILIZATION

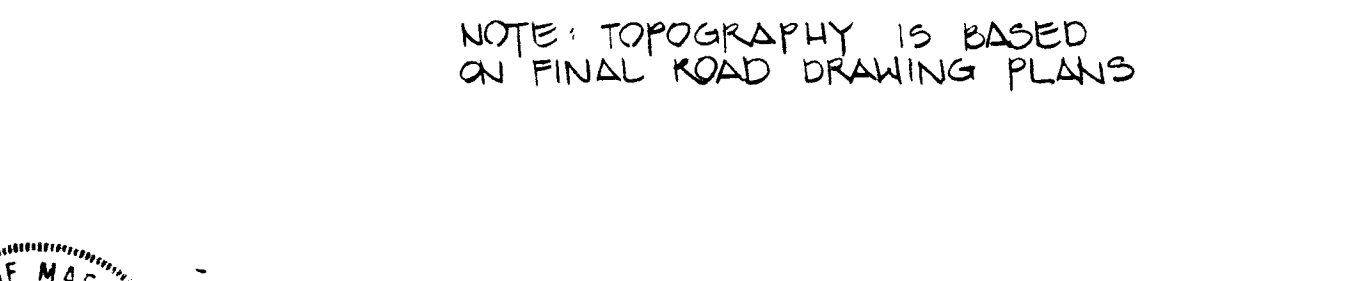
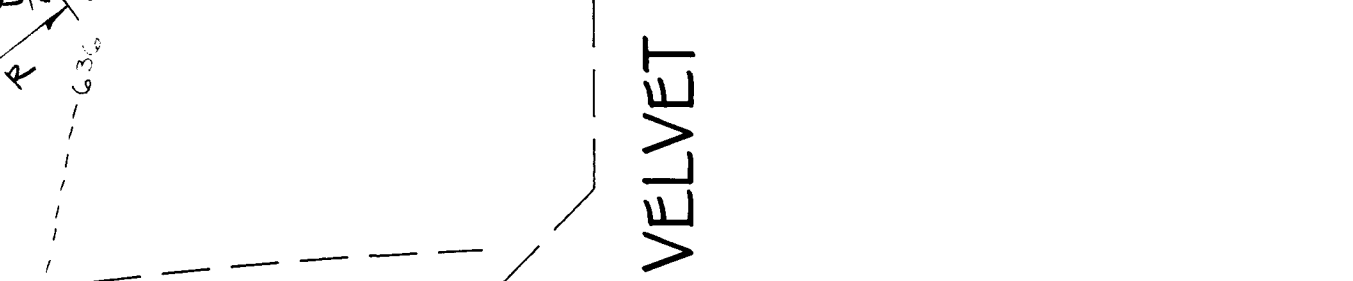
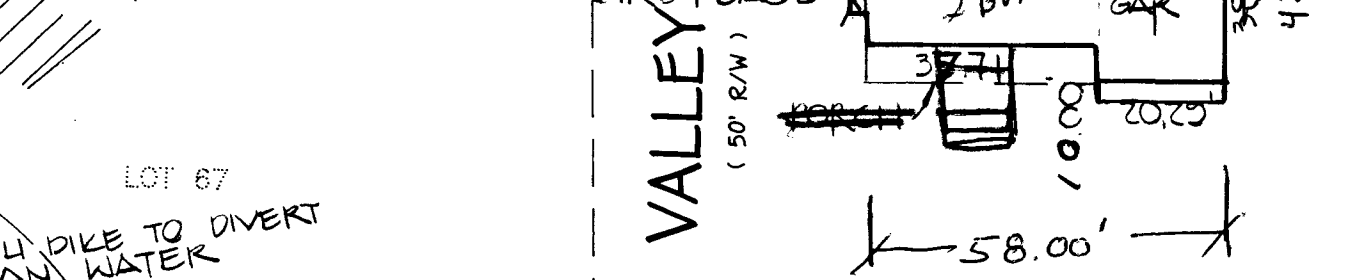
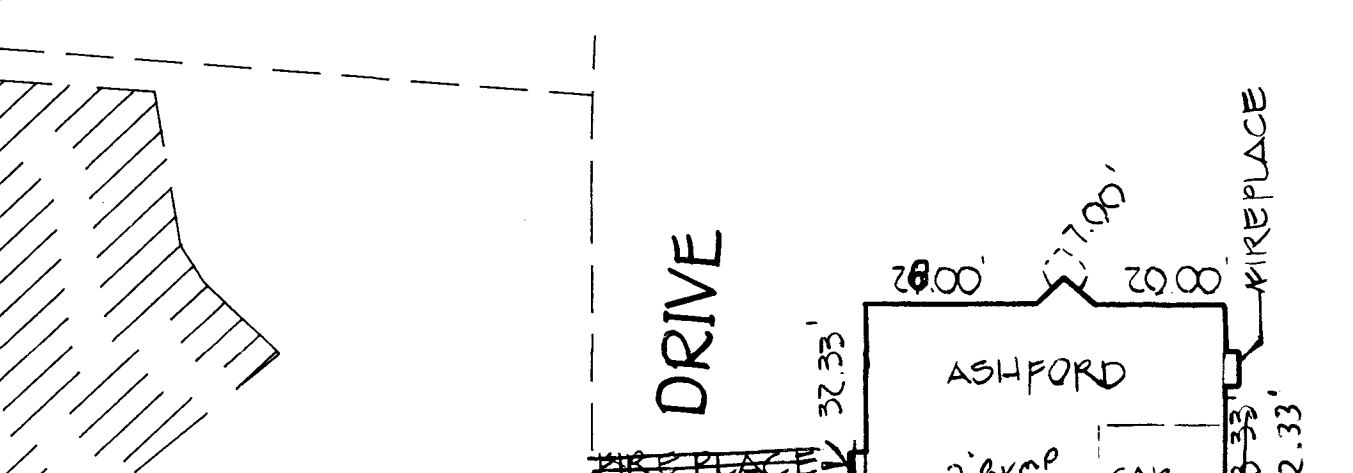
GRADE 0.5% MIN. 10% MAX.

- Seed and cover with straw mulch.
- Seed and cover with Erosion Control Matting or line with sod.
- 4" x 12" stone or recycled concrete equivalent pressed into the soil 7" minimum.



GENERAL NOTES

- SEPTIC EASEMENT SUBJECT TO HOWARD COUNTY HEALTH DEPARTMENT No. _____
- PROPOSED 1500 GALLON SEPTIC TANK No. _____
- FIRST FLOOR ELEVATION: 62.50
B. BASEMENT ELEVATION: 62.75
C. INVERT OF SEPTIC SYSTEM AT HOUSE: 62.50
D. INVERT IN AT SEPTIC TANK: 62.50
E. INVERT OUT AT SEPTIC TANK: 62.50
F. PROPOSED GRADE OVER SEPTIC TANK: 62.50
G. INVERT AT DISTRIBUTION BOX: 62.50
H. EXISTING GROUND OVER DISTRIBUTION BOX: 62.00
- LENGTH OF TRENCH TO BE DETERMINED AT TIME OF SEPTIC PERMIT ISSUANCE.
- CONTRACTOR / BUILDER TO VERIFY ELEVATIONS IN FIELD BEFORE BEGINNING ANY CONSTRUCTION.
- THERE IS NO BASEMENT SERVICE TO SEPTIC SYSTEM.



NOTE: TOPOGRAPHY IS BASED ON FINAL ROAD DRAWING PLANS

PLAN TO ACCOMPANY APPLICATION FOR BUILDING PERMIT
WEST FRIENDSHIP ESTATES
LOT 66

TAX MAP 22
THIRD ELECTION DISTRICT
SCALE: 1" = 50'

PARCEL 556
HOWARD COUNTY, MARYLAND
DATE: JULY 16, 1998

61108

8/5/98
Signature: *Blair Page* Date: 8/5/98

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER

C1 09412 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE

COUNTY NUMBER A-48766

DATE RECEIVED MM DD YY

DATE WELL COMPLETED

DEPTH OF WELL

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER HAMILTON REED STREET OR RFD FOX VALLEY DR TOWN W. FRIENDSHIP SUBDIVISION W. FRIENDSHIP EST. SECTION 2 LOT 66

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Top Soil, Sandy Sand Stone, MICKA, and Sand Stone MICKA.

GROUTING RECORD form including fields for grouting status, material type (CM, BC), and grout seal depth.

CASING RECORD form including casing type (ST, CO, PL, OT) and main casing dimensions.

OTHER CASING (if used) form for additional casing details.

SCREEN RECORD form including screen type (ST, BR, PL, HO, OT) and depth.

WELL HYDROFRACTURED status form with Yes/No options.

Completion status form with options for abandoned, electric log, or production well.

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04...

DRILLERS LIC. NO. 1 MSD116 and signature of Paul E. Wayne.

LIC. NO. 1 MSD113 and signature of Paul E. Wayne.

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

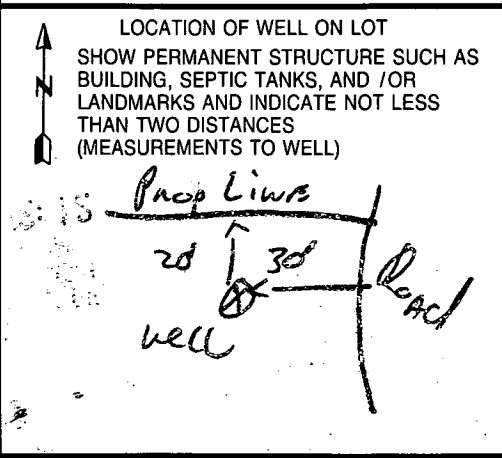
DEPTH (nearest ft.) table with rows for casing sections and columns for depth measurements.

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) form with fields for telescope casing and log indicator.

PUMPING TEST form including hours pumped, pumping rate, method used (Bucket), and pump type (S).

PUMP INSTALLED form including driller installation status, pump type, capacity, and pump specifications.



B 1 **8769** SEQUENCE NO. (MDE USE ONLY)
 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

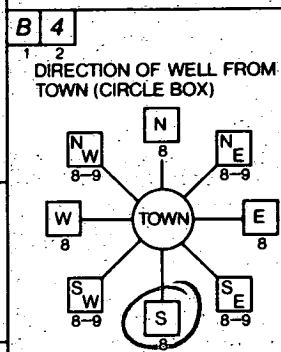
STATE OF MARYLAND
 PERMIT TO DRILL WELL
 please print or type

STATE PERMIT NUMBER
40-94-1332
 fill in this form completely

Date Received (APA) **1/13/97**
 OWNER INFORMATION
HAMELTON **Creed**
 Last Name Owner First Name
70805 **HICKORY RIDGE**
 Street or RFD
COLUMBIA **MD 21044**
 Town 70 State 72 Zip 76

B 3 LOCATION OF WELL
ACWARD
 COUNTY
WESTFRIENDSHIP EST
 23 SUBDIVISION
 SECTION **2** LOT **64**
WESTFRIENDSHIP
 52 NEAREST TOWN
 MILES FROM TOWN (enter 0 if in town) **1** MI

DRILLER INFORMATION
RAK MAYNE
 Driller's Name
Ralph Mayne Well Drilling
 Firm Name
9120 Brown Church rd Mt Airy
 Address
Ralph Mayne Nov 13 1997
 Signature Date



Fox Valley Dr.
 NEAR WHAT ROAD
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
30
 DISTANCE FROM ROAD
 ENTER FT OR MI **44**
 TAX MAP: _____ BLK: _____ PARCEL _____

B 2 WELL INFORMATION
 APPROX. PUMPING RATE (GAL. PER MIN.) **5**
 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) **500**

USE FOR WATER (CIRCLE APPROPRIATE BOX)
 HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
 INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
 PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
 TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
HOWARD **A-48766**
 COUNTY NAME COUNTY NO.
 STATE SIGNATURE _____ INSERT S
 DATE ISSUED **1/20/97** **11/24/98**
 CO SIGNATURE EXP. DATE
 NORTH GRID **527000** EAST GRID **825000**

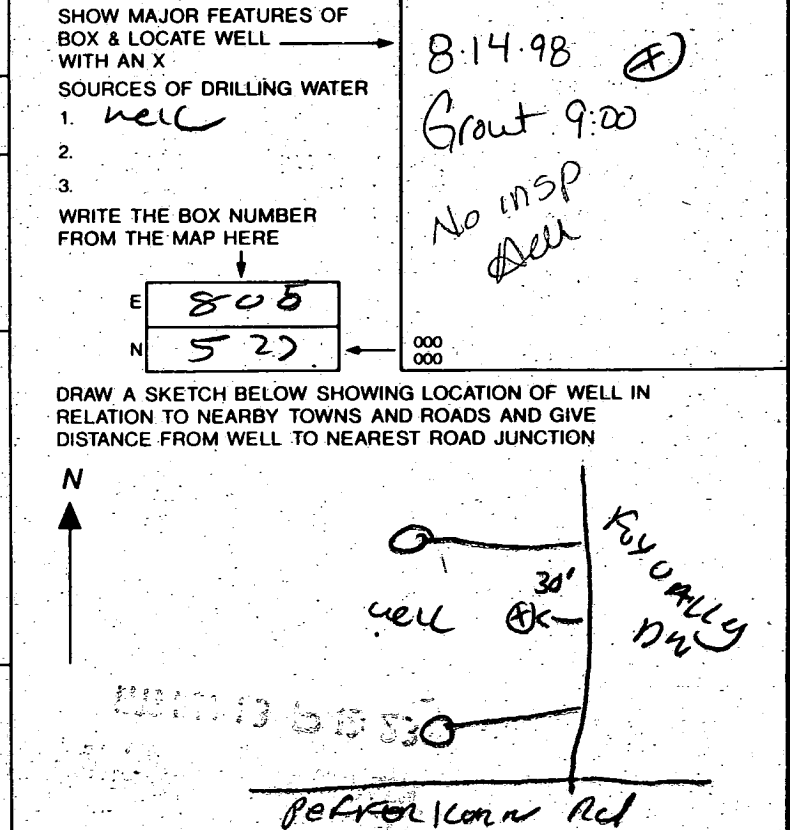
APPROXIMATE DEPTH OF WELL **759** FEET

APPROXIMATE DIAMETER OF WELL **6"** NEAREST INCH.

METHOD OF DRILLING (circle one)
 BORED (or Augered) JETTED Jetted & DRIVEN
 AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
 CABLE REVerse-ROTary Drive-POINT
 other _____

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
 THIS WELL WILL NOT REPLACE AN EXISTING WELL
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
 THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY - CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
 THIS WELL WILL DEEPEM AN EXISTING WELL
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) _____

Not to be filled in by driller (MDE OR COUNTY USE ONLY)
 APPROX. PERMIT NUMBER **GAP**
 FORCE **G3** WRITE INITIALS IN BOX PERMIT No. **40-94-1332**



APPLICATION

PERCOLATION TESTING

A 48766
P _____

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
PO BOX 476 ELLICOTT CITY, MARYLAND 21043
TELEPHONE 461-9933

DISTRICT _____
DATE 12/15/92

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I, HEREBY, APPLY FOR THE NECESSARY TEST IN ORDER TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER West Friendship New Town Co. ~~Hamilton Reed, LLC~~

ADDRESS c/o Land Design & Development PHONE (410) 740-2100
10805 Hickory Ridge Road, Columbia, MD 21044

PROSPECTIVE BUYER N/A

ADDRESS _____ PHONE _____

PROPERTY LOCATION:

SUBDIVISION West Friendship Estates LOT NO 166

ROAD AND DESCRIPTION Pfefferkorn Road & Route 32 (3302 FOX VALLEY DRIVE)

TAX MAP 15 PARCEL # 32 & 42, 533

~~BLDG. PERMITS SIGNED~~
AND RETURNED 8-26-98
Serial B00113348

SIZE OF LOT 1 + acres TYPE BLDG single family dwelling
(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.

Mark S. Reich
(SIGNATURE OF APPLICANT)

APPROVED BY _____ FOR _____ DATE _____

REJECTED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____ DATE _____

REASONS FOR REJECTION OR HOLDING _____

HD-216

THIS IS NOT A PERMIT

SOIL PROFILE

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	

REMARKS _____

TYPE OF SOIL _____

TESTED BY _____ ALSO PRESENT _____

APPLICATION

PERCOLATION TESTING

A _____

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 _____

ADDRESS _____ PHONE _____

AGENT OR PROSPECTIVE BUYER _____

ADDRESS _____ PHONE _____

PROPERTY LOCATION:

SUBDIVISION _____ LOT NO. _____

ROAD AND DESCRIPTION _____

TAX MAP _____ PARCEL # _____

SIZE OF LOT _____ TYPE BLDG. _____
(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.

(SIGNATURE OF APPLICANT)

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

9#48766

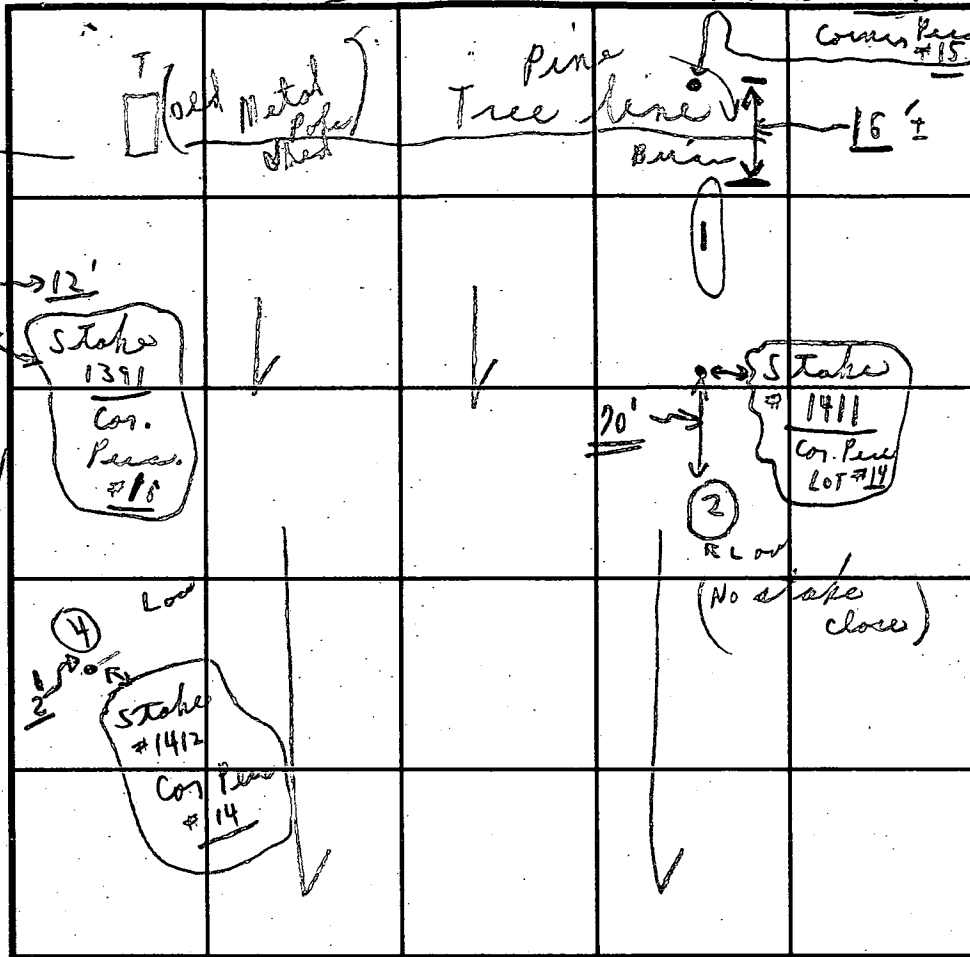
COUNTY#

SOIL PROFILE

#14

New 59

Stake #1397



SOIL PROFILE

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

Plehekorn Road

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
12/21/92	#1397	4'-8"	1:41	1:46	1:46	1:51	5 [±] min
	#1	12'	ALL Loam below clay				
	#1411	4 1/2'	1:49	1:52	1:52	2:03	11 min
	#2	11'	Loam				
	#1391	3 1/2'	2:01	2:05	2:05	2:16	11 min
	#3	8'	2:01	2:05	2:05	2:10	5 min
	#1412	Voids					
	#4	13'	0-5 1/2' clay; Loam		5 1/2'	7:13'	

For Lots #14, 15, 16 11' long

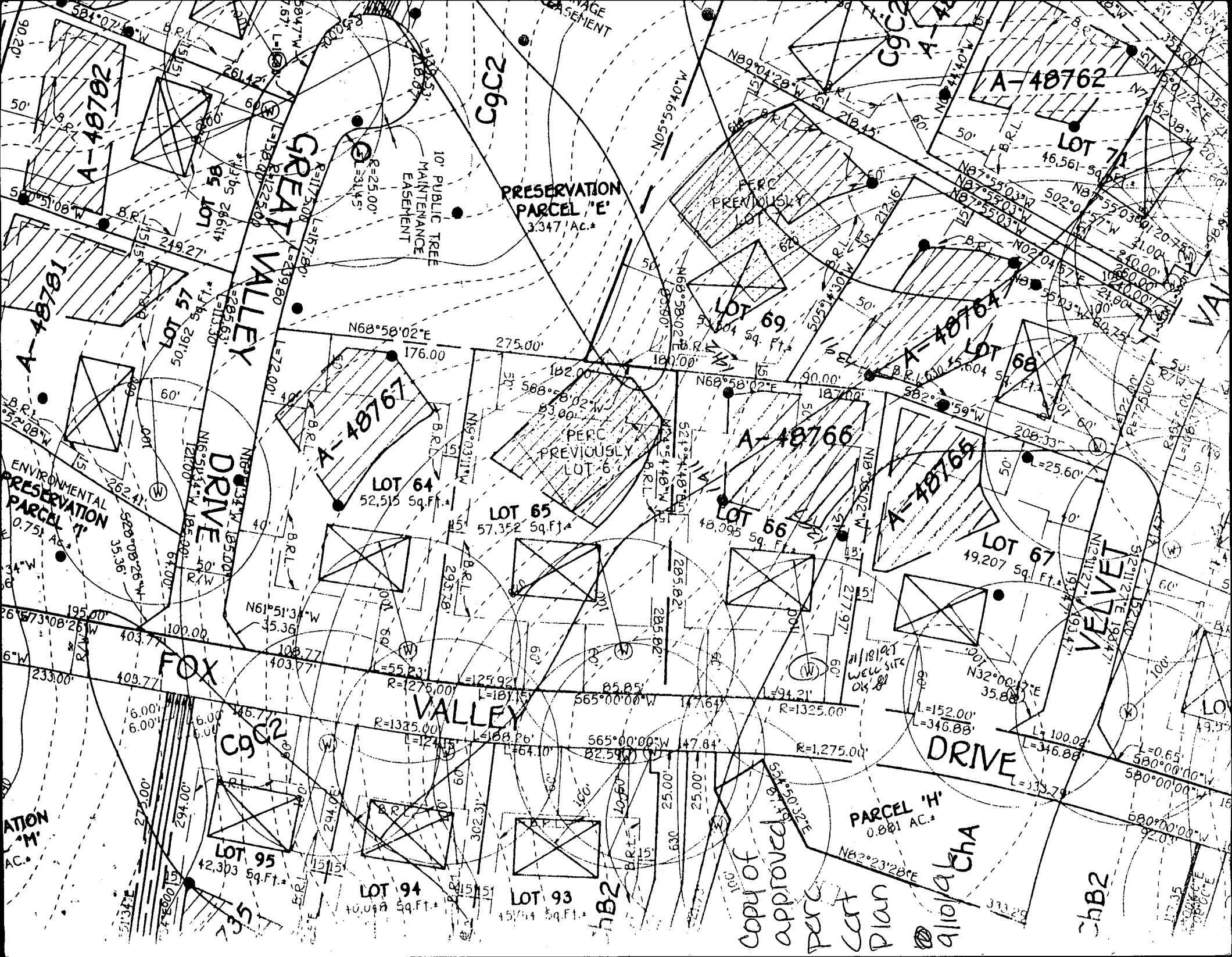
REMARKS Tests in open, Tests near stake, big pit holes

TYPE OF SOIL _____

TESTED BY C.B.S. ALSO PRESENT (OK O. + helper)

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME 9 min TRENCH WIDTH 2'

INLET DEPTH 4' MAXIMUM BOTTOM DEPTH 8' SQ. FT./BEDROOM 210 ft²



A-48782

A-48781

ENVIRONMENTAL PRESERVATION PARCEL 'I' 0.751 AC.

PARCEL 'M' 0.881 AC.

GREAT VALLEY DRIVE

FOX VALLEY DRIVE

DRIVE

VELVET DRIVE

PRESERVATION PARCEL 'E' 3.347 AC.

PERC PREVIOUSLY LOT 6

PERC PREVIOUSLY LOT 69

A-48766

A-48762

A-48765

PARCEL 'H' 0.881 AC.

copy of approved perc cat Plan alio/a cha

C9C2

C9C2

HB2

HB2

LOT 94 10,098 Sq. Ft.

LOT 93 15,764 Sq. Ft.

LOT 95 42,303 Sq. Ft.

LOT 64 52,515 Sq. Ft.

LOT 65 57,352 Sq. Ft.

LOT 66 48,095 Sq. Ft.

LOT 67 49,207 Sq. Ft.

LOT 69 53,004 Sq. Ft.

LOT 68 51,701 Sq. Ft.

LOT 71 46,561 Sq. Ft.

10' PUBLIC TREE MAINTENANCE EASEMENT

WELL SITE OK

ONE (92 LBS./ACRE) FERTILIZER
 ONE (92 LBS./ACRE) FERTILIZER
 ONE (92 LBS./ACRE) FERTILIZER
 ONE (92 LBS./ACRE) FERTILIZER
 ONE (92 LBS./ACRE) FERTILIZER

7/12/99
 Shown 14x24"
 deck well has no
 impact to the existing
 well or septic

Width of trench(es) 2 feet
 Depth of trench(es) 8 feet

Depth of stone required below
 distribution pipe 2 feet

APRIL 30, AND AUGUST
 WITH 100 LBS. PER ACRE (23
 31 TALL FESCUE, FOR THE
 SEED WITH 60 LBS./ACRE
 31 TALL FESCUE AND
 1,000 SQ.FT.) OF WEEPING
 PERIOD OF OCTOBER 16 THROUGH
 SITE BY: OPTION (1) - TWO TONS PER
 ED STRAW MULCH AND SEED AS SOON AS
 OPTION (2) - USE 500; OPTION (3) -
 KENTUCKY 31 TALL FESCUE AND MULCH
 WELL ANCHORED STRAW. ALL SLOPES SHOULD

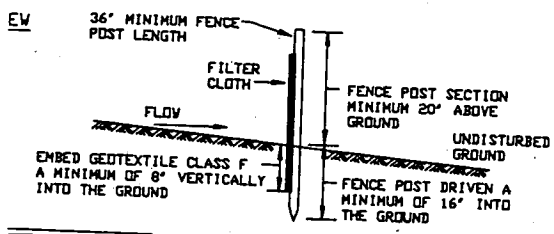
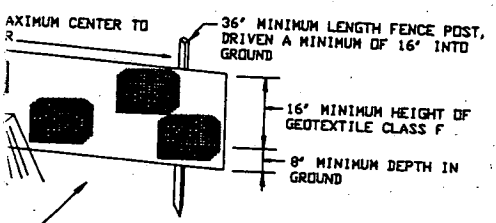
2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.FT.)
 SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.
 CH IMMEDIATELY AFTER APPLICATION USING 200
 ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED
 FLAT ACRES. ON SLOPES 8 FEET OR HIGHER USE
 PER ACRE (8 GAL./1,000 SQ.FT.) FOR ANCHORING.

SEEDED AREAS AND MAKE NEEDED REPAIRS,
 S AND RESEEDINGS.

PONDS SUBSTITUTE CHEMUNG CROWN VETCH AT 15
 AND KENTUCKY 31 TALL FESCUE AT 40 LBS./ACRE AS
 G REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS
 MARCH 1 TO APRIL 30.

Approved Septic System Plan
 Howard County Health Department
 BOO/B348

Signature
 [Handwritten Signature]



SECTION B CROSS SECTION

WELL HYDROFRACTURED	yes <input checked="" type="checkbox"/> Y	no <input type="checkbox"/> N
CIRCLE APPROPRIATE LETTER		
A	A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED.	
E	ELECTRIC LOG OBTAINED	
P	TEST WELL CONVERTED TO PRODUCTION WELL	
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.		

DRILLERS LIC. NO. 1 M S D 116
 [Signature]
 DRILLERS SIGNATURE
 (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 M S D 117

A	8	9	11	15	17	21
C						
H	23	24	26	30	32	36
S						
C						
R	38	39	41	45	47	51
E						
N						
SLOT SIZE 1 <u>2</u> 3						
DIAMETER OF SCREEN _____ (NEAREST INCH)						
from _____ to _____						

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above } LAND SURFACE

- below } 2 (nearest foot)

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

Prop Lines

