

LAYOUT 11/19/04 - 11A INSP 4 _____
INSP 2 _____ INSP 5 _____
INSP 3 _____ INSP 6 _____

ISSUE DATE: 11/18/2004

APPROVAL DATE: 2/16/05

PERMIT INDEXED

P 521585

A 518633

**ON-SITE SEWAGE DISPOSAL SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
3525-H ELLICOTT MILLS DRIVE, ELLICOTT CITY, MD 21043**

J Joseph Gartland, Inc IS PERMITTED TO INSTALL ALTER

ADDRESS: 1835 West Old Liberty Road-21157 PHONE NUMBER: 410-875-2400

SUBDIVISION: Vana Property LOT NUMBER: _____

ADDRESS: 478 Gaither Road PROPERTY OWNER: Dorsey Family Homes

SEPTIC TANK CAPACITY (GALLONS): 1000 OUTLET BAFFLE FILTER REQUIRED

PUMP CHAMBER CAPACITY (GALLONS): 1000 COMPARTMENTED TANK REQUIRED

NUMBER OF BEDROOMS: 3

SQUARE FEET PER BEDROOM: 180

LINEAR FEET OF TRENCH REQUIRED: 180/160 HOUSE SERVED BY PUBLIC WATER

TRENCHES:	Trench to be 3.0 feet wide. Inlet 3.0 feet below original grade. Bottom maximum depth 4.5 feet below original grade. Effective area begins at 4.0 feet below original grade. 1.5 feet of stone below distribution pipe. ✓
LOCATION:	Place the distribution box as shown on the approved building permit plan.
NOTES:	

PLANS APPROVED: John Boris / KN DATE: 8/3/04

NOTES: PERMIT VOID AFTER 2 YEARS
CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION INSPECTION FOR ALL INSTALLATIONS
WATERTIGHT SEPTIC TANKS REQUIRED
ALL PARTS OF SEPTIC SYSTEM SHALL BE 100 FEET FROM ANY WATER WELL UNLESS SPECIFICALLY AUTHORIZED
MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS UNLESS SPECIFICALLY AUTHORIZED
CONTRACTOR RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE REGULATIONS, GUIDELINES AND THE TERMS OF THIS PERMIT

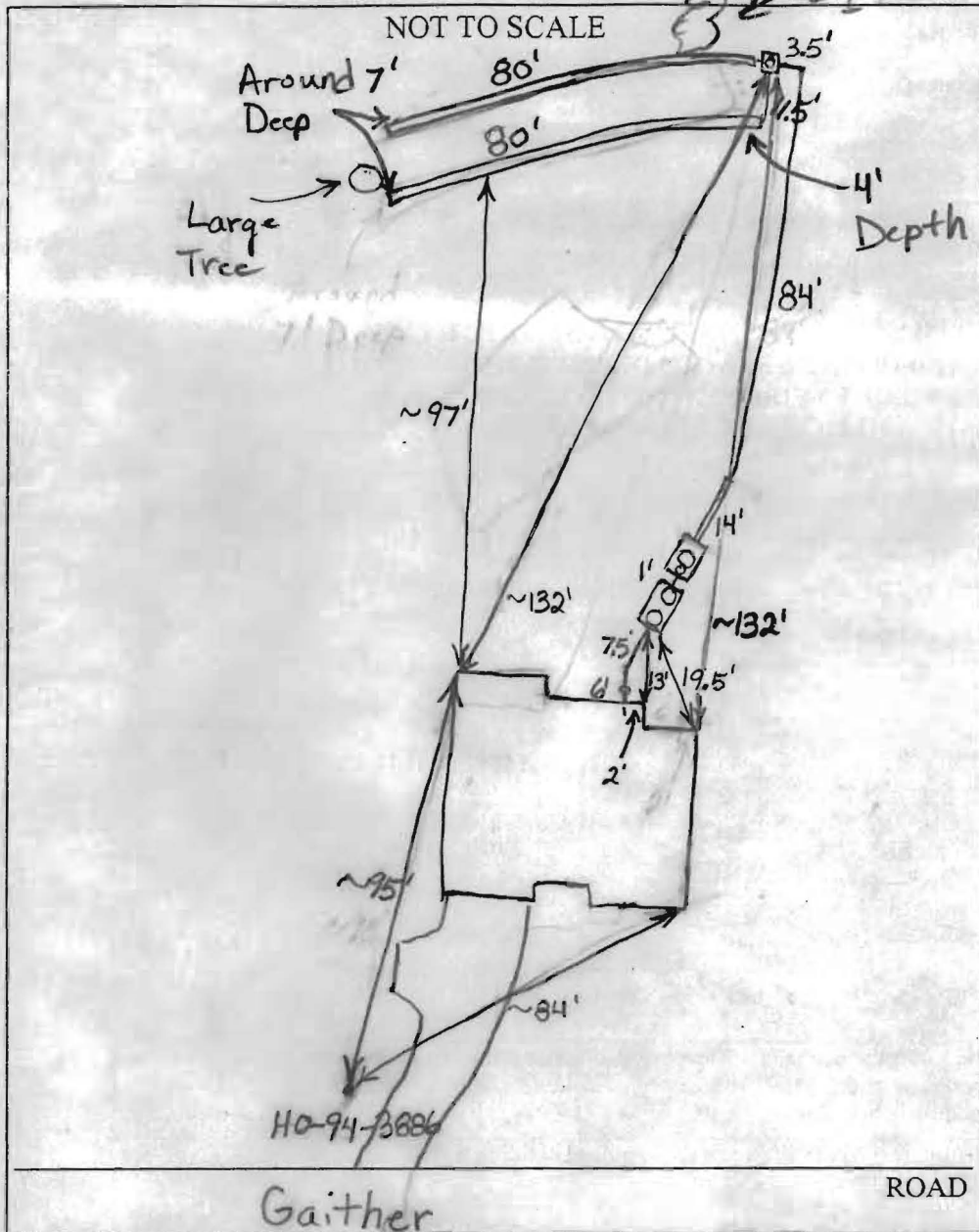
**NEITHER THE HOWARD COUNTY COUNCIL OR THE HEALTH DEPARTMENT IS
RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM
PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT
CALL 410-313-1771 FOR INSPECTION OF SEPTIC SYSTEM**

BUILDING PERMIT SIGNED DO NOT LEAVE ANY REQUEST FOR INSPECTION ON VOICEMAIL

AND RETURNED

21604 800151561 - PROpane TANK

A518633



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	2.5'-5.5'	4'-7'
NUMBER OF TRENCHES		2
TOTAL LENGTH		160'
ABSORPTION AREA		480' Sidewall
DISTRIBUTION BOX LEVEL		Levelers
DISTRIBUTION BOX BAFFLE		Yes
DISTRIBUTION BOX PORT		Yes

SEPTIC TANK DATA		
SEPTIC TANK 1 LEVEL ✓		
2-Comp.	CAPACITY	1500 GAL
	SEAM LOC	Top
	TANK LID DEPTH	~1'
	BAFFLES	Yes
	BAFFLE FILTER	No
	MANHOLE LOC	Front+Back
	6" PORT LOC	None
	WATERTIGHT TEST	No
SEPTIC TANK 2 LEVEL ✓		
	CAPACITY	1000 GAL
	SEAM LOC	Top
	TANK LID DEPTH	~1'
	BAFFLES	Front
	BAFFLE FILTER	No
	MANHOLE LOC	Middle
	6" PORT LOC	Front
	WATERTIGHT TEST	No

PRE-CONSTRUCTION 11/19/04 - SRA staked, contours not accurate.

INSTALLATION f.t area. Install on best contour, won't be exact (50)

11/22/04 Trenches installed but are too deep near left end of top easement - 7'. Topography on plate is wrong, even around repair area. Trenches put in by contractor as best possible but should have been shorter to reduce depth. Need pump and alarm test. (BB) 2/16/05 Pump and alarm working. (BB)

BUILDING PERMIT SIGNED
AND RETURNED

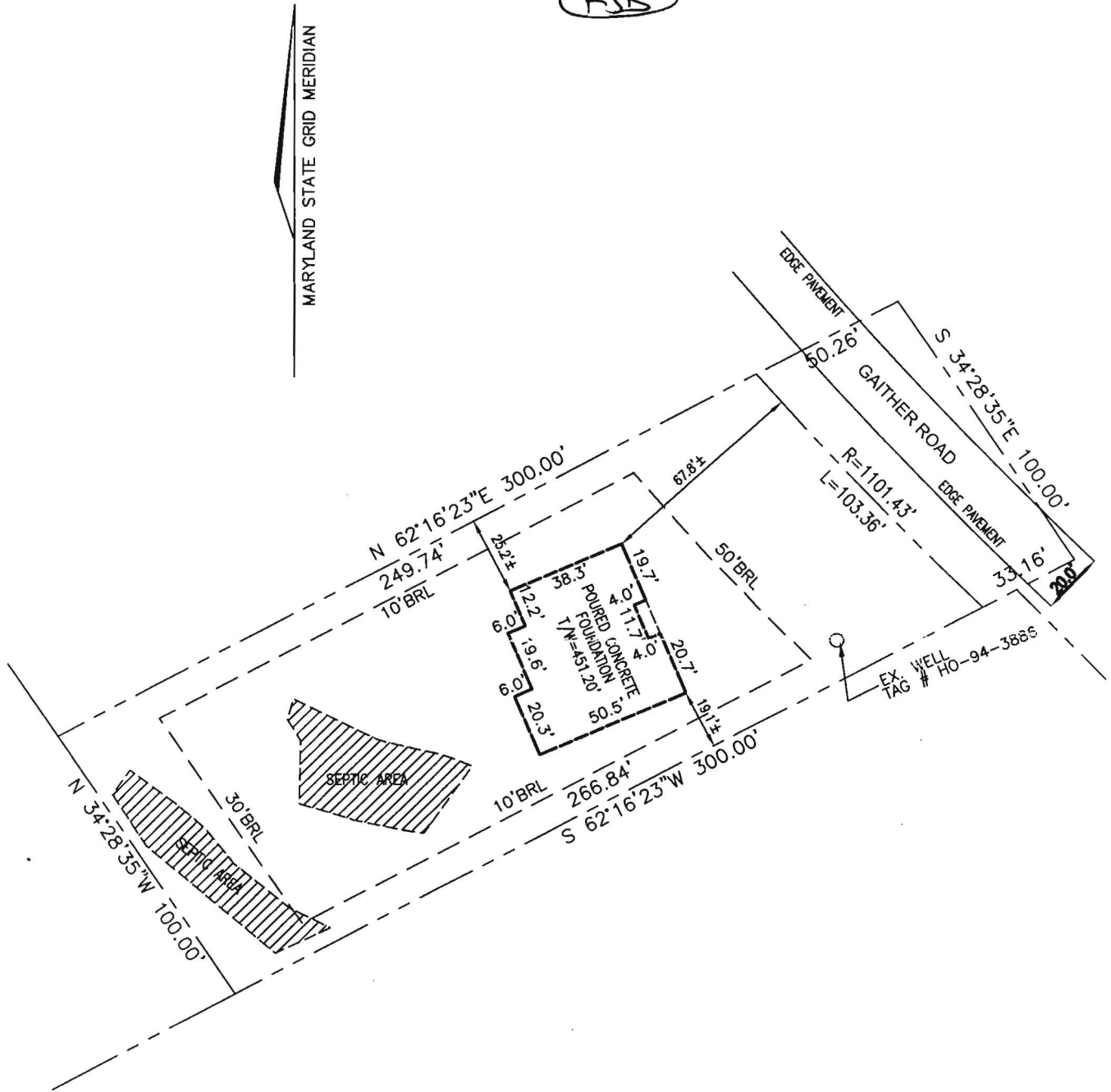
FINAL INSPECTOR _____

DATE OF APPROVAL 2/16/05

10/18/04

House moved S-SW 30±'
Wall check OK

KJB



I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF THAT THE IMPROVEMENTS ARE LOCATED AS SHOWN AND THERE ARE NO ENCROACHMENTS EXCEPT AS SHOWN.



Mark C. Martin 10/18/04
MARK C. MARTIN, PROFESSIONAL LAND SURVEYOR #10884 DATE

SCALE 1" = 50'	DATE SEPT. 1, 2004 REV. OCT. 18, 2004	ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS - SURVEYORS - PLANNERS 8407 MAIN STREET ELLICOTT CITY, MARYLAND 21043	WALL CHECK DRAWING TAX MAP 4, GRID 13, PARCEL 30 GAITHER ROAD
DRAWN BY B. ABBOTT	CHECKED BY M. MARTIN		
PLAT NUMBER	JOB NUMBER	TEL: 410.461.7666 / FAX: 410.461.8961	FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
PLAT NUMBER	04-78.00		

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

- THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
- THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
- THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
- THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIALS SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

II. 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 A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
- TOPSOIL MUST BE FREE OF PLATS OR PLAT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
- WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 LBS/1000 SF) PRIOR TO THE PLACEMENT OF TOPSOIL. LIMESTONE SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

A. ON SOIL MEETING TOPSOIL SPECIFICATION, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:

- PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
- ORGANIC CONTENT OF TOPSOIL SHALL NOT BE LESS THAN 1.5 PERCENT BY WEIGHT.
- TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
- NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PREVENT DISSIPATION OF PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

B. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION:

- WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
- GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4"-8" HIGHER IN ELEVATION.
- TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MULDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IS IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

TEMPORARY SEEDING NOTES

SEEDBED 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/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SF).

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL/ACRE ANNUAL RYE (3.2 LBS/1000 SF) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS/ACRE WEEPING LOVEGRASS (0.07 LBS/1000 SF). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1 1/2 TO 2 TONS/ACRE (70 TO 90 LBS/1000 SF) OF UNROTTED SMALL-GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS/ACRE (5 GAL/1000 SF) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GALLONS/ACRE (8 GAL/1000 SF) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

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

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED** - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SF) AND 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SF) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT THE TIME OF SEEDING, APPLY 400 LBS/ACRE 20-0-0 UREAFORM FERTILIZER (9 LBS/1000 SF).
- ACCEPTABLE** - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SF) AND APPLY 1000 LBS/ACRE 10-10-10 FERTILIZER (23 LBS/1000 SF) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST THRU OCTOBER 15, SEED WITH 60 LBS/ACRE (1.4 LBS/1000 SF) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS/ACRE OF KENTUCKY 31 TALL FESCUE AND 2 LBS/ACRE (0.05 LBS/1000 SF) OF WEEPING LOVEGRASS. DURING CALENDAR DAYS FROM FEBRUARY 29, PROTECT SITE BY: OPTION 1) 2 TONS/ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION 2) USE SOD. OPTION 3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1 1/2 TO 2 TONS/ACRE (70 TO 90 LBS/1000 SF) OF UNROTTED SMALL-GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS/ACRE (5 GAL/1000 SF) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GALLONS/ACRE (8 GAL/1000 SF) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410) 313-1855.
- ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO, FOR SOIL EROSION AND SEDIMENT CONTROL.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED DURING CALENDAR DAYS FOR PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES GREATER 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 THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITH THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. C). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROLS 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 25,553 SF
AREA DISTURBED 12,960 SF
AREA TO BE REEDED OR PAVED 3,680 SF
AREA TO BE VEGETATIVELY STABILIZED 9,300 SF
TOTAL CUT 155 CF
TOTAL FILL 930 CF
OFFSITE WASTE/BORROW AREA LOCATION N/A
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR 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, WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

*TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT. 1 DAY
- INSTALL SEDIMENT CONTROL AS SHOWN ON PLAN IN ACCORDANCE WITH DETAILS. 1 DAY
- CLEAR AND ROUGH GRADE SITE. 1 WEEK
- CONSTRUCT HOUSE. 4 MONTHS
- FINE GRADE AND STABILIZE SITE WITH TOPSOIL AND SEED (SEE NOTES THIS SHEET) 3 DAYS
- AFTER SITE IS PERMANENTLY STABILIZED AND PERMISSION GRANTED FROM HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROLS AND STABILIZE ANY REMAINING DISTURBED AREAS.

BUILDER
DORSEY FAMILY HOMES
9526 CYPRESSMEDE DRIVE
ELLICOTT CITY, MARYLAND 21042
(410) 465-7200

BY THE ENGINEER

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 CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: Robert H. Vogel, PE
Date: 6/2/04

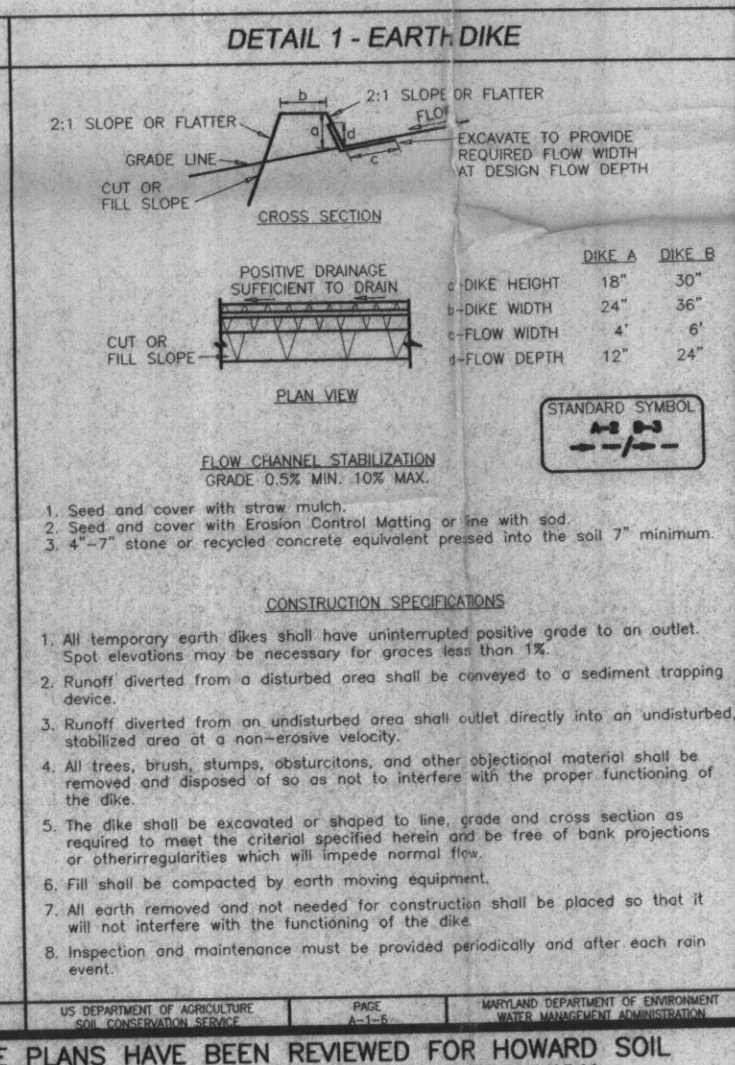
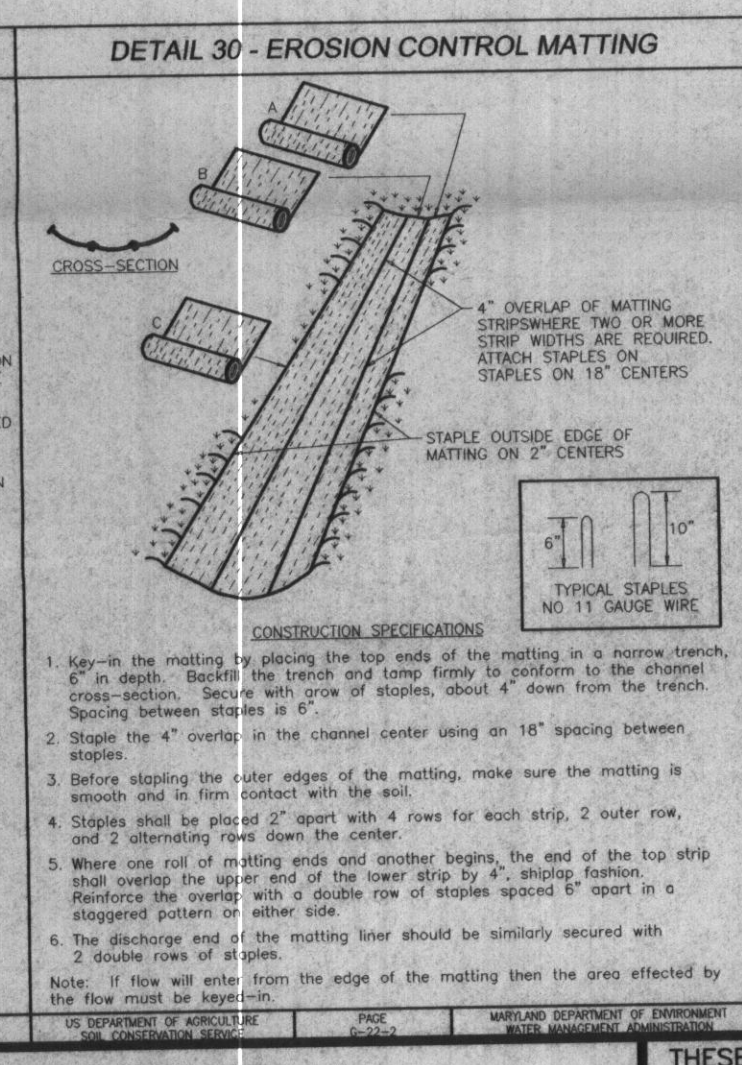
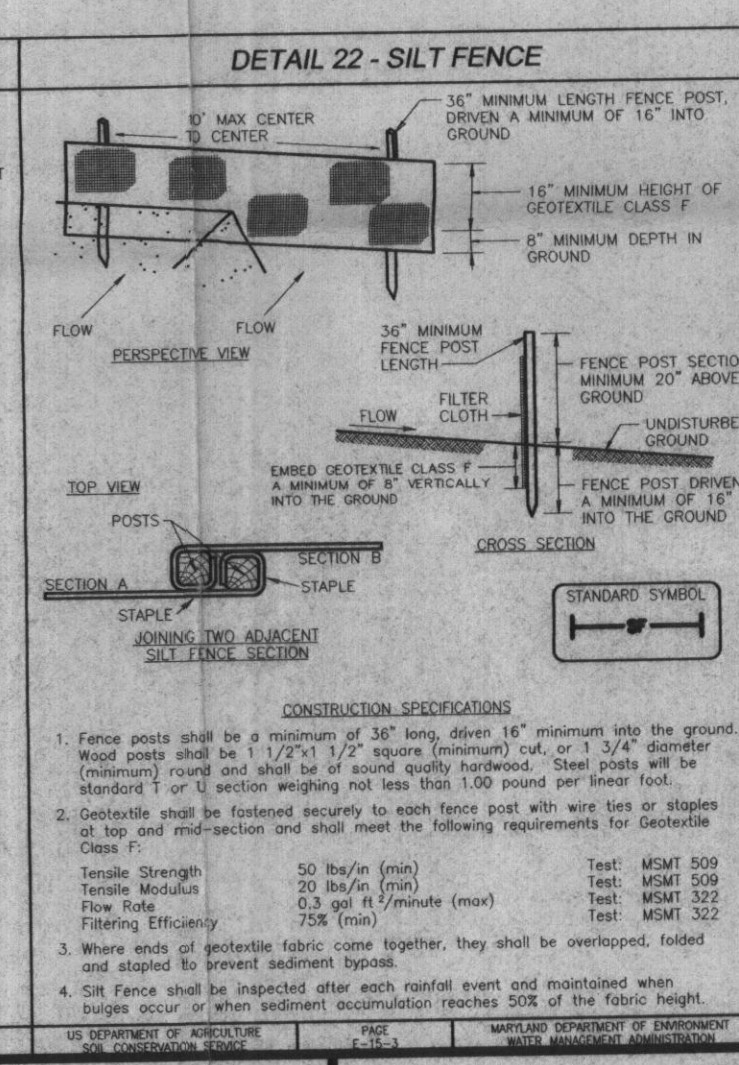
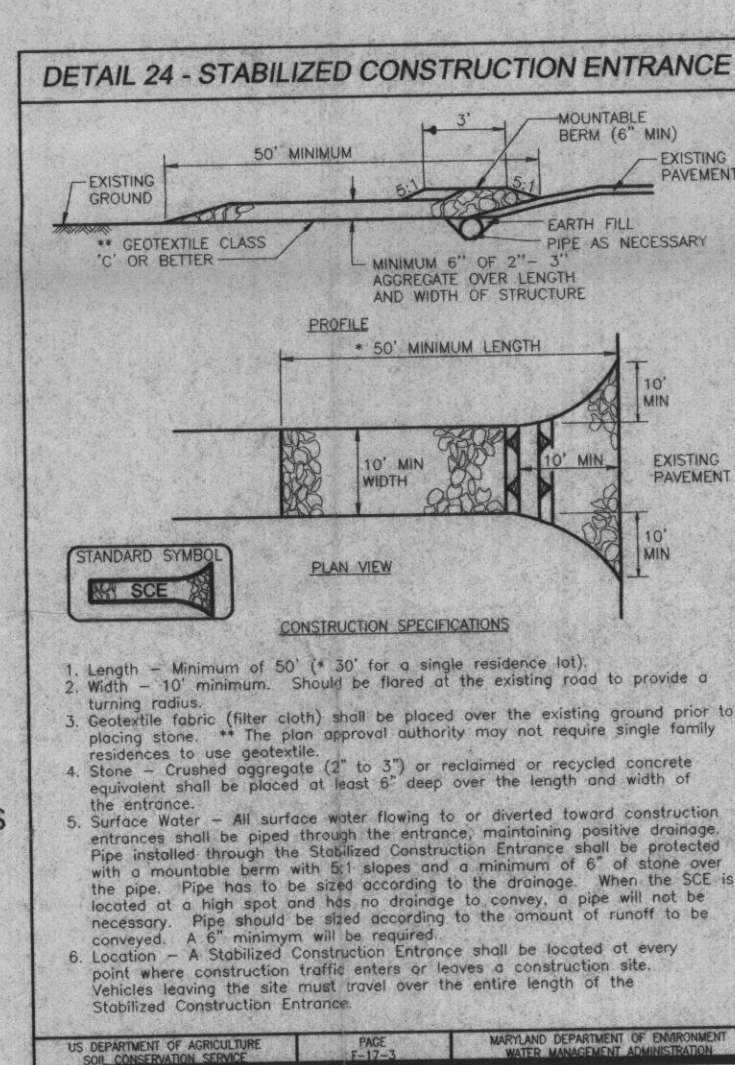
BY THE DEVELOPER

I, WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, 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.

Signature: Robert S. Dray
Date: 6-2-04

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Signature: Jim M...
Date: 6/3/04
Signature: Robert H. Vogel, PE #16193
Date: 6/3/04



1. Length - Minimum of 50' (1/30' for a single residence lot) turning right.

2. Width - 10' minimum. Should be fixed at the existing road to provide a turning radius.

3. Concrete fabric (large curb) shall be placed over the existing ground prior to placing stone. All the stone approval authority may not require single family residences to use concrete fabric.

4. Stone - Crushed aggregate (2" to 3") or reclaimed or recycled concrete equipment shall be placed at least 6" deep over the length and width of the entrance.

5. Surface water - All surface water flowing to or diverted toward construction entrances shall be passed through the entrance, maintaining proper drainage. Pipe installed through the Stabilized Construction Entrance shall be protected with a minimum 6" of 2" diameter pipe. If a 4" pipe is used, it shall be covered with a minimum 6" of 2" diameter pipe. If a 6" pipe is used, it shall be covered with a minimum 6" of 2" diameter pipe. If a 4" pipe is used, it shall be covered with a minimum 6" of 2" diameter pipe. If a 6" pipe is used, it shall be covered with a minimum 6" of 2" diameter pipe.

6. Location - A Stabilized Construction Entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site shall travel over the entire length of the Stabilized Construction Entrance.

1. Fence posts shall be a minimum of 36" long, driven 18" minimum into the ground. Posts shall be 1 1/2" (1/2" square) minimum, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts shall be diameter 1" or 1 1/2" section weighing not less than 1.00 pound per linear foot.

2. Concrete fabric shall be fastened securely to each fence post with wire ties or staples. Staples shall be spaced at 18" intervals.

3. Where ends of concrete fabric meet together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt fence shall be inspected after each rainfall event and maintained until the silt fence is no longer needed.

1. Lay the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and trowel to uniform to the channel cross-section. Secure with iron staples, about 4" down from the trench spacing between staples is 6".

2. Staple the 4" overlap on the channel center using an 18" spacing between staples.

3. Before stapling the outer edges of the matting, make sure the matting is smooth and in line contact with the soil.

4. Staples shall be spaced 2' apart with 4 rows for each strip. 2 outer rows and 2 alternating rows down the center.

5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by a 4" slapping fashion. Double the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.

6. The discharge end of flow matting rolls should be similarly secured with staples.

Note: If flow will enter from the edge of the matting then the area affected by the flow must be inspected.

1. All temporary earth dikes shall have undisturbed positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.

2. Runoff diverted from an undisturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall cut directly into an undisturbed area at a non-erosive velocity.

4. All trees, shrubs, stumps, obstructions, and other obstructions retained shall be removed and disposed of so as not to interfere with the proper functioning of the dike.

5. The site shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and to free of back projections or obstructions which will impede runoff flow.

6. Fill shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.

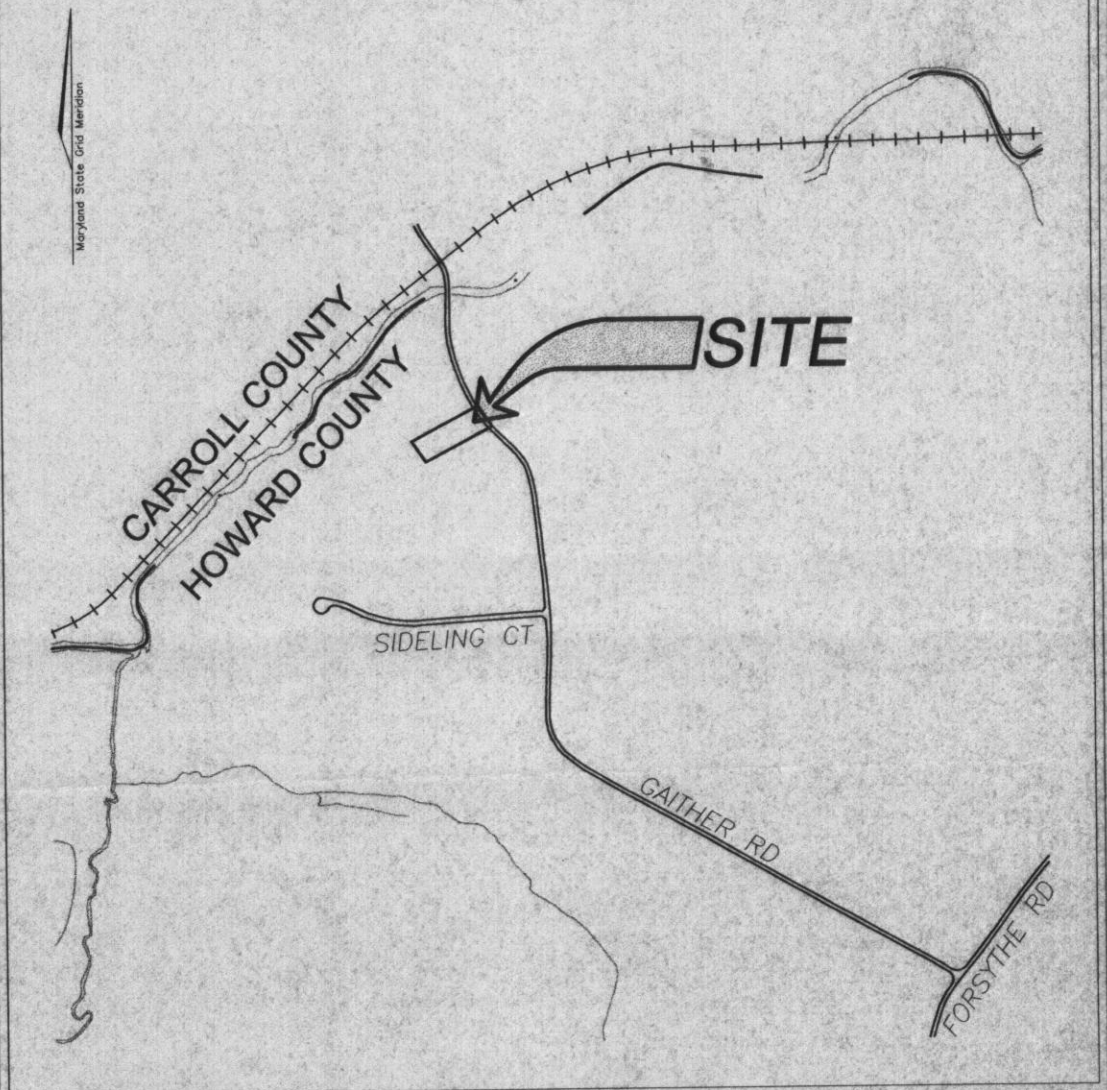
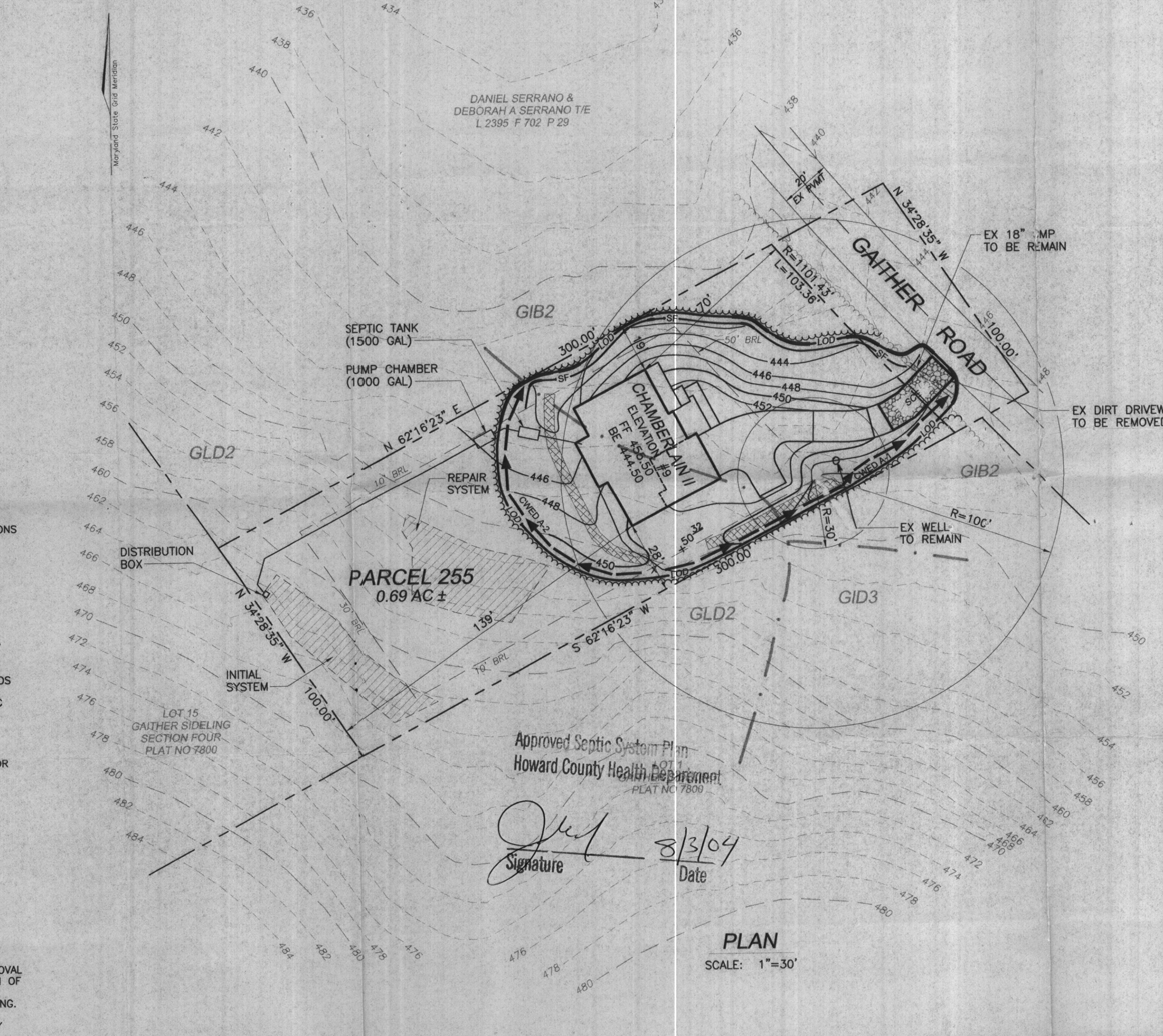
8. Inspection and maintenance must be provided periodically and after each rain event.

Signature of Engineer: Robert H. Vogel, PE

Signature of Developer: Robert S. Dray

Signature of Engineer: Robert H. Vogel, PE

Signature of Developer: Robert S. Dray



SEPTIC ELEVATIONS

STRUCTURE	GROUND EL	INV OUT
HOUSE	445.0	443.0
SEPTIC TANK	GROUND EL 444.5	INV IN 442.6
PUMP CHAMBER	GROUND EL 445.8	INV IN 442.0
DISTRIBUTION BOX	GROUND EL 464.0	INV IN 461.0

Approved Septic System Plan
Howard County Health Department
PLAT NO. 7800

Signature: [Signature]
Date: 8/3/04

SCALE: 1"=30'

THE EXISTING WELL SHOWN ON THIS PLAN (PAGE NO. 2004-04) IS A FIELD WELL AND DOES NOT MEET THE REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.

Signature: James Robert Meeks
Date: 7/2/04
JAMES ROBERT MEEKS, PROFESSIONAL LAND SURVEYOR #10057

GRADING AND SEDIMENT CONTROL PLAN

VANA PROPERTY

TAX MAP: 24 BLOCK: 18 PARCEL 255
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

7125 RIVERWOOD DRIVE
COLUMBIA, MARYLAND 21046-2354
410-720-8900
410-720-8226 fax

FREDERICK WARD ASSOCIATES, INC.
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