

LAYOUT _____ INSP 4 _____
INSP 2 _____ INSP 5 _____
INSP 3 _____ INSP 6 _____

ISSUE DATE: 12/7/05

APPROVAL DATE: 4/19/06

PERMIT

INDEXED

TAX ID #04-354559

P 5 2 3 7 7 3

A 47155
04354559

**ON-SITE SEWAGE DISPOSAL SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH**

_____ IS PERMITTED TO INSTALL ☒ ALTER ☐

ADDRESS: _____ PHONE NUMBER: _____

SUBDIVISION: Cattail Creek County Club LOT NUMBER: 6

ADDRESS: 3608 Willow Birch Drive Ralph Updike

SEPTIC TANK CAPACITY (GALLONS): 1500 OUTLET BAFFLE FILTER REQUIRED ☐

PUMP CHAMBER CAPACITY (GALLONS): n/a COMPARTMENTED TANK REQUIRED ☒

NUMBER OF BEDROOMS: 5

SQUARE FEET PER BEDROOM: 210

LINEAR FEET OF TRENCH REQUIRED: 217 HOUSE SERVED BY PUBLIC WATER ☐

TRENCHES:	Trench to be 3.0 feet wide. Inlet 4.0 feet below original grade. Bottom maximum depth 6.0 feet below original grade. Effective area begins at 4.0 feet below original grade. 2.0 feet of stone below distribution pipe.
LOCATION:	Place the distribution box as shown on the approved building permit plan.
NOTES:	Run trenches along contour in both directions. <i>SEE IF BASEMENT SERVICE IS AVAILABLE by lowering SEPTIC TANK ANOTHER FOOT w/o place more than 3' of cover on top. Verify fall.</i>

PLANS APPROVED: CW/KJB Reviewed by: _____ DATE: 6/17/05

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 NOR THE HEALTH DEPARTMENT IS
RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM
PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT
ALL 410-313-1771 FOR INSPECTION OF SEPTIC SYSTEM**

P523773

CATTAIL CREEK
COUNTRY CLUB
PARCEL B
PLAT No. 11050
ZONED: RC-DEO

CATTAIL CREEK
COUNTRY CLUB
PARCEL B
PLAT No. 11050
ZONED: RC-DEO

EXISTING PRIVATE GOLF
COURSE EASEMENT
PLAT No. 10506

CATTAIL CREEK
COUNTRY CLUB
LOT 7
PLAT No. 11050
ZONED: RC-DEO

GRID NORTH

LOT 6

WILLOW BIRCH DRIVE
(PUBLIC MAINTAINED ROADWAY)
50' R/W

POURED
CONCRETE
FOUNDATION

TOP OF FOUNDATION WALL ELEVATION = 508.4'
OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY TO THE BEST OF MY PROFESSIONAL
KNOWLEDGE, INFORMATION AND BELIEF, THAT THE
DIMENSIONS OF THE BUILDING WALLS SHOWN HEREON
ARE CORRECT; THAT THEY ARE BASED ON A FIELD RUN
SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC.
ON 08/08/05; AND THAT THE PROPERTY OUTLINE
SHOWN HEREON IS BASED ON THE PLAT PREPARED BY
FISHER, COLLINS & CARTER, INC. ENTITLED "CATTAIL CREEK
COUNTRY CLUB SECTION 2", AND RECORDED AMONG
THE LAND RECORDS OF HOWARD COUNTY AS PLAT
No. 11050

DAVID M. HARRIS
REGISTERED PROFESSIONAL LAND SURVEYOR
MD REG. No. 10978
FOR BENCHMARK ENGINEERING, INC.
MD REG. No. 351
RECORD PLAT No. 11050
FEMA FIRM No. 240044 0020 B
ZONE: C
DATED: 12/04/86

BENCHMARK

ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418
ELLICOTT CITY, MARYLAND 21043
phone: 410-485-8105 • fax: 410-485-8644
email: Benchmark@oais.com



~FOUNDATION DETAIL~

SCALE: 1" = 30'

WALL CHECK

CATTAIL CREEK COUNTRY CLUB
SECTION 2
LOT No. 6

3608 WILLOW BIRCH DRIVE

4TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

SCALE: 1" = 50' DATE: 08/08/05

21.0 STANDARD AND SPECIFICATIONS
TOPSOIL
Definition
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.
Purpose
To provide a suitable medium for vegetative 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 Material Specifications
I. Topsoil salvaged from the existing site may be used provided that 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:

- i. 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 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.
ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nutsedge, poison ivy, thistle, or others as specified.

iii. 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 pounds per 1,000 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.

II. For sites having disturbed areas under 5 acres:

- i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

III. For sites having disturbed areas over 5 acres:

- i. On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

- a. 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.
b. Organic content of topsoil shall be not less than 1.5 percent by weight.
c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.

- d. 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 permit dissipation of phytotoxic 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.

- ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

V. Topsoil Application

- i. When topsoiling, maintain needed erosion and sediment control practices such as diversion, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

- ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, about 4" – 8" higher in elevation.

iii. 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 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.

- iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. G-21-2

V. Alternative for Permanent Seeding – Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

- i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribed amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

- a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

- iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding, MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

PERMANENT SEEDING NOTES

Apply to graded or cleared area 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 on the following schedules.

- Preferred – Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sf) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureamform fertilizer (9 lbs/1000 sf).
- Acceptable – Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sf) and 1000 lbs per 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 through April 30 and August 1 through October 15, seed with 60 lbs per acre (1.4 lbs/1000 sf) of Kentucky 31 Tall Fescue. For the period May 1 through July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.05 lbs/1000 sf) of Weeping Lovegrass. During the period of October 16 through February 28, protect site by Option 1) 2 tons per acre of 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 per 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 per acre (5 gal/1000 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sf) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedsings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed where a short-term 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)

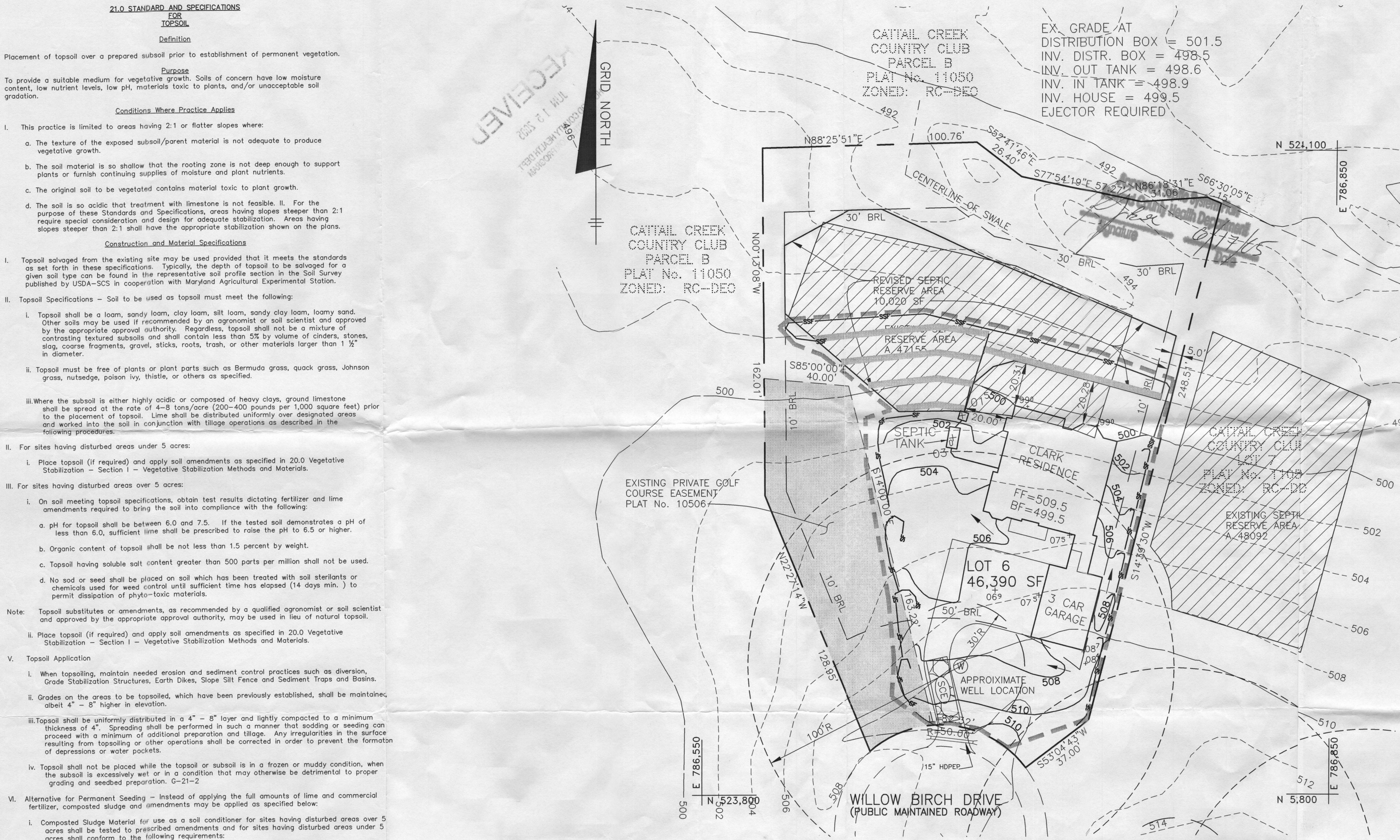
Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sf).

Seeding: For periods March 1 through April 30 and August 15 through November 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sf). For the period May 1 through August 14, seed with 3 lbs per acre of Weeping Lovegrass (0.07 lbs/1000 sf). For the period November 16 through February 28, protect site by applying 2 tons per 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 per 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 per acre (5 gal/1000 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sf) for anchoring.

Refer to the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control for rate and methods not covered.

ENGINEER'S CERTIFICATE	
I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	
ENGINEER – DONALD A. MASON, P.E. # 21443	DATE
DEVELOPER'S CERTIFICATE	
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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.	
DEVELOPER	DATE
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS	
USDA – NATURAL RESOURCES CONSERVATION SERVICE	DATE
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.	
HOWARD SCD	DATE



PLAN VIEW

SCALE: 1" = 30'

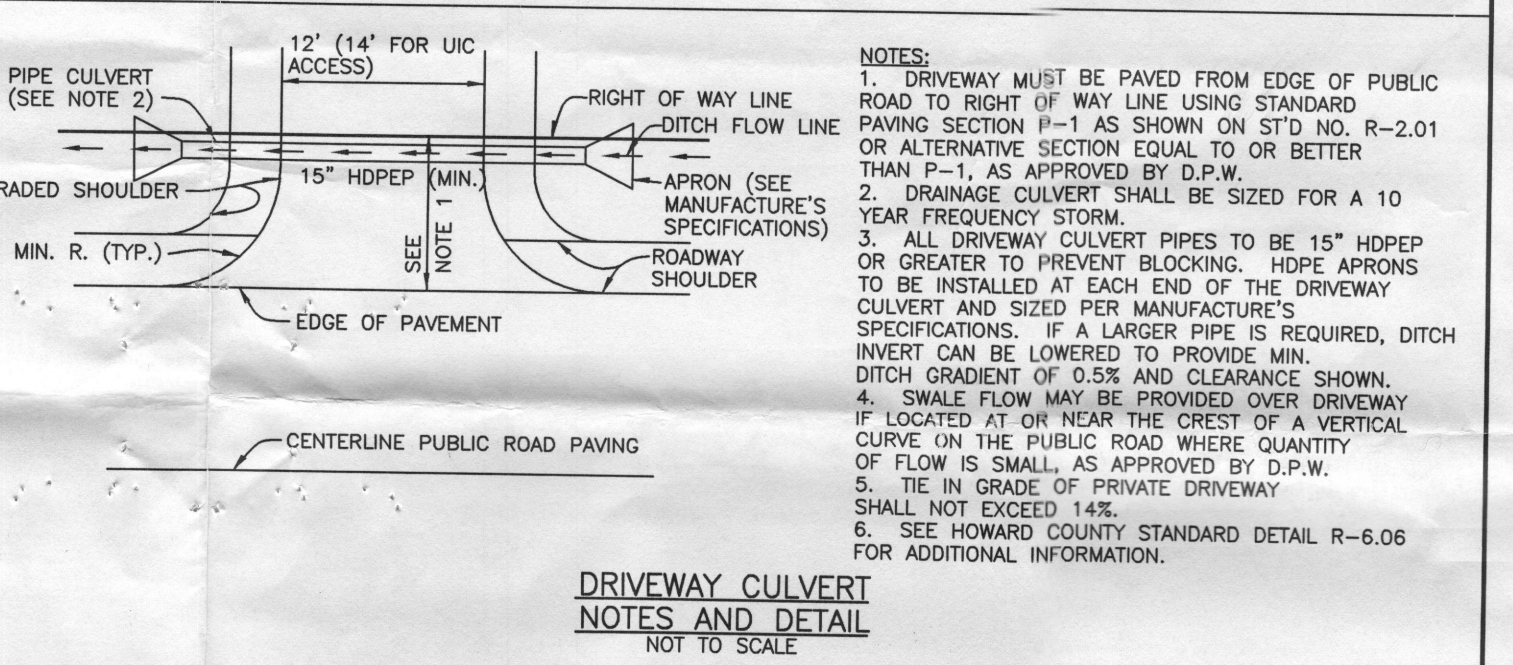
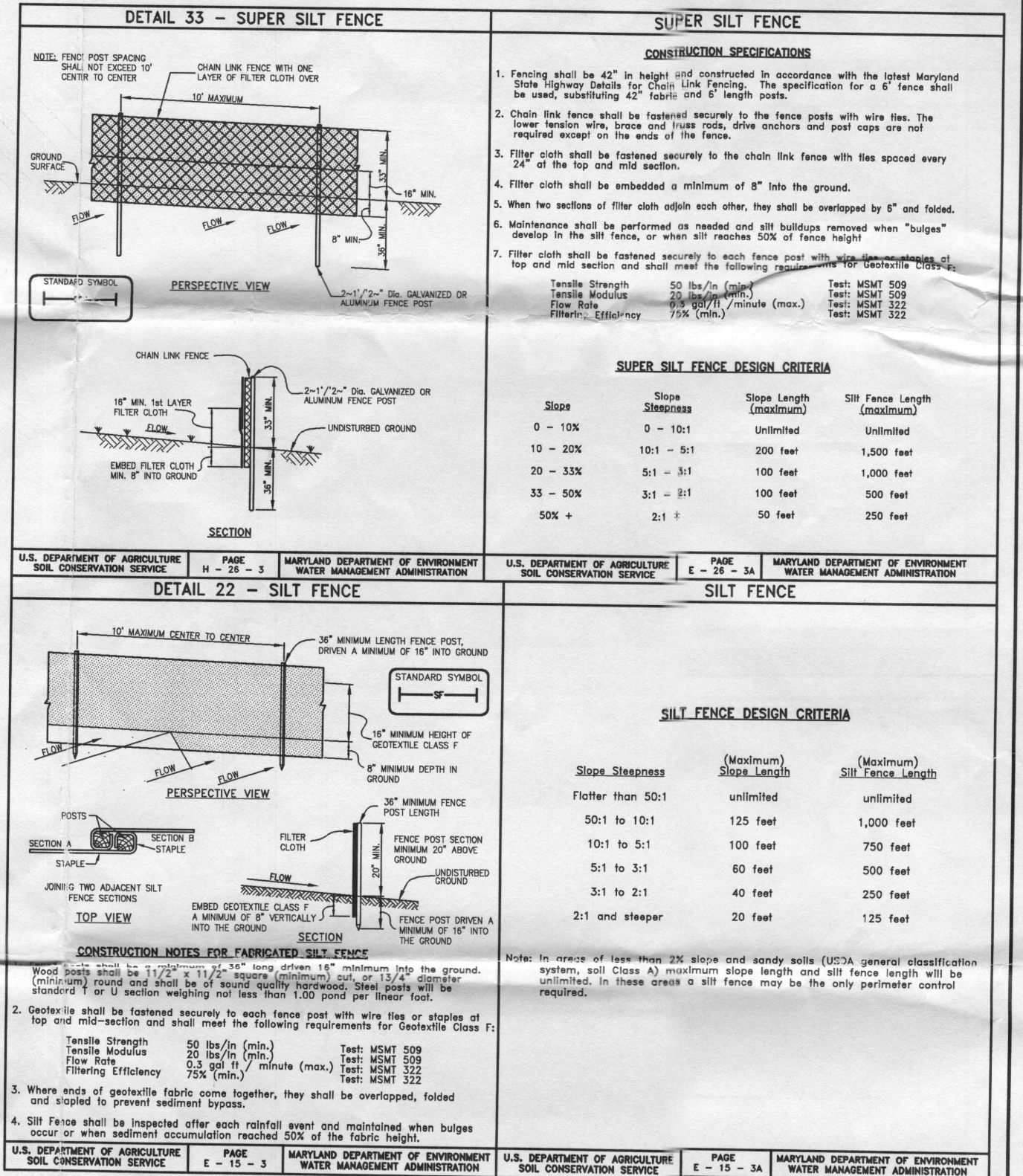
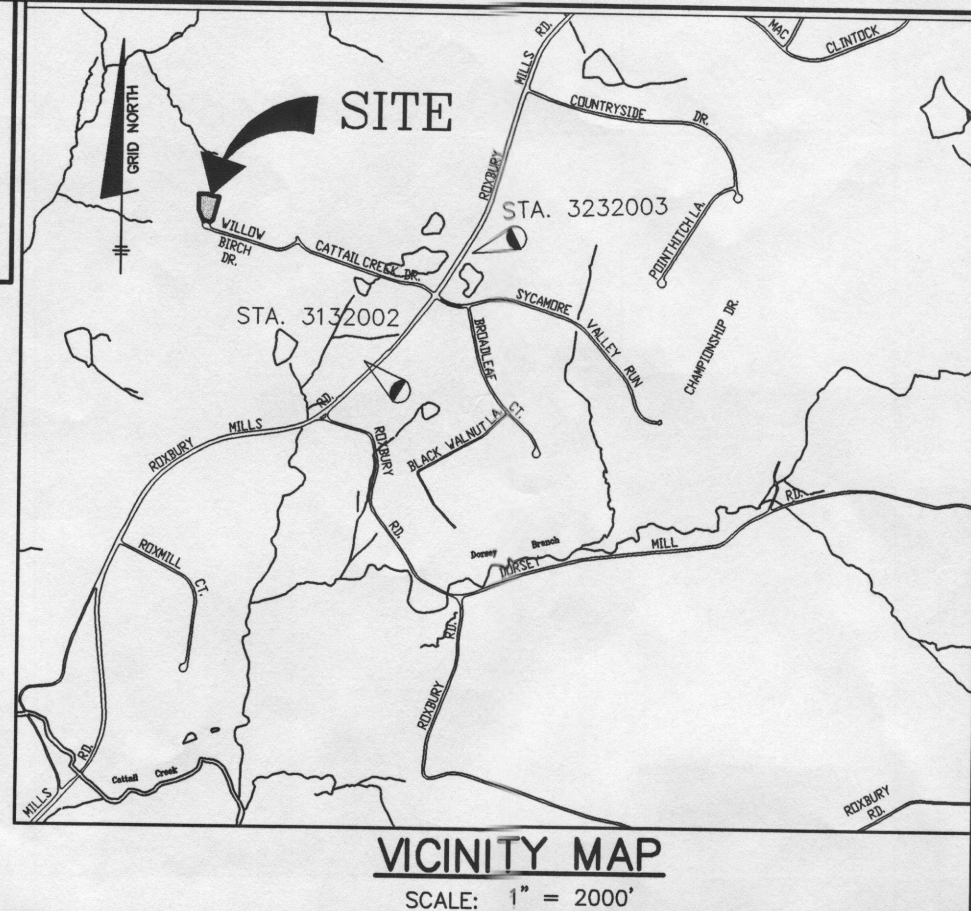
SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections and Permits, Sediment Control Division prior to the start of any construction (313-1859).
- 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 disturbances or redistribution, permanent or temporary stabilization shall be completed within a 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 calendar 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 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 Seedings (Sec. 51) Sod (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: 1.06 Ac.±
Area to be Disturbed: 0.52 Ac.±
Area to be roofed or paved: 0.14 Ac.±
Area to be vegetatively stabilized: 0.38 Ac.±
Total Cut: 830 C.Y. SEE NOTE 12
Total Fill: 50 C.Y. SEE NOTE 12
Offsite Waste/Borrow Area Location : *
- 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 DPW Sediment Control Inspector.
- All on 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 can be back filled and stabilized within one working day, whichever is shorter.
- Quantities and estimates shown are for sediment control purposes only. Contractor shall prepare his/her own quantity estimates to his/her satisfaction.
* It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

SEQUEN OF CONSTRUCTION – INDIVIDUAL HOUSE

- DAY 1 STAIN GRADING PERMIT.
- DAY 2 IE CONTRACTOR(S) IS TO IDENTIFY AND MARK ANY HAZARDOUS CONDITIONS THAT EXIST ON SITE, SUCH AS OVERHEAD POWERLINES, OLD WELLS, GAS LINES, ETC.
- DAY 3-4 STALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, SUPER SILT FENCE, NO DRIVEWAY CULVERT.
- DAY 4-10 KADE SITE AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDBED NOTES.
- DAY 11 STALL EROSION CONTROL MATTING IN THE DITCHES AND SWALES.
- DAY 12-6ONSTRUCT HOUSE, INSTALL DRIVEWAY AND UTILITIES. SPOIL FROM THE TRENCHING OF THE SEPTIC AREA IS TO BE PLACED ON THE UPHILL SIDE OF THE EXCAVATION.
- DAY 61-6ABILIZE ANY REMAINING DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDBED NOTES.
- DAY 64-66ON APPROVAL OF HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES. PERMANENTLY STABILIZE ; REQUESTED.

BENCH MARKS NAD'27
HO. CO. STA. 3232003
N 522,810.762' E 789,655.659'
HO. CO. STA. 3132002
N 522,316.687' E 788,449.553'



BENCHMARK ENGINEERS • LAND SURVEYORS • PLANNERS ENGINEERING, INC. 4480 BALTIMORE NATIONAL PIKE • SUITE 418 ELICOTT CITY, MARYLAND 21043 PHONE: 410-465-8100 • FAX: 410-465-8644 www.bei-civilengineering.com	
BUILDER: JAMES H. SELFRIDGE BUILDERS 14045 GARED DRIVE GLENWOOD, MARYLAND 21738 410-531-8930	PROJECT: CATTAIL CREEK COUNTRY CLUB LOT 6 WILLOW BIRCH DRIVE GLENWOOD, MD 21738 TAX MAP No. 21, GRID No. 8, PARCEL No. 211 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: GRADING PERMIT, SEDIMENT AND EROSION CONTROL PLAN	
HOUSE TYPE: CLARK RESIDENCE	
DATE: MAY, 2005 JUNE, 2005	PROJECT NO. 1826
DESIGN: JMC	DRAFT: JMC
SCALE: 1" = 30'	DRAWING 1 OF 1