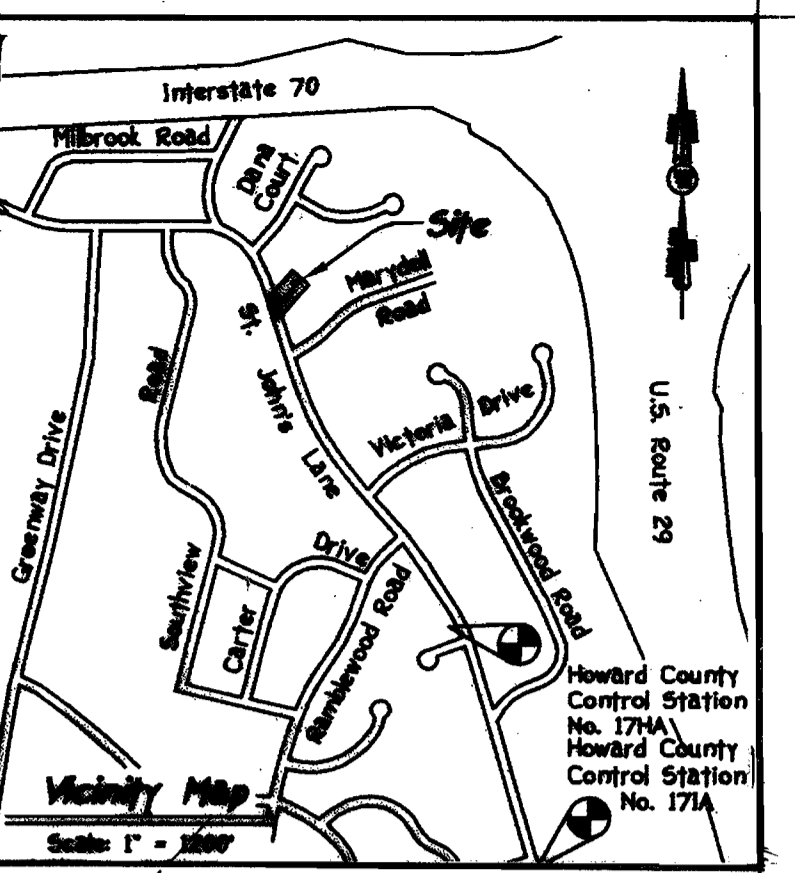


SEDIMENT CONTROL NOTES: A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS...



GENERAL NOTES: THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT 301-280-1100 AT LEAST (5) FIVE WORKING DAYS PRIOR TO THE START OF WORK...

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION: Using vegetation as cover for barren soil to protect it from erosion. Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil...

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE: 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OF STAPLES...

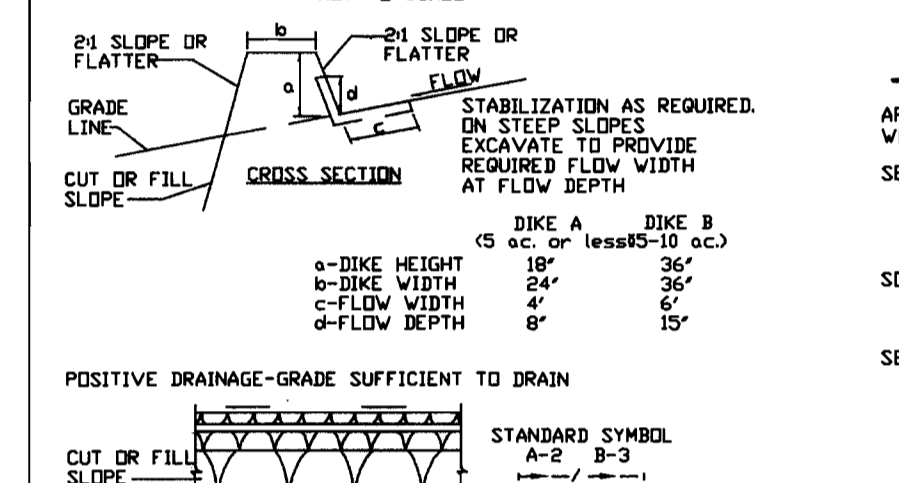
CONSTRUCTION NOTES FOR STABILIZED CONSTRUCTION ENTRANCE: 1. Length - minimum of 50' (#30 for single residence lots). 2. Width - 10' minimum, should be flared at the existing road to provide a turning radius...

TEMPORARY SEEDING NOTES: APPLY TO GRADES OR CLEARED AREAS LIKELY TO BE REDISTURBED BY A SHORT-TERM VEGETATIVE COVER IS NEEDED.

GENERAL NOTES: 12. This project is exempt from the requirements of Section 16.124 of the Howard County Code for Forest Conservation because in accordance with Section 16.122 (b)(1) this subdivision is less than 40,000 square feet.

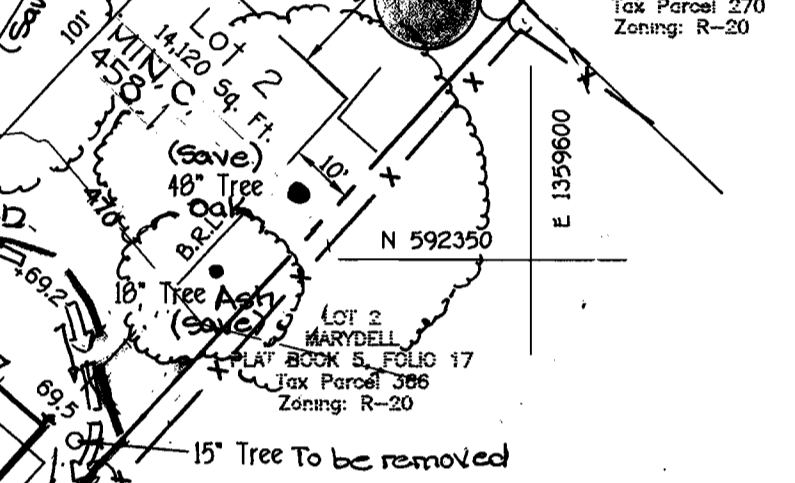
GENERAL NOTES: 15. At the time of plant installation, all trees as listed and approved herewith, shall be of the proper height requirements in accordance with the Howard County Landscape Manual.

GENERAL NOTES: 16. A Fee-in-Lieu of Open Space was paid in the amount of \$1800.00 for Lot 2 was paid at the time of recordation of F-01-183.



SEQUENCE OF CONSTRUCTION: 1. OBTAIN GRADING PERMIT. 2. INSTALL EROSION AND EROSION CONTROL DEVICES AS SHOWN IN PLAN.

SEQUENCE OF CONSTRUCTION: 3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE AND MASS GRADE TO SUB-BASE. 4. INSTALL TEMPORARY SEEDING.



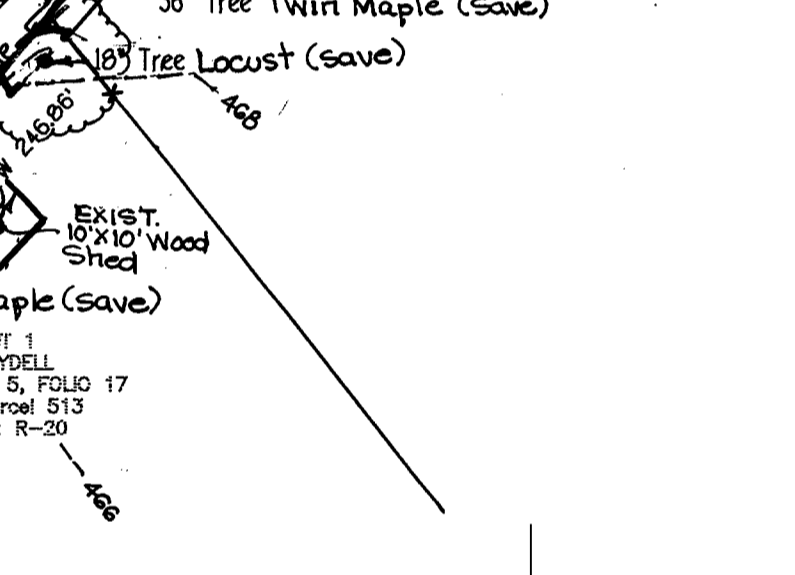
GENERAL NOTES: 17. Should any tree designated for preservation, for which landscaping credit is given, die prior to release of bonds, the owner will be required to replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics.

GENERAL NOTES: 17. Should any tree designated for preservation, for which landscaping credit is given, die prior to release of bonds, the owner will be required to replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics.

PERMANENT SEEDING NOTES: ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS: SOIL AMENDMENTS: APPLY 400 LBS PER ACRE OF 0-20-20 UREA-FORM FERTILIZER...

PERMANENT SEEDING NOTES: SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 1 BUSHEL PER ACRE OF ANNUAL RYE (32 LBS./ACRE) OF WEEPING LOVEGRASS (27 LBS./1,000 SQ.FT.)...

PERMANENT SEEDING NOTES: MULCHING: APPLY 1 TO 2 TONS PER ACRE (10 TO 20 LBS./1,000 SQ.FT.) OF UNLIMBED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING.



LANDSCAPE DEVELOPER'S CERTIFICATE: I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual.

LANDSCAPE DEVELOPER'S CERTIFICATE: I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual.

ADDRESS CHART table with columns for LOT NUMBER and STREET ADDRESS, listing Lot 2 at 2885 ST. JOHN'S LANE.

SCHEDULE A - PERIMETER LANDSCAPE EDGE table with columns for Category, Adjacent Properties, and dimensions for Perimeter, Landscape Type, and Linear Feet of Perimeter.

LEGEND table listing symbols for Existing Contour 2' Interval, Existing Contour 10' Interval, Proposed Contour 2' Interval, and Proposed Contour 10' Interval.

PLANT LIST table with columns for QUANTITY, SYMBOL, BOTANICAL NAME, COMMON NAME, and SIZE, listing Acer Rubrum and October Glory.

REVISION table with columns for DATE and DESCRIPTION, detailing changes to the plan.

REVISION table with columns for DATE and DESCRIPTION, detailing changes to the plan.

ENGINEER'S CERTIFICATE: I certify that this plan for erosion and sediment 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.

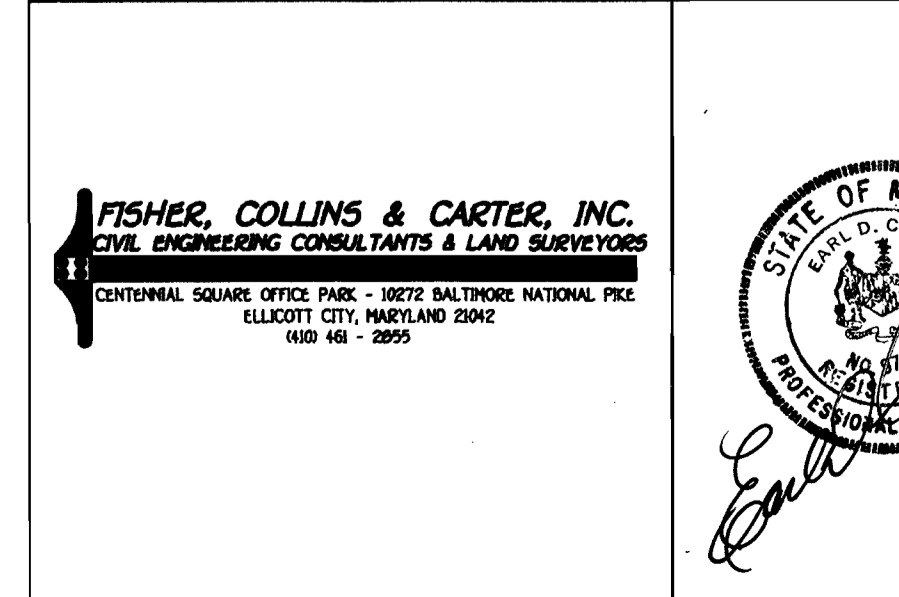
DEVELOPER'S CERTIFICATE: I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project.

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.

APPROVED HOWARD COUNTY DEPT. OF PLANNING AND ZONING: Chris Brown, 8-8-01, Date.

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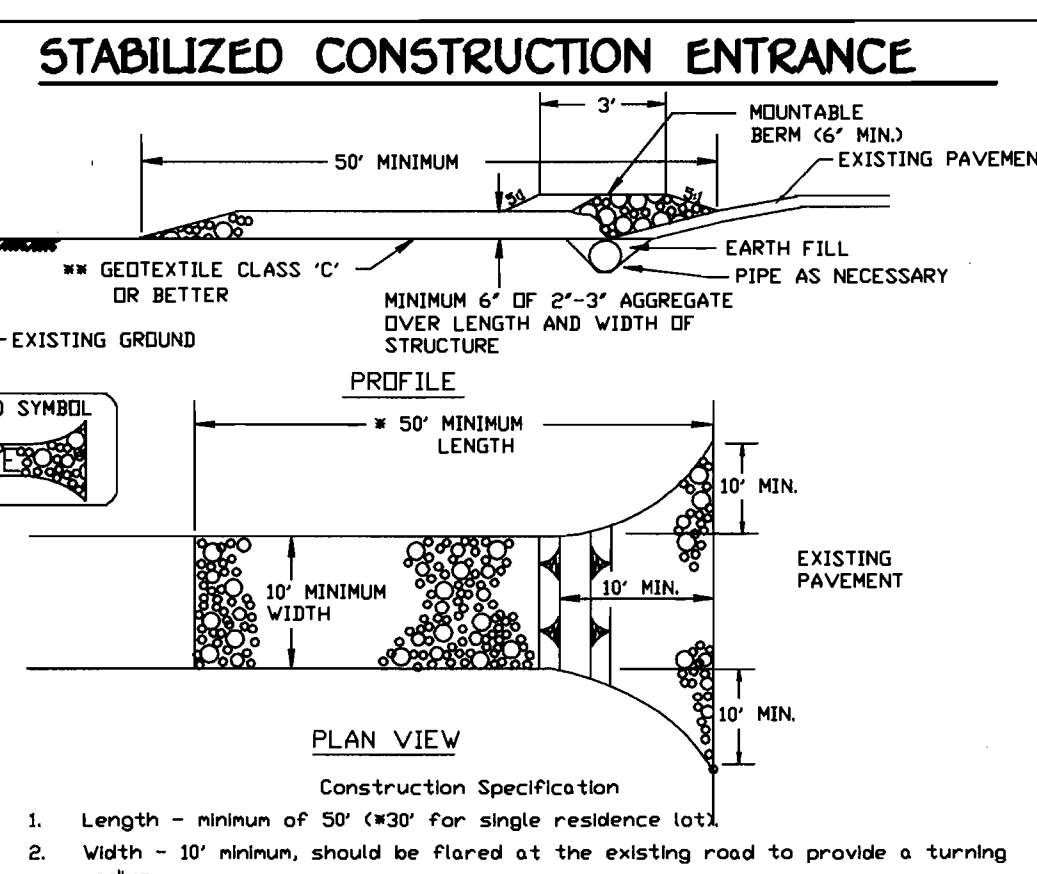
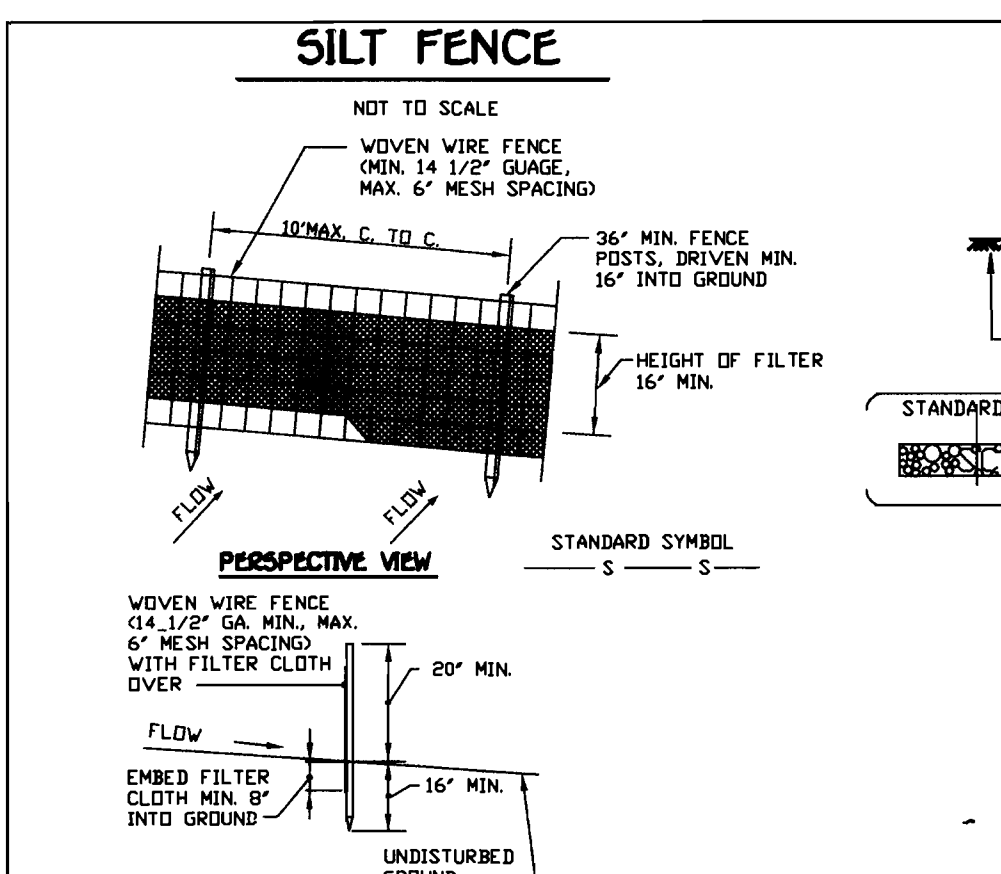
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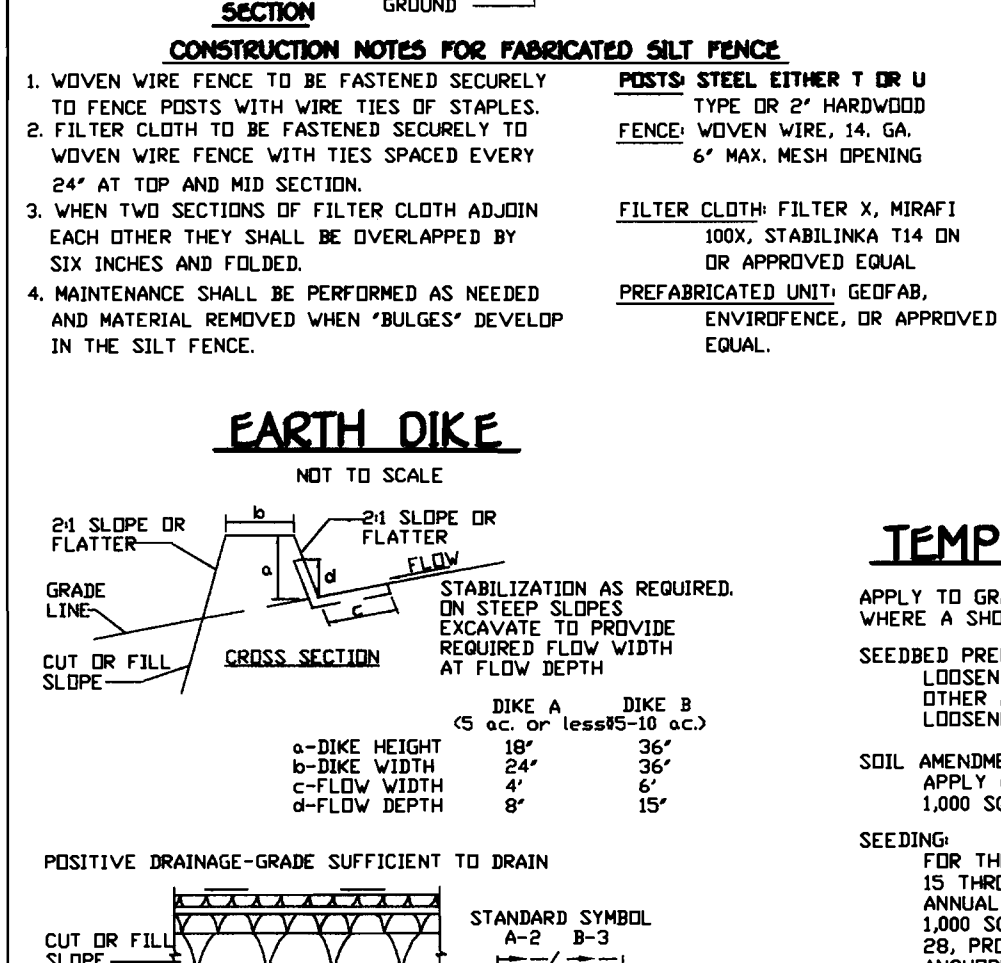
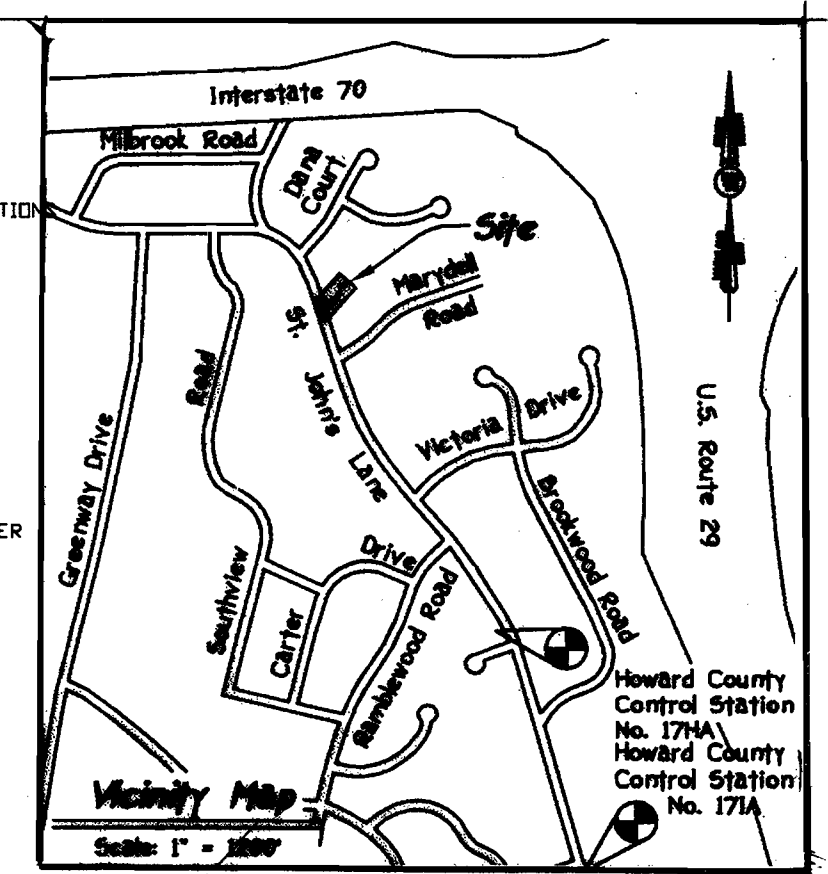
REVISION table with columns for DATE and DESCRIPTION, detailing changes to the plan.

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SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSING AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (C13-1825). 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. REVISIONS THERE TO FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 72 HOURS AFTER SUCH DISTURBANCE OR RE-DISTURBANCE. SUCH REVISIONS SHALL BE CALLED OUT BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. ALL SEDIMENT TRAPS/BASINS MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 22 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1999 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. PERMANENT SEEDING (CSC, S10, S20, S24), TEMPORARY SEEDING (CSC, S0, S10, S20, S24), MULCHING, TEMPORARY STABILIZATION WITH MULCH, 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 PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ANALYSIS: TOTAL AREA OF SITE 0.32 ACRES. AREA DISTURBED 811 ACRES. AREA TO BE REFINISHED OR PAVED 0.09 ACRES. AREA TO BE VEGETATIVELY STABILIZED 0.02 ACRES. TOTAL C.U. 300 CUYDTS. TOTAL FILL 302 CUYDTS.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE NEXT DAY OF DISTURBANCE. 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 CONTROL. BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR BUILDING OR GRADING AND INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TENDERS 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.
- SEEDING: TOTAL AREA OF SITE 0.32 ACRES. AREA DISTURBED 811 ACRES. AREA TO BE REFINISHED OR PAVED 0.09 ACRES. AREA TO BE VEGETATIVELY STABILIZED 0.02 ACRES. TOTAL C.U. 300 CUYDTS. TOTAL FILL 302 CUYDTS.
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- SEEDING: TOTAL AREA OF SITE 0.32 ACRES. AREA DISTURBED 811 ACRES. AREA TO BE REFINISHED OR PAVED 0.09 ACRES. AREA TO BE VEGETATIVELY STABILIZED 0.02 ACRES. TOTAL C.U. 300 CUYDTS. TOTAL FILL 302 CUYDTS.



TEMPORARY SEEDING NOTES

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

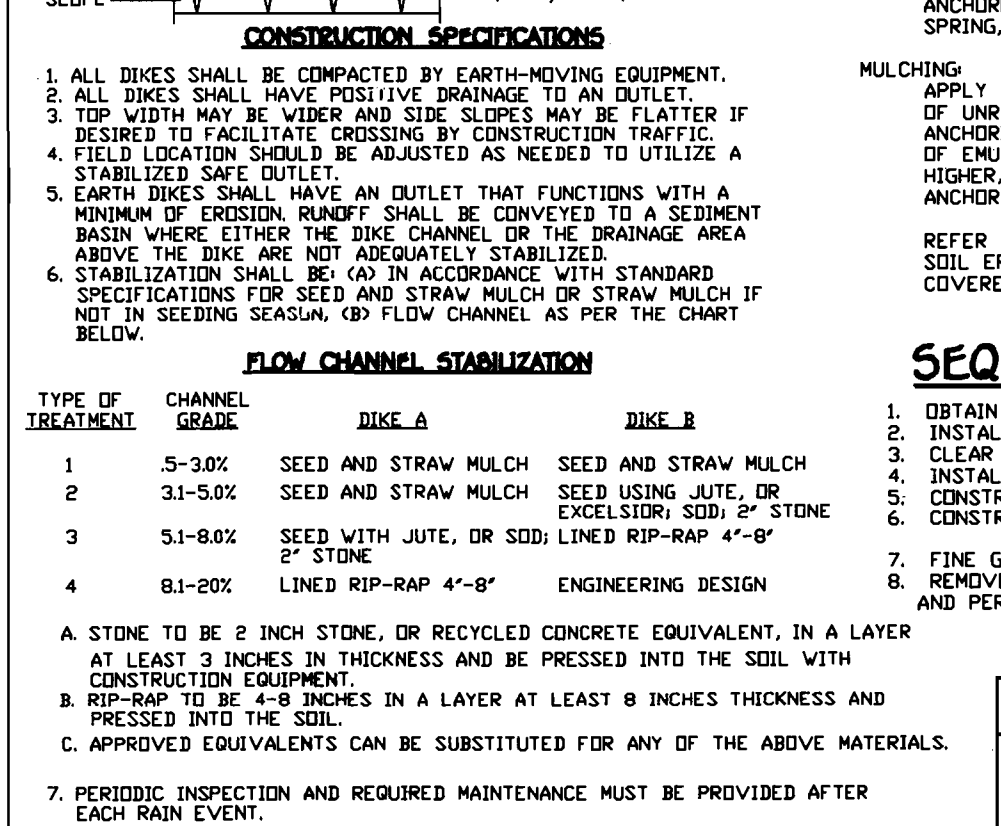
SEEDING PREPARATION
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS
APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1,000 SQ.FT.)

SEEDING
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH NOVEMBER 15, SEED WITH 1 BUSHEL PER ACRE OF ANNUAL RYE (C2) LBS./ACRE OR WEEPING LOVEGRASS (C7 LBS./1,000 SQ.FT.) FOR THE PERIOD NOVEMBER 15 THRU 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.

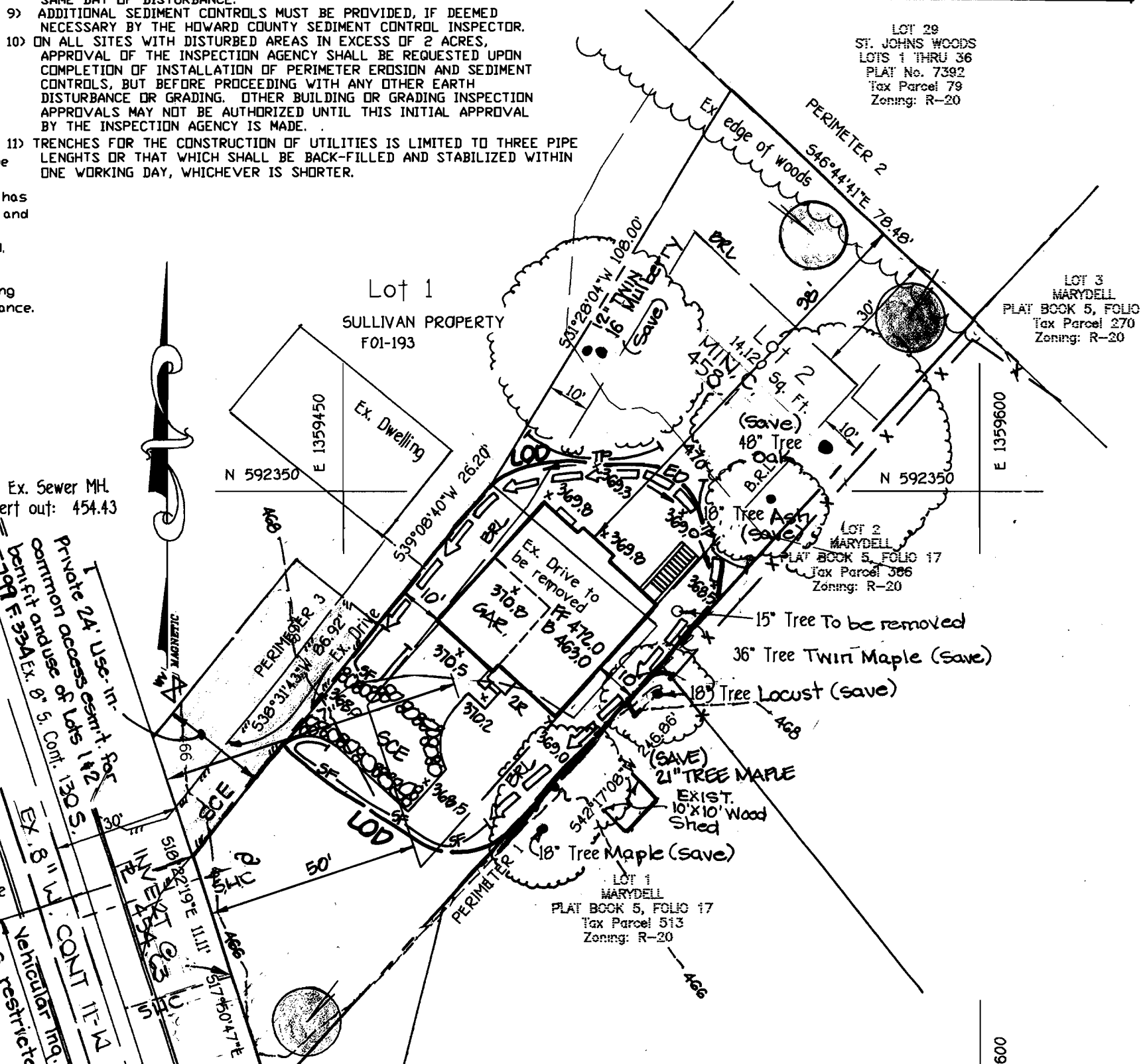
MULCHING
APPLY 1 TO 2 TONS PER ACRE (70 TO 90 LBS./1,000 SQ.FT.) OF UNLIMITED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHORING TOOL OR 210 GALLONS PER ACRE (C) GALLON (SOFT) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES 9 FEET OR HIGHER. USE 348 GALLONS PER ACRE (9 GAL./1,000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1988 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN.
- CLEAR AND GRUB TO LIMITS OF DISTURBANCE AND MASS GRADE TO SUB-BASE.
- INSTALL TEMPORARY SEEDING.
- CONSTRUCT UTILITIES (WV AND SHC).
- CONSTRUCT SWELLING.
- FINE GRADE SITE AND INSTALL PERMANENT SEEDING, LANDSCAPE, SIDEWALKS AND DRIVEWAY.
- REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.



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 DOLIMITIC LIMESTONE (92 LBS./1,000 SQ.FT.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (14 LBS./1,000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 38-0-0 UREAFORM FERTILIZER (9 LBS./1,000 SQ.FT.) AND 300 LBS. PER ACRE (13 LBS./1,000 SQ.FT.) OF 0-20-20 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./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS./ACRE (1.4 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 120 LBS. PER ACRE (0.5 LBS./1,000 SQ.FT.) OF WEEPING LOVEGRASS DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY OPTION (1) - TWO 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 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEED.

MULCHING
APPLY 1 TO 2 TONS PER ACRE (70 TO 90 LBS./1,000 SQ.FT.) OF UNLIMITED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES 9 FEET OR HIGHER. USE 348 GALLONS PER ACRE (9 GAL./1,000 SQ.FT.) FOR ANCHORING.

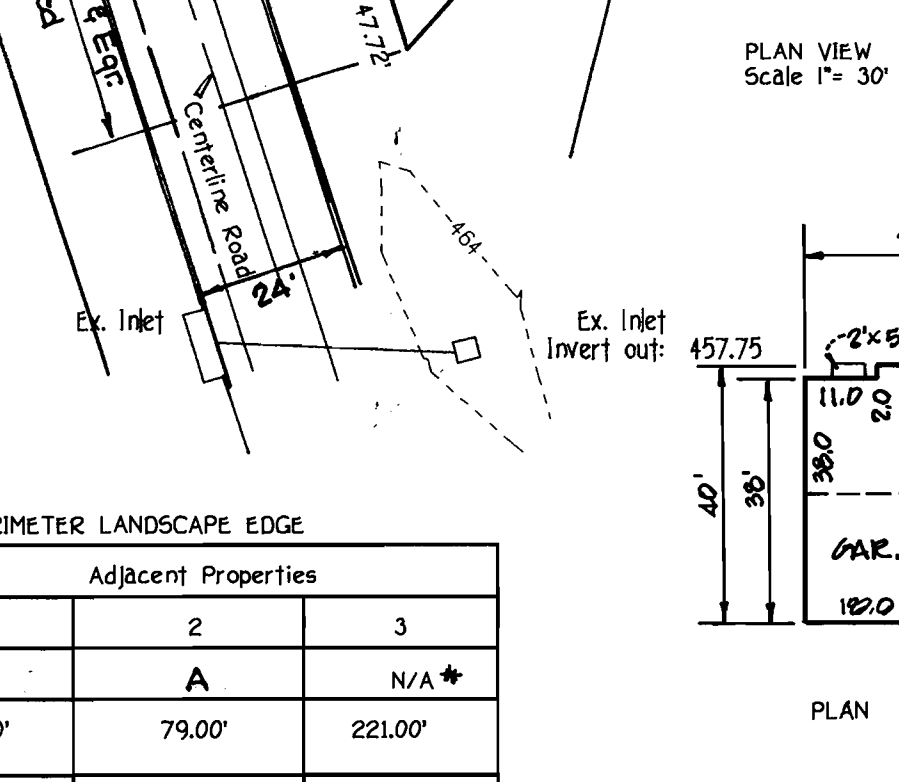
MAINTENANCE
INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.
FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVECH AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS./ACRE AS THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.

SHEET INDEX

SHEET NO.	DESCRIPTION
1 OF 1	SITE DEVELOPMENT PLAN, DETAIL SHEET AND SEDIMENT, EROSION CONTROL PLAN AND LANDSCAPE PLAN

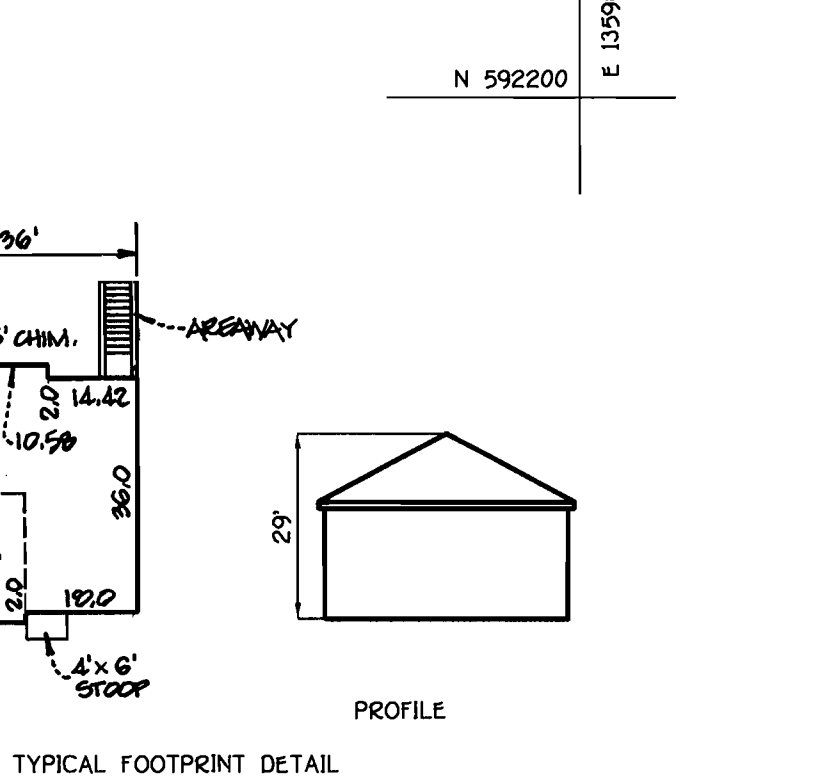
LEGEND

Symbol	Description
- - - -	Existing Contour 2' Interval
---	Existing Contour 10' Interval
— — — — —	Proposed Contour 2' Interval
— — — — —	Proposed Contour 10' Interval
+ 624	Spot Elevation
-SF-FF-	Silt Fence
FF	First Floor Elevation
BE	Basement Elevation
SD	Proposed Walkout
E-DI	Earth Dike
T-P	Tree Protection
L.D.I.	Limit Of Disturbance
ST	Existing Street Tree



PLANT LIST

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
3	①	ACER RUBRUM	OCTOBER GLORY RED MAPLE	2 1/2"-3"



LANDSCAPE DEVELOPER'S CERTIFICATE
I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a certification of landscaping installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.
Chris Brown 8-8-01
None Date

GENERAL NOTES:

- THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410) 313-1900 AT LEAST (5) FIVE WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES-F 01-183
- BOUNDARY SURVEY PERFORMED BY: FISHER COLLINS AND CARTER, INC. ON OR ABOUT DECEMBER 2000.
- TOPOGRAPHY IS BASED ON SURVEY WORK COMPLETED BY HOWARD COUNTY (aerial).
- HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON HOWARD COUNTY GEODETIC CONTROL STATIONS:
HOWARD COUNTY MONUMENT 171A N 590631.02 E elev. 436.34
E 1937761.65
HOWARD COUNTY MONUMENT 171A N 560797.63 E elev. 492.88
E 1360993.60
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- THIS PLAN IS FOR HOUSE SITING AND LOT GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE RIGHTS-OF-WAYS OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION.

12. This project is exempt from the requirements of Section 16.1200 of the Howard County Code for Forest Conservation because in accordance with Section 16.1202 (b)(3) this subdivision is less than 40,000 square feet.

13. Contractor to use Howard County Standard Detail R6.01 Residential Driveway Entrance. In accordance with Section 12B of the Howard County Zoning Regulations, bay windows, chimneys or exterior stairways no more than sixteen feet in width may project not more than four feet into any setbacks, porches or decks, open or enclosed may project not more than ten feet onto the front or rear setback.

14. At the time of plant installation, all trees as listed and approved herewith, shall be of the proper height requirements in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocation of the required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from this approved Landscape Plan may result in denial or delay in the release of landscape survey until such time as all required materials are planted and/or revisions are made to the applicable plans and certifications.

15. A Fee-in-Lieu of Open Space was paid in the amount of \$1500.00 for Lot 2 was paid at the time of recordation of F-01-183.

17. Should any tree designated for preservation, for which landscaping credit is given, die prior to release of bonds, the owner will be required to replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics. The replacement tree must be a minimum of 3 inches in caliper and installed as required in the Landscape Manual.

CONSTRUCTION SPECIFICATIONS

- ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
- ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF NECESSARY TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
- FIELD LOCATION SHALL BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- EARTH CHANNELS AND OUTLETS THAT FUNCTION WITH A SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
- STABILIZATION SHALL BE (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Using vegetation as cover for barren soil to protect it from erosion. DEFINITION: Vegetative stabilization is the establishment of vegetation on an exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

APPLICABLE CONDITIONS WHERE PRACTICES APPLIES:
This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This practice is for temporary seeding to quickly establish vegetative cover for short duration. It is not intended for permanent seeding. For long term vegetative cover, use of Permanent Seeding or Temporary Seeding of Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding of lowlands, dunes, cut and fill slopes and other erosion-prone stockpiles and staging areas, etc.

EFFECTS ON WATER QUALITY AND QUANTITY
Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation and transpiration, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect ground water supplies by assisting those substances present within the root zone. Sediment control devices must remain in place during grading, seeded preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

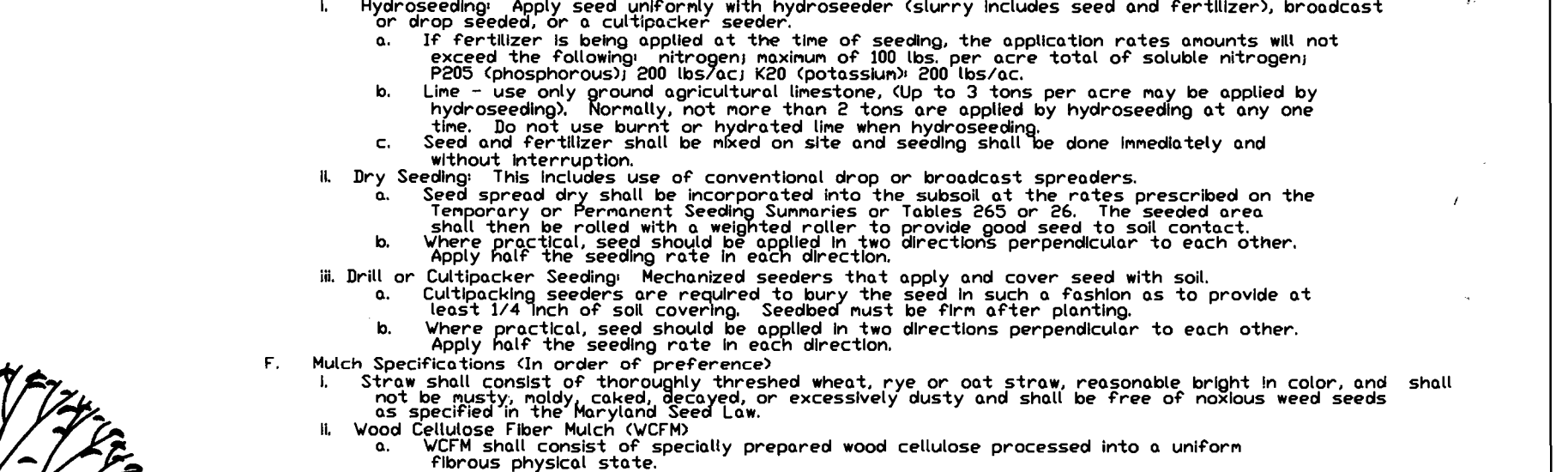
SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. Site Preparation
1. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
2. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
3. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 3 acres.
4. Soil tests must be performed to determine the exact rates and application rates for both lime and fertilizer on sites having disturbed areas over 3 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
5. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Herbicide prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the product.
6. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted which contains at least 80% calcium hydroxide equivalent). Limestone shall be ground to such a fineness that at least 50% will pass through a #100 mesh sieve and 98-100% will pass through a #20 mesh sieve.
7. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

B. Seeded Preparation
1. Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of subsoiling or disking, or other suitable means, such as disc harrows or chisel plows or rippers not used on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
2. Apply fertilizer and lime to the plan.
3. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
4. Temporary Seeding
a. Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of subsoiling or disking, or other suitable means, such as disc harrows or chisel plows or rippers not used on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
b. Apply fertilizer and lime to the plan.
c. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
5. Minimum soil conditions required for permanent vegetative establishment:
a. Soil shall contain less than 40% clay, but enough fine grained material (0.075 sieve size) to provide the capacity to hold moderate amount of moisture. An exception is if loess or silt loess (less than 30% clay) is to be planted, then a sandy soil (30% silt plus clay) would be acceptable.
b. Soil shall contain 10% organic matter by weight.
c. Soil must contain sufficient soil to provide adequate root penetration.
d. If these conditions cannot be met on site, adding topsoil is required in accordance with the specifications in this manual.
6. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade. Then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil in irregular condition with ridges running parallel to the contour of the slope to the surface area and to create horizontal erosion check striations to prevent topsoil from sloughing.
7. Apply soil amendments as per soil test or as indicated on the plans.
8. All seed shall be applied to the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seeded preparation, topsoil should be applied by a heavy tractor or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving ridges in irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.

C. Seed Specifications
1. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to a pre-plant inspection by a recognized laboratory. All seed shall have been tested within 6 months immediately preceding the date of sowing such material on this job.
2. Note: Seed shall be certified to the minimum seed size and rate of seed used.
3. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of the bacteria Rhizobium species and shall be applied to the seed immediately prior to sowing. The date indicated on the container. Add fresh inoculant as directed on package. Use four times the amount of inoculant for legume seed.
4. Method of application - Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.
5. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen maximum of 100 lbs. per acre total of soluble nitrogen (less 100 lbs. of phosphorus) or 100 lbs. of potassium per acre.
6. Line - Use only ground agricultural limestone. Up to 3 tons per acre may be applied by broadcast or other method, but not by dragging with a heavy tractor or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving ridges in irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.

D. Dry Seeding
This includes use of conventional drop or broadcast spreaders.
1. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be rusty, moldy, coated, decayed, or excessively dusty and shall be free of noxious weed seeds.
2. Wood Cellulose Fiber Mulch (WCFM)
a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
c. The slurry shall contain no germination or growth inhibiting factors.
d. WCFM materials shall be manufactured and produced in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation, and its water absorption and penetration properties shall be such as to allow the mulch to be applied to the soil without inhibiting the growth of the grass seedings.
e. The slurry shall contain no elements or compounds at concentration levels that will be phytotoxic.
f. WCFM must conform to the following physical requirements: length 600 to 1000 microns; density 1.0 to 1.1 g/cm³; moisture 10% maximum and water holding capacity of 90% minimum.
g. Only sterile straw mulch should be used unless a sterility test shows the grass is prescribed.
h. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.
3. Grading is completed outside of the seeding season, mulch shall be applied as described in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
4. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform depth of 1 1/2 inches. Mulch application shall achieve a uniform distribution and depth so that the soil surface is not exposed. If mulch application is to be used, the rate should be increased to 2.5 tons/acre.
5. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.
6. Securing Straw Mulch (Mulch Anchoring) - Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:
a. Mulch anchoring tool is a tractor draw implement designed to punch and anchor mulch into the soil surface a minimum of 3 to 4 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping lands, this practice should be used on the contour.
b. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 100 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons.
c. Application of liquid binders should be heavier at the edges where wind catches much, such as on valleys and crest of banks. A remainder of 200 pounds/acre should be applied under application. Synthetic binders such as Acrylic BLR (Aqua-Lock), BGA-Teraco, Terra-Tax Water Adhesive, or approved equal may be used at rates recommended by the manufacturer to anchor mulch.
d. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 30' to 3,000 feet long.



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE, OFFICE 1600 - 1072 BALTIMORE NATIONAL FEE ELLICOTT CITY, MARYLAND 21042
(410) 481-2999

STATE OF MARYLAND
Professional Engineer
No. 12042

REVISION

DATE	DESCRIPTION
2/22/02	REVISED H.E. TYPE, A.C.F.D./INC. HEC. FOOTPRINT

ENGINEER'S CERTIFICATE
I certify that this plan for erosion and sediment 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.
Signature of Engineer (Print name below signature) Chris Brown
Date 8-8-01

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 the 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.
Signature of Developer (Print name below signature) Chris Brown
Date 8-8-01

Approved for HOWARD SCD and meets Technical Requirements.
Chris Brown
12/13/01
Date

Approved: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Chris Brown
12/13/01
Date

This development plan was prepared for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

OWNER/BUILDER
HARMONY BUILDER
4228 COLUMBIA ROAD
ELLICOTT CITY, MARYLAND 21042
410-461-0835

SULLIVAN PROPERTY

DEED/PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
1509G	16	R-20	17	SECOND	602200
WATER CODE		SEWER CODE			
1-H04		5T57500 32S			

SITE DEVELOPMENT PLAN NOTES AND DETAILS

SEDIMENT AND EROSION CONTROL PLAN

SINGLE FAMILY DETACHED DWELLING

SULLIVAN PROPERTY
LOT 2

TAX MAP 17 GRID 16 PARCEL NO. 404
SECOND ELECTION DISTRICT HOWARD CO. MD.
SCALE 1"=30' NOV. 2001

SHEET 1 OF 1