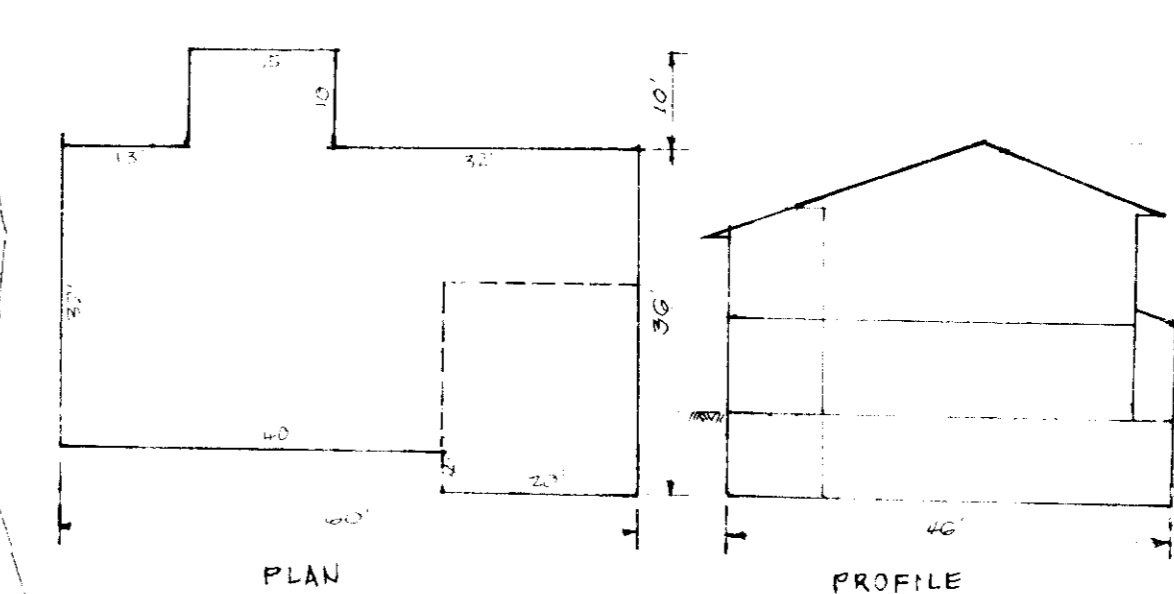
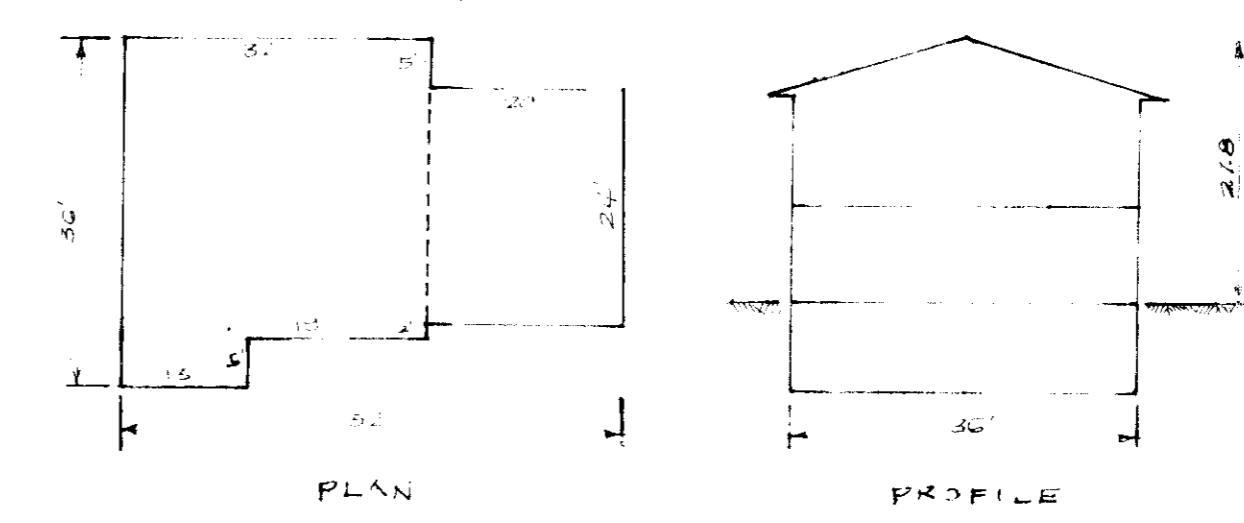


PLAN  
Scale 1"=30'



LOT 41 HOUSE TYPE - NEW CASTLE  
COVERAGE = 10.8%



LOT 42 HOUSE TYPE - SOUTHALL  
COVERAGE = 8.90%  
TYPICAL SCALE 1"=20'

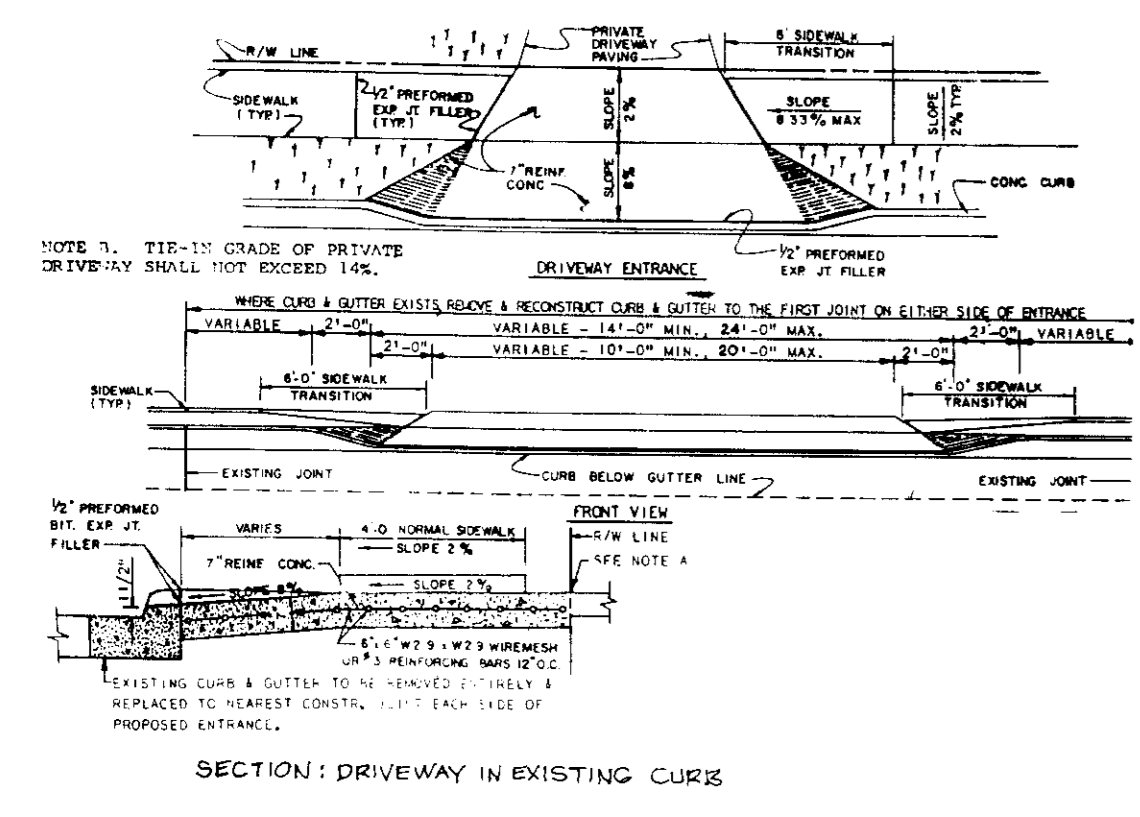
ADDRESS CHART	
LOT NO.	STREET ADDRESS
41	9900 TIMBERKNOLL LANE
42	9904 TIMBERKNOLL LANE

- NOTE 1
- LOTS 40 & 43 ARE OWNED BY OWNERS OF LOTS 41 & 42. NO GRADING EASEMENT IS THEREFORE REQUIRED.
  - COVERAGE OF HOUSE AND LOT  
2.1 AT Lot 41 - 8.30%  
2.1 AT Lot 42 - 11.68%

- GENERAL NOTES
- See Map 24, Lot 41 and lot 42.
  - Deed Reference Plat 8882
  - Zoning - R-20
  - Total Area of Site = .848
  - Any damage to the county owned right-of-way shall be corrected at developer's expense.
  - All materials and construction shall be in accordance with Howard County Design Manual Volume IV.
  - Contractor to verify all underground utilities before beginning work.
  - Contractor to notify Miss Utility at 1-800-250-7777 at least five (5) days prior to beginning work.
  - The contractor or developer shall contact the Construction Inspection Division, 24 days prior to commencement of work at 24-24-24.
  - Stormwater management is provided under F 88-18-1.
  - There are no wetlands on this site.
  - Lots 41 & 42 recorded under F 88-18-1.

- LEGEND :
- EXISTING CONTOUR
  - PROPOSED CONTOUR
  - SPOT ELEVATION
  - DIRECTION OF DRAINAGE
  - SILT FENCE
  - STABILIZED CONSTRUCTION ENTRANCE
  - LIMIT OF DISTURBANCE
  - EARTH DIKE

- SEQUENCE OF CONSTRUCTION
- OBTAIN GRADING PERMITS
  - INSTALL ALL EROSION CONTROL MEASURES AND SILT FENCES
  - GRADING
  - FOUNDATION
  - CONSTRUCTION



11-12-91  
11.21.90  
11/14/90  
11/16/90  
11.1.90

*Handwritten signature*

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for soil and sediment control.

*James M. Miller (S.S.)* 9/21/90  
Soil Conservation Service Date

These plans for soil and sediment control meet the requirements of the Howard Soil Conservation District.

*John J. [Signature]* 9/21/90  
Howard Soil Conservation District Date

ENGINEER'S CERTIFICATE

I certify that this plan 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.

*Michael H. [Signature]* 9-12-90  
Signature of Engineer Date

DEVELOPER'S CERTIFICATE

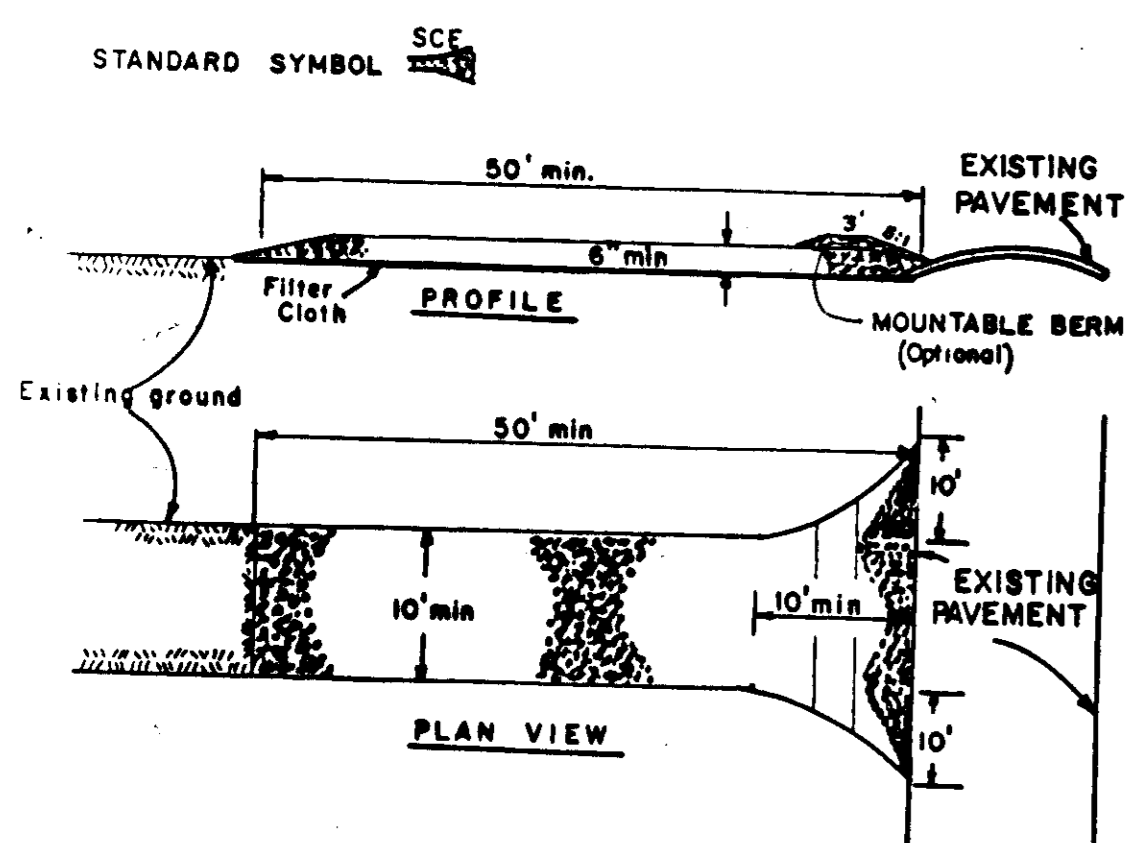
I We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of Environment Approved Training Program for Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

*John [Signature]* [Date]  
Signature of Developer Date

DESIGNED  
MILL  
DRAWN  
CHECKED  
DATE

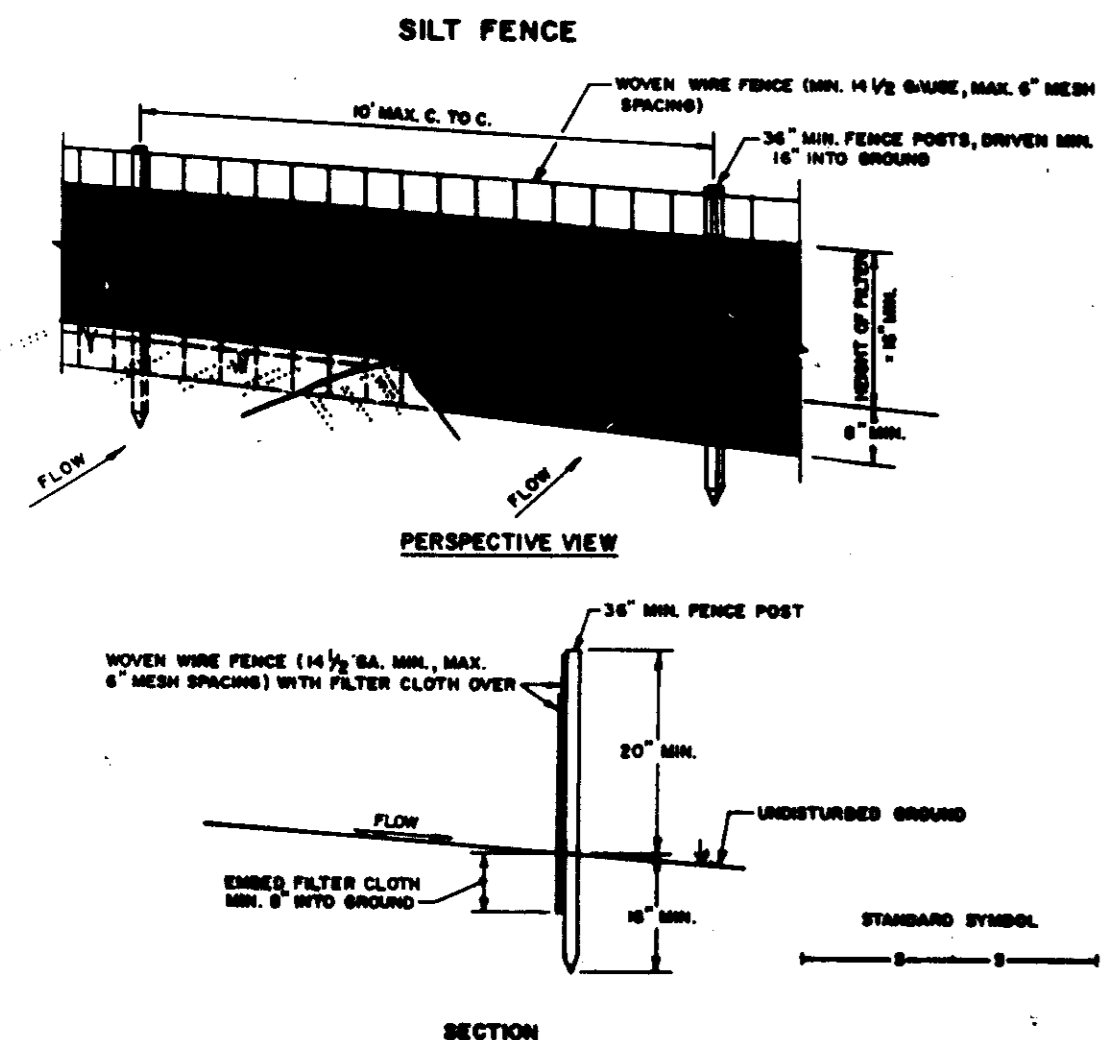
FONT HILL VILLAGE  
5830000  
SITE DEVELOPMENT PLAN,  
GRADING PLAN &  
SEDIMENT CONTROL PLAN  
FONT HILL VILLAGE, SECTION 5  
LOTS 41 & 42  
OWNER: BASSLER HUNT PARTNERSHIP  
P.O. BOX 1220  
ELL COTT CITY, MD 21043  
SDP 70-212

**STABILIZED CONSTRUCTION ENTRANCE**  
not to scale



**CONSTRUCTION SPECIFICATIONS**

- Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
- Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
- Thickness - Not less than six (6) inches.
- Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
- Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
- Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a moundable berm with 5:1 slopes will be permitted.
- Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
- Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.



**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
  - Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
  - When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
  - Maintenance shall be performed as needed and material removed when "blow" develop in the silt fence.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD  
FENCE: WOVEN WIRE, 1/4" GA. 6" MAX. PESH OPENING  
FILTER CLOTH: FILTER X, PERFORATED, STAINLESS STEEL OR APPROVED EQUAL  
PREFABRICATED UNIT: GEOTEX, DRYTROPIC, OR APPROVED EQUAL

**PERMANENT SEEDING NOTES**

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

**Seeding Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, unless previously loosened.

**Soil Amendments:** In lieu of soil test recommendations, use one of the following schedules:

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 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).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

**Seeding:** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 20 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 40 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru 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 sq ft) 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 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

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

**TEMPORARY SEEDING NOTES**

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

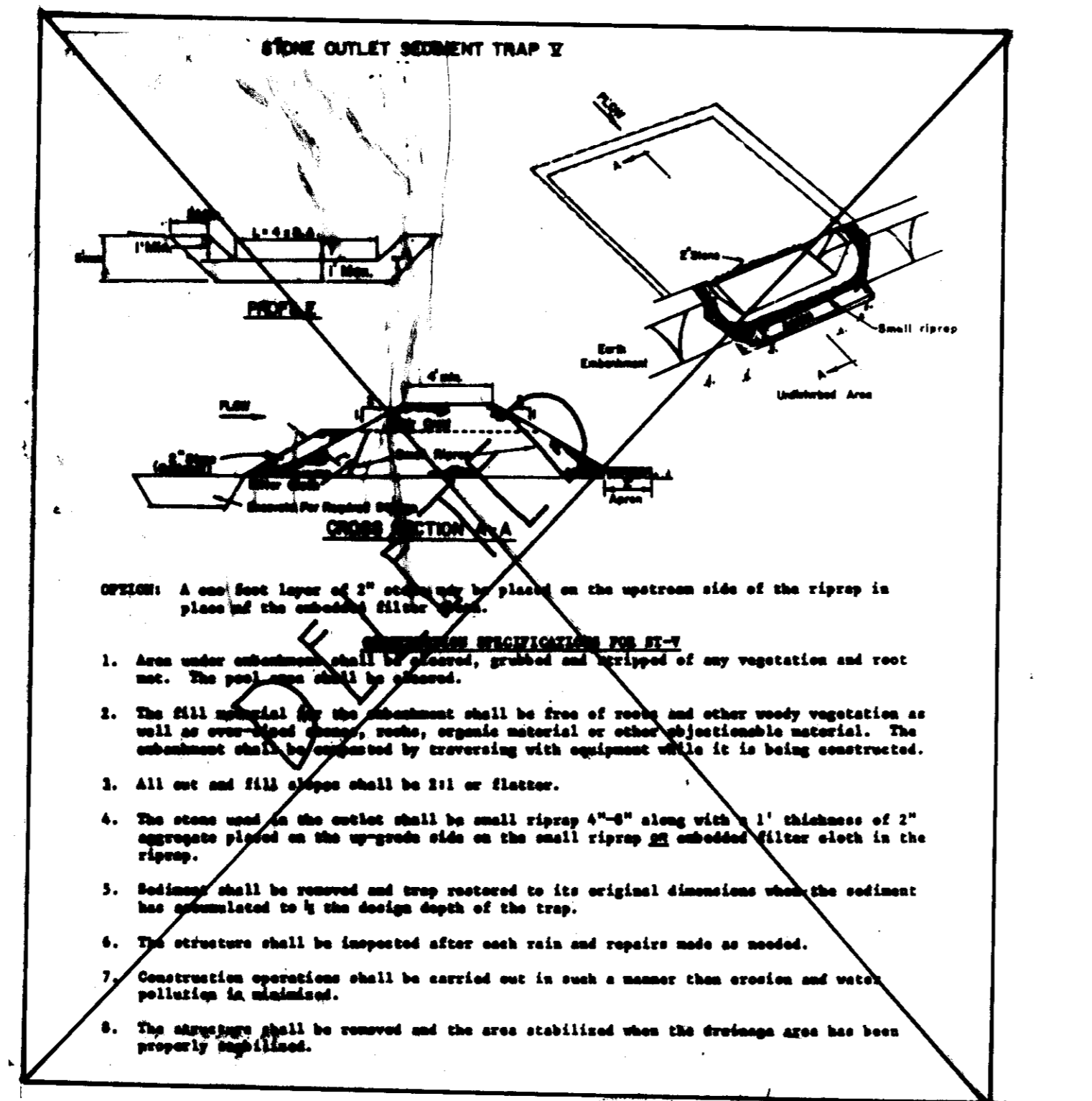
**Seeding Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, unless previously loosened.

**Soil Amendments:** Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft)

**Seeding:** For periods March 1 thru April 30 and from August 15 thru November 15, seed with 24 bushel per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 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 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 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.



- Area under catchment shall be cleared, graded and stripped of any vegetation and root mat. The soil shall be protected.
- The fill material for the catchment shall be free of rocks and other woody vegetation as well as over-lap, stumps, roots, organic material or other objectionable material. The catchment shall be constructed by traversing with equipment while it is being constructed.
- All cut and fill slopes shall be 3:1 or flatter.
- The stone used in the outlet shall be small riprap 4"-8" along with 1" diameter of 2" aggregate riprap on the upstream side of the small riprap 2:1 shoulder filter cloth in the riprap.
- Sediment shall be removed and trap returned to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap.
- The structure shall be inspected after each rain and repairs made as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

**STANDARD AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION WITH SOD**

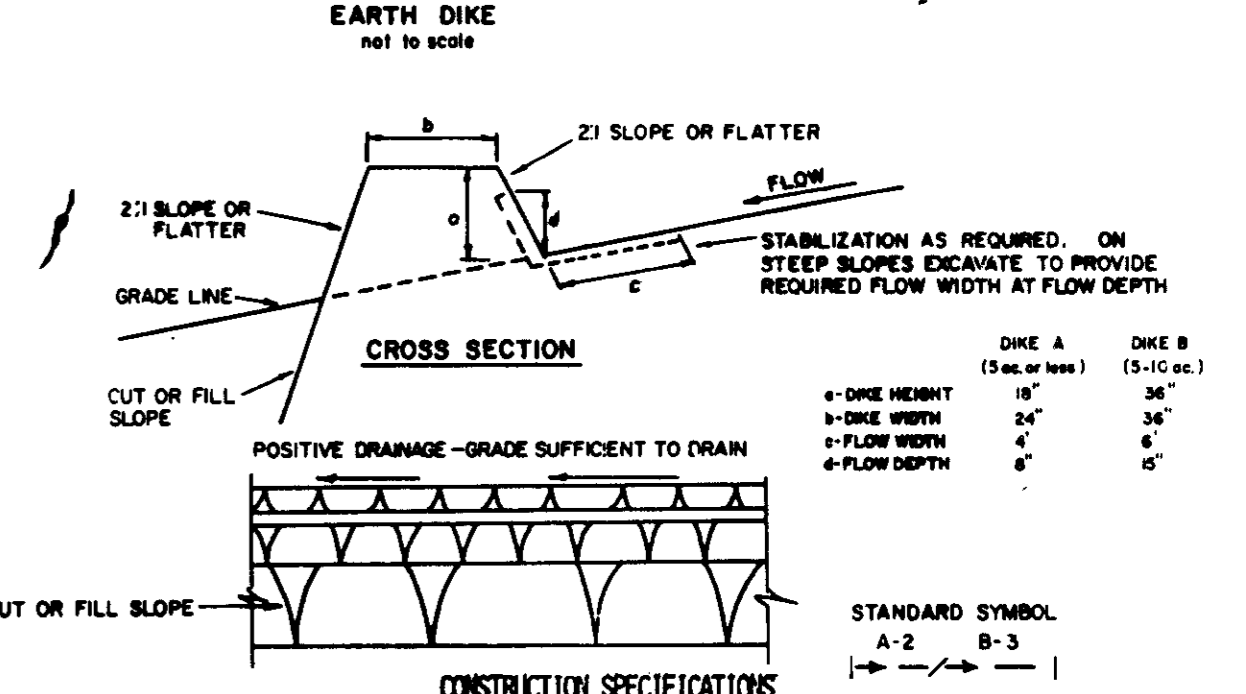
- Class of turfgrass sod shall be Maryland or Virginia State Certified, or Maryland or Virginia State approved sod.
  - Sod shall be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness shall exclude top growth and thatch.
  - Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
  - Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.
  - Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
  - Sod shall be harvested, delivered and installed within a period of 36 hours. Sod not transplanted within this period shall be inspected and approved prior to its installation.
- Site Preparation**
- Fertilizer and lime application rates shall be determined by soil tests. Under unusual circumstances where there is insufficient time for a complete soil test, fertilizer and lime materials may be applied in amounts shown under b, below.
- Prior to sodding, the surface shall be cleared of all trash, debris, and of all roots, brush, wire, grade stakes and other objects that would interfere with planting, fertilizing or maintenance operations.
  - Where the soil is acid or composed of heavy clays, ground limestone shall be spread at the rate of 2 tons/acre or 100 pounds per 1,000 square feet. In all soils 1,000 pounds per acre or 25 pounds per 1,000 square feet of 10-10-10 fertilizer or equivalent shall be uniformly applied and mixed into the top 3 inches of soil with the required lime.
  - All areas receiving sod shall be uniformly fine graded. Hard-packed earth shall be scarified prior to placement of sod.

**SEDIMENT CONTROL NOTES**

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redisturbance, 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 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and 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: 0.850 Acres  
Area Disturbed: 0.721 Acres  
Area to be roofed or paved: 0.147 Acres  
Area to be vegetatively stabilized: 0.574 Acres  
Total Cut: 1645 Cu. yds  
Total Fill: 282 Cu. yds  
Office waste/borrow area location: SDP-91-24
- 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.
- 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.

**GENERAL NOTES**

- Refer to "1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control" for standard details and detailed specifications of each practice specified herein.
  - With the approval of the sediment control inspector, minor field adjustments may be made to insure the control of any sediment. Changes in sediment control practices require prior approval of the sediment control inspector and the Howard County Soil Conservation District.
  - At the end of each working day, all sediment control practices will be inspected and left in operational condition.
  - Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days as to the surface of all perimeter controls, dikes, embankments, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and b.) fourteen days as to all other disturbed or graded areas on the project site.
  - Any change to the grading proposed on this plan requires re-submission to Howard County Soil Conservation District for approval.
  - Dust control will be provided for all disturbed areas. Refer to 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control, pp 681 and 68.01 for acceptable methods and specifications for dust control.
  - Any variation from the sequence of operations stated on this plan requires the approval of the sediment control inspector and the County Soil Conservation District prior to the initiation of the change.
  - Excess cut or borrow material shall go to or come from, respectively, a site with an approved sediment control plan.
- The following item may be used as applicable:
- Refer to "Maryland's Construction Erosion Control" by the Water Resources Administration (WRA) State January, 1986 for standard details and detailed specifications of each practice specified herein for waterway construction.



**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 desired to facilitate crossing by construction traffic.
- Field location should be adjusted as needed to utilize a stabilized safe outlet.
- Earth dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin where either the dike channel or the drainage area above the dike are not immediately stabilized.
- Stabilization shall be: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLUX CHANNEL AS PER THE CHART BELOW.

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING LITE. OR EXCELLENT SOI; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOI; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.  
B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.  
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.  
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for soil and sediment control.

*James M. Nolan (s.c.)* 9/24/90  
Soil Conservation Service Date

These plans for soil and sediment control meet the requirements of the Howard Conservation District.

*[Signature]* 9/21/90  
Howard Soil Conservation District Date

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT

*[Signature]* 11-12-90  
COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*[Signature]* 11-21-90  
PLANNING DIRECTOR DATE

*[Signature]* 11/21/90  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT. J.B.

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC WORKS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*[Signature]* 11/1/90  
DIRECTOR DATE

*[Signature]* 11/1/90  
CHIEF, BUREAU OF ENGINEERING DATE

**Engineer's Certificate**

**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 conditions and it was prepared in accordance with the requirements of Howard Soil Conservation District.

*[Signature]* 9-12-90  
Signature of Engineer Date

**Developer's/Builder's Certificate**

I/We certify that all development and construction will be done in accordance with this plan, and that any responsible personnel involved in the construction will have a Certificate of Attendance at a Maryland Department of Environment Training Program for the Control of Sediment before beginning the project. I also authorize periodic inspection by the Howard Soil Conservation Service.

*[Signature]* 9-12-90  
Builder/Developer Date

**oria engineering inc.**  
Consulting Engineers • Land Planners • Surveyors  
3230 Bethany Lane, Suite 4, Ellicott City, Maryland  
301-465-0400

DESIGNED: MLL  
DRAWN: MLL  
CHECKED: MLL  
DATE: 06-08-90

**SEDIMENT & EROSION CONTROL DETAILS**

**FONT HILL VILLAGE, SECTIONS**  
LOTS 4 & 5

2ND ELECTION DIST.  
HOWARD COUNTY MARYLAND

**OWNER: BASSLER HUNT PARTNERSHIP**  
P.O. BOX 122G  
ELLCOTT CITY, MD 21043

SCALE: AS SHOWN  
DRAWING: 2 OF 2  
JOB NO.  
FILE NO.

SDP 70-212