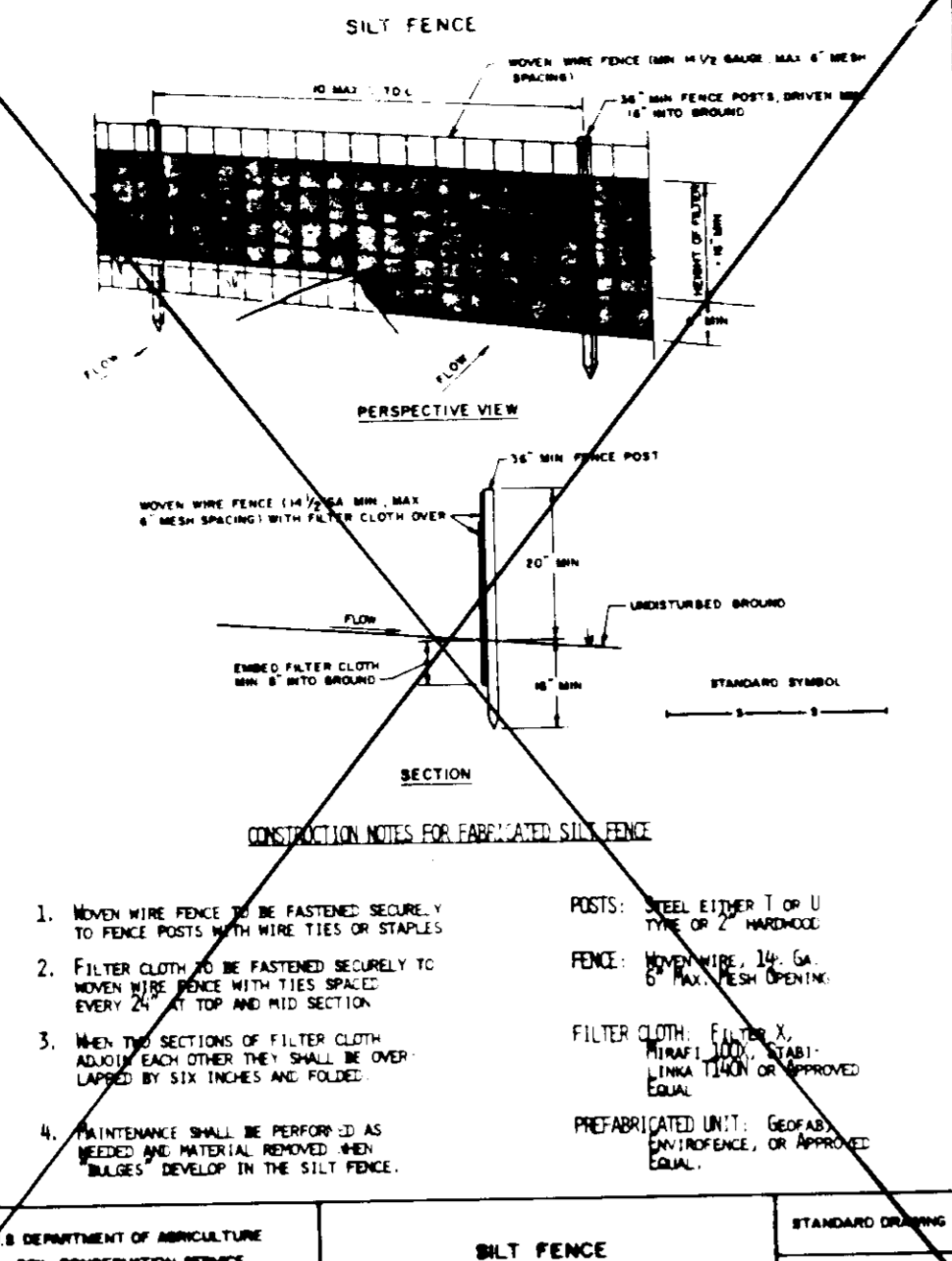
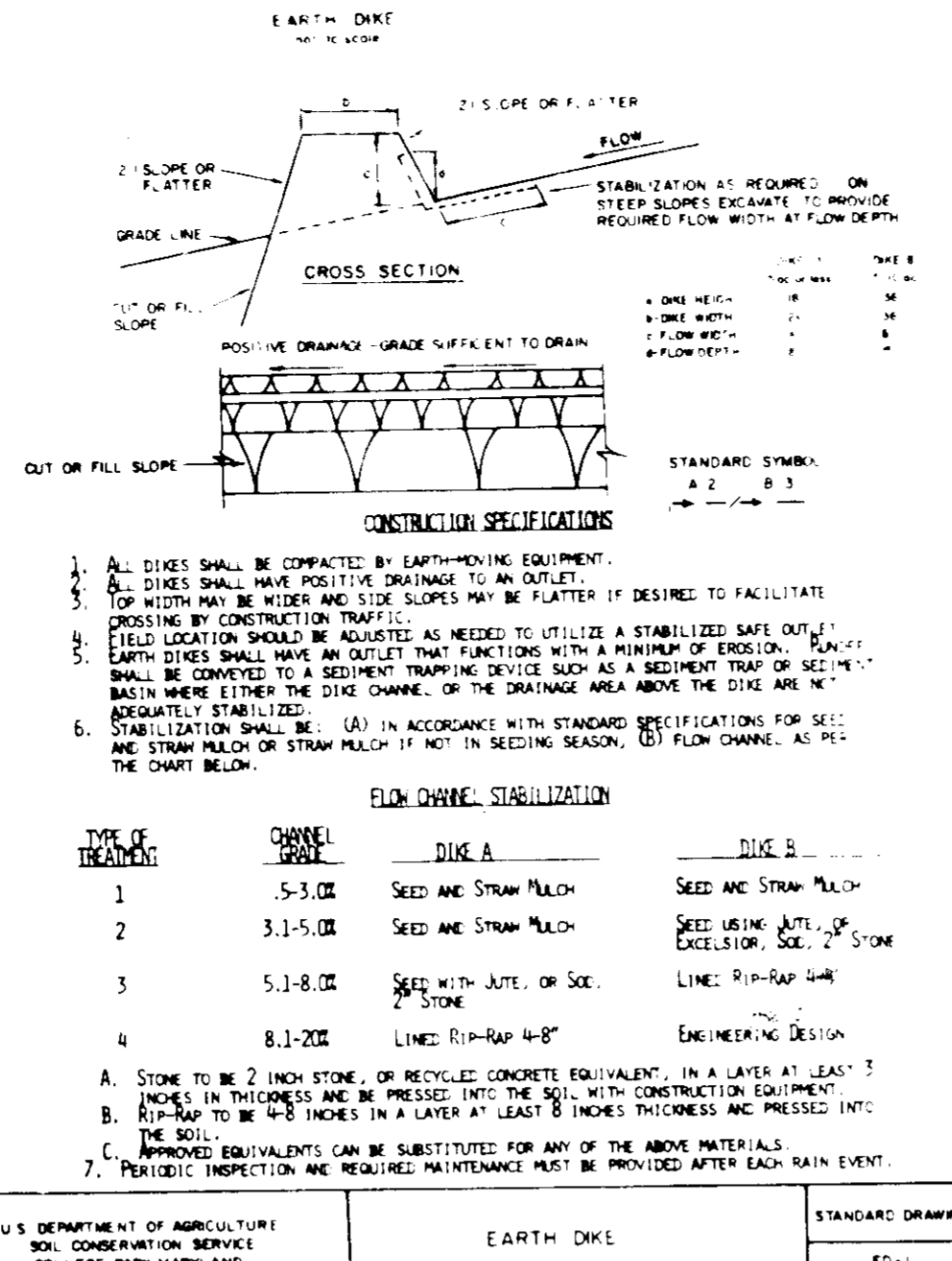


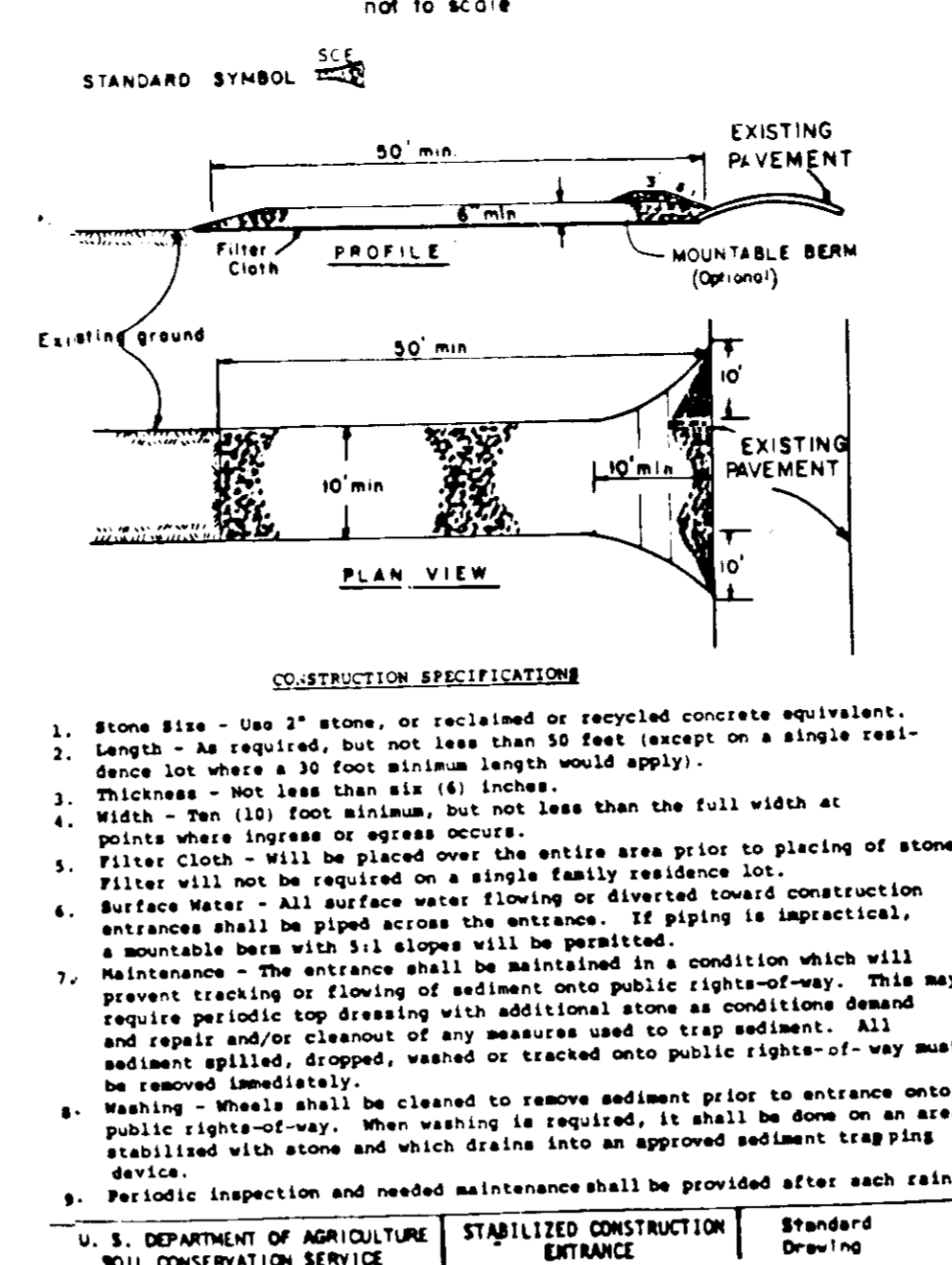
STRAW BALE DIKE
STANDARD DRAWING
SD-1



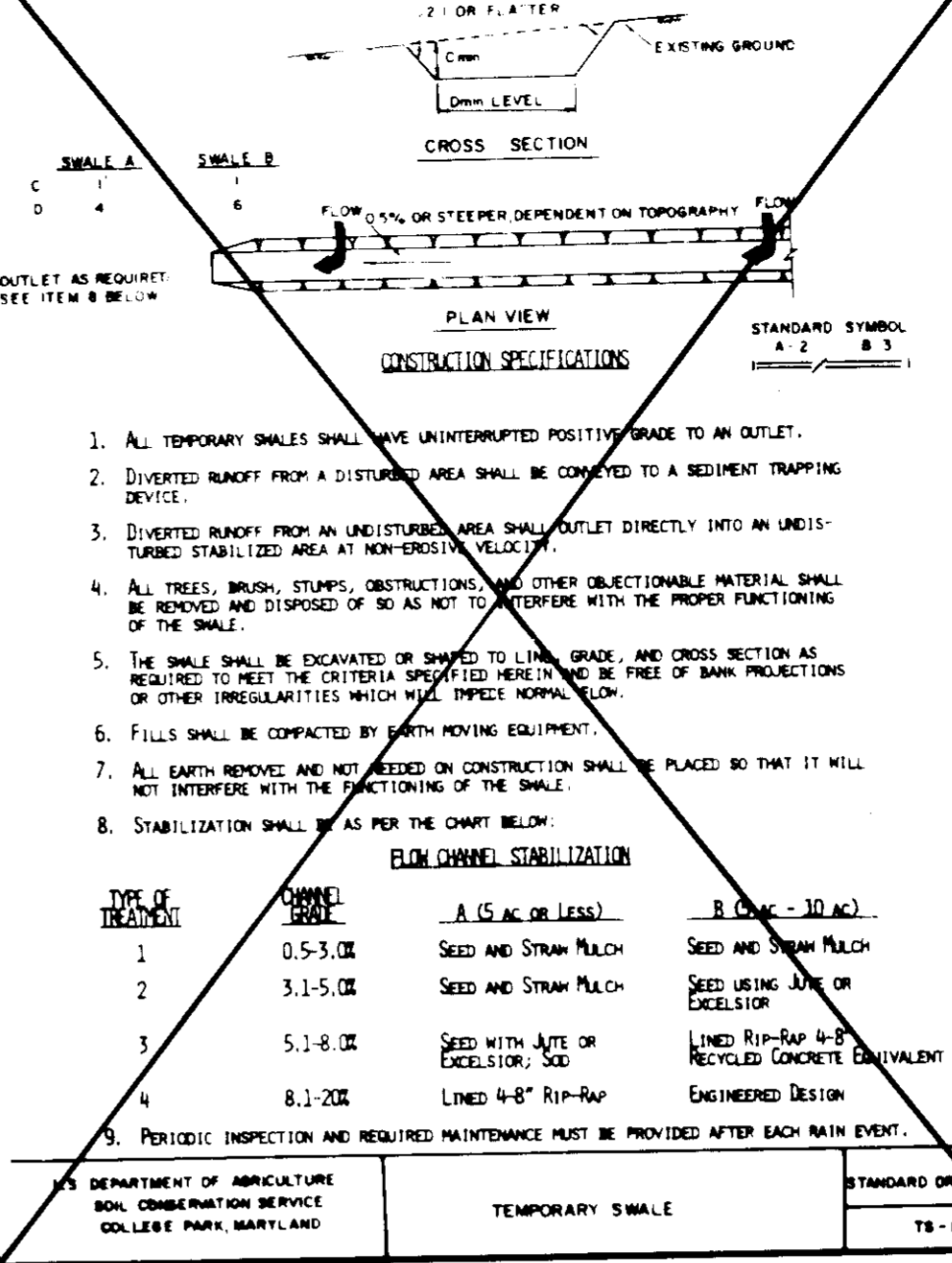
SILT FENCE
STANDARD DRAWING
SF-1



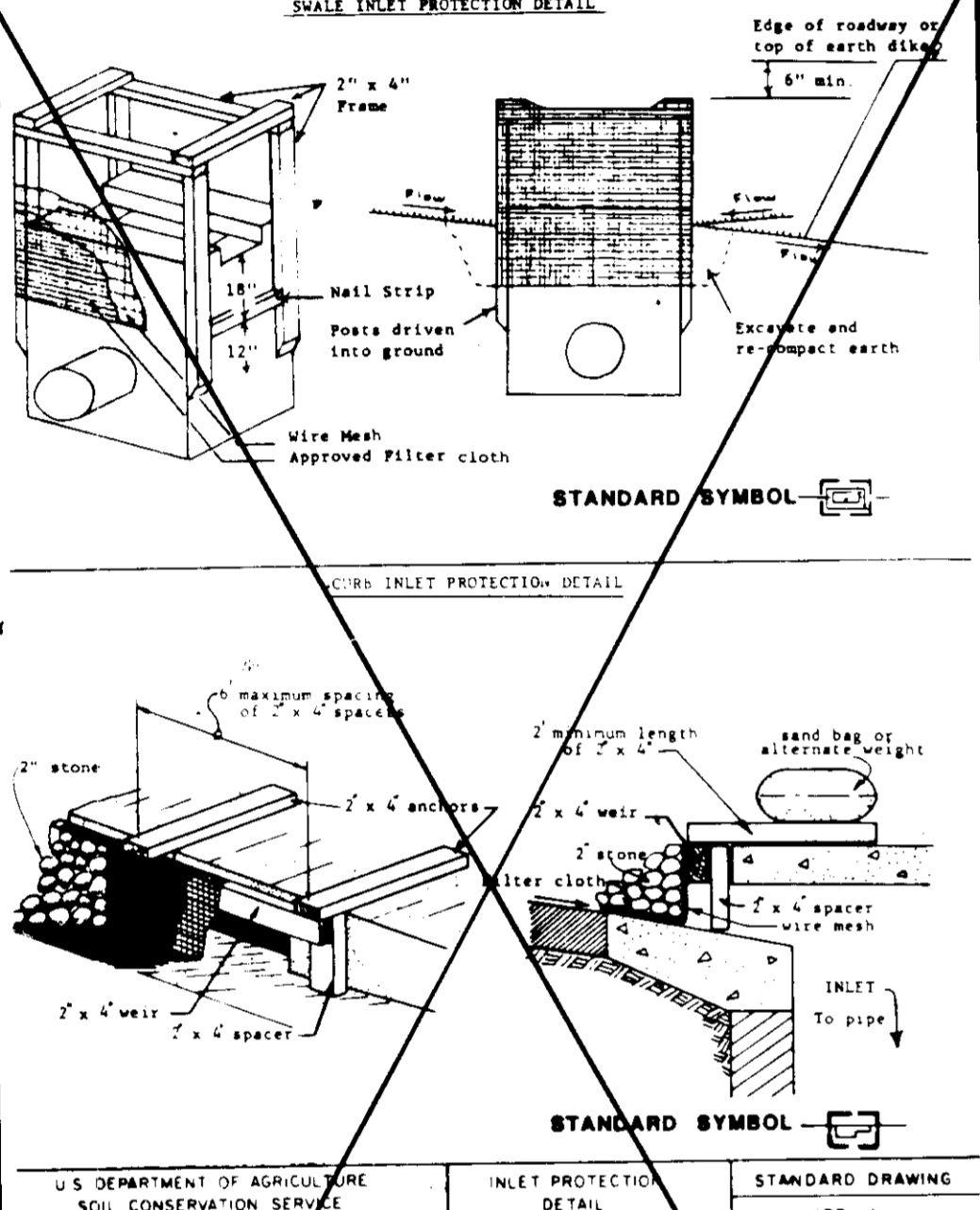
EARTH DIKE
STANDARD DRAWING
ED-1



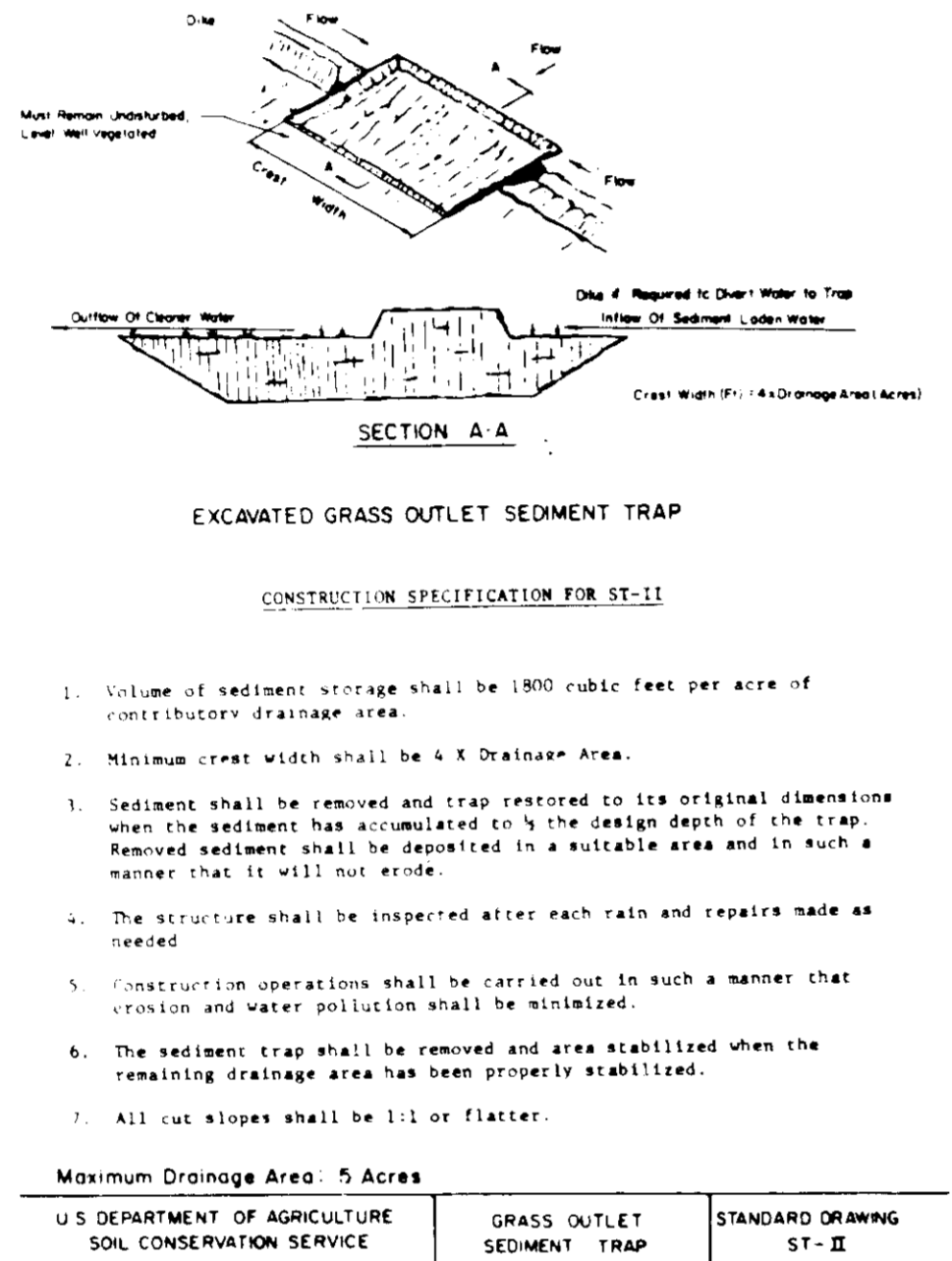
STABILIZED CONSTRUCTION ENTRANCE
STANDARD DRAWING
SE-1



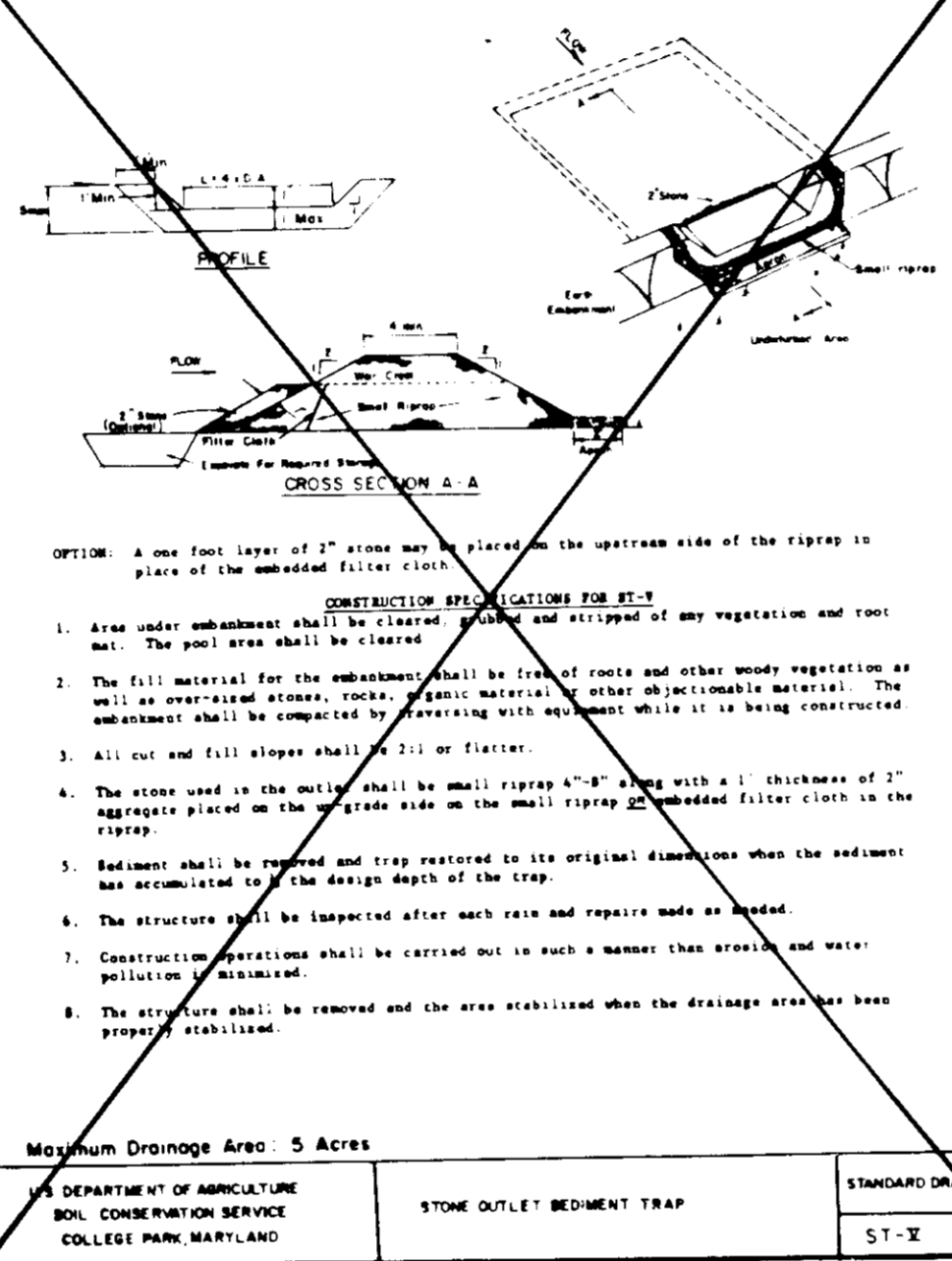
TEMPORARY SWALE
STANDARD DRAWING
TS-1



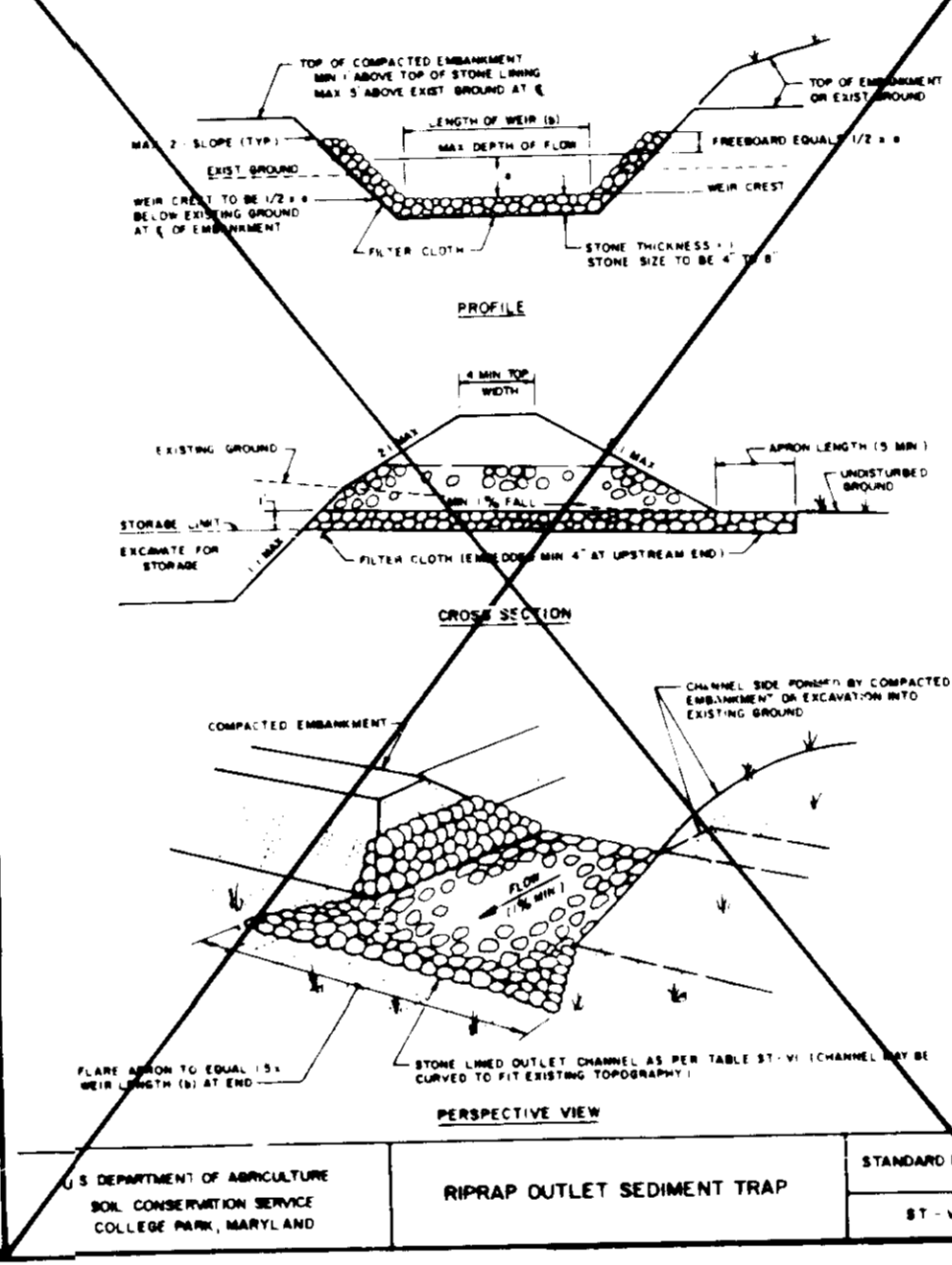
SCALE INLET PROTECTION DETAIL
STANDARD DRAWING
IPD-1



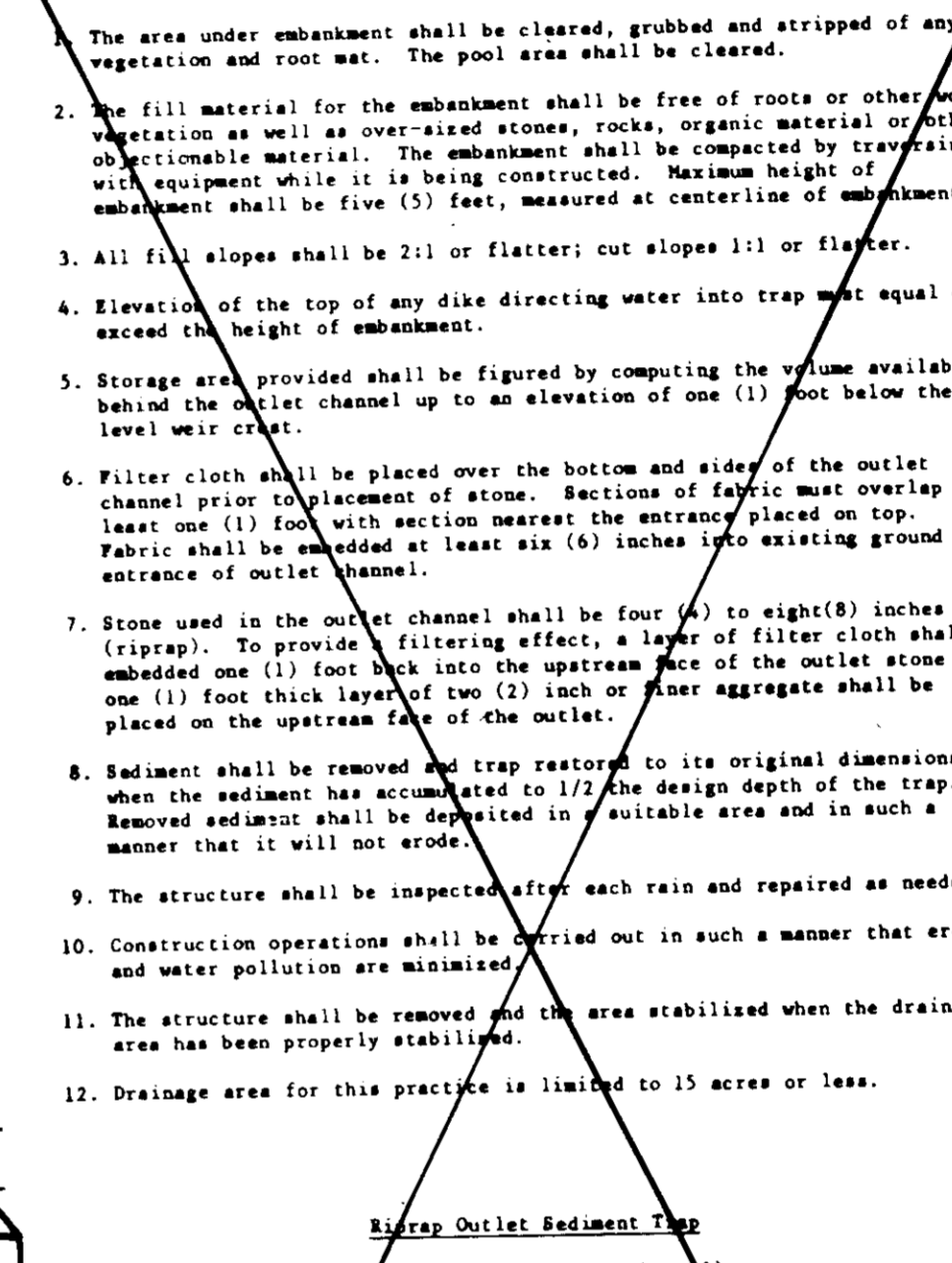
EXCAVATED GRASS OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-II



STONE OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-I



RIPRAP OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-VI



CONSTRUCTION SPECIFICATIONS FOR ST-VI

Construction Specifications

Materials

- Wooden frame is to be constructed of 2"x4" construction grade lumber.
- Plywood is to be a minimum thickness of 1/4" construction grade lumber.

Installation

- Cut plywood to extend a minimum of 6" past throat along curb.
- Attach to anchors in a secure manner which will insure a water tight fit against throat.
- Brace securely using sandbag or alternate weight. If not watertight, use approved filter cloth under plywood and attach securely.

Construction Specifications for ST-II

- Volume of sediment storage shall be 1800 cubic feet per acre of contributing drainage area.
- Minimum crest width shall be 4' Drainage Area.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- 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 shall be minimized.
- The sediment trap shall be removed and area stabilized when the remaining drainage area has been properly stabilized.
- All cut slopes shall be 1:1 or flatter.

Maximum Drainage Area: 5 Acres

Construction Specifications for ST-I

- Area under embankment shall be cleared of any vegetation and roots. The soil area shall be graded.
- The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, shell material or other objectionable material. The embankment shall be compacted by tamping with equipment while it is being constructed.
- All cut and fill slopes shall be 1:1 or flatter.
- The stone used in the outlet shall be small riprap 4" to 6" with a 1" thickness of 2" aggregate placed on the grade side on the small riprap. Embedded filter cloth in the riprap.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 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 shall be minimized.
- The sediment trap shall be removed and area stabilized when the drainage area has been properly stabilized.
- All cut slopes shall be 1:1 or flatter.

Maximum Drainage Area: 5 Acres

Construction Specifications for ST-VI

- The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil area shall be graded.
- The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by tamping with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
- All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
- Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
- Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level weir crest.
- Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
- Stone used in the outlet channel shall be four (4) to eight (8) inches (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stones or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The structure shall be inspected after each rain and repaired as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
- Drainage area for this practice is limited to 15 acres or less.

Riprap Outlet Sediment Trap
ST-VI (for Stone Lined Channel)

Contributing Drainage Area (Acres)	Depth of Channel (Feet)	Length of Weir (Feet)
1	1.5	4.0
2	1.5	5.0
3	1.5	6.0
4	1.5	7.0
5	1.5	8.0
6	1.5	9.0
7	1.5	10.0
8	2.0	10.0
9	2.0	10.0
10	2.0	10.0
11	2.0	10.0
12	2.0	10.0
13	2.0	10.0
14	2.0	10.0
15	2.0	10.0

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Signature: *James M. Helms* DATE: 9-2-87

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

Signature: *Stephen A. Deuler* DATE: 7/6/87
Approved Howard S.C.D.

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE: 2-19-87

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

Signature: *James A. Lewis* DATE: 9/3/87
DIRECTOR

Signature: *W. S. ...* DATE: 9-2-87
CHIEF BUREAU OF ENGINEERING

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

Signature: *James A. ...* DATE: 9-4-87
HEALTH OFFICER

APPROVED HOWARD COUNTY OF PLANNING AND ZONING

Signature: *W. S. ...* DATE: 9-11-87
DIRECTOR

Signature: *W. S. ...* DATE: 9-8-87
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

OWNER/DEVELOPER:
NICKOLAOS A. PAPAVASILIS
3120 O'DONNELL ST.
BALTIMORE MD. 21224

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, disking or other acceptable means before seeding.

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 sq ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Narrow 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).
- 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. Narrow 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 50 lbs per acre of annual ryegrass (3.2 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 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 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 straw 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, replacement and reseedings.

TEMPORARY SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding.

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

Seeding - For the periods March 1 thru April 30 and from August 15 thru November 15, seed with 25 lbs 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 seed.

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 straw 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.

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 (Sec. 54), temporary stabilization with seed 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: 55 Acres
Area Disturbed: 35 Acres
Area to be roofed or paved: 20 Acres
Area to be vegetatively stabilized: 20 Acres
Total Cut: 1250 Cu. yds
Total Fill: 0 Cu. yds
Offsite waste/borrow area location: TO BE PROVIDED
- 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 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.

NOTE: FOR SEQUENCE OF CONSTRUCTIONS, SEE SHEET 2 OF 3

SEDIMENT CONTROL DETAIL SHEET

PAPAVASILIS PROPERTY
PARCEL 99
1st ELECTION DISTRICT HOWARD COUNTY MD.
TAX MAP 38 ZONED M-1

Drawing	DATE	REVISIONS	SHEET	DATE	JOB NUMBER
Check			3	OCT 1986	
Design			OF	SCALE	1086118
Check			3	AS SHOWN	

SDP-86-186

OWNER'S/DEVELOPER'S CERTIFICATION
"I 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 Natural Resources 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: *Nickolaos Papavasilis* Date: 11/1/87
Name: NICKOLAOS PAPAVASILIS Title: _____
Firm: NICKOLAOS PAPAVASILIS Complete Address: 3120 O'DONNELL ST BALTO MD 21224

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: *John E. Patmore* Date: 11/20/87
JOHN E. PATMORE
Registered Professional Engineer # 8978

KIDDE CONSULTANTS, INC.
ENGINEERS • PLANNERS • SURVEYORS
1100 WEST STREET / SUITE 100 / LAUREL, MD 20707
(Wash.) (301) 953-1821 / 792-8086 (Balt.)

SEDIMENT CONTROL DETAIL SHEET