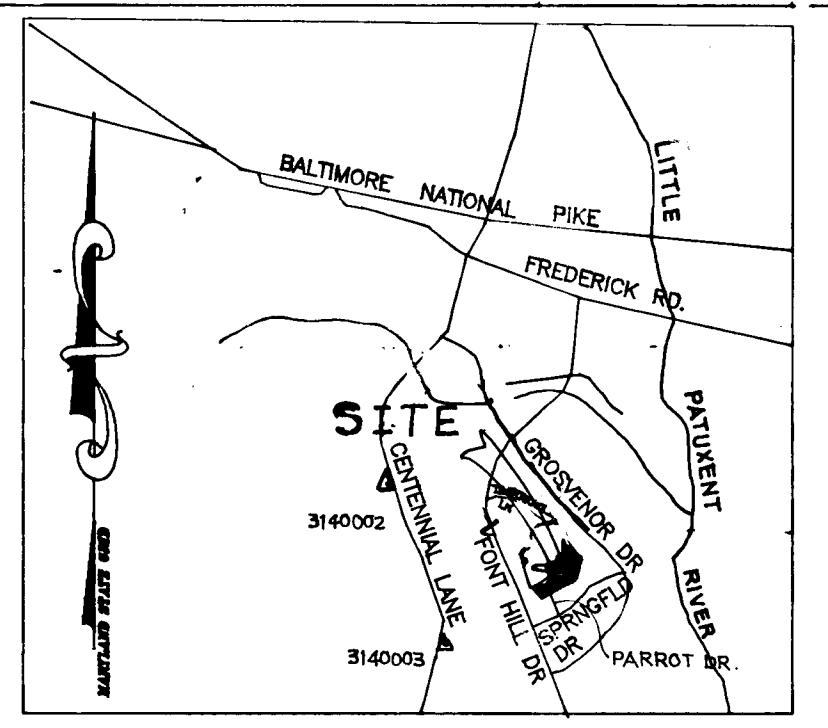
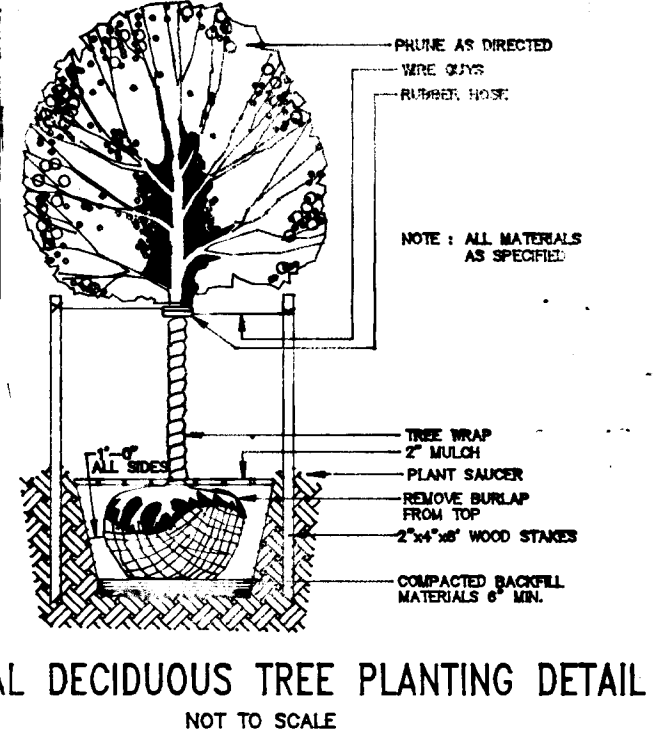
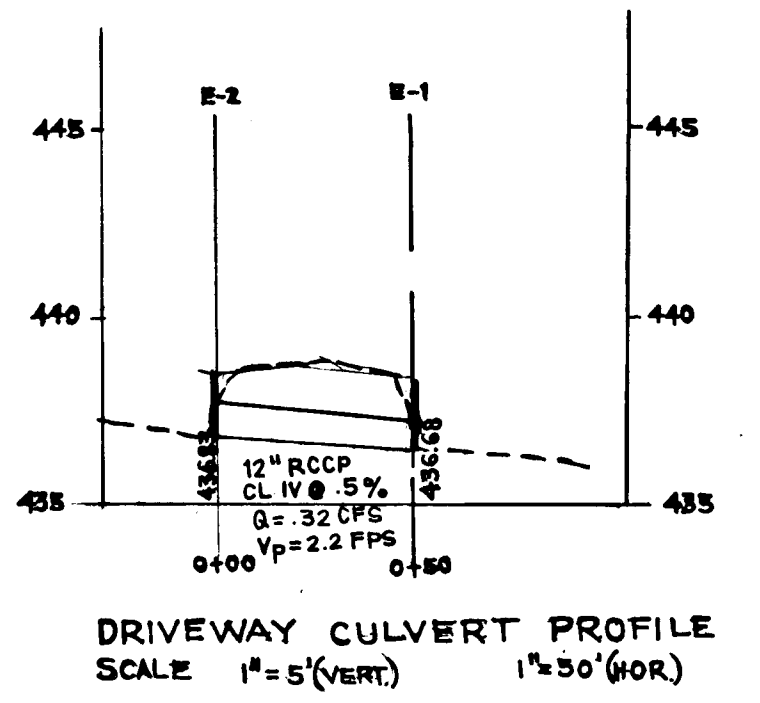
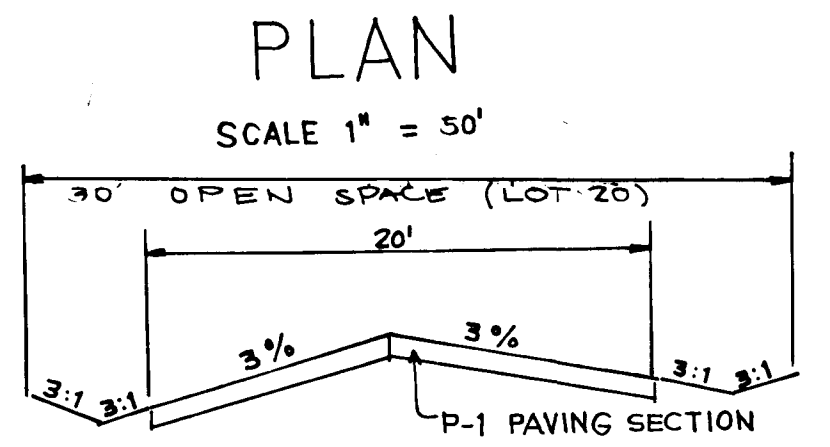
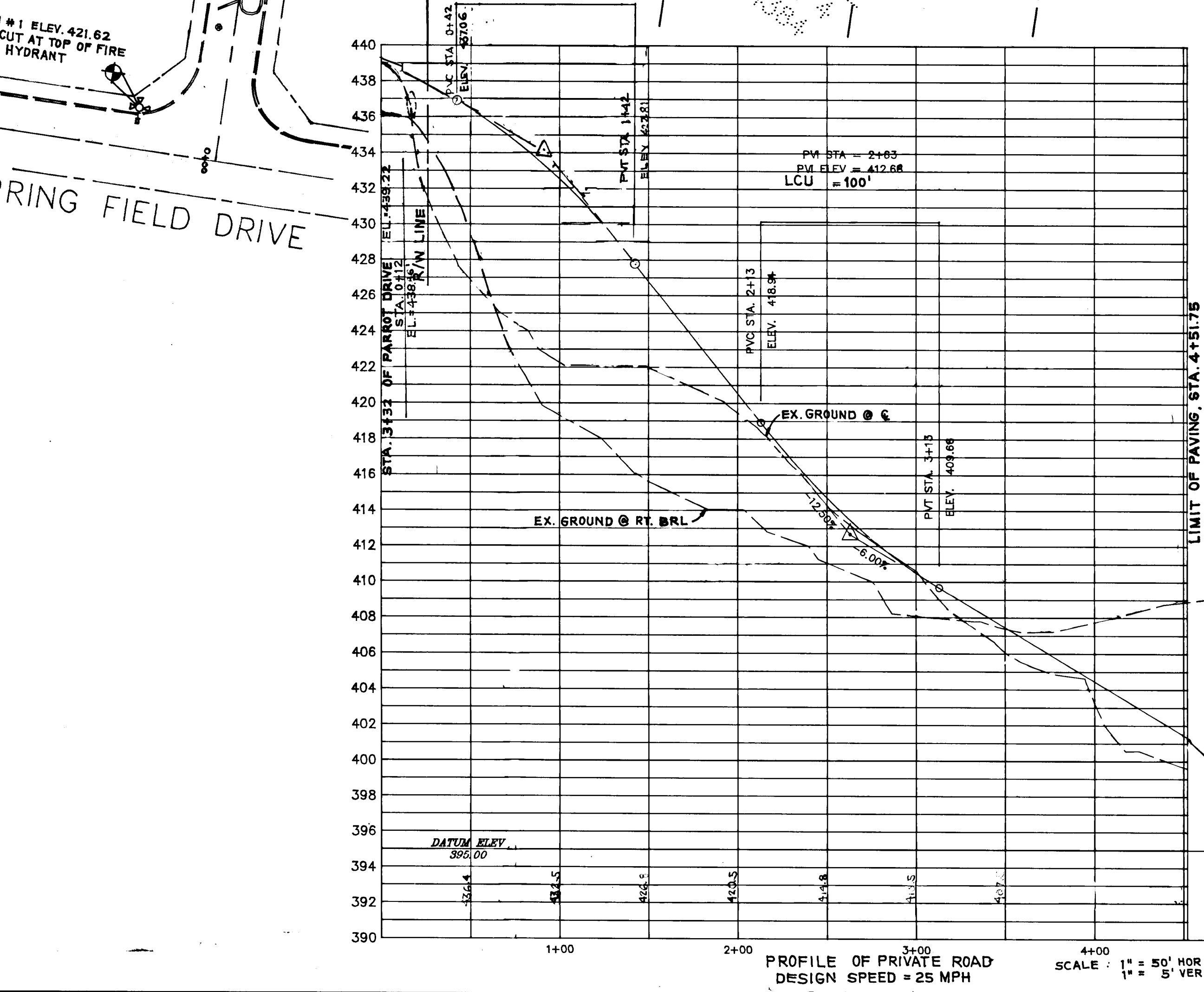


PLANT SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	FIELD CALLERYANA PINNATIFIDA	BRADFORD PEAK	11	2-3/8"
	PINUS STROBUS	WHITE PINE	18	6-8"
				8x8"



GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATION OF THE HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HRS. IN ADVANCE ON COMMENCEMENT OF WORK AT 313-1880.
- THE CONTRACTOR SHALL NOTIFY MISS. UTILITY AT 1-800-257-7777 AT LEAST 48 HRS. PRIOR TO ANY EXCAVATION WORKS.
- PROJECT BACKGROUND:
 - a. TAX MAP 24, PARCEL 725, LIBER 595, FOLIO 473
 - b. TOTAL AREA OF SUBDIVISION = 20.48 ACRES
 - c. TOTAL AREA OF THIS SUBMISSION = 4.33 ACRES
 - d. NO. OF LOTS PROPOSED = 6 BUILDABLE, 1 OPEN SPACE & 1 NON-BUILDABLE OPEN SPACE (ACRES) LIST
 - e. SKETCH PLAN WAS APPROVED ON NOV. 12, 1991 UNDER S-92-07
 - f. PRELIMINARY PLAN FOR SECTION 2 WAS APPROVED ON NOV. 5, 1992 UNDER P-93-07
 - g. THIS PLAN IS SUBJECT TO WP-92-131 WHICH WAIVED THE REQUIREMENTS OF SECTION 115(b)(5) TO PERMIT PRIVATE ROADS MAXIMUM 200' TO BE INCREASED TO 430' TO SERVE LOTS 13 - 19
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREETS AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO PLACEMENT OF ANY ASPHALT.
- BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED BY JOHN MELLEMA, INC. ON MAY 15, 1992.
- HORIZONTAL AND VERTICAL DATUM ARE BASED ON MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY CONTROL STA. 314002 AND 314003.
- LIGHT POLES AND FIXTURES SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III, ROAD AND BRIDGES.
- PUBLIC WATER AND PUBLIC SEWER WILL BE USED. THE DRAINAGE AREA IS LITTLE PATUXENT.
- A WET POND IS PROPOSED TO CONTROL ALL LOTS WITH THE EXCEPTION OF LOTS 16 & 17 WHICH HAD BEEN COMPENSATED BY INCREASING THE POND VOLUME.
- WETLANDS DELINEATED BY HUMAN & RHODE INC. ON AUG. 1990.
- GEOTECHNICAL REPORT WAS PREPARED BY HILLIS & CARNES ASSOCIATES ON JULY 27, 1992.
- EXISTING UTILITIES ARE BASED ON HOWARD COUNTY AS BUILT PLANS AND THE TOPOGRAPHIC SURVEY BY JOHN MELLEMA, INC.



STRUCTURE SCHEDULE					
NO.	TYPE	INVERT IN	INVERT OUT	REMARKS	LOCATION
E-1	CONC. END SECTION		436.68	AS PER DETAIL R.6.06	22' SWAY POINT
E-2	CONC. END SECTION	436.93		AS PER DETAIL R.6.06	22' SWAY POINT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Gina Jaramany, 11/9/93
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature], 11/9/93
 CHIEF, LAND DEVELOPMENT DIVISION

[Signature], 4-2-93
 CHIEF, BUREAU OF HIGHWAYS

[Signature], 11/8/93
 CHIEF, BUREAU OF ENGINEERING

PLAN, PROFILE AND PLANTING
MADELEINE COURT
 STA. 0+00 TO 4+47.82

FONT HILL MANOR FARM ESTATES
SECTION-2 LOTS 13-20

OWNER/DEVELOPER:
 TIMOTHY E. WELSH
 P.O. BOX. 1447
 ELLICOTT CITY, MD. 21041-1447

SCALE: AS SHOWN DATE: 4-20-93 SHEET 1 OF 6
 DESIGNED: MLL DRAWN: GUS CHECKED: MLL

Coria Engineering Inc.
 CONSULTING ENGINEERS-PLANNERS-ARCHITECTS
 3330 BETHANY LAKE, SUITE 4, ELLICOTT CITY, MD. 410-465-0400

NO.	DATE	DESCRIPTION	BY
	10-5-93	REVISED	MLL

1657

1657



- TREES TO BE SAVED:
- ① 12" BLACK LOCUST
 - ② 12" RED MULBERRY
 - ③ 4"-18" MULTI-LITERED BLACK CHERRY
 - ④ 30" SIBERIAN ELM
 - ⑤ 2-24" BLACK CHERRIES
 - ⑥ 15" TRIPLE LITERED SIBERIAN ELM
 - ⑦ 30" SIBERIAN ELM
 - ⑧ 30" SIBERIAN ELM
 - ⑨ 36" TWIN LITERED SIBERIAN ELM
 - ⑩ 42" SIBERIAN ELM
 - ⑪ 36" TWIN LITERED SIBERIAN ELM
 - ⑫ 36" SIBERIAN ELM
 - ⑬ 30" SIBERIAN ELM
 - ⑭ 24" TWIN LITERED SIBERIAN ELM
 - ⑮ 12" TRIPLE LITERED SIBERIAN ELM
 - ⑯ 18" BLACK CHERRY
 - ⑰ 12" TWIN LITERED SIBERIAN ELM

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Gina Jaraman 11/9/93
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH JH DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Daniels 11-2-93
 CHIEF, BUREAU OF HIGHWAYS DATE

Charles E. Soper 11/4/03
 CHIEF, BUREAU OF ENGINEERING DATE

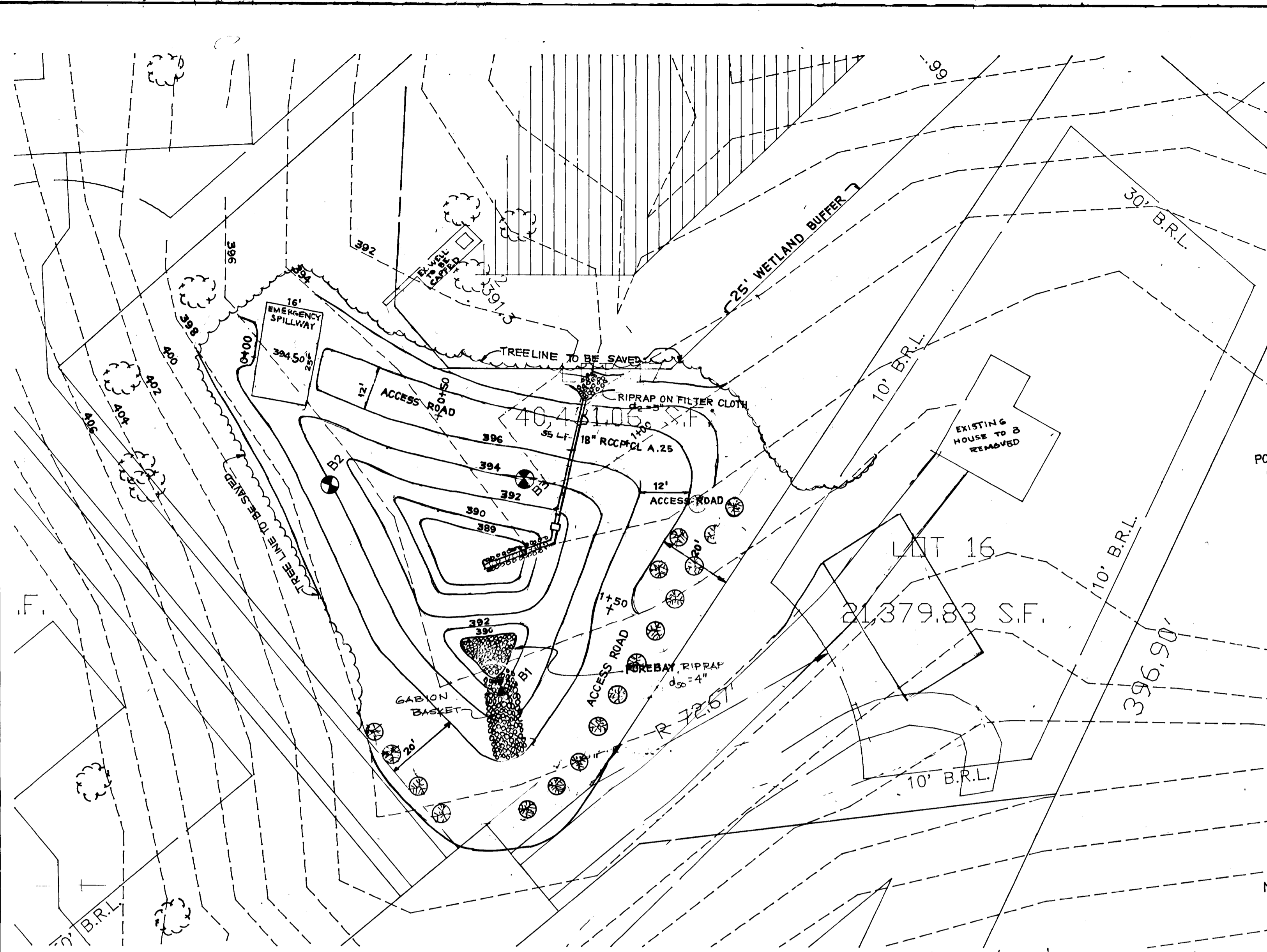
GRADING PLAN & DRAINAGE AREA MAP

FONT HILL MANOR FARM ESTATES SECTION-2 LOTS 13-20

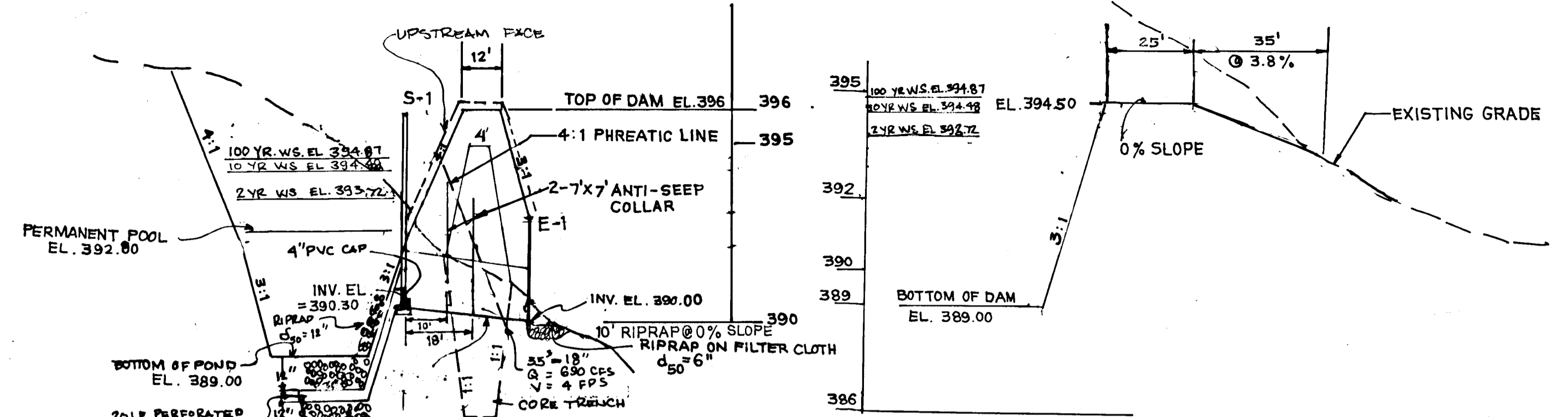
OWNER/DEVELOPER:
 TIMOTHY E. WELSH
 P.O. BOX 1447
 ELLICOTT CITY, MD. 21041-1447

SCALE: 1" = 30' DATE: 4-20-93 SHEET 2 OF 6
 DESIGNED: MLL DRAWN: JNC CHECKED: MLL

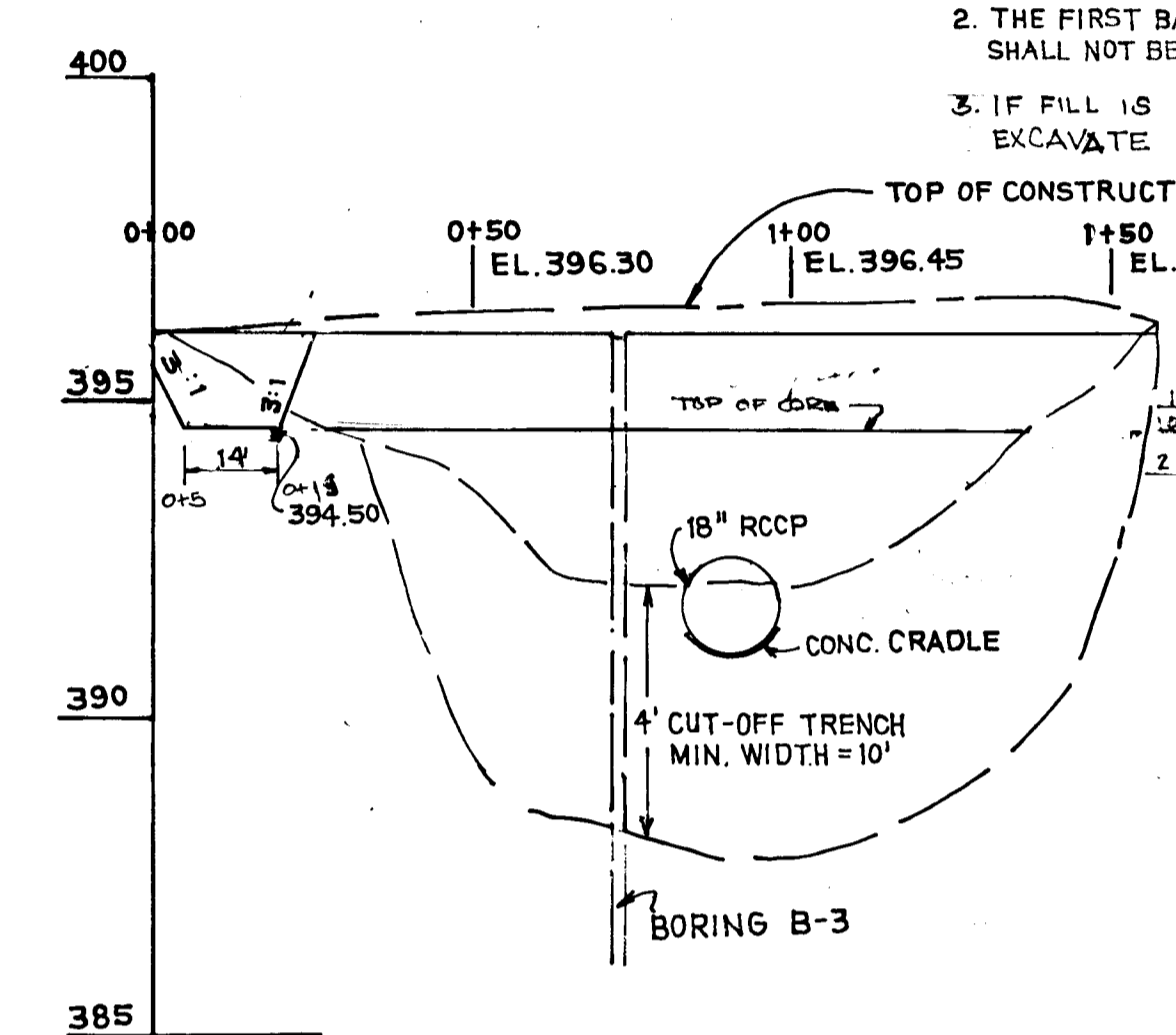
Orion Engineering Inc. <small>CONSULTING ENGINEERS - LAND PLANNERS - SURVEYORS 2020 BERRY LANE, SUITE 4, ELLICOTT CITY, MD. 21040-1900</small>			
NO.	DATE	DESCRIPTION	BY
	10-5-93	REVISED	MLL



STORM WATER MANAGEMENT PLAN
SCALE 1" = 20'



PROFILE OF EMERGENCY SPILLWAY
SCALE 1" = 30' HOR.
1" = 3' VER.



SECTION THRU DAM
SCALE 1" = 30' HOR.
1" = 3' VER.

STRUCTURE SCHEDULE			
NO.	TYPE	INVERT EL.	TOP EL.
E-1	TYPE C	390.00	393.00

- NOTE: 1. PROVIDE WATERTIGHT JOINT CONNECTION AT BARREL/RISER SHALL NOT BE MORE THAN 2'.
2. THE FIRST BARREL JOINT FROM THE RISER EXCAVATE 4 FT BELOW THE BOTTOM OF FILL.
3. IF FILL IS ENCOUNTERED AT THE CORE TRENCH, EXCAVATE 4 FT BELOW THE BOTTOM OF FILL.

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for the small pond construction, Soil & Sediment Control.

J.G. Campbell
U.S. Soil Conservation Service
Date: 4/15/93

These plans for Soil and Sediment Control meet the requirements of the Howard County Soil Conservation District.

Keith Z. ...
Howard Soil Conservation District
Date: 4/15/93

DEVELOPER'S/BUILDER'S CERTIFICATE

I 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 as a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, 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. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion.

...
SIGNATURE OF ENGINEER
DATE: 4/15/93

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Gina Surinani
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
DATE: 11/19/93

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

...
CHIEF, LAND DEVELOPMENT DIVISION
DATE: 11/4/93
...
CHIEF, BUREAU OF HIGHWAYS
DATE: 11/4/93

10-5-93 REVISED BY MLL

PROJECT: FONT HILL MANOR FARM ESTATES
SECTION TWO, LOTS 13-20

LOCATION: TAX MAP 24, PARCEL 725
2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

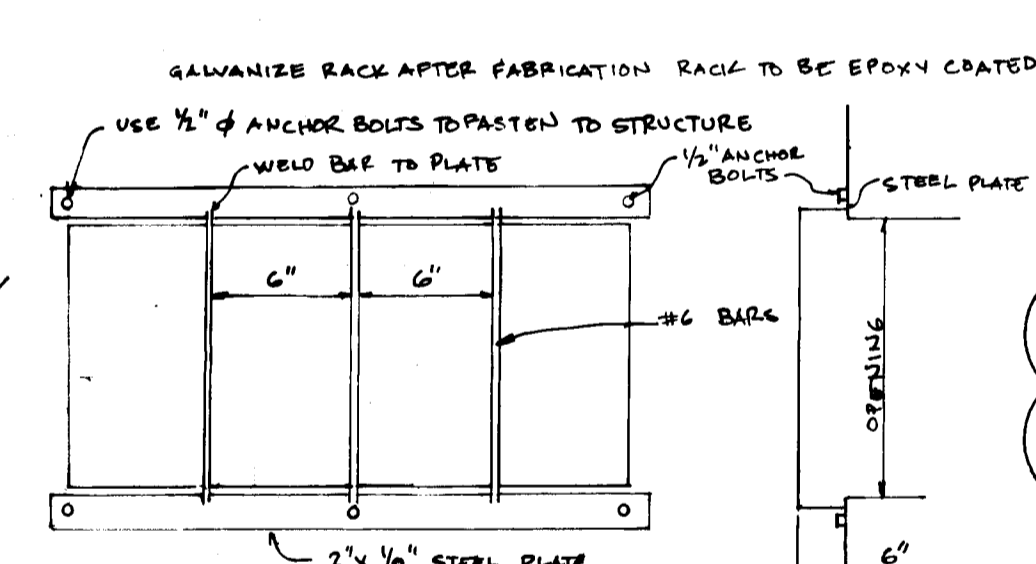
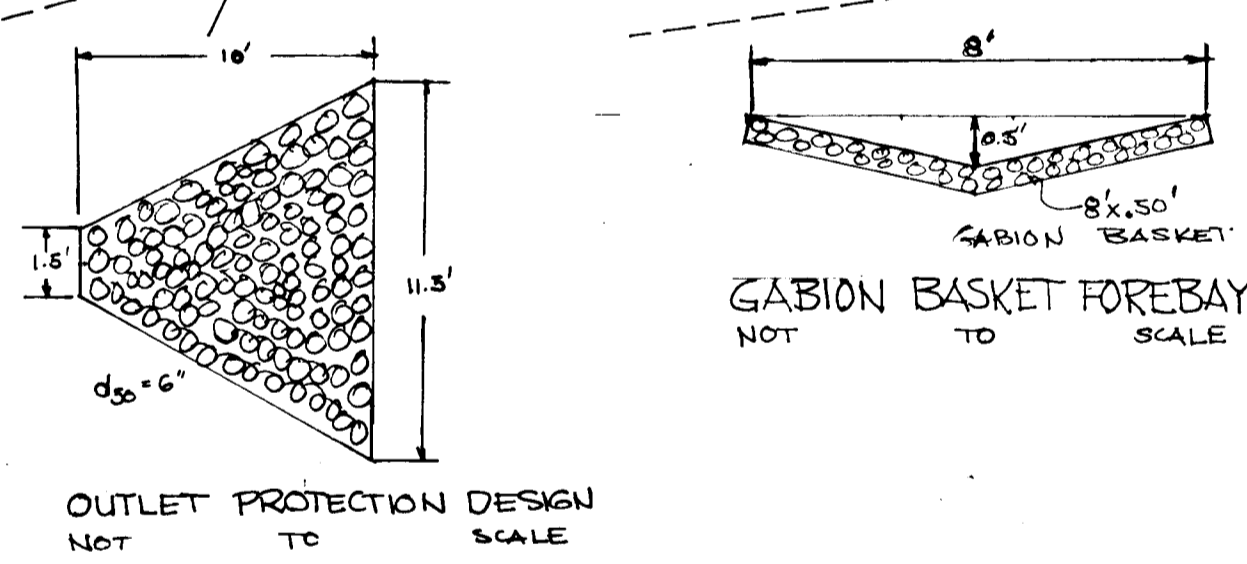
TITLE: STORMWATER MANAGEMENT PLAN & DETAIL

OWNER: TIMOTHY E. WELSH
P.O. BOX 1447
ELLCOTT CITY, MD. 21041-1447

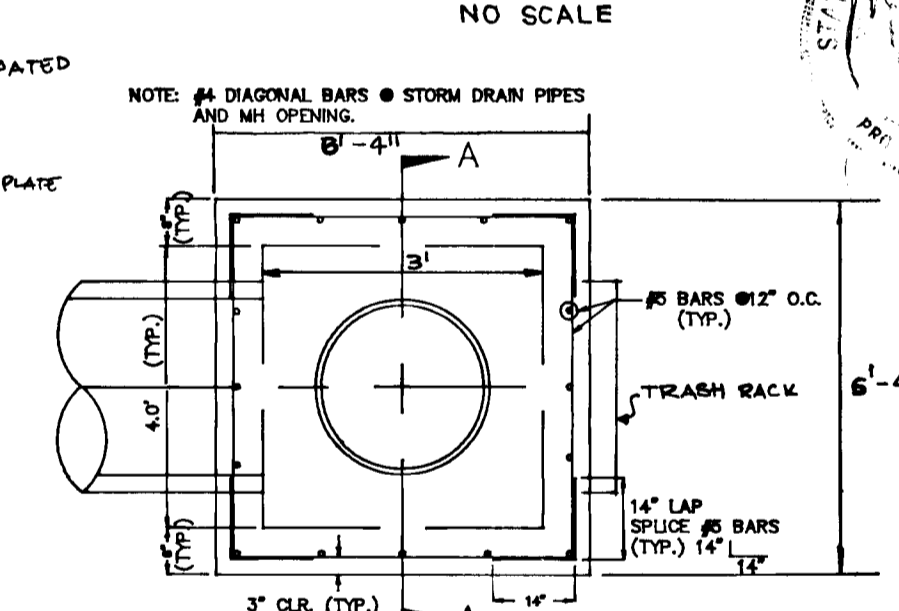
DEVELOPER: TIMOTHY E. WELSH
P.O. BOX 1447
ELLCOTT CITY, MD. 21041-1447

CONSULTING ENGINEERS-LAND PLANNERS-SURVEYORS
3230 BETHANY LANE, SUITE 4, ELLCOTT CITY, MD.
301-465-0400

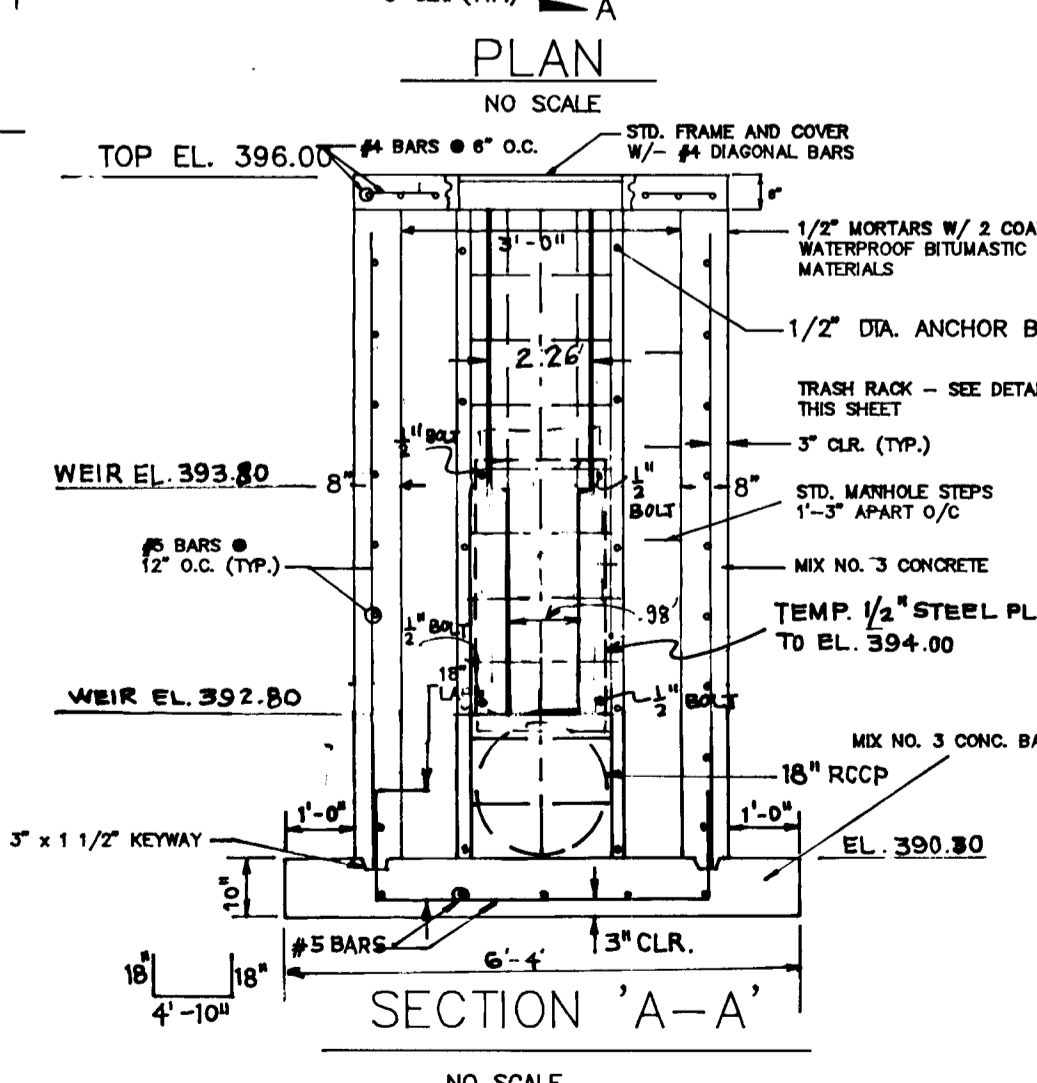
DESIGN MLL CHECKED MLL DATE 04-20-92 PROJ. NO.
DRAWN JNC APPROVED MLL SCALE AS SHOWN SHEET 4 OF 6



TRASH RACK DETAIL
NO SCALE



CONC. ANTI-SEEP COLLAR
NO SCALE



CONTROL STRUCTURE
NO SCALE

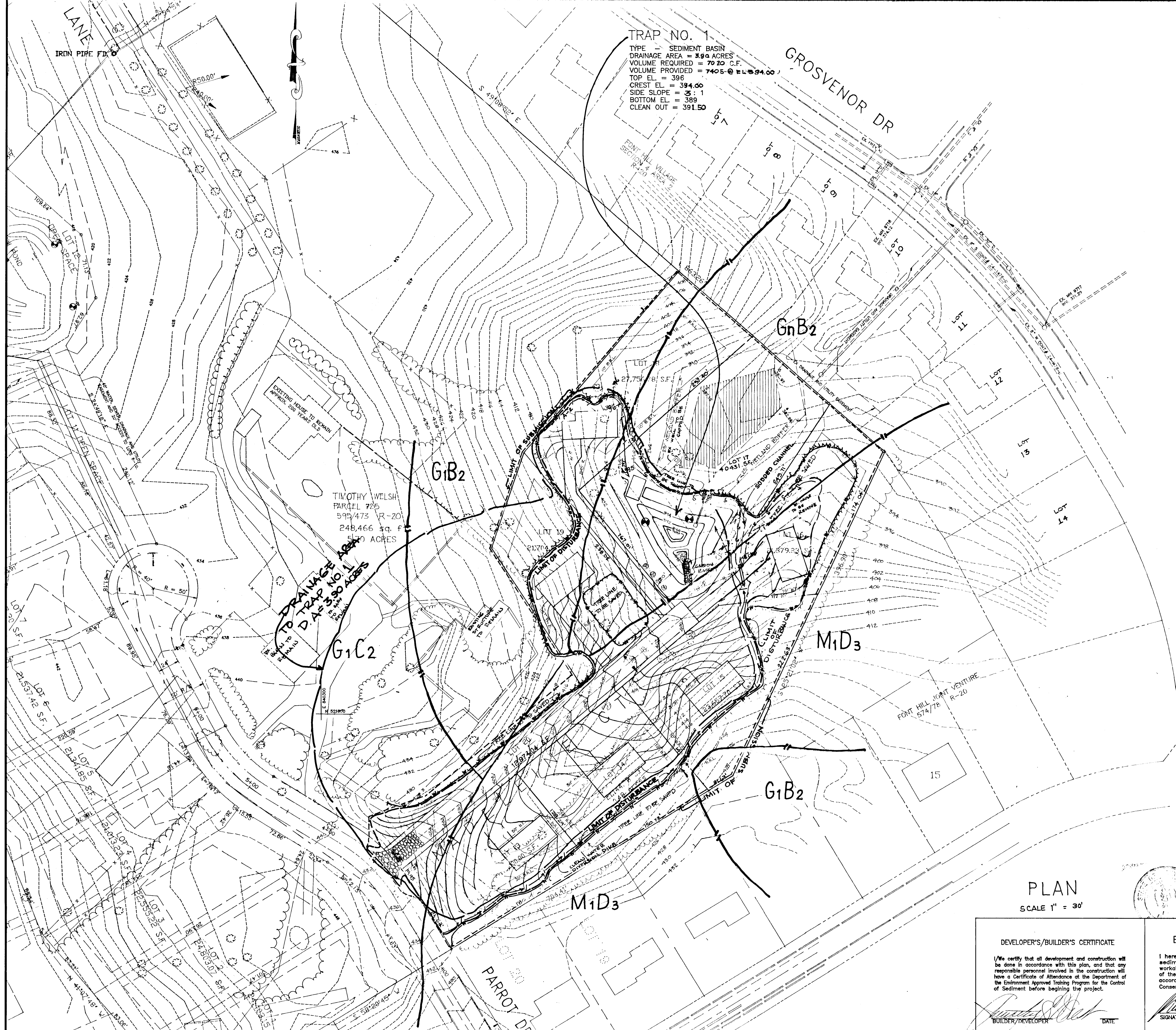
Boring # B-1									
SAMPLER									
DATE	TIME	DEPTH	DIAMETER	TYPE	NO.	DESCRIPTION	DEPTH	DIAMETER	TYPE
7-24-92	7:30	0.0	1.40	H	1	Topsoil	1.0	1.40	H
		5.0	1.40	H	2	Roots in S-1	10.0	1.40	H
		7.5	1.40	H	3	Water encountered @ 10.0' on rods	15.0	1.40	H
		20.0	1.40	H	4	Bottom of boring at 21.2'			

Boring # B-2									
SAMPLER									
DATE	TIME	DEPTH	DIAMETER	TYPE	NO.	DESCRIPTION	DEPTH	DIAMETER	TYPE
7-24-92	7:30	0.0	1.40	H	1	Topsoil	1.0	1.40	H
		5.0	1.40	H	2	Water encountered @ 10.0' on rods	10.0	1.40	H
		20.0	1.40	H	3	Bottom of boring at 21.5'			

Boring # B-3									
SAMPLER									
DATE	TIME	DEPTH	DIAMETER	TYPE	NO.	DESCRIPTION	DEPTH	DIAMETER	TYPE
7-24-92	7:30	0.0	1.40	H	1	Topsoil	1.0	1.40	H
		5.0	1.40	H	2	Water encountered @ 10.0' on rods	10.0	1.40	H
		20.0	1.40	H	3	Bottom of boring at 21.5'			

STANDARD PENETRATION TEST—DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS
STANDARD PENETRATION TEST—DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS
STANDARD PENETRATION TEST—DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS

1657



TRAP NO. 1
 TYPE - SEDIMENT BASIN
 DRAINAGE AREA = 3.90 ACRES
 VOLUME REQUIRED = 7020 C.F.
 VOLUME PROVIDED = 7405 @ EL. 394.00
 TOP EL. = 396
 CREST EL. = 394.00
 SIDE SLOPE = 3:1
 BOTTOM EL. = 389
 CLEAN OUT = 391.50

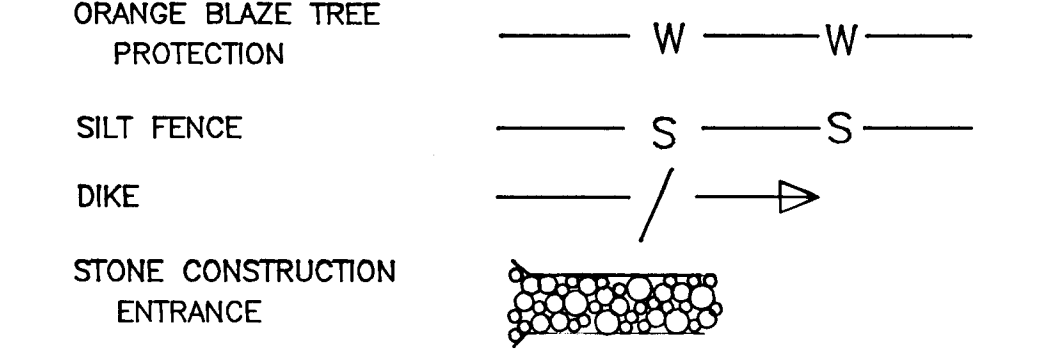
TIMOTHY WELSH
 PARCEL 725
 599,473 R-20
 248,466 sq. ft.
 5.70 ACRES

DRAINAGE AREA
 TO TRAP NO. 1
 IS 3.90 ACRES

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING & BUILDING PERMIT.
2. INSTALL BLAZE ORANGE PLASTIC WIRE MESH TREE PROTECTION.
3. INSTALL ALL SEDIMENT CONTROL MEASURES SHOWN SUCH AS: SILT FENCE, EARTH DIKES AND TRAP NO. 1 (4 WEEKS)
4. CONSTRUCT STORMWATER MANAGEMENT POND, BLOCK WEIR WITH 1/2" STEEL PLATE TO EL. 394.00 (10 WEEKS)
5. GRADE THE AREA AS SHOWN AND CONSTRUCT UTILITIES AND ROADS. (20 WEEKS)
6. STABILIZE ALL DISTURBED AREAS. USE SOD TO A DEPTH OF AT LEAST 1 FOOT ON ALL SWALE AREAS. (1 WEEK)
7. REMOVE SILT FROM STORMWATER MANAGEMENT POND AND THE STEEL PLATE BLOCKING THE WEIR. (2 WEEKS)
8. REMOVE SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH HOWARD COUNTY SOIL CONSERVATION SERVICE. (1 WEEK)

LEGEND:



These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for the Soil and Sediment Control.

J. G. Warfield, Inc. 11/21/93
 Date

These plans for Soil and Sediment Control meet the requirements of the Howard County Soil Conservation District.

John Z. Allen 11/21/93
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Gina Surranani 11/9/93
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DA

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John P. ... 11/4/93
 CHIEF, LAND DEVELOPMENT DIVISION DA
Andrew M. ... 11-2-93
 CHIEF, BUREAU OF HIGHWAYS DATE
Paul ... 11/4/03
 BUREAU ENGINEERING DATE

SEDIMENT CONTROL PLAN

FONT HILL MANOR FARM ESTATES
 SECTION-2 LOTS 13-20

OWNER/DEVELOPER:
 TIMOTHY E. WELSH
 P.O. BOX 1447
 ELLICOTT CITY, MD. 21041-1447

SCALE: AS SHOWN DATE: 4-20-93 SHEET 3 OF 3
 DESIGNED: MLL DRAWN: JMG CHECKED: ALL

Corio Engineering Inc.

NO.	DATE	DESCRIPTION	BY
	10-5-93	REVISED	MLL

PLAN
 SCALE 1" = 30'

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 the Department of the Environment Approved Training Program for the Control of Sediment before beginning the project.
[Signature]
 BUILDER/DEVELOPER DATE

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 and conditions and it was prepared in accordance with the requirements of Howard Soil Conservation District.
[Signature]
 SIGNATURE OF ENGINEER DATE

1657

SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

SITE PREPARATION :

Area under the borrow areas, embankment, and structural works shall be cleared, grubbed and the top soil stripped to remove all trees, vegetation, roots or the other objectional material. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable materials unless otherwise designated on the plans. Trees, brush, and stump shall be cut approximately level with the ground surface. For dry storm water management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside the limits of the dam and reservoir as directed by the owner or his authorized representative. When specified, a sufficient quantity of top soil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL

Material :

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, over-size stones, frozen or other objectionable materials. Fill material for the center of the embankment and cut-off trench shall conform to Unified Soil Classification GC, SC, CH, or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement

Area on which fill is to be placed shall be scarified prior to placement of the fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous material shall be placed in the downstream portions of the embankment.

Compaction :

The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed. Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cut-off Trench :

Where specified, a cut-off trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment rollers or hand tampers to assure maximum density and a minimum permeability.

STRUCTURE BACKFILL :

Backfill adjacent to pipes or structures shall be of the type and quality conforming to the specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24' or greater over the structure or pipe.

PIPE CONDUITS :

All pipes shall be circular in cross section. Corrugated Metal pipe - All of the following criteria shall apply for corrugated metal pipe:

Materials - (Steel pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 type A with water tight coupling bands. Any bituminous coating damaged or otherwise removed shall be placed with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of .01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plasti-Cote, Bloc-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-244.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

Coupling band, anti-seep collars, end sections etc, must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connection shall used a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connection are acceptable for pipe less than 48" inches diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket and a 12" wide hugger type band with o-ring gaskets having a minimum diameter of 1/2" greater than the corrugated depth. Pipes 48" in diameter and larger shall be connected by a 24" long annular corrugated bands using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24". Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

Backfilling shall conform to "Structure Backfill".

Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

REINFORCED CONCRETE PIPE:

All the following criteria shall apply for reinforced concrete pipe:

Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gasket and shall equal or exceed ASTM Designation C-361. An approved equivalent is AWWA specification C-302.

Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.

Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.

Backfilling shall conform to "Structure Backfill".

Other details (anti-seep collars valves, etc.) shall be as shown on the drawings.

POLYVINYL CHLORIDE (PVC) PIPE

Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.

Joints and connections to anti-seep collars shall be completely watertight.

Bedding - The pipe shall be firmly and uniformly bedded through out its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

Backfilling shall conform to "Structure Backfill".

Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

CONCRETE :

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specification for Construction and Materials, Section 608, Mix No. 3.

ROCK RIPRAP :

All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of an individual rock fragment shall be not less than one third the greatest dimension of the fragments.

The rock shall have the following properties :

1. Bulk specific gravity (saturated surface-dry basis) not less than 2.5.
2. Absorption not more than three percent.
3. Soundness : Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C-127. The test for soundness shall be performed according to ASTM C-88.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger uniformly distributed and firmly in contact one to another with the smaller rock filling the voids between the larger rocks. Filter cloth shall be under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration for Construction and materials, Section 919.12.

CARE OF WATER DURING CONSTRUCTION:

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required by the Engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the location being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

STABILIZATION :

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

EROSION AND SEDIMENT CONTROL :

Construction operation will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

1657

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Gina Strummann 11/9/93
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH JA DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Robert M. Bral 11/4/93
CHIEF, LAND DEVELOPMENT DIVISION DATE

Paul D. Ryan 11/4/93
CHIEF, BUREAU OF HIGHWAYS DATE

Paul D. Ryan 11/4/93
CHIEF, BUREAU OF ENGINEERING DATE

Victoria engineering inc.
CONSULTING ENGINEERS-LAND PLANNERS-SURVEYORS
3230 BETHANY LANE, SUITE 4, ELLICOTT CITY, MD.
410-465-0400

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

J.G. Vahlnd 10/25/93
Soil Conservation Service Date

These plans for Soil and Sediment Control meet the requirements of the Howard County Soil Conservation District.

John R. Shig 10/25/93
Howard Soil Conservation District Date

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. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Meda D. L. Loria 10/24/93
SIGNATURE OF ENGINEER DATE

DEVELOPER'S/BUILDER'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 Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Timothy E. Welsh 10/14/93
BUILDER/DEVELOPER DATE

GENERAL NOTES FOR PONDS

**FONT HILL MANOR FARM ESTATES
SECTION-2 LOTS 13-20**

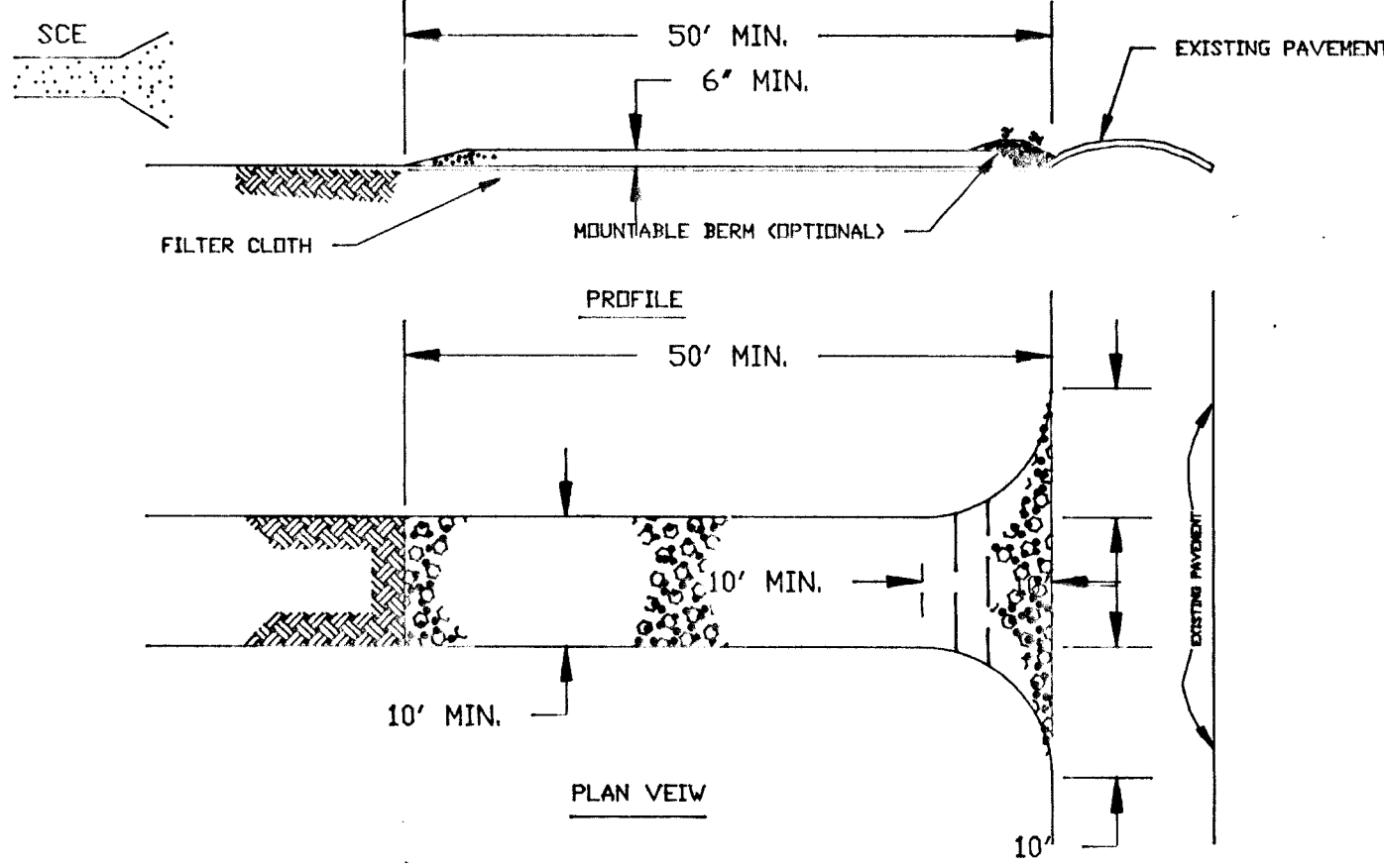
DATE : 4-20-93

SHEET 5 OF 6

F-98-113 H5

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

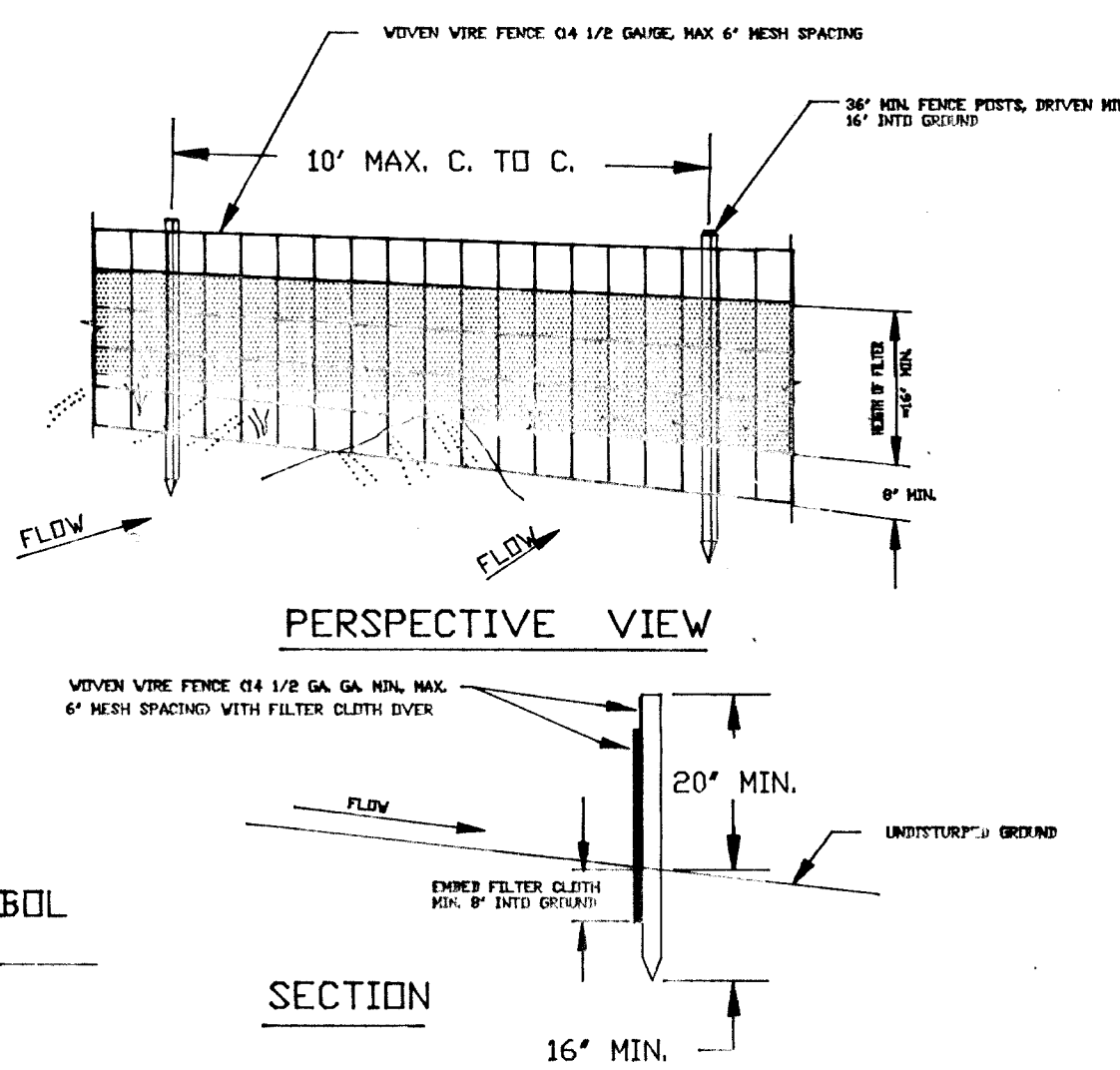
STANDARD SYMBOL



CONSTRUCTION SPECIFICATION

- STONE SIZE - USE 2" STONE OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TEN (10) FOOT MINIMUM, BUT 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 MOUNTABLE BERM WITH 5% SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT INTO 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, DRIPPED, WASHED OR TRACKED INTO PUBLIC RIGHTS - OF - WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE INTO PUBLIC RIGHTS - OF - WAY. WHEN 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.

SILT FENCE



STANDARD SYMBOL

CONSTRUCTION NOTES FOR FABRICATION 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 FIELDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN 'BULGES' DEVELOP IN THE SILT FENCE.

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, UNLESS PREVIOUSLY LOOSENED.

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

- PREFERRED - APPLY 2 TONS PER ACRE DELUMINIC LIMESTONE (92 LBS/1000 SQ FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (64 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).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DELUMINIC LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (93 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 60 LBS PER ACRE (1.4 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 (0.5 LBS/1000 SQ FT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY OPTION (C) 2 TONS PER ACRE OF WELL-ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (C) USE SOIL OPTION (C) 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/100 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 GALLONS PER ACRE (6 GAL/1000 SQ FT) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING 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.

SEEDBED 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 (64 LBS/1000 SQ FT).

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL KYE (2.5 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (0.7 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 SOIL.

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 (6 GAL/1000 SQ FT) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHOD OF APPLICATION.

STANDARD AND SPECIFICATION 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 WIDTH 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.

1. SITE PREPARATION

FERTILIZER AND LIME APPLICATION RATES SHALL BE DETERMINED BY SOIL TESTS. UNDER UNUSUAL CIRCUMSTANCES WHERE THERE IS UNSUFFICIENT 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 CLEANED 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 LIME SHALL BE SPREAD AT THE RATE OF 2 TONS/ACRE OR 100 POUNDS PER 1000 SQUARE FEET. IN ALL SOILS 1000 POUNDS PER ACRE OR 25 POUNDS PER 1000 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.

1) 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)

2) 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.

3) 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%, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4) 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.

5) 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) 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.

6) 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.

7. SITE ANALYSIS:

TOTAL AREA OF SITE	4.33 ACRES
AREA DISTURBED	3.0 ACRES
AREA TO BE ROOFED OR PAVED	0.90 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.40 ACRES
TOTAL CUT	1500 CU. YDS
TOTAL FILL	1500 CU. YDS
OFFSITE WASTE/BORROW AREA LOCATION	N.A.

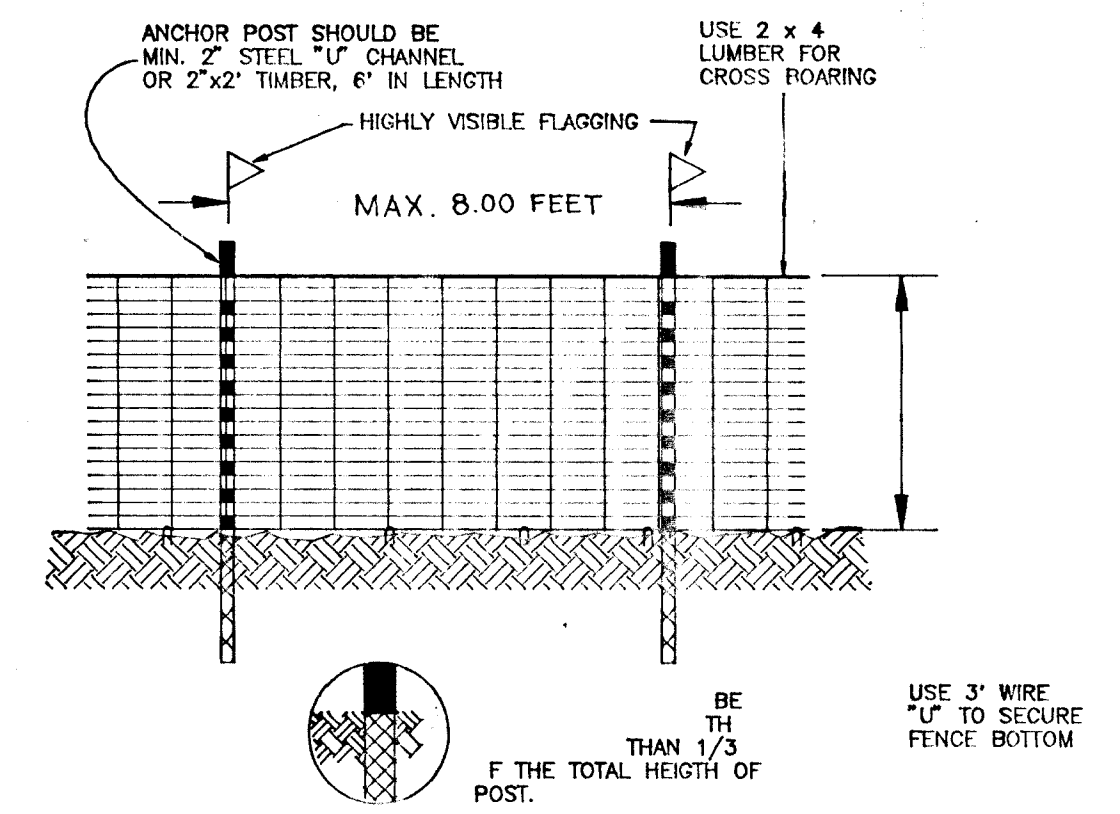
8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.

10) 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 CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT. CHANGES IN SEDIMENT CONTROL PRACTICES REQUIRE PRIOR APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE COUNTY SOIL CONSERVATION DISTRICT.
- AT THE END OF EACH OPERATING 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) SEVEN CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, 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 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 62.01 AND 62.02 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 GUIDELINES TO WATERWORKS CONSTRUCTION' BY THE WATER RESOURCES ADMINISTRATION (WRA), DATED JANUARY, 1986, FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN FOR WATERWAY CONSTRUCTION.



- NOTES:
- FOREST PROTECTION DEVICE ONLY
 - RETENTION AREA WILL BE SETAS PART OF THE REVIEW PROCESS
 - BOUNDARIES OF RETENTION AREA SHOULD BE STAKE AND FLAGGED PRIOR TO INSTALLING DEVICE.
 - ROOT DAMAGE SHOULD BE AVOIDED.
 - PROTECTIVE SIGNAGE MAY ALSO BE USED.
 - DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

BLAZE ORANGE PLASTIC MESH

NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
David Swannomy 11/19/93
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chad Danner 11/19/93
 CHIEF, LAND DEVELOPMENT DIVISION
Robert M. Bennett 11/22/93
 CHIEF, BUREAU OF HIGHWAYS
Robert M. Bennett 11/18/93
 CHIEF, BUREAU OF ENGINEERING

oria engineering inc.
 CONSULTING ENGINEERS • LAND PLANNERS • SURVEYORS
 3230 BETHANY LANE, SUITE 4
 ELLICOTT CITY, MARYLAND 21103
 TEL. (301) 465-0400

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for soil and sediment control
J. C. Langford 11/15/93
 Soil Conservation District
 These plans for soil and sediment control meet the requirements of the Howard Soil Conservation District.
Robert M. Bennett 11/18/93
 Conservation District



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

Robert M. Bennett 11/18/93
 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 the Department of the Environment Approved Training Program for the Control of Sediment before beginning the project. I also authorize periodic inspection by the Howard Soil Conservation Service.

Robert M. Bennett 11/18/93
 SIGNATURE OF DEVELOPER/BUILDER DATE

FONT HILL MANOR FARM ESTATES
 SECTION - 2 , LOTS 13-20

SEDIMENT AND EROSION CONTROL NOTES

owner :

SCALE: AS SHOWN DATE: 7-25-93 SHEET 6 of 6
 DESIGNED BY: JCB DRAWING: CBE CHK'D BY: MLL
 F-13-113

16571