

CENTERLINE CURVE DATA						
NAME & PC TO PT.	RADIUS	DELTA	ARC	TAN.	CHORD	BEARING
9+00.80 TO 9+97.11	125'	44°08'38"	96.31'	50.69'	93.94'	S29°31'93"E
11+85.94 TO 12+33.09	125'	21°36'48"	47.15'	23.86'	46.87'	S03°21'00"W

STREET TREE TABLE					
SYM	COMMON NAME	BOTANICAL NAME	QUANT	SIZE	REMARKS
⊙	RED OAK	QUERCUS RUBA	20	2 1/2" CAL.	B & B

- GENERAL NOTES:**
- All storm drain & paving shall be constructed in accordance with the 1990 details & specifications of Howard County.
 - Types of storm drain structures refer to the standard details of Howard County Design Manual Vol. IV., 1990 Edition.
 - Trench compaction for storm drains, within road or street right-of-way limits shall be in accordance with Howard County Design Manual Volume IV., 1990 Edition.
 - Information concerning underground utilities was obtained from available records, but the Contractor must determine the exact location and elevation of the mains by digging test pits, by hand, at all utility crossings, well in advance of construction.
 - All utility companies shall be notified 24 Hrs. in advance of construction.
 - All traffic control devices, parking & signing to be done in accordance with the "Manual of Uniform Traffic Control Devices" 1984 Edition.
 - Sag and crest vertical curves were designed in accordance with Howard County Design Manual, Vol. III., 1990 Edition.
 - Provide concrete sidewalk ramps, Howard County Standard Type "A", R-4.01 where shown in Plan.
 - Design Speed: See Chart Sht. 2 of 4.
 - Zoning: R-12
 - Contractor or Developer shall contact the construction inspection/survey division 24 hrs. before commencing work at 792-7272.
 - For tree schedule see Sheet 1.
 - Street lights shall be provided at the location shown on Sheet 1 and in accordance with Vol. III. of the Howard County Design Manual, 1990 Edition.
 - Bench marks are #3688 P.K. @ MH Rm N500369.772, E841403.543, El. 329.21 and #3689 P.K. @ MH Rm, N500181.247, E841524.448, El. 322.83. Topographical survey by Land Design Engineering, Inc., 10/28/90. Previous plan submissions: 598-08, P98-35, AA 91-12, AA 91-14, MP 98-82, MP 91-88; DOW Waiver 2/18/91; Paving Width 22' / Open Section; DFW Waiver 9/17/91; Right of Way Width 40'. Required sidewalk along River Meadows Drive waived in accordance with W.P. 91-88.

DATE	BY	REVISION

TREE PLANTING NOTES

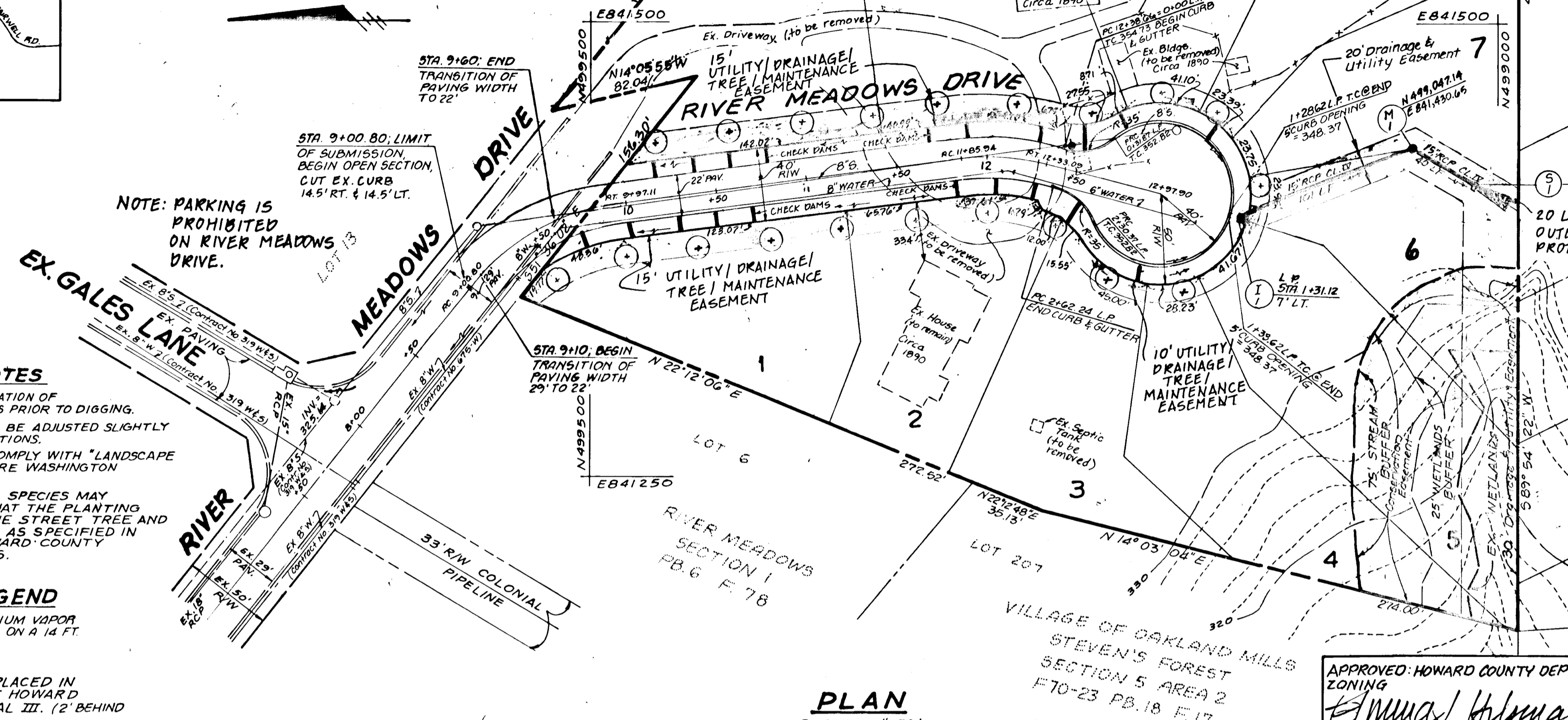
- CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF TREES MAY BE ADJUSTED SLIGHTLY TO ACCOMMODATE FIELD CONDITIONS.
- PLANTING PROCEDURES SHALL COMPLY WITH "LANDSCAPE SPECIFICATIONS FOR BALTIMORE WASHINGTON METROPOLITAN AREAS"
- SUBSTITUTIONS TO THE AREA SPECIES MAY BE PERMITTED PROVIDED THAT THE PLANTING IS IN ACCORDANCE WITH THE STREET TREE AND LANDSCAPE REQUIREMENTS AS SPECIFIED IN SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS.

STREET LIGHT LEGEND

150 WATT "MODERN" SODIUM VAPOR LAMP POST TOP FIXTURE ON A 14 FT. GRAY FIBERGLASS POLE.

NOTE: STREET LIGHTS TO BE PLACED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL III. (2' BEHIND FACE OF CURB)

NOTE: PARKING IS PROHIBITED ON RIVER MEADOWS DRIVE.



PLAN
SCALE: 1"=50'

LAND DESIGN ENGINEERING, INC.
10620 Guilford Road • Suite 210 • Jessup • Maryland 20794 • (301) 860-0034

DESIGNED L.M.	ROAD CONSTRUCTION PLANS RIVER MEADOWS DRIVE MEADOWS COURT 6TH ELECTION DISTRICT HOWARD COUNTY, MD	SCALE AS SHOWN
DRAWN W.J.		DRAWING 10FA
CHECKED R.M.		JOB NO. 90-104.1
DATE JULY 1991		FILE NO. F.92-17

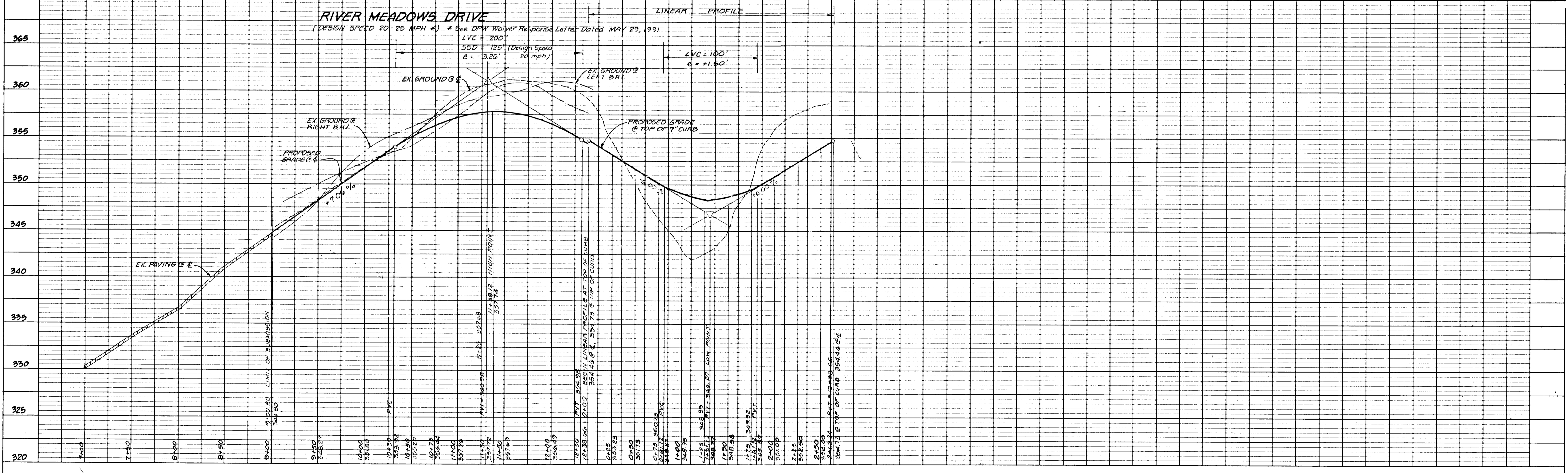
DEVELOPER: L ARBENT, INC. OWNER: EUGENE GLAZER
PO BOX 50532 879 PARK AVE.
POTOMAC, MD 20859 BALTIMORE, MD.
PHONE: 703-641-9400 21201
752-0225

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
DATE: 11/12/91

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
DATE: 11/8/91

APPROVED: CHIEF, BUREAU OF ENGINEERING
DATE: 11-4-91

DATE	BY	REVISION



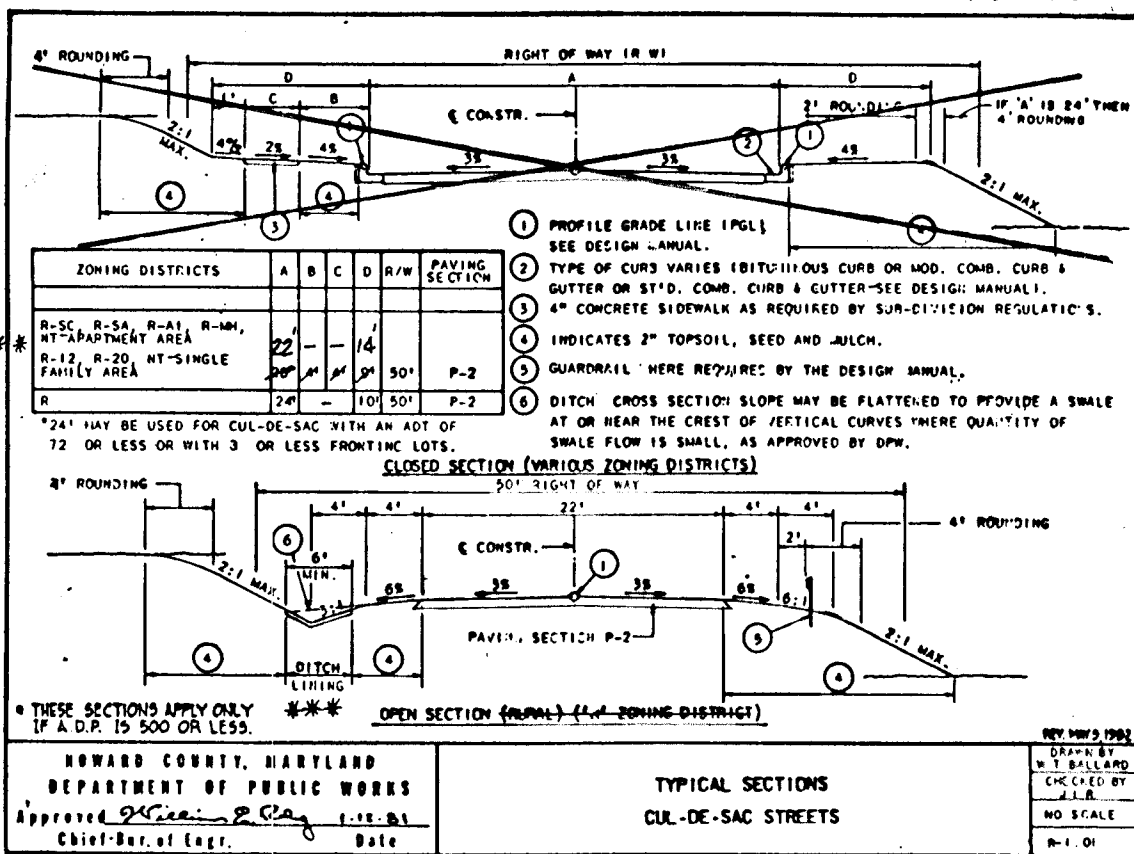
PROFILE
SCALE: 1"=50' HORIZ, 1"=5' VERT.

HIGHWAY FEDERAL AID SHEET
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
PRINTED IN U.S.A.

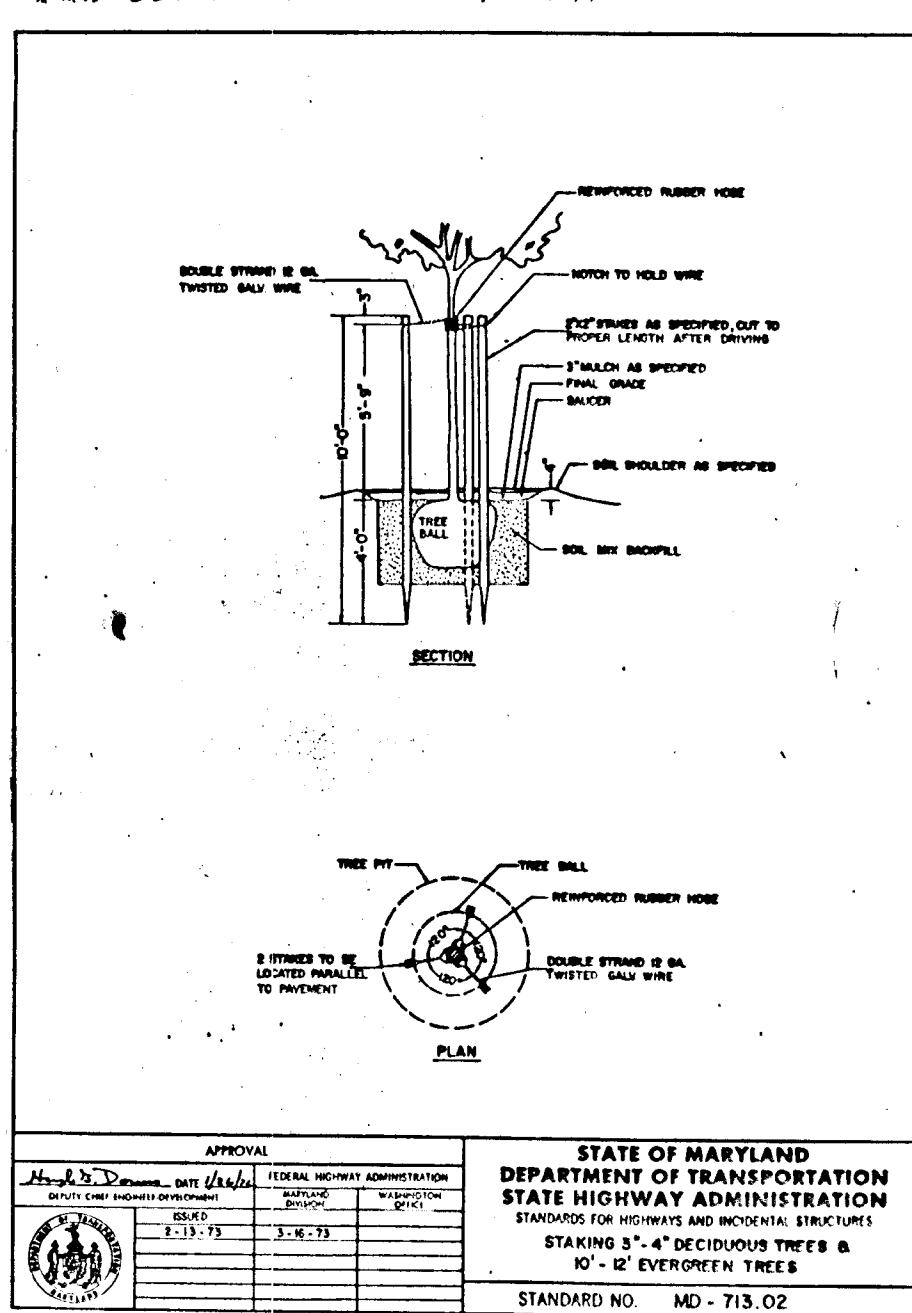
STREET NAME & LOCATION	ROAD	A	B	C	D	R/W	ZONING	DESIGN SPEED	PAVING SECTION	PGL SECTION	LOCATION
RIVER MEADOWS DRIVE P-80-80-12-27-20	CUL-DE-SAC	22'	-	-	14'	50'	R-12	25*	P-2		CENTERLINE

* SEE DPW WAIVER RESPONSE LETTER DATED MAY 29, 1991 REGARDING DESIGN SPEED.

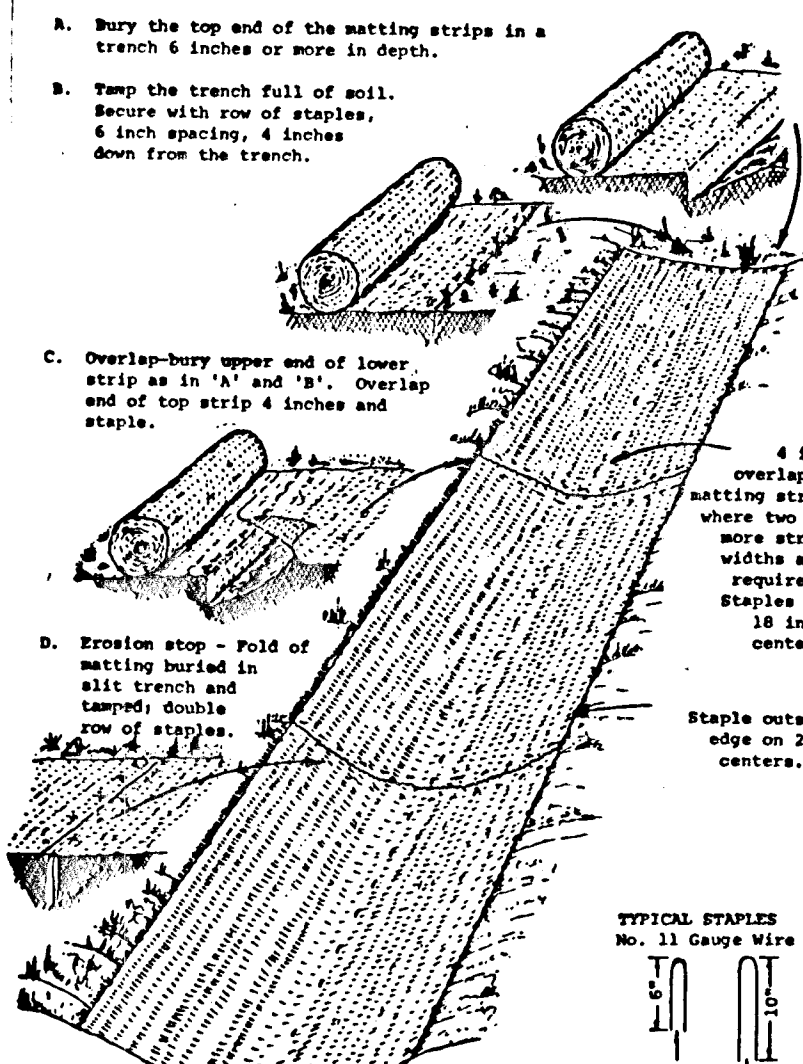
** SEE DPW WAIVER FROM TYPICAL SECTION - LETTER DATED FEBRUARY 4, 1991.



*** SEE DETAIL BELOW, RIGHT.



DETAIL FOR STABILIZING WATERWAYS WITH JUTE OR EXCELSIOR MATTING



NO.	TYPE	INV. IN	INV. OUT	TOP ELEVATION UPPER LOWER	REMARKS	LOCATION
I-1	D INLET	-	343.55	347.16	SDA.11 OPEN ALL SIDES	LP 11 31.2, 7' LT.
M-1	SHALLOW MANHOLE	342.05	337.00	345.00	G 5.12	See Plan
S-1	ENDWALL	334.00	334.00	336.00	SDS.21	See Plan

Structure	Rip Size	Q/C/F/S	d50	Thickness	Length	Width
S-1	15"	2.39	4"	0"	20'	9.25'

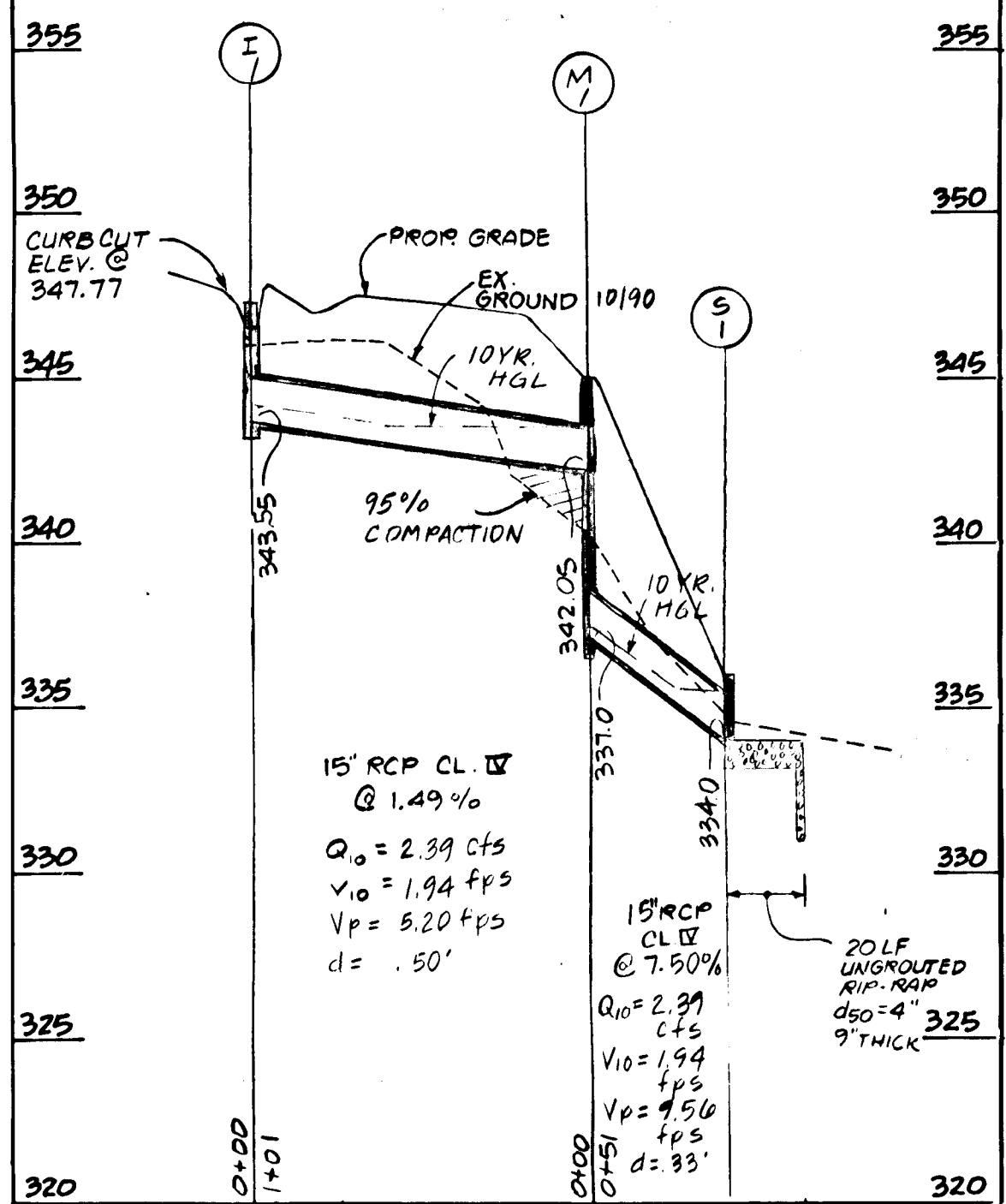
By the Developer:
"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment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

Signature of Developer: Patrick Byrne
Date: 10-25-91

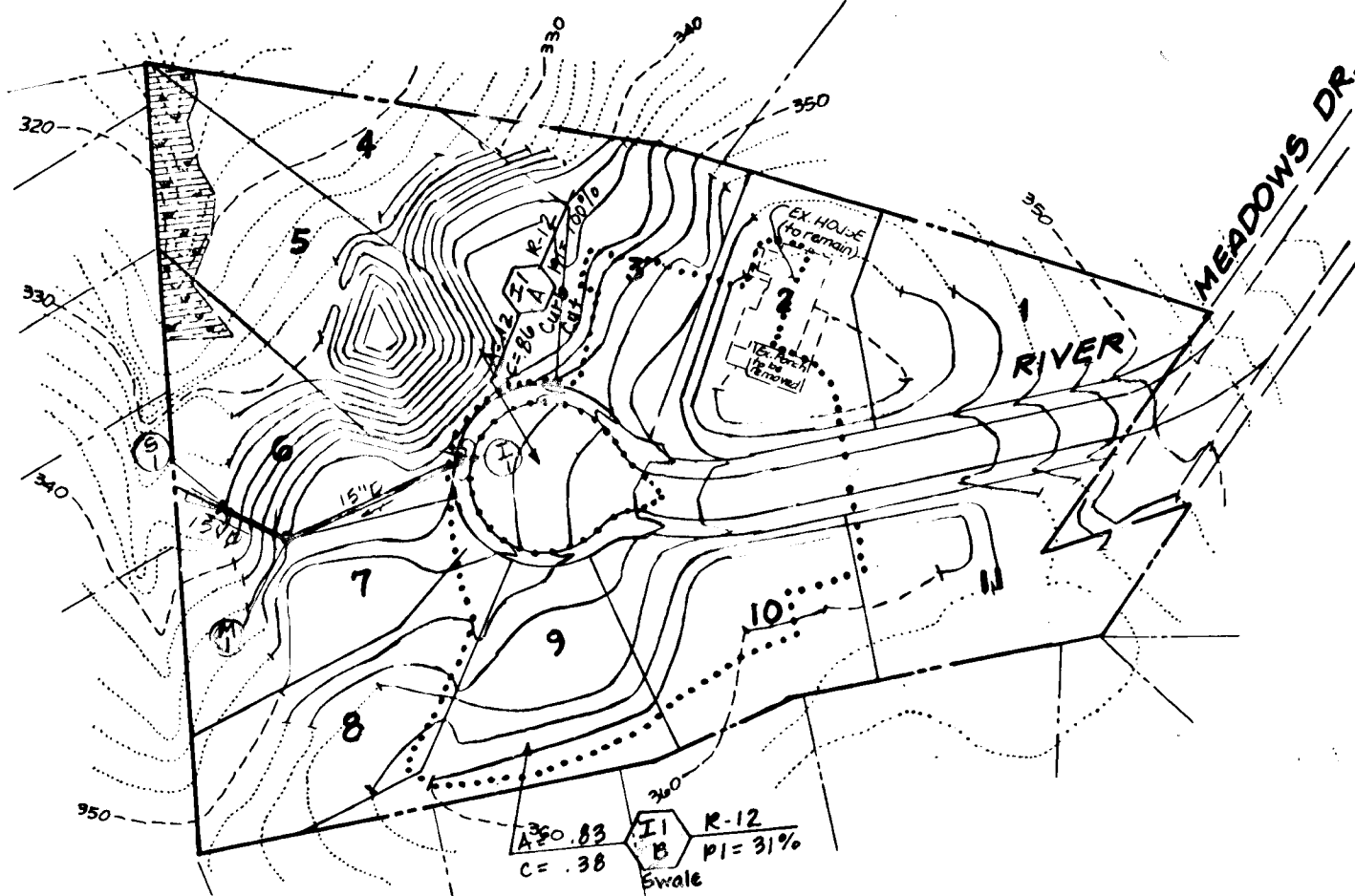
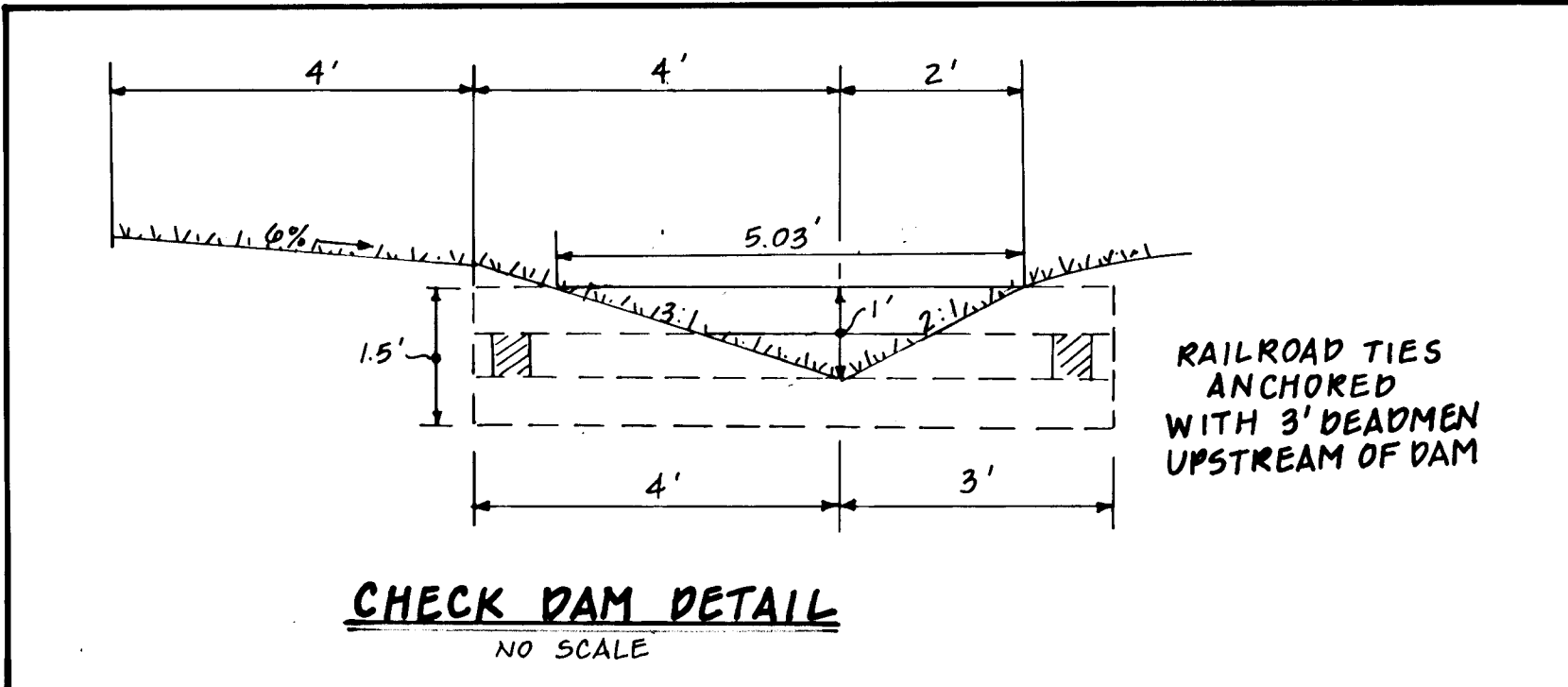
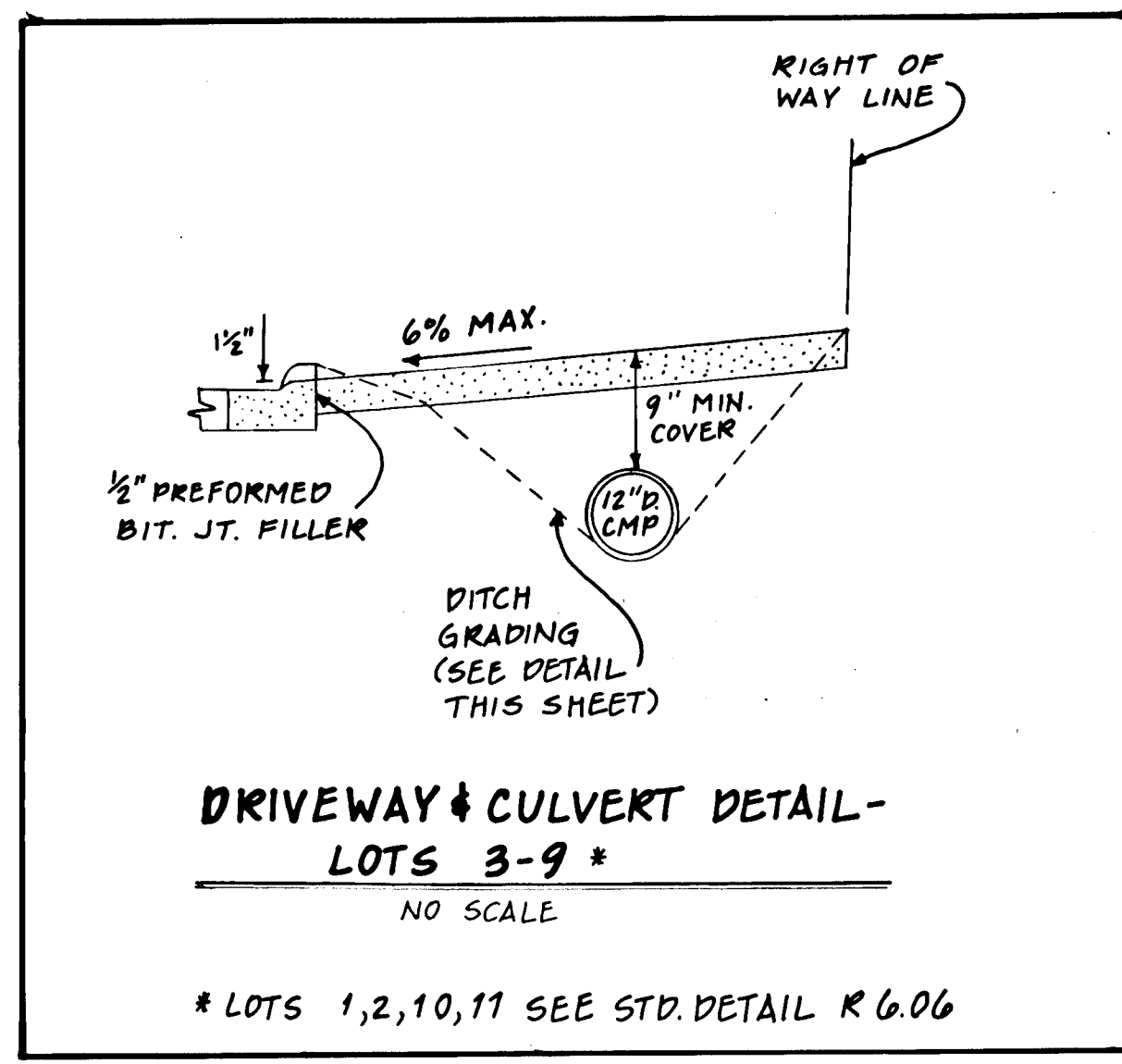
By the Engineer:
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer: Rodolph May, Jr.
Date: 10/25/91

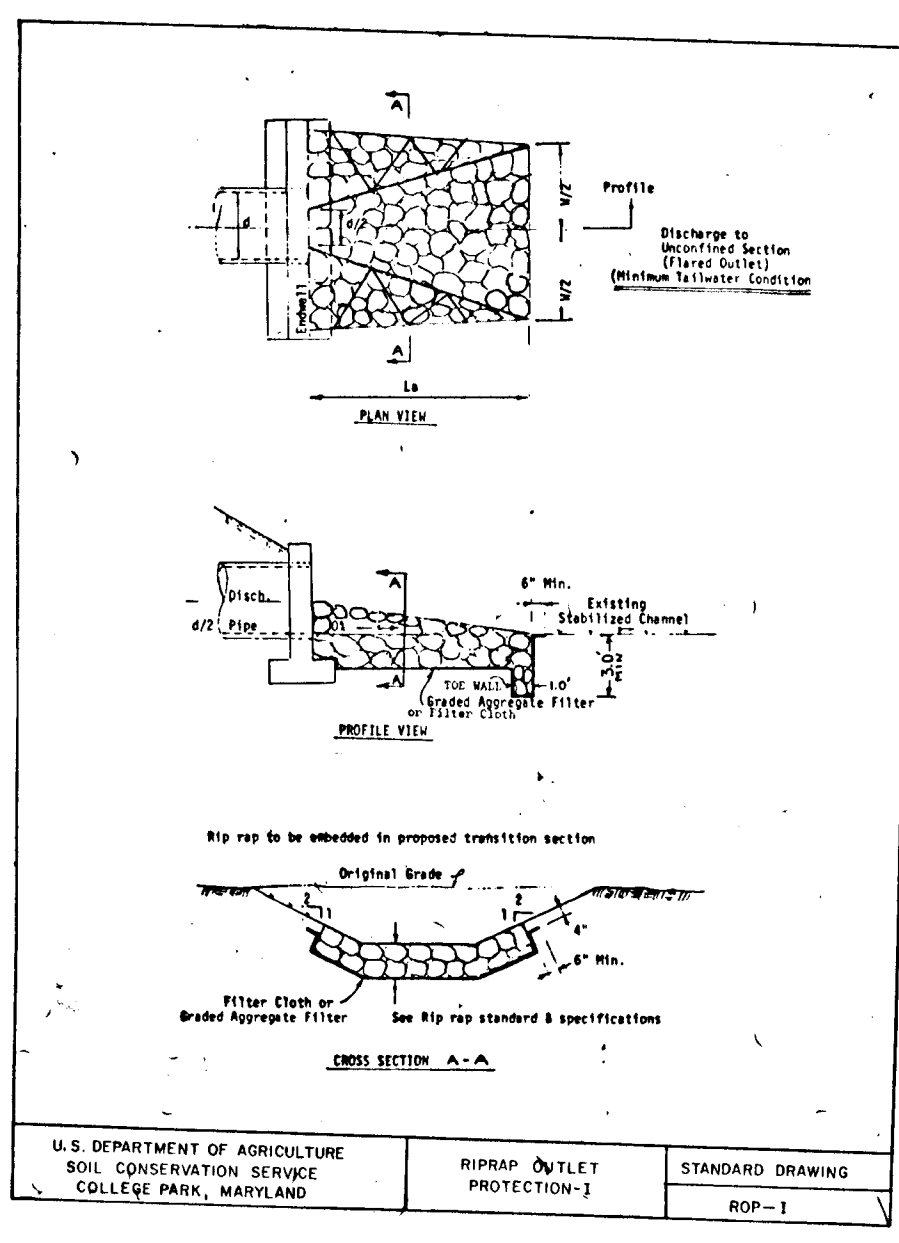
Reviewed for HOWARD S.C.D. Name: [Signature] Date: 10/29/91
U.S. Soil Conservation Service
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Signature: [Signature] Date: 10/29/91



STORM DRAIN PROFILES
SCALE: 1"=50' HORIZ., 1"=5' VERT.



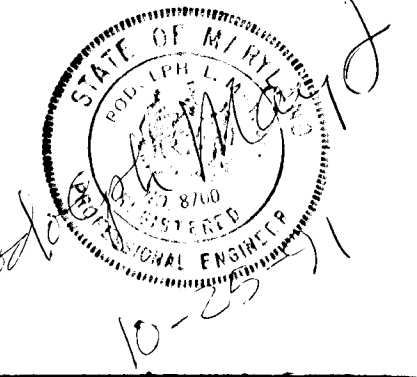
DRAINAGE AREA MAP
SCALE: 1"=100'



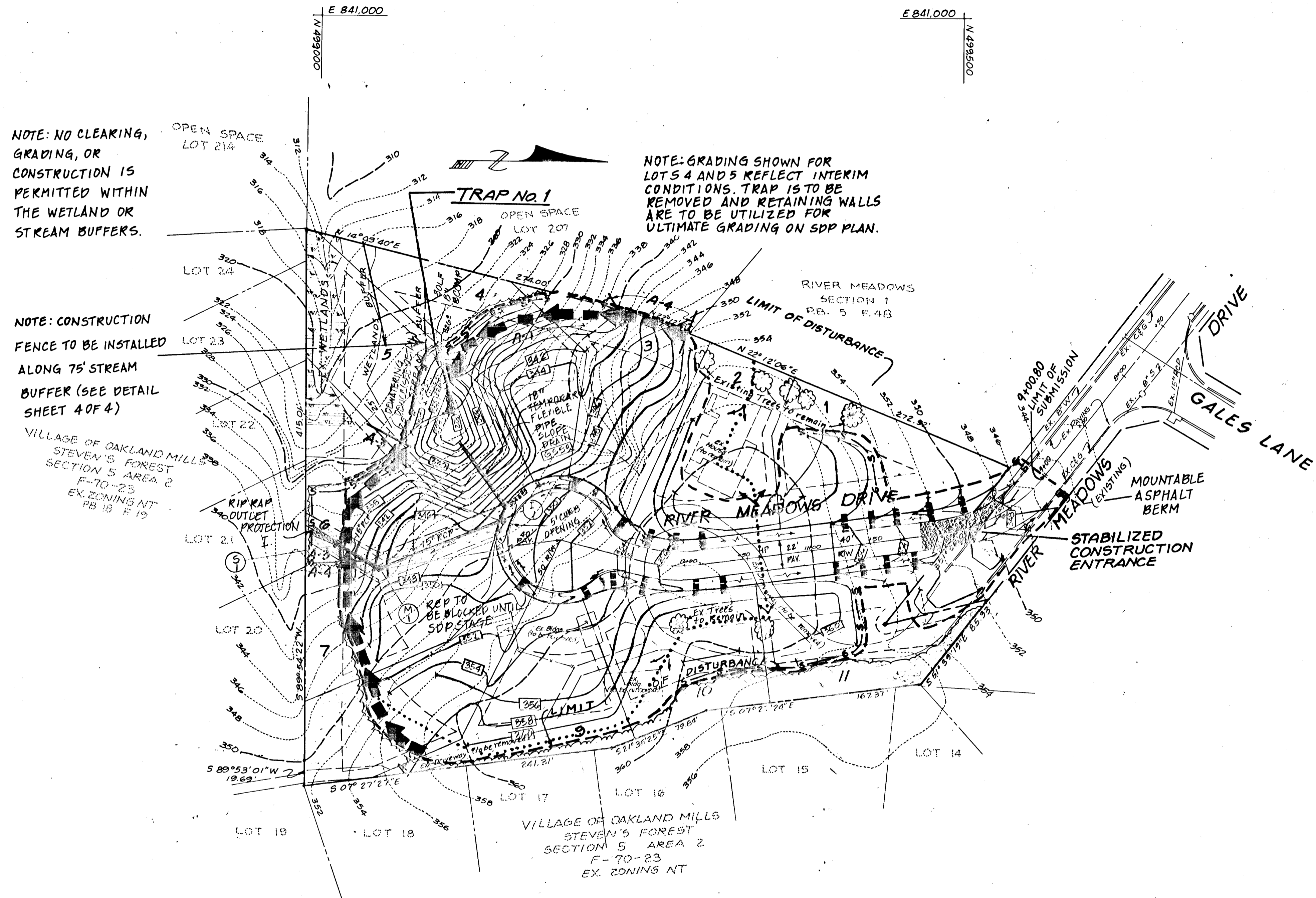
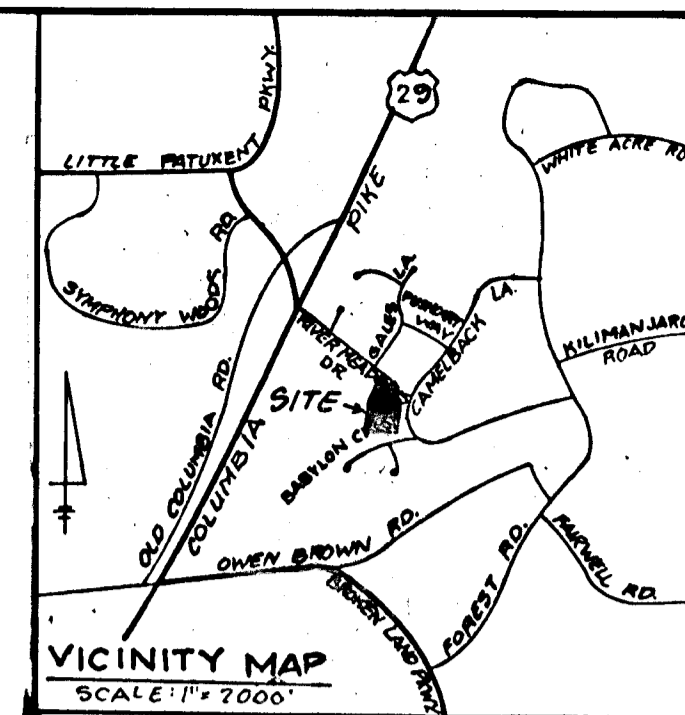
RIP-RAP OUTLET PROTECTION - STANDARD DRAWING ROP-1

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Signature: [Signature] Date: 4/2/91
CHIEF DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
Signature: [Signature] Date: 4/6/91
CHIEF BUREAU OF HIGHWAYS



LAND DESIGN ENGINEERING, INC. 10620 Guilford Road • Suite 210 • Jessup • Maryland 20794 • (301) 864-6264 • (301) 860-0034			
DESIGNED L.M.	ROAD CONSTRUCTION PLANS PROFILES AND DETAILS - FOR - MEADOWS COURT LOTS 1-11	SCALE AS SHOWN	DRAWING 2 OF 4
DRAWN W.J.L.M.	TAX MAP #36 PARCEL #16 6TH ELECTION DISTRICT - HOWARD COUNTY, MD REFERENCE: WP 90-82 390-08	JOB NO. 90-104.1	FILE NO. F-92-17
CHECKED R.M.	DEVELOPER L. ARGENT, INC. P.O. BOX 59532 POTOMAC, MD 20859 PHONE: 703-641-9400	DATE JULY, 1991	DATE 11-A-91



NOTE: NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE WETLAND OR STREAM BUFFERS.

NOTE: GRADING SHOWN FOR LOTS 4 AND 5 REFLECT INTERIM CONDITIONS. TRAP IS TO BE REMOVED AND RETAINING WALLS ARE TO BE UTILIZED FOR ULTIMATE GRADING ON SPP PLAN.

NOTE: CONSTRUCTION FENCE TO BE INSTALLED ALONG 75' STREAM BUFFER (SEE DETAIL SHEET 4 OF 4)

VILLAGE OF OAKLAND MILLS STEVEN'S FOREST SECTION 5 AREA 2 F-70-23 EX. ZONING AT PB 18 F 19

- LEGEND**
- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - SILT FENCE
 - EARTH DIKE
 - LIMIT OF DISTURBANCE
 - SOIL BORING
 - PROPOSED TREE LINE
 - DRAINAGE DIVIDE
 - RAILROAD TIE CHECK DAMS

Reviewed for **HOWARD** S.C.D. Name and meets Technical Requirements. Date **10/29/91**

U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT

Date **10/29/91**

By the Engineer: 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.

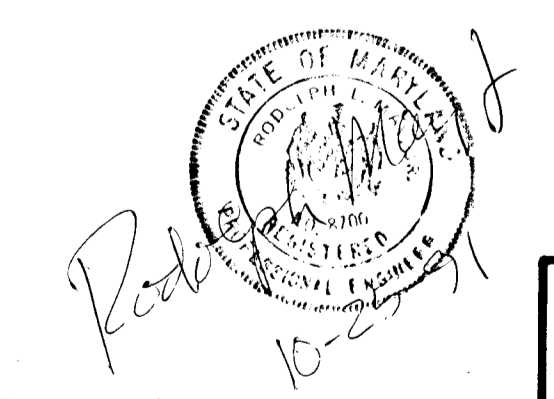
Signature of Engineer: *Redolph May, Jr.* Date: **10/25/91**

By the Developer: 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 Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project.

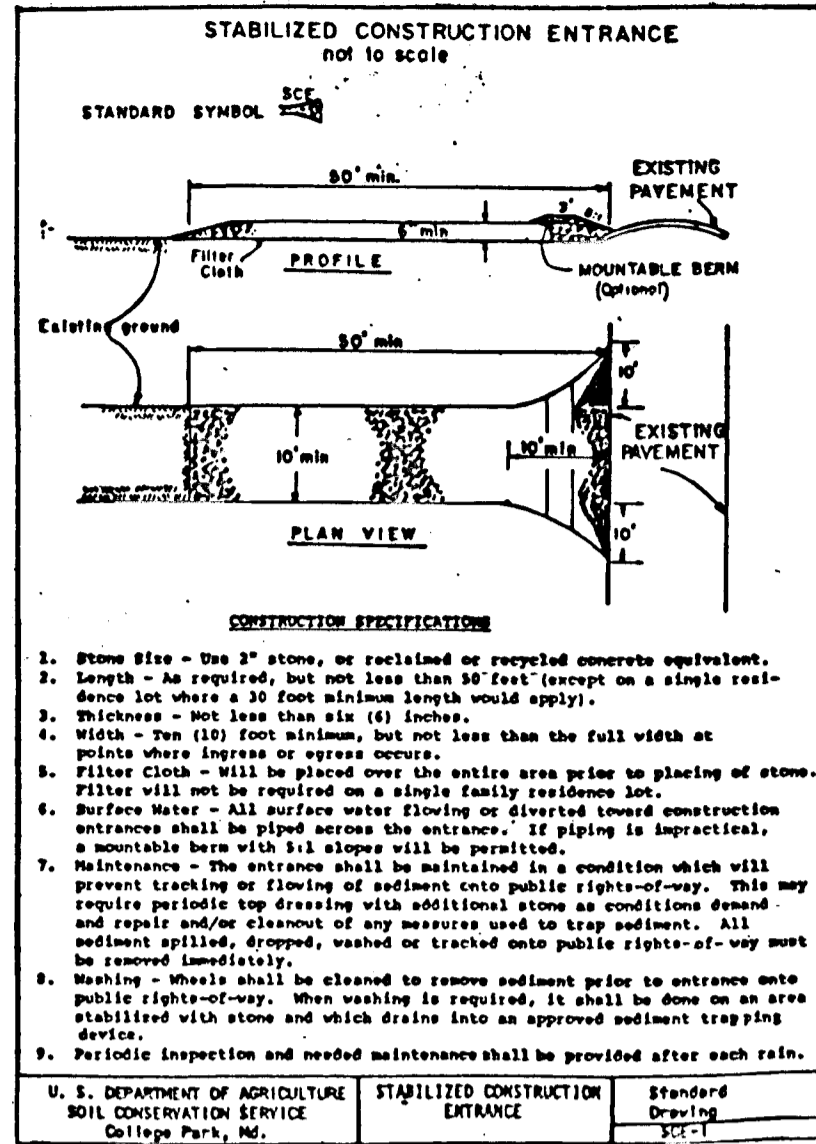
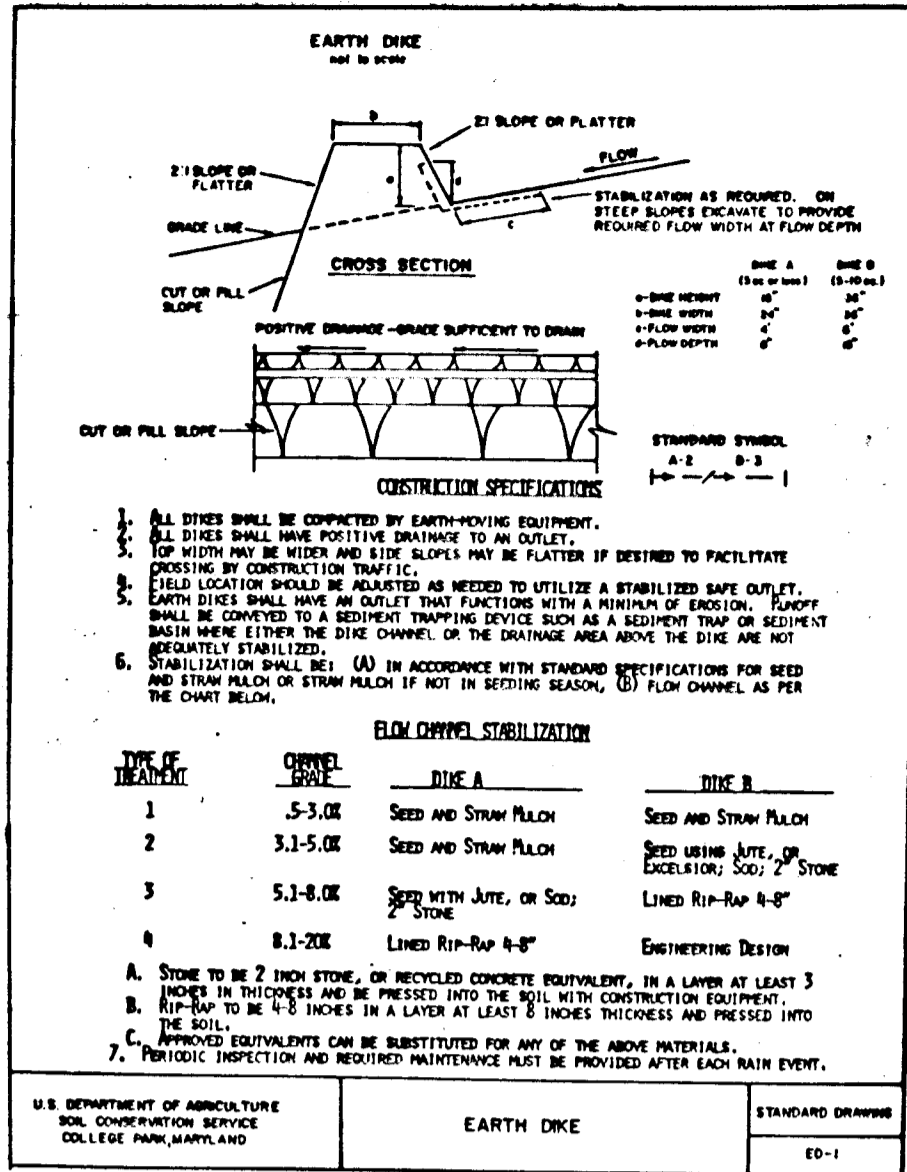
Signature of Developer: *Patrick Byrne* Date: **10-25-91**

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Thomas Holmash 11/2/91
 CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
James W. Welland 10/30/91
 CHIEF, BUREAU OF ENGINEERING



LAND DESIGN ENGINEERING, INC. 10680 Guilford Road • Suite 210 • Jump • Maryland 20784 • (301)804-8264 • (301)800-0334		
DESIGNED L.M.	ROAD CONSTRUCTION PLANS GRADING AND SEDIMENT AND EROSION CONTROL PLAN MEADOWS COURT LOTS 1-11	SCALE 1" = 50'
DRAWN C.G./L.M.		DRAWING 3 of 4
CHECKED R.M.	TAX MAP #36 PARCEL #16 8TH ELECTION DISTRICT - HOWARD COUNTY, MD REFERENCE: WP 90-82 S90-08	JOB NO. 90-104.1
DATE JULY, 1991	DEVELOPER: L. ARGENT, INC. OWNER: EUGENE GLAZER P.O. BOX 59532 879 PARK AVE. POTOMAC, MD 20859 BALTIMORE, MD PHONE: 703-641-9400 752-0225	FILE NO. F-92-17



SEDIMENT CONTROL NOTES

- 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 redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1; b) 14 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: 3.72 Acres
Area Disturbed: 2.85 Acres
Area to be roofed or paved: .90 Acres
Area to be vegetatively stabilized: 2.85 Acres
Total Cut: 6,752 Cu. yds
Total Fill: 6,752 Cu. yds
Offsite waste/borrow area location: ON SITE
- 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 DPN sediment control inspector.
- 10) On all sites of 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.

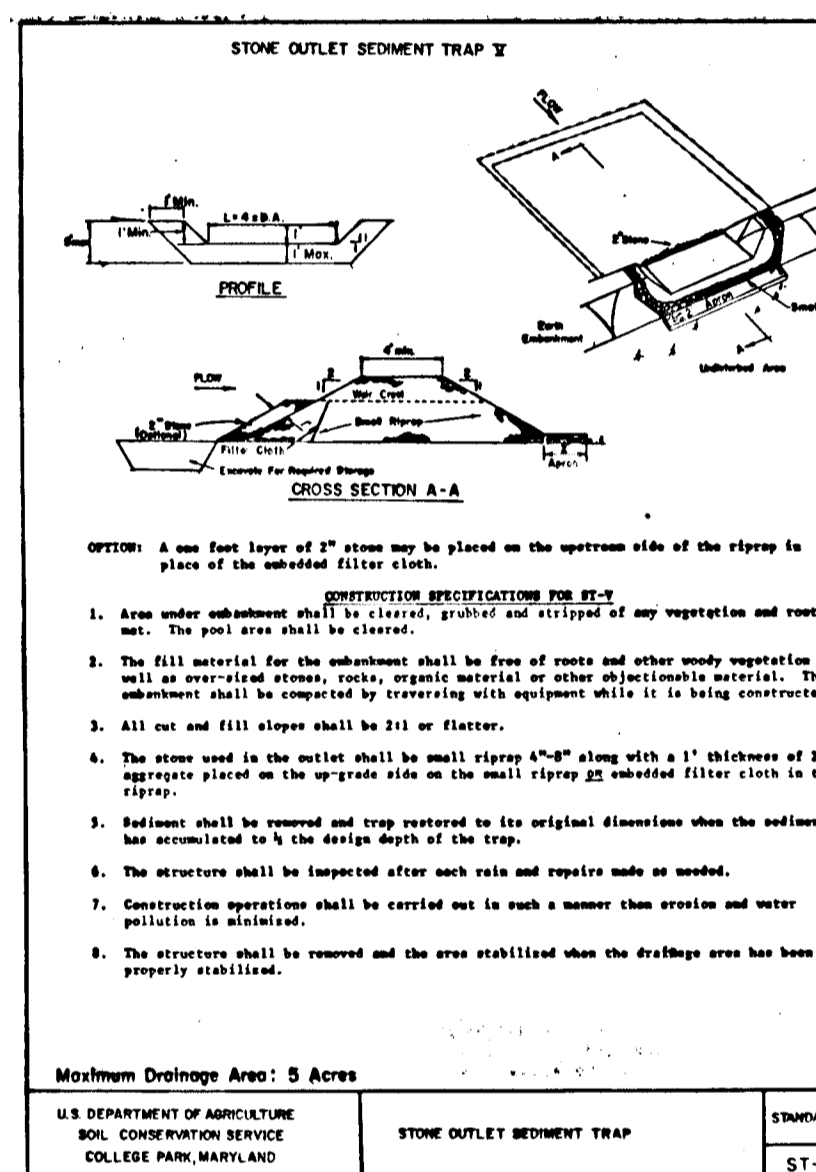
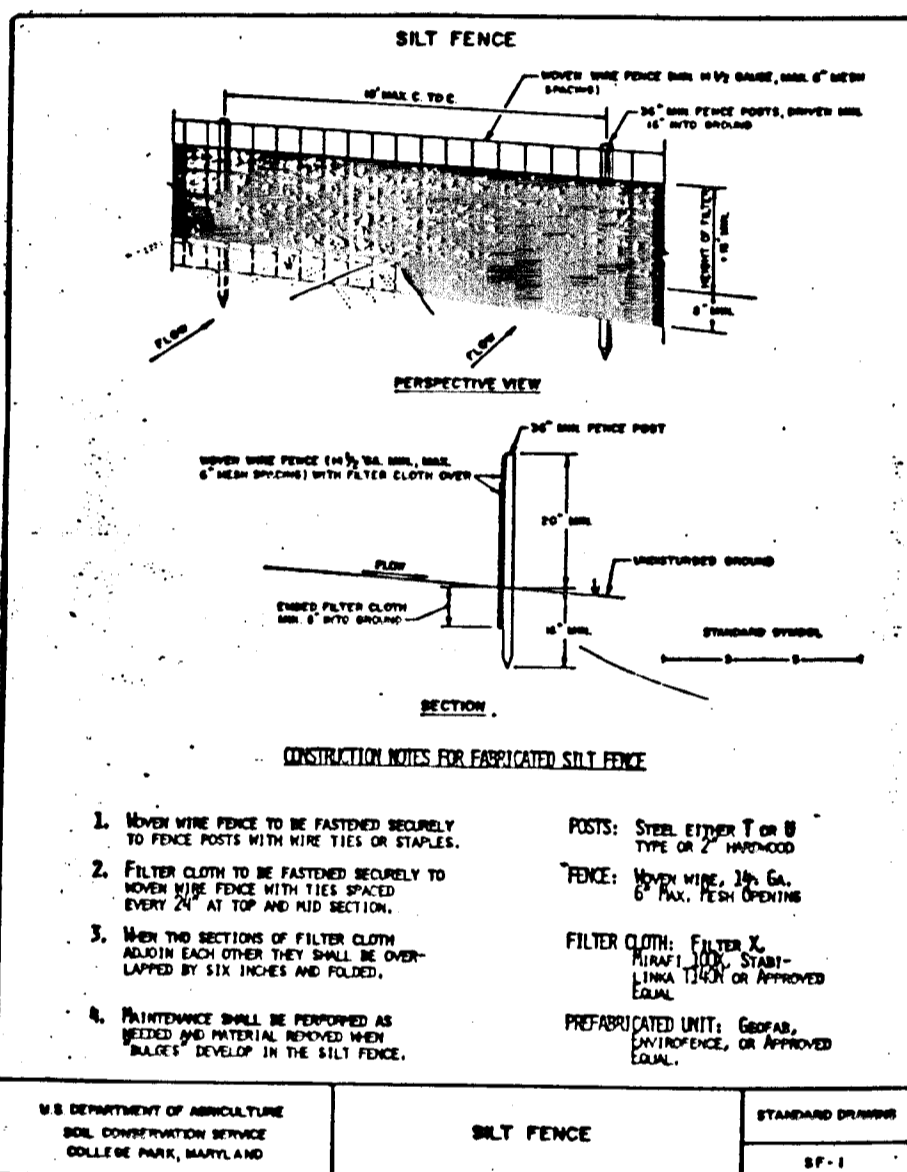
**HOWARD SOIL CONSERVATION DISTRICT
PERMANENT SEEDING NOTES**

- Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Soil Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not 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 sq. ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk 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 disk 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 (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 thru February 20, 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 210 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 340 gallons per acre (8 gal/1000 sq. ft.) for anchoring.
- Maintenance - Inspect all seeding areas and make needed repairs, replacements and reseedings.

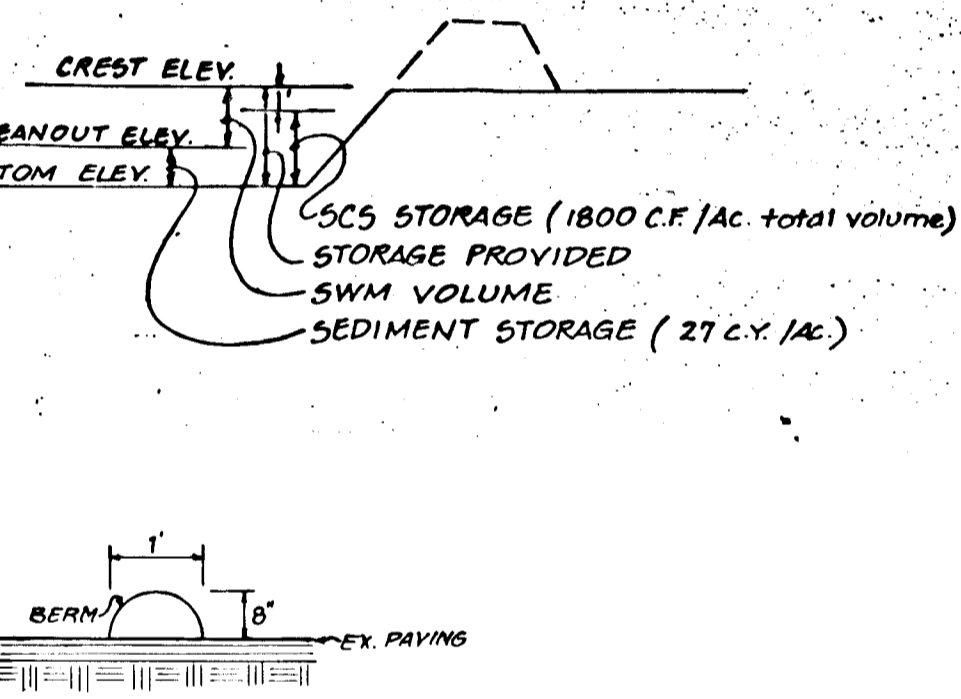
TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.
- Soil Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not 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 October 15, seed with 2-1/2 bushel per acre of annual rye (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 15 thru February 20, 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 seed from small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gal per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 ft. or higher, use 340 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 additional rates and methods not covered.

REV 1/91



TYPICAL TRAP PROFILE

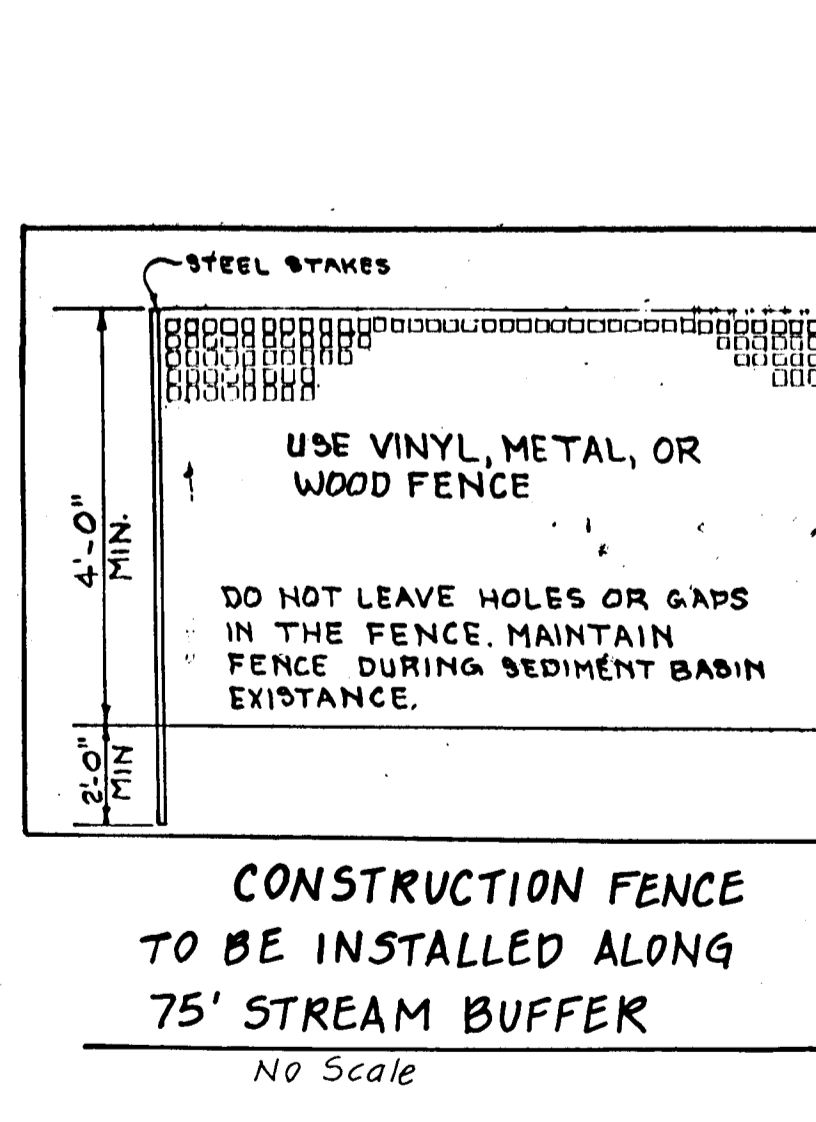
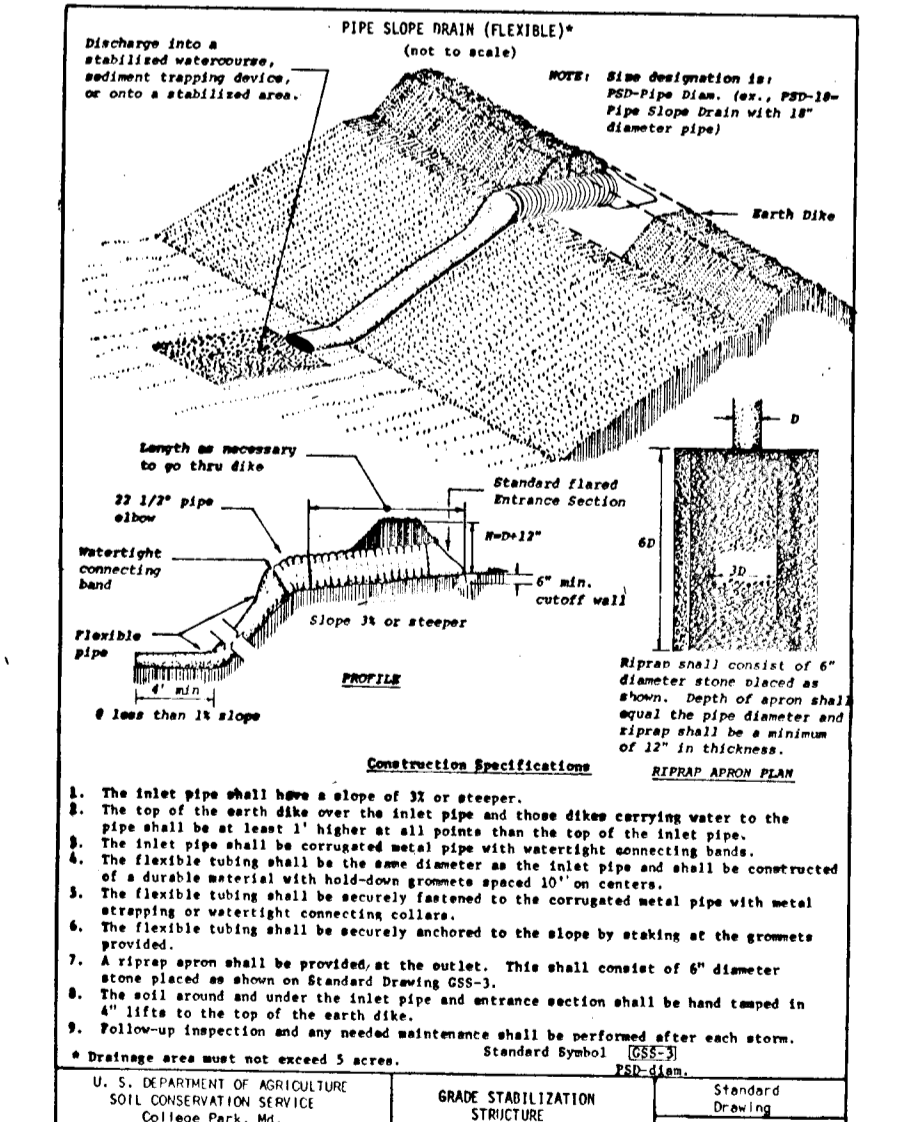


SEDIMENT TRAP SCHEDULE

SEDIMENT TRAP NO.	1
TYPE OF TRAP	STONE OUTLET
DRAINAGE AREA (AC.)	1.94
STORAGE REQUIRED (CY)	12.93
STORAGE PROVIDED (CY) *	208.7
STORAGE ELEVATION	328.0
STORAGE DEPTH (FT.)	6.0
BOTTOM ELEVATION	322.0
CLEANOUT ELEVATION	325.0
CREST ELEVATION	329.0
WEIR LENGTH (FT.)	8.0
TOP ELEVATION	330.5

* @ 1.0 FOOT BELOW CREST

- Sequence of Construction**
1. Obtain grading permit.
 2. Install SCE.
 3. Clear and grub for installation of sediment trap.
 4. Install trap, earth dikes, silt fences, and asphalt berm and flexible pipe slope drain.
 5. Install water and sewer and I-1.
 6. Install RCP from I-1 to S-1 and block pipe at inlet.
 7. Install curb and gutter and base paving.
 8. Stabilize Site.



Reviewed for **Howard** S.C.D.
Name
and meets Technical Requirements.
Date
Service

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

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
DATE

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
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DATE

LAND DESIGN ENGINEERING, INC.

10020 Guilford Road • Suite 210 • Juppis • Maryland 20784 • (301) 804-6264 • (301) 803-0034

DESIGNED:	L.M.	SCALE:	AS SHOWN
DRAWN: <th>W.J./L.M.</th> <td></td> <td>4 OF 4</td>	W.J./L.M.		4 OF 4
CHECKED: <th>R.M.</th> <td></td> <td>JOB NO. 90-104.1</td>	R.M.		JOB NO. 90-104.1
DATE: <th>JULY 1991</th> <td></td> <td>FILE NO. F-92-17</td>	JULY 1991		FILE NO. F-92-17

**ROAD CONSTRUCTION PLANS
GRADING AND SEDIMENT AND
EROSION CONTROL DETAILS
MEADOWS COURT
LOTS 1-11**

TAX MAP #36 PARCEL #16
6TH ELECTION DISTRICT HOWARD COUNTY, MD
REFERENCE: WP 90-82 590-08

DEVELOPER: L ARGENT, INC. DWINER: EUGENE BLAZER
P.O. BOX 53532 875 PARK AVE.
POTOMAC, MD 20859 BALTIMORE, MD
PHONE: 703-601-7400 752-6225

#89