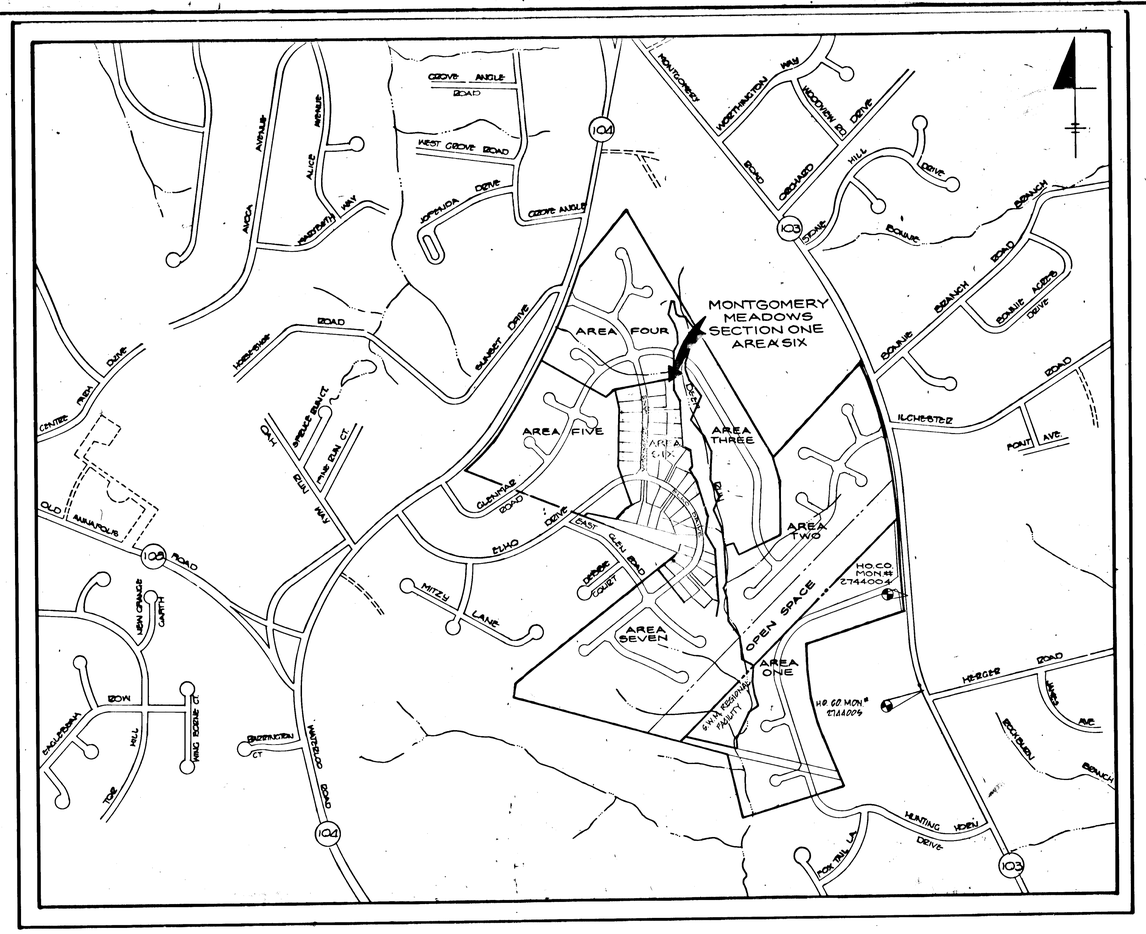
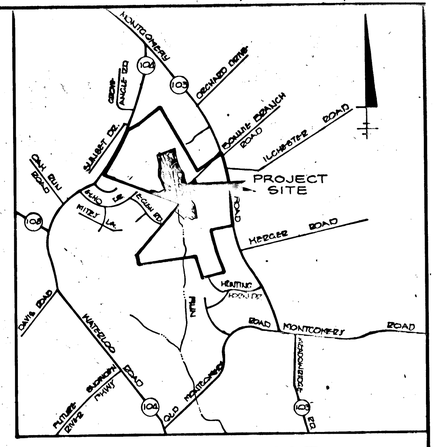
INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	PLAN AND PROFILE - MORNINGSIDE LANE
3	PLAN AND PROFILE - ELKO DRIVE
4	PLAN AND PROFILE - ELKO DRIVE
5	ROAD SECTIONS AND DETAILS
6	STORM DRAIN PROFILES
7 & 8	GRADING SEDIMENT AND EROSION CONTROL PLAN
9	SEDIMENT AND EROSION CONTROL DETAIL SHEET



LOCATION MAP

SCALE: 1" = 600'



VICINITY MAP

SCALE: 1" = 2000'

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED 24HRS IN ADVANCE OF ANY CONSTRUCTION.
3. STORM DRAINAGE TRENCHES WITHIN ROAD RIGHT-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
4. ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.
5. CONTRACTOR TO NOTIFY THE HOWARD COUNTY INSPECTION AND SURVEY DIVISION AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE: 792-7272.
6. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION, CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
7. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 1984 EDITION.
8. STREET TREES TO BE PROVIDED AS REQUIRED BY SECTION 16.151 OF THE HOWARD COUNTY, SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
9. THE PROPOSED GRADING SHOWN ON SHEETS 7 AND 8 IS FOR MASS GRADING. THIS ACTUAL LOT GRADING WILL BE PROPOSED WITH THE SUBMISSION OF A SITE DEVELOPMENT PLAN.

BENCHMARKS
HOWARD CO. MON.# 27440005 - ELEV. 415.867
3/4" IRON BAR 0.8' BELOW SURFACE, 73' WEST OF MD ROUTE 103 AND 160.0' SOUTH OF INTERSECTION OF ILCHESTER ROAD.
HOWARD CO. MON.# 27440003 - ELEV. 415.828
3/4" IRON BAR 0.6' BELOW SURFACE, 10' WEST OF EDGE OF MD ROUTE 103 AND 80' NORTH OF ℄ OF KERGER ROAD

SYMBOL	NO.	NAME	SIZE	REMARKS
	98	ACER SACCHARUM (SUGAR MAPLE)	2½" CAL. (MIN.)	BALLED & BURLAPPED
	2	CRATAEGUS PHAENOPYRUM (WASHINGTON HAWTHORN)	2½" CAL. (MIN.)	BALLED & BURLAPPED

MONTGOMERY MEADOWS
SECTION ONE, AREA SIX
ROAD CONSTRUCTION DRAWINGS
1 ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

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

THOMAS L. WILEY REGRES. NO. 9278 — DATE 4/11/90

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL 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 INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

KENNETH G. MALM N.V. LAND INC. — DATE 4-12-90

APPROVED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

CHIEF, DIVISION OF RESOURCE CONSERVATION — DATE 4-19-90

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

CHAIRMAN, HOWARD SOIL CONSERVATION DISTRICT — DATE 4/19/90

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/2/90

CHIEF, BUREAU OF ENGINEERING — DATE 4/30/90

CHIEF, BUREAU OF ENGINEERING — DATE 5-2-90

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 5/10/90

DESIGNED	MLH	5-88 date
DRAWN	SSB	5-88 date
CHECKED	RMT	5-88 date
APPROVED	CRH	5-88 date

REVISIONS

DATE	BY	DESCRIPTION
4-90	KAB	PER AGENCY COMMENTS

Dewberry & Davis
ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS
3300 N. RIDGE ROAD
SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

STATE OF MARYLAND — THOMAS L. WILEY — REGISTERED PROFESSIONAL ENGINEER — 4/11/90

OWNER / DEVELOPER
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

TITLE SHEET
MONTGOMERY MEADOWS
SECTION ONE, AREA SIX
LOTS 301 THRU LOTS 351
TAX MAP 31 PARCEL 423
1st ELECTION DISTRICT HOWARD CO., MARYLAND

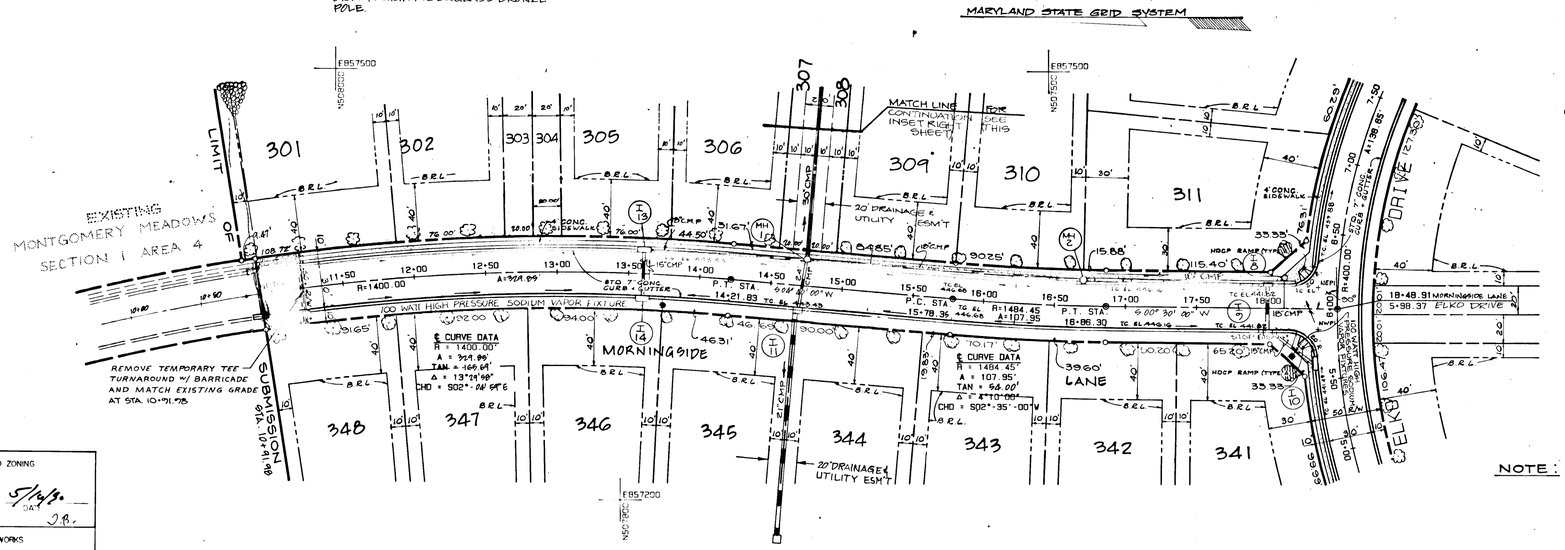
SCALE: As Shown | CONTRACT NO. | FILE NO. F-89-178 | SHEET 1 OF 9

F-89-178

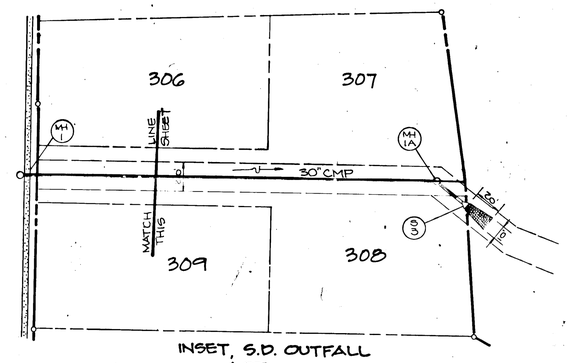
1443

LIGHTING LEGEND

◆ TYPE "B"-100 WATT HIGH PRESSURE SODIUM VAPOR LAMP MOUNTED ON A 14' HIGH FIBERGLASS BRONZE POLE.



PLAN
SCALE: 1"=50'



INSET, S.D. OUTFALL LOT

NOTE: ELKO DRIVE PLAN AND PROFILE SEE SHEET 3 OF 9.

MONTGOMERY MEADOWS

SECTION ONE, AREA SIX
LOT 301 THRU 351
1st ELECTION DISTRICT, HOWARD COUNTY, MARYLAND.

PLAN AND PROFILE

MORNINGSIDE LANE

OWNER / DEVELOPER
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

SCALE AS SHOWN	DATE MAY 6, 1988	SHEET 2 OF 9
DESIGNED BY TP	DRAWN BY MLH	CHECKED BY RMT

DEWBERRY & DAVIS
ENGINEERS ARCHITECTS PLANNERS SURVEYORS
3300 NORTH RIDGE ROAD
ELLICOTT CITY, MARYLAND 21043
(301) 461-7478

STATE OF MARYLAND — THOMAS T. WHITE — No. 9773 — REGISTERED PROFESSIONAL ENGINEER — 4/11/90

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

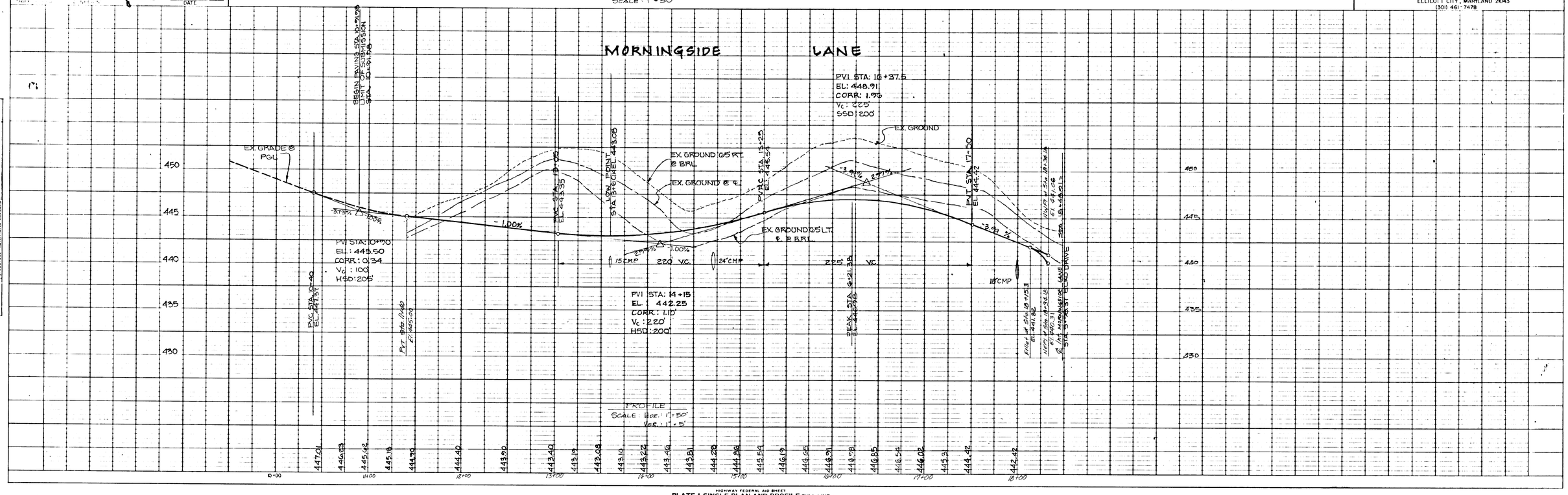
Marsha S. McLaughlin — 5/4/90
DIR. LAND DEVELOPMENT & COMMUNITY PLANNING — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Ronald G. Lepson — 5/2/90 — DATE
Granville W. Weedon — 4/30/90 — DATE
William E. Riley — 5-2-90 — DATE

PLAN — SURVEYED / PLOTTED / COMPUTATIONS CHECKED / B.M.'s NOTED / STRUCTURE NOTATIONS CHECKED — NOTE BOOK — No. — BY — DATE

PROFILE — SURVEYED / PLOTTED / COMPUTATIONS CHECKED / B.M.'s NOTED / STRUCTURE NOTATIONS CHECKED — NOTE BOOK — No. — BY — DATE



PROFILE
SCALE: HOR. 1"=50' VER. 1"=5'

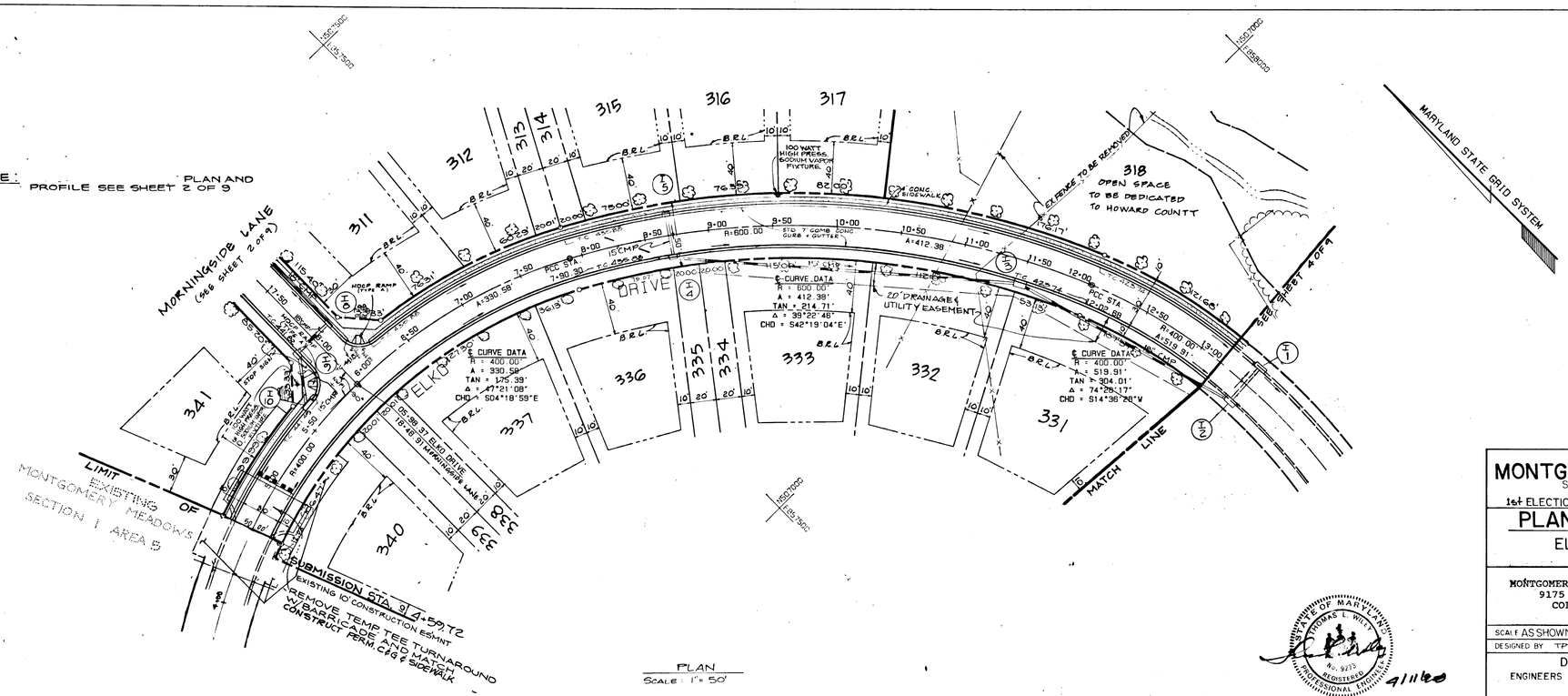
HIGHWAY FEDERAL AID PROJECT
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE

PRINTED IN U.S.A.

1443

F-89-178
FOOG-EC

NOTE: PLAN AND PROFILE SEE SHEET 2 OF 9



PLAN
SCALE: 1" = 50'

PLAN	SURVEYED	DATE
	PLOTTED	
	DESIGN CHECKED	
NOTE BOOK	R/W & EASEMENT CHECKED	
No.	R/W MONUMENTS CHECKED	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

DIRECTOR OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 5/16/90 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

5/2/90 DATE

4/30/90 DATE

CHIEF, BUREAU OF ENGINEERING — DATE

STATE OF MARYLAND — THOMAS L. WILT — No. 9217 — REGISTERED PROFESSIONAL ENGINEER — 4/11/90

MONTGOMERY MEADOWS

SECTION ONE, AREA SIX
LOTS 301 THRU 351
16th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

PLAN AND PROFILE

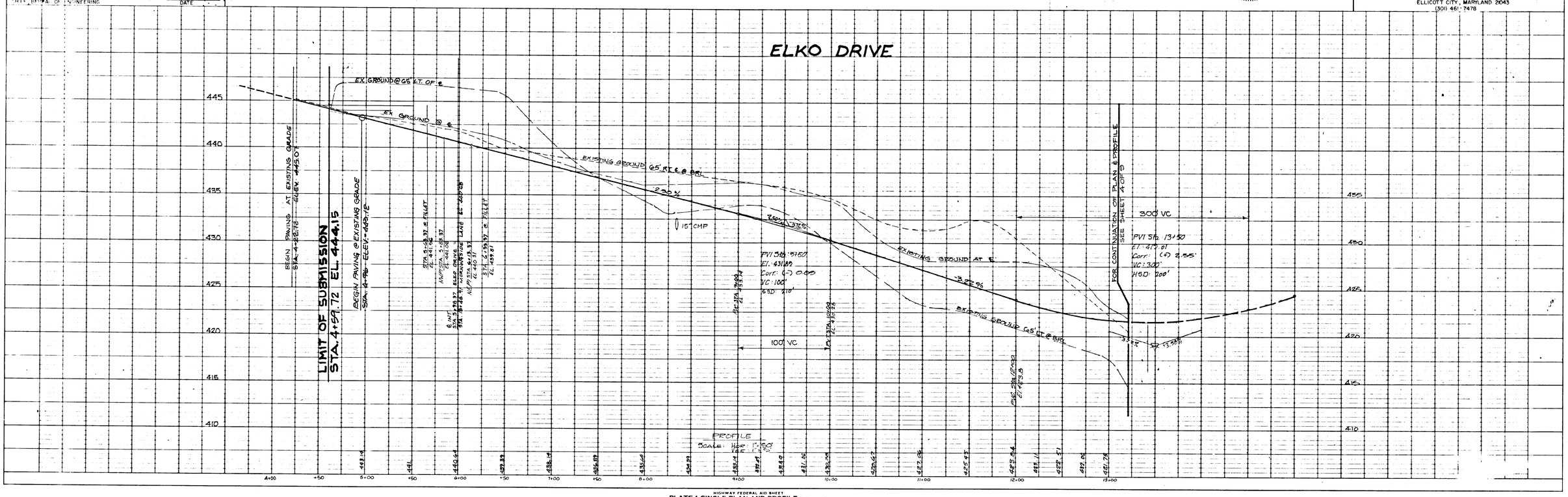
ELKO DRIVE

OWNER / DEVELOPER
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

SCALE AS SHOWN	DATE MAY 6, 1988	SHEET 3 OF 9
DESIGNED BY TP	DRAWN BY MLH	CHECKED BY RMT

DEWBERRY & DAVIS
ENGINEERS ARCHITECTS PLANNERS SURVEYORS
3300 NORTH RIDGE ROAD
ELLICOTT CITY, MARYLAND 21043
(301) 461-7478

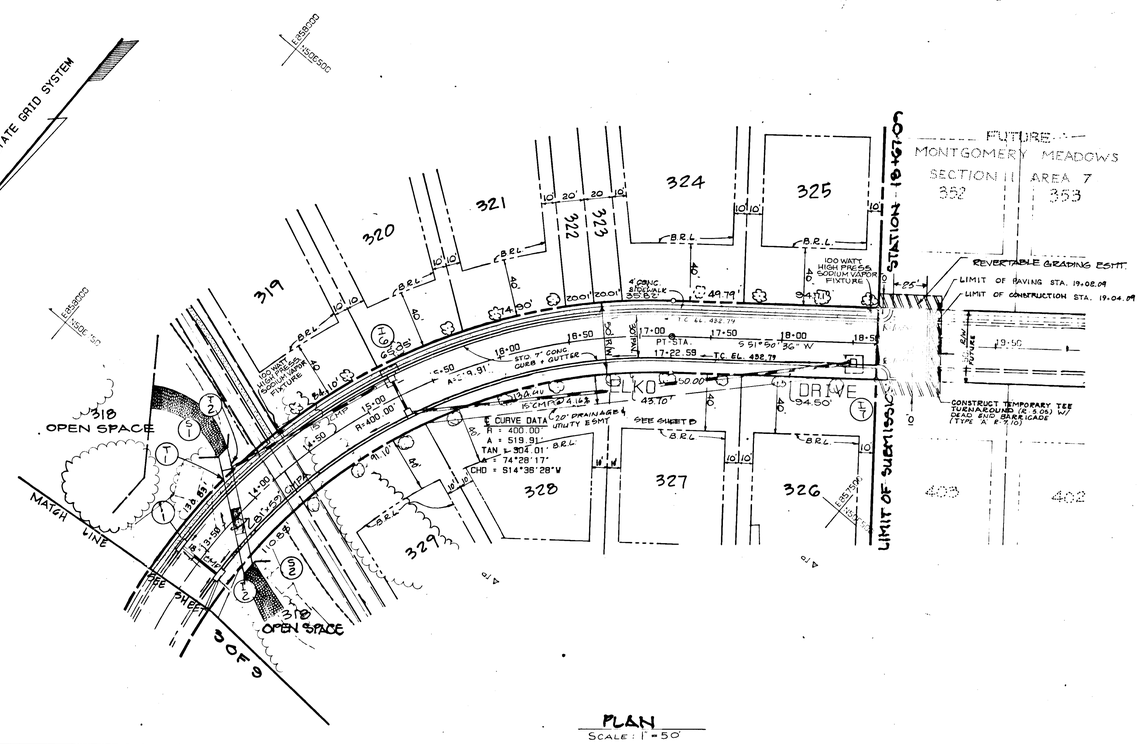
PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
NOTE BOOK	R & W NOTED	
No.	STRUCTURE NOTATIONS CHECKED	



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

F-89-178
FOOG-EC

1443



PLAN
SCALE: 1" = 50'

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

DIRECTOR OF COMMUNITY PLANNING — DATE 5/2/90

AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

5/2/90 — DATE

4/30/90 — DATE

5-2-90 — DATE

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	NOTE BOOK	GRADES CHECKED	
		R/W & PROPERTY	
	No.	STRUCTURE NOTATIONS CHECKED	

MONTGOMERY MEADOWS

SECTION ONE, AREA SIX

LOTS 301 THRU 351

1st ELECTION DISTRICT, HOWARD COUNTY, MARYLAND.

PLAN AND PROFILE

ELKO DRIVE

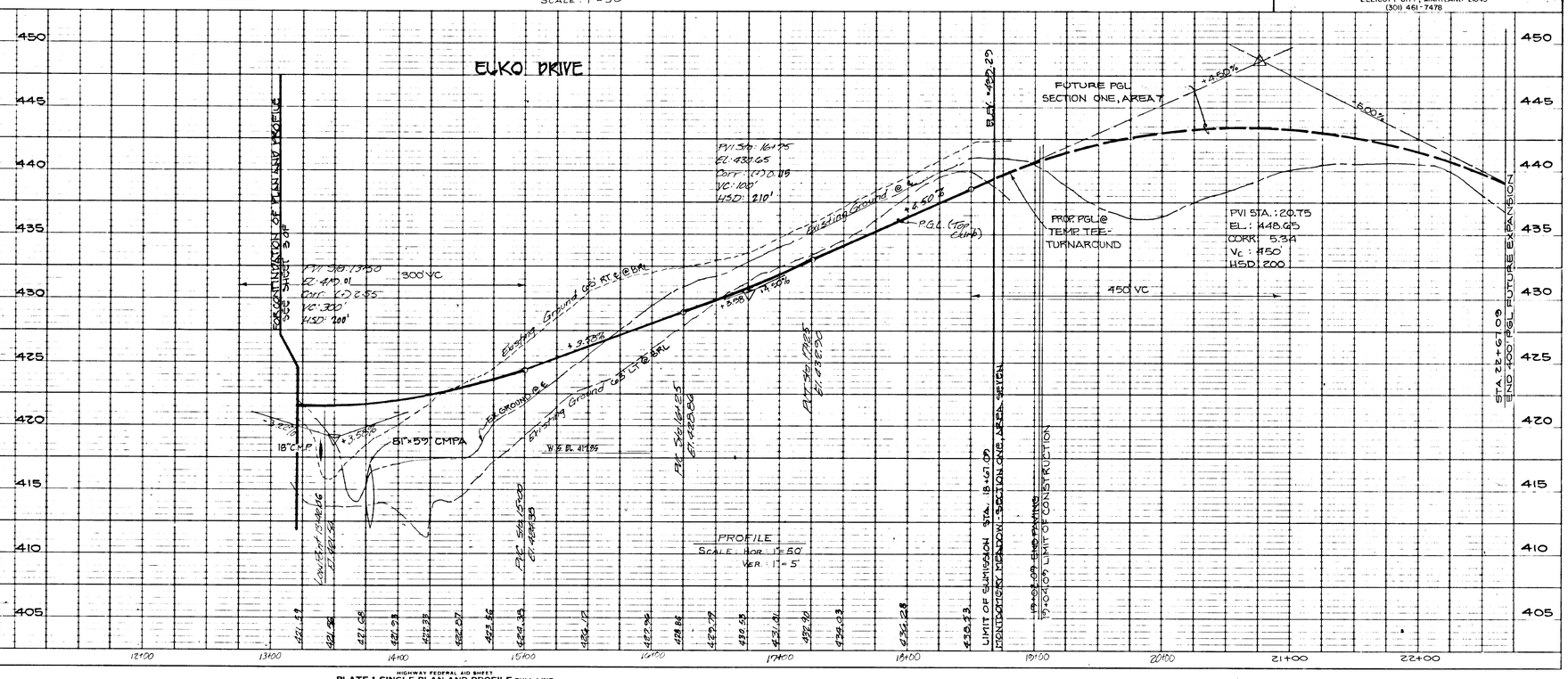
OWNER / DEVELOPER
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

SCALE AS SHOWN	DATE APRIL 1988	SHEET 4 OF 9
DESIGNED BY T.P.	DRAWN BY F.R.B./M.L.H.	CHECKED BY K.M.T.

STATE OF MARYLAND — THOMAS L. WILT — No. 9273 — REGISTERED PROFESSIONAL ENGINEER — 4/11/90

DEWBERRY & DAVIS
ENGINEERS ARCHITECTS PLANNERS SURVEYORS
3300 NORTH RIDGE ROAD
ELLICOTT CITY, MARYLAND 21043
(301) 461-7478

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	NOTE BOOK	GRADES CHECKED	
		R/W & PROPERTY	
	No.	STRUCTURE NOTATIONS CHECKED	

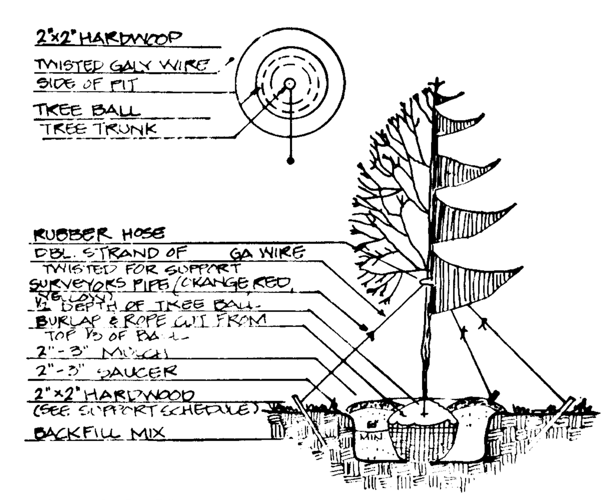


HIGHWAY FEDERAL AID SHEET
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE

PRINTED IN U.S.A.

F-8 178
F006-8C

1441



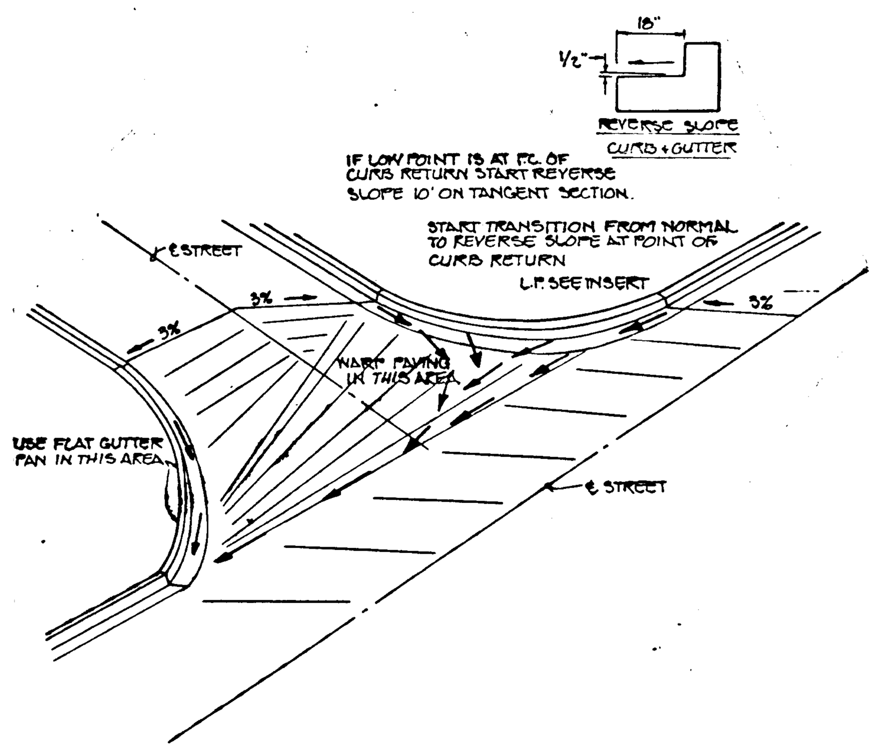
TREE SUPPORT SCHEDULE

TREE SIZE	SUPPORT
12-14 2-3" CAL	6' STAKE 3 REQ. 18 GA WIRE
14-16 3-4" CAL	2' STAKE 3 REQ. 18 GA WIRE
16-20 4-6" CAL	2' STAKE 3 REQ. 18 GA WIRE
20+ 6"+ CAL	DEADMAN REQ. & CABLE & 8"-6" TURNSCALE

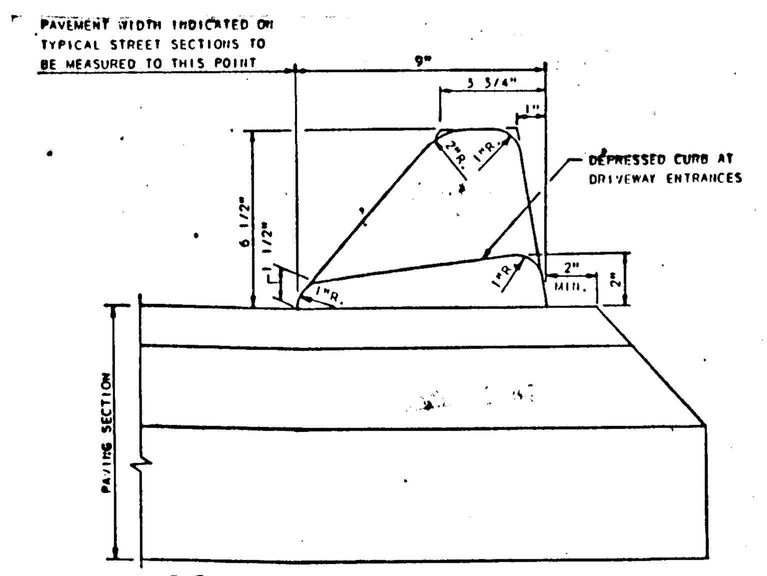
TREE GUYING DETAIL
Evergreen & Deciduous Trees over 2½" cal.) N.T.S.

Contractor shall verify location of 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 above species may be permitted, provided that the planting is in accordance with the tree and landscape requirements as specified in section 16.131 of the Howard County Subdivision Regulations.

DENOTES APPROXIMATE LOCATION
Planted 40' on center.

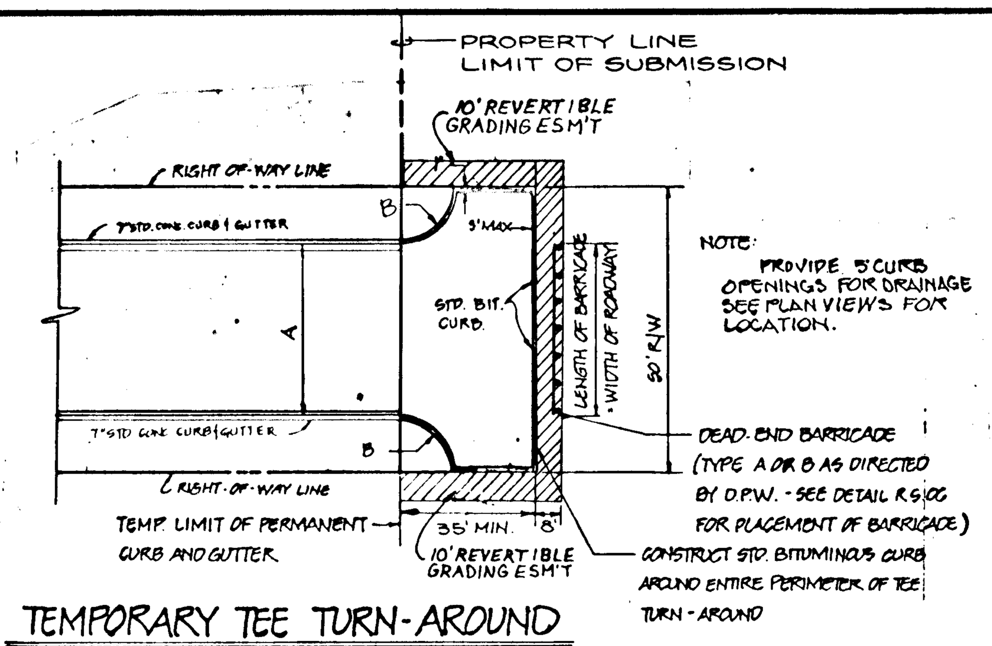


TYPICAL INTERSECTION GRADING DETAIL
NOT TO SCALE



STANDARD BITUMINOUS CURB
NOT TO SCALE

NOTE: STANDARD BITUMINOUS CURB TO BE USED WITH TEMPORARY TEE TURN-AROUND.



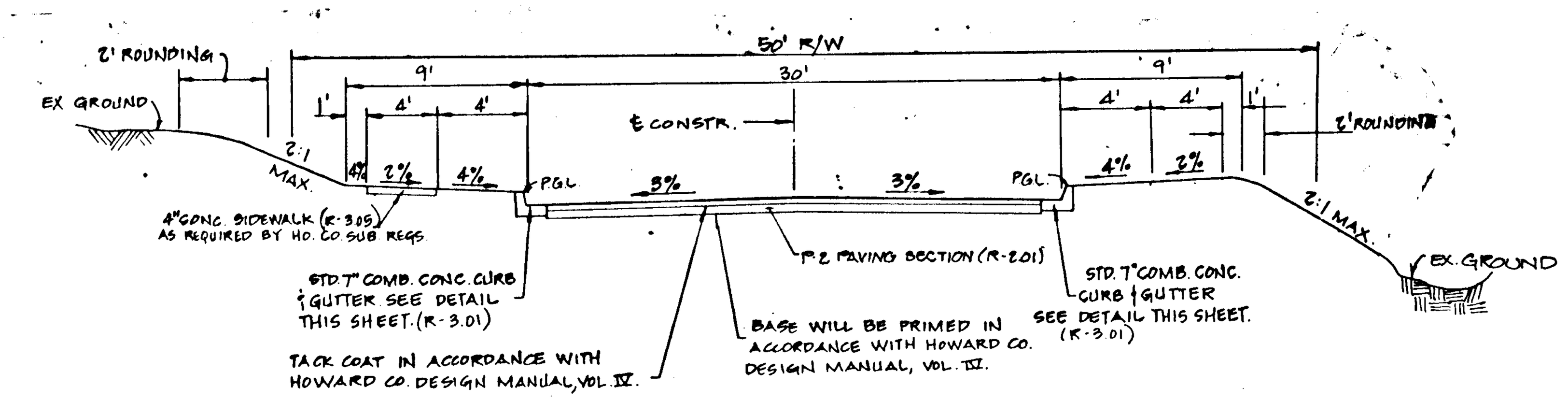
TEMPORARY TEE TURN-AROUND
NOT TO SCALE

PAVING WIDTH (A)	RADIUS (B)
30'	10'

STRUCTURE SCHEDULE

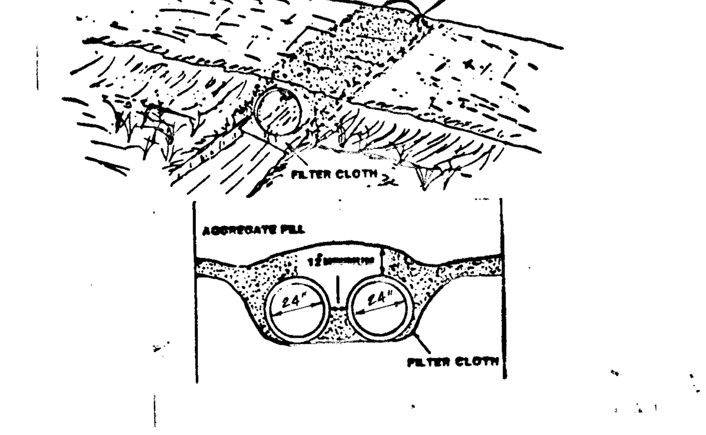
STR. #	LOCATION	TOP EL	INV. IN	INV. OUT	STR. TYPE	REMARKS
I-1	ELKO DRIVE 13+40(15'L)	421.56	417.01	416.76	A-5	SD 4.01
I-2	ELKO DRIVE 13+40(15'R)	421.56	418.06	417.81	A-5	SD 4.01
I-3	ELKO DRIVE 11+50(15'R)	425.45	422.20	421.95	A-10	SD 4.02
I-4	ELKO DRIVE 8+70(15'R)	434.00	429.99	429.74	A-10	SD 4.02
I-5	ELKO DRIVE 8+10(15'L)	434.00		430.61	A-10	SD 4.02
I-6	ELKO DRIVE 15+25(15'L)	424.70	421.15	420.13	5' COMB. DEPRESS.	SD 4.32
I-7	ELKO DRIVE 18+50(15'R)	437.93		434.38	5' COMB. DEPRESS.	SD 4.32
I-8	MORNINGSIDE LA. 18+00 (15'L)	442.45	438.28	438.03	A-10	SD 4.02
I-9	MORNINGSIDE LA. 18+00 (15'R)	442.45	438.72	438.47	A-10	SD 4.02
I-10	ELKO DRIVE 5+60(15'L)	441.10		439.05	A-10	SD 4.02
I-11	MORNINGSIDE LA. 14+70(15'R)	443.90	440.05	439.80	A-10	SD 4.02
I-12	BETWEEN LOTS 344 & 345 (15.0'R R.O.W.)	452.00	448.75	445.25	'D'	SD 4.11
I-13	MORNINGSIDE LA. 13+60(15'L)	443.08	439.58	439.33	A-5	SD 4.01
I-14	MORNINGSIDE LA. 13+60(15'R)	443.08	435.43 18"	439.83	A-5	SD 4.01
MH 1	MORNINGSIDE LA. 14+73(15'L)	444.00	438.30 18" 439.06 21"	434.59	STD. MH	G. 5.02
MH 2	MORNINGSIDE LA. 16+70(15'L)	446.55	437.09	436.84	STD. MH	G. 5.01
S 1	ELKO DRIVE 13+82 (42'L)			411.60	HEADWALL	MD 416.02
S 2	ELKO DRIVE 13+82(42'R)		413.20		HEADWALL	MD 416.02
S 3	REAR LOT LINES (307 & 308)			432.02	STD. E.S.	SD 5.61
I-6A	ELKO DRIVE 15+25 (15'R)	424.70	421.40	421.04	5' COMB. DEPRESS	SD. 4.32
MH 1A	MORNINGSIDE LA. 14+73 (28.0'R R.O.W.)	431.30	430.54	430.34	STD. MH	G 5.02

* PROVIDE 3 THROAT OPENINGS (NORTH, SOUTH & EAST)

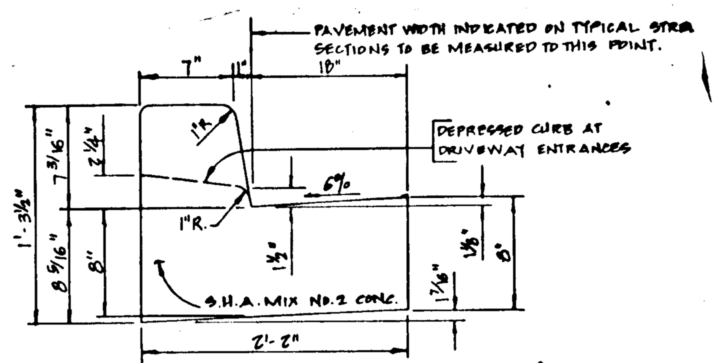


DESIGN SPEED: 30 MPH ZONED: R-20
MORNINGSIDE LANE 10+91.98 TO 18+48.91
ELKO DRIVE 4+60 TO 19+02.00

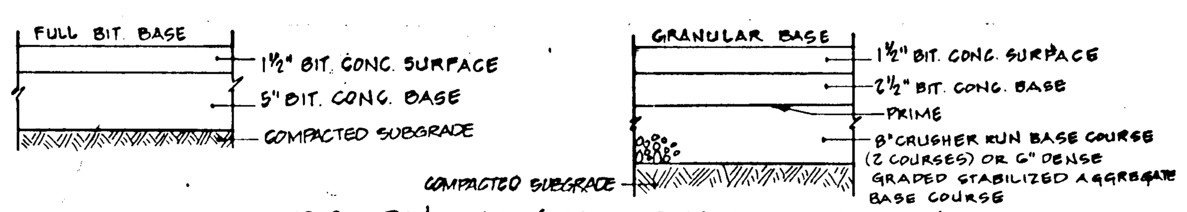
LOCAL STREETS
TYPICAL SECTIONS
NOT TO SCALE



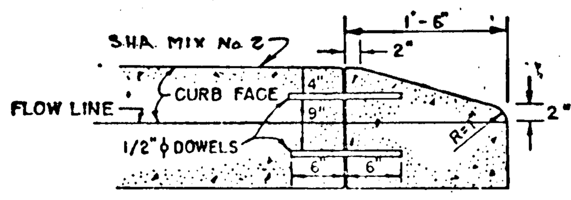
TEMPORARY ACCESS CULVERT
(ELKO DRIVE)
NOT TO SCALE



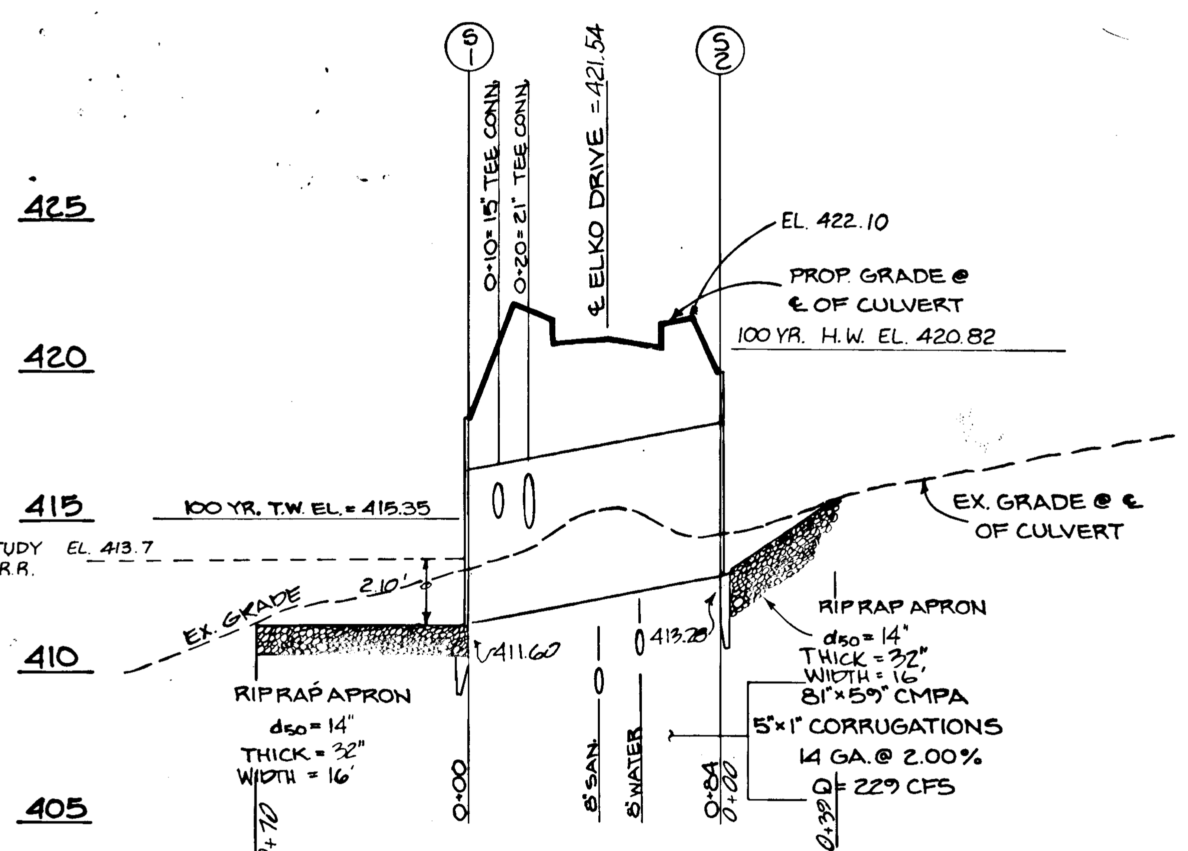
STANDARD 7" COMBINATION CURB & GUTTER
NOT TO SCALE



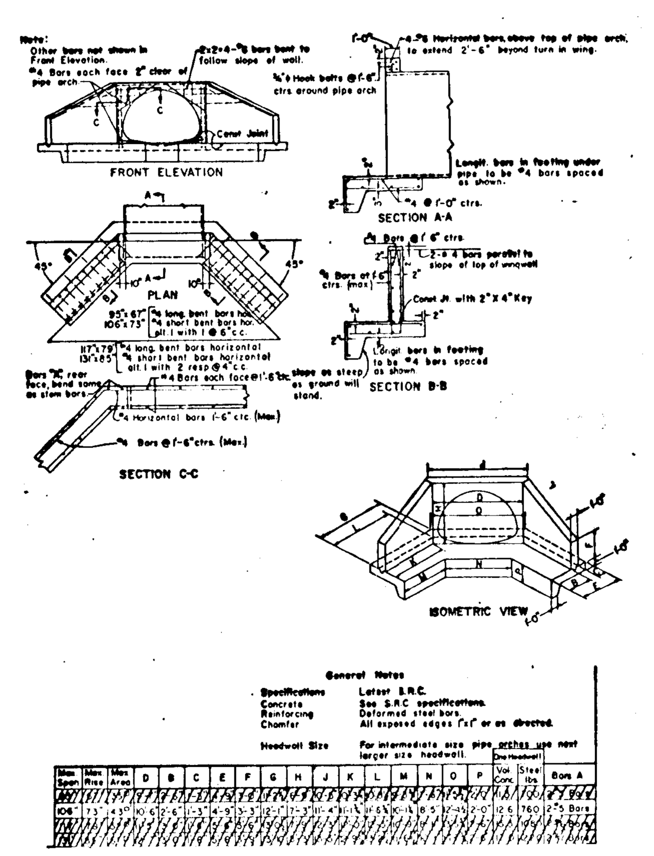
P-2 PAVING (LOCAL AND CUL-DE-SAC STREETS)
R-2.01



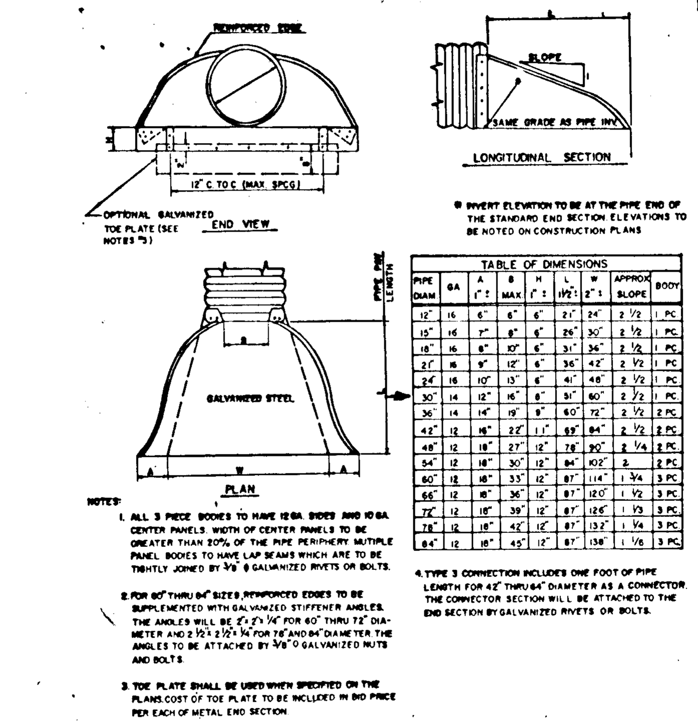
NOSE DOWN CURB
NOT TO SCALE



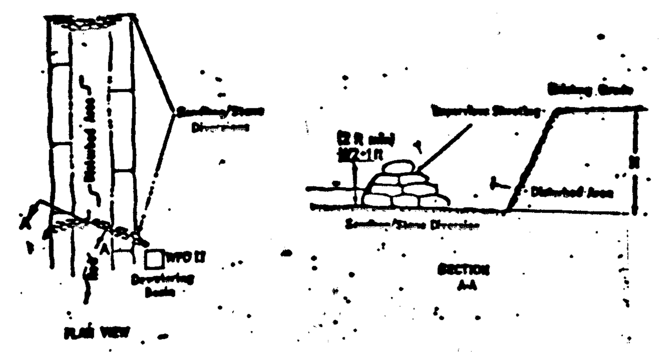
PROPOSED CULVERT PROFILE
SCALE: VERT. 1"=5'
HOR. 1"=50'



STANDARD HEADWALL
NOT TO SCALE



METAL END SECTION
CIRCULAR METAL PIPE
NO SCALE



DIVERSION CHANNEL
@ CULVERT CROSSING
(ELKO DRIVE)
NOT TO SCALE

I. Description

The work shall consist of installing a flow diversion structure when construction activities take place within the stream channel such as culvert construction or culvert replacement.

II. Material Specifications:

1. Sandbags: Sandbags shall consist of materials which are resistant to ultra-violet radiation, tearing and puncture and woven tightly enough to prevent leakage of fill material (ie., sand, fine gravel, etc.).
2. Stone: Stone shall be washed and have a minimum diameter of six (6) inches.
3. Sheeting: Sheeting shall consist of polyethylene or other material which is impervious and resistant to puncture and tearing.

III. Construction Requirements:

1. All erosion and sediment control devices shall be installed as the first order of work.
2. The height of the sandbag/stone diversion structure shall be one half the distance from the stream bed to the bank plus one foot, as indicted in Section A-A. The sandbags shall be placed on a smooth, prepared surface.
3. All excavated materials shall be disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the WRA.
4. All dewatering of the construction area shall be pumped to a dewatering bin (plate WPD 1.1) or otherwise approved on the plans by the wra.
5. The diversion pipe shall have a minimum of 18 inches.
6. The diversion pipe shall have a minimum diameter of sufficient size to convey the normal stream flow.
7. If necessary, silt fence or strawbales shall be installed around the perimeter of the work area.
8. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal.

Construction Specifications

a. Restrictions - No Construction or removal of a temporary access culvert will be permitted between October 1 through April 30 for all Class III and Class IV Trout Waters or between March 15 through June 15 for non-trout waterways.

b. Culvert Strength - All culverts shall be strong enough to support their cross sectional area under maximum expected loads.

c. Culvert Size - The size of the culvert pipe shall be the largest pipe diameter that will fit into the existing channel without major excavation of the waterway channel or without major approach fills. If a channel width exceeds 3 feet, additional pipes may be used until the cross sectional area of the pipes is greater than 60 percent of the cross sectional area of the existing channel. The minimum size culvert that may be used is a 12" diameter pipe.

d. Culvert Length - The culvert(s) shall extend a minimum of one foot beyond the upstream and downstream toe of the aggregate placed around the culvert. In no case shall the culvert exceed 40 feet in length.

e. Filter Cloth - Filter cloth shall be placed on the streambed and streambanks prior to placement of the pipe culvert(s) and aggregate. The filter cloth shall cover the streambed and extend a minimum six inches and a maximum one foot beyond the end of the culvert and bedding material. Filter cloth reduces settlement and improves crossing stability.

f. Culvert Placement - The invert elevation of the culvert shall be installed on the natural streambed grade to minimize interference with fish migration (free passage of fish).

g. Culvert Protection - The culvert(s) shall be covered with a minimum of one foot of aggregate. If multiple culverts are used they shall be separated by at least 12" of compacted aggregate fill. At a minimum, the bedding and fill material used in the construction of the temporary access culvert crossings shall conform with the aggregate requirements cited in Section I.H. 1. above.

h. Stabilization - All areas disturbed during culvert installation shall be stabilized within 14 calendar days of the disturbance in accordance with the Standard for "Critical Area Stabilization With Permanent Seeding."

Culvert Maintenance Requirements

a. Inspection - Periodic inspection shall be performed to ensure that the culverts, streambed, and streambanks are not damaged, and that sediment is not entering the stream or blocking fish passage or migration.

b. Maintenance - Maintenance shall be performed, as needed in a timely manner to ensure that structures are in compliance with this standard and specification. This shall include removal and disposal of any trapped sediment or debris. Sediment shall be disposed of and stabilized outside the waterway flood plain.

Culvert Removal and Clean-Up Requirements

a. Removal - When the crossing has served its purpose, all structures including culverts, bedding and filter cloth materials shall be removed within 14 calendar days. In all cases, the culvert materials shall be removed within one year of installation. No structure shall be removed during the spawning season (March 15 through June 15).

b. Final Clean-up - Final clean-up shall consist of removal of the temporary structure from the waterway, removal of all construction materials, restoration of original stream channel cross section, and protection of the stream banks from erosion. Removed material shall be stored outside of the waterway flood plain.

c. Method - Removal of the structure and clean up of the area shall be accomplished without construction equipment working in the waterway channel.

d. Final Stabilization - All areas disturbed during culvert removal shall be stabilized within 14 calendar days of the disturbance in accordance with the Standard for "Critical Area Stabilization With Permanent Seeding."

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
U.S. SOIL CONSERVATION SERVICE DATE 4-19-90

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL THE HOWARD SOIL CONSERVATION DISTRICT.
HOWARD SOIL CONSERVATION DISTRICT DATE 5/19/90

APPROVED: HOWARD COUNTY DEPT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE J.B.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION DATE 5/2/90
CHIEF, BUREAU OF HIGHWAYS DATE 4/30/90
CHIEF, BUREAU OF ENGINEERING DATE 5-2-90

DESIGNED	date
DRAWN	date
CHECKED	date
APPROVED	date

REVISIONS

DATE	BY	DESCRIPTION
4-90	KAB	PROFILE S2 TO S1, STR. SCHEDULE

Dewberry & Davis
ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS
3300 N. RIDGE ROAD, SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

STATE OF MARYLAND
THOMAS L. WILEY
REGISTERED PROFESSIONAL ENGINEER
4/11/90

OWNER / DEVELOPER
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

ROAD SECTIONS & DETAILS
MONTGOMERY MEADOWS
SECTION ONE, AREA SIX
LOTS 301 THRU 35?
1ST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: CONTRACT NO. FILE NO. F006-EC SHEET 5 OF 9

F 89-178

J&J COLUMBIA, MD.

1443

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION SERVICE — DATE 4/19/90

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/19/90

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

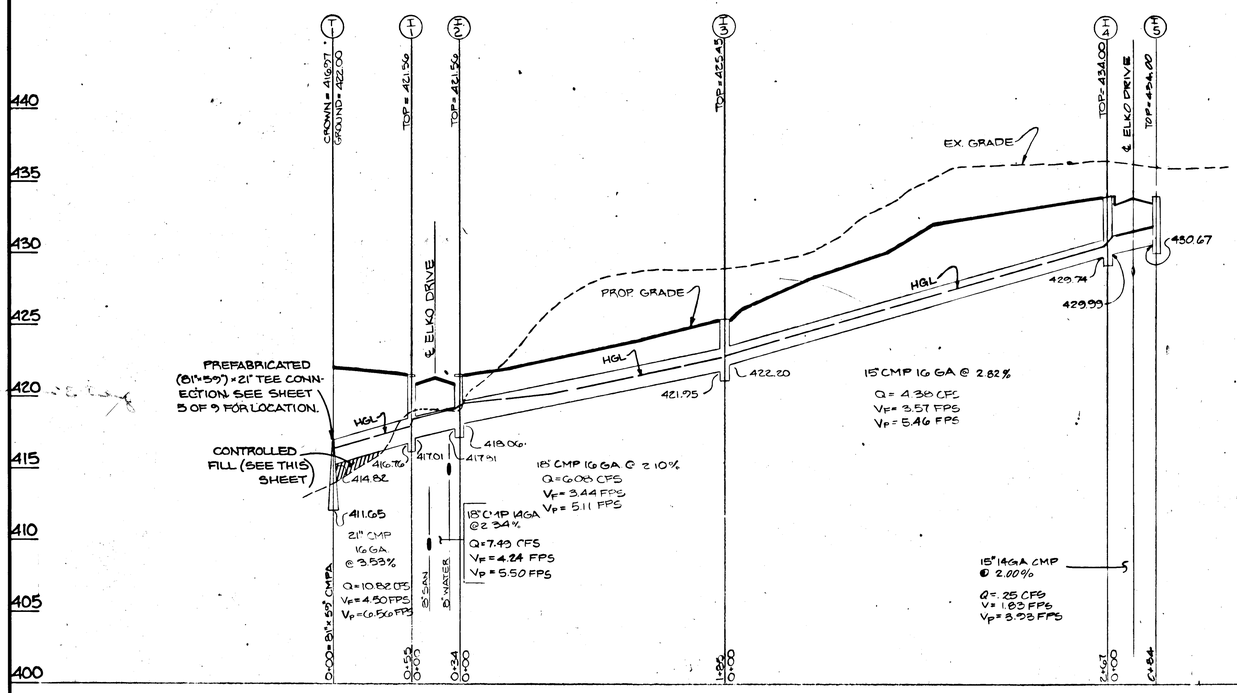
CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/2/90

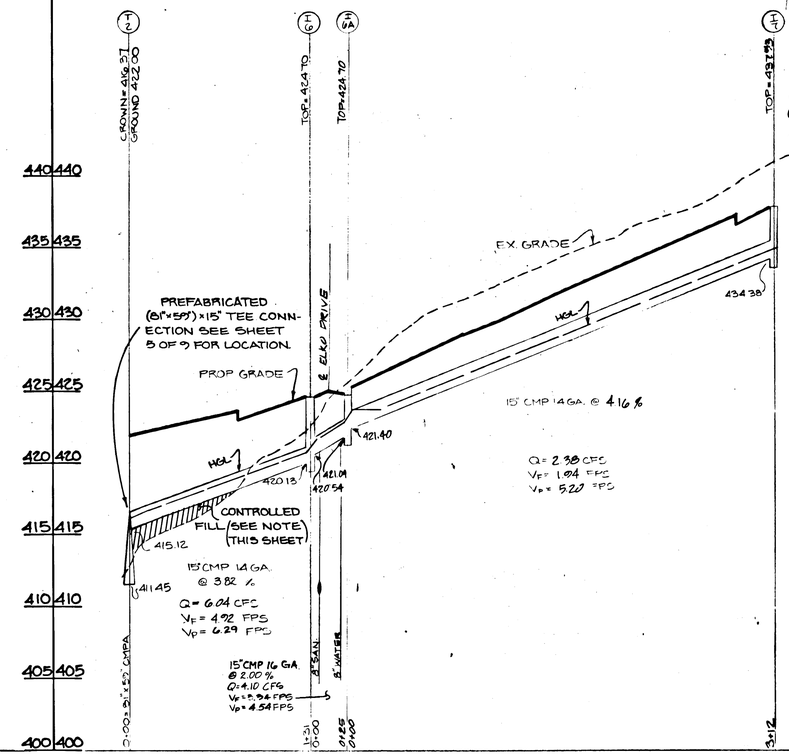
CHIEF, BUREAU OF HIGHWAY — DATE 4/30/90

CHIEF, BUREAU OF ENGINEERING — DATE 5-2-90

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

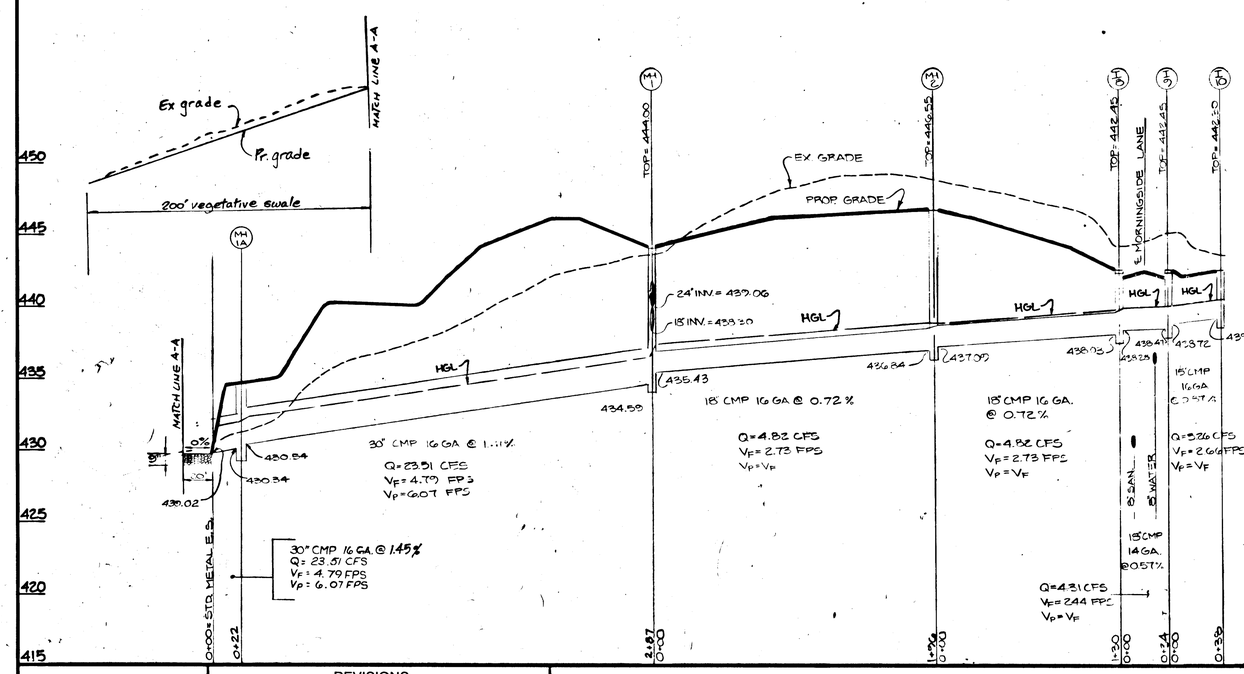
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 5/16/90

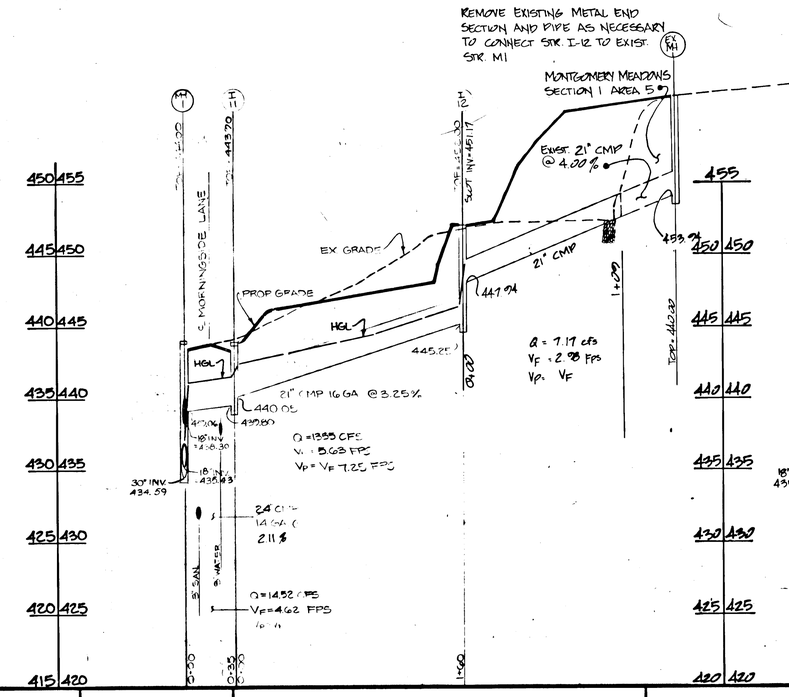




CONTROLLED FILL NOTE

FILL AREAS SHALL BE COMPACTED TO 95% OF MAXIMUM THEORETICAL DENSITY AS DETERMINED BY ASTM D-1557.





DESIGNED	DAN TICE	3-89 date
DRAWN	M.SWEADNER	3-7-89 date
CHECKED		date
APPROVED		date

REVISIONS

DATE	BY	DESCRIPTION
4-90	KAB	REV. PROFILE UPSTREAM OF I-12

Dewberry & Davis

ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS

3300 NORTH RIDGE ROAD
ELLICOTT CITY, MD. 21043
(301) 461-7478

STATE OF MARYLAND — THOMAS F. FINLEY — No. 5213 — REGISTERED PROFESSIONAL ENGINEER — 4/11/90

OWNER & DEVELOPER

MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

STORM DRAIN PROFILES

MONTGOMERY MEADOWS

SECTION ONE, AREA SIX
LOTS 301 THRU 351

1ST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE VERT. 1"=5' HOR. 1"=50' | CONTRACT NO. | FILE NO. F-009-EC | SHEET 6 OF 9

14443

F89-178

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 SOILS CONSERVATION DISTRICT

THOMAS L. WILEY, MD REG NO. 9273 — DATE 4/11/90

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL 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 EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

KENNETH G. MALM, N.V. LAND, INC — DATE 4-12-90

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

US SOIL CONSERVATION SERVICE — DATE 4-19-90

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 5/19/90

APPROVED HOWARD COUNTY DEPT. OF PLANNING AND ZONING

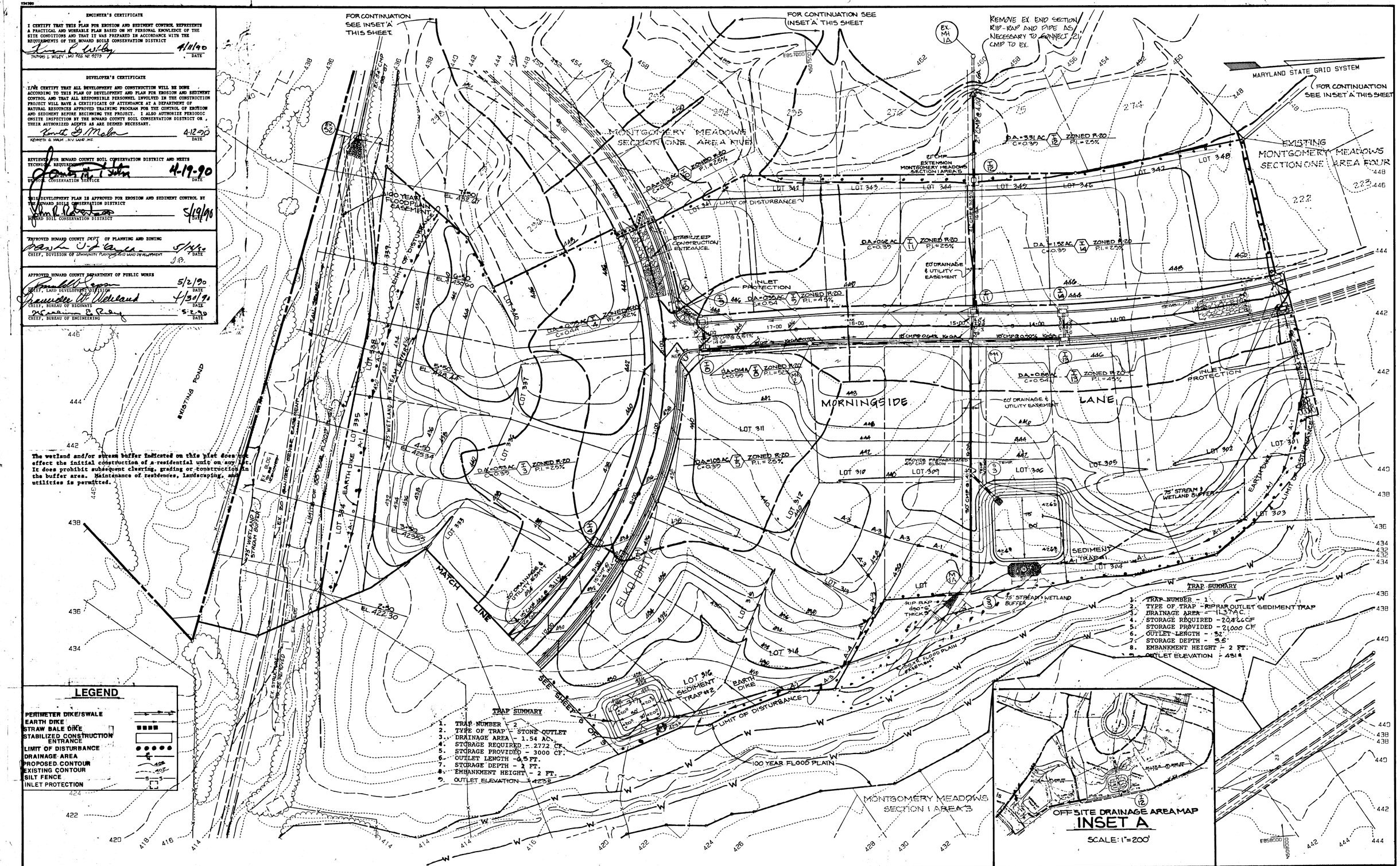
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 5/24/90

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/2/90

CHIEF, BUREAU OF HIGHWAYS — DATE 4/30/90

CHIEF, BUREAU OF ENGINEERING — DATE 5-2-90



The wetland and/or stream buffer indicated on this plat does not effect the initial construction of a residential unit on any lot. It does prohibit subsequent clearing, grading or construction in the buffer area. Maintenance of residences, landscaping, and utilities is permitted.

TRAP SUMMARY

1. TRAP NUMBER - 1
2. TYPE OF TRAP - RIPRAP OUTLET SEDIMENT TRAP
3. DRAINAGE AREA - 1.57 AC.
4. STORAGE REQUIRED - 2066 CF
5. STORAGE PROVIDED - 2,000 CF
6. OUTLET LENGTH - 32'
7. STORAGE DEPTH - 3.5'
8. EMBANKMENT HEIGHT - 2 FT.
9. OUTLET ELEVATION - 4514

TRAP SUMMARY

1. TRAP NUMBER - 2
2. TYPE OF TRAP - STONE OUTLET
3. DRAINAGE AREA - 1.54 AC.
4. STORAGE REQUIRED - 2772 CF.
5. STORAGE PROVIDED - 3000 CF.
6. OUTLET LENGTH - 0.5 FT.
7. STORAGE DEPTH - 2 FT.
8. EMBANKMENT HEIGHT - 2 FT.
9. OUTLET ELEVATION - 4238

LEGEND

- PERIMETER DIKE/SWALE
- EARTH DIKE
- STRAW BALE DIKE
- STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- DRAINAGE AREA
- PROPOSED CONTOUR
- EXISTING CONTOUR
- SILT FENCE
- INLET PROTECTION

DESIGNED	MLH	5-88 date
DRAWN	MLH	5-88 date
CHECKED	RMT	5-88 date
APPROVED	CEH	5-88 date

REVISIONS

DATE	BY	DESCRIPTION
4-90	KAB	REVISED PIPE SYSTEM UPSTREAM OF I12
9-90	WED	REVISED T-TURN AROUND

Dewberry & Davis

ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS
3300 N. RIDGE ROAD, SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

STATE OF MARYLAND — THOMAS L. WILEY — No. 9273 — REGISTERED PROFESSIONAL ENGINEER — 4/11/90

OWNER & DEVELOPER

MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

GRADING, SEDIMENT AND EROSION CONTROL PLAN AND DRAINAGE AREA MAP

MONTGOMERY MEADOWS

SECTION ONE, AREA SIX
LOTS 301 THRU 351

1ST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE 1"=50' HORIZ | CONTRACT NO. | FILE NO. F006-EC | SHEET 7 OF 9

F 89-178

1443

134350

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 SOILS CONSERVATION DISTRICT

THOMAS L. WILEY, MD REG No 9219 — DATE 4/11/90

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL 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 EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

KENNETH G. MALM, M.V. LAND, INC. — DATE 4-12-90

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

DISTRICT CONSERVATIONIST, SOIL CONSERVATION SERVICE — DATE 4-19-90

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 5/10/90

APPROVED HOWARD COUNTY DEPT. OF PLANNING AND ZONING

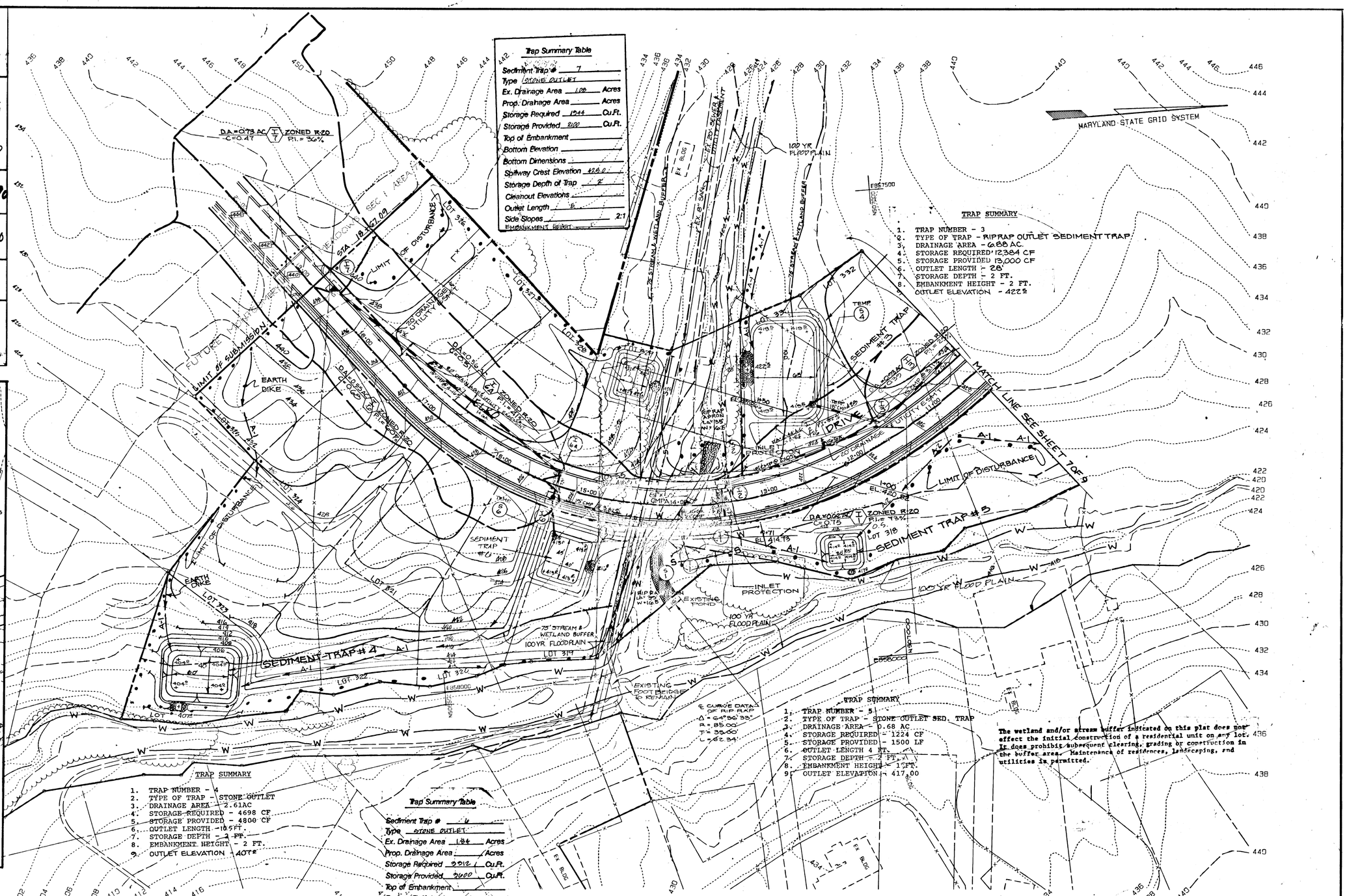
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 5/10/90

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/2/90

CHIEF, BUREAU OF HIGHWAYS — DATE 4/30/90

CHIEF, BUREAU OF ENGINEERING — DATE 5-2-90



Trap Summary Table

Sediment Trap #	7
Type	STONE OUTLET
Ex. Drainage Area	1.00 Acres
Prop. Drainage Area	Acres
Storage Required	1544 Cu.Ft.
Storage Provided	2100 Cu.Ft.
Top of Embankment	
Bottom Elevation	
Bottom Dimensions	
Spillway Crest Elevation	426.0
Storage Depth of Trap	2'
Cleanout Elevations	
Outlet Length	8'
Side Slopes	2:1
EMBANKMENT HEIGHT	

TRAP SUMMARY

1. TRAP NUMBER - 3
2. TYPE OF TRAP - RIPRAP OUTLET SEDIMENT TRAP
3. DRAINAGE AREA - 0.68 AC.
4. STORAGE REQUIRED 12,384 CF
5. STORAGE PROVIDED 13,000 CF
6. OUTLET LENGTH - 28'
7. STORAGE DEPTH - 2 FT.
8. EMBANKMENT HEIGHT - 2 FT.
9. OUTLET ELEVATION - 422.8

TRAP SUMMARY

1. TRAP NUMBER - 4
2. TYPE OF TRAP - STONE OUTLET
3. DRAINAGE AREA - 2.61AC
4. STORAGE REQUIRED - 4698 CF
5. STORAGE PROVIDED - 4800 CF
6. OUTLET LENGTH - 10.5 FT.
7. STORAGE DEPTH - 2 FT.
8. EMBANKMENT HEIGHT - 2 FT.
9. OUTLET ELEVATION - 407.8

Trap Summary Table

Sediment Trap #	6
Type	STONE OUTLET
Ex. Drainage Area	1.24 Acres
Prop. Drainage Area	Acres
Storage Required	3212 Cu.Ft.
Storage Provided	3400 Cu.Ft.
Top of Embankment	
Bottom Elevation	
Bottom Dimensions	
Spillway Crest Elevation	416.0
Storage Depth of Trap	2'
Cleanout Elevations	
Outlet Length	8'
Side Slopes	2:1
EMBANKMENT HEIGHT	2'

℄ CURVE DATA OF RIP RAP
Δ = 64°56'35"
R = 85.00'
T = 55.00'
L = 96.34'

TRAP SUMMARY

1. TRAP NUMBER - 5
2. TYPE OF TRAP - STONE OUTLET SED. TRAP
3. DRAINAGE AREA - 0.68 AC.
4. STORAGE REQUIRED - 1224 CF
5. STORAGE PROVIDED - 1500 LF
6. OUTLET LENGTH 4 FT.
7. STORAGE DEPTH - 2 FT.
8. EMBANKMENT HEIGHT - 1 FT.
9. OUTLET ELEVATION - 417.00

The wetland and/or stream buffer indicated on this plat does not effect the initial construction of a residential unit on any lot. It does prohibit subsequent clearing, grading or construction in the buffer area. Maintenance of residences, landscaping, and utilities is permitted.

LEGEND

- PERIMETER DIKE/SWALE
- EARTH DIKE
- STRAW BALE DIKE
- STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- DRAINAGE AREA
- PROPOSED CONTOUR
- EXISTING CONTOUR
- SILT FENCE

DESIGNED	MLH	5-88 date
DRAWN	MLH	5-88 date
CHECKED	RMT	5-88 date
APPROVED	CRH	5-88 date

REVISIONS

DATE	BY	DESCRIPTION
4-90	RAB	PER AGENCY COMMENTS

Dewberry & Davis
ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS
3300 N. RIDGE ROAD, SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

STATE OF MARYLAND — THOMAS L. WILEY — No. 9219 — REGISTERED PROFESSIONAL ENGINEER — 4/11/90

OWNER & DEVELOPER

MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

GRADING, SEDIMENT AND EROSION CONTROL PLAN & DRAINAGE AREA MAP

MONTGOMERY MEADOWS

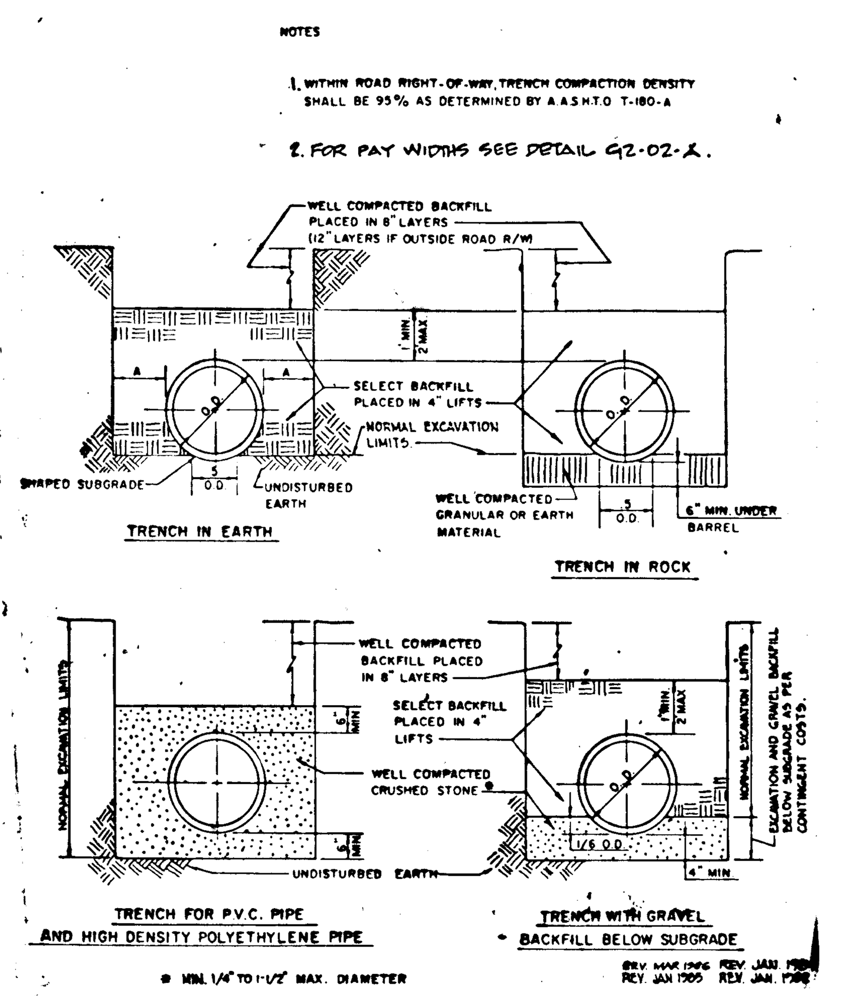
SECTION ONE, AREA SIX
LOTS 301 THRU 351

1st ELECTION DISTRICT, HOWARD COUNTY, MARYLAND.
APRIL 1988

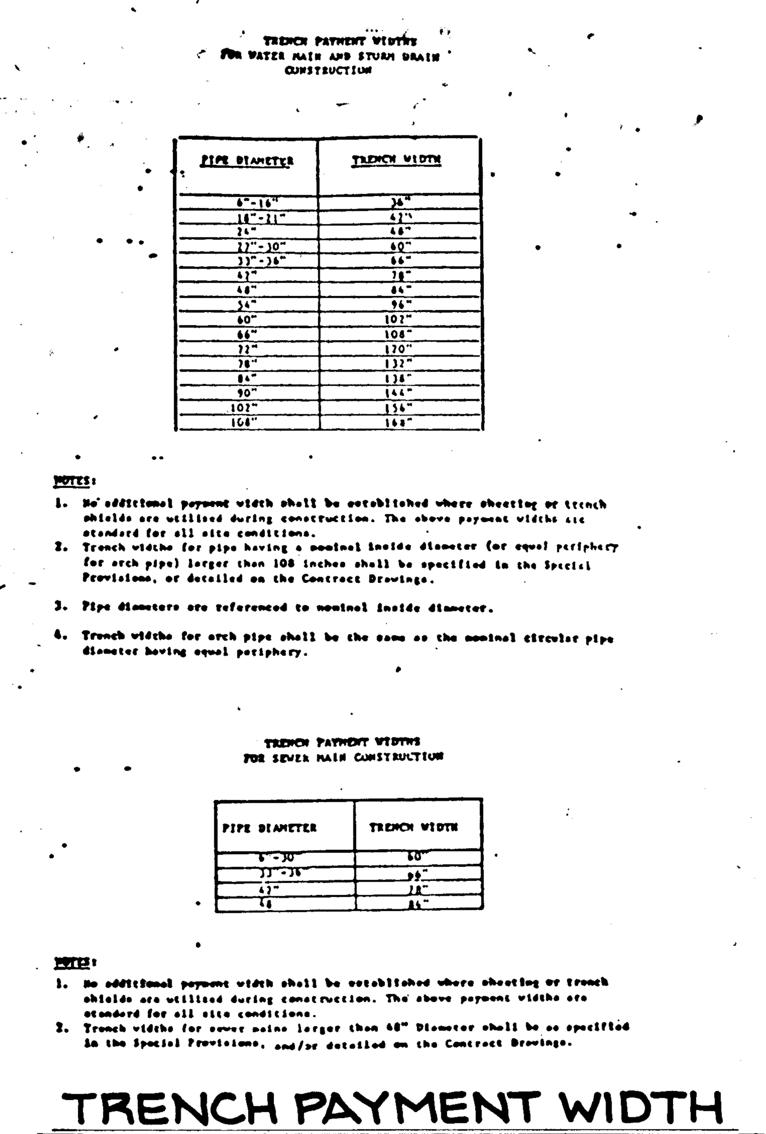
SCALE 1"=50' | CONTRACT NO. | FILE NO. F006-EC | SHEET 8 OF 9

1443

F89-178



TRENCH BEDDING DETAILS
NO SCALE



TRENCH PAYMENT WIDTH
NO SCALE

I. SITE PREPARATION STORMWATER MANAGEMENT CONSTRUCTION SPECIFICATION

Areas under the embankments and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material.

II. EARTH FILL

Material

The fill material shall be taken from approved designated borrow area or areas. It shall be free from roots, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials.

Placement

Areas on which fill is to be placed shall be scarified prior to placement of 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.

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 a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture so that it can be formed into a ball without crumbling. If water can be squeezed out of the ball, it is too wet to compact properly. Compact all fill material to 95% of AASHTO T-99 density.

III. STRUCTURAL BACKFILL

Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed 4-inches in thickness and compacted by hand tampers or other 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 4-feet to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a structure or pipe unless there is a compacted fill of 2-feet or greater over the structure or pipe.

IV. PIPE CONDUITS

A. CORRUGATED METAL PIPE

1. Materials - Metal Pipe - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211, with watertight coupling bands.
2. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the control structure shall be mortared all around. Watertight coupling bands shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight.
3. Bedding - The pipe shall be firmly and uniformly bedded throughout is 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.
4. Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
5. Backfilling shall conform to structural backfill as shown above.
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

V. CONCRETE

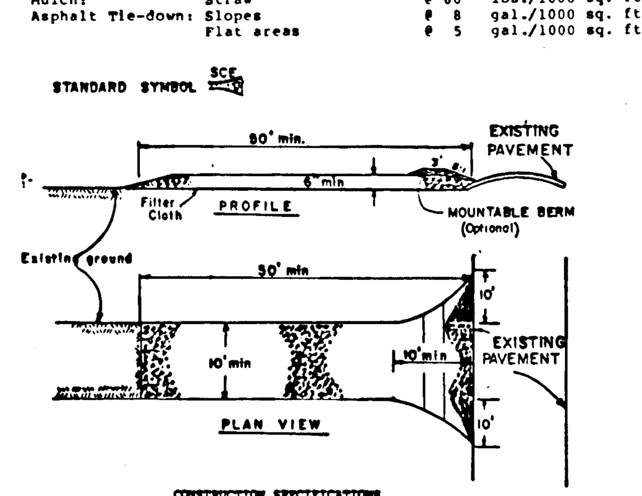
Concrete shall meet minimum requirements set forth in Maryland State Highway Administration Specifications for Materials, Highways, Bridges, and Incidental Structures, Article 20.07 (Portland Cement Concrete Mixtures), Mix No. 3.

VI. STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces shall be stabilized by permanent seeding and applying straw mulch in accordance with "Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas" immediately after finish grading.

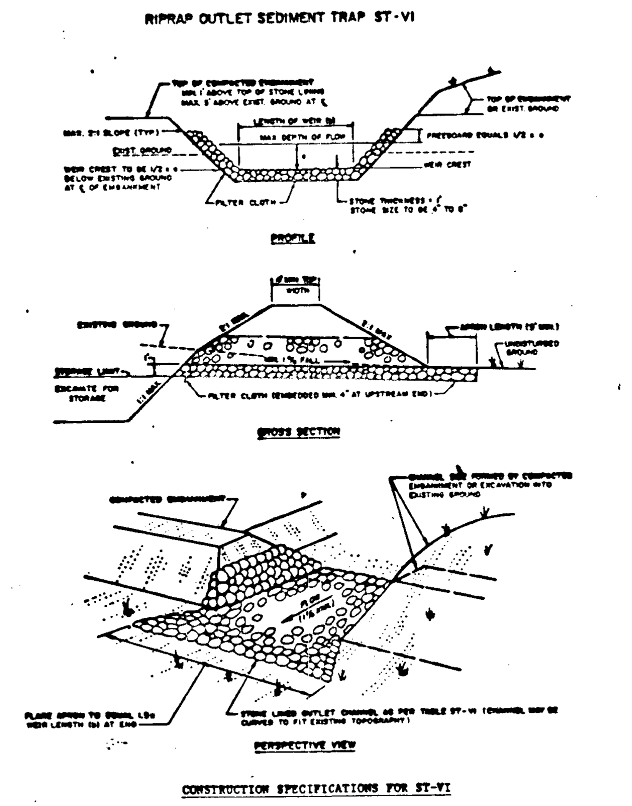
Fertilizer:	10-10-10	@ 11.5 lbs./1000 sq. ft.
Seed:	Crownvetch inoculated	@ 0.5 lbs./1000 sq. ft.
	"KY-31" Tall Fescue	@ 1.5 lbs./1000 sq. ft.
Mulch:	Straw	@ 80 lbs./1000 sq. ft.
Asphalt Tie-down:	Slopes	@ 8 gal./1000 sq. ft.
	Flat areas	@ 5 gal./1000 sq. ft.

STANDARD SYMBOL SCE

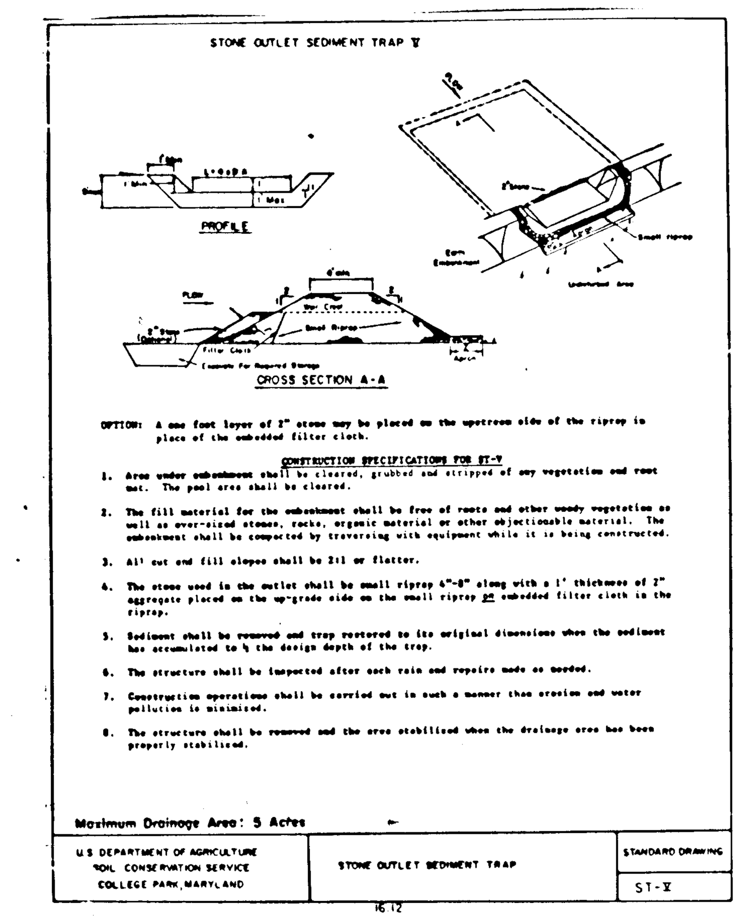


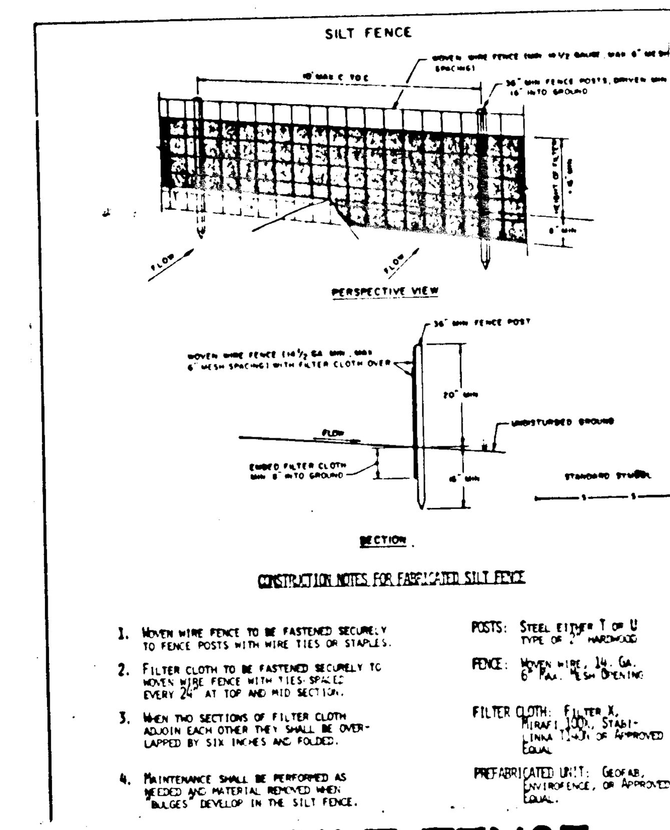
CONSTRUCTION SPECIFICATIONS

STABILIZED CONSTRUCTION ENTRANCE
not to scale

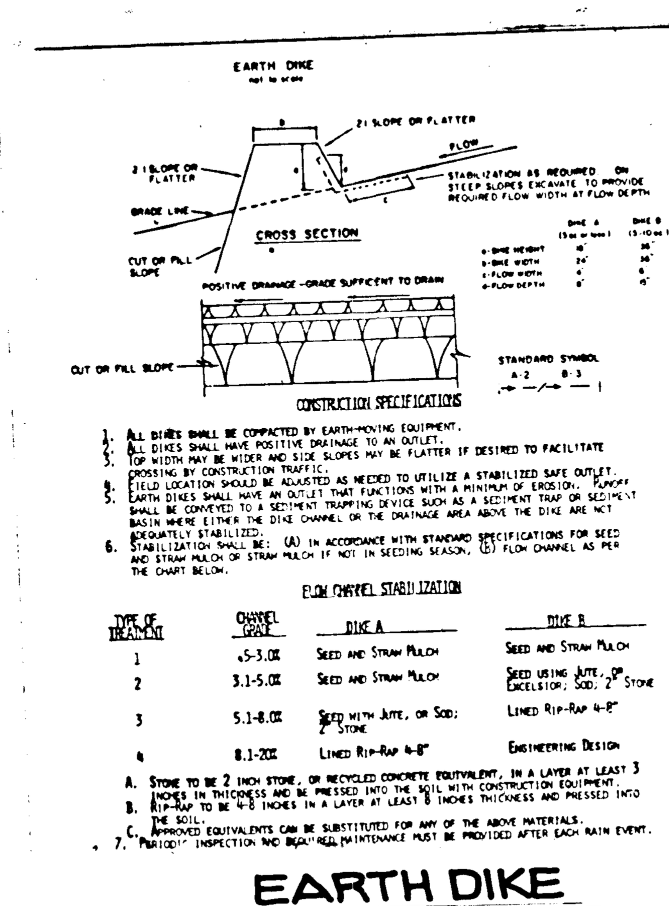


RIP-RAP OUTLET SEDIMENT TRAP ST-VI

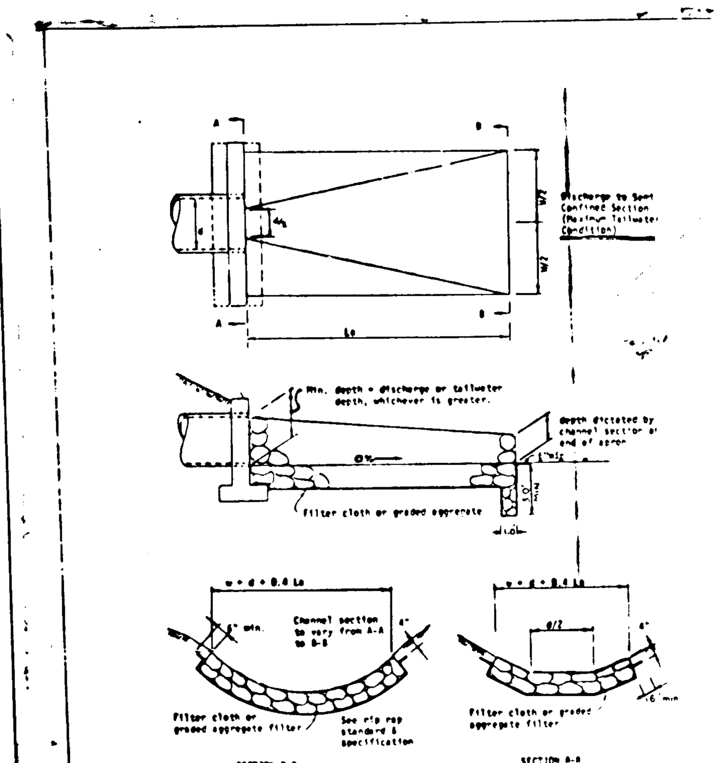




SILT FENCE
NOT TO SCALE



EARTH DIKE
NOT TO SCALE



RIP RAP OUTLET PROTECTION III
NOT TO SCALE

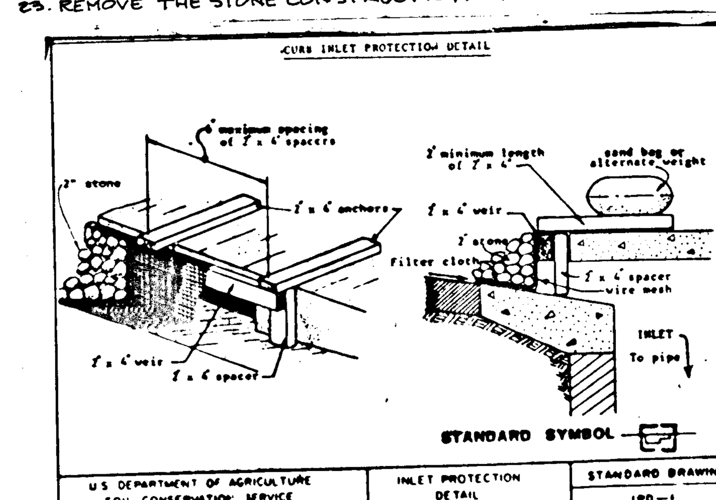
Maryland SCS/WRA April 1983

CONSTRUCTION SPECIFICATIONS FOR ST-VI

1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
4. Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
5. 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.
6. 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.
7. 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 stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
8. 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.
9. The structure shall be inspected after each rain and repaired as needed.
10. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
11. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
12. Drainage area for this practice is limited to 15 acres or less.

CONSTRUCTION SEQUENCE

1. OBTAIN GRADING PERMIT.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, EARTH DIKES, SILT FENCE, STRAW BALE DIKES, PERIMETER SWALE/DIKES, AND SEDIMENT TRAPS IN ACCORDANCE WITH SCS STANDARDS SCE-1, ED-1, SF-1, SDB-1 PSD-1 AND ST-VI RESPECTIVELY. * *
3. START CLEARING AND GRUBBING.
4. A. CONSTUCT A TEMPORARY CHANNEL DIVERSION AT THE CULVERT CROSSING LEAVING FIVE (5) FEET UNEXCAVATED AT THE UPSTREAM AND DOWNSTREAM ENDS WHERE THE CHANNEL DIVERSION MEETS THE EXISTING STREAM.
   B. STABILIZE THE CONSTRUCTED PORTION OF THE CHANNEL DIVERSION AS PER SCS STANDARD GW-3.
5. BUILD A DEWATERING BASIN AS NEEDED (WRA DETAIL WPD-6)
6. A. PLACE A SANDBAG DIKE DOWNSTREAM TO PREVENT THE STREAM FROM BACKWASHING INTO THE CONSTRUCTION AREA.
   B. EXCAVATE THE REMAINING FIVE (5) FEET OF THE CHANNEL DIVERSION AT THE DOWNSTREAM END AND STABILIZE.
7. CONSTRUCT A SANDBAG DIVERSION UPSTREAM TO DIVERT WATER INTO THE TEMPORARY CHANNEL DIVERSION.
8. EXCAVATE THE REMAINING FIVE (5) FEET OF THE CHANNEL DIVERSION AT THE UPSTREAM END OF THE TEMPORARY CHANNEL DIVERSION AND STABILIZE BEFORE ALLOWING WATER TO PASS THROUGH THE CHANNEL DIVERSION
9. BACKFILL TO SUBGRADE AND CONSTRUCT THE NEW ROADWAY.
10. A. INSTALL UTILITIES.
    B. INSTALL THE NEW CULVERT DEPRESSING IT ONE (1) FOOT BENEATH THE NATURAL STREAM INVERT TO ALLOW SILTRATION FOR IMPROVED FISH PASSAGE.
11. STABILIZE THE DISTURBED SLOPES AND STREAM BED WITH APPROVED METHODS.
12. DEWATER THE AREA, THEN REMOVE THE TEMPORARY STREAM DIVERSION AND SILT FROM THE DOWNSTREAM DISTURBANCES.
13. SEED AND MULCH ANY REMAINING DISTURBANCES.
14. RESTORE THE DEWATERING BASIN TO THE ORIGINAL GRADE OF THE SURROUNDING AREA.
15. CLEAN UP THE CONSTRUCTION SITE.
16. SEED AND MULCH ALL THE DISTURBED AREAS.
17. CONSTRUCT THE STORM DRAIN SYSTEM WITH INLET PROTECTIONS AND TEMPORARY DIVERSIONS INTO THE SEDIMENT TRAPS.
18. ROUGH GRADE THE ROAD TO SUBGRADE AND INSTALL ALL UTILITIES.
19. FINE GRADE ROAD, INSTALL CURB AND GUTTER, LAY ASPHALT BASE COURSE AND STABILIZE ALL REMAINING DISTURBANCES.
20. REMOVE SEDIMENT CONTROL DEVICES UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR.
21. ALL DISTURBED AREAS DUE TO REMOVAL OF THE SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
22. LAY SURFACE COURSE PAVEMENT AND STABILIZE THE DISTURBED AREA FROM THE STORMDRAIN CONSTRUCTION.
23. REMOVE THE STONE CONSTRUCTION ENTRANCE.



CURB INLET PROTECTION DETAIL

Construction Specifications

PERMANENT SEEDING NOTES:

APPLY TO GRADED OR CLEARED AREA 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.

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 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 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 1½ 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.

SEEDBED PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING 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 2½ 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 16 THRU FEBRUARY 28, PROTECT THE 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 1½ 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 METHODS NOT COVERED.

CONSTRUCTION SEQUENCE (CONTINUED)

24. CLEAN THE BASE COURSE, APPLY TACK COAT TO THE BASE COURSE, AND THE LAY SURFACE COURSE. STABILIZE ALL SHOULDERS USING PERMANENT SEEDING
25. ALL DISTURBED AREAS DUE TO REMOVAL OF THE SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
26. FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKE, SWALES, DITCH PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1; B) 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

* * AFTER EACH DAY, THE SEDIMENT CONTROL DEVICES ARE TO BE REPAIRED OR REPLACED IF THEY ARE DAMAGED DURING CONSTRUCTION OR RAINFALL

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 REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDER 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 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) AND (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	23.9	ACRES
AREA DISTURBED	19.4	ACRES
AREA TO BE ROOFED OR PAVED	2.5	ACRES
AREA TO BE VEGETATIVELY STABILIZED	16.9	ACRES
TOTAL CUT	148000	CU.YDS.
TOTAL FILL	148000	CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	—	

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

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 THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

THOMAS L WILEY, MD. REG. NO. 9273 — DATE 4/11/90

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN OF EROSION AND SEDIMENT CONTROL AND THAT ALL 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 ONSITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

KENNETH G. MALM, N.V. LAND, INC. — DATE 4-12-90

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
U.S. SOIL CONSERVATION SERVICE — DATE 4-19-90

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
HOWARD COUNTY SOIL CONSERVATION DISTRICT — DATE 5/19/90

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/2/90
CHIEF, BUREAU OF HIGHWAY — DATE 4/30/90
CHIEF, BUREAU OF ENGINEERING — DATE 5-2-90

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 5/16/9.

DESIGNED	—	date
DRAWN	DDH	5-88 date
CHECKED	RMT	5-88 date
APPROVED	CRH	5-88 date

REVISIONS

DATE	BY	DESCRIPTION
11-19-90	PON	REVISED CONSTRUCTION SEQUENCE

Dewberry & Davis
ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS
3300 N. RIDGE ROAD, SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

4/11/90

OWNER & DEVELOPER
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

SEDIMENT CONTROL DETAILS
MONTGOMERY MEADOWS
SECTION ONE, AREA SIX
LOTS 301 THRU 351
1ST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
APRIL 1988
SCALE: CONTRACT NO. FILE NO. F006-EC SHEET 2 OF 2

F-89-178

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