COORDINATES AND ELEVATIONS BASED ON MARYLAND STATE PLANE COORDINATE SYSTEM, HOWARD COUNTY CONTROL POINTS NO'S. 2136002 AND 2136003

PIPE SCHEDULE

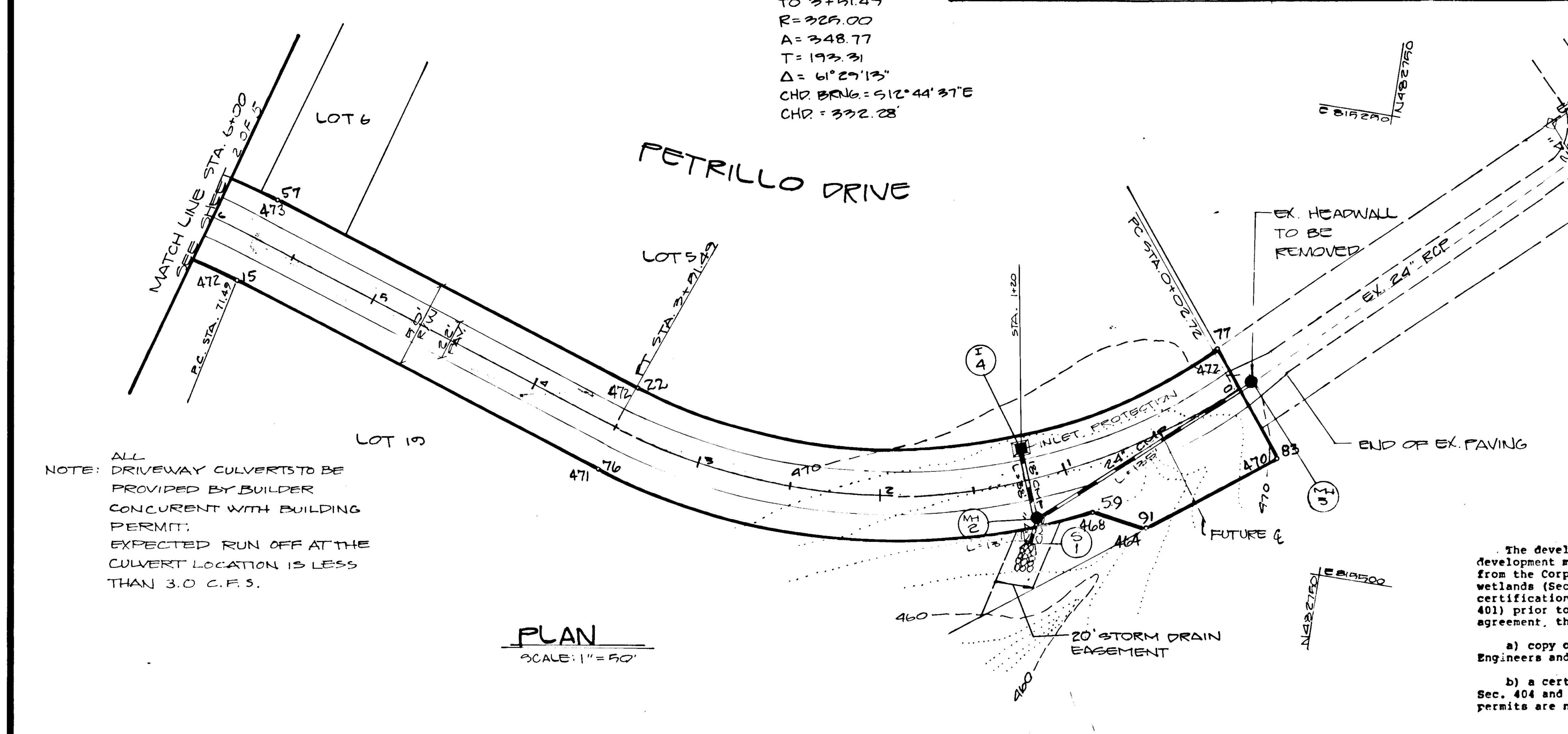
TYPE	SIZE	LENGTH
CMP 16GA	18"	38 LF
CMP 16GA	24"	333 LF

STRUCTURE SCHEDULE

No.	TYPE	TOP ELEVATION UPPER	TOP ELEVATION	INV. ELEVATION IN	INV. ELEVATION OUT	REMARKS	℄ STATIONS & OFFSETS
S1	24" METAL END SECTION	—	—	—	461.54	SD. 5.52	1+25 L. 33'
M12	STD. PRECAST MH	468.1	—	465.6	462.6	G 5.11	1+21 L. 19'
M13	SHALLOW BRICK MH	473.5	—	469.5	469.4	G. 5.09	0-5 @ ℄
I4	TYPE "D" INLET	469.6	—	—	466.66	SD. 4.11 OPENING 468.8	1+21 R. 19'
S11	18" METAL END SECTION	—	—	—	456.1	SD. 5.52	12+55 L. 96
M12	STD. PRECAST MH	469.6	—	460.8	459.1	G 5.11	12+13 L. 42'
I13	TYPE "D" INLET	466.8	—	462.7	462.6	SD. 4.11 OPENING 466.0	11+35 L. 17.5'
I14	TYPE "D" INLET	466.8	—	—	463.6	SD. 4.11 OPENING 466.0	11+35 R. 17.5'

CURVE DATA

℄ STATION 0+02.72 TO 3+51.49
R=325.00
A=348.77
T=193.31
Δ=61°29'13"
CHD. BRNG.=S12°44'37"E
CHD.=332.28'



NOTE: ALL DRIVEWAY CULVERTS TO BE PROVIDED BY BUILDER CONCURENT WITH BUILDING PERMIT. EXPECTED RUN OFF AT THE CULVERT LOCATION IS LESS THAN 3.0 C.F.S.

PLAN
SCALE: 1"=50'

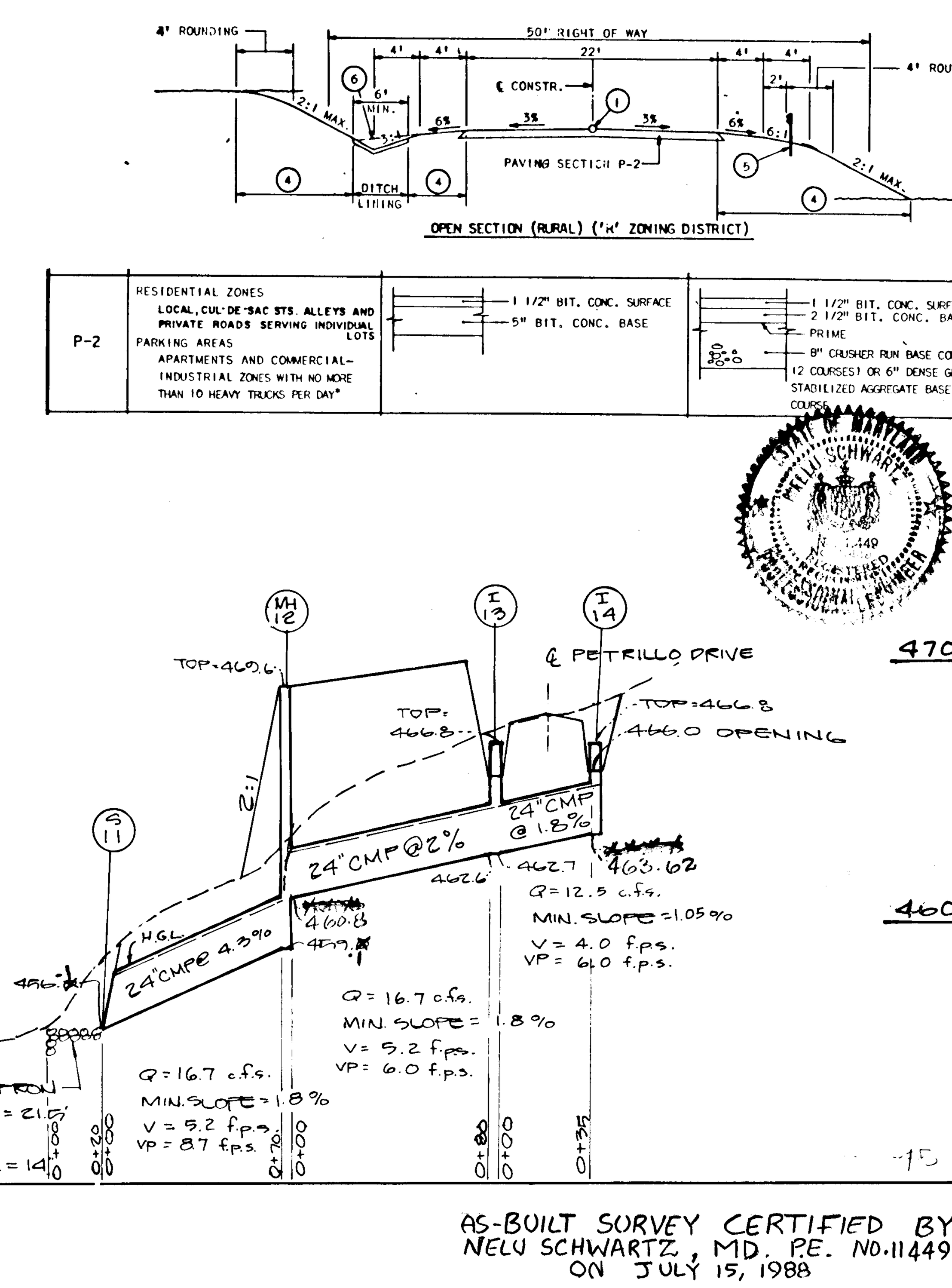
NOTE: ALL DRIVEWAYS TO BE BUILT AS PER HOWARD COUNTY STANDARD 6.06 WITH MIN. 12" DIAMETER OR 14"x9" ARCH CMP PIPE, EXCEPT LOT #8 WHICH WILL HAVE A 15" DIAMETER PIPE.

GENERAL NOTES

The developer is advised that this development may be required to obtain permits from the Corp of Engineers for activities in wetlands (Sec 404) and a water quality certification from the state Health Dept (Sec 401) prior to the execution of the developer agreement, the following will be required:

a) copy of the permits issued by the Corp of Engineers and the Department of Health.

b) a certification from the engineer that Sec. 404 and Sec. 401 do not apply and the permits are not required.



AS-BUILT SURVEY CERTIFIED BY NELU SCHWARTZ, MD. P.E. NO. 11449 ON JULY 15, 1988

DEVELOPER'S CERTIFICATE

"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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

9-21-87 DATE

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

8/20/87 DATE

REVIEWED FOR HOWARD S.C.D.
NAME
AND MEETS TECHNICAL REQUIREMENTS

U.S. SOIL CONSERVATION SERVICE 10/9/87 DATE

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

HOWARD S.C.D. 10/9/87 DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER DATE

APPROVED: Howard County Office of Planning & Zoning

~~DIRECTOR~~ DATE
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION 10-13-87 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Land Development Division 10-16-87 Date

Chief, Bureau of Highways 10/13/87 Date

Chief, Bureau of Engineering 10-16-87 Date

Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: 1) Seven (7) calendar days for all perimeter sediment control structures, dikes, swales, ditches, perimeter slopes and all slopes greater than 3:1, 2) Fourteen (14) days as to all other disturbed or graded areas on the project site.

NOTE: The contractor or developer shall contact the Construction Inspection/Survey Division 24 hours in advance of commencement of work at 792-7272.

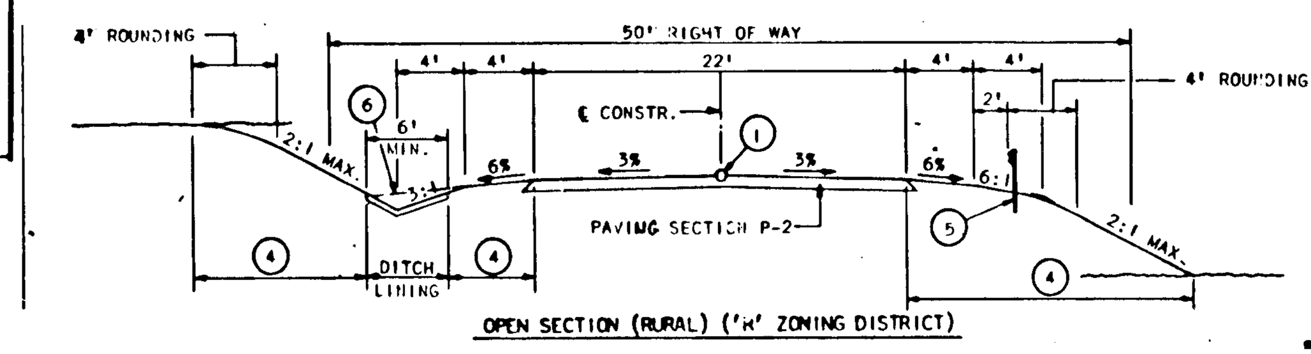
Owner/Developer:	NO. / REVISIONS / DATE			
HILLTOP DEVELOPMENT P.O. BOX 208 CLARKSVILLE, MD. 21029 301-531-5539		DEVELOPMENT CONSULTANTS GROUP, INC. 17904 GEORGIA AVENUE # 102 OLNEY, MARYLAND 20832 301-924-4570	STORM DRAIN AND PAVING PLAN SECTION ONE WATERMAN ESTATES 9th ELECTION DISTRICT TAX MAP 40 PARCEL 250 HOWARD COUNTY, MARYLAND	DATE August 1987 DRAWN S.M.B. CHECKED SCALE AS SHOWN Sheet 1 of 5 PROJECT NO. 136-04

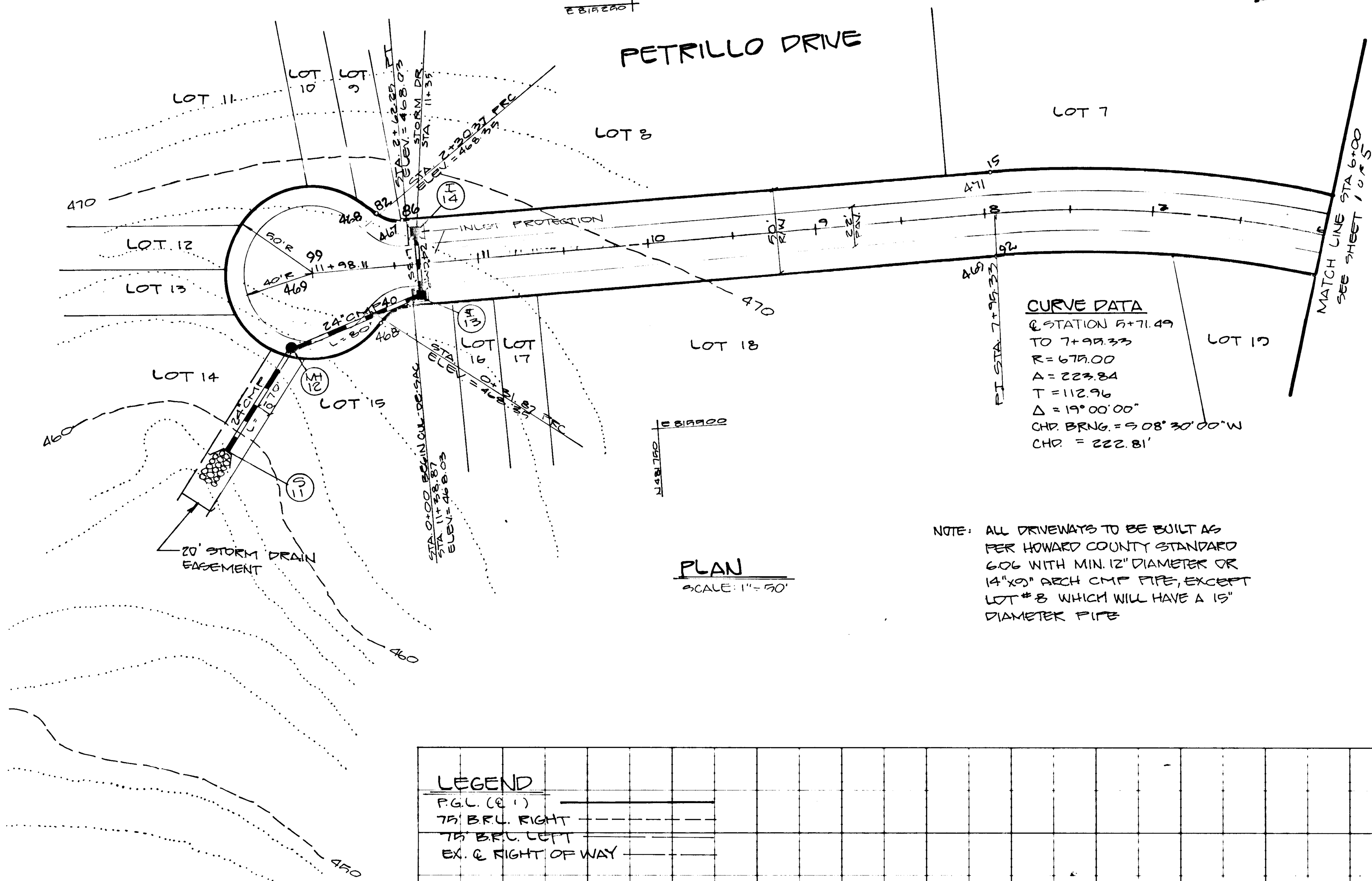
F-88-39

AS-BUILT JULY 15, 1988

1319

P-2	RESIDENTIAL ZONES: LOCAL, CUL-DE-SAC STS. ALLEYS AND PRIVATE ROADS SERVING INDIVIDUAL LOTS; PARKING AREAS: APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY*	1 1/2" BIT. CONC. SURFACE; 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE; 2 1/2" BIT. CONC. BASE; PRIME; 8" CRUSHER RUN BASE COURSE (2 COURSES) OR 6" DENSE GRADED STABILIZED AGGREGATE BASE COURSE



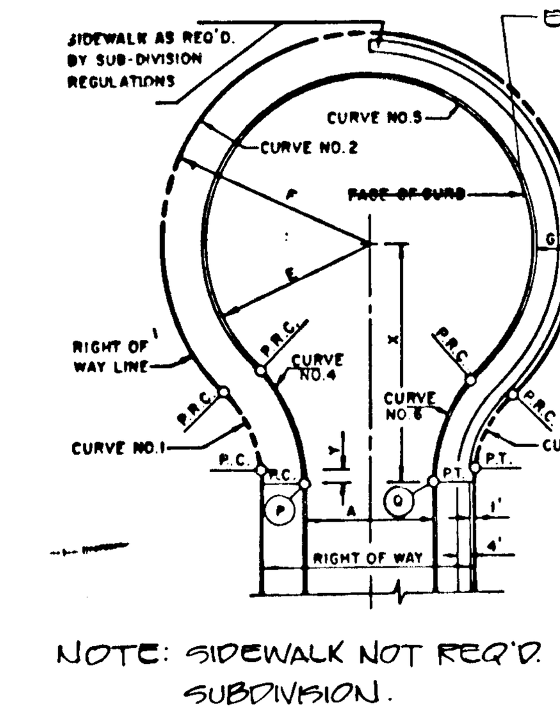


CURVE DATA
℄ STATION 5+71.49
TO 7+95.33
R = 675.00
A = 223.84
T = 112.96
Δ = 19°00'00"
CHD. BRNG. = S 08°30'00" W
CHD. = 222.81'

PLAN
SCALE: 1" = 50'

NOTE: ALL DRIVEWAYS TO BE BUILT AS PER HOWARD COUNTY STANDARD 6.06 WITH MIN. 12" DIAMETER OR 14"x9" ARCH CMP PIPE, EXCEPT LOT # 8 WHICH WILL HAVE A 15" DIAMETER PIPE

NOTE: ALL DRIVEWAY CULVERTS TO ~~BE~~ PROVIDED BY BUILDER CONCURENT WITH BUILDING PERMENT. EXPECTED RUNOFF AT THE CULVERT LOCATION IS LESS THAN 3.0 C.F.S.



EDGE OF PAVING

NOTES:
1. STANDARD CONC. COMB. CURB & GUTTER SHALL BE USED ON DOWNGRADE CUL-DE-SACS.
2. THE MAXIMUM GRADE OF THE CIRCULAR AREA IN ANY DIRECTION SHALL NOT EXCEED 6%.
3. A PROFILE SHALL BE PROVIDED ALONG THE TOP OF CURB FROM POINT P TO POINT Q.

MODIFIED DATA FOR 22'-0 APPROACH

ZONING DISTRICTS	E	F	G	R/W	A
COMMERCIAL & INDUSTRIAL	47'	59'	12'	60'	38' 44'
RESIDENTIAL	40'	50'	10'	50'	~~24'~~ 28' (22')

● SEE ST'D. NO. R-1.01

NOTE: SIDEWALK NOT REQ'D. IN THIS SUBDIVISION.

RESIDENTIAL (~~24'~~ 22' APPROACH)
X = ~~58.45'~~ 59.25 Y = ~~2.55'~~ 3.34 L.P. = 259.69'

	CURVE 1&3	2	4&6	5
Δ	48°11'23"	276°22'46"	~~51°11'43"~~ 52°10'09"	~~282°23'26"~~ 289°20'17"
R	25.00'	50.00'	35.00'	40.00'
L	21.03'	241.19'	~~31.27'~~ 31.87'	~~197.13'~~ 198.15'
T	11.18'	-	~~16.77'~~ 17.14'	-
L.C.	20.41	-	~~30.24'~~ 30.78'	-

GENERAL NOTES

The developer is advised that this development may be required to obtain permits from the Corp of Engineers for activities in wetlands (Sec 404) and a water quality certification from the state Health Dept (Sec 401) prior to the execution of the developer agreement, the following will be required:

a) copy of the permits issued by the Corp of Engineers and the Department of Health.

b) a certification from the engineer that Sec. 404 and Sec. 401 do not apply and the permits are not required.

AS-BUILT SURVEY CERTIFIED BY NELU SCHWARTZ, MD. P.E. NO. 11449 ON JULY 15, 1988.

DEVELOPER'S CERTIFICATE

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Richard J. Hemmitt Presdt 9-21-87
DATE

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

8/20/87
DATE

REVIEWED FOR HOWARD S.C.D.
NAME
AND MEETS TECHNICAL REQUIREMENTS

10/9/87
U.S. SOIL CONSERVATION SERVICE DATE

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

10/8/87
HOWARD S.C.D. DATE

STATE OF MARYLAND — NELU SCHWARTZ — No. 11449 — REGISTERED PROFESSIONAL ENGINEER

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER DATE

APPROVED: Howard County Office of Planning & Zoning

~~DIRECTOR~~ DATE 10-13-87
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
10-16-87
Chief, Land Development Division Date
10/19/87
Chief, Bureau of Highways Date
10-16-87
Chief, Bureau of Engineering Date

Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: 1) Seven (7) calendar days for all perimeter sediment control structures, dikes, swales, ditches, perimeter slopes and all slopes greater than 3:1, 2) Fourteen (14) days as to all other disturbed or graded areas on the project site.

NOTE: The contractor or developer shall contact the Construction Inspection/Survey Division 24 hours in advance of commencement of work at 792-7272.

LEGEND
P.G.L. (℄ 1)
75' B.R.L. RIGHT
75' B.R.L. LEFT
EX. ℄ RIGHT OF WAY

PROFILES
SCALE: HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

1319

Owner/Developer:	NO.	REVISIONS	DATE
HILLTOP DEVELOPMENT P.O. BOX 208 CLARKSVILLE, MD. 21029 301-531-5539			

DEVELOPMENT CONSULTANTS GROUP, INC.
17904 GEORGIA AVENUE # 102
OLNEY, MARYLAND 20832
301-924-4570

STORM DRAIN AND PAVING PLAN
SECTION ONE
WATERMAN ESTATES
5th ELECTION DISTRICT
TAX MAP 40 PARCEL 250
HOWARD COUNTY, MARYLAND

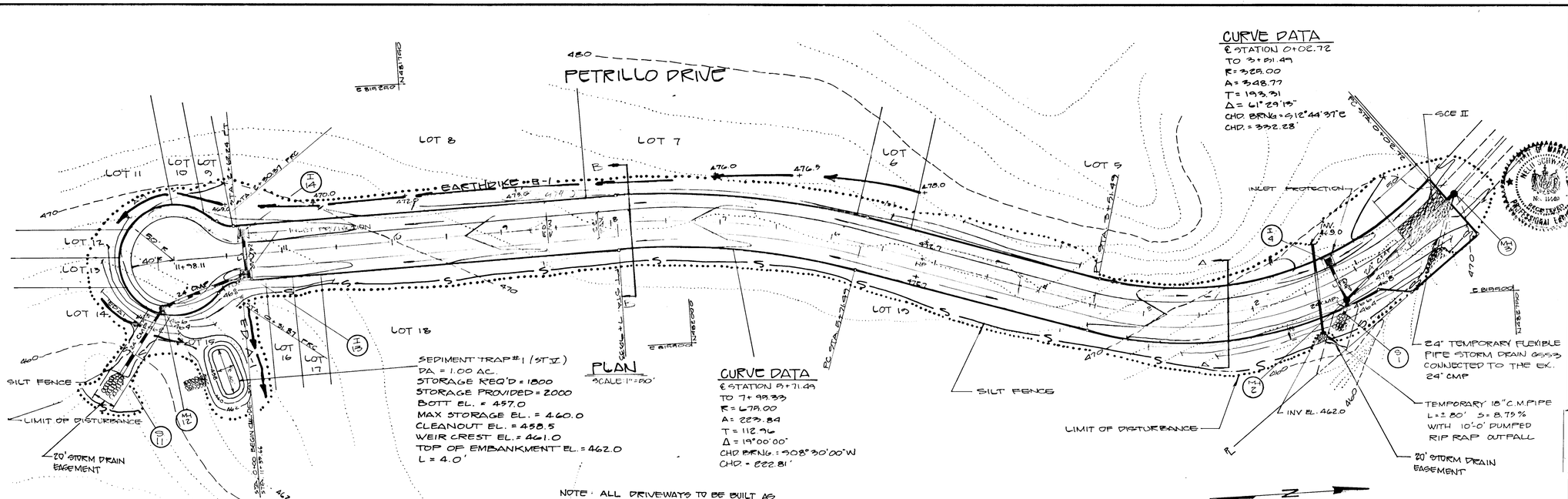
S-87-69
VP-87-126
F-87-79

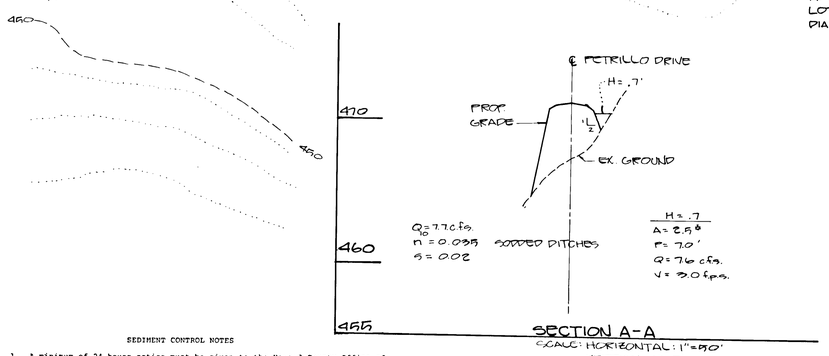
DATE August, 1987
DRAWN S.M.B.
CHECKED
SCALE AS SHOWN

Sheet 2 of 5
PROJECT NO. 136-04

F-88-39

AS-BUILT
JULY 15, 1988





SEDIMENT CONTROL NOTES

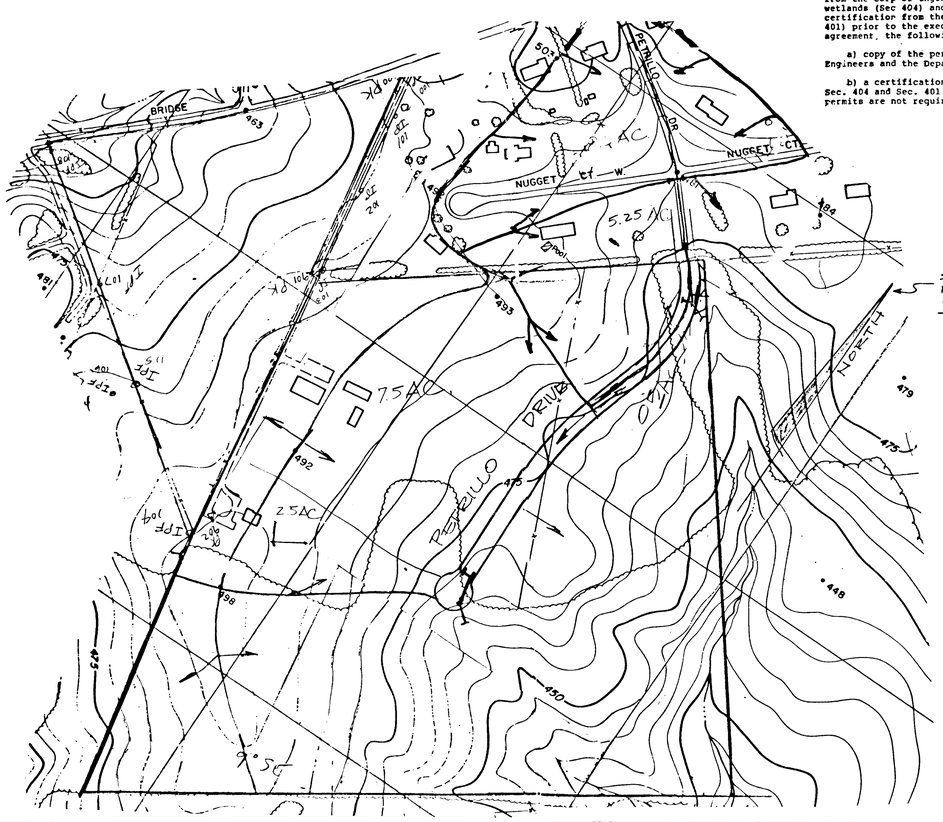
1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND 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 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. 52, 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: Roads Only

Total Area of Site	39.0 Acres
Area Disturbed	2.55 Acres
Area to be paved	0.70 Acres
Area to be vegetatively stabilized	1.90 Acres (Soc.
Total Cut	4800 Cu. Yds.
Total Fill	12600 Cu. Yds.
Offsite waste/borrow area location	-

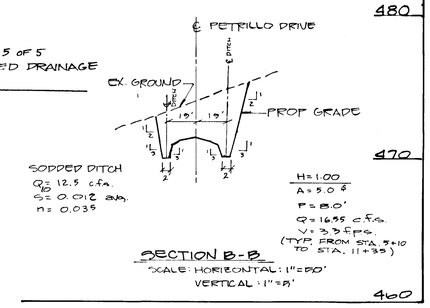
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment controls must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
10. On all sites with disturbed 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.

CONSTRUCTION SEQUENCE

1. Obtain necessary permits - 9/87
2. Notify County 24 hours prior to commencement of construction - 10/87
3. Clear and grub for SCE, earth dike and trap - 10/87
4. Install SCE-II and all other sediment control devices, except inlet protection, install temporary flexible pipe from the existing 24" RCP to the stream and temporary 18" CMP pipe - 10/87
5. Clear and grub for grading of roads and storm drain - 10/87
6. Grade site and install storm drain system - 10-11/87
7. Install inlet protection - 11/87
8. Install bituminous paving, stabilize disturbed area - 11/87
9. Remove sediment control devices when approved by Sediment Control Inspector; including temporary 18" CMP pipe and 24" flexible pipe.



DRAINAGE AREA MAP
SCALE: 1"=200'



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Richard J. Hemmerich, President 9-21-87
DATE

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

No. 11448 — 8/20/87
DATE

REVIEWED HOWARD S.C.D.
NAME

AND MEETS TECHNICAL REQUIREMENTS

USDA SOIL CONSERVATION SERVICE — 10/9/87
DATE

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

HOWARD S.C.D. — 10/8/87
DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER — DATE

APPROVED: Howard County Office of Planning & Zoning

Director — DATE
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — 10-13-87
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Land Development Division — 10-6-87
Date

Chief, Bureau of Highways — 10/19/87
Date

Chief, Bureau of Engineering — 10-16-87
Date

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GENERAL NOTES

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a) copy of the permits issued by the Corp of Engineers and the Department of Health.

b) a certification from the engineer that Sec. 404 and Sec. 401 do not apply and the permits are not required.

1319

Owner/Developer:
HILLTOP DEVELOPMENT
P.O. BOX 208
CLARKSVILLE, MD 21029
301-531-5939

NO.	REVISIONS	DATE

DEVELOPMENT CONSULTANTS GROUP, INC.
17904 GEORGIA AVENUE # 102
OLNEY, MARYLAND 20832
301-924-4570

GRADE ESTABLISHMENT & SEDIMENT CONTROL
SECTION ONE
WATERMAN ESTATES
5th ELECTION DISTRICT
TAX MAP 40 PARCEL 290
HOWARD COUNTY, MARYLAND

S-87-60
WP-87-126
F-87-79

DATE: August 1987
DRAWN: S.M.B.
CHECKED:
SCALE: AS SHOWN
PROJECT NO. 136-04

Sheet 3 of 5

F-88-39

AS-BUILT JULY 15, 1988

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) IN LIEU OF SOIL TEST APPLY ONE TON OF LIME MIN./ACR.

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 RYE (3.2 LBS./1000 SQ. FT). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING, BOER, OR LEHMANNS LOVEGRASS (.07 LBS/1000 SQ.FT) MILLET 40 LBS/ACRE (.92 LB/1000 SQ.FT.) AND SUDANGRASS (.92 LB./1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT) OF UNROTTED SMALL GRAIN IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ. FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ. FT) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

APPLICATION: APPLY SEED UNIFORMLY WITH CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).

MULCH ONLY IS TO BE USED DURING NON SEEDING DATES.
TEMP SEEDING (CHAPTER 50).

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.

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 FEET) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQUARE FEET) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 POUNDS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQUARE FEET)

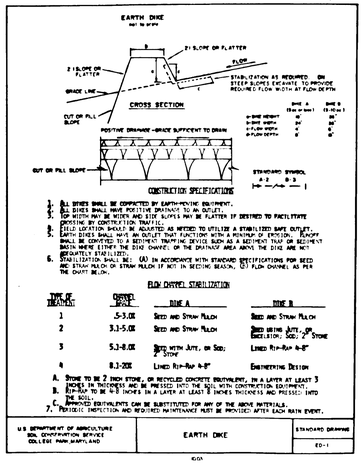
2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQUARE FEET) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQUARE FEET) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

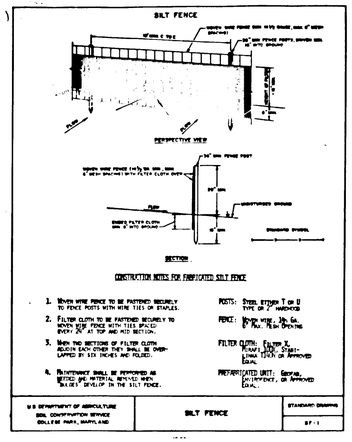
SEEDING - FOR THE PERIODS FEBRUARY 1 THRU APRIL 30, AND AUGUST 15 THRU OCTOBER 31, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQUARE FEET) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 0LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS./1000 SQUARE FEET) OF 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 WITH ANCHORED STRAW.

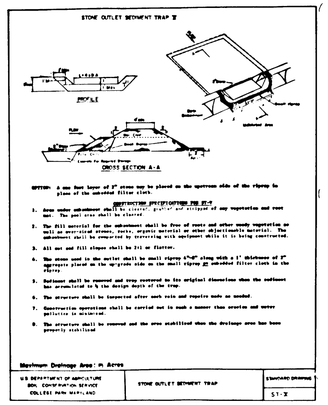
MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQUARE FEET) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQUARE FEET) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1000 SQUARE FEET) FOR ANCHORING.

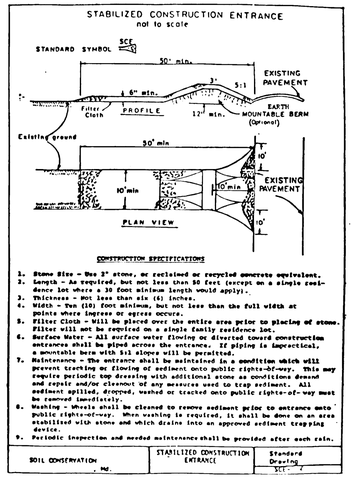
MAINTENANCE - INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

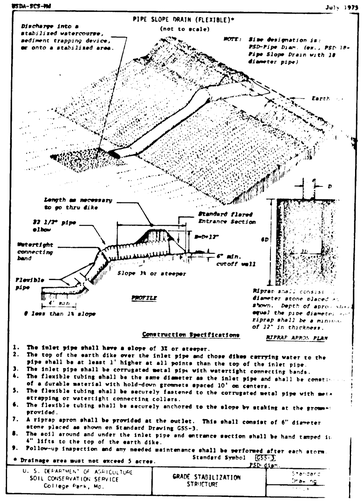
APPLICATION: APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).

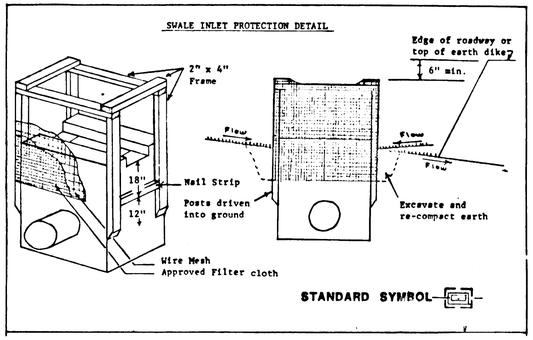












Maryland SCS/WRA

April 1983

STANDARD AND SPECIFICATIONS FOR STORM DRAIN INLET PROTECTION

Definition

Filter cloth installed around inlets in the form of a fence or across an opening, thereby reducing sediment content of sediment laden water.

Purpose

To prevent sediment laden water from entering a storm drain system through inlets.

Conditions Where Practice Applies

This practice shall be used where the drainage area to an inlet is disturbed, it is not possible to temporarily divert the storm drain outfall into a sediment trapping device and watertight blocking of inlets is not advisable. It is not to be used in place of sediment trapping devices. This practice may be used in conjunction with storm drain diversion to help prevent siltation of pipes installed with a low slope angle.

Construction Specifications

I. Materials

A. Wooden frame is to be constructed of 2" x 4" construction grade lumber.

B. Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.

C. Filter cloth must be of a type approved for this purpose; resistant to sunlight with sieve size, EOS, 40-85, to allow sufficient passage of water and removal of sediment.

4. Stone is to be 2" in size and clean, since fines would clog the cloth.

Maryland SCS/WRA

April 1983

II. Procedure

A. A swale, ditchline or yard inlet protection.

1. Excavate completely around inlet to a depth of 18" below notch elevation.

2. Drive 2 x 4 post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2 x 4 frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.

3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.

4. Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.

5. Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.

6. If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (weir).

7. This structure must be inspected frequently and the filter fabric replaced when clogged.

B. Curb Inlet Protection.

1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.

2. Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.

3. Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' apart).

4. Place the assembly against the inlet throat and nail (minimum 2" lengths of 2" x 4" to the top of the weir at spacer locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weighs.

DEVELOPER'S CERTIFICATE

"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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Richard Weinhardt President 9-21-87

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 THAT WAS PREPARED IN ACCORDANCE WITH THE GUIDELINES OF THE HOWARD SOIL CONSERVATION DISTRICT.

STATE OF MARYLAND — NICHOLAS WILLIAM SCHWARTZ — No. 11449 — REGISTERED PROFESSIONAL ENGINEER

Nicholas Schwartz 8/20/87
ENGINEER DATE

REVIEWED BY HOWARD S.C.D.
NAME

AND MEETS TECHNICAL REQUIREMENTS

James M. Stein 10/9/87
U.S. SOIL CONSERVATION SERVICE DATE

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

John A. Robertson 10/6/87
HOWARD S.C.D. DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER DATE

APPROVED: Howard County Office of Planning & Zoning

DIRECTOR John W. Meachum 10-13-87
DIRECTOR OF PLANNING AND ZONING ADMINISTRATION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

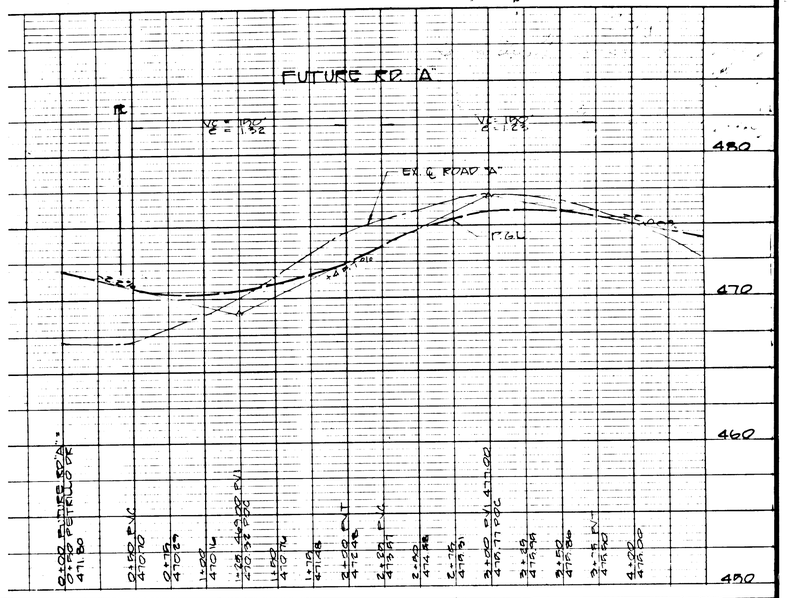
Chief, Land Development Division 10/6/87 Date

Chief, Bureau of Highways Granville W. Sherwood 10/19/87 Date

Chief, Bureau of Engineering 10-16-87 Date

Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: 1) Seven (7) calender days for all perimeter sediment control structures, dikes, swales, ditches, perimeter slopes and all slopes greater than 3:1, 2) Fourteen (14) days as to all other disturbed or graded areas on the project site.

NOTE: The contractor or developer shall contact the Construction Inspection/Survey Division 24 hours in advance of commencement of work at 792-7272.



Owner/Developer:
HILLTOP DEVELOPMENT
PO BOX 608
CLARKSVILLE, MD. 21029
301-531-5939

NO.	REVISIONS	DATE

DEVELOPMENT CONSULTANTS GROUP, INC.
17904 GEORGIA AVENUE * 102
OLNEY, MARYLAND 20832
301-924-4570

SPECIFICATIONS AND DETAILS
SECTION ONE
WATERMAN ESTATES
5th ELECTION DISTRICT
TAX MAP 40 PARCEL 250
HOWARD COUNTY, MARYLAND

SP-87-002
WP-87-126
FP-87-70

DATE August 1987
DRAWN S.M.B.
CHECKED
SCALE AS SHOWN

Sheet 4 of 5
PROJECT NO. 136-04

F-88-39

AS-BUILT JULY 15, 1988

13/15

NOTE: THE COORDINATES FOR THIS PROJECT ARE BASED ON HOWARD COUNTY GEODETIC CONTROL STATION # 2196002 & # 2196003.

VICINITY MAP

ERNUN BRIDGE ROAD (MAJOR COLLECTOR ROAD)

PETRILLO DRIVE

LOT 12 3.46 Ac.
LOT 13 3.15 Ac.
LOT 11 3.30 Ac.
LOT 14 3.00 Ac.
LOT 10
LOT 9
LOT 6
LOT 8 3.00 Ac.
LOT 7 3.00 Ac.
LOT 5 3.00 Ac.
LOT 18 3.00 Ac.
LOT 19 3.00 Ac.
LOT 15 3.00 Ac.
LOT 16 3.60 Ac.
LOT 17 3.15 Ac.

HICKORY HILL FARM (SDP-87-22)

PROPOSED 20' STORM DRAIN EASEMENT

STORM DRAIN EASEMENT

WM. L. RIDDLE 441/621

JOHN P. HYDE AND PERRY C. WESTLAND 252/403 AND 209/102

PLAN
SCALE: 1"=100'

LEGEND

- PROPOSED HOUSE 40'x100'
- PROPOSED SEPTIC AREA 10,000 SQ
- PROPOSED WELL & SETBACK

GENERAL NOTES

1. PROPERTY AREA: 50.00 AC.
2. PROPERTY ZONED: RURAL (50 AC.)
3. PRIVATE WATER SUPPLY & SEWAGE DISPOSAL SYSTEM
4. NO. OF LOTS: 19
5. AREA OF LOTS: 48.48 AC.
6. AREA OF ROADWAY: 1.52 AC.
7. SOIL MAP: 2B & 3B
8. DEED REFENCE: 863/269
9. TAX MAP: 40, PARCEL 250
10. SUBJECT TO V.P. # 87-126

APPROVED: FOR PRIVATE WATER & SEWAGE DISPOSAL SYSTEMS - HOWARD COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.

COUNTY HEALTH OFFICER — DATE

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THE INFORMATION SHOWN HEREON IS CORRECT.

DATE — Jefferson H. Lawrence, III MD Reg. Prof. Eng. #6216

DEVELOPER'S CERTIFICATE

"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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Richard J. Simmons, President — 9/2/87
DATE

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

STATE OF MARYLAND — NEIL SCHWARTZ — No. 10324 — REGISTERED PROFESSIONAL ENGINEER

9/4/87
DATE

REVIEWED BY HOWARD S.C.D.

AND MEETS MINIMUM REQUIREMENTS

U.S. SOIL CONSERVATION SERVICE — 10/9/87 DATE

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

HOWARD S.C.D. — 10/8/87 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER — DATE

APPROVED: Howard County Office of Planning & Zoning

DIRECTOR — DATE 10-8-87

OR ZONING ADMINISTRATOR

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Land Development Division — DATE 10/6/87

Chief, Bureau of Highways — DATE 10/19/87

Chief, Bureau of Engineering — DATE 10-16-87

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Owner/Developer
HILLTOP DEVELOPMENT INC.
P.O. BOX 209
CLARKSVILLE, MD. 21029
301-596-5599

NO.	REVISIONS	DATE

DEVELOPMENT CONSULTANTS GROUP, INC.
17904 GEORGIA AVENUE # 102
OLNEY, MARYLAND 20832
301-924-4570

DRAINAGE STUDY & SOIL MAP
LOTS 1-19 SECTION ONE
WATERMAN ESTATES
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
LIBER F. 863 FOLIO 269
TAX MAP: 40, PARCEL 250

SDP-87-152
F-87-39

DATE June 1988
DRAWN
CHECKED
SCALE

Sheet 5 of 5
PROJECT NO. 87-21

F-88-39

AS-BUILT JULY 15, 1988

1319