

Owner/Developer:
HIGHLAND DEVELOPMENT CORP.
P.O. BOX 208
CLARKSVILLE, MD. 21029
(301) 531-5539

NO.	REVISIONS	DATE

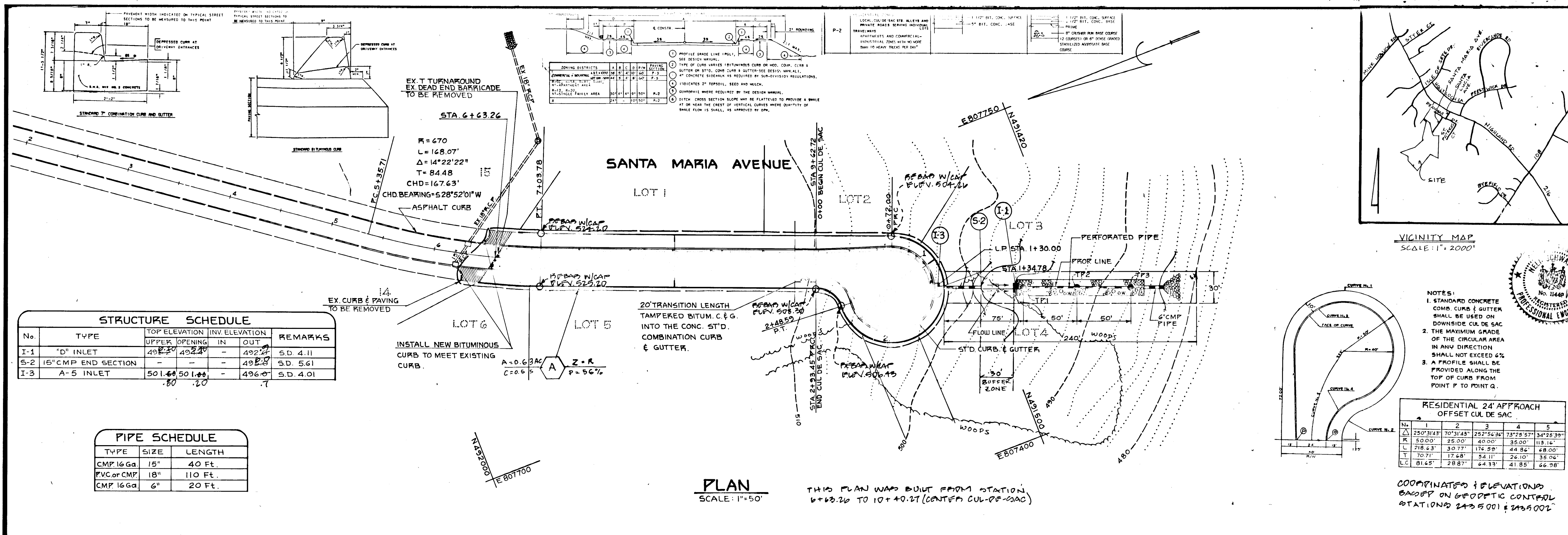


DEVELOPMENT CONSULTANTS GROUP, INC.

17904 GEORGIA AVENUE # 102
OLNEY, MARYLAND 20832
301-924-4570

STORM DRAIN AN
HIGHLAN
5TH ELECTION
HOWARD COU
TAX MAP 40

1538



NOTES:
 1. STANDARD CONCRETE CURB & GUTTER SHALL BE USED ON DOWNSIDE CUR DE SAC
 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.

RESIDENTIAL 24' APPROACH OFFSET CUL DE SAC

No.	1	2	3	4	5
N	250°31'43"	70°31'48"	252°56'34"	73°25'57"	34°28'39"
R	500.00'	25.00'	40.00'	35.00'	113.16'
L	218.63'	30.77'	174.20'	44.82'	48.00'
T	70.71'	17.68'	54.11'	26.10'	35.04'
LC	81.65'	28.87'	64.33'	41.85'	66.98'

COOPERATED ELEVATIONS BASED ON GEODETIC CONTROL STATIONS 2435001 & 2435002

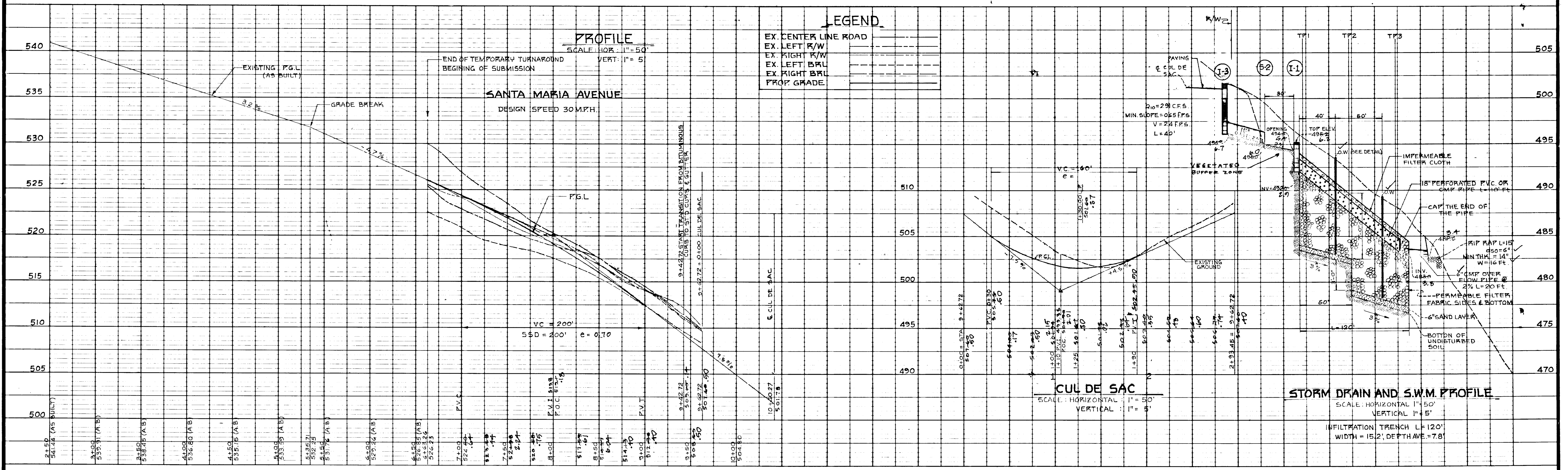
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 DATE: 2/1/91

STRUCTURE SCHEDULE

No.	TYPE	TOP ELEVATION	UPPER OPENING	INV. ELEVATION	REMARKS
I-1	"D" INLET	492.25	492.25	492.25	S.D. 4.11
S-2	15" CMP END SECTION	-	-	492.25	S.D. 5.61
I-3	A-5 INLET	501.60	501.60	496.00	S.D. 4.01

PIPE SCHEDULE

TYPE	SIZE	LENGTH
CMP 16Ga	15"	40 Ft.
PVC or CMP	18"	110 Ft.
CMP 16Ga	6"	20 Ft.



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STORM DRAIN AND PAVING PLAN
HIGHLAND OAKS
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP 40 PARCEL 36

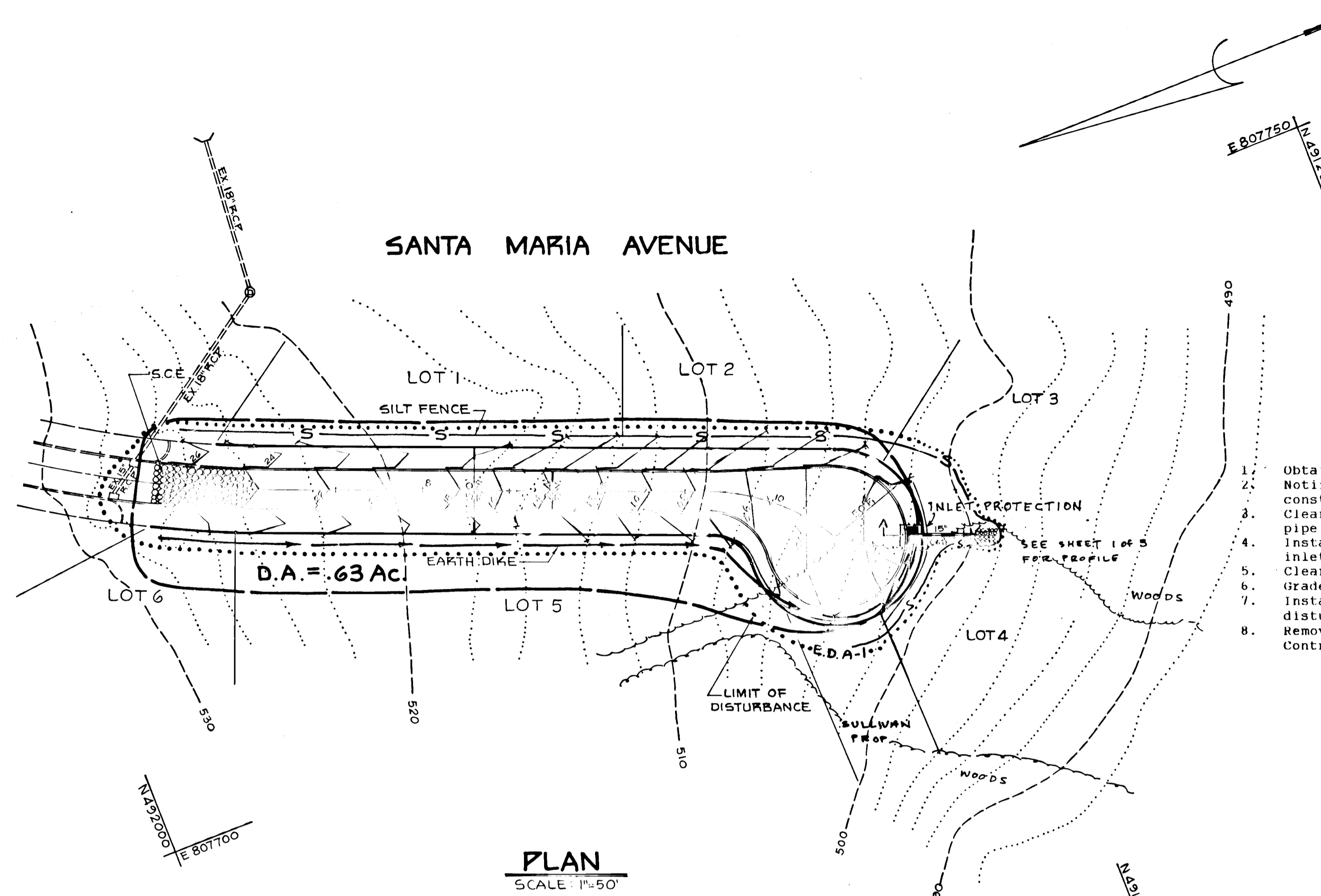
S-89-78
 P-89-86
 F-90-60

DATE: JULY 1989
 DRAWN: E.M.
 CHECKED: N.S.
 SCALE: AS SHOWN

Sheet 1 of 3
 PROJECT NO. 136-07

1538

FILE NO. APPROV. 1-2-91



CONSTRUCTION SEQUENCE

1. Obtain necessary permits. Notify County 24 hours prior to commencement of construction.
2. Clear and grub for SCE, earth dike, storm drain inlet and pipe.
3. Install SCE and all other sediment control devices, install inlet and storm drain pipe. Provide inlet protection.
4. Clear and grub for grading or road construction.
5. Grade proposed road.
6. Install bituminous paving, curb and gutter, stabilize disturbed area.
7. Remove sediment control devices when approved by Sediment Control Inspector.

- 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 disturbance, permanent or temporary stabilization shall be completed within 7 calendar days for all perimeter sediment control structures, dikes, swales, slopes and all slopes greater than 3:1; 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 32, 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. 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

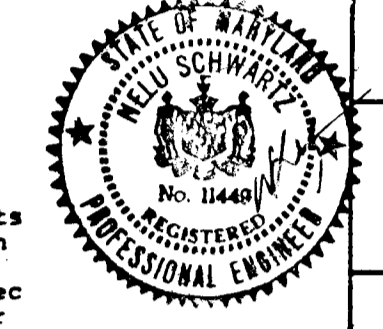
Total Area of Site	0.58 Acres
Area Disturbed	0.75 Acres
Area to be paved	0.31 Acres
Area to be vegetatively stabilized	0.44 Acres
Total Cut	850 Cu. Yds.
Total Fill	800 Cu. Yds.

 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 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. No: before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

GENERAL NOTES

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.



FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: 1) SEVEN (7) CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, SLOPES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; 2) FOURTEEN (14) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON PROJECT SITE.

NOTE: THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION AGENCY (HWY 28) AT LEAST 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT THE SITE.

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 BEING PERMITTED TO WORK ON THE PROJECT.

Richard J. Demmet 1-4-90 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 COUNTY DEPARTMENT OF PUBLIC WORKS.

01/05/90 DATE

REVIEWED FOR HOWARD S.C.D. AND METS TECHNICAL REQUIREMENTS

James M. Kelly 1/5/90 DATE
S.D. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

John R. Kowner 1/5/90 DATE
HOWARD S.C.D.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Donald E. Ryan 1/24/90 DATE
CHIEF, LAND DEVELOPMENT DIVISION

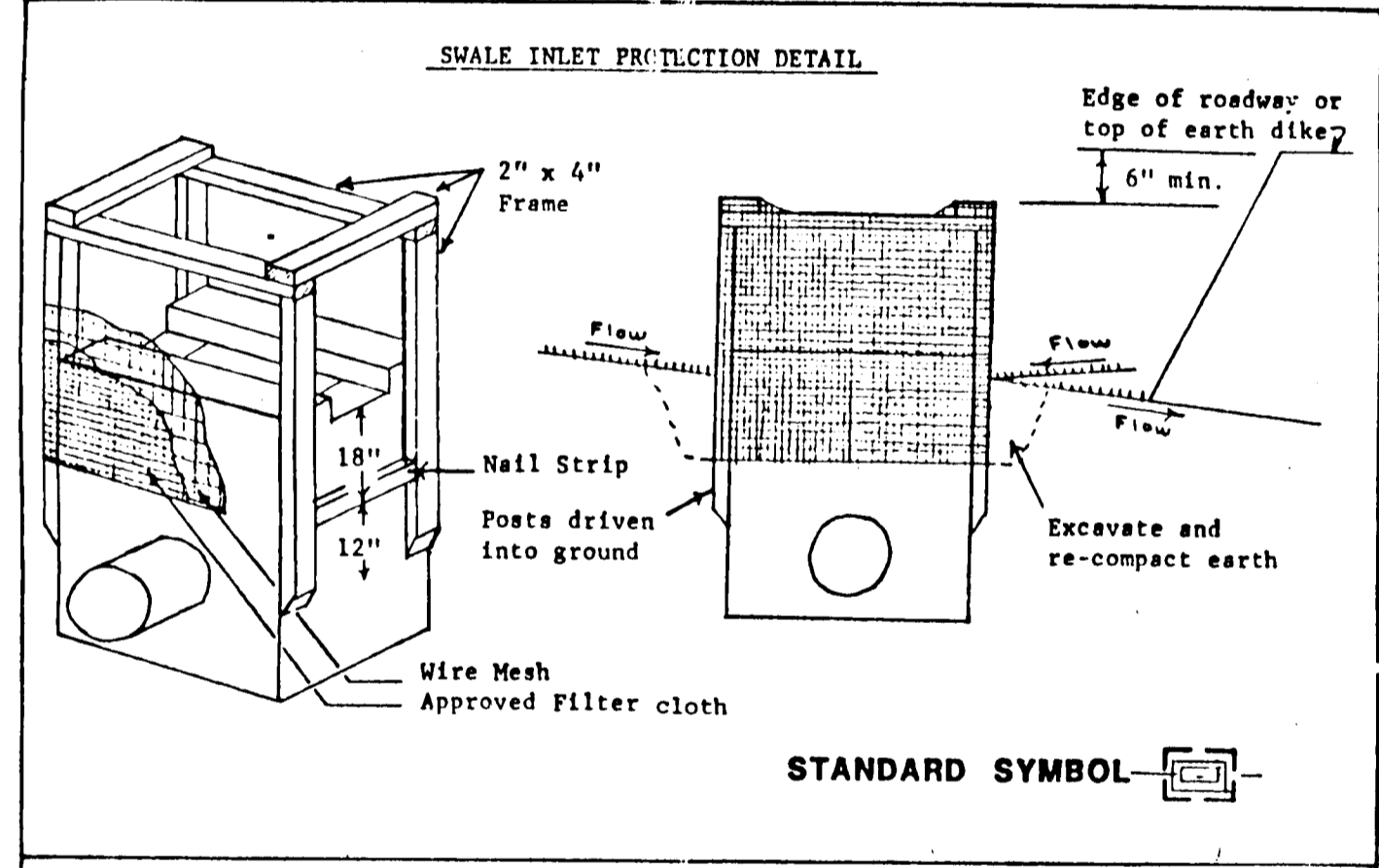
Deanne W. Wehland 1/13/90 DATE
CHIEF, BUREAU OF HIGHWAY

Deanne W. Wehland 1/26/90 DATE
CHIEF, BUREAU OF ENGINEERING

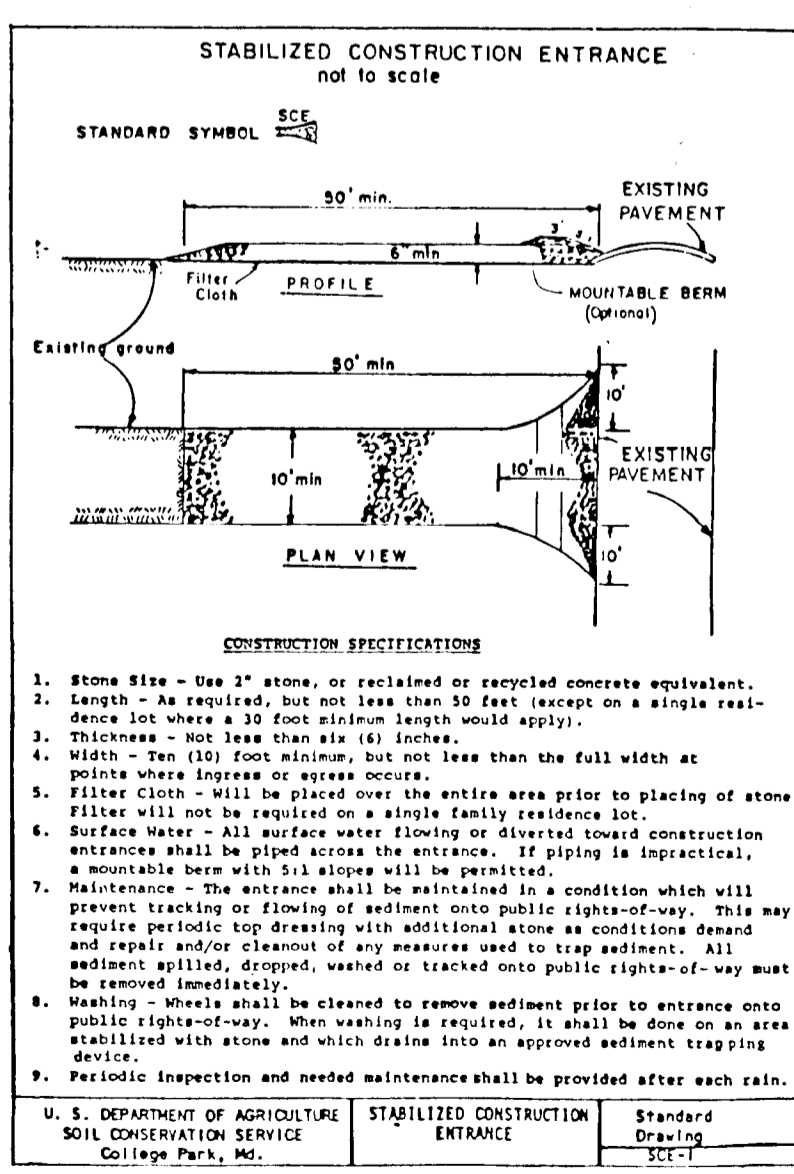
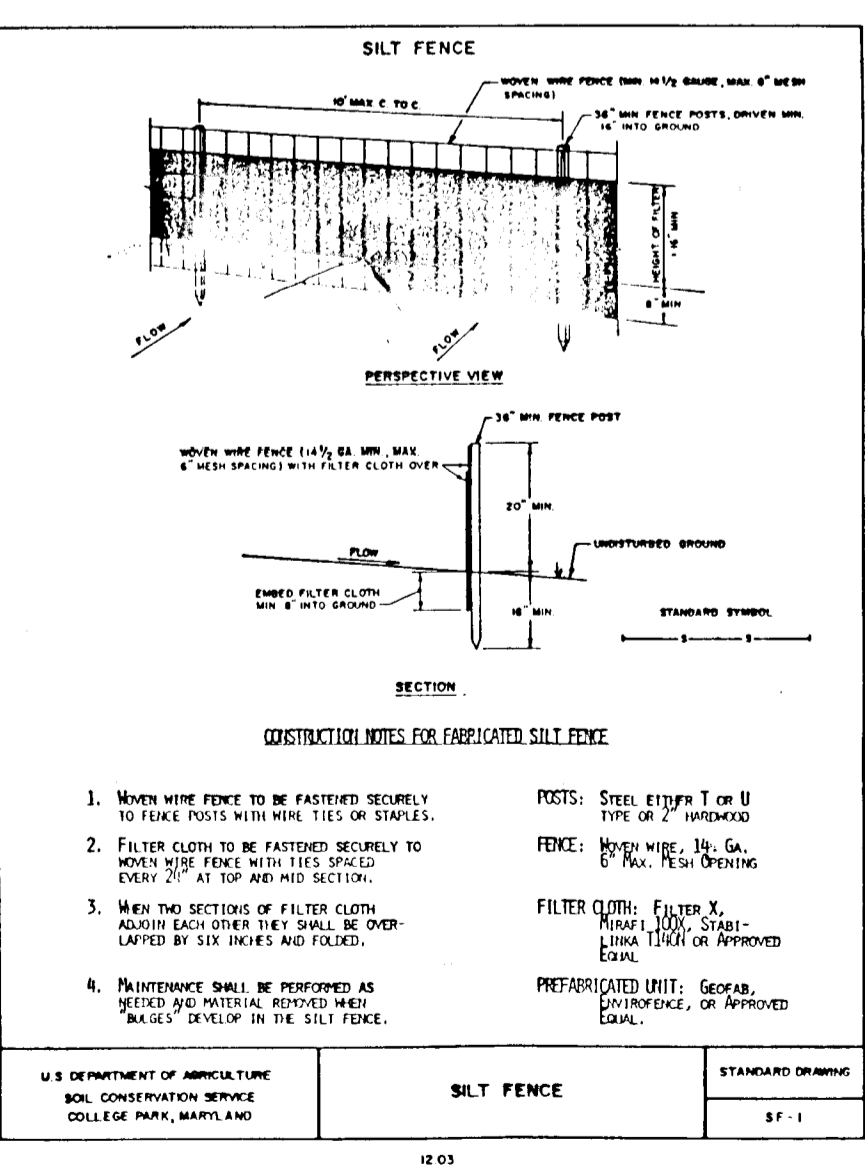
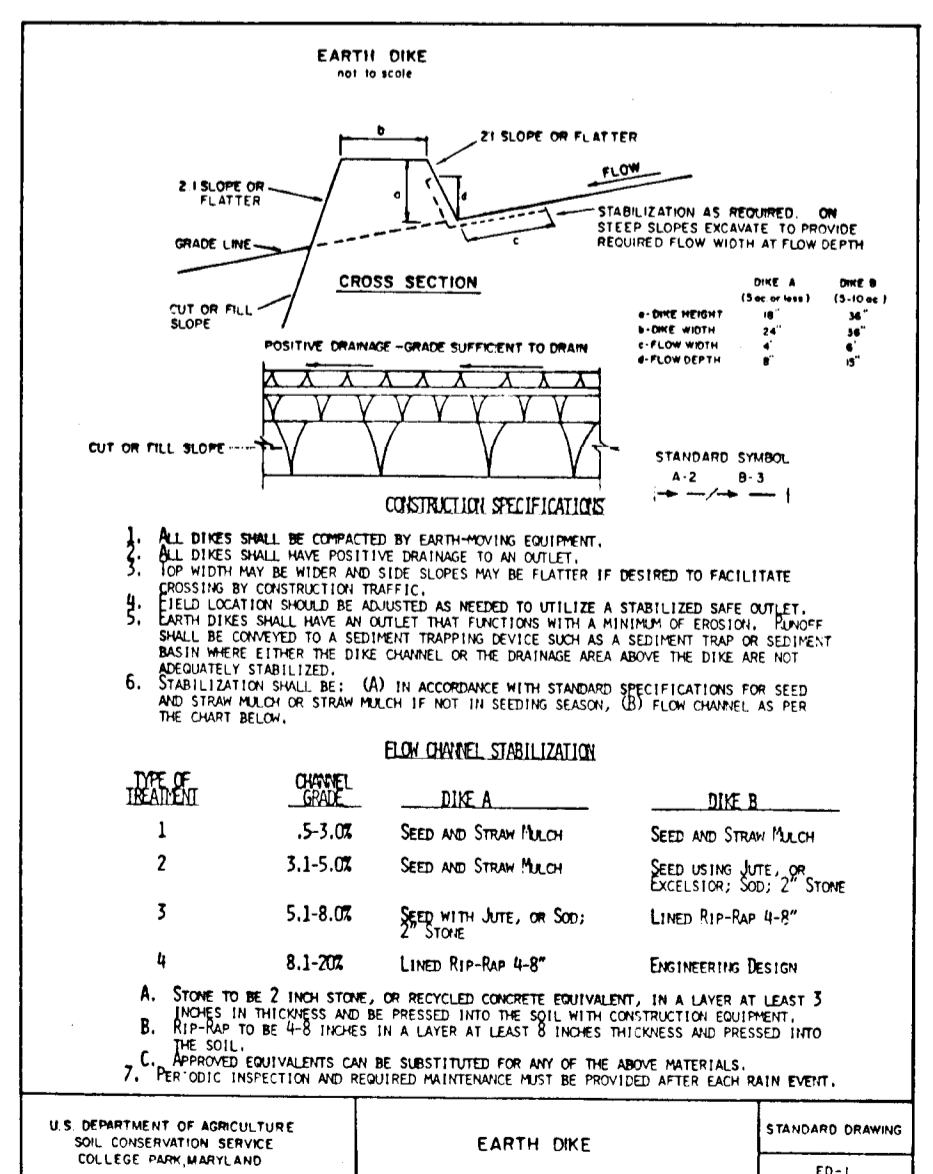
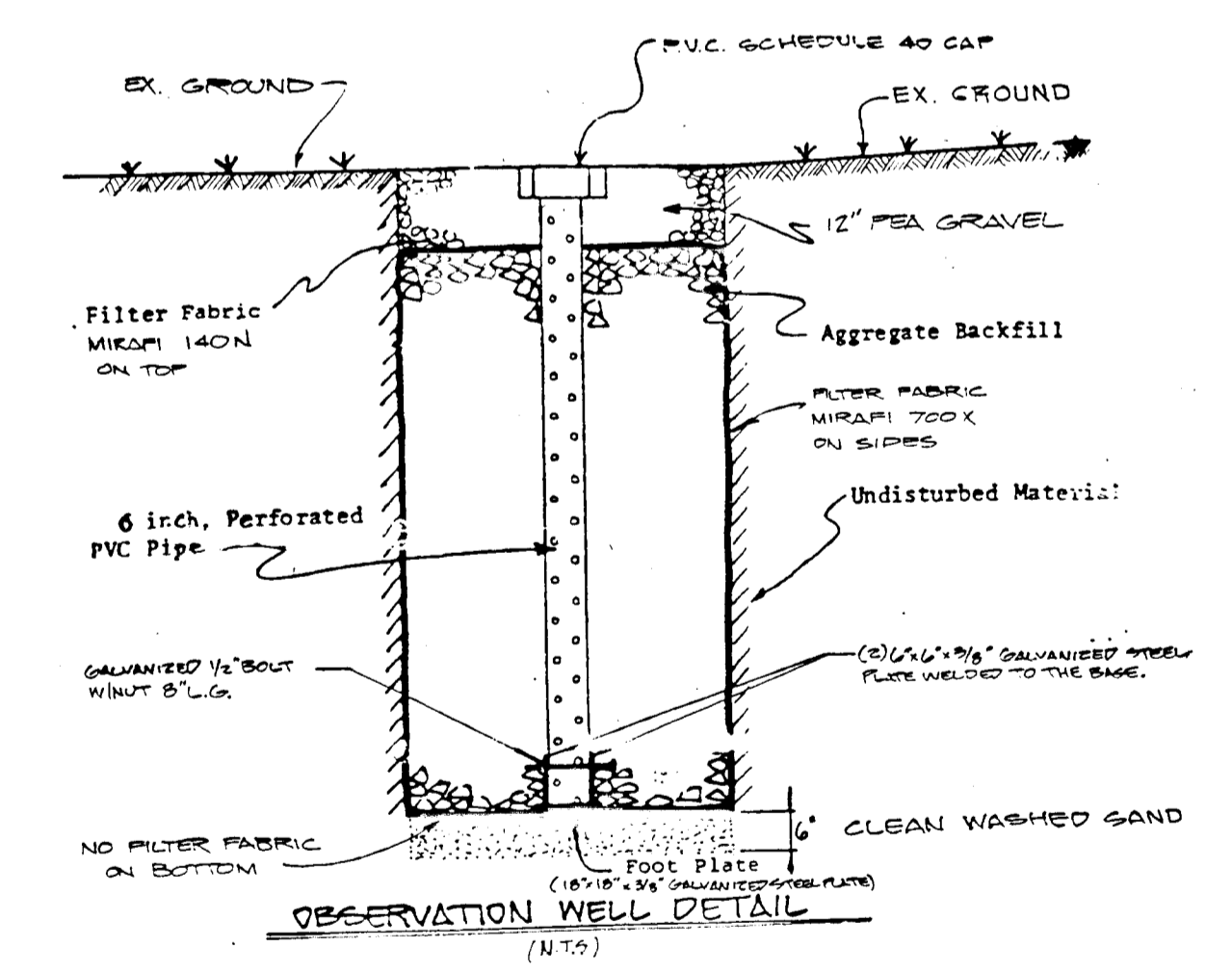
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Frank V. Sample 4/5/90 DATE
CHIEF DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT

PLAN
SCALE: 1"=50'



STANDARD SYMBOL



PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeding 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 500 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 square feet) before seeding. Narrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 Ureaform Fertilizer (9 lbs./1000 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 (22 lbs./1000 square feet) before seeding. Narrow or disc into upper three inches of soil.

Seeding: For the periods February 1 through April 30, and August 15 through October 31, seed with 60 lbs. per acre (1.4 lbs./1000 square feet) of Kentucky 31 Tall Fescue. For the period May 1 through July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (1.05 lbs./1000 square feet) of Mesquite leucocarpa. During the period of October 15 through 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 2 1/2 gallons (2000) per acre (5 gal./1000 square feet) of Emulsified Asphalt on flat areas. On slopes 8 feet or higher, use 346 gallons per acre (8 gal./1000 square feet) for anchoring.

Maintenance: Inspect all seeded area and make needed repairs, replacements and reseedings.

Application: Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder or hydroseder (Slurry includes seed and fertilizer).

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GRADE ESTABLISHMENT, SEDIMENT CONTROL & DETAILS

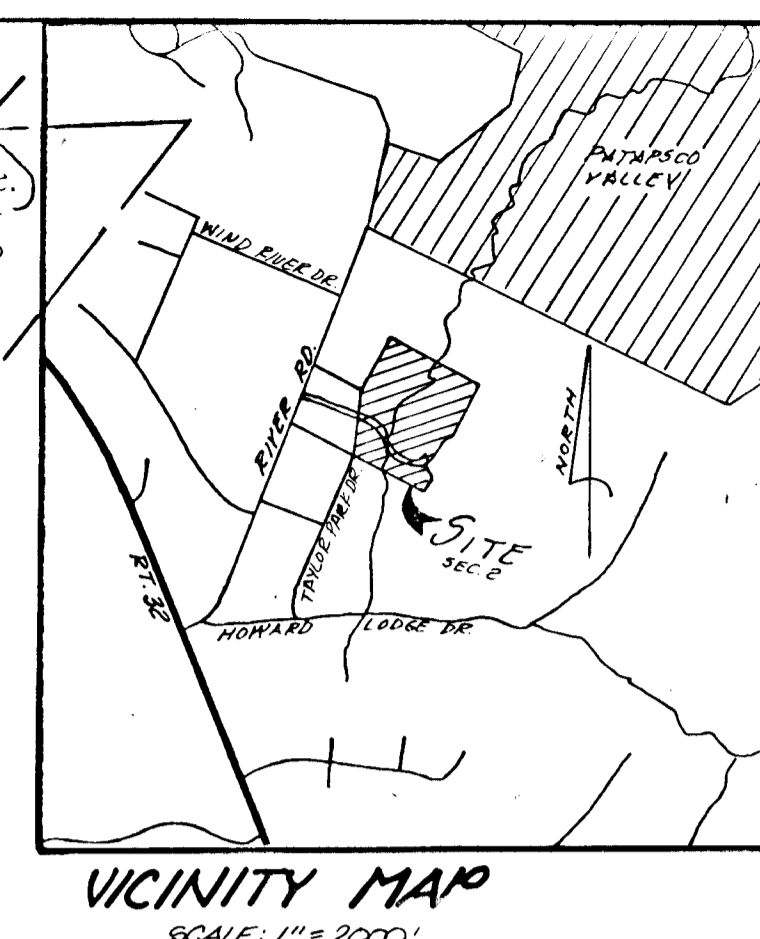
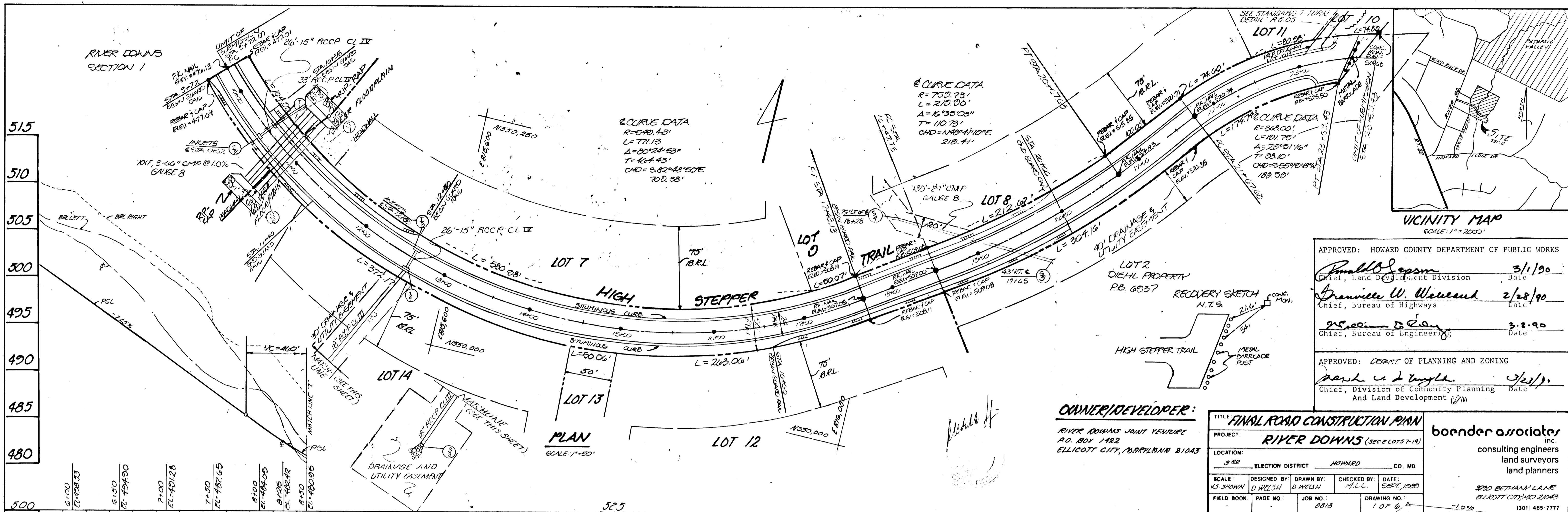
HIGHLAND OAKS
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP 40 PARCEL 36

S-89-78 P-89-86 F-90-60	DATE JULY 1989	Sheet 2 of 3
	DRAWN E.M.	
	CHECKED N.S.	
	SCALE AS SHOWN	PROJECT NO. 136-07

1538

DATE	
BY	
REVISIONS	
NO.	
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REVISIONS	
NO.	



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Donald J. Seaman 3/1/90
 Chief, Land Development Division Date

Francis W. Welleand 2/28/90
 Chief, Bureau of Highways Date

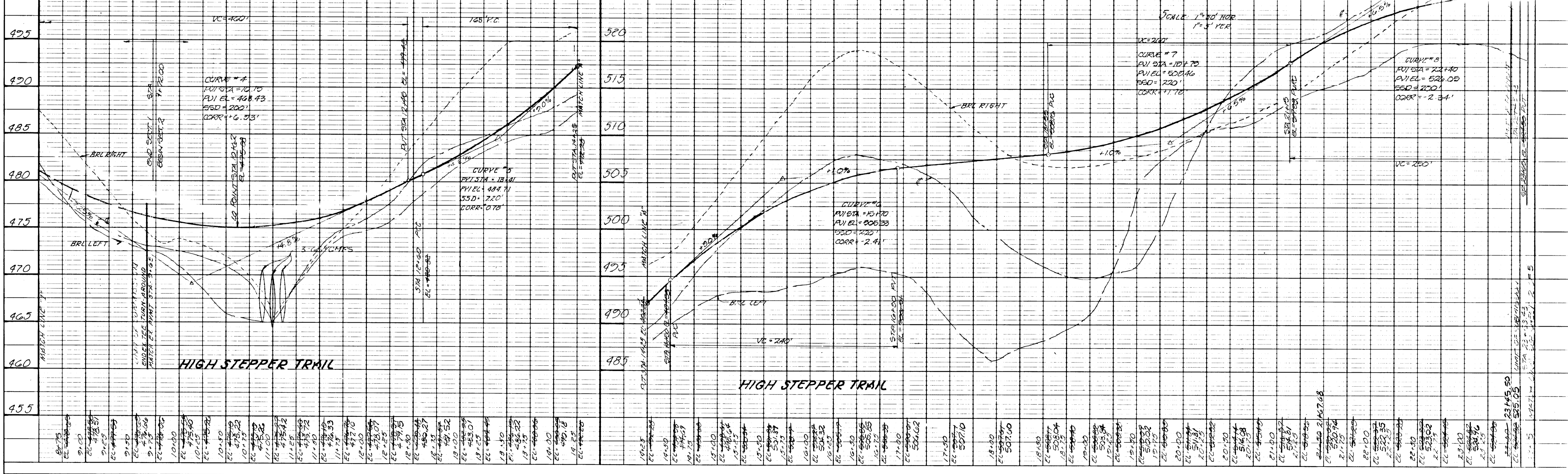
W. Seaman & Eddy 3-2-90
 Chief, Bureau of Engineering Date

APPROVED: DEPT. OF PLANNING AND ZONING

Mark C. Tangle 3/2/90
 Chief, Division of Community Planning Date
 And Land Development (DM)

TITLE: FINAL ROAD CONSTRUCTION PLAN			
PROJECT: RIVER DOWNS (SECS 1075-14)			
LOCATION: 3 RD ELECTION DISTRICT HOWARD CO. MD			
SCALE: AS SHOWN	DESIGNED BY: D. WELSH	DRAWN BY: D. WELSH	CHECKED BY: M.L.L.
FIELD BOOK: PAGE NO.	JOB NO.: 8818	DRAWING NO.: 1 OF 6, A	DATE: SEPT, 1990

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 consulting engineers
 land surveyors
 land planners
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 13011 465-7177



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