

EXISTING BRAMPTON PARKWAY

NOTE: TRAFFIC SIGNAL TO BE INSTALLED AT INTERSECTION OF BRAMPTON PARKWAY AND MARYLAND ROUTE 103.

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.
 [Signature] DATE 11/12/87

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 AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature] DATE 09/02/87

REVIEWED FOR NAME S.C.D. AND MEETS TECHNICAL REQUIREMENTS
 [Signature] DATE 11/3/87
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 [Signature] DATE 11/3/87
 HOWARD S.C.D.

APPROVED, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] DATE 11/8/87
 Chief, Land Development Division
 [Signature] DATE 11/9/87
 Chief, Bureau of Highways
 [Signature] DATE 11/9/87
 Chief, Bureau of Engineering

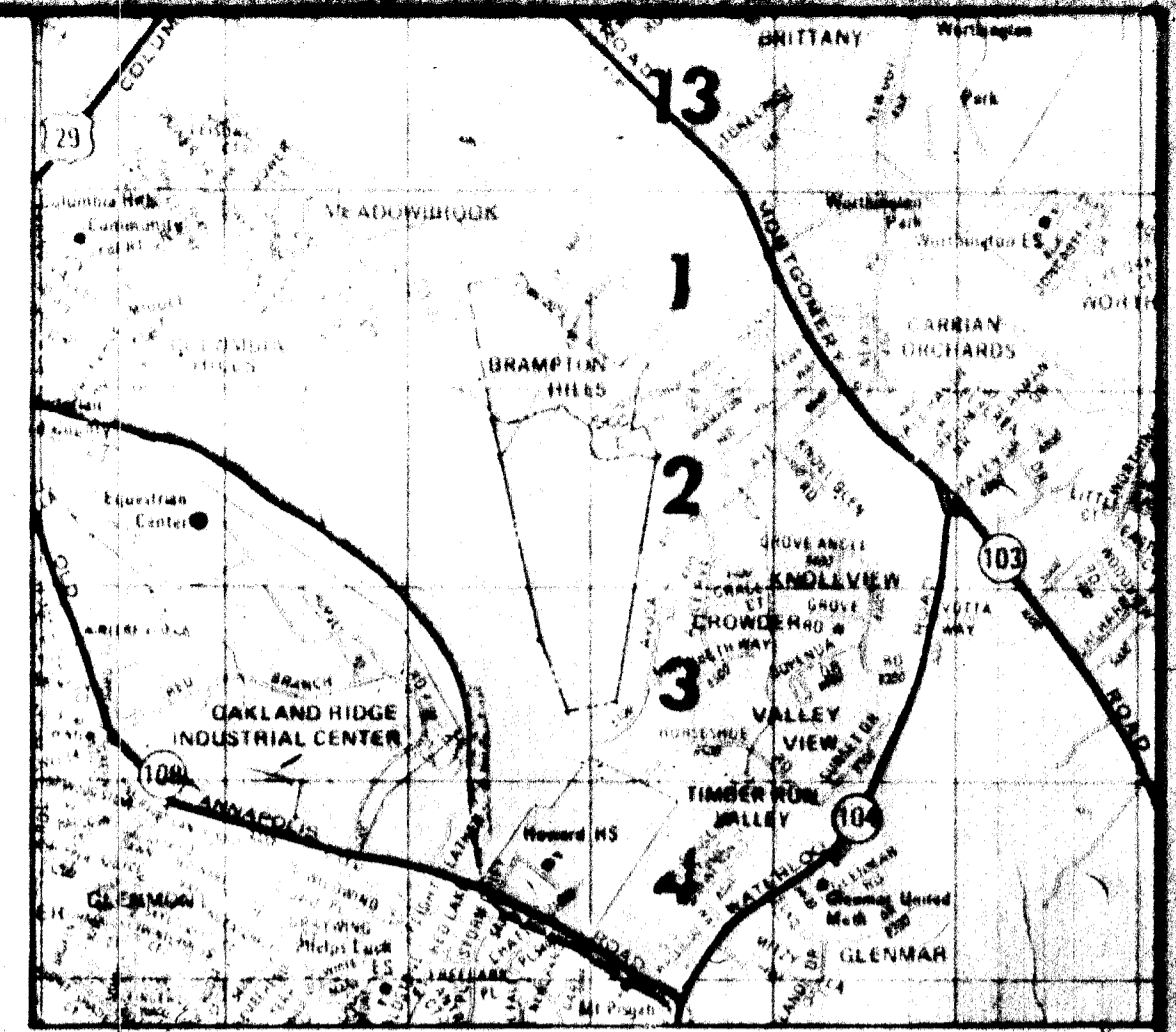
APPROVED: Howard County Office of Planning & Zoning
 [Signature] DATE 11-10-87
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
 1) Seven (7) calendar days for all perimeter sediment control structures, ditches, swales, ditches, perimeter slopes and all slopes greater than 3:1, 2) Fourteen (14) days for 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.

NOTE: HORIZONTAL AND VERTICAL CONTROL POINTS FOR R/W SHOWN HEREON WERE BASED ON EXISTING MONUMENTATION WITHIN THE SUBDIVISION. VERTICAL VALUES BASED ON MONUMENTATION SET BY CLARK, FINEBROCK & SACKETT SEPT. 1985 DURING AS-BUILT OF BRAMPTON PARKWAY (F 80-44)

NOTE: HOWARD COUNTY CONTROL POINTS 2843001 & 2843002 NOW DESTROYED



NOTE: LOT GRADING TO BE SHOWN ON SITE DEVELOPMENT PLAN TO BE SUBMITTED AT A LATER DATE.

PROPOSED MARYLAND ROUTE 100

PLAN SCALE 1"=100'

ASBUILT

Owner/Developer:
 DELTA CORPORATION
 101 QUESTNUT STREET
 GAITHERSBURG, MD 20878
 (301) 748-2018

NO.	REVISIONS	DATE
3	ADDED NOTES & 'ASBUILT'	9-7-87



DEVELOPMENT CONSULTANTS GROUP, INC.

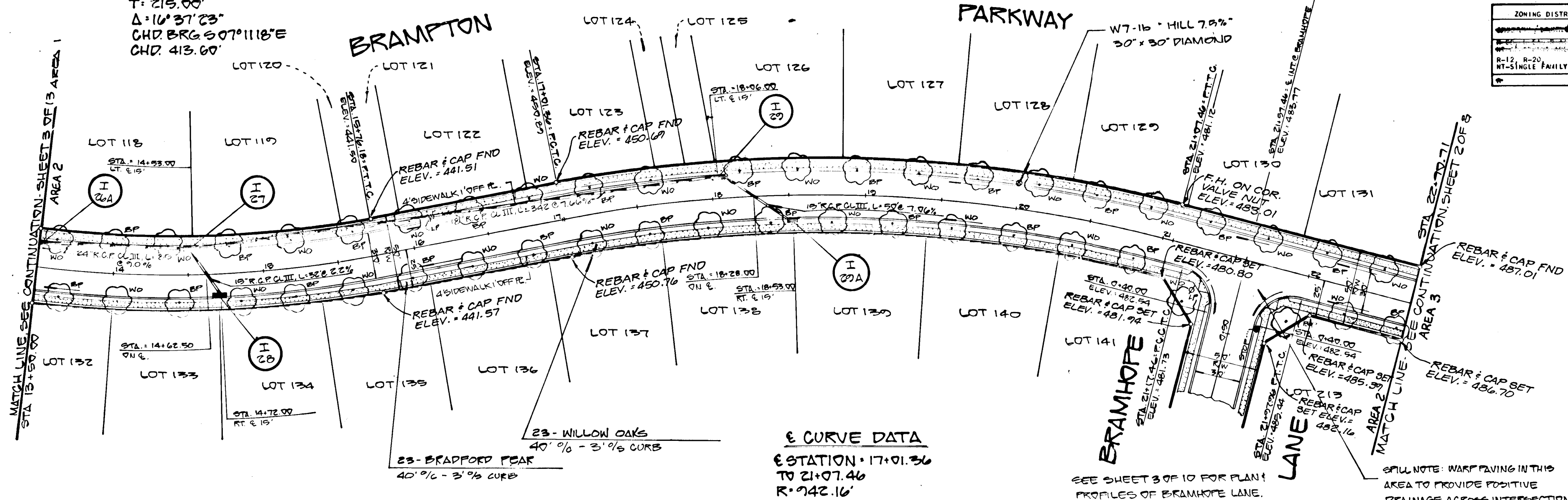
17904 GEORGIA AVENUE # 102
 OLNEY, MARYLAND 20832
 301-924-4570

DRAINAGE AREA MAP
 SECTION 4 - AREA 2
BRAMPTON HILLS
 TAX MAP 50491 PARCEL 50
 ELLICOTT CITY (2ND) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

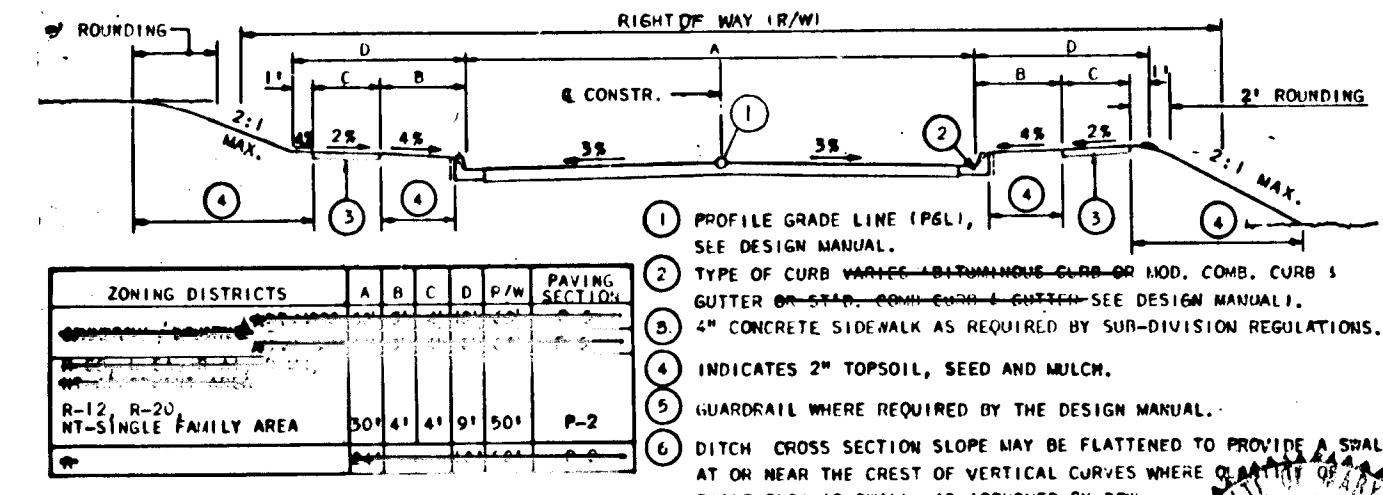
S-86-83	Sheet
P-87-09	1
F-88-50	67 10
	U.L.S.
1"=100'	160-02

F-88-50

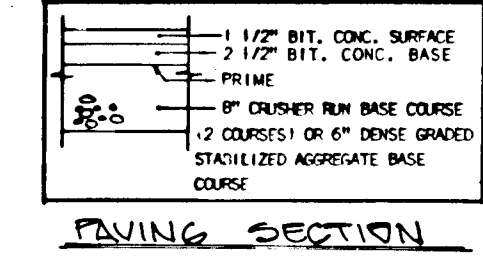
± CURVE DATA
 ± STATION 1146.24
 TO 15476.18
 R: 754.02'
 Δ: 418.74'
 T: 215.00'
 Δ: 16° 37' 23"
 CHD BRG 90° 11' 18"E
 CHD: 413.60'



± CURVE DATA
 ± STATION 17401.36
 TO 21074.46
 R: 742.16'
 Δ: 496.10'
 T: 276.25'
 Δ: 24° 41' 46"
 CHD BRG 50° 30' 07"E
 CHD: 402.76'



BRAMPTON PARKWAY
 STA. 13450.00 TO 22+70.71
 30' M.P.H. DESIGN SPEED
 LOCAL STREET



- NOTE:
1. All Handicapped ramps to be as per Howard Co. Standard R.4.04
 2. All driveways to be as per Howard Co. Standard R.6.03
 3. Maintain positive drainage at all times.

TREE PLANTING SCHEDULE

SYMBOL	SPECIES	N ^o	REMARKS
WO	WILLOW OAKS (QUERCUS PHELLODES)	34	B1B - 40' ± - 3' ± FACE CURB *
BP	BRADFORD CALLERY PEAR (PIRUS CALLERYANA 'BRADFORD')	54	"
LP	LONDON PLANE TREE (PLATANUS ACEIFOLIA)	16	"

NOTE: TREES ARE TO BE PLANTED NO CLOSER THAN 10' FROM ANY STORM DRAIN OR SANITARY SEWER STRUCTURE

LEGEND

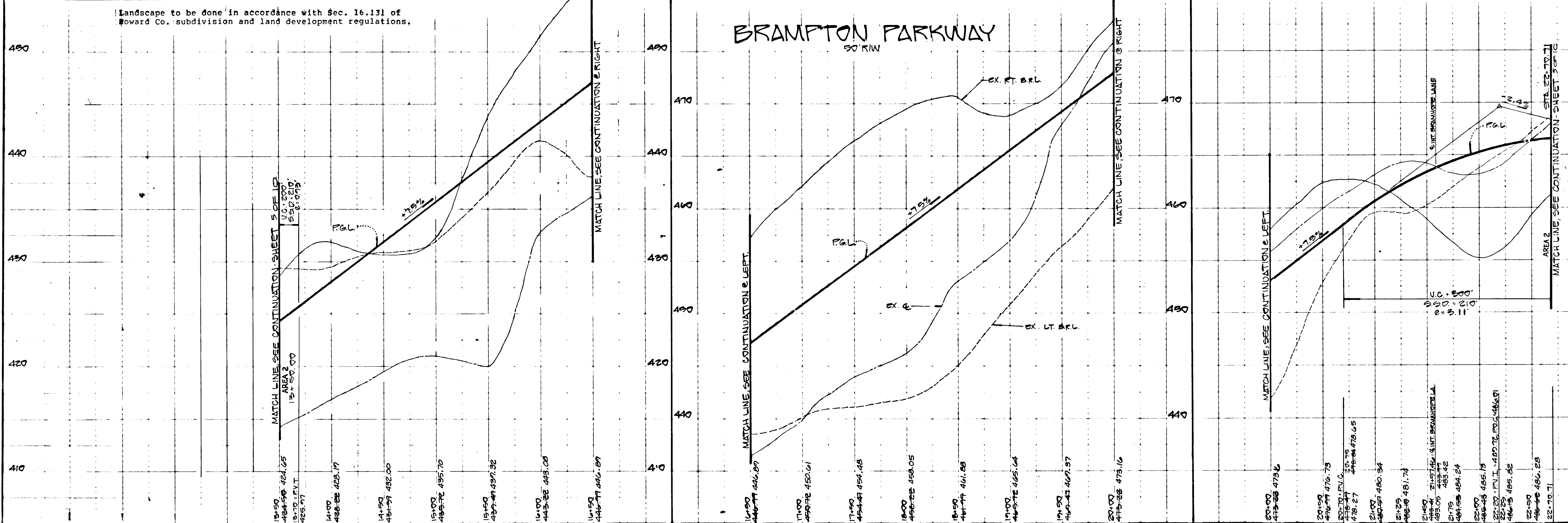
LP-175-watt transitional mercury vapor lamp post top fixtures on a 14-foot gray fiberglass pole located 2'-10" from back of curb at the locations shown on the plan thus ± LP

- R1-1 STD. 5' HIGH - 30" x 30" OCTAGON
- R2-1 STD. 5' HIGH - 24" x 30" RECTANGLE (25 M.P.H. & 30 M.P.H. AS NOTED ON PLANS)

SIGNS TYPICAL THROUGHOUT SUBDIVISION.

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

Landscape to be done in accordance with Sec. 16.131 of Howard Co. subdivision and land development regulations.



LEGEND

P.G.L. (E) ————
 EX. & RIGHT OF WAY ————
 75' B.R.L. LEFT ————
 75' B.R.L. RIGHT ————

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."

[Signature] 04/05/87 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."

[Signature] 04/05/87 DATE

REVIEWED FOR: *[Signature]* S.C.D.
 AND MEETS TECHNICAL REQUIREMENTS
[Signature] 4/3/87 DATE
 U.S. SOIL CONSERVATION SERVICE

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

[Signature] 4/3/87 DATE
 HOWARD S.C.D.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 11/19/87 DATE
 Chief, Land Development Division

[Signature] 11/19/87 DATE
 Chief, Bureau of Engineering

APPROVED: Howard County Office of Planning & Zoning
[Signature] 11/19/87 DATE
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
 1) Seven (7) calendar days for all perimeter sediment control structures, ditches, swales, ditches, perimeter slopes and all slopes greater than 3:1; 2) Fourteen (14) days for 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.

CONTRACT: DELTA CORPORATION
 101 CHESTNUT STREET
 GAITHERSBURG, MD 20877
 (301) 748-2918

4 ADDED REBAR & CAP ELEV. & REV. P.G.L. EL. 07-91

DEVELOPMENT CONSULTANTS GROUP, INC.
 1704 GEORGIA AVENUE S-102
 OLNEY, MARYLAND 20832
 301-724-4570

GRADE ESTABLISHMENT AND STORM DRAIN PLAN
 SECTION 4 - AREA 2
BRAMPTON HILLS
 TAX MAP: 50 (S1) PARCEL: 30
 ELWICOTT CITY (2ND) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

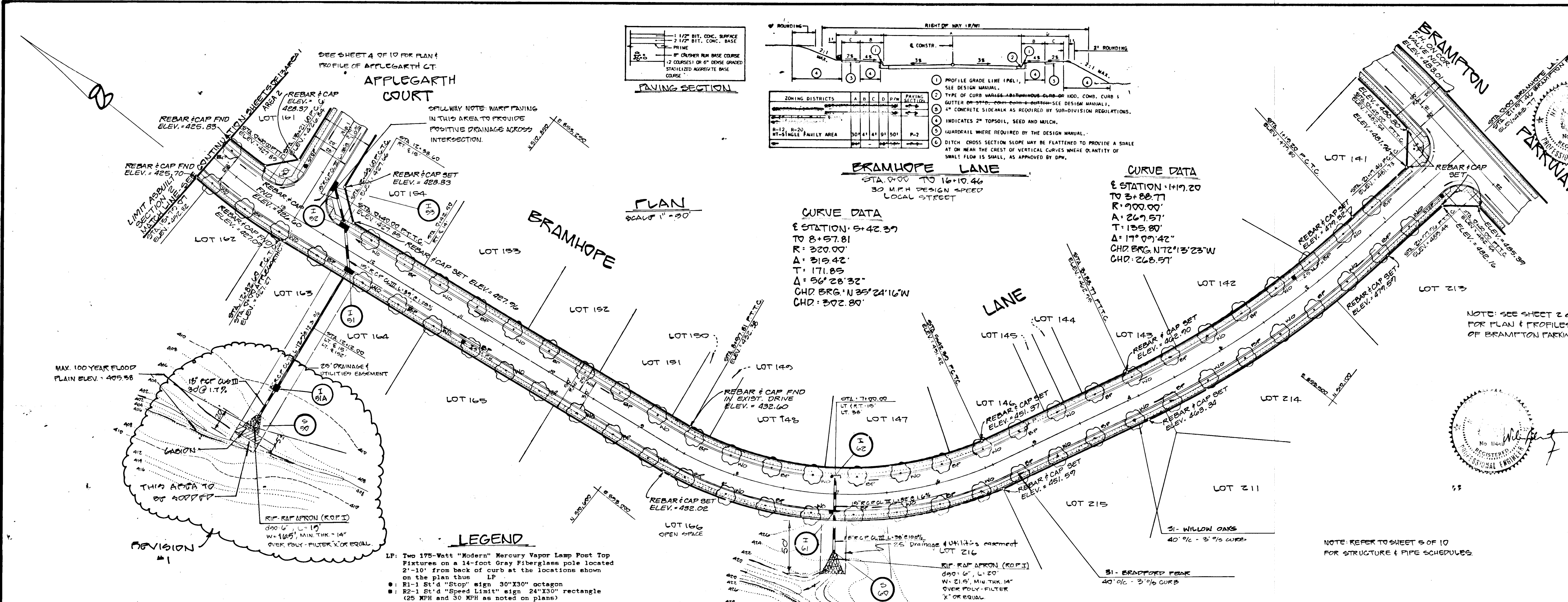
S-84-83
 P-87-09
 F-88-50

MARCH 1987
 DRAWN: MIKE L.
 CHECKED: M.L.S.
 SCALE: AS SHOWN

SHEET 2 OF 10
 PROJECT NO. 160-02

820

F-88-50



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.
Date: March 12, 1987

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.
Date: 04/09/87

REVIEWED FOR: *[Signature]* S.C.D.
AND MEETS TECHNICAL REQUIREMENTS
Date: 11/3/87
U.S. SOIL CONSERVATION SERVICE

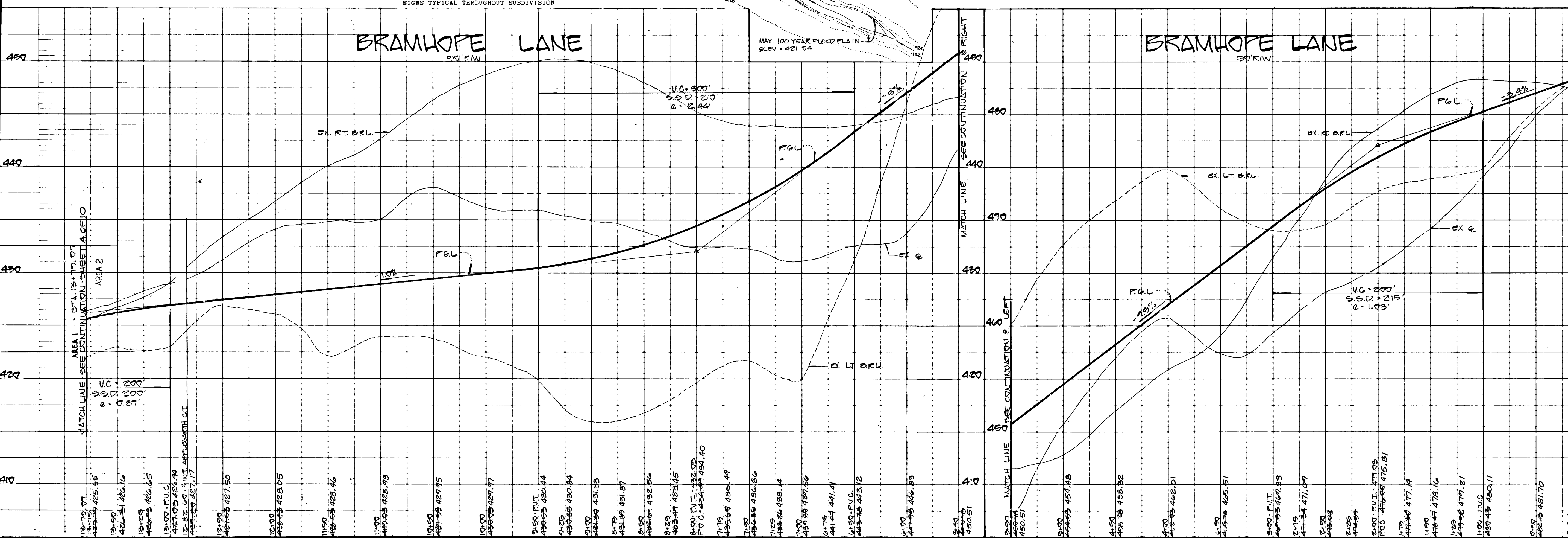
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Date: 11/3/87

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Date: 11/9/87
APPROVED: Bureau of Highways
Date: 11/9/87
APPROVED: Bureau of Engineering
Date: 11/9/87

APPROVED: Howard County Office of Planning & Zoning
Date: 11-10-87
AND ZONING ADMINISTRATION

Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
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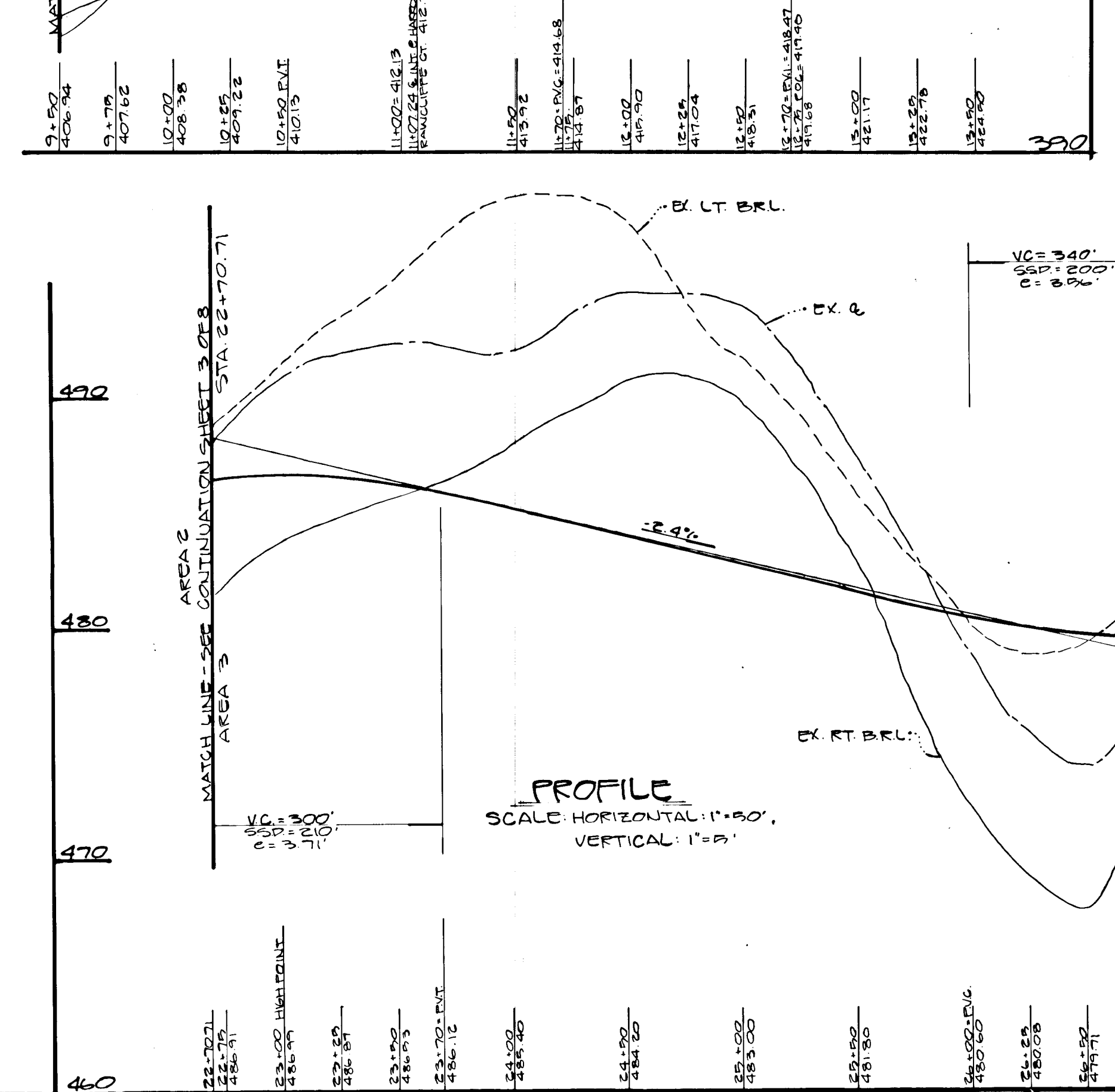
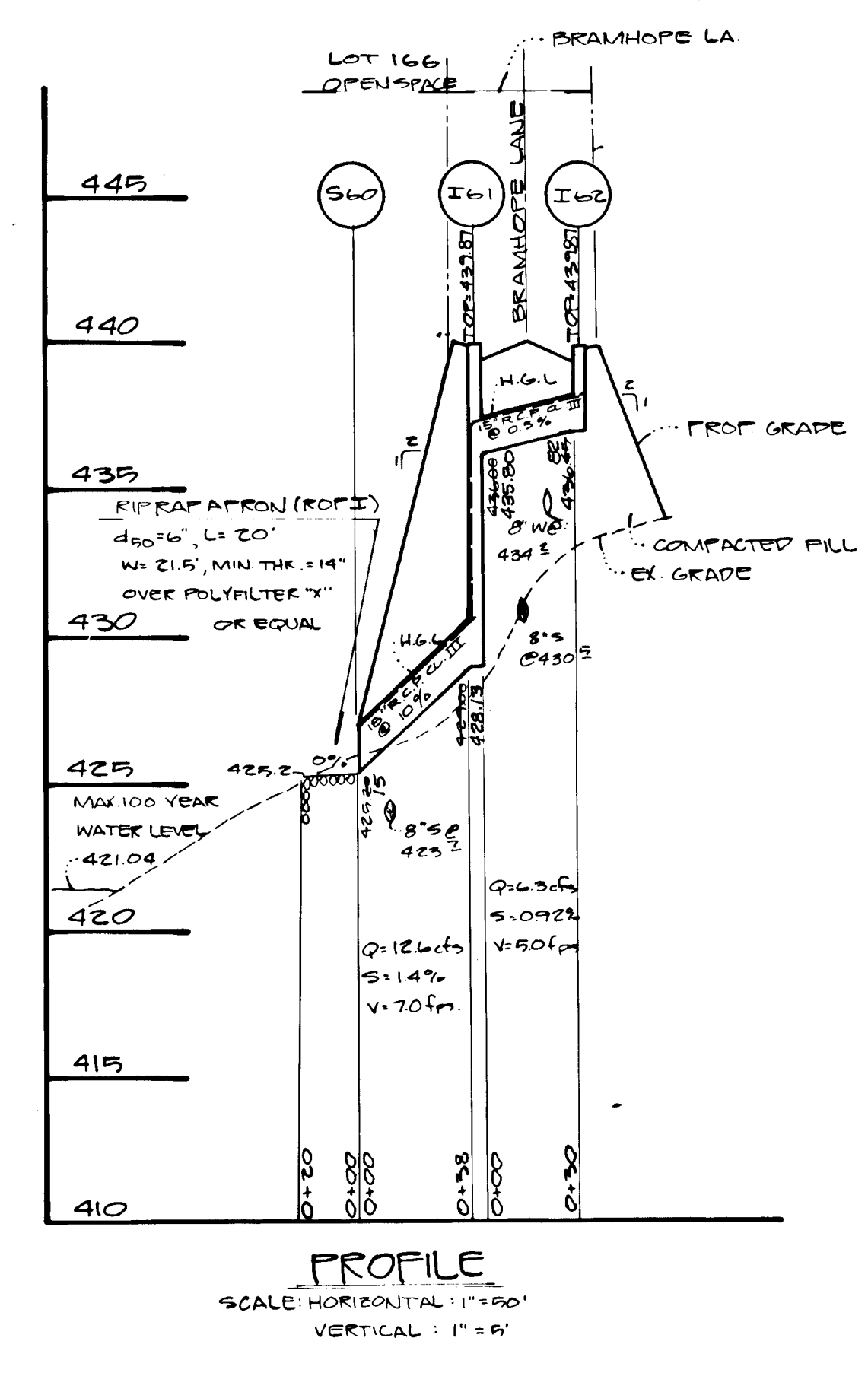
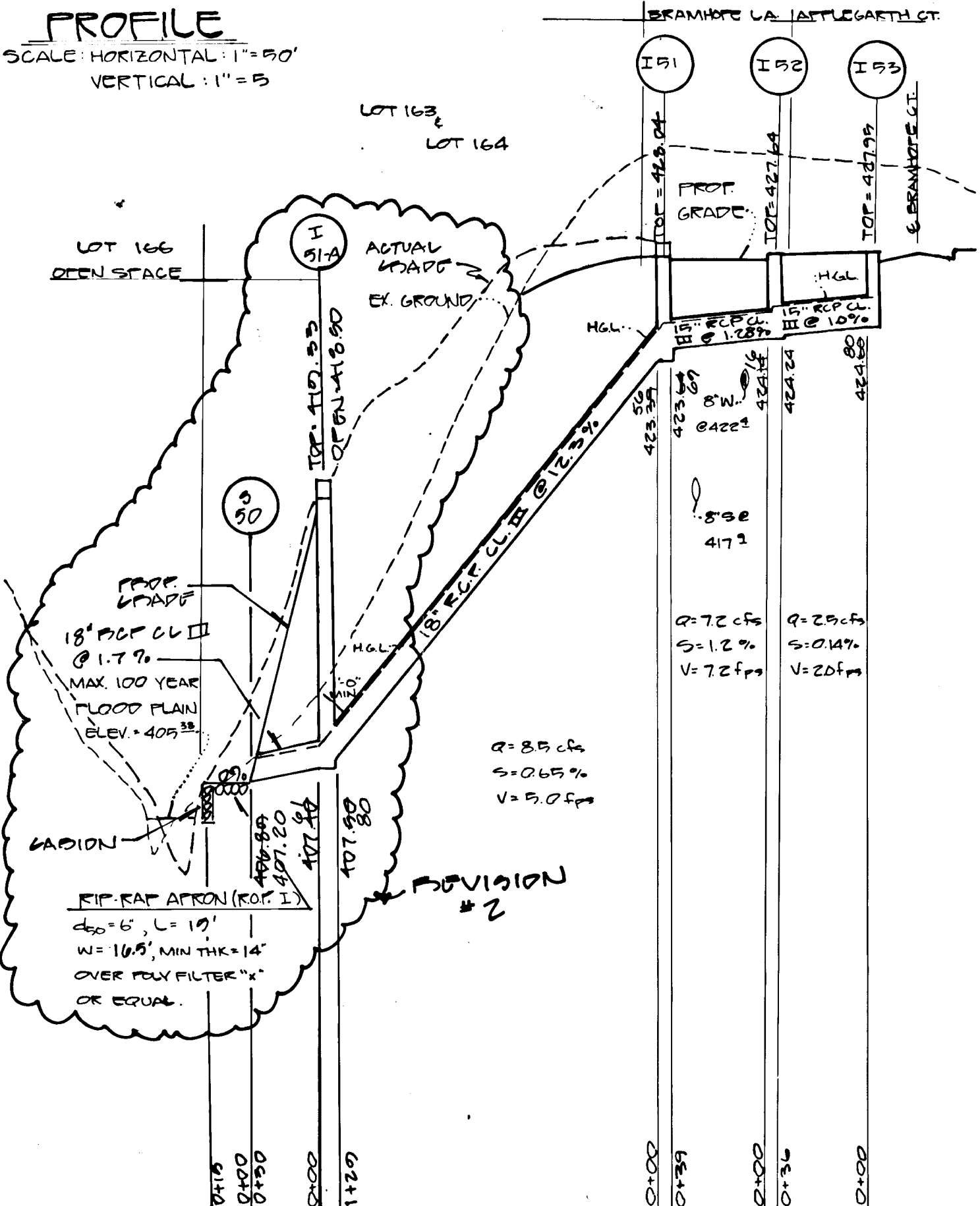
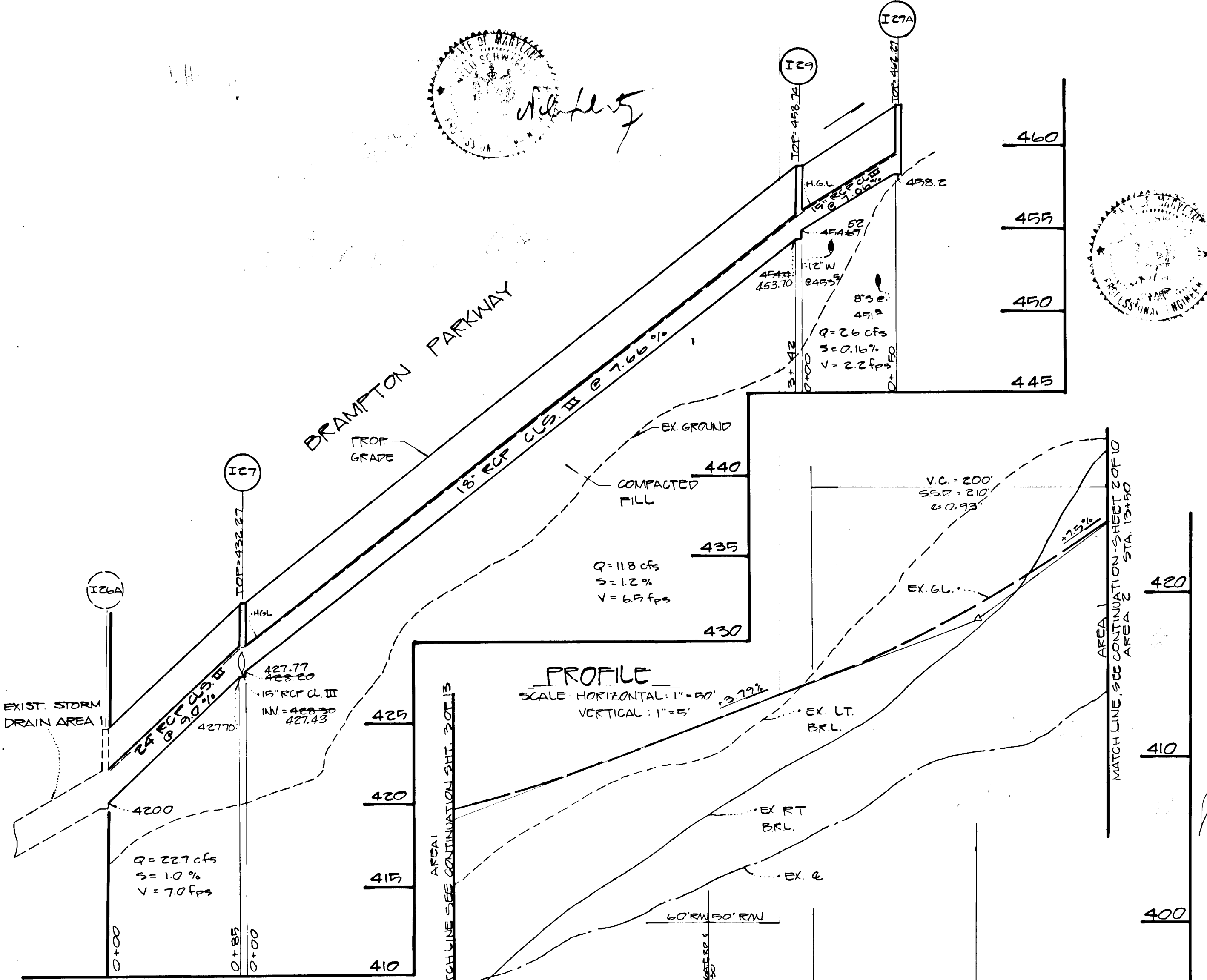
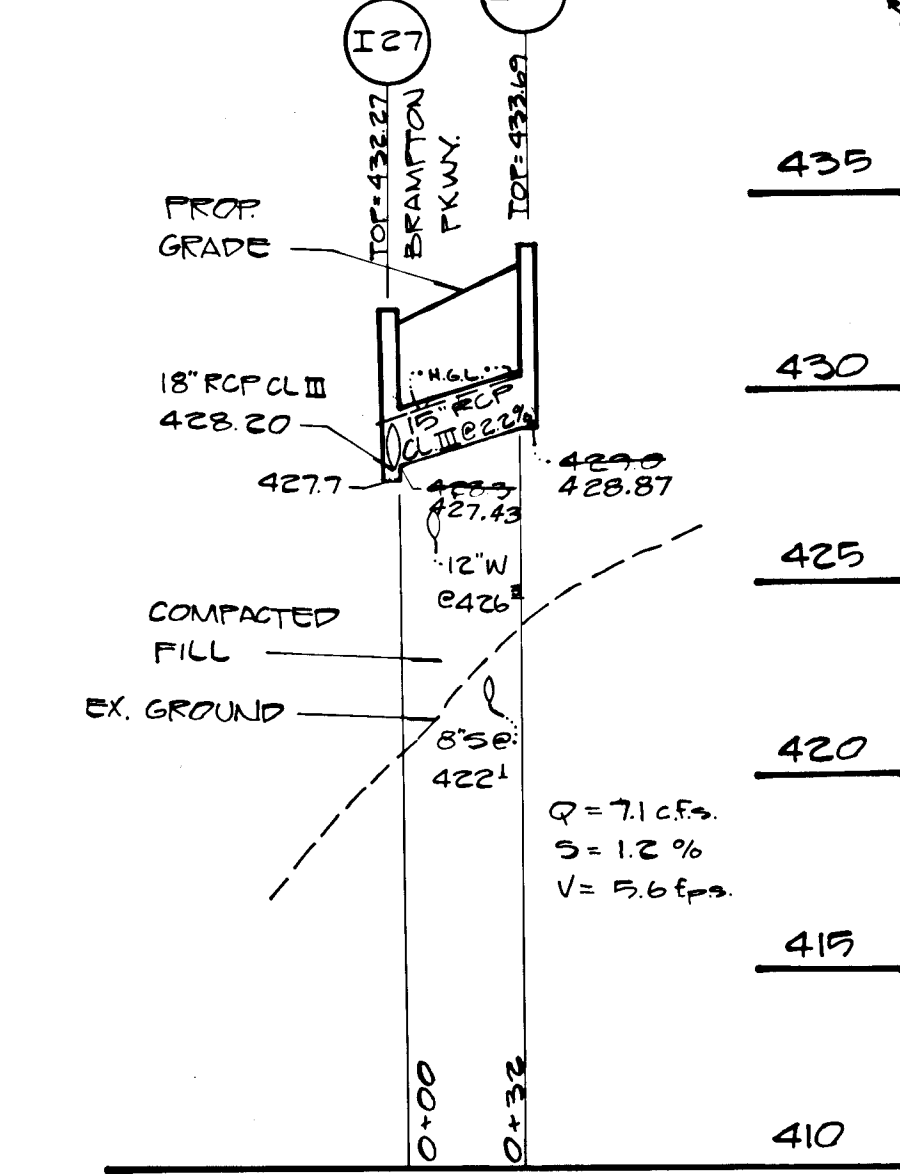
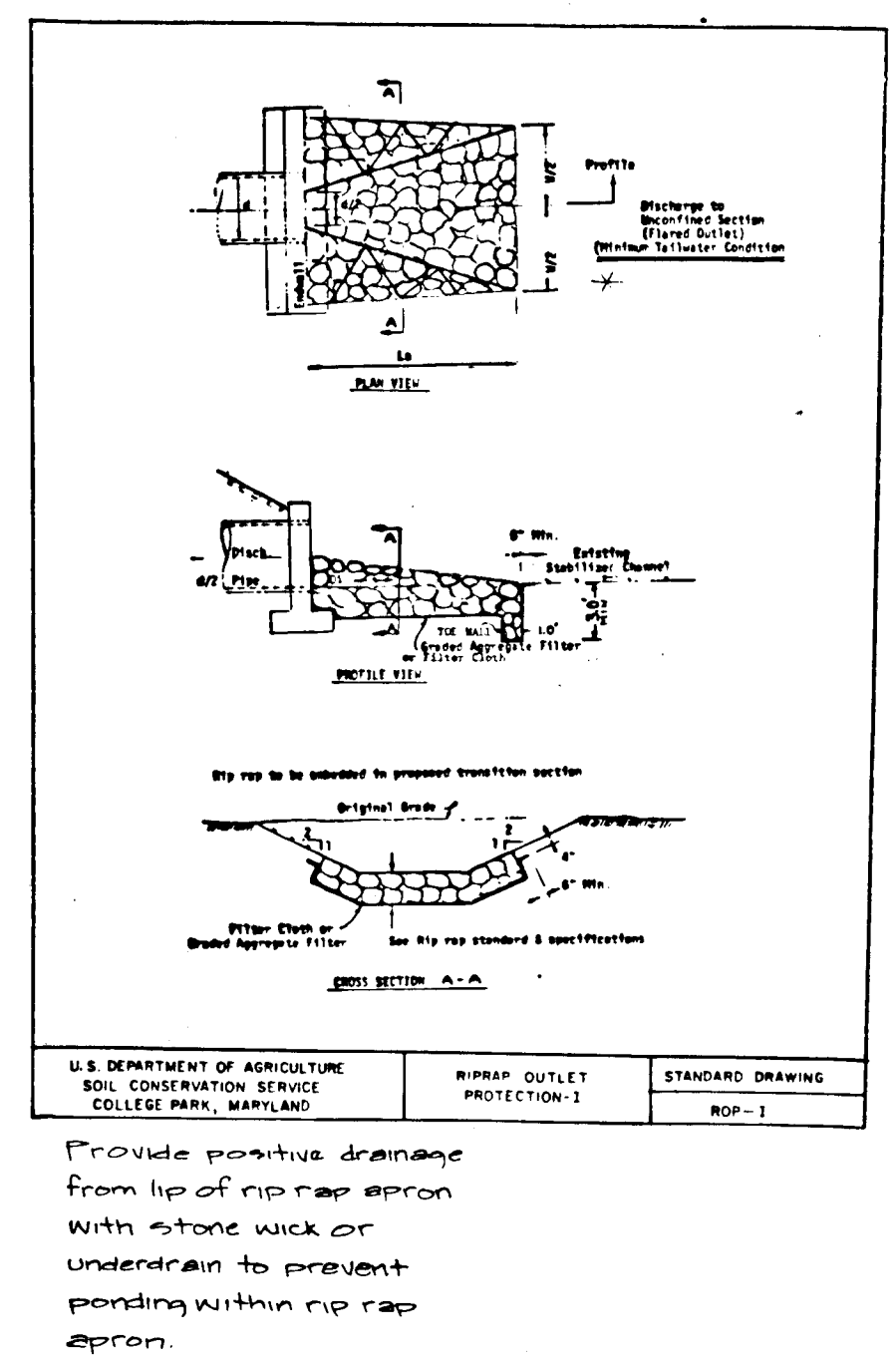
CONTRACT: DELTA CORPORATION 101 CHESTNUT STREET GAITHERSBURG, MD 20877 (301) 946-2918	NO. 1 REVISED: 1. ADD I-91-A; MOVE 0.90 2. ADDED REBAR+CAP ELEV. & REV. P.G.L. EL.	DATE: 6-6-87 9-9-87	DEVELOPMENT CONSULTANTS GROUP, INC. 17904 GEORGIA AVENUE S-102 OLNEY, MARYLAND 20832 301-924-4570	GRADE ESTABLISHMENT AND/STORM DRAIN PLAN SECTION 4 - AREA 2 "BRAMPTON HILLS" TAX MAP: 30 424, PARCEL: 20 BLUICOTT CITY (2ND) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	S - 86-83 T - 87-09 P - 88-90	DATE: MARCH, 1987 DRAWN: MIKE L. CHECKED: M.L.S. SCALE: AS SHOWN	SHEET 3 OF 10 PROJECT NO. 160-02
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STRUCTURE SCHEDULE

No.	TYPE	TOP ELEVATION		INLET ELEVATION		STANDARD	CONST AREA
		HIGH	LOW	IN	OUT		
I-27	TYPE A-10 INLET WITH REFLECTOR	432.65	431.99	422.49	427.98	STD. 4.02 + STD 4.83	2
I-28	TYPE DOUBLE 'S' COMB INLET PERFOR. PARALLEL	433.80	433.80	427.77	427.77	STD. 4.34 + STD 4.81	2
I-29	TYPE DOUBLE 'S' COMB INLET PERFOR. PARALLEL	458.99	458.99	454.49	454.49	STD. 4.34 + STD 4.81	2
I-29A	TYPE A-5 INLET WITH REFLECTOR	462.95	462.08	-	427.93	STD. 4.01 + STD 4.83	2
S-50	18" CONC. END SECTION	-	-	-	407.80	STD. 5.51	2
I-51	TYPE A-5 INLET	423.99	423.99	423.89	423.89	STD. 4.01	2
I-52	TYPE A-10 INLET	427.69	427.69	424.83	424.83	STD. 4.02	2
I-53	TYPE A-5 INLET WITH REFLECTOR	428.89	427.92	-	424.83	STD. 4.01 + STD 4.83	2
S-60	18" CONC. END SECTION	-	-	-	425.15	STD. 5.51	2
I-61	TYPE DOUBLE 'S' COMB INLET PERFOR. PARALLEL	440.80	439.70	428.09	428.09	STD. 4.34 + STD 4.81	2
I-62	TYPE DOUBLE 'S' COMB INLET PERFOR. PARALLEL	440.80	439.70	428.09	428.09	STD. 4.34 + STD 4.81	2
I-61A	PERFOR. TYPE 'C' INLET	419.89	418.96	407.80	407.80	STD. 5.51	2

PIPE SCHEDULE

TYPE	SIZE	LENGTH
RCP CL III	18"	187 LF
RCP CL III	18"	99 LF
RCP CL III	24"	89 LF



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 DATE: 10/27/87

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 AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE: 10/29/87

REVIEWED FOR: [Signature] S.C.D.
 AND MEETS TECHNICAL REQUIREMENTS
 DATE: 11/3/87
 U.S.G. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE: 11/3/87
 HOWARD S.C.D.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 11-10-87

COUNTY HEALTH OFFICER
 APPROVED: Howard County Office of Planning & Zoning
 DATE: 11-10-87

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DATE: 11-10-87

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DATE: 11/9/87

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DATE: 11-9-87

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LEGEND

RGL _____
 EX. GL. _____
 EX. & RIGHT OF WAY _____
 75' B.R.L. LEFT _____
 75' B.R.L. RIGHT _____

Owner/Developer: DELTA CORPORATION 101 CHESTNUT STREET GAITHERSBURG, MD 20877 301-948-2918	NO. REVISIONS DATE
2 APP. I-61A & MOVE 550	6-6-90
7 REVISED INV.'S ON SCHEDULE & PROFILES	9-9-91

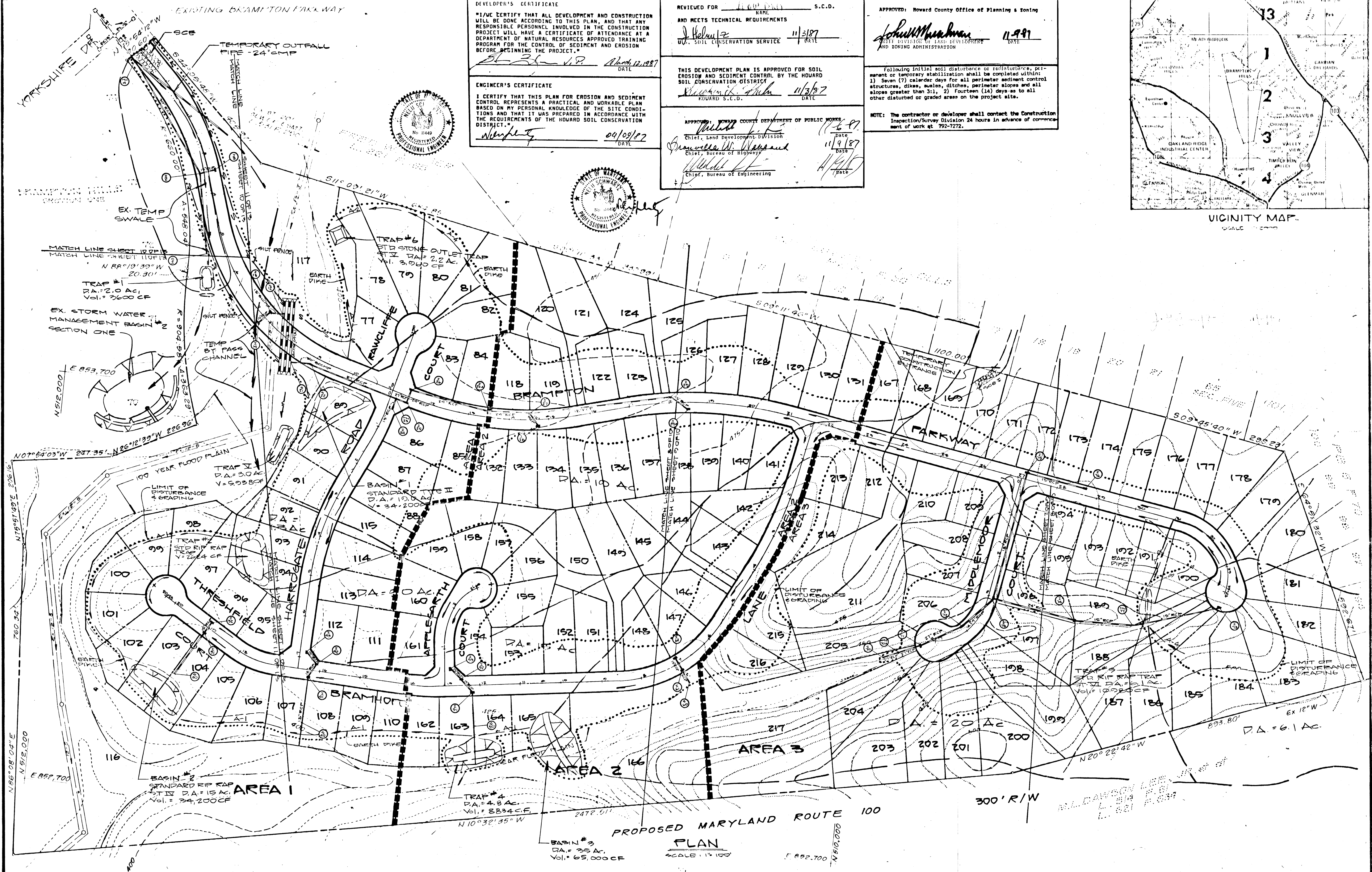
DEVELOPMENT CONSULTANTS GROUP, INC.
 17904 GEORGIA AVENUE # 102
 OLNEY, MARYLAND 20832
 301-924-4570

STORM DRAIN PROFILES & DETAIL SHEET
 SECTION 4 - AREA 2
BRAMPTON HILLS
 TAX MAP: 501 51, PARCEL: 30
 ELLICOTT CITY (2ND) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

S-86-83	DATE: 10/27/87	Sheet 5 of 10 PROJECT NO. 160-02
P-87-07	DRAWN: S.M.B.	
F-88-50	CHECKED: M.L.S.	
	SCALE: AS SHOWN	

820

F-88-50



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.
 [Signature] DATE: 11/3/87

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 [Signature] DATE: 04/09/87

REVIEWED FOR: [Signature] S.C.D.
 AND MEETS TECHNICAL REQUIREMENTS
 [Signature] DATE: 11/3/87
 U.S. SOIL CONSERVATION SERVICE

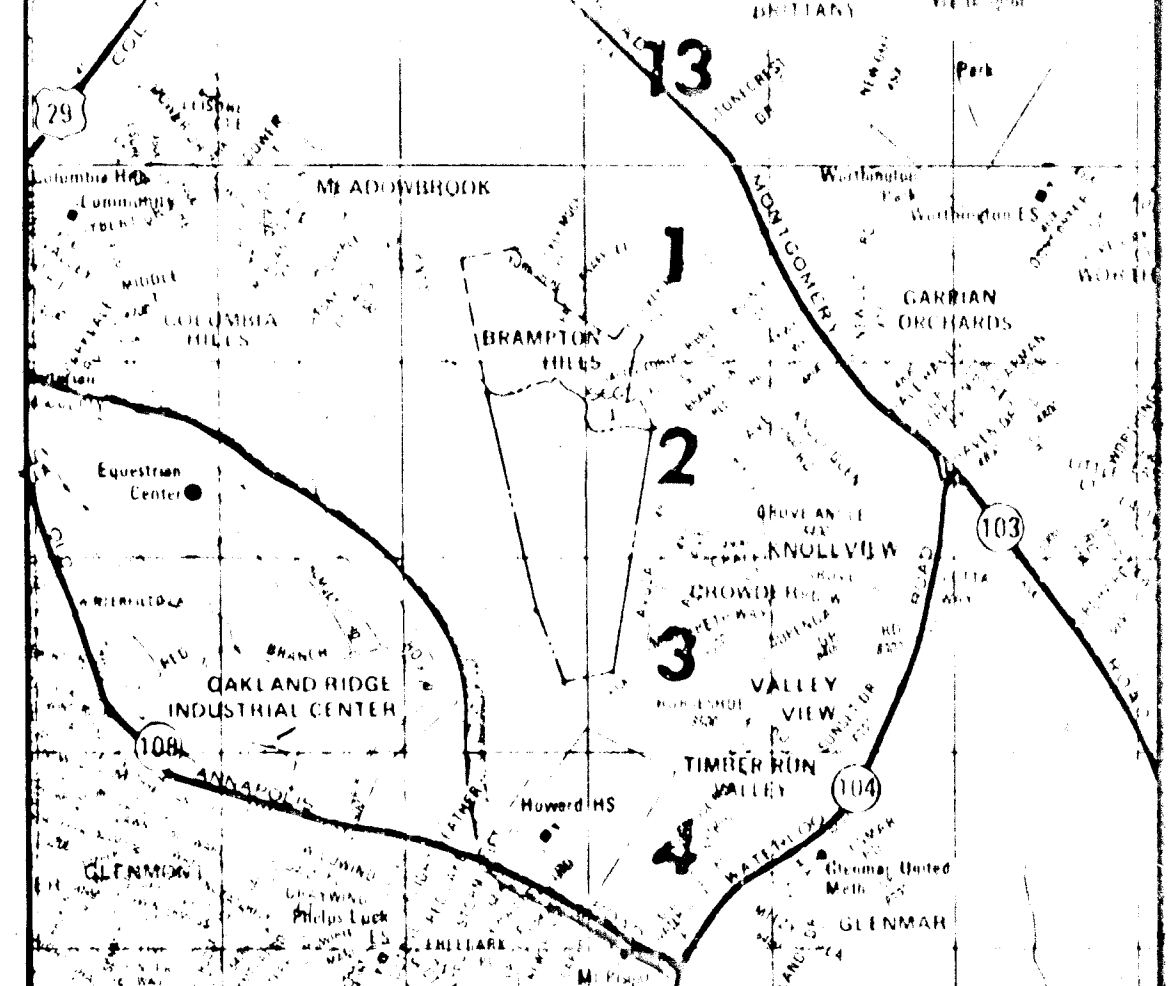
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 [Signature] DATE: 11/3/87
 HOWARD S.C.D.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] DATE: 11/6/87
 Chief, Land Development Division
 [Signature] DATE: 11/9/87
 Chief, Bureau of Highway
 [Signature] DATE: 11/9/87
 Chief, Bureau of Engineering

APPROVED: Howard County Office of Planning & Zoning
 [Signature] DATE: 11-9-87
 OFFICE DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

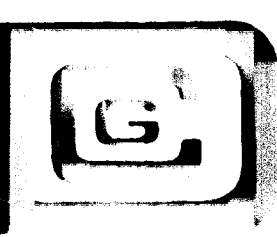
Following initial soil disturbance or redistribution, placement or temporary stabilization shall be completed within:
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NOTE: The contractor or developer shall contact the Construction Inspection/Survey Division 24 hours in advance of commencement of work at 792-7272.



PLAN
 SCALE: 1" = 100'

NO.	REVISIONS	DATE

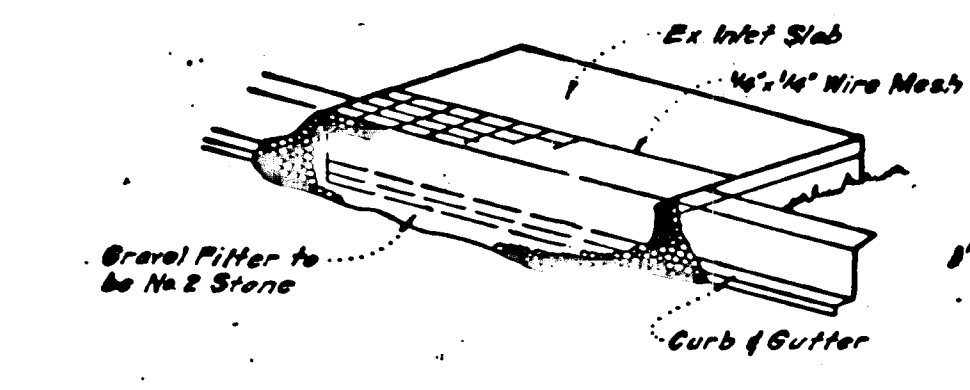


DEVELOPMENT CONSULTANTS GROUP, INC.
 17904 GEORGIA AVENUE # 102
 OLNEY, MARYLAND 20832
 301-924-4570

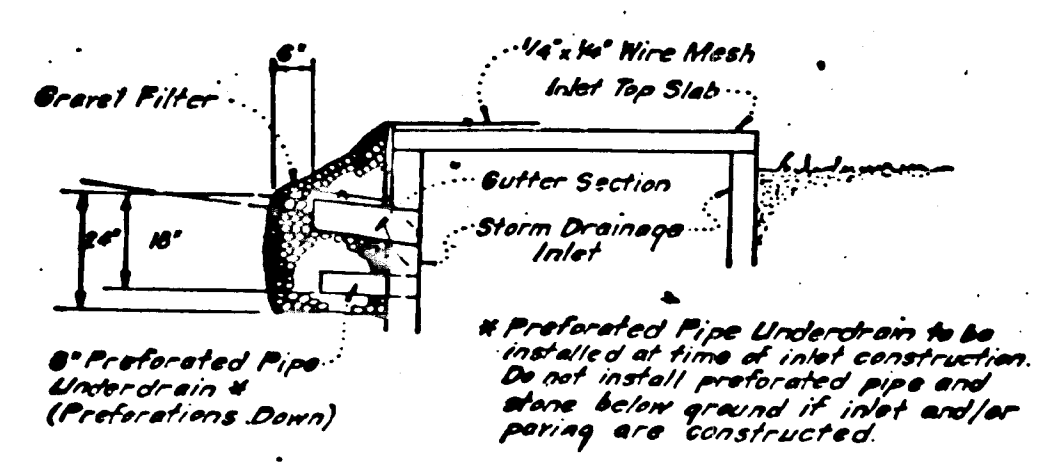
SEDIMENT & EROSION CONTROL PLAN
 SECTION 4 - AREA 2
BRAMPTON HILLS
 TO MAP 3031 PARCEL 50
 ELLICOTT CITY (2ND) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

S-86-83	Sheet 6 of 10 PROJECT NO. 160-02
F-87-00	
F-88-50	

F-88-50

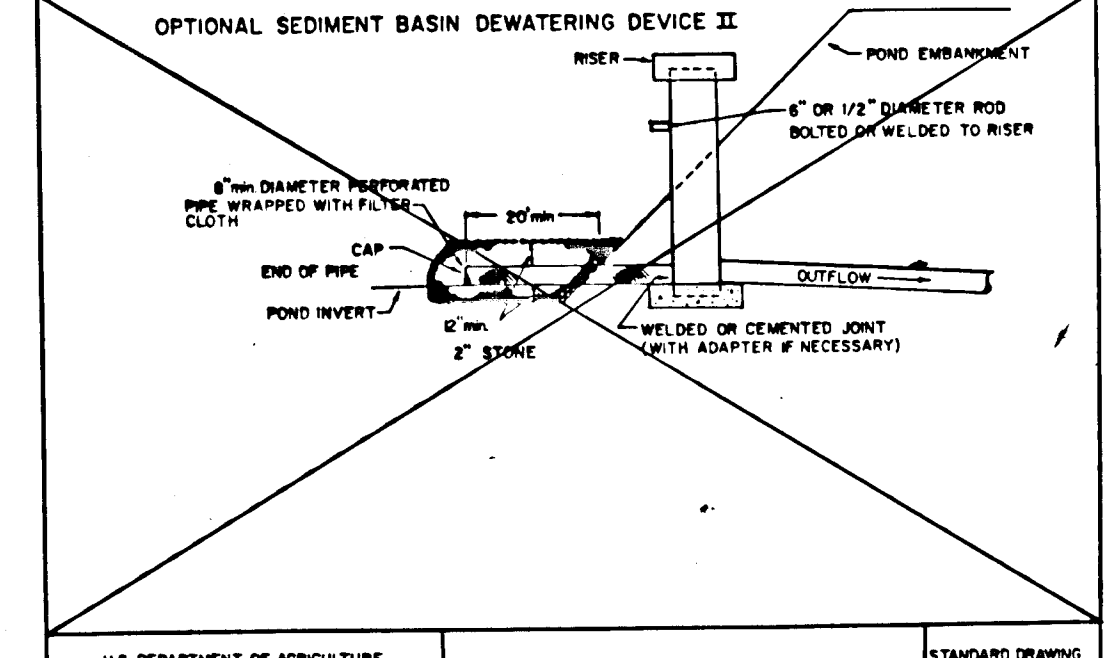
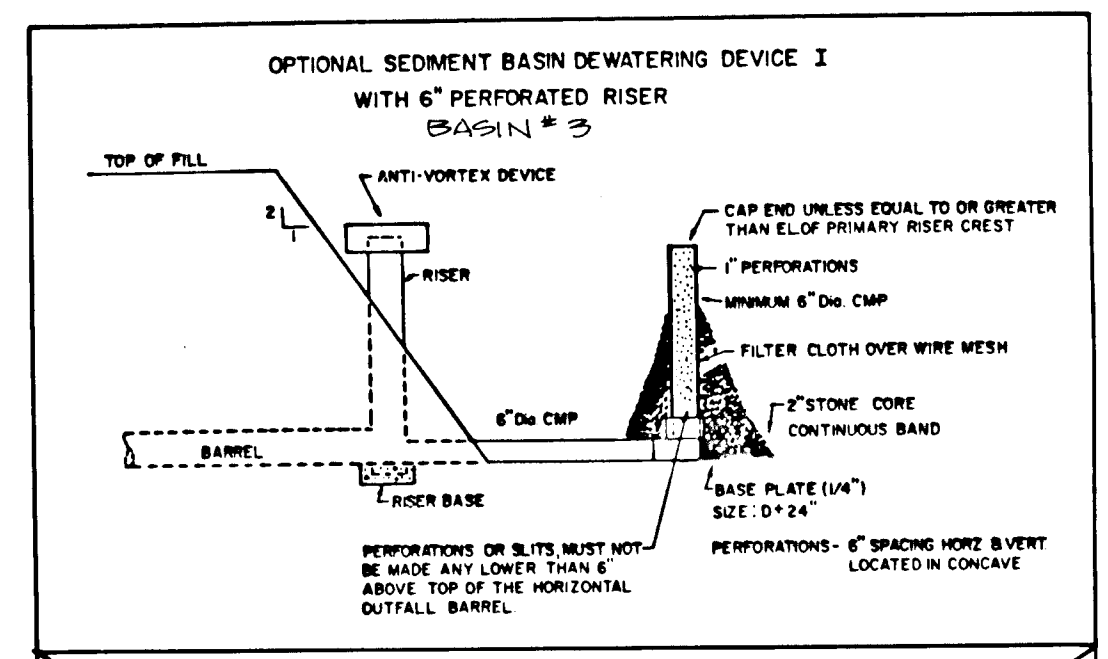


ISOMETRIC VIEW

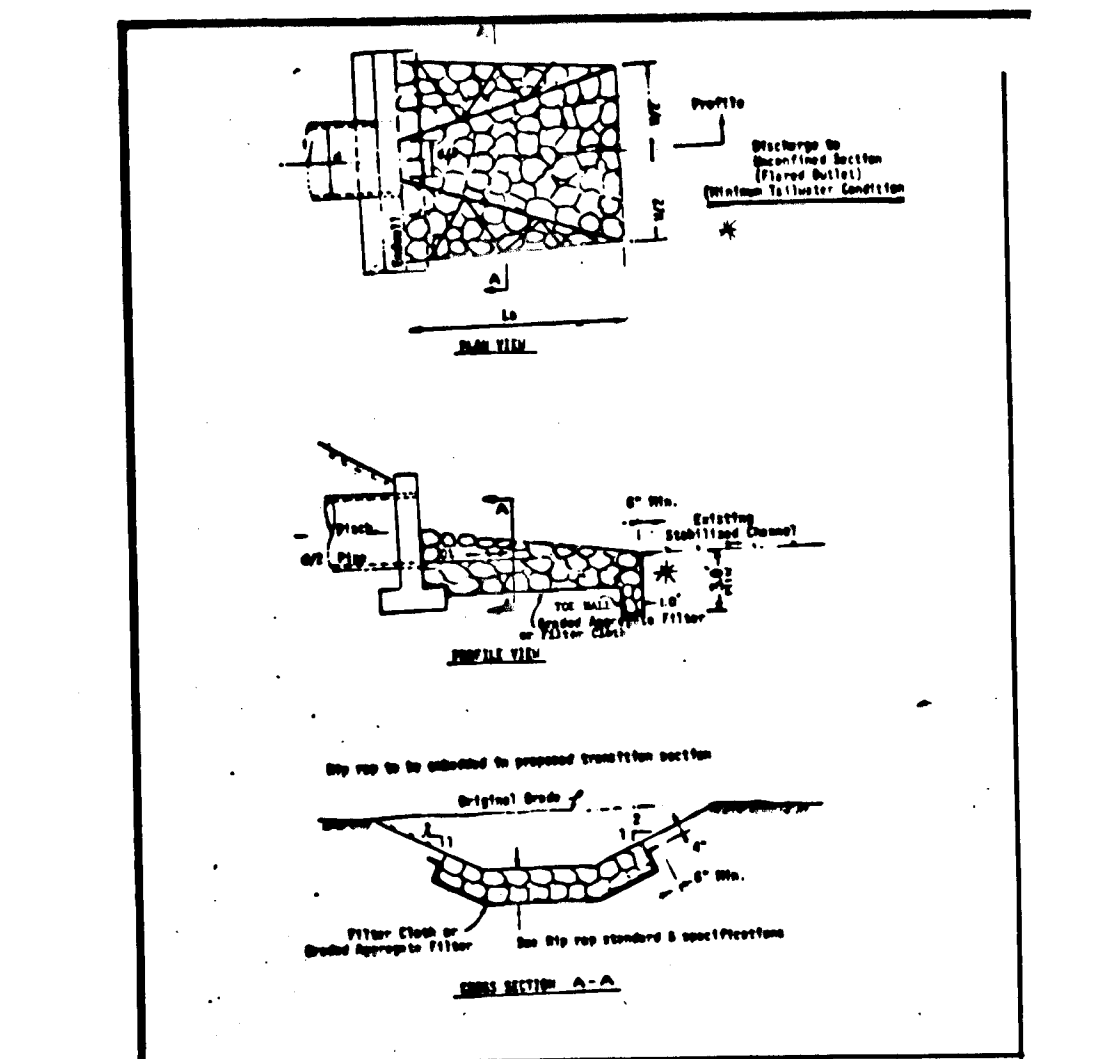


SECTION VIEW

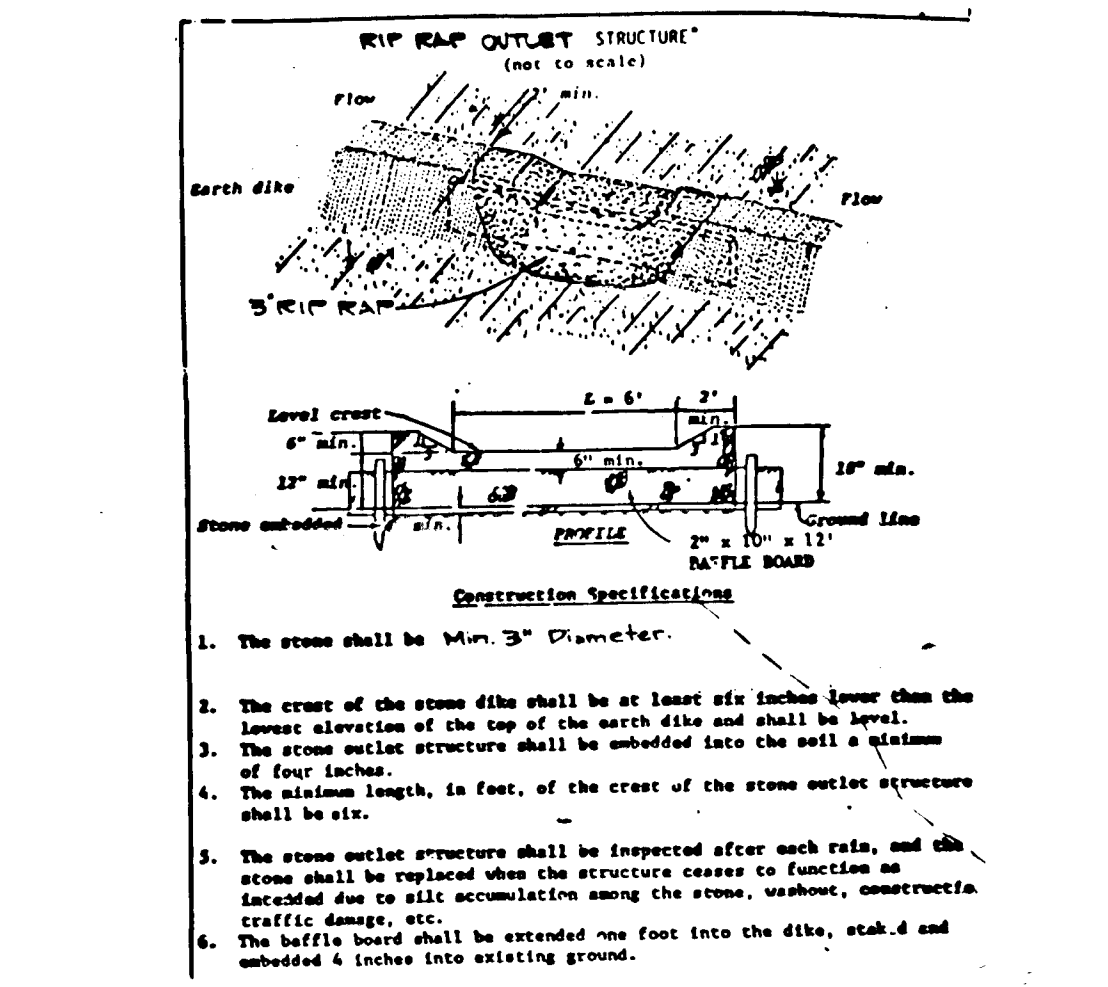
STONE FILTER INLET PROTECTION (S.F.I.P.)



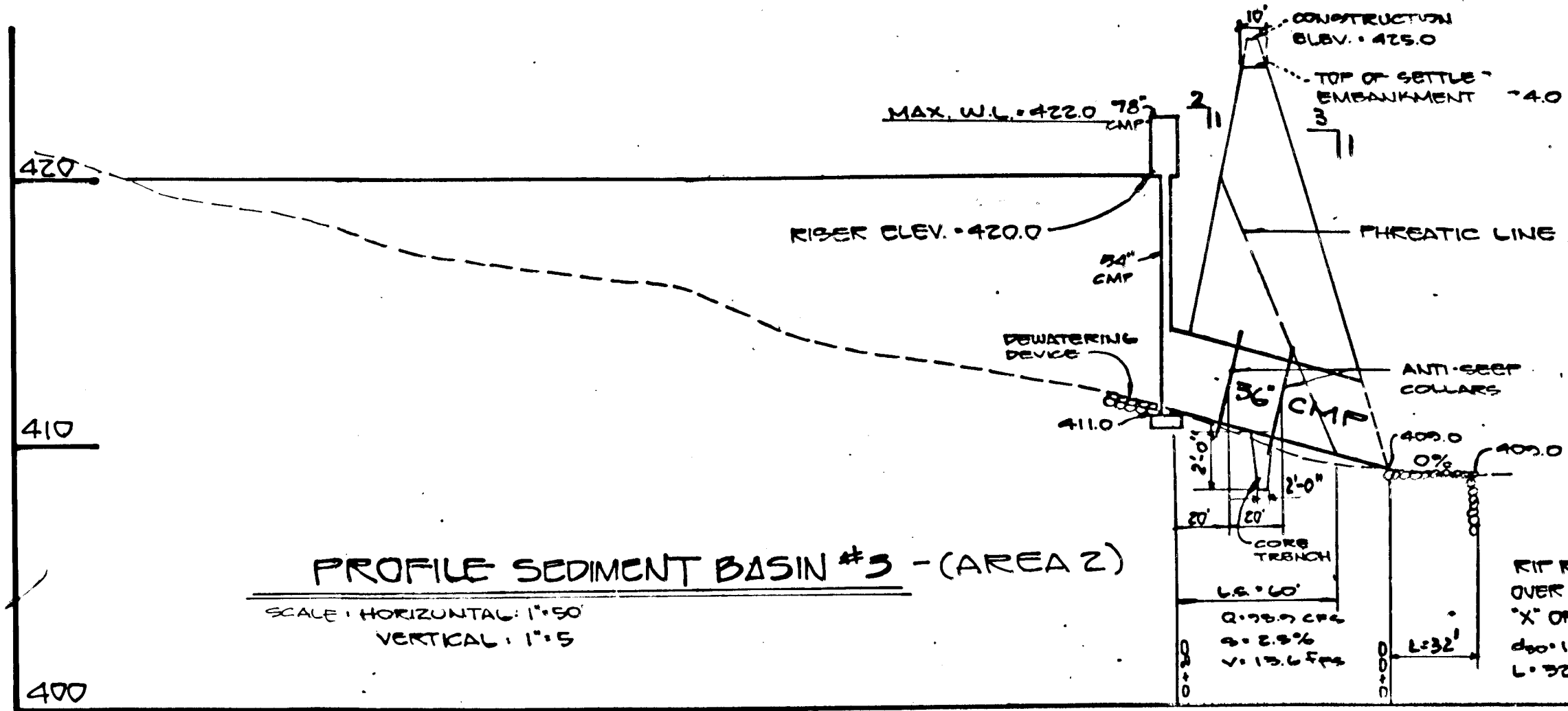
OPTIONAL SEDIMENT BASIN DEWATERING DEVICES



RISER OUTLET PROTECTION-1

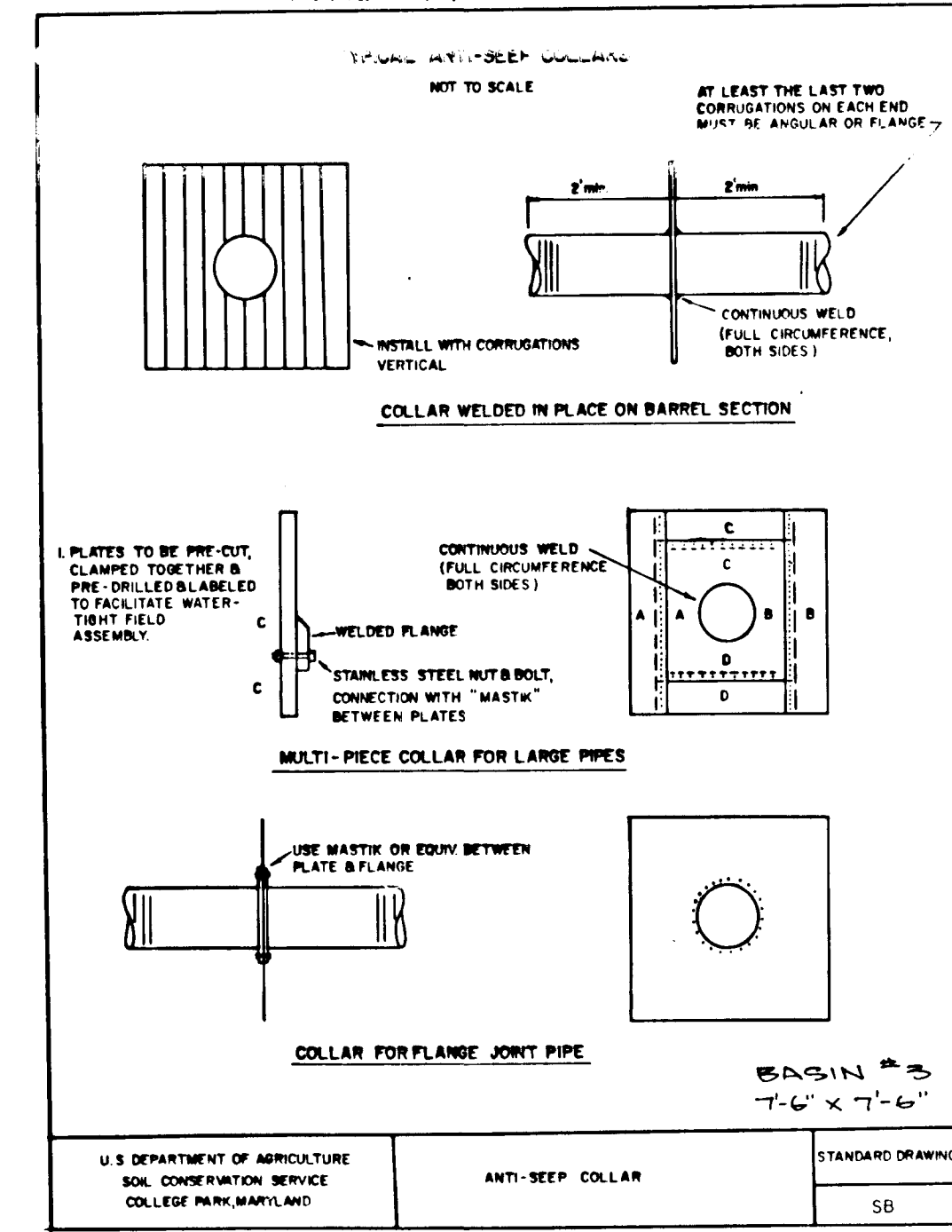


RIP RAP OUTLET STRUCTURE

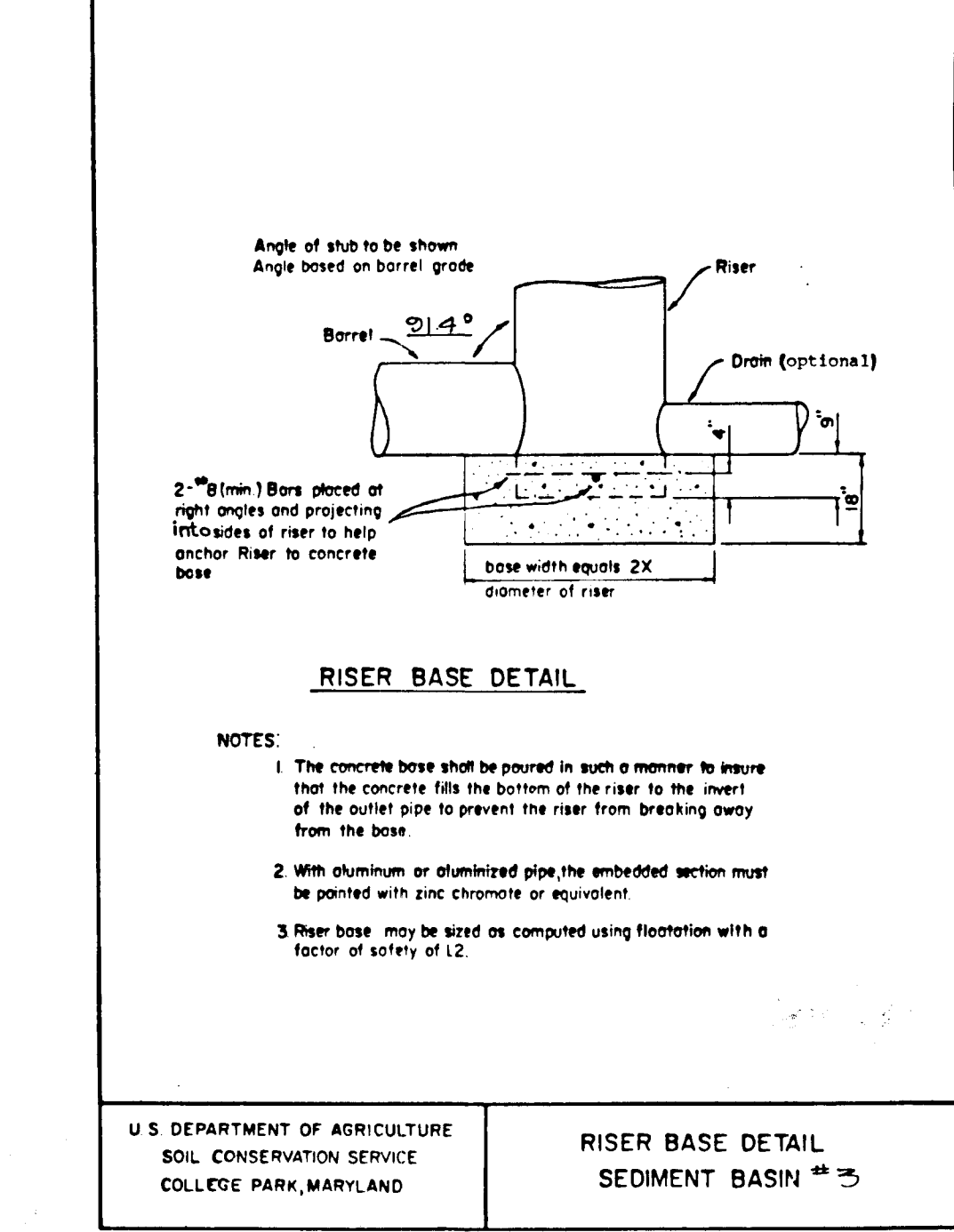


PROFILE SEDIMENT BASIN #3 - (AREA 2)

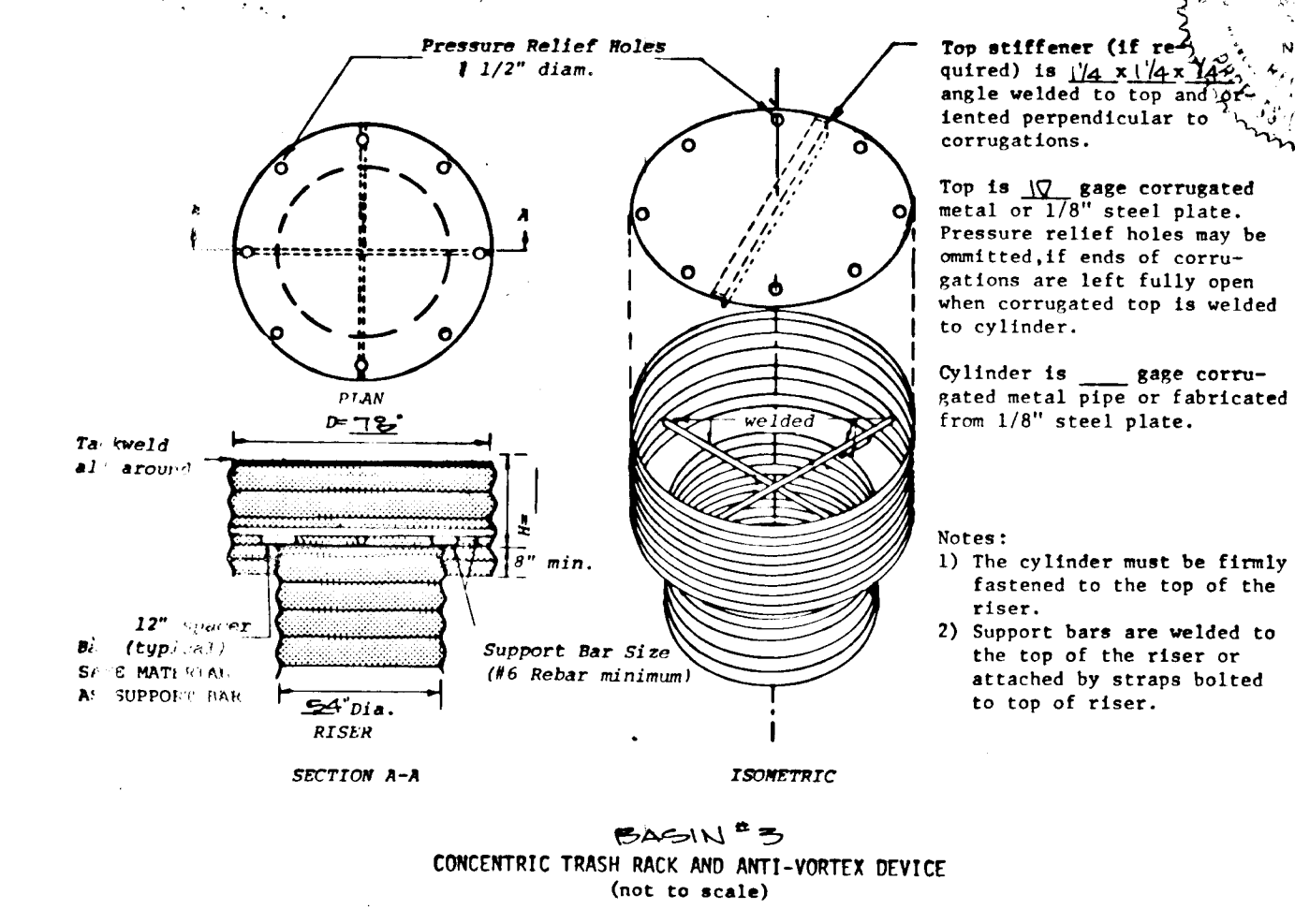
SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'



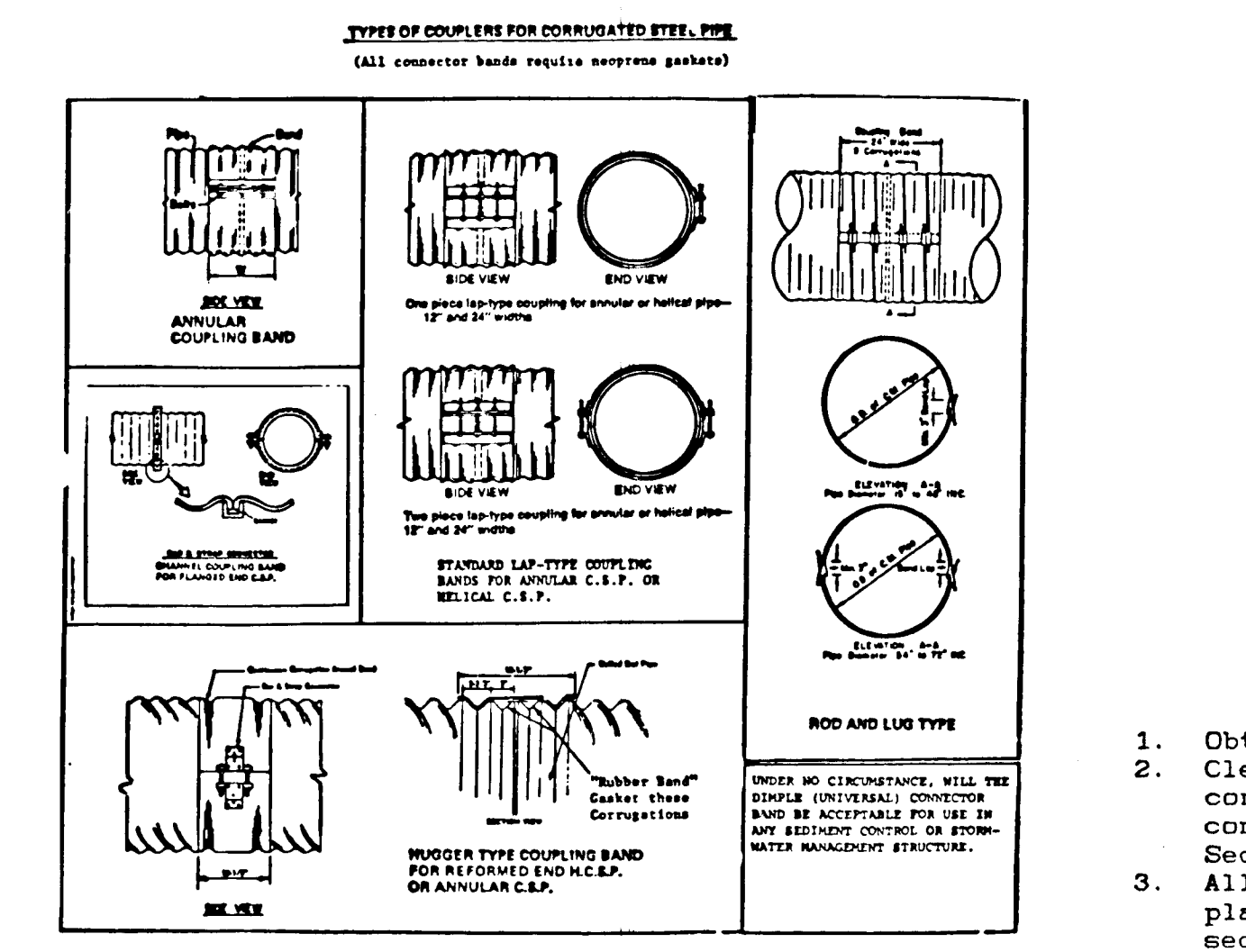
ANTI-SEEP COLLAR



RISER BASE DETAIL SEDIMENT BASIN #3



CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE



TYPES OF COUPLERS FOR CORRUGATED STEEL PIPE

Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
 1) Seven (7) calendar days for all perimeter sediment control structures, dikes, mounds, 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.

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.

ENGINEER CERTIFICATE

I/WE 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.

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

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED: Howard County Office of Planning & Zoning

CONSTRUCTION SEQUENCE - AREA 2

1. Obtain necessary permits.	Oct. 87
2. Clear and grub for installation of sediment control devices only, install all sediment control devices as shown (earth dikes, Trap #4 and Sediment Basin #3).	Oct. 87
3. All sediment control devices approved under grading plan CP-87 must be inspected and cleaned of sediment prior to any further grading, sediment basin #3 to stay in place for Area 3.	
4. Clear for roadway Area 2.	Oct. 87
5. Grade Area 2.	Nov. 87
6. Install storm drain for Area 2 18" pipe from I51 to S50 will be built temporarily to the invert elevation 410.0 (L=110.0') after removal of the trap and restoration of the initial grading. Continue to build the storm drain as shown on sheet 5 of 10.	Nov. 87
7. Install water and sewer.	Dec. 87
8. Install curb and gutter throughout Area 2. Install base paving.	Jan. 87
9. Adjust inlet sediment control devices as necessary to provide positive drainage and collection of sediment.	April 88
10. Seed, and mulch in all disturbed areas.	May 88
11. Grade for houses - separate SDP to be submitted.	May 88
12. Construct houses, walks, drives and utilities.	May 88
13. Complete stabilization and removal of Trap #4 and earth dike when approved by Howard County Sediment Control Inspector.	July 88

Owner/Developer:
 CELTA CORPORATION
 101 CHESTNUT STREET
 GAITHERSBURG, MD 20877
 (301) 248-2018

NO.	REVISIONS	DATE



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

DEPARTMENT CONTROL DETAILS
 SECTION 4 - AREA 2
 BRAMPTON HILLS
 TAX MAP 20431, PARCEL 59
 ELLICOTT CITY (2ND) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

DATE	SEPT. 1987	SHEET	7
DRAWN	M.A.M.	of	10
CHECKED	M.L.S.	PROJECT NO.	160-02
SCALE	AS SHOWN		

F-88-50



BASIN #1
 D.A. 19.0 AC.
 STD TYPE II BASIN
 VOLUME - 24,200 CF
 24" RISE - 24" BARREL
 EMER SPILLWAY - 406.00
 TOP DIKE - 408.50
 RISE CREST - 405.00
 INVERT RISE - 398.00
 CLEAN OUT ELEV. - 401.50
 NOTE: FOR PROFILE OF DIKE SEE SHEET 10 OF 10

TRAP #4
 PER TRAP #12
 D.A. 4.8 AC.
 VOL. REQ'D - 8640 Cu. Ft.
 VOL. PROVIDED - 8640 Cu. Ft.
 BOTT. ELEV. - 400.0
 SUBMERS. ELEV. - 406.0
 WEIR ELEV. - 404.2
 MAX. STOR. ELEV. - 405.2
 CLEANOUT ELEV. - 401.6

BASIN #3
 D.A. 3.9 AC.
 VOL. REQ'D - 2245 Cu. Ft.
 VOL. PROVIDED - 2245 Cu. Ft.
 24" RISE - 24" BARREL
 50% C.S.P.
 TOP OF EMB. - 421.0
 BOT. EL. - 411.0
 MAX. WATER LEVEL - 422.0
 TOP OF RISE - 420.0
 CLEANOUT EL. - 418.0
 SEE PROFILE AND DETAIL SHEETS 8 & 10 OF 10 (AREA 2)

M.L. DAUNSON LEE JR. & Co.
 L. 514 F. 81
 L. 621 F. 354

MATCH LINE

PLAN SCALE 1"=50'

SEE SHEET 7 OF 10 (AREA 2)

APPROVED: Howard County Office of Planning & Zoning

"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 EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.
 J. Pelham 11/13/87
 U.S. SOIL CONSERVATION SERVICE

APPROVED: Stephen L. Pelham 11/13/87

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division
 Dawnelle W. Weiland 11/19/87
 Chief, Bureau of Highways
 Chief, Bureau of Engineering

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: 1) SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SUALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, 2) FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

APPROVED: [Signature] 11-19-87
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

NOTE: THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION/SURVEY DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT 792-7272

SIGNATURE OF DEVELOPER: [Signature] 11-25-87
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRELIMINARY AND PROVISIONAL PLAN BASED ON MY PERSONAL FIELD SURVEY AND THE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: [Signature] 03/03/87
 DATE

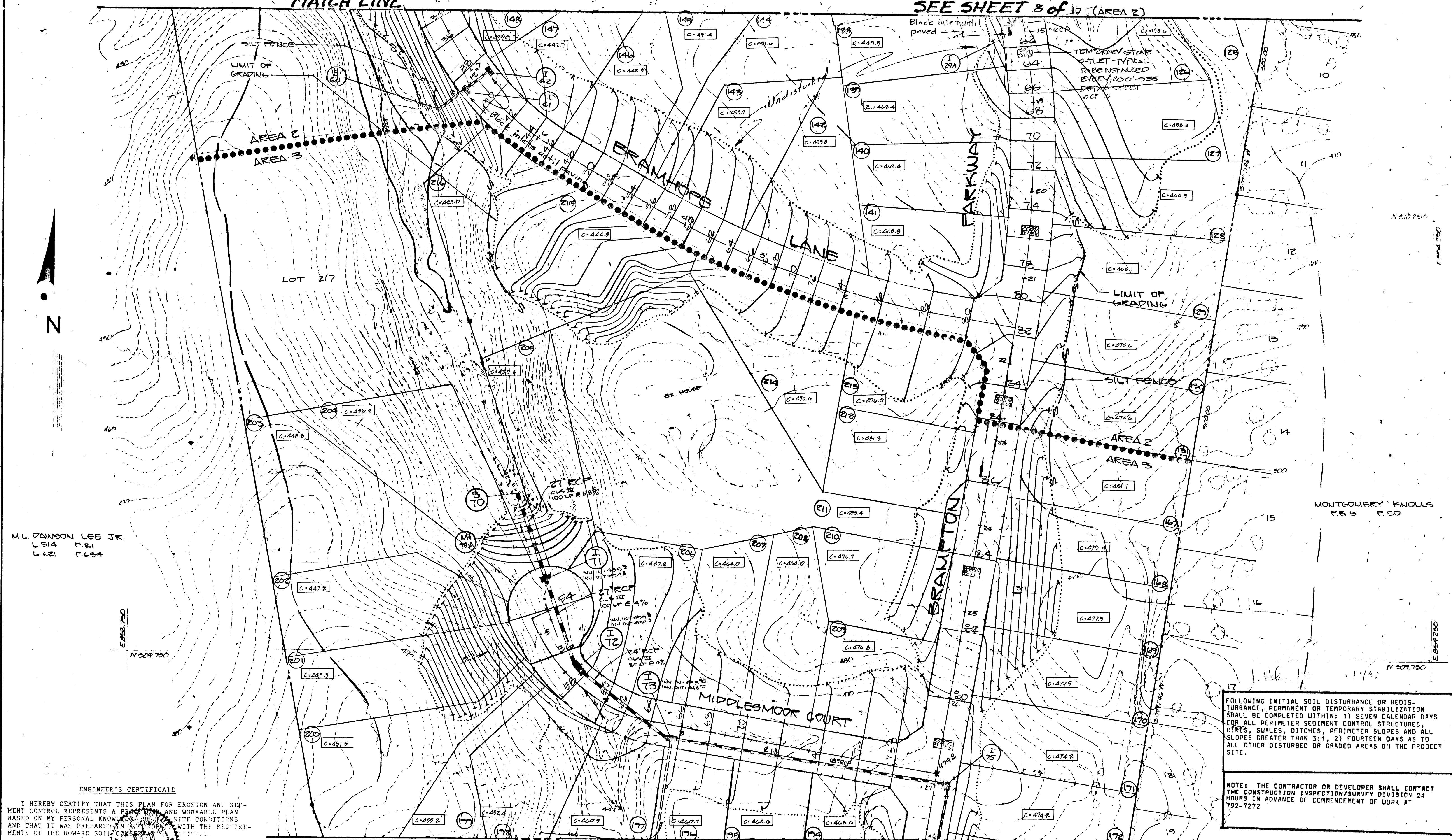


SEDIMENT & EROSION CONTROL PLAN
BRAMPTON HILLS
 SECTION 4
 AREA 2
 TAX MAP 30 PARCEL 30
 2nd ELECTION DISTRICT HOWARD CO., MARYLAND
 SCALE 1"=50' FILE NO. DATE 11/19/87 SHEET 8 OF 10
F-88-30

820

MATCH LINE

SEE SHEET 8 of 10 (AREA 2)



M.L. DAWSON LEE JR.
 L.S. 14 P. 61
 L. 621 P. 634

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: 1) SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; 2) FOURTEEN 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

ENGINEER'S CERTIFICATE

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

Signature of Engineer: *William J. Lee*
 DATE: 03/03/87

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 OF THIS PROJECT HAVE A CERTIFICATE OF TRAINING AS A DEPARTMENT OF NATURAL RESOURCES AND PLANNING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/WE WILL PERFORM PERIODIC ON SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT AND THEIR FIELD AGENTS, AS ARE DETAILED HEREON."

Signature of Developer: *Stephen W. Lee*
 DATE: 7-25-87

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division
 Chief, Bureau of Highways
 Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY DEPARTMENT OF SOIL CONSERVATION
 District and Field Technical Requirement
 U.S. SOIL CONSERVATION SERVICE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
 Chief, Division of Land Development and Zoning Administration

DEVELOPMENT CONSULTANTS GROUP
 17906 Georgia Ave.
 Uirey, Md. 20832 301-924-6570

OWNER/DEVELOPER
 CELTA CORPORATION
 101 CHESTNUT ST. SUITE 125
 GAITHERSBURG MD. 20877
 (301)948-2918

BRAMPTON HILLS
 SECTION 4
 TAX MAP 30 PARCEL 30
 2nd ELECTION DISTRICT HOWARD CO., MARYLAND

820

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

SEEDING 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 periods March 1 through April 30 and from August 15 through November 15, seed with 24 bushels per acre of Annual Ryegrass (3.2 lbs./1000 Sq.Ft.). For the period May 1 through August 14, seed with 3 lbs. per acre of Weeping Lovegrass (.07 lbs./1000 Sq.Ft.). For the period November 16 through February 28, protect site by applying 2 tons per acre of well Anchored Straw Mulch and seed as soon as possible in the Spring, or use Sod.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 Sq.Ft.) of Unrotted Small Grain Straw immediately after seeding. Anchor Mulch immediately after application using Mulch Anchoring Tool or 218 gal. per acre (5 gal./1000 Sq.Ft.) of Emulsified Asphalt on Flat Areas. On Slopes, 8 ft. or higher, use 348 gal. per acre (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 a cyclone seeder, drill, cultipacker seeder or hydrosower (slurry includes seed and fertilizer).

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:

- Preferred - apply 2 tons per acre Dolomitic Limestone (92 lbs./1000 Sq.Ft.) and 600 lbs. per acre 10-10-10 Fertilizer (14 lbs./1000 Sq.Ft.) before seeding. Harrow or Disc into upper three inches of soil. At time of seeding, apply 400 pounds per acre 30-0-0 Ureaform Fertilizer (9 lbs./1000 Sq.Ft.).
- 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.

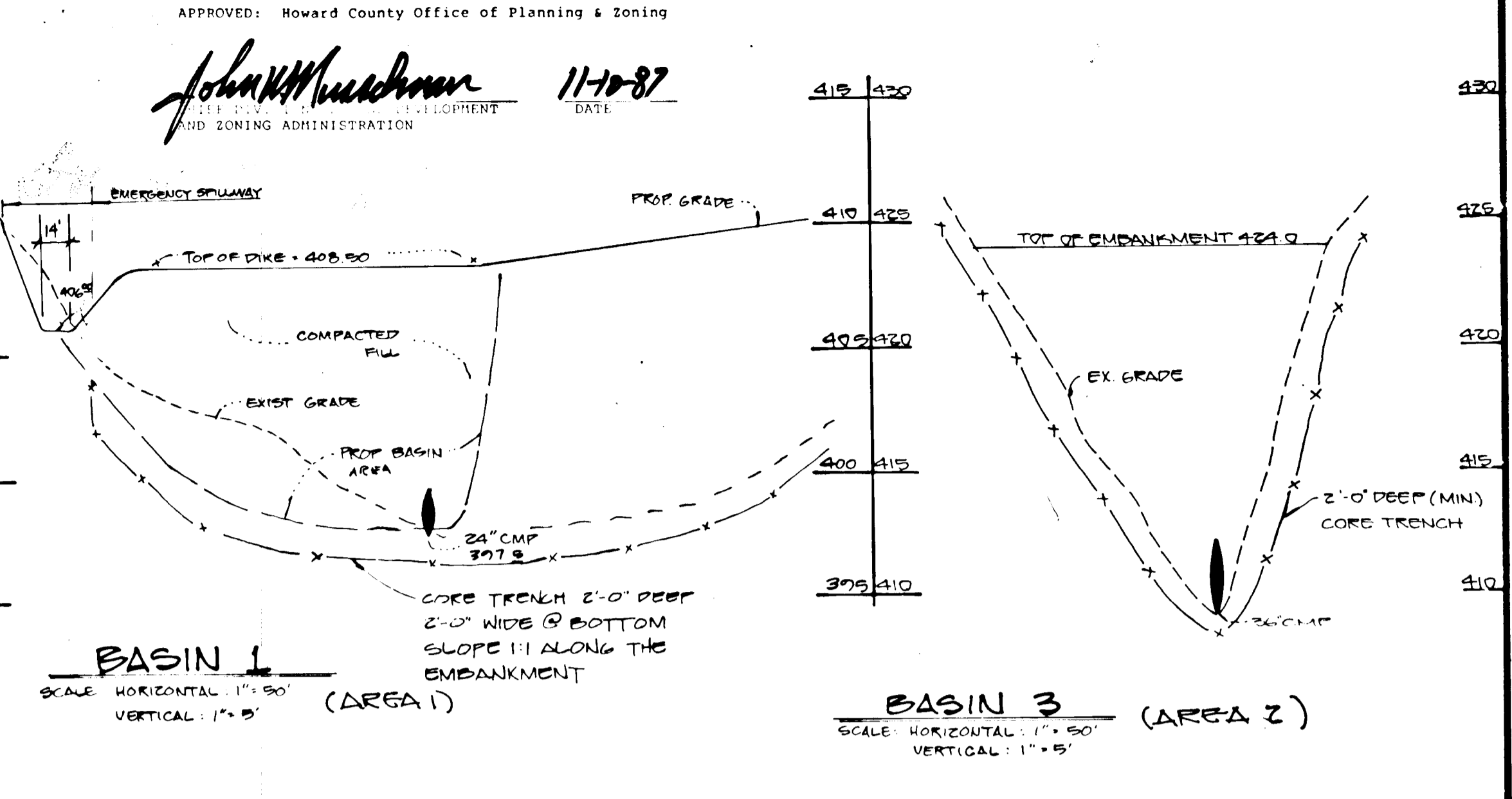
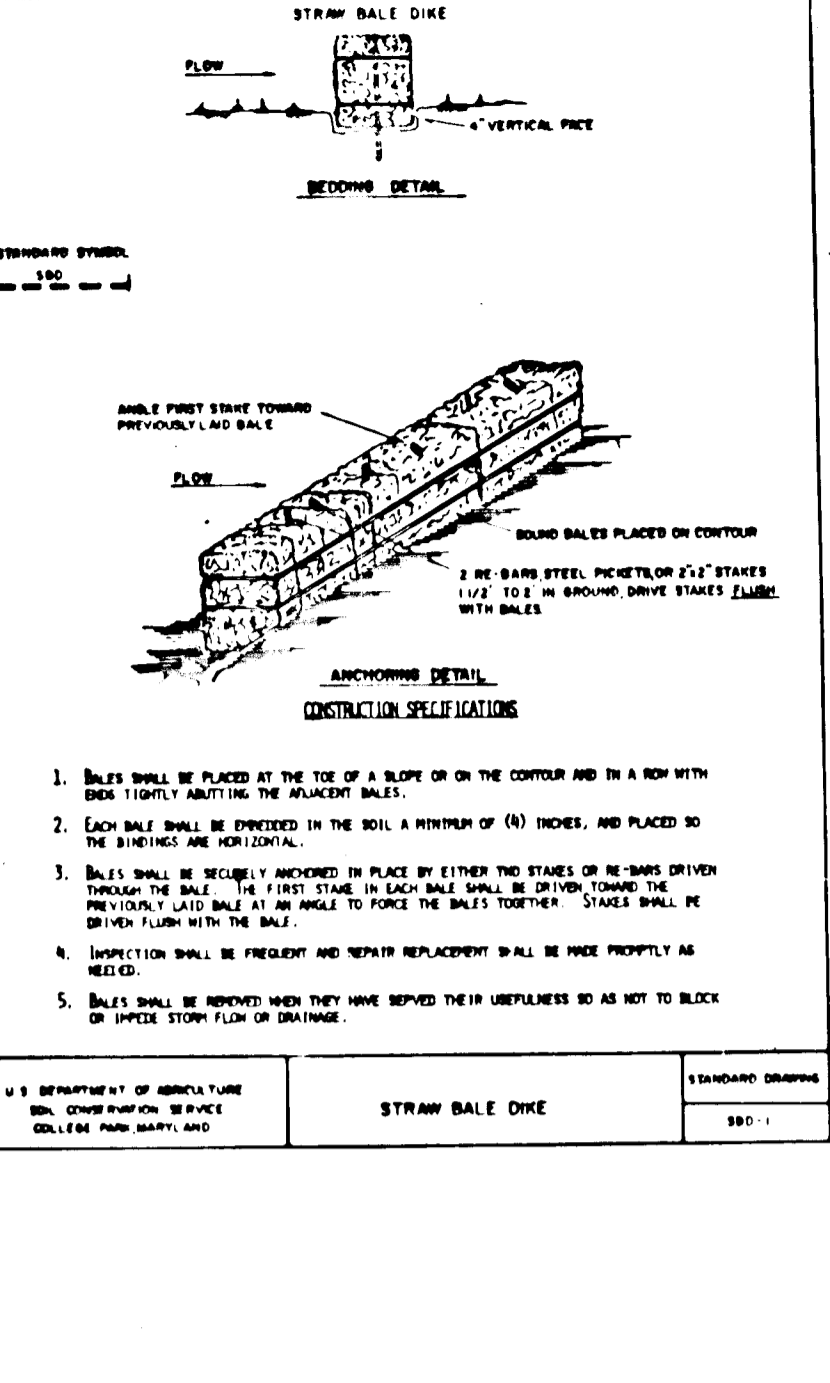
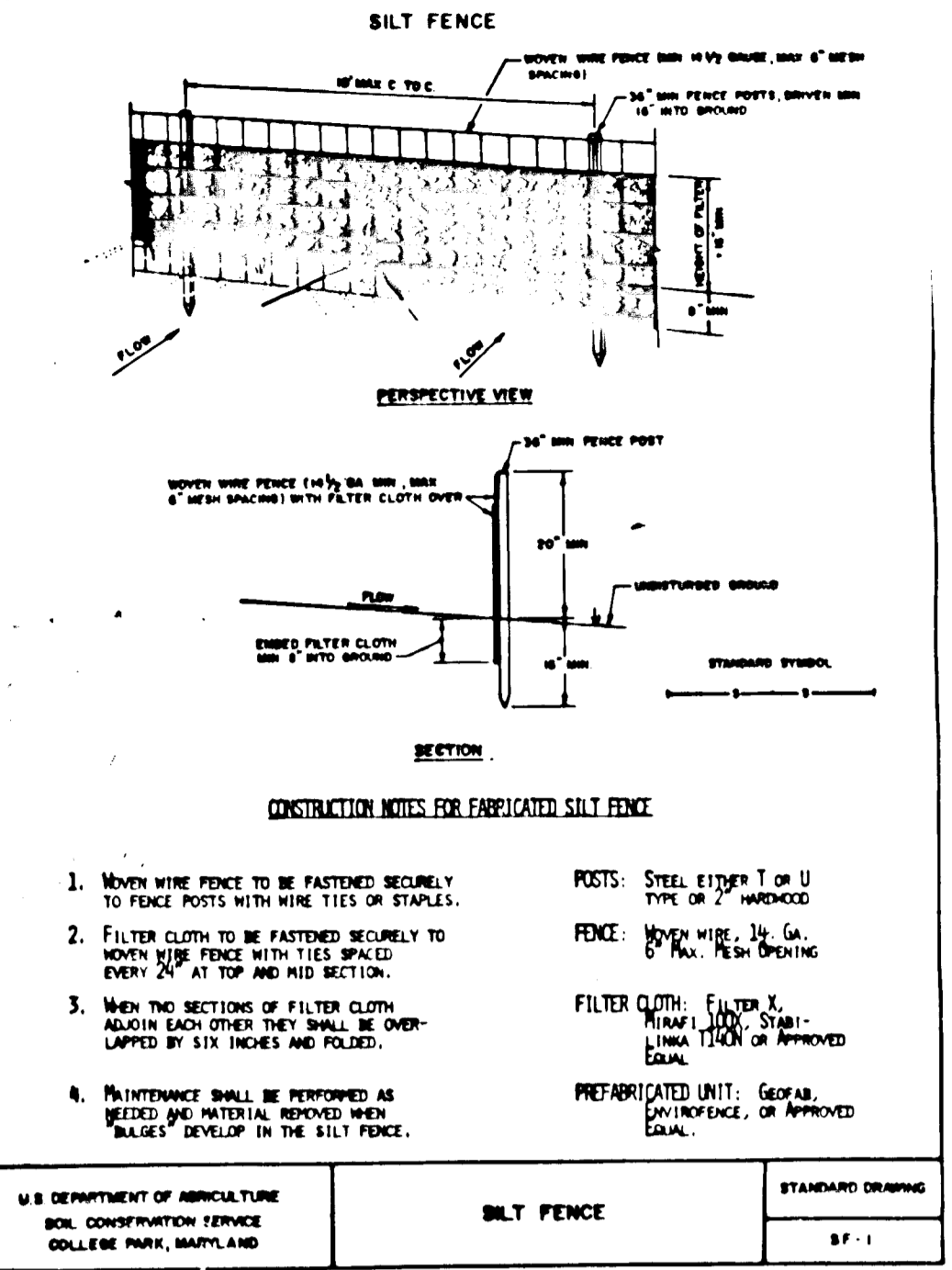
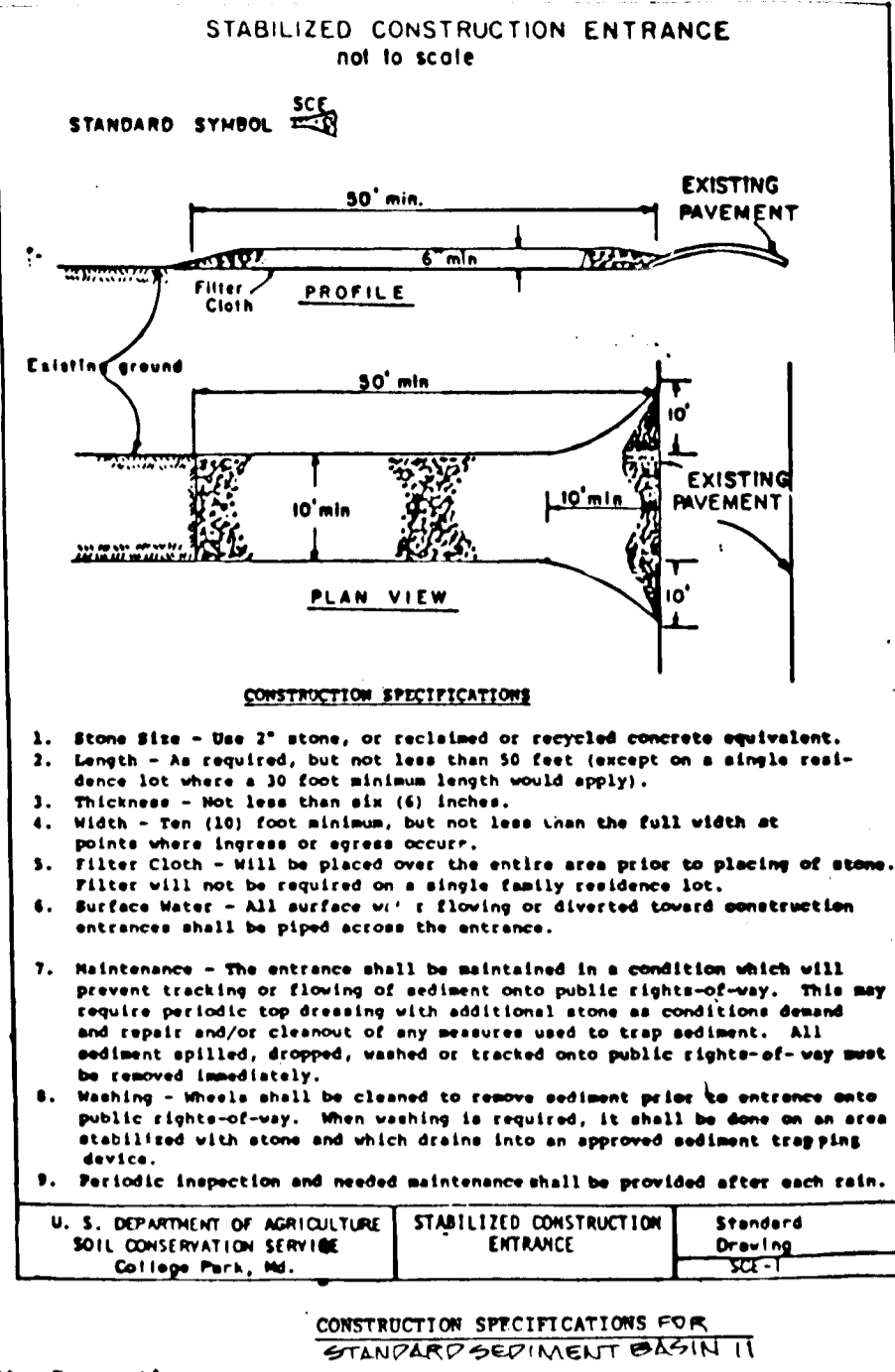
SEEDING: For the periods March 1 through April 30, and August 1 through October 15, seed with 60 lbs. per acre (1.4 lbs./1000 Sq.Ft.) of Kentucky 31 Tall Fescue. For the period May 1 through July 31, seed with 60 lbs. Kentucky 21 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 Sq.Ft.) of Weeping Lovegrass. During the period of October 16 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 well anchored Straw.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 Sq.Ft.) of Unrotted Small Grain Straw immediately after seeding. Anchor Mulch immediately after application, using Mulch anchoring tool or 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.

APPLICATION: Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder or hydrosower (slurry includes seed and fertilizer).

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Chief, Bureau of Engineering



Site Preparation

Area under the embankment shall be cleared, grubbed, and stripped of topsoil to remove the vegetation, roots or other objectionable material. In order to facilitate clean-out and restoration, the pool area (measured at the top of the pipe spillway) will be cleared of all brush, trees, and other objectionable materials.

Cut-off Trench

A cut-off trench shall be excavated along the centerline of earth fill embankments. The minimum depth shall be two feet. The cut-off trench shall extend up both abutments to the riser crest elevation. The minimum bottom width shall be four feet, but wide enough to permit operation of excavation and connection equipment. The side slopes shall be no steeper than 1:1. Connection requirements shall be the same as those for embankment. The trench shall be dewatered during the backfilling-connection operations.

Submittals

The fill material shall be taken from approved areas shown on the plans. It shall be clean mineral soil free of roots, woody vegetation, oversized stones, rocks, or other objectionable material. Relatively pervious materials such as sand or gravel (Unified Soil Classes SM, GP, SW & SP) shall be used for placement of fill. The fill material shall be placed in sufficient layers so that it can be formed by hand into a ball for proper compaction. If water can be squeezed out of the ball, it is too wet without crumbling. Fill material shall be placed six-inch to eight-inch thick continuous layers over the entire length of the fill. Compaction shall be obtained by routing and hauling the construction equipment over the fill so that the entire surface of the layer of the fill is traversed by at least one wheel or tread track of the equipment or by the use of a compactor. The embankment shall be constructed to an elevation 10 percent higher than the design height to allow for settlement.

Pipe Spillways

The riser shall be securely attached to the barrel or barrel stub by welding the full circumference making a watertight structural connection. The barrel stub must be attached to the riser at the same percent (angle) of the barrel shall be watertight. All connections between barrel sections must be achieved by approved watertight hand assemblies. (See pages 18-22 for details.) The barrel and riser shall be placed on a firm, smooth foundation of impervious soil. Pervious materials such as sand, gravel, or crushed stone shall not be used as backfill around the pipe or anti-seep collars. The fill material around the riser and barrel shall be placed in four inch layers and compacted under and around the pipe to at least the same density as the adjacent embankment.

A minimum depth of two feet of hand compacted backfill shall be placed over the pipe spillway before crossing it with construction equipment. Steel base plates on risers shall have at least 2-1/2 feet of compacted earth, stone or gravel placed over it to prevent flotation.

Emergency Spillway

The emergency spillway shall be installed in undisturbed ground. The achievement of planned elevations, grades, design width, entrance and exit channel slopes are critical to the successful operation of the emergency spillway and must be constructed within a tolerance of ± 0.2 feet.

Vegetative Treatment

Stabilize the embankment and emergency spillway in accordance with the appropriate vegetative Standard and Specifications immediately following construction. In no case shall the embankment remain unstabilized for more than seven(7) days.

Erosion and Pollution Control

Construction operations shall be carried out in such a manner that erosion and water pollution will be minimized. State and local laws shall be complied with concerning pollution abatement.

Safety

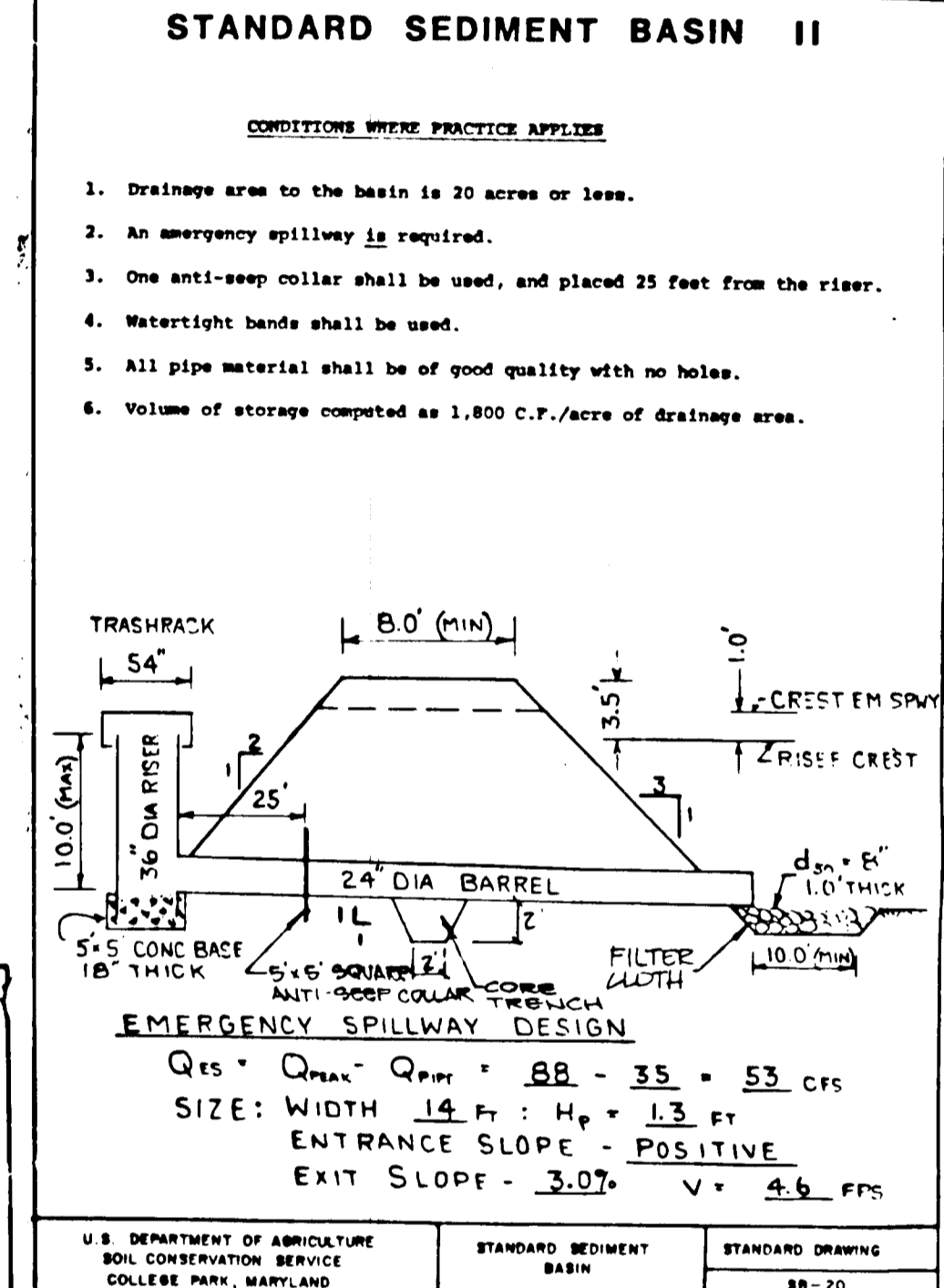
State and local requirements shall be met concerning fencing and signs, warning the public of hazards of soft sediment and floodwater.

Maintenance

- Repair all ditches caused by soil erosion and construction equipment at or before the end of each working day.
- Sediment shall be removed from the basin when it reaches the specified distance below the top of the riser. This sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the embankment, adjacent to a stream or flood plain.

Final Disposal

When temporary structures have served their intended purpose and the contributing drainage area has been properly stabilized, the embankment and resulting sediment deposits are to be leveled or otherwise disposed of in accordance with the approved sediment control plan. The proposed use of a sediment basin site will often dictate final disposition of the basin and any sediment contained therein. If the site is scheduled for future construction, then the basin material and trapped sediments must be removed, safely disposed of, and backfilled with a structural fill. When the basin area is to remain open space the pond may be pumped dry, graded and back filled.



FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: 1) SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SUALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; 2) FOURTEEN 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

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."

DATE: 3-25-87

ENGINEER CERTIFICATE

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

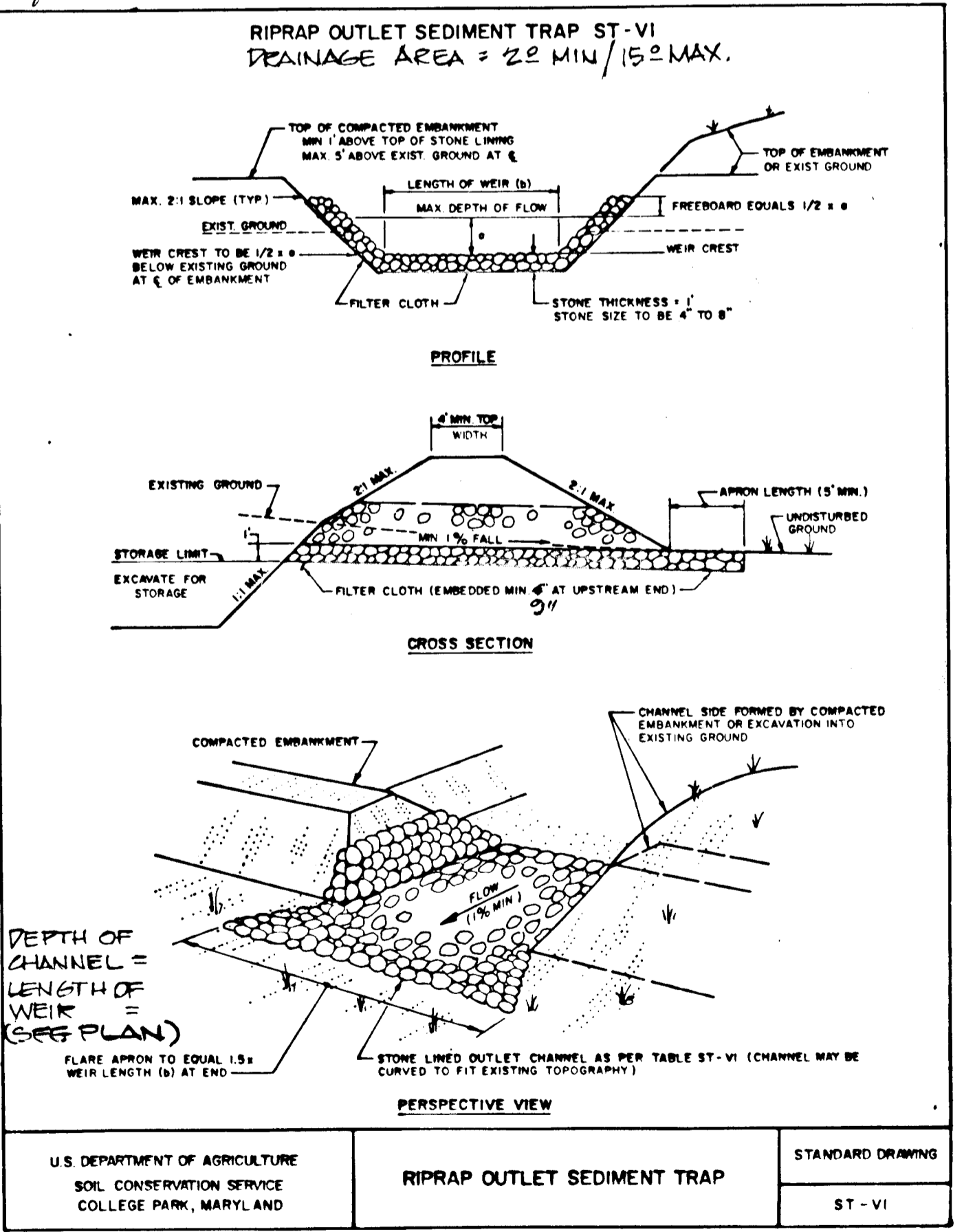
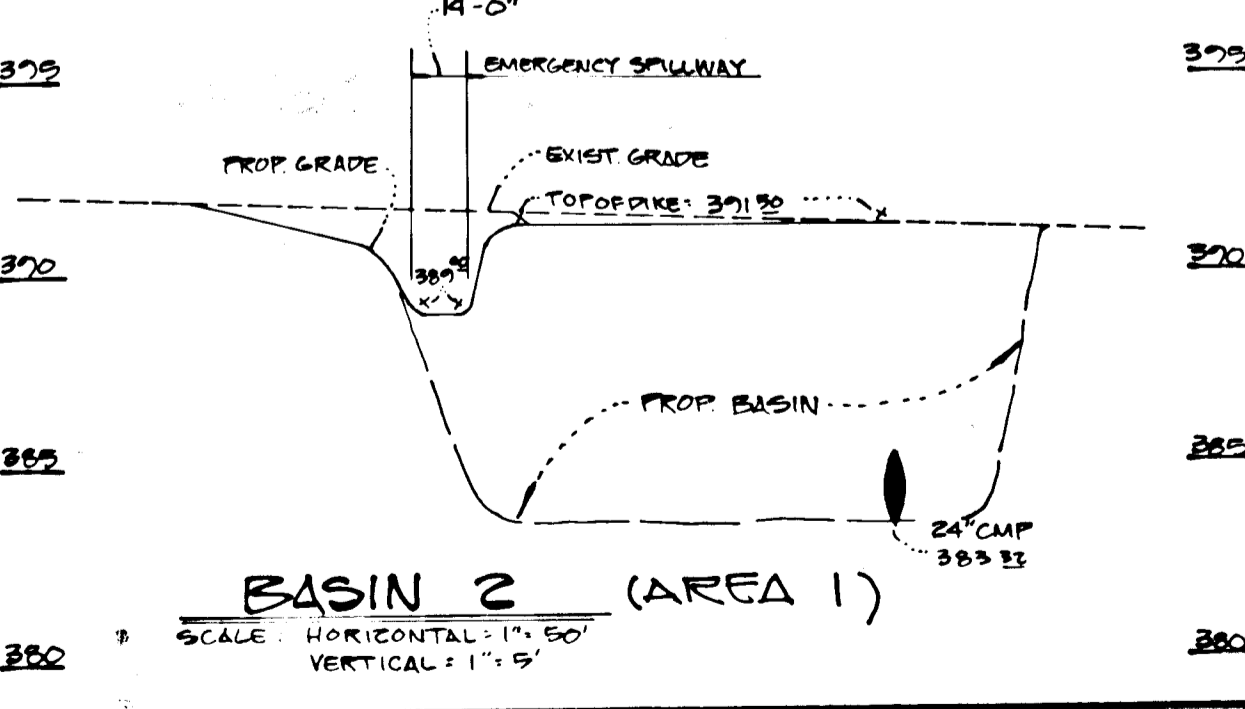
DATE: 12/25/86

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

DATE: 11/3/87

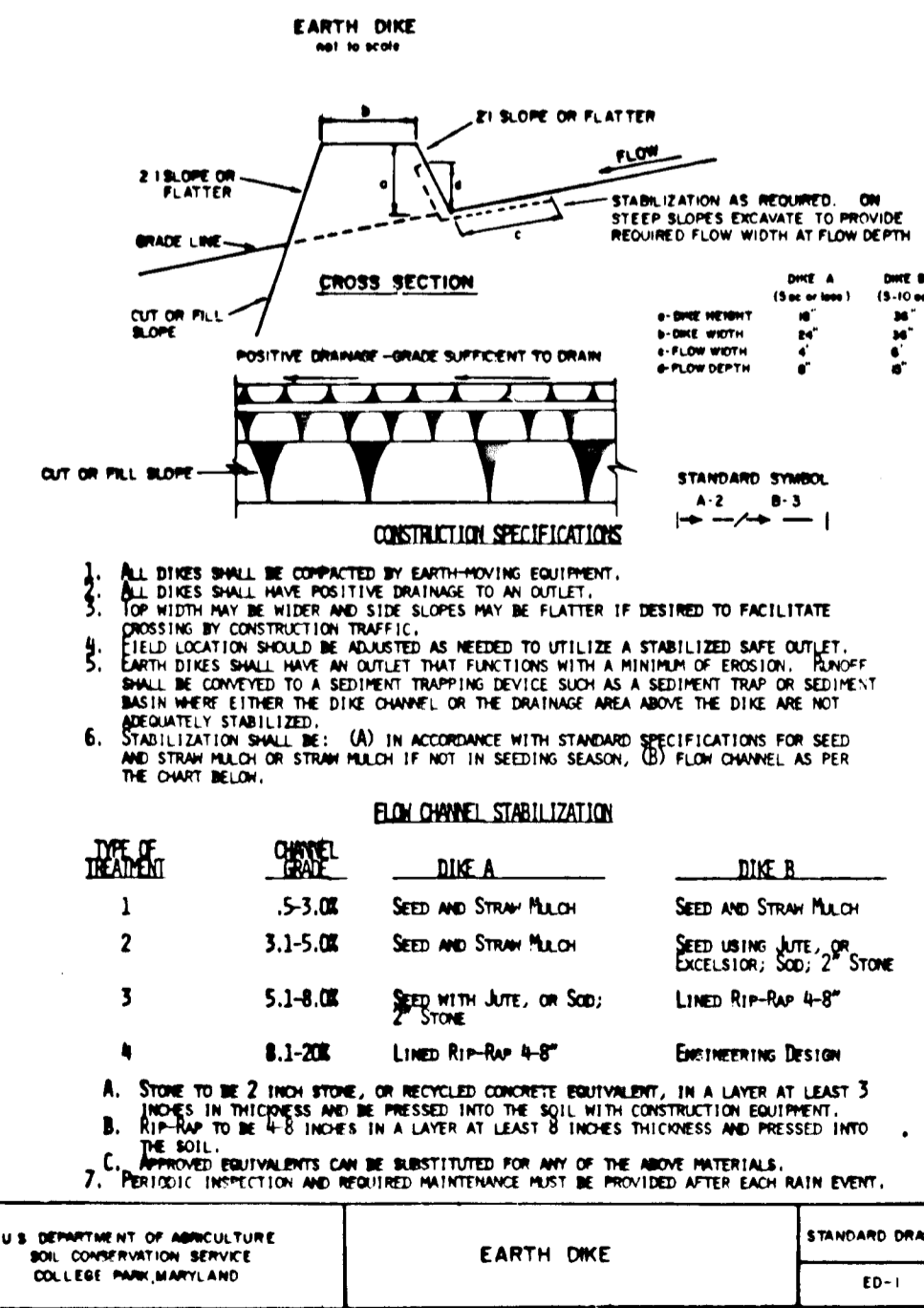
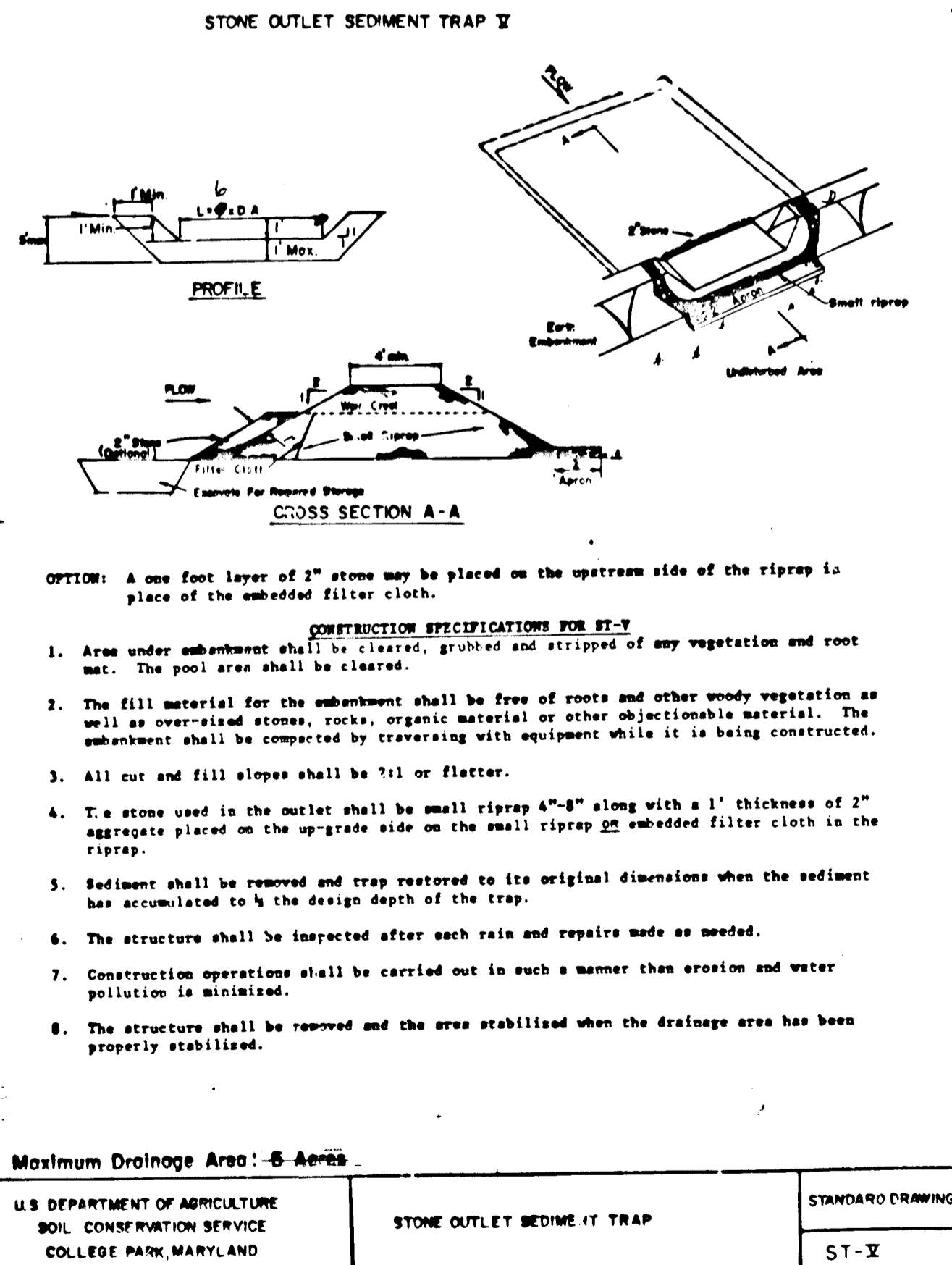
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 11/3/87



CONSTRUCTION SPECIFICATIONS FOR ST-VI

- The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- 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 constructed by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
- All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
- Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
- 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.
- 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.
- 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.
- 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.
- The structure shall be inspected after each rain and repaired as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
- Drainage area for this practice is limited to 15 acres or less.
- DEPTH SHALL INCLUDE a) DEPTH OF CHANNEL, b) LENGTH OF WEIR. TO BE SHOWN ON PLAN.



Owner/Developer:
 DELTA CORPORATION
 101 CHESTNUT STREET
 BALTIMORE, MD. 21201
 301-940-2910

NO. REVISIONS DATE

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

SEDIMENT CONTROL DETAILS
 SECTION 4 AREA 2
 BRAMPTON HILLS
 TAX MAP 30#91 PARCEL 30
 ELLICOTT CITY (2ND ELECTION DISTRICT)
 HOWARD COUNTY, MARYLAND

DATE: 11/3/87
 DRAWN BY: BA
 CHECKED BY: BA
 SCALE: AS SHOWN
 PROJECT NO.: 160-02