

DATE	NO.	REVISION DESCRIPTION

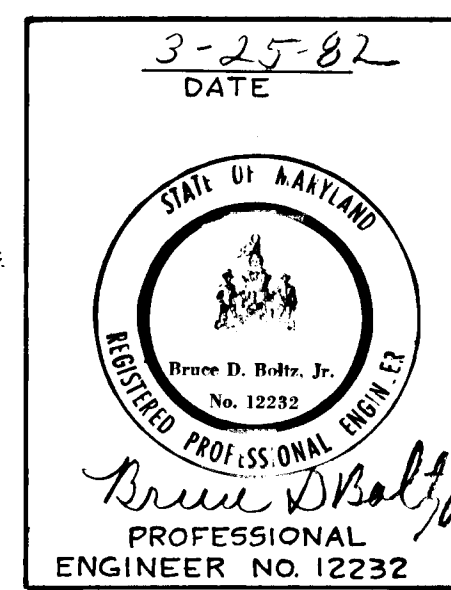
LA ISLA
 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MD.
 OWNER & DEVELOPER
 FRANCISCO GUZMAN
 10959 SWANSFIELD RD.
 COLUMBIA, MD. 21044
 (301) 730-2170

GREENHORNE & O'MARA, INC.
 ENGINEERS-ARCHITECTS-PLANNERS & SURVEYORS
 622 HUNGERFORD DRIVE, SUITE 20, ROCKVILLE, MD.
 (301) 762-5340 20850
 RIVERDALE, MD. • ANNAPOLIS, MD. • FAIRFAX, VA. • NO. HUNTINGTON, PA.

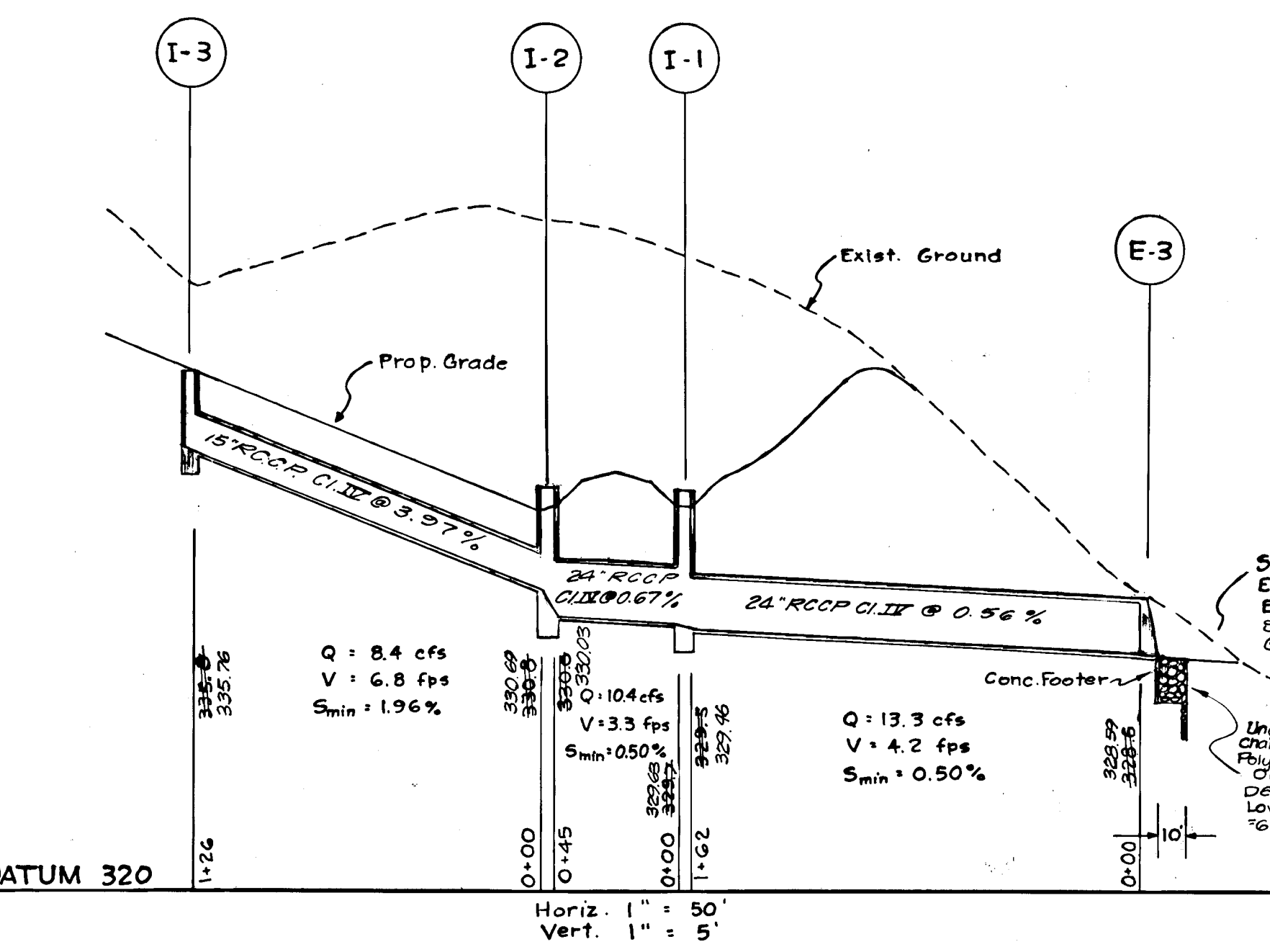
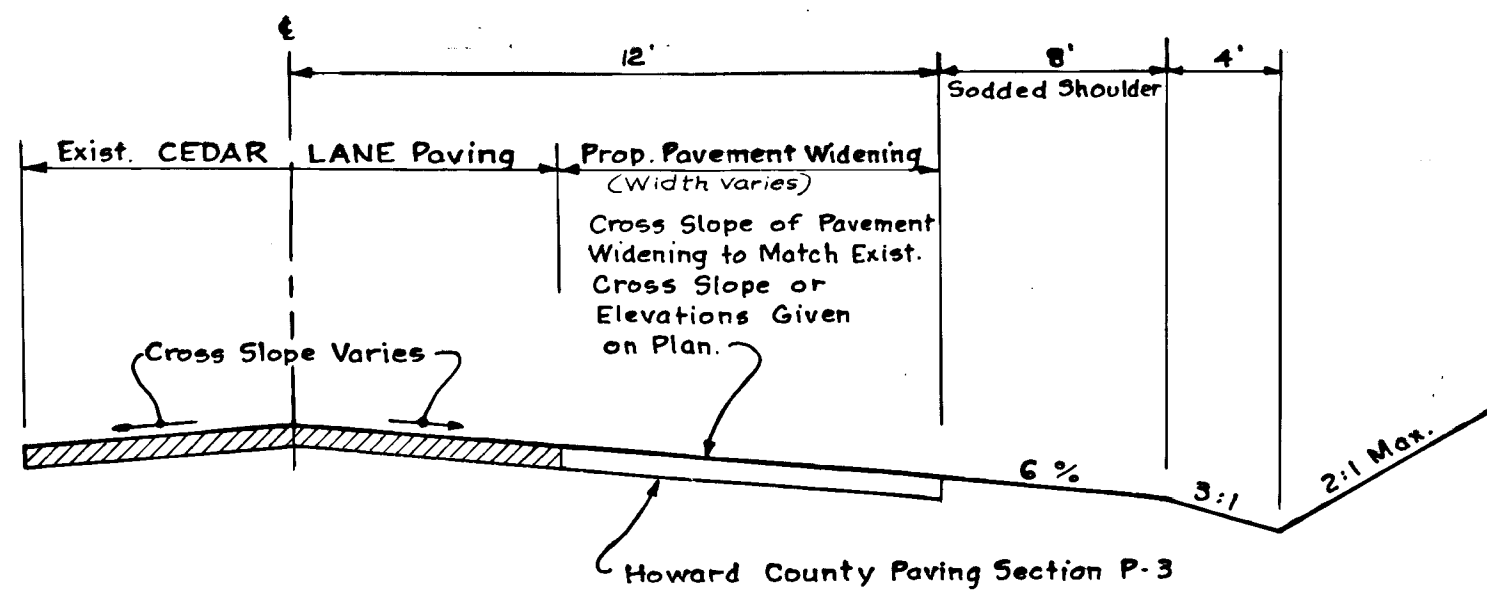
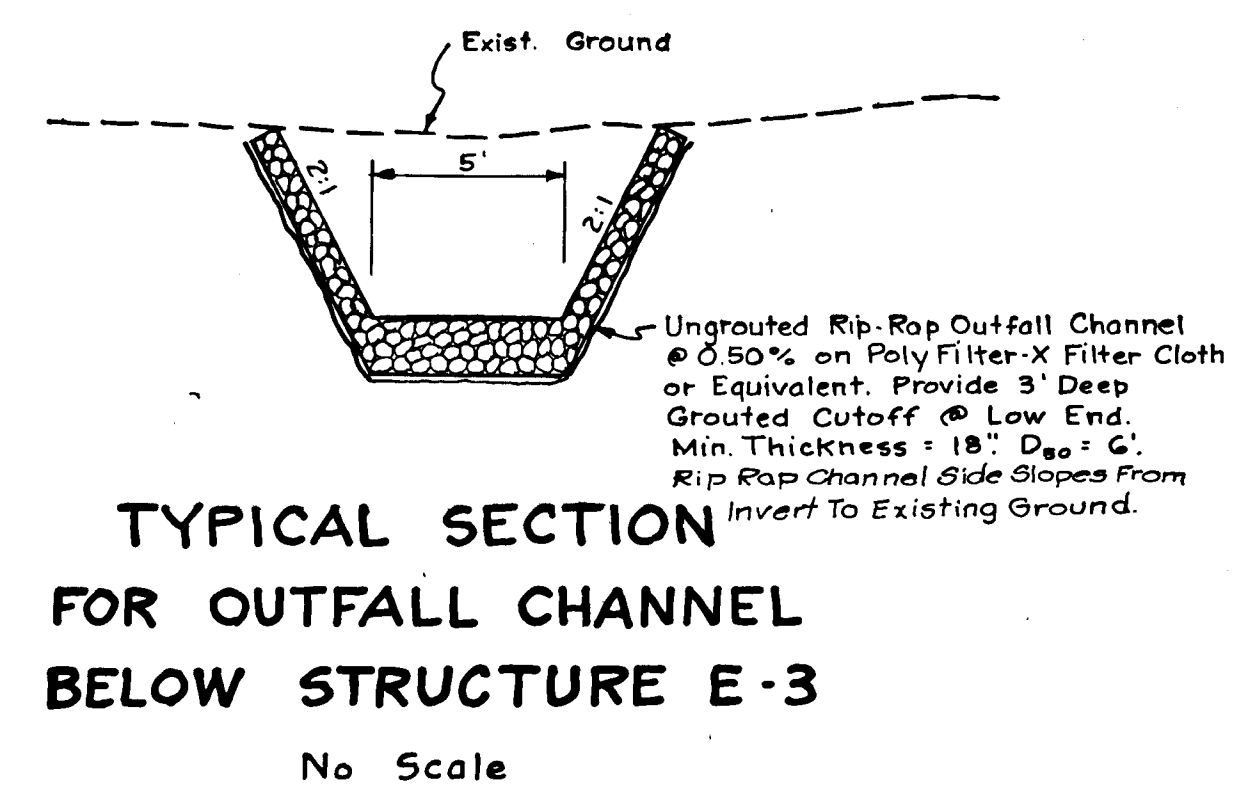
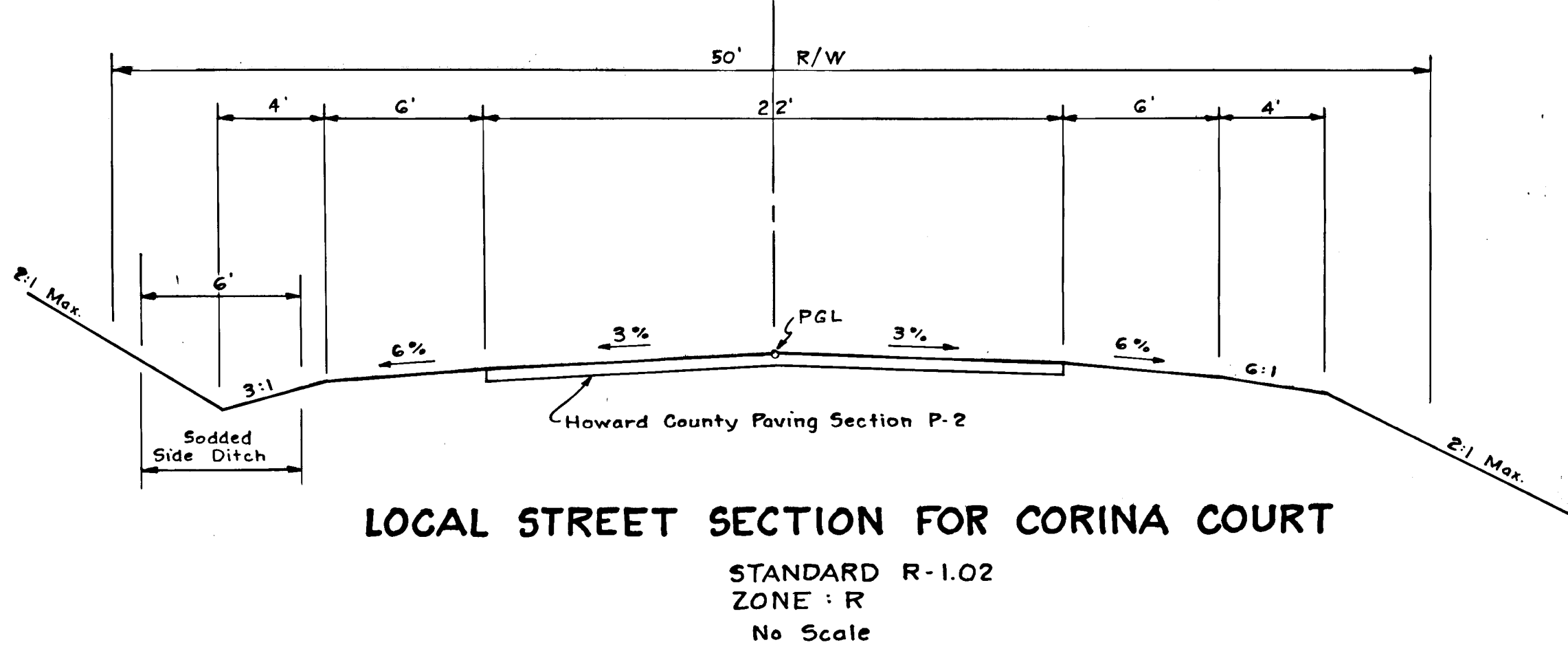
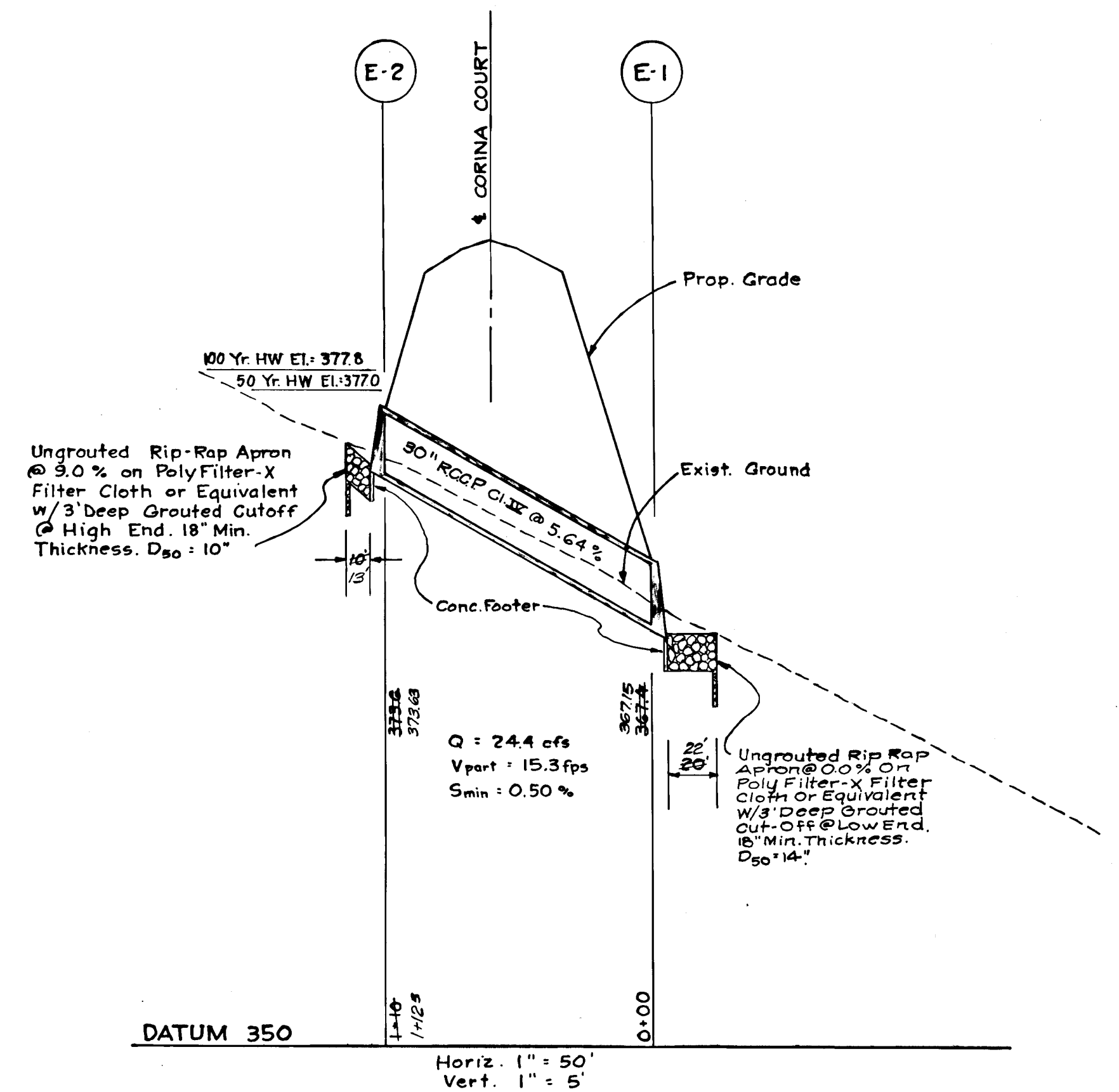
AREA TAX MAP NO. 35

TITLE
**GRADE ESTABLISHMENT
 STORM DRAINAGE & PAVING PLAN**

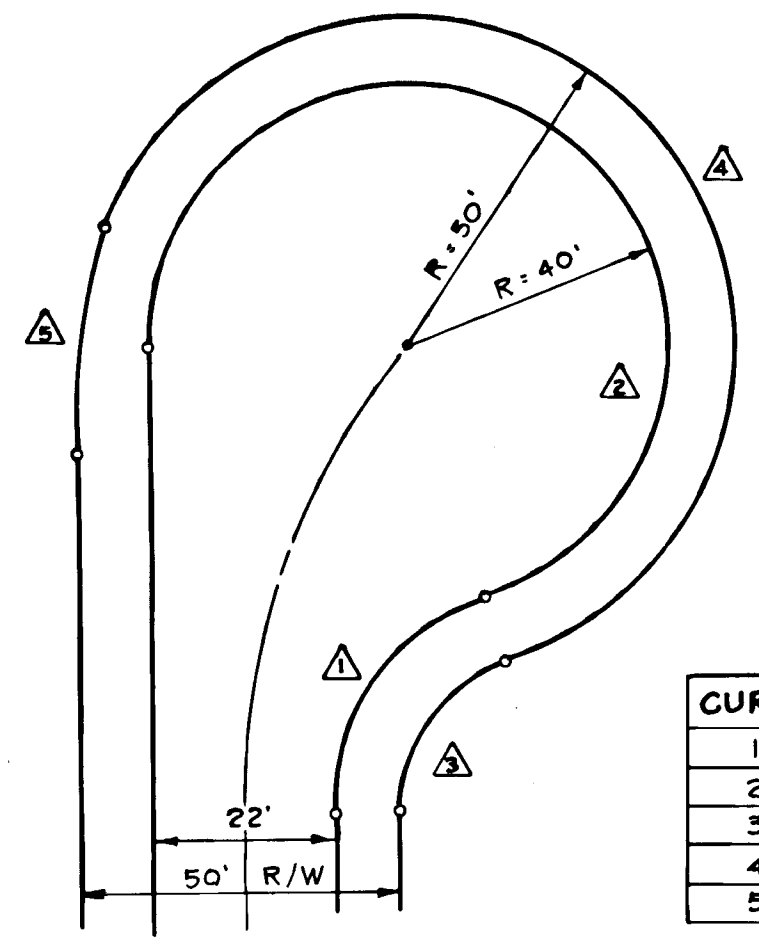
DESIGNED BY: BJR	SCALE: AS SHOWN	PROJ. NO.:
DRAWN BY: LJB	DATE: MAR. 1982	DRAWING NUMBER
CHECKED BY: BDB	APPROVED:	3 OF 7



AS-BUILT 8-22-83
 AS-BUILT SURVEY CERTIFIED
 BY BRUCE D. BOLTZ, JR. MD. RES.
 PROFESSIONAL ENGINEER
 No. 12232



TYPICAL SECTION FOR CEDAR LANE PAVEMENT WIDENING
 From Sta. 6+50± to Sta. 9+20± and From Sta. 10+80± to Sta. 12+95±
 No Scale



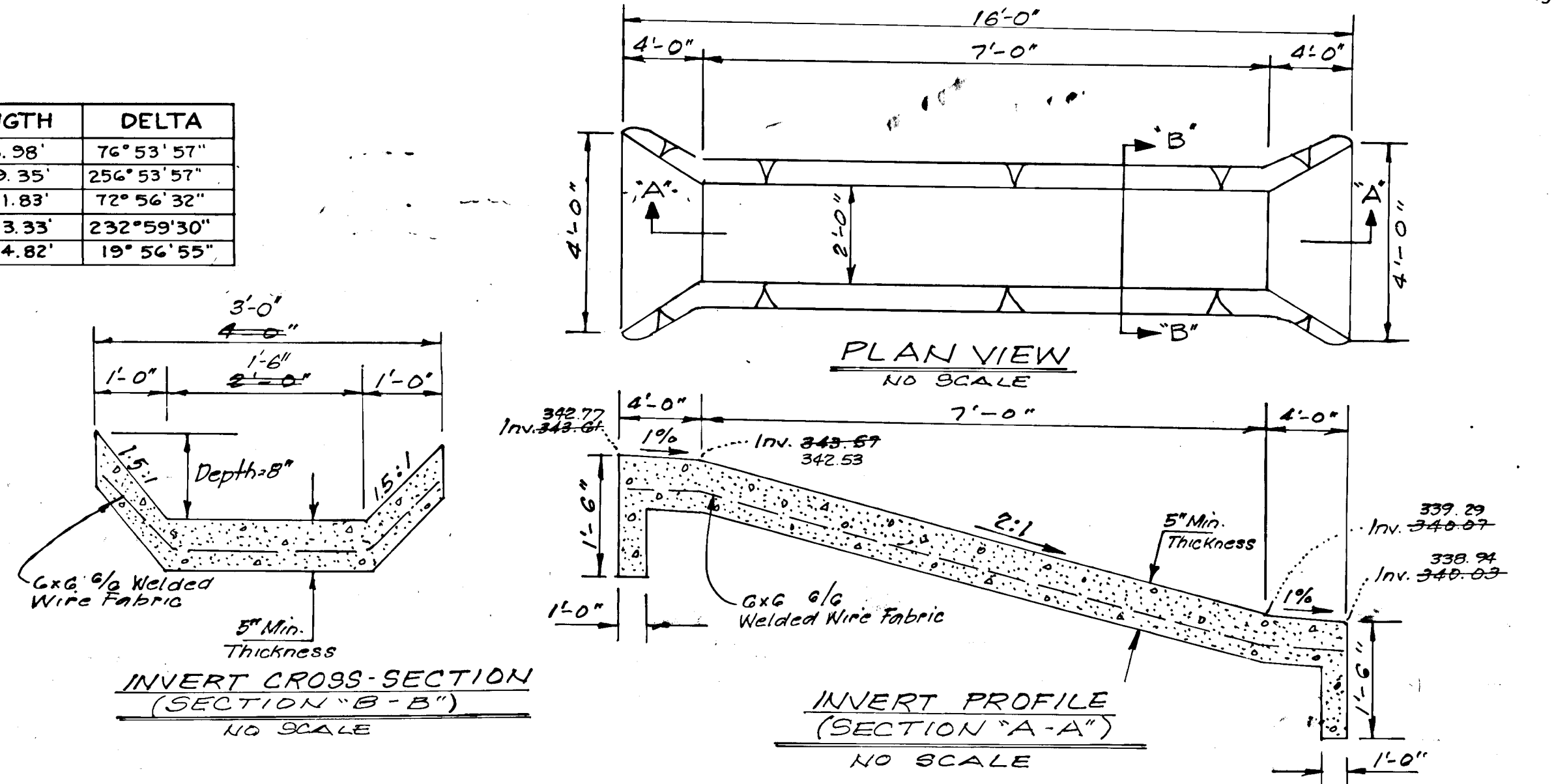
CUL-DE-SAC FOR CORINA COURT
 No Scale

CURVE	RADIUS	LENGTH	DELTA
1	35.00'	46.98'	76° 53' 57"
2	40.00'	179.35'	256° 53' 57"
3	25.00'	31.83'	72° 56' 32"
4	50.00'	203.33'	232° 59' 30"
5	100.00'	34.82'	19° 56' 55"

NO	TYPE	STRUCTURE SCHEDULE		REMARKS
		ROAD	LOCATION	
E-1	Conc. End Section for 30" RCCP	CORINA COURT	13+11 66' Rt.	SD - 5.51
E-2	" " "	"	13+08 44' Lt.	"
E-3	" " "	"	0+60 186' Rt.	"
I-1	K-Inlet 3' Wide	CORINA COURT	0+39 24' Rt.	SD-4.12 w/5ft. Gate SD-4.13
I-2	" " "	"	0+41 25' Lt.	"
I-3	K-Inlet 3' Wide	"	1+71 21' Lt.	SD-4.12 w/5ft. Gate SD-4.13

* Grate Elevation

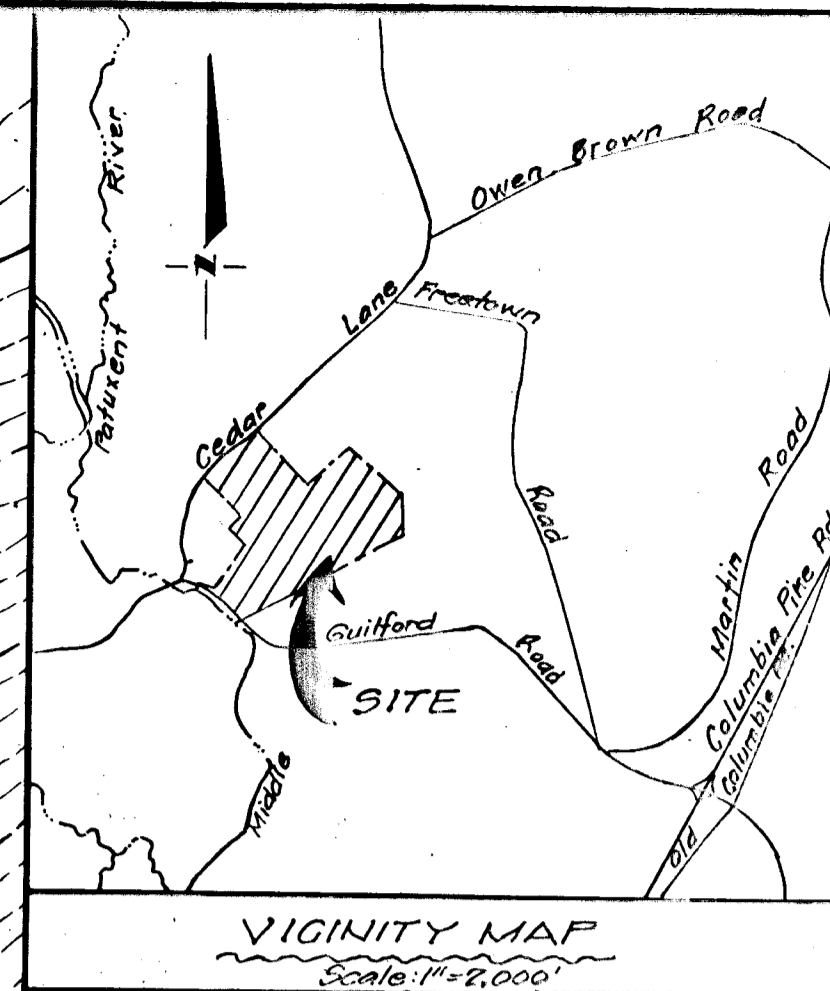
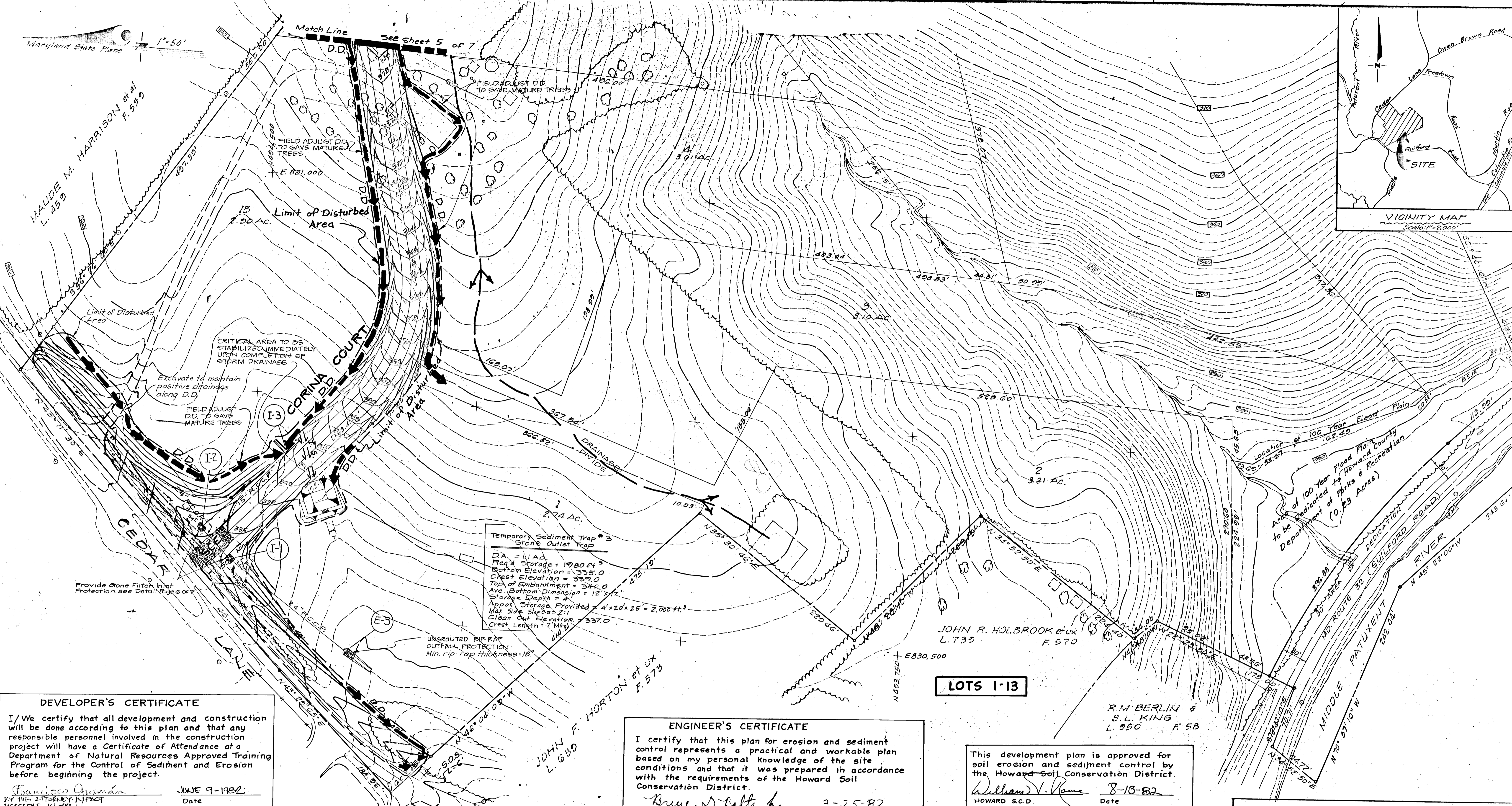
- GENERAL NOTES**
- All work shall be performed in accordance with the Howard County Road Construction Code and Standard Specifications.
 - Approximate location of existing utilities are shown. The Contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage incurred due to Contractor's operation shall be repaired immediately at the Contractor's expense.
 - The Contractor shall Test Pit Existing Utilities, where directed by the Engineer, a minimum of two weeks in advance of construction operations.
 - Contractor shall notify the following utilities at least three days before starting of work shown on these drawings:
 Bell Telephone System 393-3649
 Long Distance Cable Division 393-3553 or 3554
 Baltimore Gas & Electric Co. 539-8000 Ext. 91
 - All inlets shall be constructed in accordance with Howard County Stds., unless otherwise shown.
 - Storm Drain Trenches within Road Rights-of-Way shall be backfilled and compacted in accordance with Howard County Road Code.
 - Installation of Traffic Control Devices, Marking and Signing shall be in accordance with the Manual of Uniform Traffic Control Devices 1971 Revised Edition.
 - All elevations shown are based on U.S.C. and G.S. Mean Sea Level Datum, 1929.
 - Where Cover is Less than 5' For All Storm Drainage Provide Class A Bedding.



CONCRETE GRADE STABILIZATION AT STORM INLET I-3
 NO SCALE

957

Maryland State Plane 1"=50'



Temporary Sediment Trap #3
Stone Outlet Trap
DA = 1.1 AC
Peak Storage = 1080 ft³
Bottom Elevation = 335.0
Crest Elevation = 339.0
Top of Embankment = 340.0
Avg. Bottom Dimension = 12' x 7'
Storage Depth = 4'
Approx. Storage Provided = 4' x 20' x 25' = 2,000 ft³
Max Side Slope = 2:1
Clean Out Elevation = 337.0
Crest Length = 7' (Min)

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.
Francisco Gueman
BY THE ATTORNEY IN FACT
HERCULES KLOPP
JUNE 9-1982
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.
Bruce D. Boltz
BRUCE D. BOLTZ PE #12232
3-25-82
Date

This development plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
William V. Rome
HOWARD S.C.D.
8-13-82
Date

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER

Reviewed for HOWARD S.C.D. and meets Technical Requirements.
J. M. Nelson
U.S. SOIL CONSERVATION SERVICE
8/13/82
Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
John M. Hume
PLANNING DIRECTOR
8-13-82
Date
John M. Hume
CHIEF DIVISION OF LAND DEVELOPMENT
8-13-82
Date

DEVELOPER
FRANCISCO GUEMAN
10950 SWANSFIELD ROAD
COLUMBIA, MD. 21044
PHONE: (301) 790-2110

DEPARTMENT OF PUBLIC WORKS
William S. Riley
CHIEF, BUREAU OF ENGINEERING
8/13/82
DATE

THIS PLAN IS FOR SEDIMENT CONTROL USE ONLY.

No.	REVISION	DATE	BY
1	Extended Cedar La. improvement North of Corina Ct	7-21-82	BJR

GREENHORNE & O'MARA, INC.
ENGINEERS • ARCHITECTS • PLANNERS • SURVEYORS
622 HUNGERFORD DRIVE, SUITE 20, ROCKVILLE, MD.
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SEDIMENT CONTROL PLAN
LA ISLA
TAX MAP NO 35, PARCEL NO 113
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

BJR DESIGN	SCALE 1"=50'
LJB DRAWN	4 OF 7
BDB CHECKED	SHEET
Feb. 1982 DATE	R-580-X FILE NO.



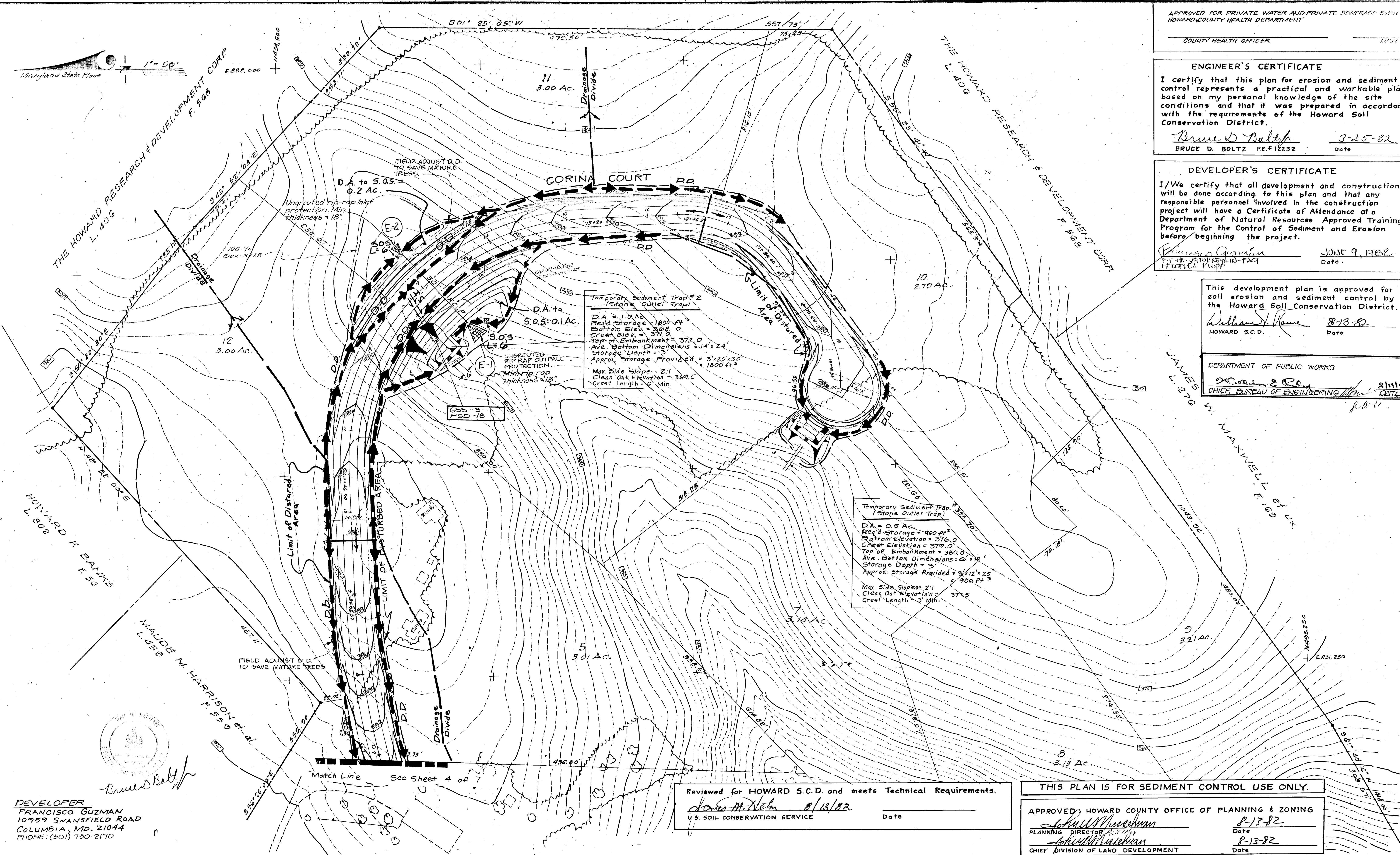
APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER _____ DATE _____

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.
Bruce D. Boltz 3-25-82
 BRUCE D. BOLTZ RE.#12232 Date

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 of a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project.
Francisco Guzman JUNE 9, 1982
 FRANCISCO GUZMAN DATE

This development plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
William J. Rowe 8-13-82
 HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS
James L. Maxwell 8/13/82
 CHIEF, BUREAU OF ENGINEERING DATE



Temporary Sediment Trap #1 (Stone Outlet Trap)
 D.A. = 1.0 AC
 Req'd Storage = 1800 ft³
 Bottom Elevation = 368.0
 Crest Elev. = 374.0
 Top of Embankment = 372.0
 Ave. Bottom Dimensions = 14' x 24'
 Storage Depth = 3'
 Approx. Storage Provided = 1800 ft³
 Max. Side Slope = 2:1
 Clean Out Elevation = 369.5
 Crest Length = 6' Min.

Temporary Sediment Trap #2 (Stone Outlet Trap)
 D.A. = 0.5 AC
 Req'd Storage = 900 ft³
 Bottom Elevation = 376.0
 Crest Elevation = 377.5
 Top of Embankment = 380.0
 Ave. Bottom Dimensions = 6' x 19'
 Storage Depth = 3'
 Approx. Storage Provided = 900 ft³
 Max. Side Slope = 2:1
 Clean Out Elevation = 377.5
 Crest Length = 3' Min.

DEVELOPER
 FRANCISCO GUZMAN
 10959 SWANSFIELD ROAD
 COLUMBIA, MD. 21044
 PHONE: (301) 790-2170

Reviewed for HOWARD S.C.D. and meets Technical Requirements.
James M. Nelson 8/13/82
 U.S. SOIL CONSERVATION SERVICE Date

THIS PLAN IS FOR SEDIMENT CONTROL USE ONLY.
 APPROVED, HOWARD COUNTY OFFICE OF PLANNING & ZONING
John W. Mueselman 8-13-82
 PLANNING DIRECTOR Date
John W. Mueselman 8-13-82
 CHIEF, DIVISION OF LAND DEVELOPMENT Date

No.	REVISION	DATE	BY

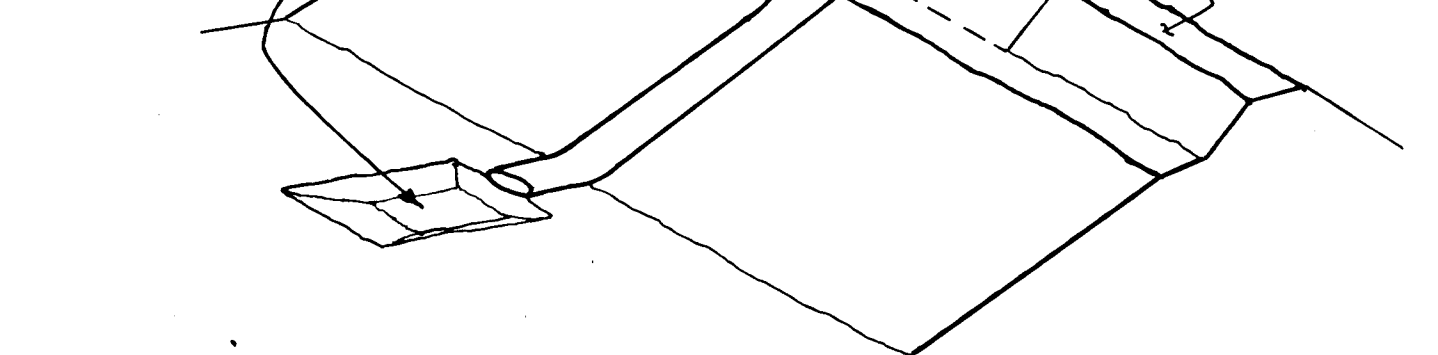
GREENHORNE & O'MARA, INC.
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SEDIMENT CONTROL PLAN
LA ISLA
 TAX MAP # 35, PARCEL # 113
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

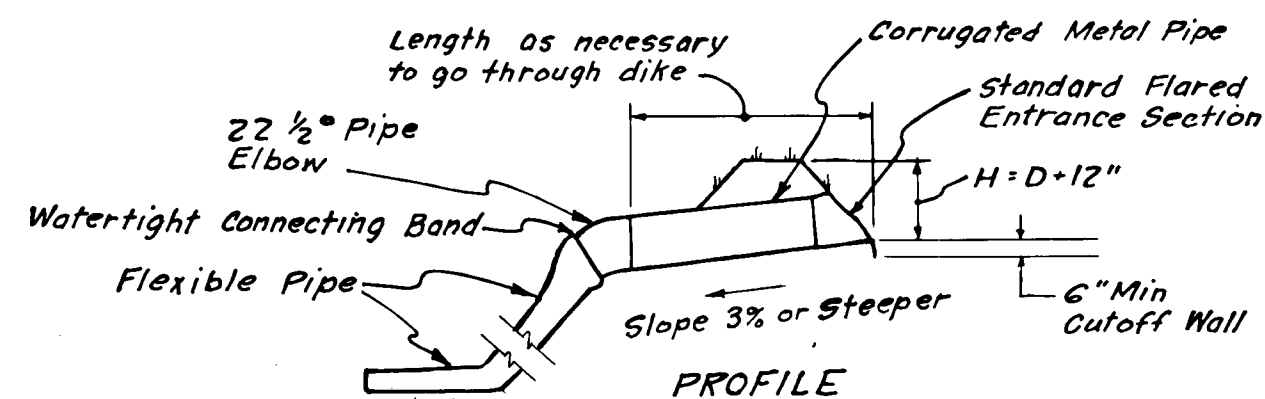
B.J.R. DESIGN	SCALE 1" = 50'
L.J.B. DRAWN	5 OF 7
B.D.B. CHECKED	SHEET
Feb 1982 DATE	R-580-X FILE No.

NOTE: Size designation is:
PSD - Pipe Diam. (ex. PSD-18)
Pipe Slope Drain with 18" dia. pipe)

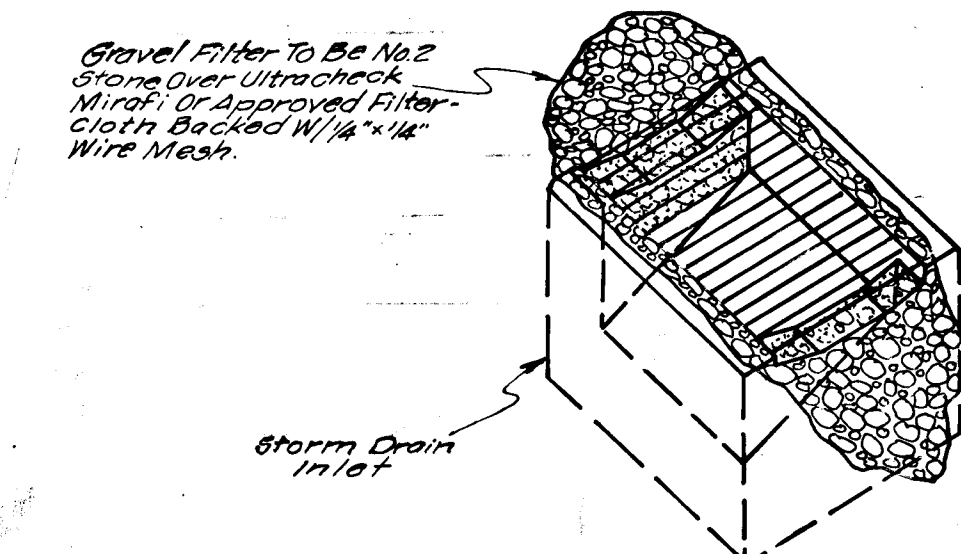
Discharge into a stabilized watercourse sediment trapping device, or onto a stabilized area.



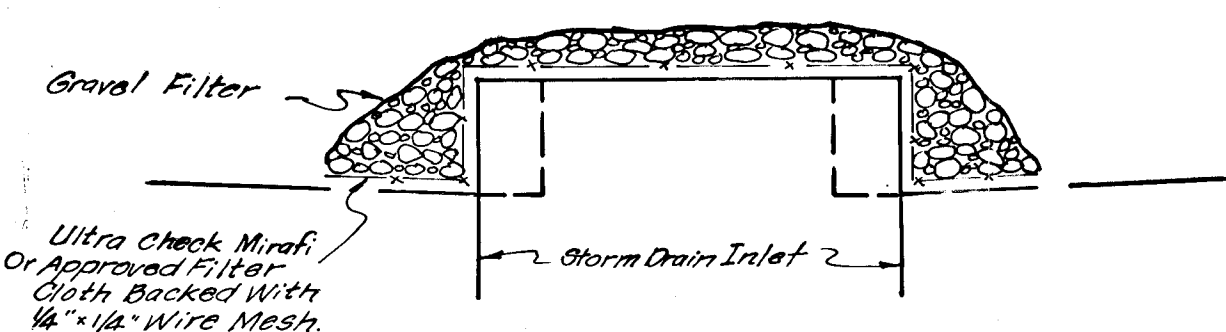
ISOMETRIC VIEW



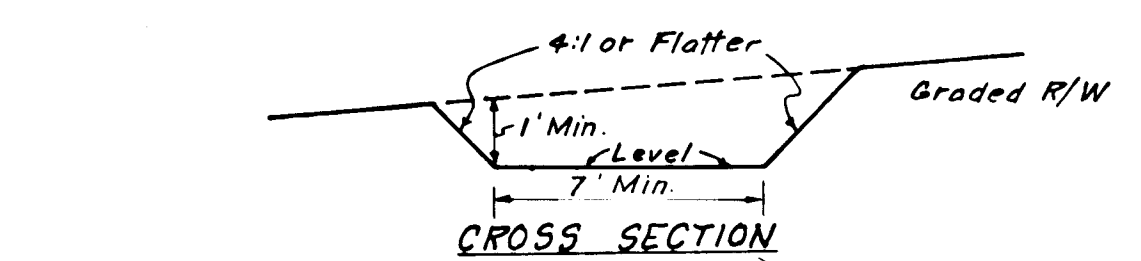
GRADE STABILIZATION STRUCTURE



ISOMETRIC VIEW

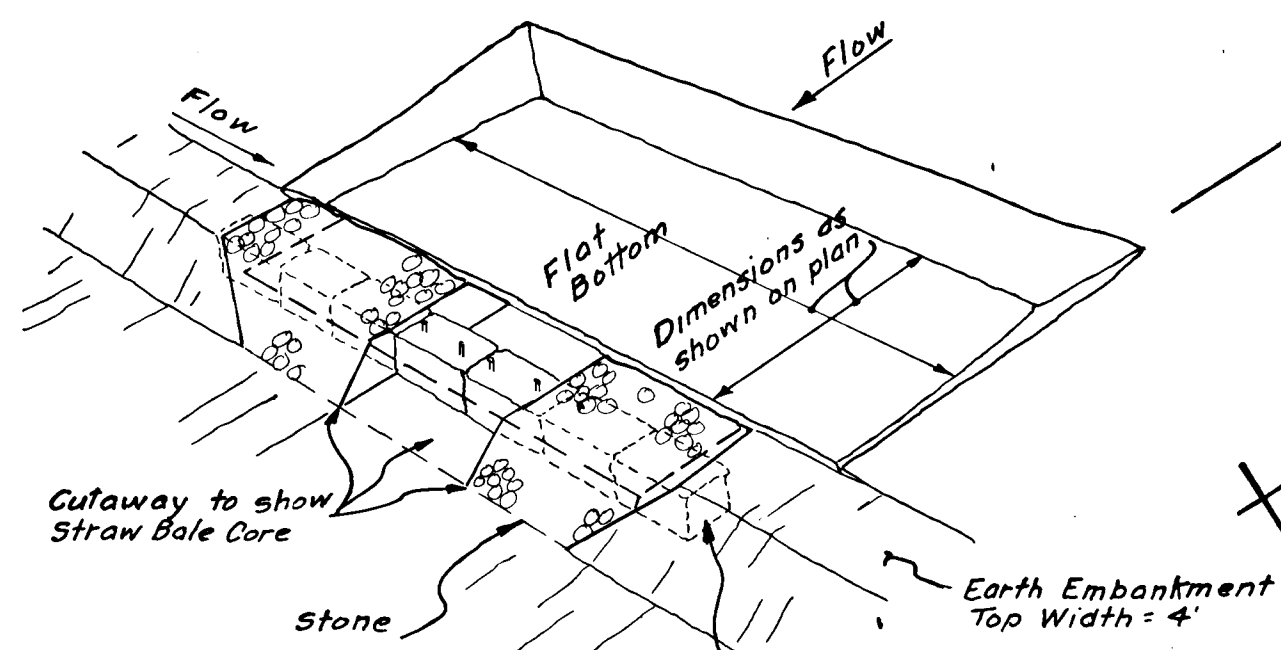


SECTION VIEW
STONE FILTER INLET PROTECTION

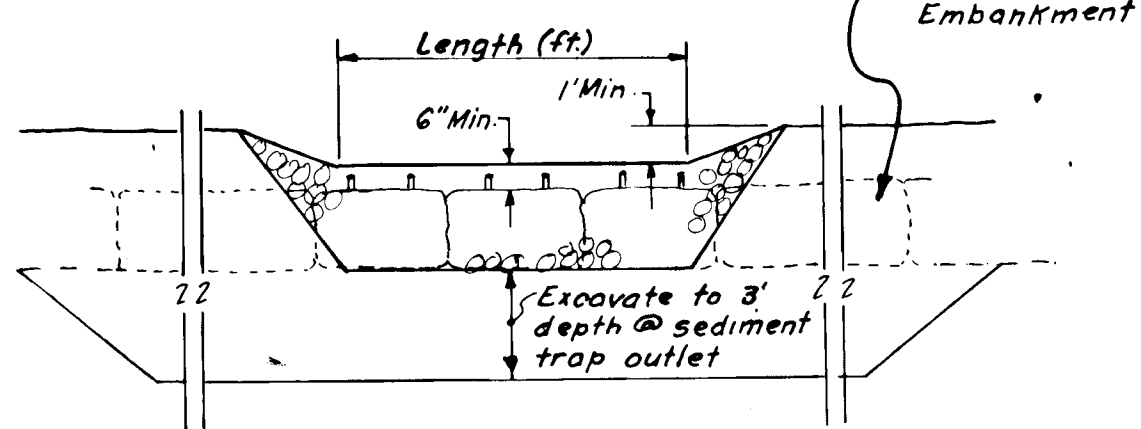


CROSS SECTION

INTERCEPTOR SWALE

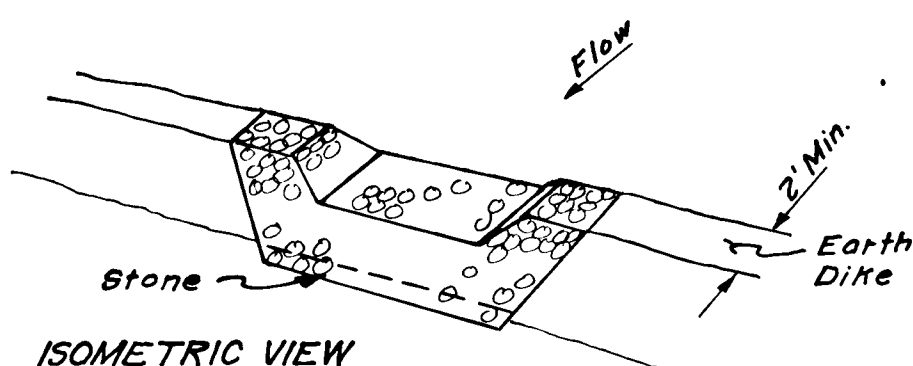


PERSPECTIVE VIEW

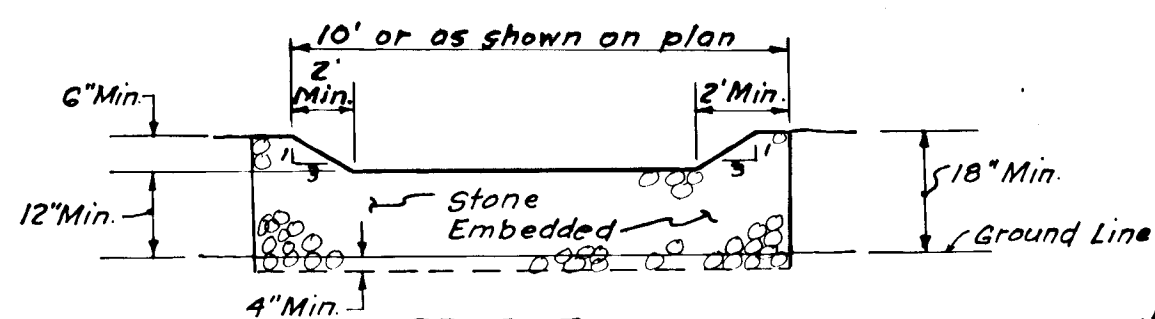


ELEVATION

STONE OUTLET SEDIMENT TRAP

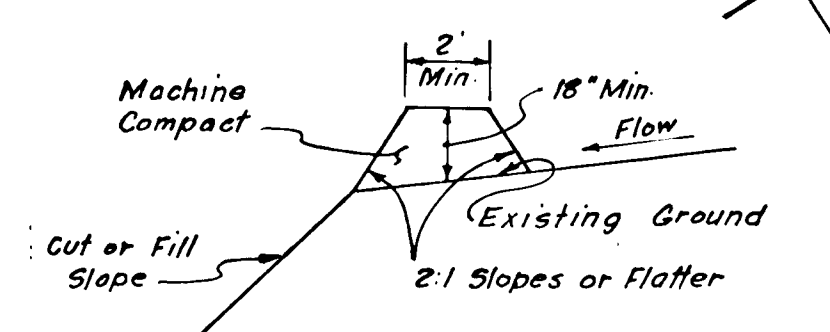


ISOMETRIC VIEW

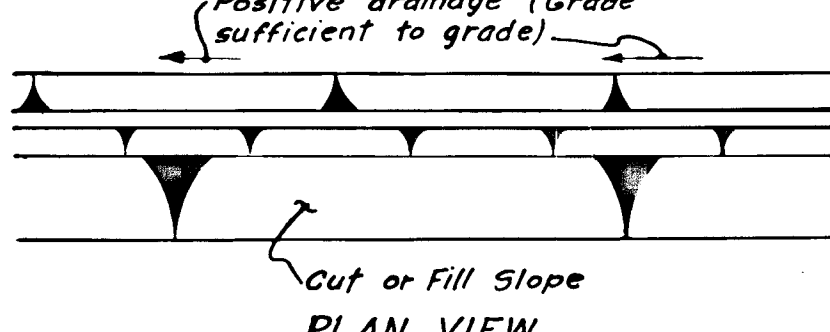


PROFILE

STONE OUTLET STRUCTURE

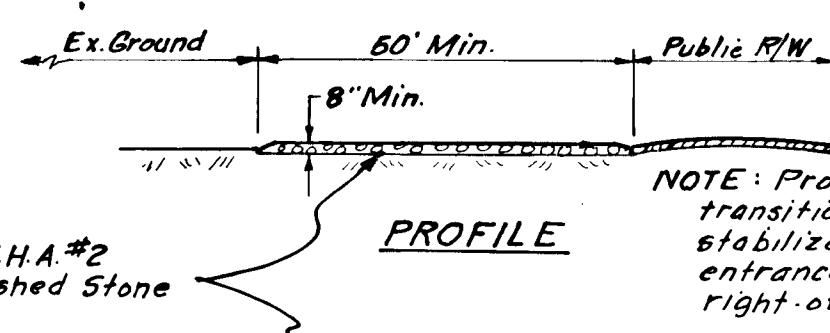


CROSS SECTION



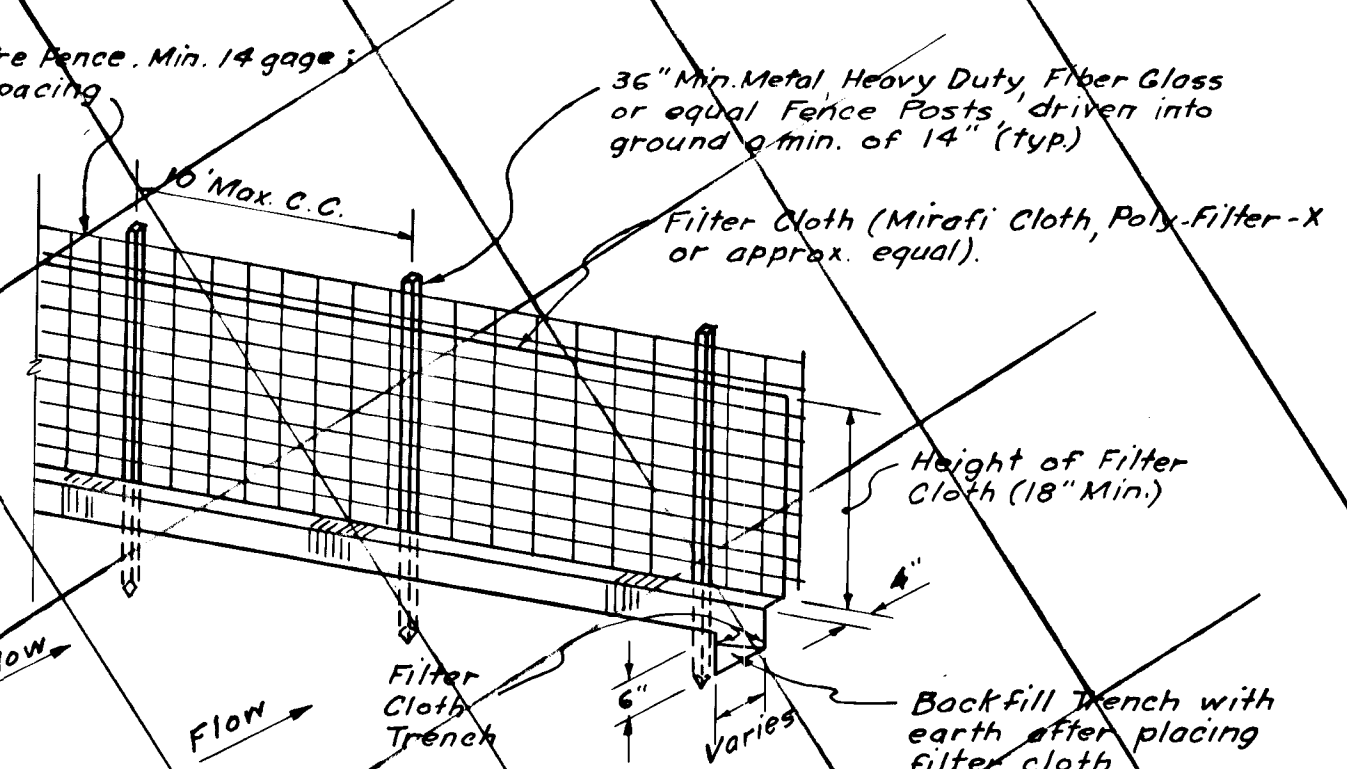
PLAN VIEW

DIVERSION DIKE



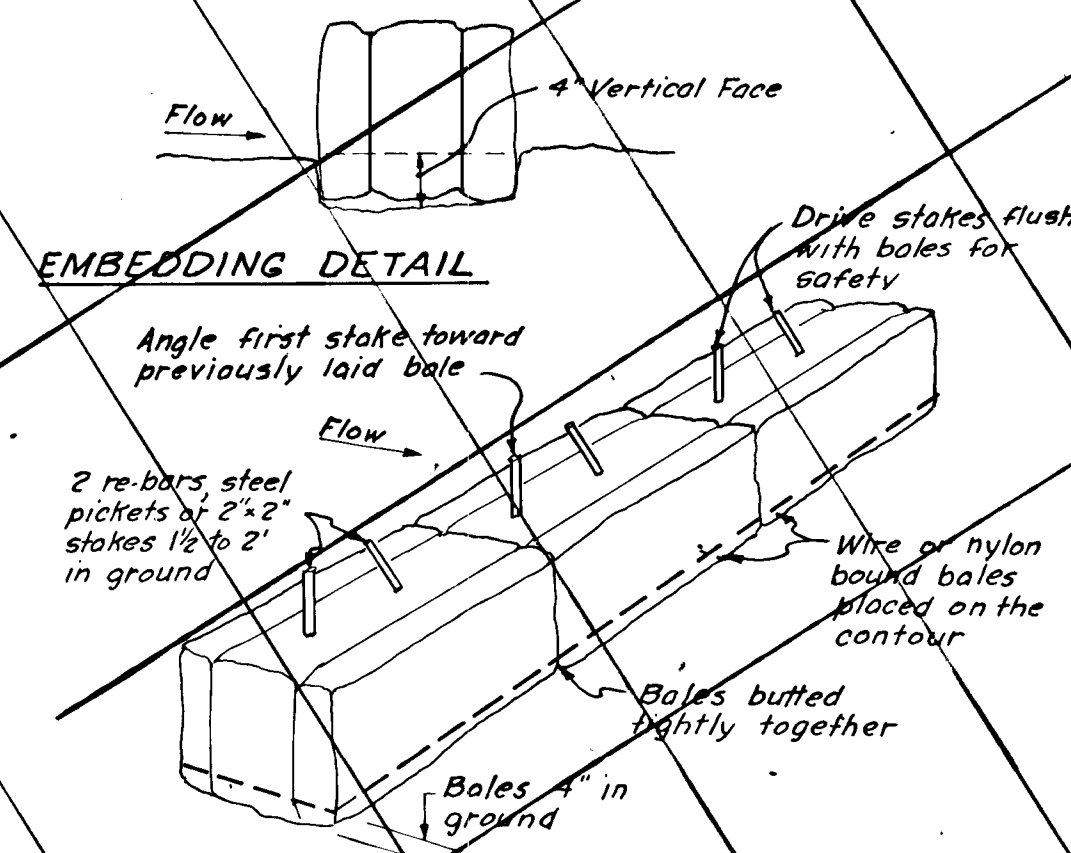
PROFILE

STABILIZED CONSTRUCTION ENTRANCE



NOTES:
1. Woven Wire Fence to be fastened securely to fence posts by use of wire ties.
2. Filter Cloth to be fastened securely to Woven Wire, by use of wire ties spaced every 24" x 24".

TYPICAL SILT FENCE DETAIL



EMBEDDING DETAIL

ANCHORING DETAIL

STRAW BALE DIKE

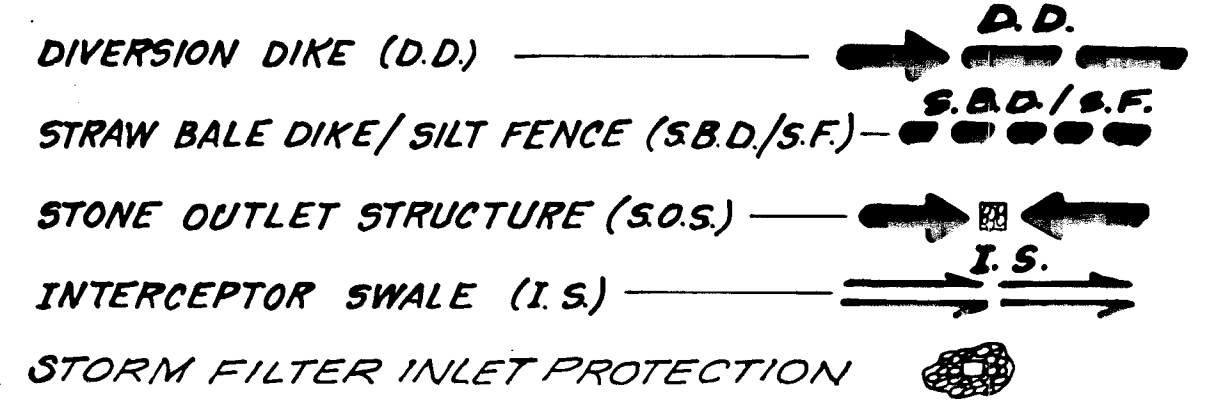
Reviewed for HOWARD S.C.D. and meets Technical Requirements.
John M. DeLoe 8/13/82
U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
William J. Rome 8-13-82
HOWARD S.C.D. DATE

GENERAL NOTES

- Grading Permits shall be obtained prior to installation of Sediment Control and grading.
- All Sediment and Erosion Control Measures will be installed and stabilized according to this plan prior to any other grading, clearing or disturbance of the existing surface of the site. See note #6 for stabilization except that the seed mixture will be annual rye applied at a rate of 1.4 lbs./1000 s.f.
- Notify the Bureau of Inspections and Permits at least 24 hrs. before starting any work.
- All Sediment Control Practices to conform to the "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" and shall be adjusted to meet actual field conditions.
- Stabilization of Disturbed ground to be done as soon after construction as possible.
- All grading shall be treated in accordance with the following Specifications.
 - Seed. Certified 85% germination applied at the rate of 3 lbs./1000 s.f. Mixture. 40% Kentucky Blue, 20% Chewing Fescue, 20% Kentucky 31 and 20% annual rye.
 - Fertilizer. 10-10-10 applied at a rate of 23 lbs./1000 s.f. Ground Agriculture Lime or Dolomite Lime applied at a rate of 90 lbs./1000 s.f.
 - Mulch. Weed free grain straw applied at a rate of 70-90 lbs./1000 s.f. Mulch shall be secured to the ground by any approved method ie; asphalt tacks, chemical binder, etc.
 - All sod shall be Maryland State Certified.
- All Structural Sediment Control Measures are to remain in place until permission for their removal has been obtained from the Bureau of Inspections and Permits.
- On-site Inspection and Maintenance of all Sediment Control Measures including clean-out of Sediment Traps and Dikes, and proper establishment of all planned vegetative measures will be the responsibility of the developer or his representative on the site, on a continuing day-to-day basis.
- It will be the developers responsibility to provide additional Sediment and Erosion Control Devices to protect stabilized areas during construction.
- The Contractor shall keep all public roads free of sediment deposits left from traffic leaving the construction site.
- Stabilized Construction Entrances shall be placed at all construction entrances.
- All Sediment will be prevented from entering any storm drainage system.
- Temporary Sediment Traps shall be cleaned out and restored to their original dimensions when the sediment has accumulated to a point one-half the depth between the outlet crest and the bottom of the trap.
- Silt removed from Traps shall be placed and stabilized on designated areas on the site in such a manner that it does not foul existing or proposed storm drainage systems or areas already stabilized.
- Sequence of Construction
 - Provide Minimal Clearing & Grubbing As Required To Construct Temporary Sediment Control Devices.
 - Construct All Temporary Sediment Control Devices & Construct Storm Drain Structures E-3, E-2, E-1, I-3, I-2, I-1. All Connecting Pipes & Concrete Stabilization Channel To I-3 Prior To Grading Operations.
 - Upon Installation Of Temporary Sediment Control Devices and Above Referenced Storm Drainage Clear & Grub Remaining Areas and Commence Street Grading.
 - Upon Completion Of Street Grading, Commence Utility Construction.
 - Upon Completion Of Utility Construction Commence Paving Construction And Stabilization Of Disturbed Areas.
 - Upon Completion Of Paving Construction, Remove Temporary Sediment Control Devices & Stabilize Any Remaining Disturbed Areas.
- Site analysis:
 - Total Area 44,309.2 acres
 - Area within R/W 2.25 acres
 - Area disturbed outside R/W 0.58 acres
 - Impermeable Surface Area 1.15 acres
 - Area to be Revegetated 1.70 acres
- Location and construction of Sediment and Erosion Control Measures shall be field adjusted to save mature trees where possible.

STANDARD SYMBOLS



Seal of the State of Maryland
Bruce D. Boltz

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.
Francisco Guzman June 9-1982
BY HIS STRONGLY IN FACT
HELENE S. KLAPP

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.
Bruce D. Boltz 3-25-82
BRUCE D. BOLTZ P.E. # 1323E DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

HEALTH OFFICER _____ DATE _____

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

Arthur W. Musselman 8-13-82
PLANNING DIRECTOR DATE
Arthur W. Musselman 8-13-82
CHIEF DIVISION OF LAND DEVELOPMENT DATE

DEVELOPER:
FRANCISCO GUZMAN
10757 SWANSFIELD ROAD
COLUMBIA, MD. 21044
PHONE: (301) 720-2170

No.	REVISION	DATE	BY



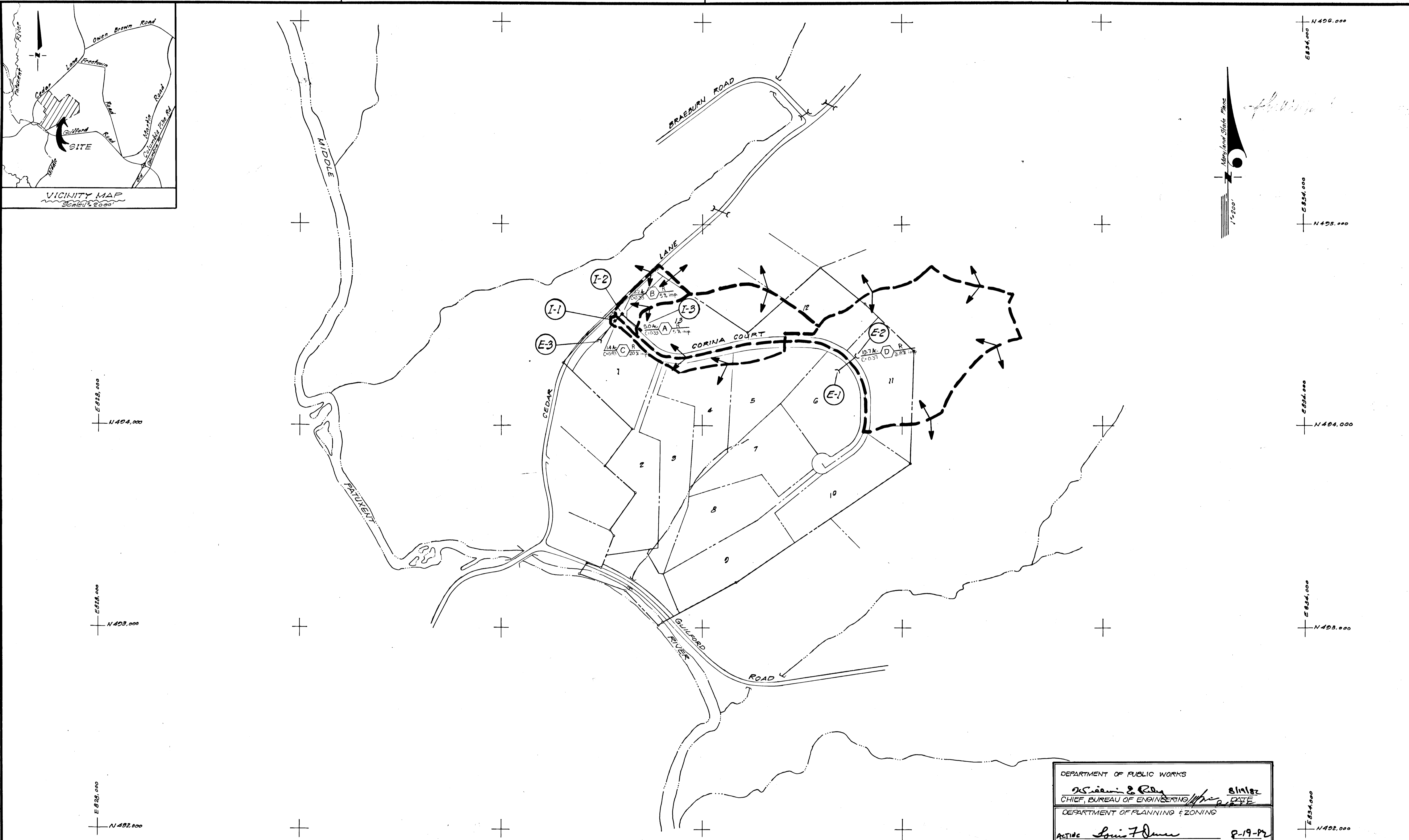
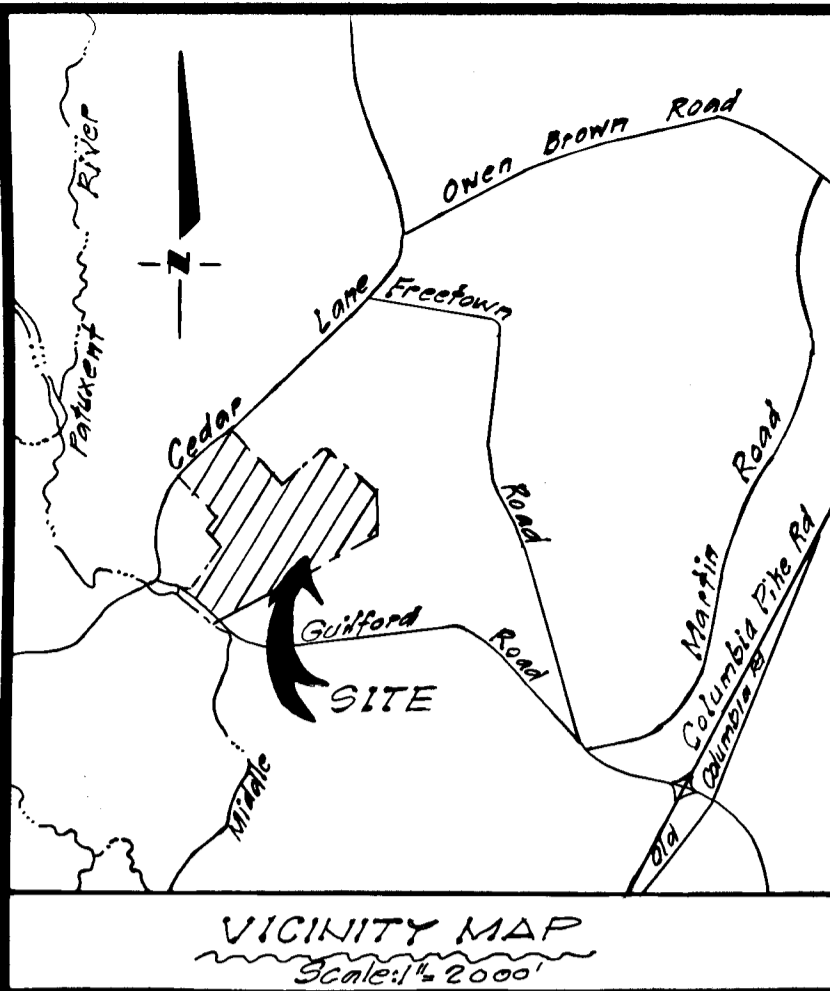
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RIVERDALE, MD. • ANNAPOLIS, MD. • FAIRFAX, VA. • NO. HUNTINGDON, PA.

SEDIMENT CONTROL DETAILS

LA ISLA

ELECTION DISTRICT 5 TAX MAP 05 PARCEL 113
HOWARD COUNTY, MARYLAND

BUR DESIGN	SCALE: As Shown
EG DRAWN	6 OF 7
CHECKED	SHEET
Feb 1982 DATE	R-580-X FILE No.



E 828.000
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E 834.000
N 402.000



DEPARTMENT OF PUBLIC WORKS
W. S. ... 8/1/82
 CHIEF, BUREAU OF ENGINEERING / DATE
 DEPARTMENT OF PLANNING & ZONING
Louis F. ... 8-19-82
 CHIEF, DIV. OF LAND DEVELOP. & ZONING ADMIN. / DATE

957

No.	REVISION	DATE	BY

GREENHORNE & O'MARA, INC.
 ENGINEERS • ARCHITECTS • PLANNERS • SURVEYORS
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 (301) 762 - 5340
 RIVERDALE, MD. • ANNAPOLIS, MD. • FAIRFAX, VA. • NO. HUNTINGDON, PA.

DRAINAGE AREA MAP
LA ISLA
 TAX MAP 35, PARCEL NO 113
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

MGH DESIGN	SCALE 1" = 200'
EG DRAWN	7 OF 7
BDB CHECKED	
DATE	FILE No.

F-82-107