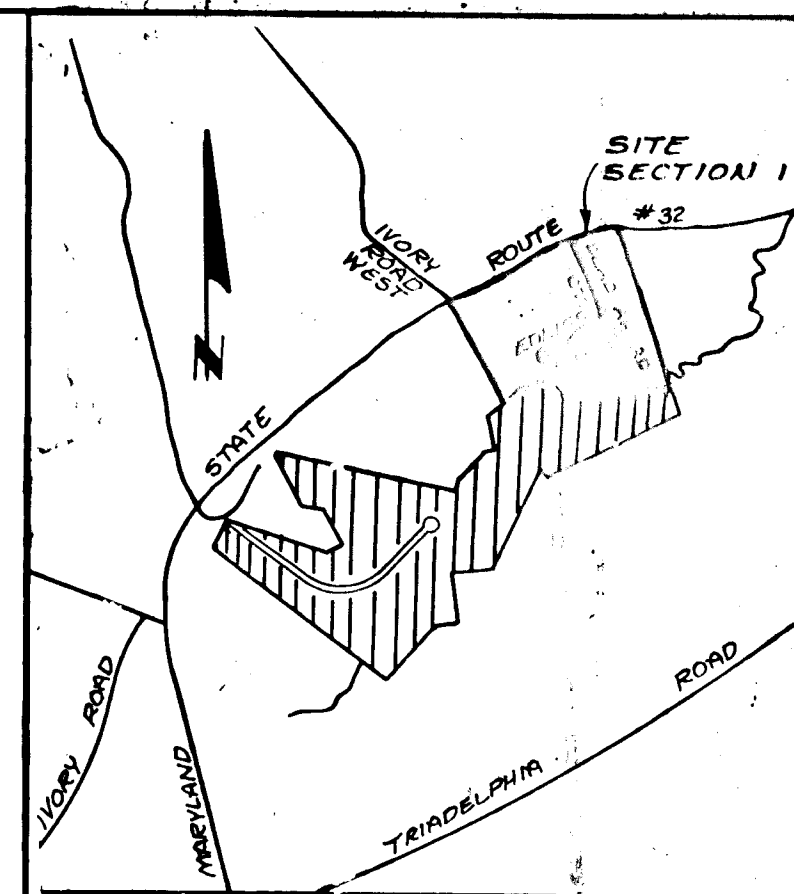
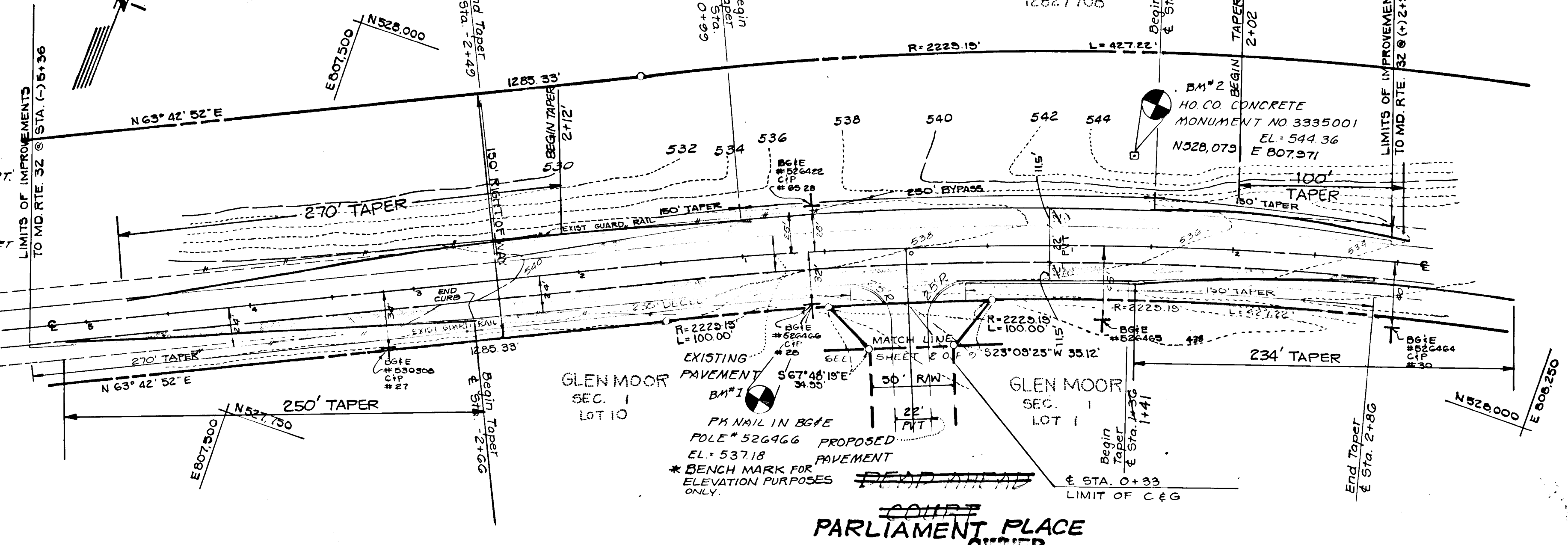


① SHOULDER JOINT DETAIL PER STANDARDS  
 ② SPECIAL PROVISIONS SHALL NOTE THAT PRESENT FOR THIS PORTION OF THE SHOULDER IS PROVIDED BY THE ITEM INCLUDED IN THE CONTRACT FOR THE SHOULDER BASE MATERIAL

**CROSS SECTION ELEMENTS**

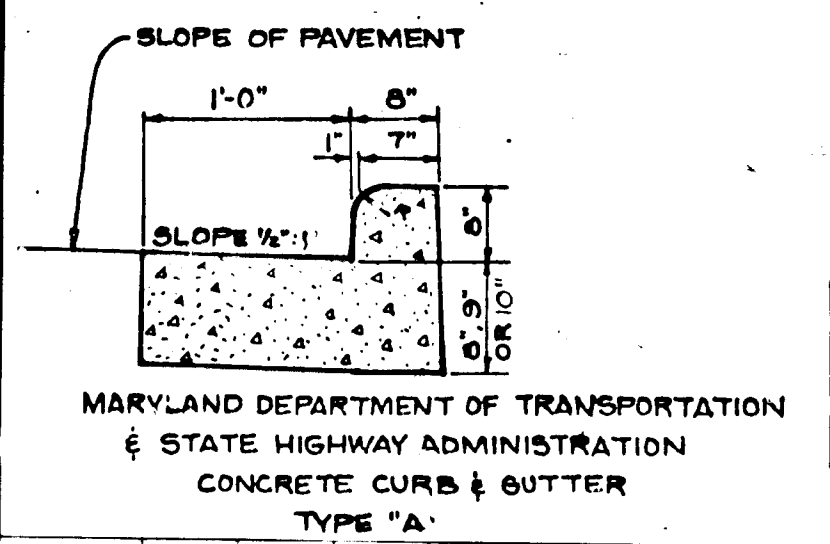
**INDEX OF SHEET**

SHEET	TITLE
1 OF 10	ROAD IMPROVEMENTS, MD. ROUTE 32.
2 OF 10	ROAD PLAN / PROFILE - DEAD AHEAD COURT.
3 OF 10	ROAD PLAN / PROFILE - COLLIS COURT.
4, 5 OF 10	GRADING / SEDIMENT CONTROL PLAN.
6 OF 10	DETAIL SHEET
7 OF 10	DRIVEWAY CULVERT PLAN / PROFILE SHEET
8 OF 10	SEDIMENT CONTROL DETAIL SHEET
9 OF 10	DRAINAGE AREA MAP
10 OF 10	SOILS MAP



APPROVED: OFFICE OF PLANNING AND ZONING

ACTIVE: *John P. Deane* 9-25-87  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Land Development Division  
*William W. Cleveland* 10/1/87  
 Chief, Bureau of Engineering  
*William W. Cleveland* 10/1/87

**PARLIAMENT PLACE**  
 OWNER  
 JOHN C. MORERLY  
 3205 MARYLAND RT. 32  
 GLENFLG, MARYLAND 21794

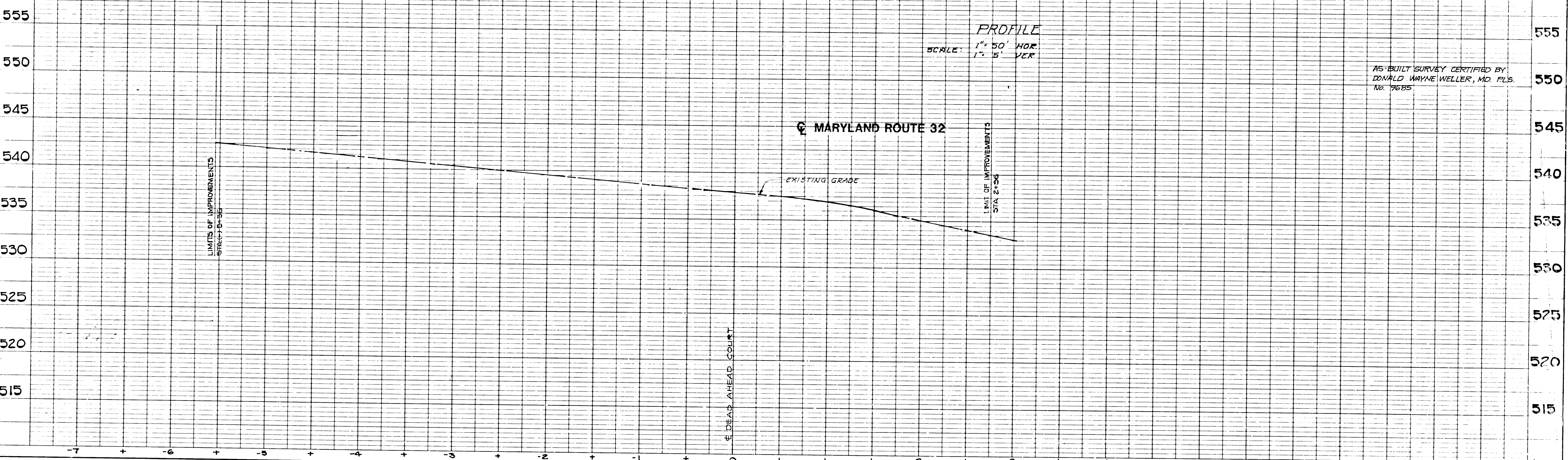
**DEVELOPER**  
 HOWARD COUNTY LAND SERVICES INC.  
 8307 MAIN STREET  
 ELLICOTT CITY, MARYLAND 21043

**ROAD IMPROVEMENTS for MARYLAND RT. 32**  
 ROAD PLAN & PROFILE  
 SHEET 1 OF 11

**GLEN MOOR**  
 LOTS 1 THRU 16  
 SECTION 1  
 TAX MAP 22 PARCEL 7  
 3rd ELECTION DISTRICT HOWARD COUNTY MD.

**KIDDE CONSULTANTS, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 1100 WEST STREET / SUITE 100 / LAUREL, MD 20707  
 (Wash.) (301) 953-1821 / 292-8086 (Dist.)

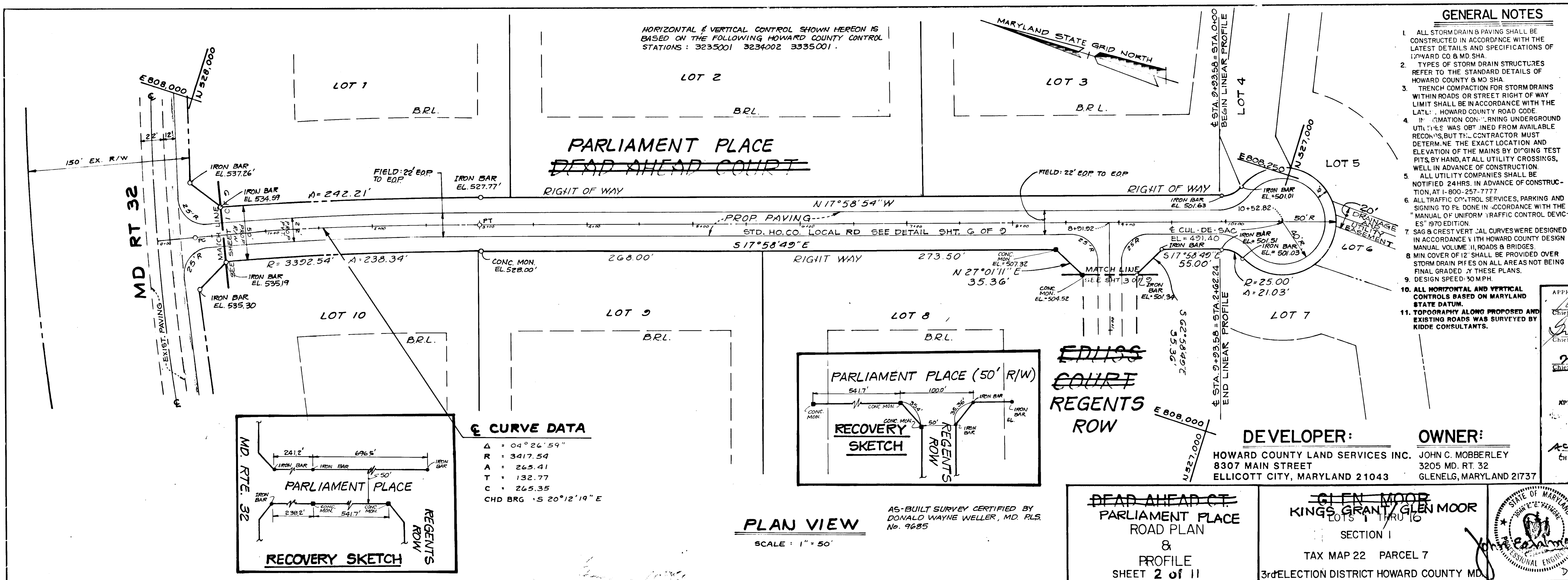
**JOHN E.C. PATMORE** MD PE 8978  
 DATE APRIL 1987 SCALE AS SHOWN  
 KCI JOB #: 1685111



1316

PLAN  
 REVISIONS  
 NO. DATE BY  
 1. 11/1/87 JWC  
 2. 11/1/87 JWC  
 3. 11/1/87 JWC  
 4. 11/1/87 JWC  
 5. 11/1/87 JWC  
 6. 11/1/87 JWC  
 7. 11/1/87 JWC  
 8. 11/1/87 JWC  
 9. 11/1/87 JWC  
 10. 11/1/87 JWC  
 11. 11/1/87 JWC  
 12. 11/1/87 JWC  
 13. 11/1/87 JWC  
 14. 11/1/87 JWC  
 15. 11/1/87 JWC  
 16. 11/1/87 JWC  
 17. 11/1/87 JWC  
 18. 11/1/87 JWC  
 19. 11/1/87 JWC  
 20. 11/1/87 JWC  
 21. 11/1/87 JWC  
 22. 11/1/87 JWC  
 23. 11/1/87 JWC  
 24. 11/1/87 JWC  
 25. 11/1/87 JWC  
 26. 11/1/87 JWC  
 27. 11/1/87 JWC  
 28. 11/1/87 JWC  
 29. 11/1/87 JWC  
 30. 11/1/87 JWC  
 31. 11/1/87 JWC  
 32. 11/1/87 JWC  
 33. 11/1/87 JWC  
 34. 11/1/87 JWC  
 35. 11/1/87 JWC  
 36. 11/1/87 JWC  
 37. 11/1/87 JWC  
 38. 11/1/87 JWC  
 39. 11/1/87 JWC  
 40. 11/1/87 JWC  
 41. 11/1/87 JWC  
 42. 11/1/87 JWC  
 43. 11/1/87 JWC  
 44. 11/1/87 JWC  
 45. 11/1/87 JWC  
 46. 11/1/87 JWC  
 47. 11/1/87 JWC  
 48. 11/1/87 JWC  
 49. 11/1/87 JWC  
 50. 11/1/87 JWC  
 51. 11/1/87 JWC  
 52. 11/1/87 JWC  
 53. 11/1/87 JWC  
 54. 11/1/87 JWC  
 55. 11/1/87 JWC  
 56. 11/1/87 JWC  
 57. 11/1/87 JWC  
 58. 11/1/87 JWC  
 59. 11/1/87 JWC  
 60. 11/1/87 JWC  
 61. 11/1/87 JWC  
 62. 11/1/87 JWC  
 63. 11/1/87 JWC  
 64. 11/1/87 JWC  
 65. 11/1/87 JWC  
 66. 11/1/87 JWC  
 67. 11/1/87 JWC  
 68. 11/1/87 JWC  
 69. 11/1/87 JWC  
 70. 11/1/87 JWC  
 71. 11/1/87 JWC  
 72. 11/1/87 JWC  
 73. 11/1/87 JWC  
 74. 11/1/87 JWC  
 75. 11/1/87 JWC  
 76. 11/1/87 JWC  
 77. 11/1/87 JWC  
 78. 11/1/87 JWC  
 79. 11/1/87 JWC  
 80. 11/1/87 JWC  
 81. 11/1/87 JWC  
 82. 11/1/87 JWC  
 83. 11/1/87 JWC  
 84. 11/1/87 JWC  
 85. 11/1/87 JWC  
 86. 11/1/87 JWC  
 87. 11/1/87 JWC  
 88. 11/1/87 JWC  
 89. 11/1/87 JWC  
 90. 11/1/87 JWC  
 91. 11/1/87 JWC  
 92. 11/1/87 JWC  
 93. 11/1/87 JWC  
 94. 11/1/87 JWC  
 95. 11/1/87 JWC  
 96. 11/1/87 JWC  
 97. 11/1/87 JWC  
 98. 11/1/87 JWC  
 99. 11/1/87 JWC  
 100. 11/1/87 JWC

PROFILE  
 REVISIONS  
 NO. DATE BY  
 1. 11/1/87 JWC  
 2. 11/1/87 JWC  
 3. 11/1/87 JWC  
 4. 11/1/87 JWC  
 5. 11/1/87 JWC  
 6. 11/1/87 JWC  
 7. 11/1/87 JWC  
 8. 11/1/87 JWC  
 9. 11/1/87 JWC  
 10. 11/1/87 JWC  
 11. 11/1/87 JWC  
 12. 11/1/87 JWC  
 13. 11/1/87 JWC  
 14. 11/1/87 JWC  
 15. 11/1/87 JWC  
 16. 11/1/87 JWC  
 17. 11/1/87 JWC  
 18. 11/1/87 JWC  
 19. 11/1/87 JWC  
 20. 11/1/87 JWC  
 21. 11/1/87 JWC  
 22. 11/1/87 JWC  
 23. 11/1/87 JWC  
 24. 11/1/87 JWC  
 25. 11/1/87 JWC  
 26. 11/1/87 JWC  
 27. 11/1/87 JWC  
 28. 11/1/87 JWC  
 29. 11/1/87 JWC  
 30. 11/1/87 JWC  
 31. 11/1/87 JWC  
 32. 11/1/87 JWC  
 33. 11/1/87 JWC  
 34. 11/1/87 JWC  
 35. 11/1/87 JWC  
 36. 11/1/87 JWC  
 37. 11/1/87 JWC  
 38. 11/1/87 JWC  
 39. 11/1/87 JWC  
 40. 11/1/87 JWC  
 41. 11/1/87 JWC  
 42. 11/1/87 JWC  
 43. 11/1/87 JWC  
 44. 11/1/87 JWC  
 45. 11/1/87 JWC  
 46. 11/1/87 JWC  
 47. 11/1/87 JWC  
 48. 11/1/87 JWC  
 49. 11/1/87 JWC  
 50. 11/1/87 JWC  
 51. 11/1/87 JWC  
 52. 11/1/87 JWC  
 53. 11/1/87 JWC  
 54. 11/1/87 JWC  
 55. 11/1/87 JWC  
 56. 11/1/87 JWC  
 57. 11/1/87 JWC  
 58. 11/1/87 JWC  
 59. 11/1/87 JWC  
 60. 11/1/87 JWC  
 61. 11/1/87 JWC  
 62. 11/1/87 JWC  
 63. 11/1/87 JWC  
 64. 11/1/87 JWC  
 65. 11/1/87 JWC  
 66. 11/1/87 JWC  
 67. 11/1/87 JWC  
 68. 11/1/87 JWC  
 69. 11/1/87 JWC  
 70. 11/1/87 JWC  
 71. 11/1/87 JWC  
 72. 11/1/87 JWC  
 73. 11/1/87 JWC  
 74. 11/1/87 JWC  
 75. 11/1/87 JWC  
 76. 11/1/87 JWC  
 77. 11/1/87 JWC  
 78. 11/1/87 JWC  
 79. 11/1/87 JWC  
 80. 11/1/87 JWC  
 81. 11/1/87 JWC  
 82. 11/1/87 JWC  
 83. 11/1/87 JWC  
 84. 11/1/87 JWC  
 85. 11/1/87 JWC  
 86. 11/1/87 JWC  
 87. 11/1/87 JWC  
 88. 11/1/87 JWC  
 89. 11/1/87 JWC  
 90. 11/1/87 JWC  
 91. 11/1/87 JWC  
 92. 11/1/87 JWC  
 93. 11/1/87 JWC  
 94. 11/1/87 JWC  
 95. 11/1/87 JWC  
 96. 11/1/87 JWC  
 97. 11/1/87 JWC  
 98. 11/1/87 JWC  
 99. 11/1/87 JWC  
 100. 11/1/87 JWC



**GENERAL NOTES**

- ALL STORM DRAIN & PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST DETAILS AND SPECIFICATIONS OF HOWARD COUNTY & MD. SHA.
- TYPES OF STORM DRAIN STRUCTURES REFER TO THE STANDARD DETAILS OF HOWARD COUNTY ROAD CODE.
- TRENCH COMPACTION FOR STORM DRAINS WITHIN ROADS OR STREET RIGHT OF WAY LIMIT SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY ROAD CODE.
- FOUNDATION CONSTRUCTION UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS, BY HAND, AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF CONSTRUCTION.
- ALL UTILITY COMPANIES SHALL BE NOTIFIED 24 HRS. IN ADVANCE OF CONSTRUCTION AT 1-800-287-7777.
- ALL TRAFFIC CONTROL SERVICES, PARKING AND SIGNING TO BE DONE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 9TH EDITION.
- SAG & CREST VERTICAL CURVES WERE DESIGNED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME II, ROADS & BRIDGES.
- MIN COVER OF 12" SHALL BE PROVIDED OVER STORM DRAIN PIPES ON ALL AREAS NOT BEING FINAL GRADED BY THESE PLANS.
- DESIGN SPEED 30 MPH.
- ALL HORIZONTAL AND VERTICAL CONTROLS BASED ON MARYLAND STATE DATUM.
- TOPOGRAPHY ALONG PROPOSED AND EXISTING ROADS WAS SURVEYED BY KIDDE CONSULTANTS.

**VICINITY MAP**  
SCALE: 1" = 2000'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Land Development Division  
 Date: 11/1/87

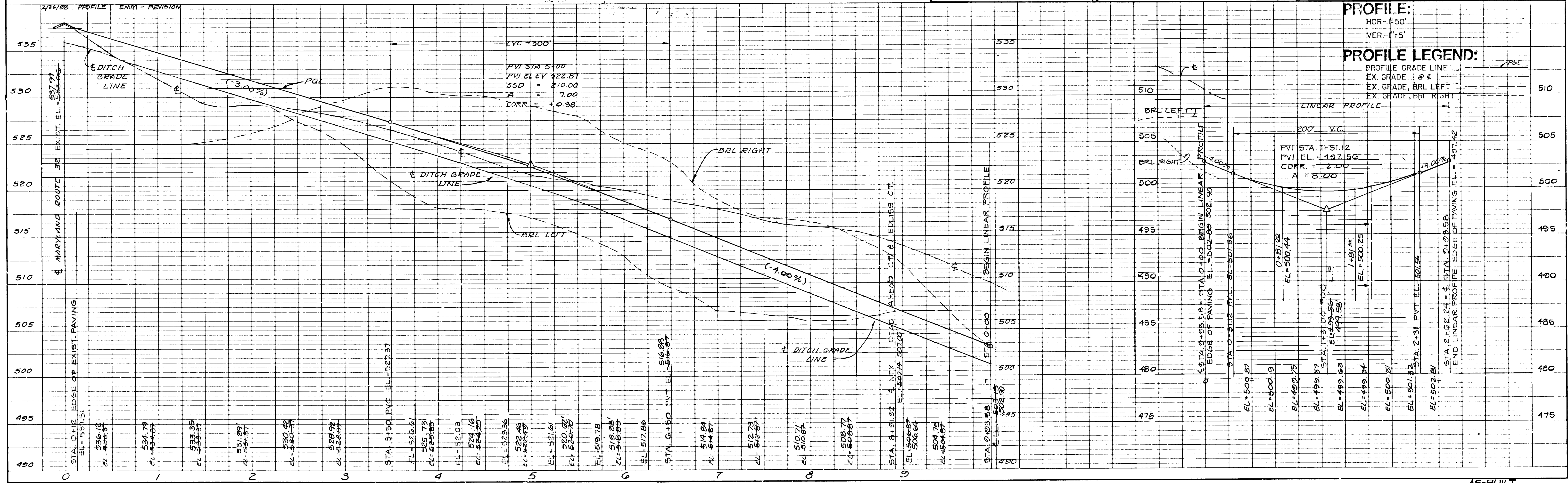
APPROVED: *James W. McManus*  
 Chief, Bureau of Highways  
 Date: 10-5-87

APPROVED: *Kevin P. Ray*  
 Chief, Bureau of Engineering  
 Date: 10-5-87

APPROVED: OFFICE OF PLANNING AND ZONING  
*ACTIVE Louis F. Duma*  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
 DATE: 9-25-87

**KIDDE CONSULTANTS, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 1100 WEST STREET / SUITE 100 / LAUREL, MD 20707  
 (Wash.) (301) 953-1821 / 792-8086 (Balt.)

**JOHN E.C. PATMORE** MD PE 8978  
 DATE: APRIL 1987 SCALE: AS SHOWN  
 KCI JOB #168511



1316

PLAN  
 NOTE BOOK  
 NO. \_\_\_\_\_

**DEAD AHEAD COURT**  
**PARLIAMENT PLACE**

**Q CURVE DATA**

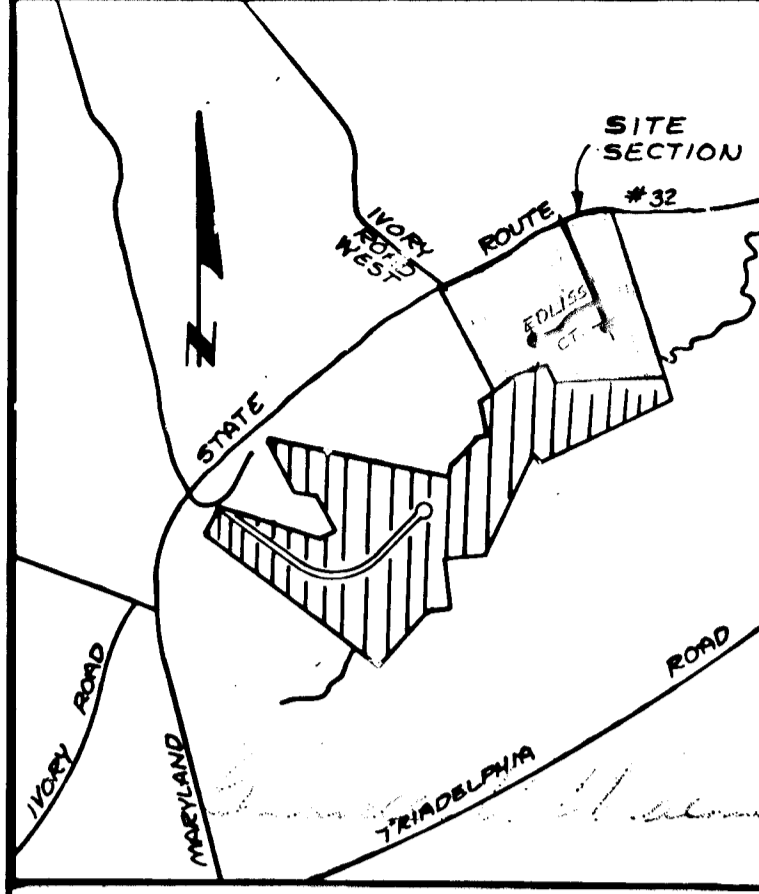
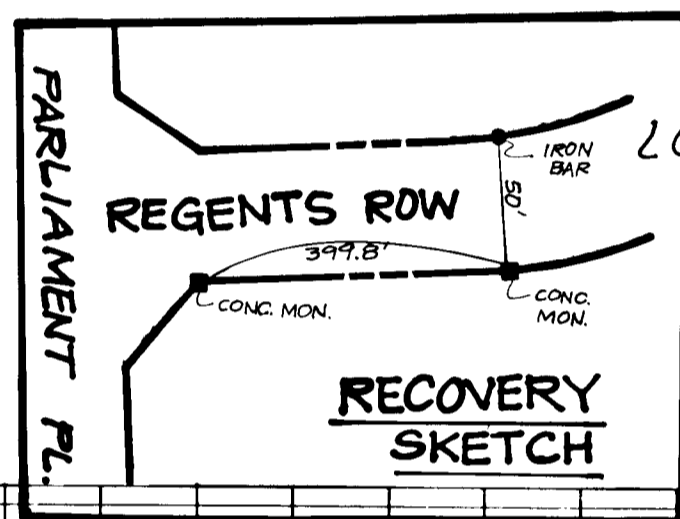
Δ = 25° 30' 00"  
 R = 256.08'  
 A = 113.97'  
 T = 57.94'  
 C = 113.03'  
 CHD BRG = S 59° 16' 11" W

**Q CURVE DATA**

Δ = 25° 30' 00"  
 R = 256.08'  
 A = 113.97'  
 T = 57.94'  
 C = 113.03'  
 CHD BRG = S 59° 16' 11" W

**PLAN VIEW**

SCALE: 1" = 50'



**VICINITY MAP**

SCALE: 1" = 2000'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Land Development Division  
 Date: 9-28-87  
*Travis W. Wealand* 10/5/87  
 Chief, Bureau of Highways  
 Date: 10/5/87  
*James E. Ray*  
 Chief, Bureau of Engineering  
 Date: 10/5/87  
 APPROVED: OFFICE OF PLANNING AND ZONING  
 ACTING: *Lois F. Dunn* 9-28-87  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
 DATE

AS-BUILT SURVEY CERTIFIED BY  
 DONALD WAYNE WELLS, MD. PLS.  
 No. 7685

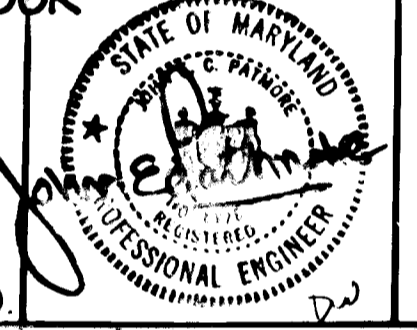
**DEVELOPER:** HOWARD COUNTY LAND SERVICES INC.  
 8307 MAIN STREET  
 ELLIQUOTT CITY, MARYLAND 21043

**OWNER:** JOHN C. MOBBERLEY  
 3205 MD. RT. 32  
 GLENELG, MARYLAND 21737

**EDLISS CT. REGENTS ROW ROAD PLAN & PROFILE SHEET 3 of 11**

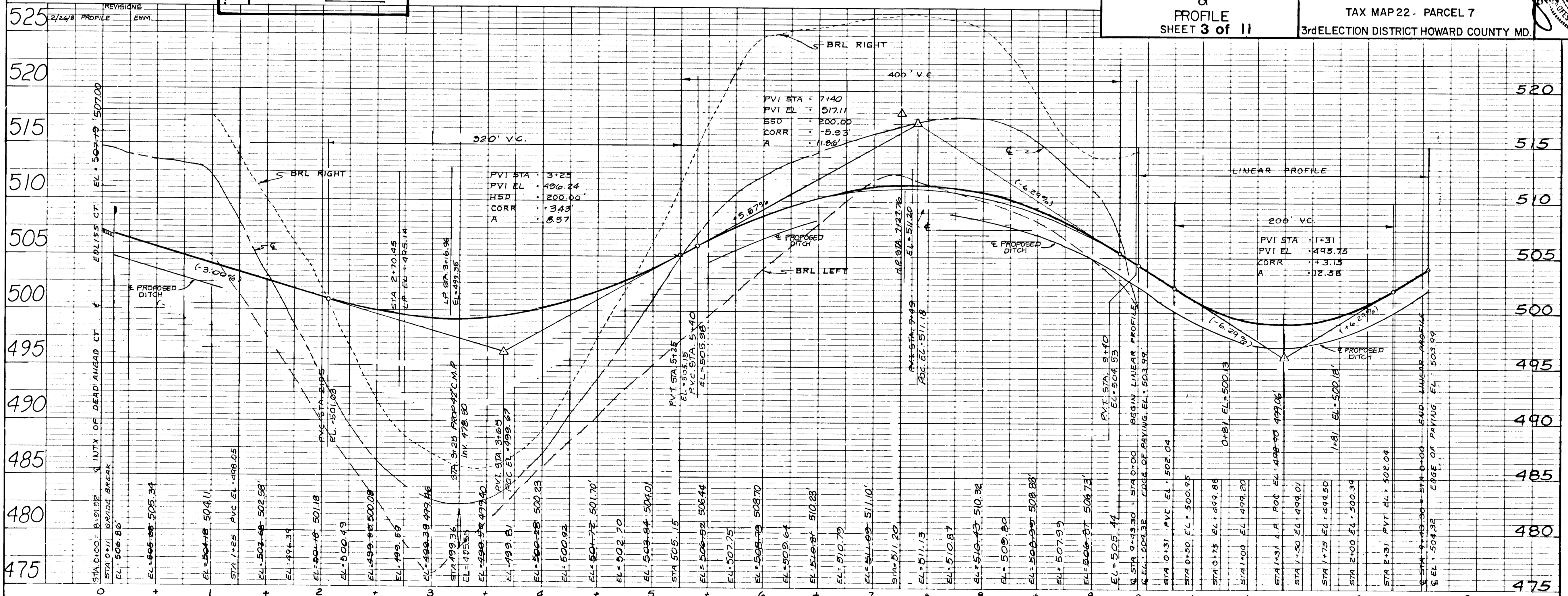
**KINGS GRANT/GLEN MOOR LOTS 1 THRU 16 SECTION I**

TAX MAP 22 - PARCEL 7  
 3rd ELECTION DISTRICT HOWARD COUNTY MD.



**KIDDE CONSULTANTS, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 1100 WEST STREET / SUITE 100 / LAUREL, MD 20707  
 (Wash.) (301) 953-1821 / 782-8086 (Rat.)

JOHN E. PATMORE MD PE 8978  
 DATE: APR. 1987 SCALE: AS SHOWN  
 KCI JOB 168511



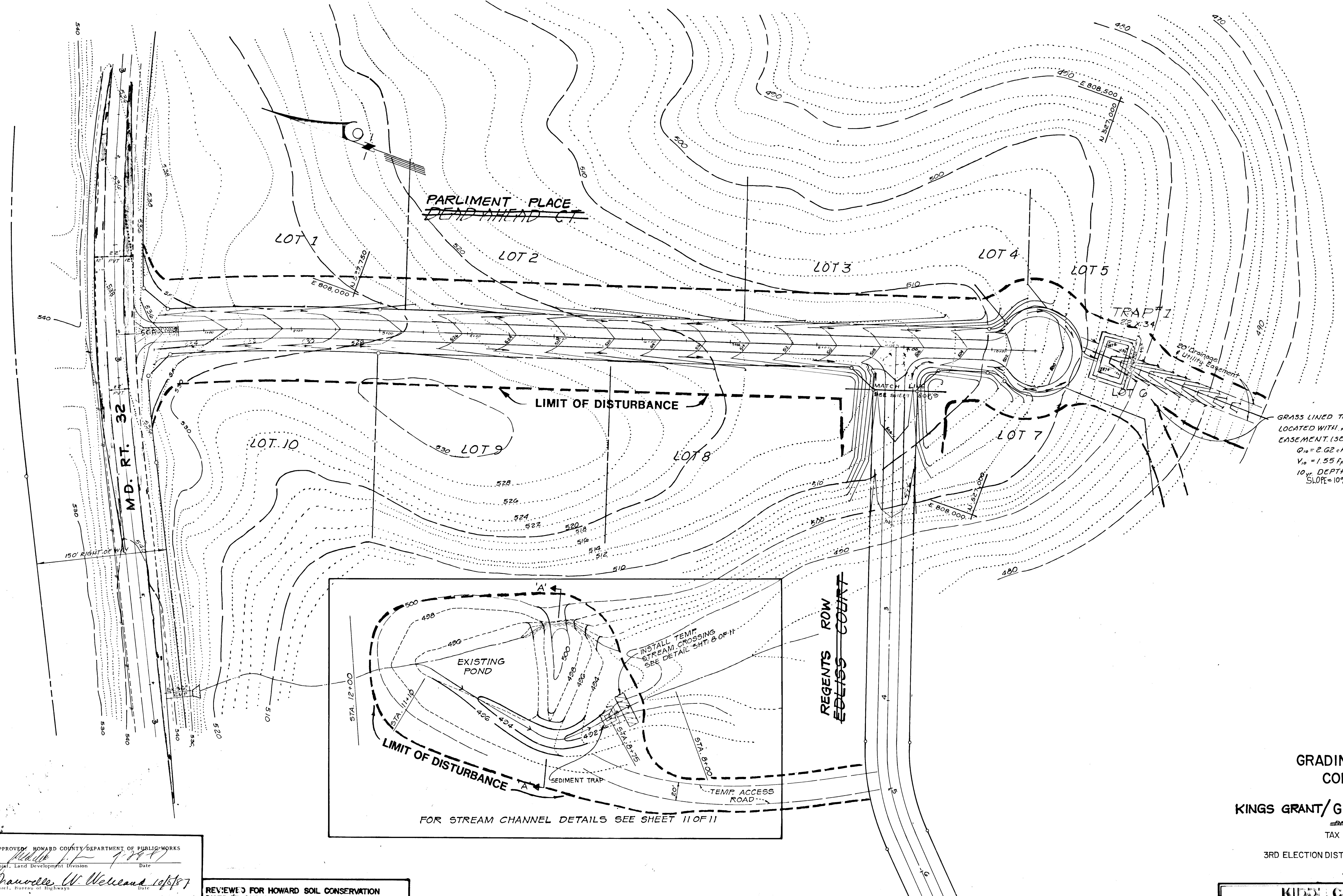
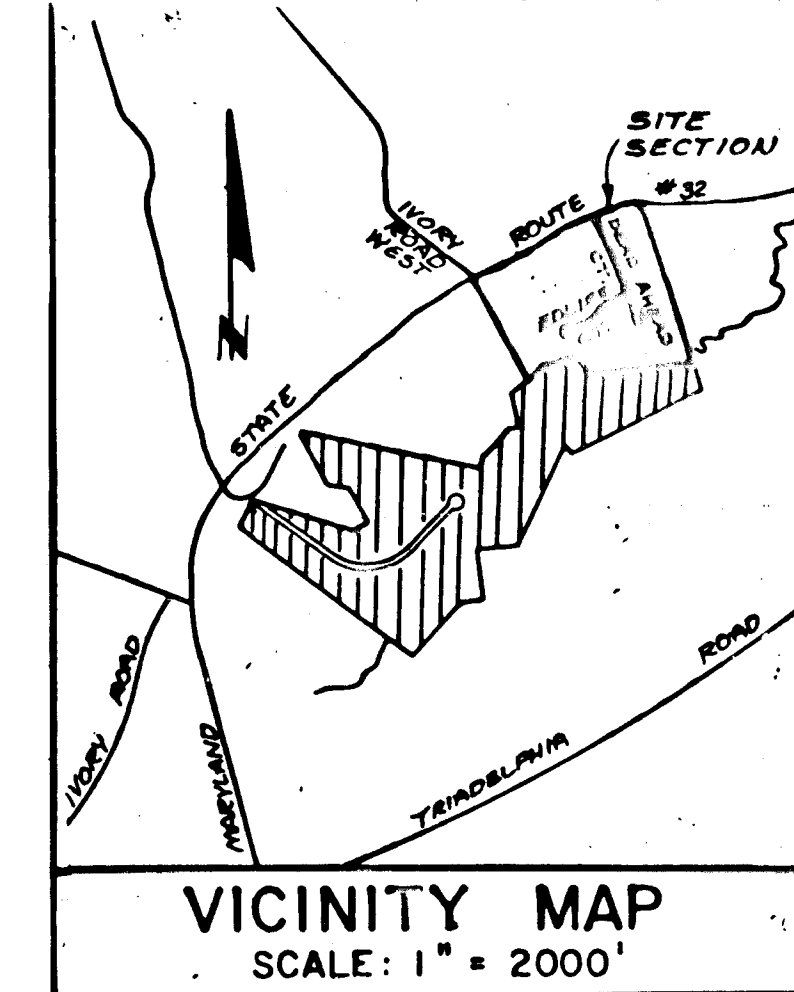
**PROFILE:**  
 HOR. - 1" = 50'  
 VER. - 1" = 5'

**PROFILE LEGEND:**  
 PROFILE GRADE LINE — PGL  
 EX. GRADE @ — @ —  
 EX. GRADE, BRL LEFT — — — —  
 EX. GRADE, BRL RIGHT — — — —

**GENERAL NOTES**

- ALL STORM DRAIN & PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST DETAILS AND SPECIFICATIONS OF HOWARD CO & MD. SHA.
- TYPES OF STORM DRAIN STRUCTURES REFER TO THE STANDARD DETAILS OF HOWARD COUNTY & MD. SHA.
- TRENCH COMPACTION FOR STORM DRAINS WITHIN ROADS OR STREET RIGHT OF WAY LIMIT SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY ROAD CODE.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS, BY HAND, AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF CONSTRUCTION.
- ALL UTILITY COMPANIES SHALL BE NOTIFIED 24 HRS. IN ADVANCE OF CONSTRUCTION, AT 1-800-257-7777.
- ALL TRAFFIC CONTROL SERVICES, PARKING AND SIGNING TO BE DONE IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" 1970 EDITION.
- SAG & CREST VERTICAL CURVES WERE DESIGNED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME III, ROADS & BRIDGES.
- MIN. COVER OF 12" SHALL BE PROVIDED OVER STORM DRAIN PIPES ON ALL AREAS NOT BEING FINAL GRADED BY THESE PLANS.
- DESIGN SPEED: 30 MPH.
- ALL HORIZONTAL AND VERTICAL CONTROLS BASED ON MARYLAND STATE DATUM.
- TOPOGRAPHY ALONG PROPOSED AND EXISTING ROADS WAS SURVEYED BY KIDDE CONSULTANTS.

1316



GRASS LINED TRAPEZOIDAL DRAINAGE DITCH LOCATED WITH A 20' DRAINAGE & UTILITY EASEMENT. (SEE DETAILS SHEET G OF D.)  
 $Q_{10} = 2.62 \text{ cfs}$   
 $V_{10} = 1.55 \text{ fps}$  (ALLOWABLE  $V = 4.0 \text{ fps}$ )  
 10' DEPTH OF FLOW = 35'  
 SLOPE = 10%

**GRADING & SEDIMENT CONTROL PLAN**  
 FOR  
**KINGS GRANT/GLEN MOOR**  
 PARLIAMENT PLACE  
 TAX MAP 22 PARCEL 7  
 3RD ELECTION DISTRICT HOWARD COUNTY, MD.  
 SHEET 4 OF 11

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Land Development Division  
 Date: 7/29/87  
 Approved: *W. Williams*  
 Chief, Bureau of Engineering  
 Date: 9/25/87

APPROVED: OFFICE OF PLANNING AND ZONING  
 Chief, Division of Land Development and Zoning Administration  
 Date: 9/25/87  
 Approved: *John F. Edman*

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
 Signature: *James M. Nelson*  
 Date: 9-24-87

U.S. SOIL CONSERVATION SERVICE  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: *Stephen L. Spaulding*  
 Date: 9/24/87  
 Approved: Howard S.C.D.

**OWNER'S/DEVELOPER'S CERTIFICATION**  
 "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 inspections by the Howard Soil Conservation District."  
 Signature: *John E.C. Patmore*  
 Name: JOHN E.C. PATMORE  
 Title: Registered Professional Engineer # 8978  
 Date: 5/11/87  
 Phone No.:  
 Complete Address:

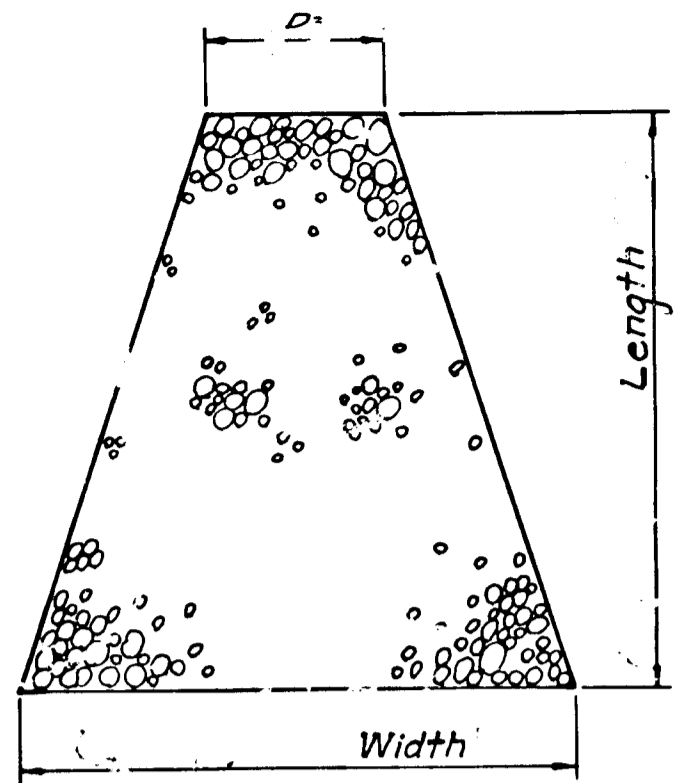
**ENGINEERS CERTIFICATE**  
 "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."  
 Signature: *John E.C. Patmore*  
 Name: JOHN E.C. PATMORE  
 Title: Registered Professional Engineer # 8978  
 Date: 5/11/87

**DEVELOPER:**  
 HOWARD COUNTY LAND SERVICES INC.  
 8307 MAIN STREET  
 ELLICOTT CITY MARYLAND 21043  
**OWNER:**  
 JOHN C. MOBBERLEY  
 3205 MD. RT. 32  
 GLENELG, MARYLAND 21737

**KIDD CONSULTANTS, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 1100 WEST STREET / SUITE 100 / LAUREL, MD 20707  
 (Wash.) (301) 953-1821 / 792-8086 (Fallt.)

DATE	REVISION	BY
1/24/88	CONTOURS	SAH
DRAWN BY: K.C.I.		
CHECKED BY: K.C.I.		
M.W.G.		
D.C.W.		
1685111		

Signature: *John E.C. Patmore*  
 JOHN E.C. PATMORE  
 MD PE 8978  
 DATE APRIL, 1987 SCALE 1" = 50'

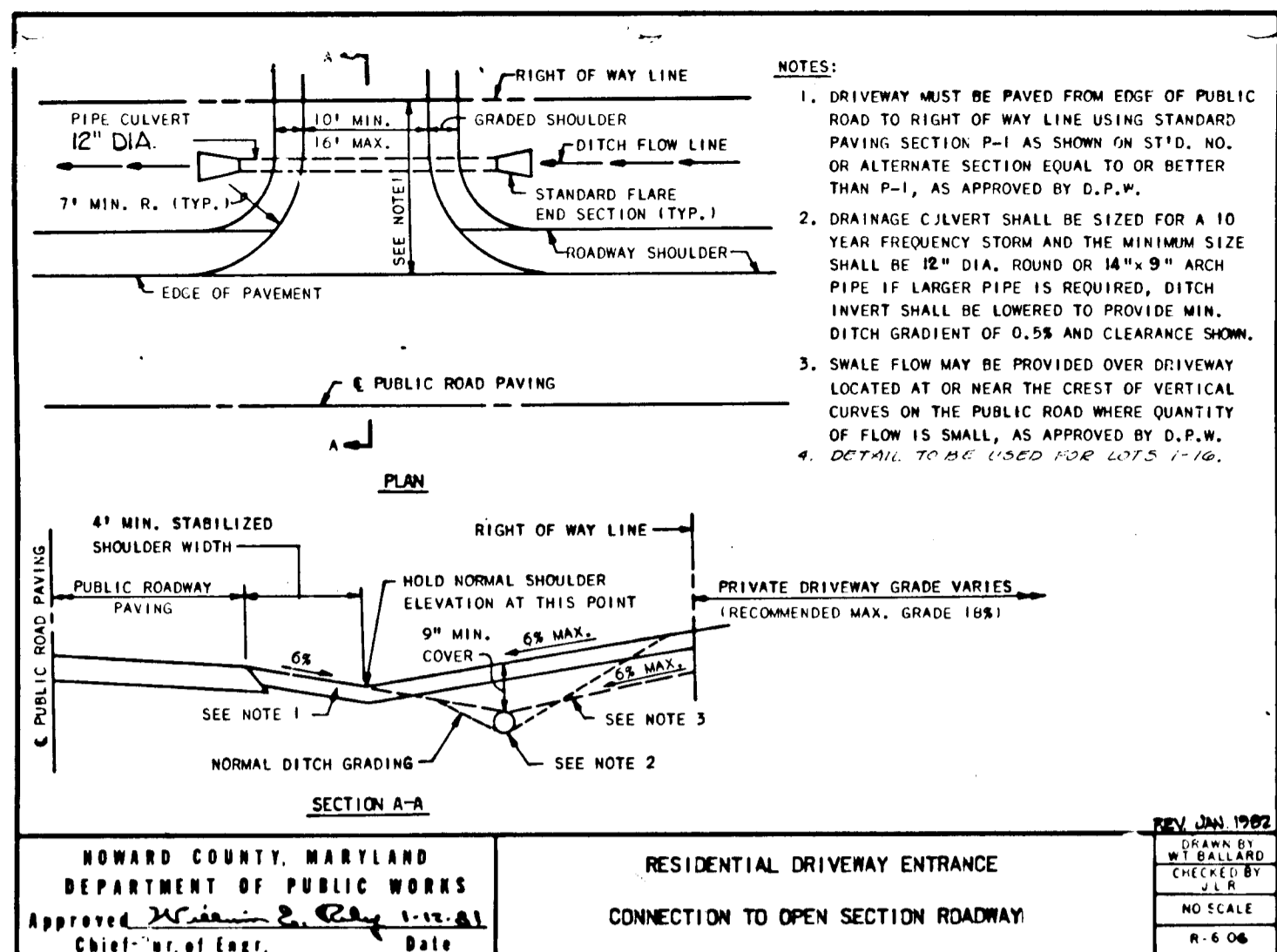


4"-6" Stone Min.  
1'-0" Thick Over  
Erosion Control Cloth.  
D/METAL END SECTION

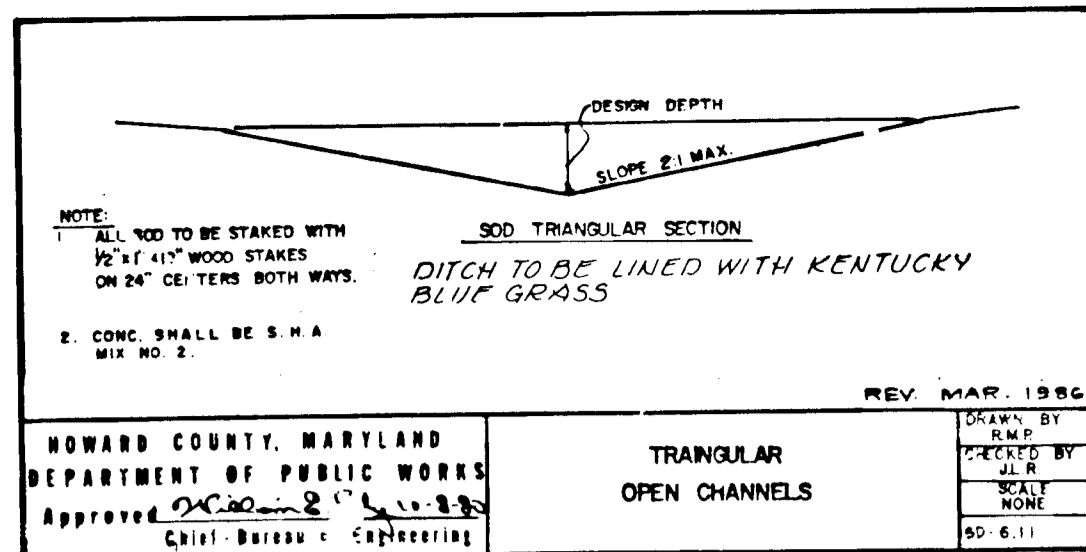
STRUCT #	D FT	LENGTH FT	WIDTH FT
5-2	9.7	20'	29.7
5-2	9.7	20'	29.7
5-3	10.5	16'	26
5-4	7'	13'	20

RIP-RAP & OUTFALL  
DETAIL 51, 2, 3 + 4

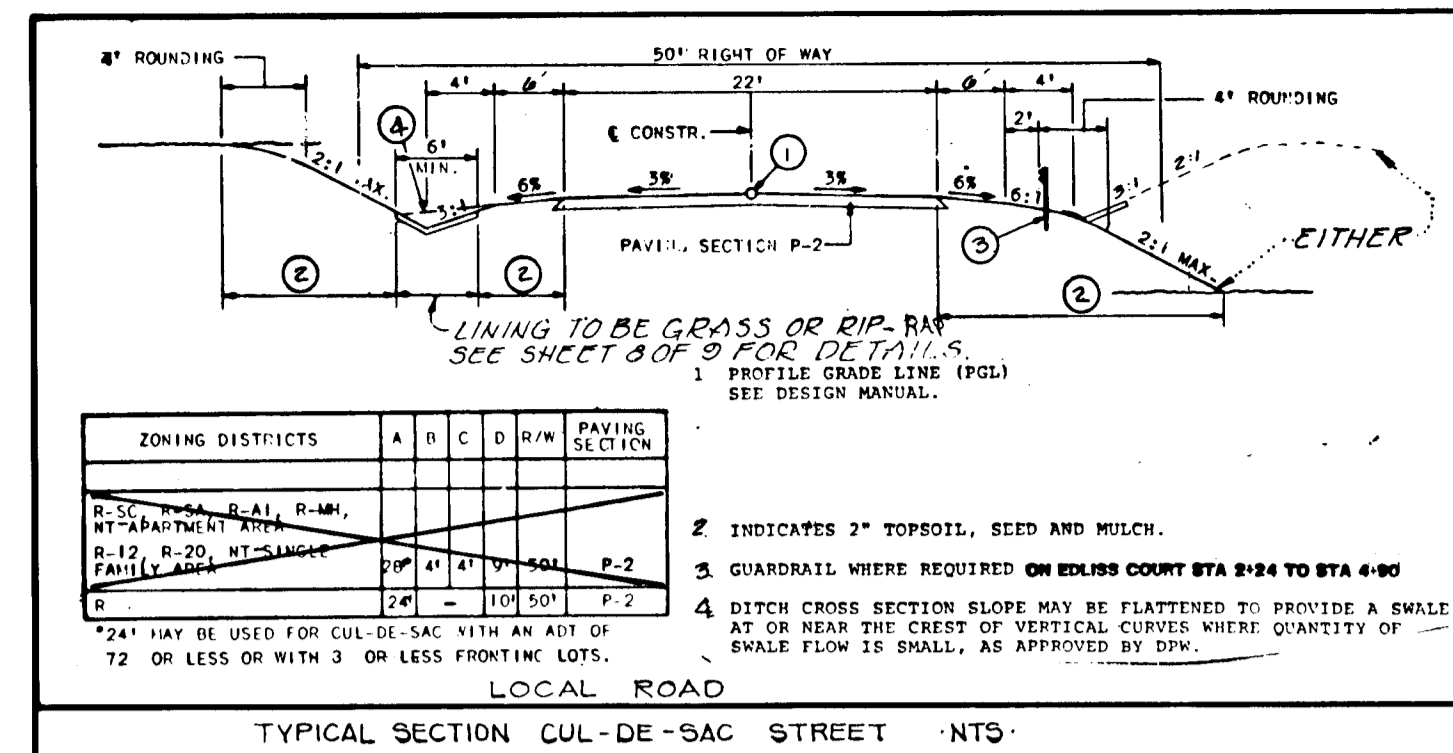
Not To Scale



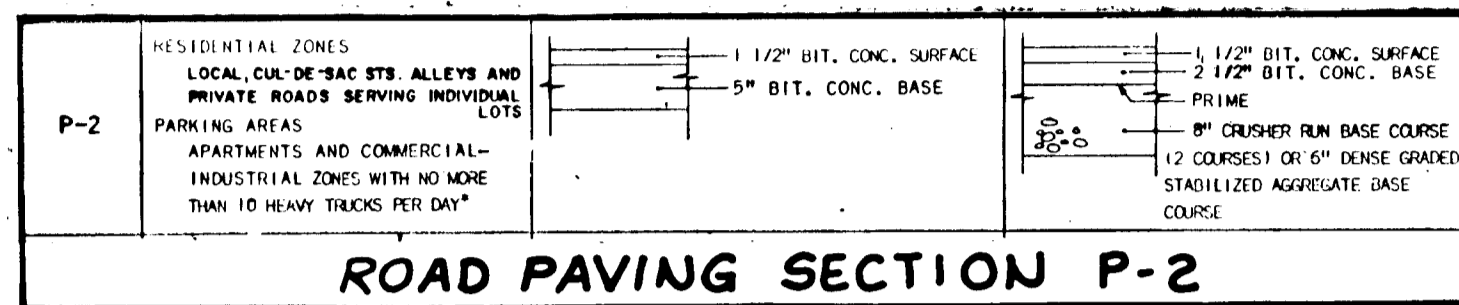
HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
Approved: [Signature] Chief, Bureau of Engineering



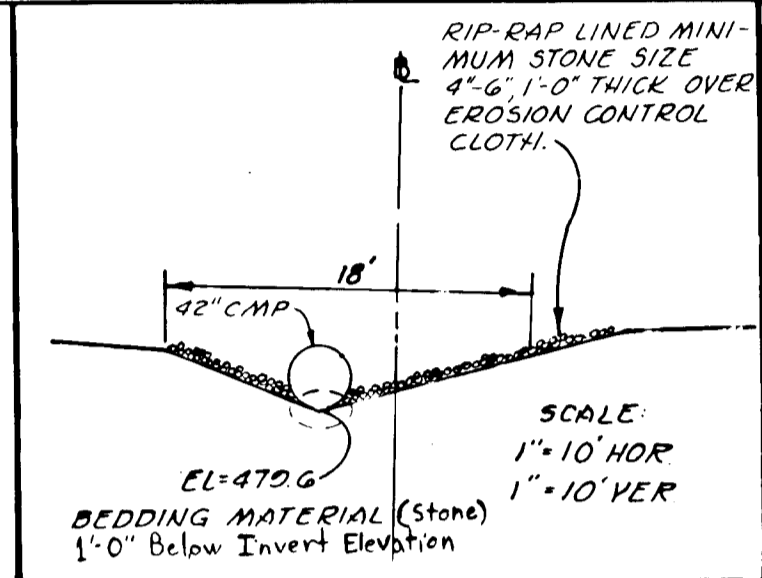
HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
Approved: [Signature] Chief, Bureau of Engineering



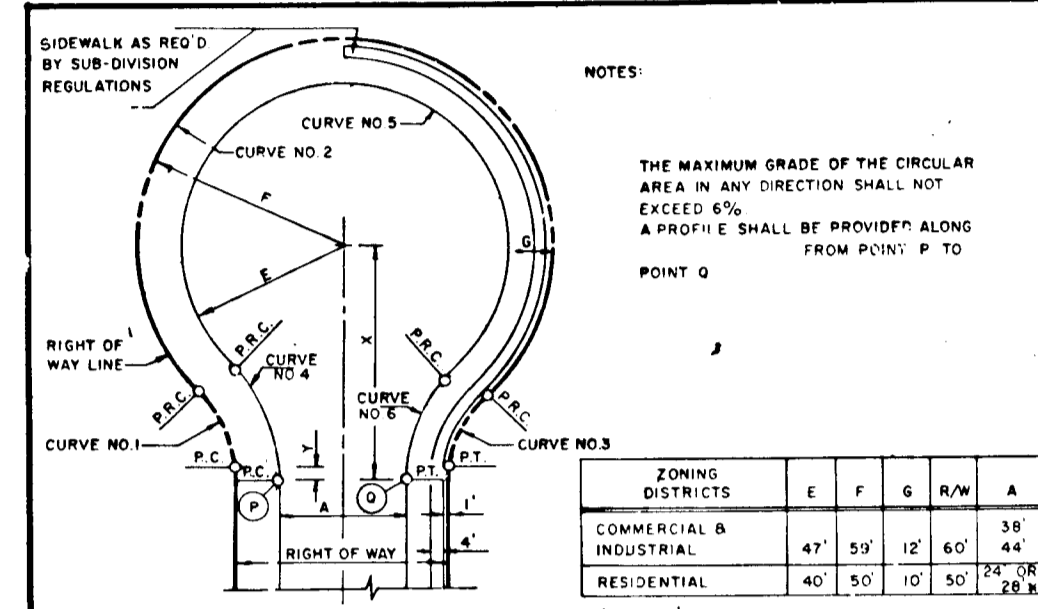
HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
Approved: [Signature] Chief, Bureau of Engineering



HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
Approved: [Signature] Chief, Bureau of Engineering

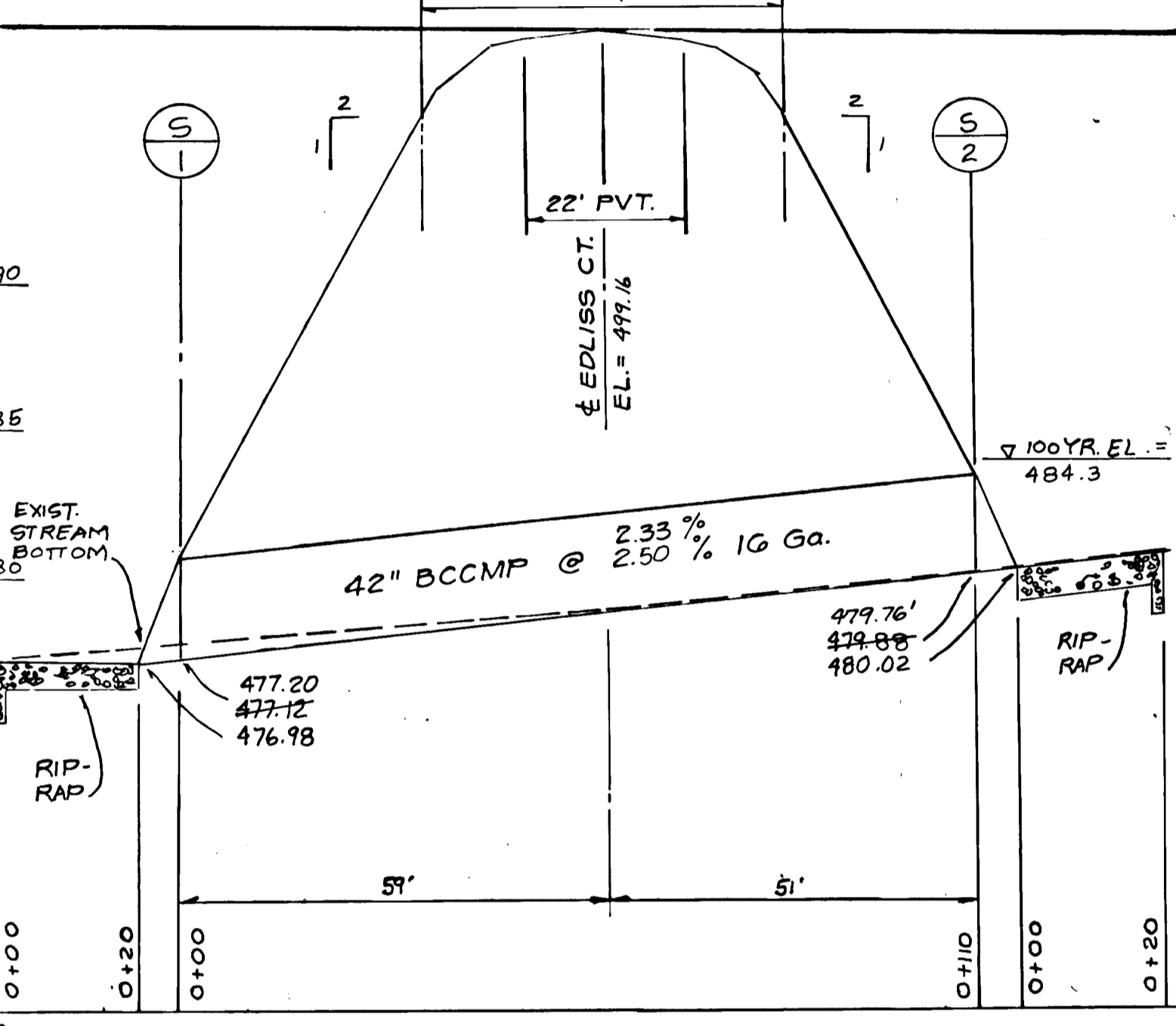


EXPLODED VIEW  
(OF CULVERT UNDER EDLISS CT.)

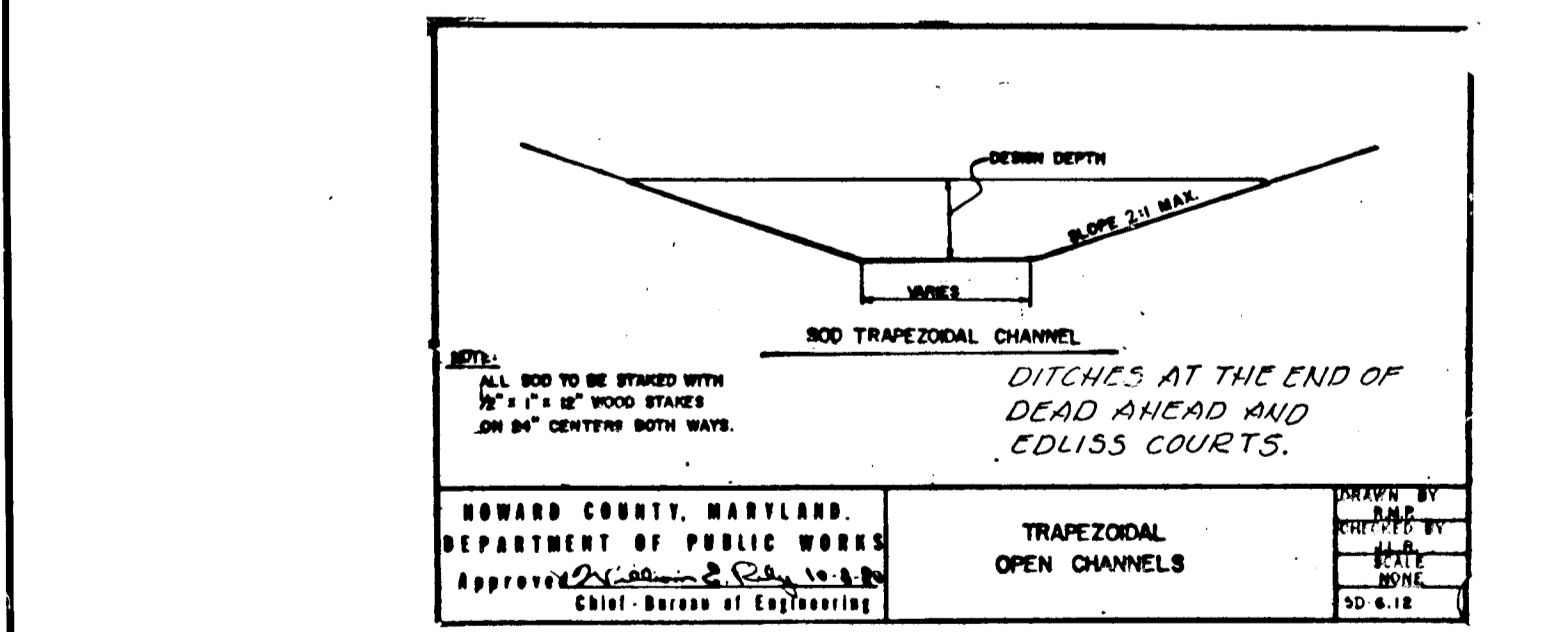


CURVE DATA		COMMERCIAL-INDUSTRIAL (38 APPROACH)		COMMERCIAL-INDUSTRIAL (44 APPROACH)	
Curve No.	Stationing	Stationing	Stationing	Stationing	Stationing
1	2797.48	2797.48	2797.48	2797.48	2797.48
2	3021.1	3021.1	3021.1	3021.1	3021.1
3	3244.72	3244.72	3244.72	3244.72	3244.72

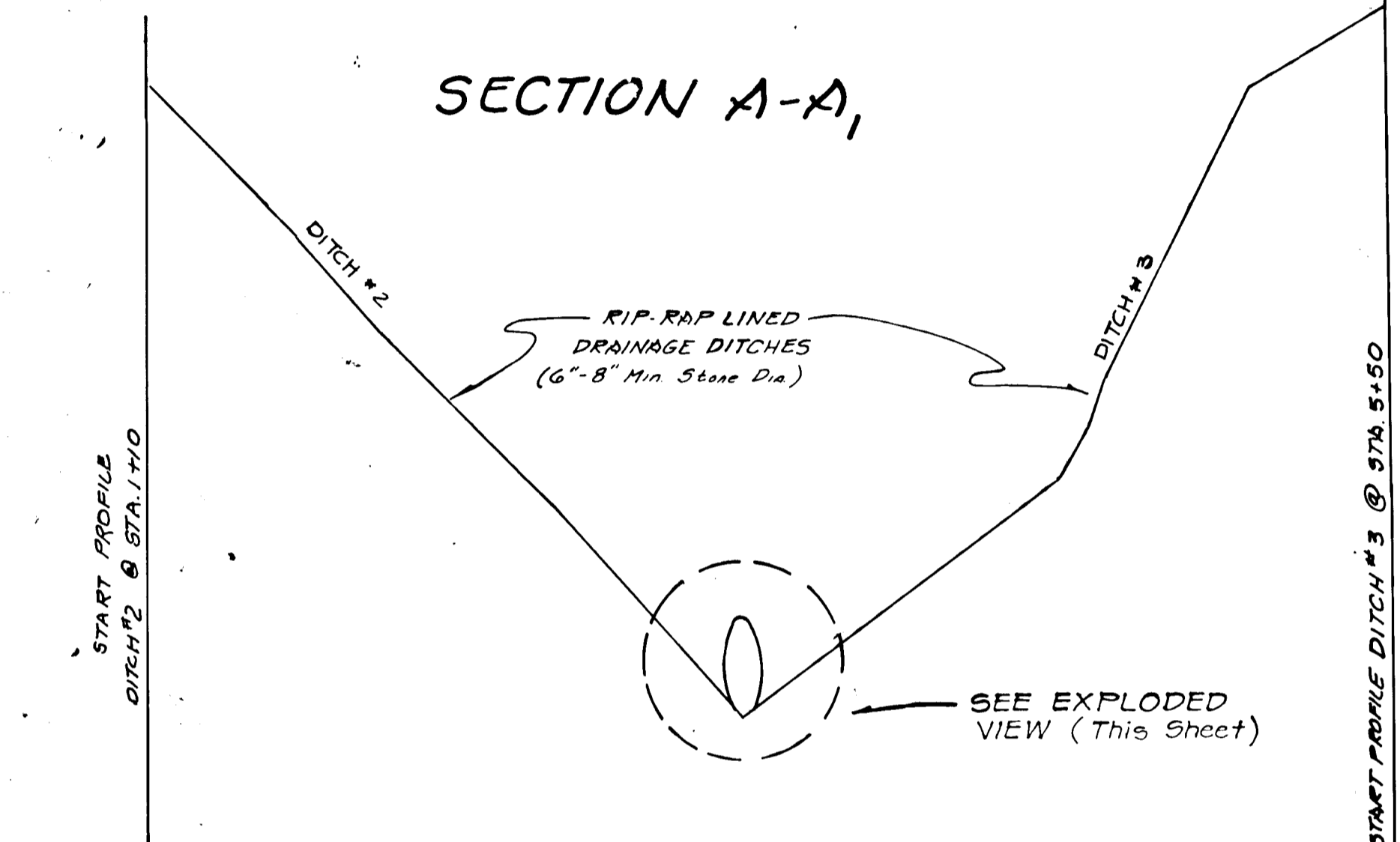
HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
Approved: [Signature] Chief, Bureau of Engineering



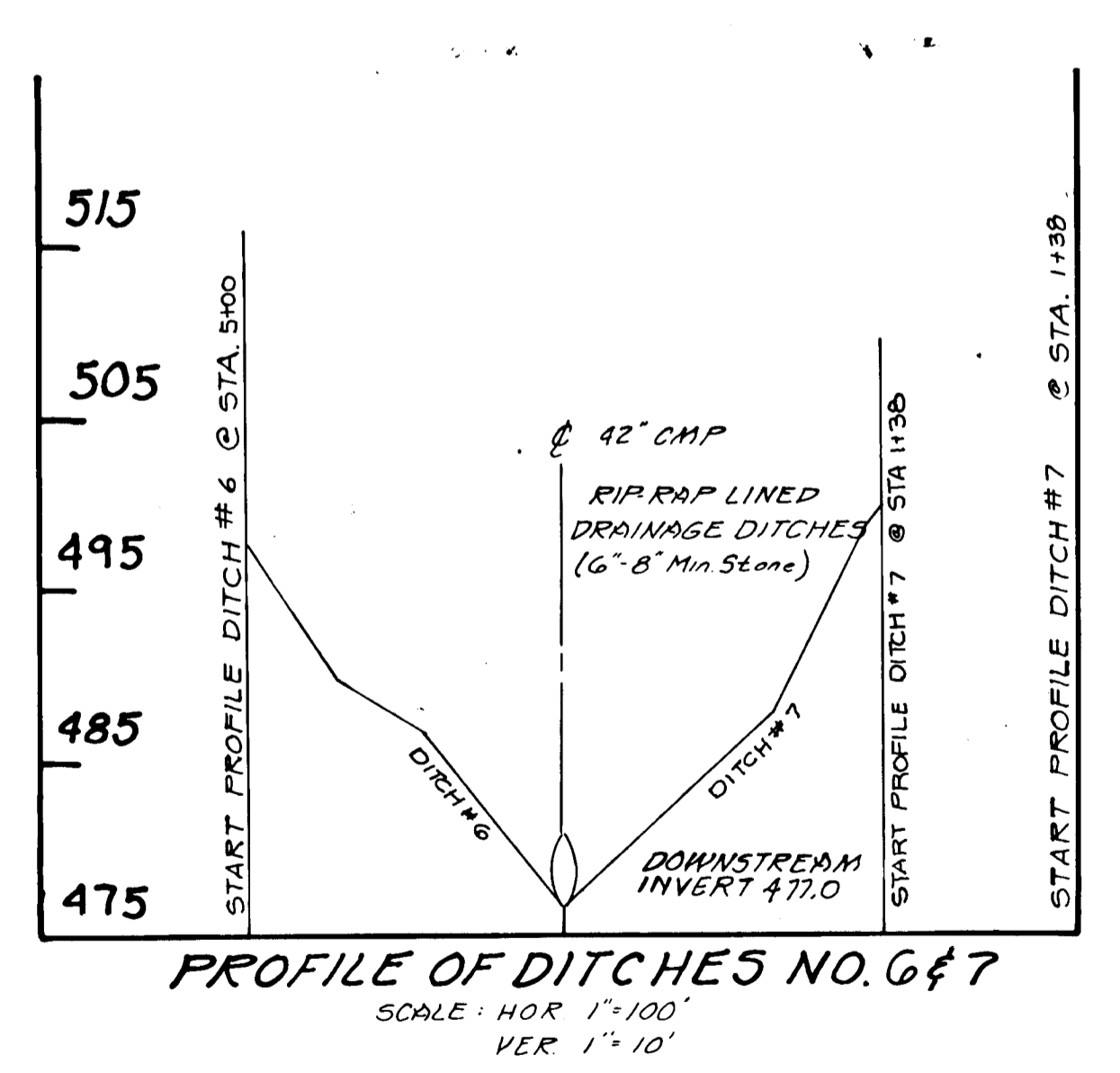
TRIBUTARY AREA = 43.43 ACRES  
10 YR. Q = 53.75 CFS  
100 YR. Q = 77.83 CFS  
PIPE CAPACITY = 80 CFS  
FLOWING FULL VELOCITY = 6.3 FPS  
REGENT'S ROW  
42" CULVERT UNDER EDLISS CULVERT  
SCALE: HORZ. 1" = 20'  
VERT. 1" = 5'



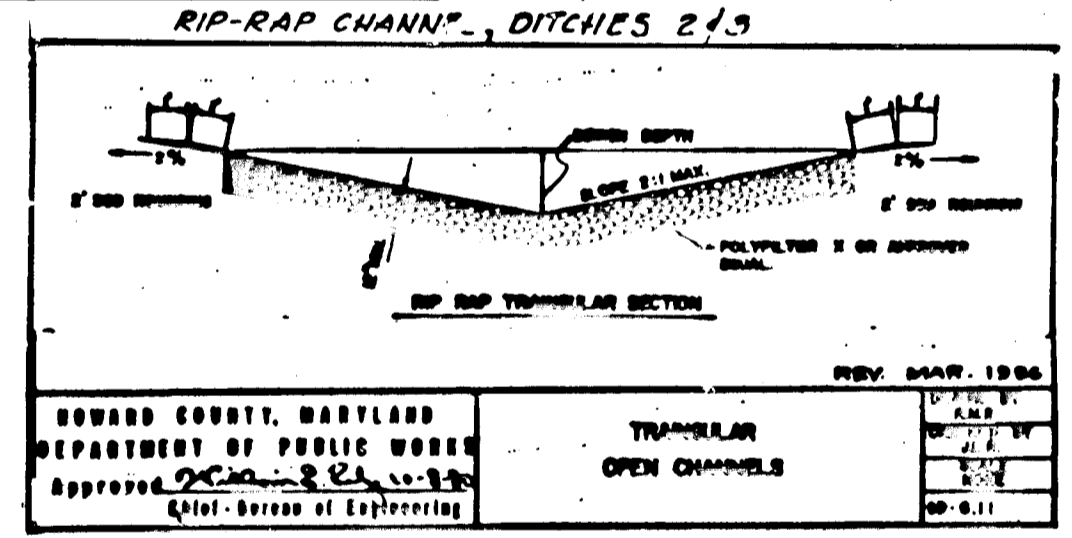
HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
Approved: [Signature] Chief, Bureau of Engineering



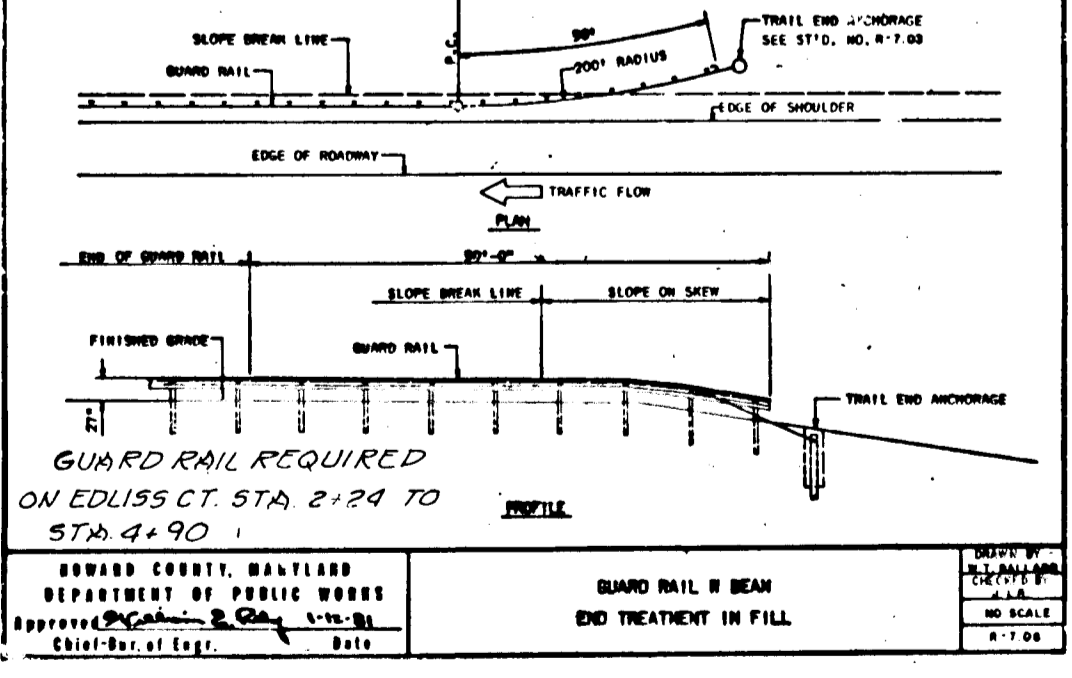
SECTION A-A  
RIP-RAP LINED DRAINAGE DITCHES  
(6"-8" Min. Stone Dia.)  
SCALE: 1" = 5' HOR  
1" = 5' VER



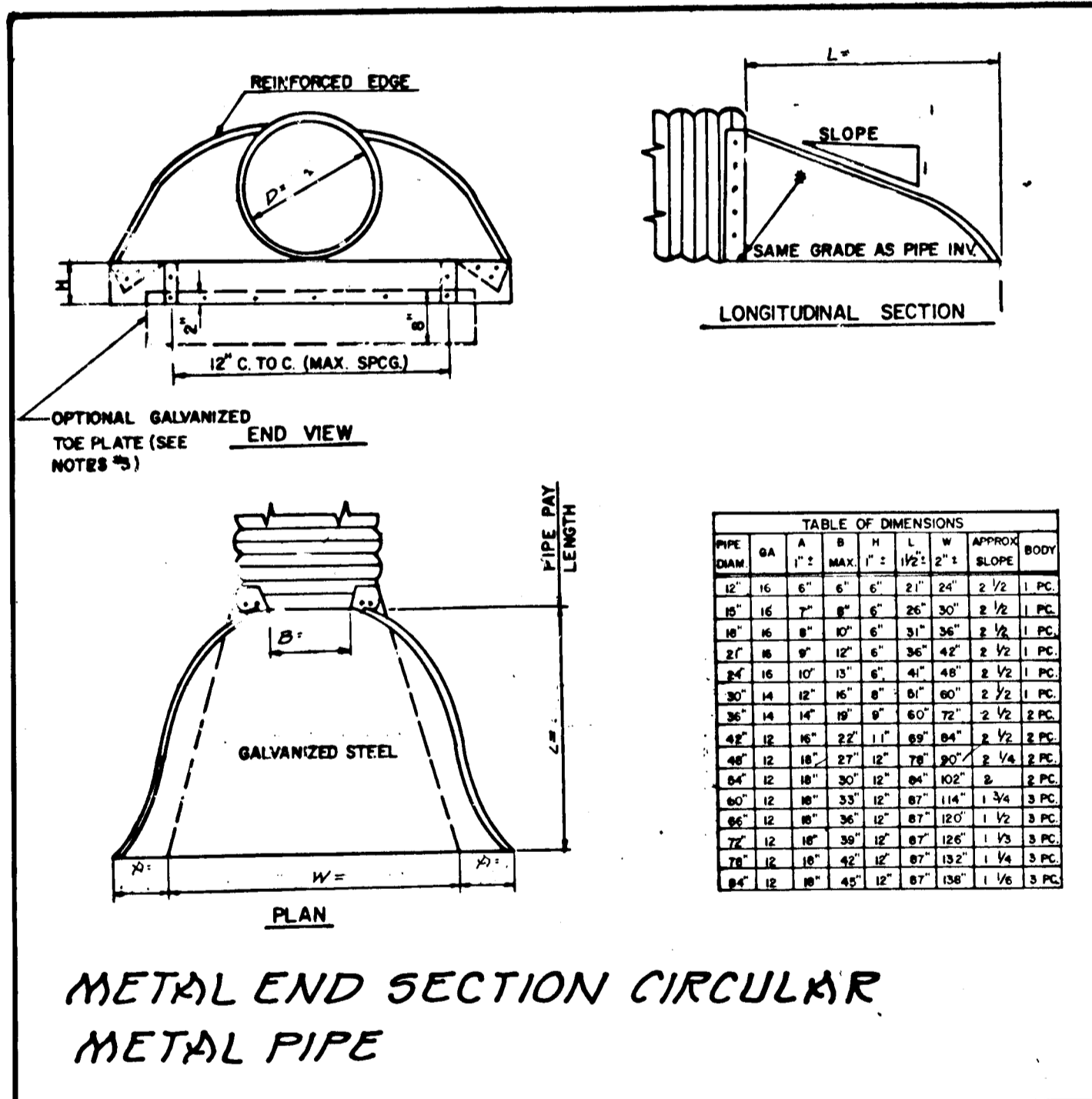
PROFILE OF DITCHES NO. 6 & 7  
SCALE: HORZ. 1" = 20'  
VER. 1" = 10'



RIP-RAP CHANNEL, DITCHES 2 & 3



HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
Approved: [Signature] Chief, Bureau of Engineering



METAL END SECTION CIRCULAR  
METAL PIPE

DEVELOPER  
HOWARD COUNTY LAND SERVICES INC.  
8307 MAIN STREET  
ELICOTT CITY, MARYLAND 21043

OWNER  
JOHN C. MOBERLY  
3205 MARYLAND RT. 22  
GLENELG, MARYLAND 21794

- Soil Additions:
- Barrow, flax or otherwise loosen subsoil to a depth of five inches. Spread topsoil evenly over prepared subsoil to the following depths:
  - Slopes 3:1 or steeper; two inches after completion slopes flatter than 3:1; four inches after completion
  - Remove objectionable material such as stones, 1-1/2 inches or larger, clods, brush, roots and trash from top four inches of soil.
  - Apply lime and fertilizer at the rates specified and thoroughly mix into the full depth of the topsoil. Scarify the area and rake until the surface is level to provide a maximum of two inches in variation, and the soil is friable and of uniform fine texture.
  - Immediately prior to adding any additional fertilizer at the rates specified in and work into the top two inches of topsoil.
  - Perform harrowing, disking, scarifying and raking on the contour of slopes steeper than 3:1.
  - Mulch and bed if dry and when directed by the Engineer.
  - Deliver sod to the site within 24 hours after being cut and install and within 36 hours after being cut.
  - During wet weather, dry and sufficiently to prevent tearing during handling and placing. During dry weather, water and sufficiently before lifting to insure its vitality and to prevent dropping off of soil during handling.
  - Sod which has deteriorated will be rejected and shall be replaced by the Contractor at no cost to County.
  - Place sod in straight lines parallel to one another. Stagger lateral joints and butt tight. On slopes 3:1 and steeper lay and with long edge parallel to the contour of the slope at the top of the slope. In drainage ditches and sodded channels, lay sod with the long edge parallel to the flow of water.
  - On slopes 2:1 and steeper and in surface drainage shaped or flat bottomed ditches, stake each strip of sod with at least two stakes, spaced not more than two feet apart, or wire staples.
  - Immediately upon completion of a section of sodding, roll, tamp, and water until the underside of the sod pad and soil surface beneath it are thoroughly wet and in contact with each other so as to eliminate air pockets.
  - Completion of laying, rolling, tamping and watering shall be within an eight hour period.
  - Perform sodding between September 15 and May 15.

AS-BUILT SURVEY CERTIFIED BY  
DONALD WAYNE WELLS, MD. PLS  
No. 9685

OWNER'S/DEVELOPER'S CERTIFICATION  
"I/We hereby certify that I have reviewed this erosion and sediment control plan and that all clearing, grading, construction and/or development will be done pursuant 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: [Signature] Date: 5/12/87  
Name: [Name] Phone No.: [Phone No.]  
Firm: [Firm] Complete Address: [Address]

ENGINEERS 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: [Signature] Date: 5/2/87  
Name: JOHN E.C. PATMORE  
Registered Professional Engineer # 8978

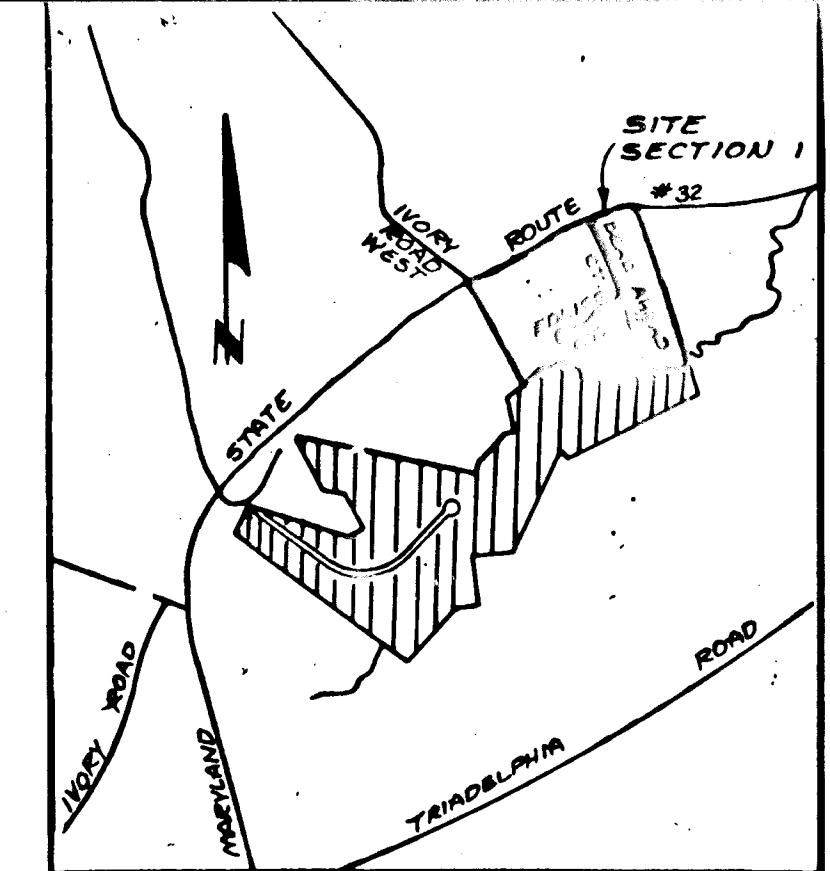
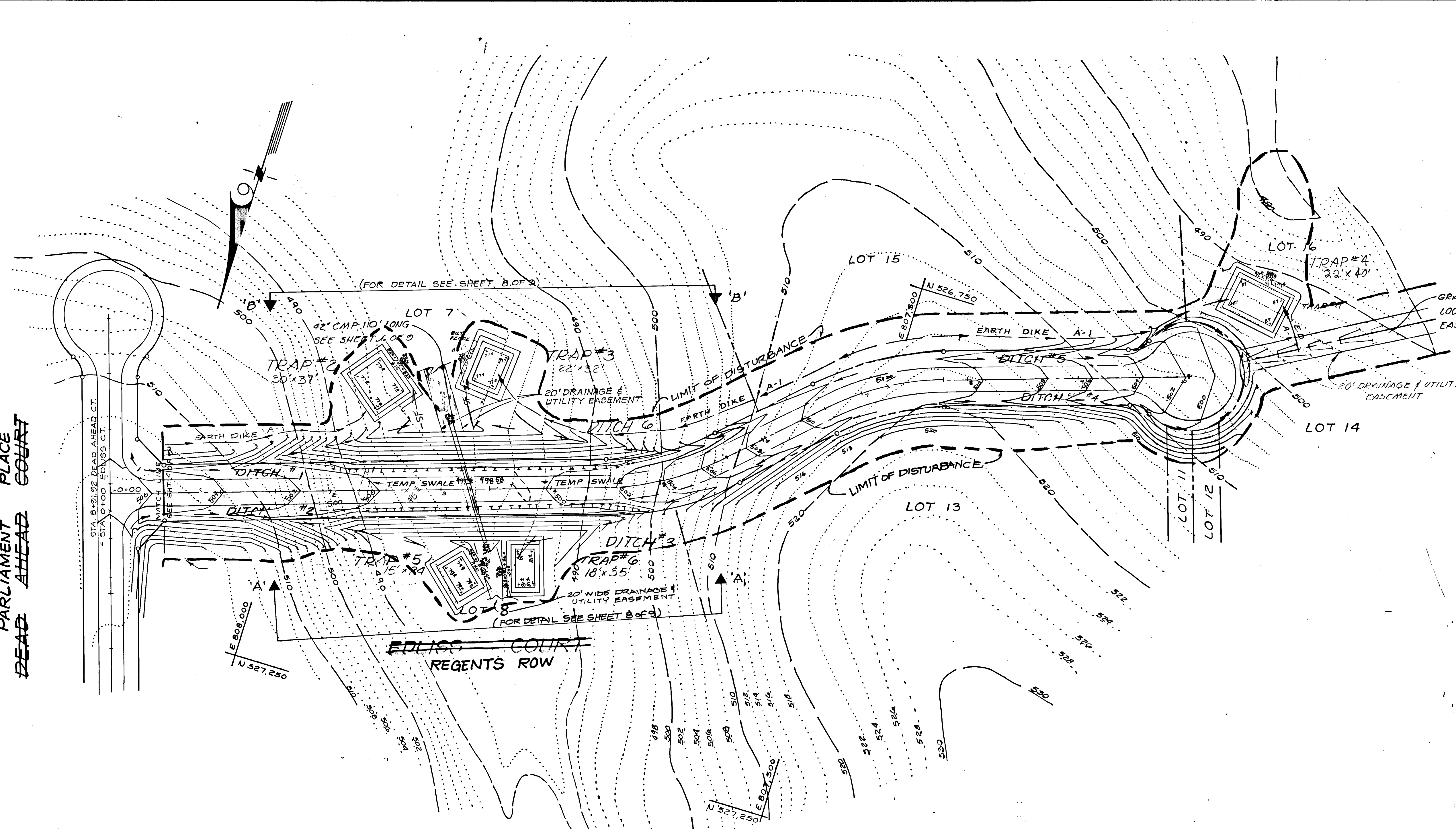
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
Signature: [Signature] Date: 7-24-87  
Name: [Name]  
U.S. SOIL CONSERVATION SERVICE  
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
Signature: [Signature] Date: 9/25/87  
Name: [Name]  
Approved: Howard S.C.D.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
Signature: [Signature] Date: [Date]  
Name: [Name]  
Chief, Bureau of Highways  
APPROVED: [Signature] Date: [Date]  
Name: [Name]  
Chief, Bureau of Engineering  
APPROVED: [Signature] Date: [Date]  
Name: [Name]  
Chief, Division of Land Development and Zoning Administration

KINGS GRANT/GLEN MOOR  
SECTION 1  
TAX MAP 22 PARCEL 7  
3 RD ELEC. DIST.  
HOWARD COUNTY,  
MARYLAND  
SHEET 6 OF 11

KIDDE CONSULTANTS, INC.  
ENGINEERS • PLANNERS • SURVEYORS  
1100 WEST STREET / SUITE 100 / LAUREL, MD 20707  
(Wash.) (301) 953-1821 / 792-8086 (Balt.)  
Signature: [Signature] Date: [Date]  
Name: JOHN E.C. PATMORE MD PE 8978  
DATE: APRIL 1987 SCALE AS SHOWN  
1685111

PARLIAMENT PLACE  
BEAD AHEAD COURT



VICINITY MAP  
SCALE: 1" = 2000'

GRASS LINED TRAPEZOIDAL DRAINAGE DITCH  
LOCATED WITH A 20' DRAINAGE UTILITY  
EASEMENT. (SEE DETAILS SHEET G OF D.)  
Q<sub>10</sub> = 3.12 cfs  
V<sub>10</sub> = 1.55 fps (40 ALLOWABLE)  
10' DEPTH OF FLOW = 44'  
SLOPE = 6.0%

TRAP SCHEDULE						
TRAP NUMBER	1	2	3	4	5	6
TRAP TYPE	GRASS- OUTLET	RIP-RAP	RIP-RAP	RIP-RAP	RIP-RAP	RIP-RAP
DRAINAGE AREA (Ac.)	1.88 max	2.30 max	1.72 max	3.00 max	1.0 max	1.37 max
STORAGE REQ. (Cu. Ft.) PROV.	3,384	4,284	3,006	5,544	1,800	2,466
OUTLET ELEV.	491.0'	481.0'	481.0'	491.0'	483.0'	485.0'
WIDTH EMBANK	4'	4'	4'	4'	4'	4'
BOTTOM ELEV.	489.0'	477.0'	477.0'	487.0'	479.0'	481.0'
TOP/EMBANK	492.0'	482.0'	482.0'	492.0'	484.0'	486.0'
WEIR LENGTH	4'	4'	4'	4'	4'	4'
CLEANOUT ELEV.	490.5'	478.5'	478.5'	489.0'	480.5'	482.5'
STORAGE DEPTH	3'	3'	3'	4'	3'	3'
TEMP SWM						
NOT REQUIRED						

GRADING & SEDIMENT  
CONTROL PLAN  
FOR  
KINGS GRANT / GLEN MOOR  
REGENTS ROW  
TAX MAP 22 PARCEL 7  
3RD ELECTION DISTRICT HOWARD COUNTY, MD  
SHEET 5 OF 11

- Sequence of Construction
- 1) Obtain grading permit.
  - 2) Install S.C.E., grade temporary swales.
  - 3) Install all sediment control measures, including sediment traps, earth dikes, and silt fences.
  - 4) Grade site as per grading plan, install culvert
  - 5) Install roads and stabilize any remaining disturbed areas, including drainage ditches.
  - 6) With approval of sediment control inspector, remove all sediment control devices, grade in remainder of swale at the end of Dead Ahead Court, and stabilize all affected areas immediately.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
Chief, Land Development Division  
Date: 7-14-87

APPROVED: *James W. Wever*  
Chief, Bureau of Engineering  
Date: 10/5/87

APPROVED: OFFICE OF PLANNING AND ZONING  
ACTING *Louis Fann*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
AND ZONING ADMINISTRATION  
DATE: 9-25-87

REVIEWED FOR HOWARD SOIL CONSERVATION  
DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

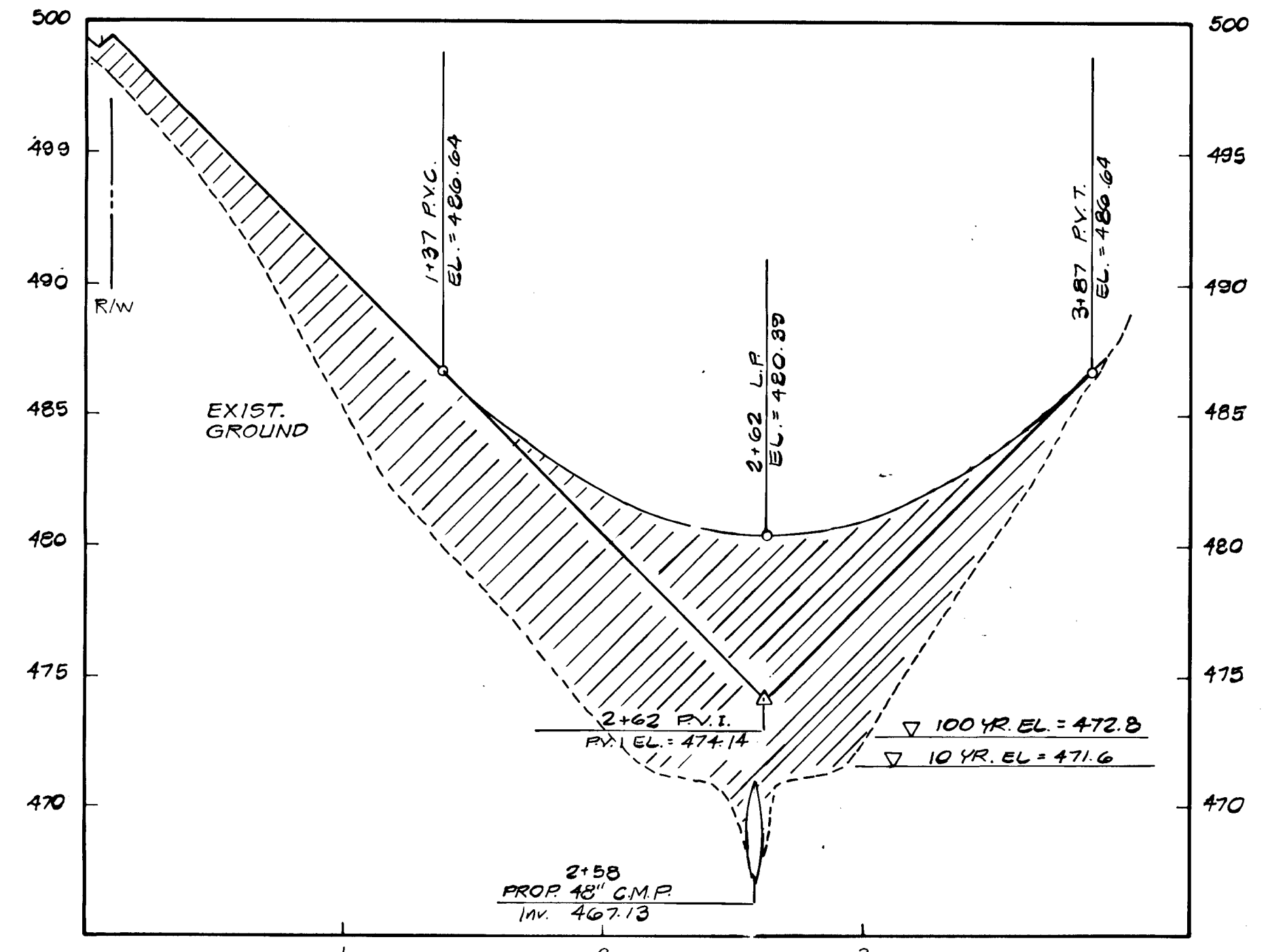
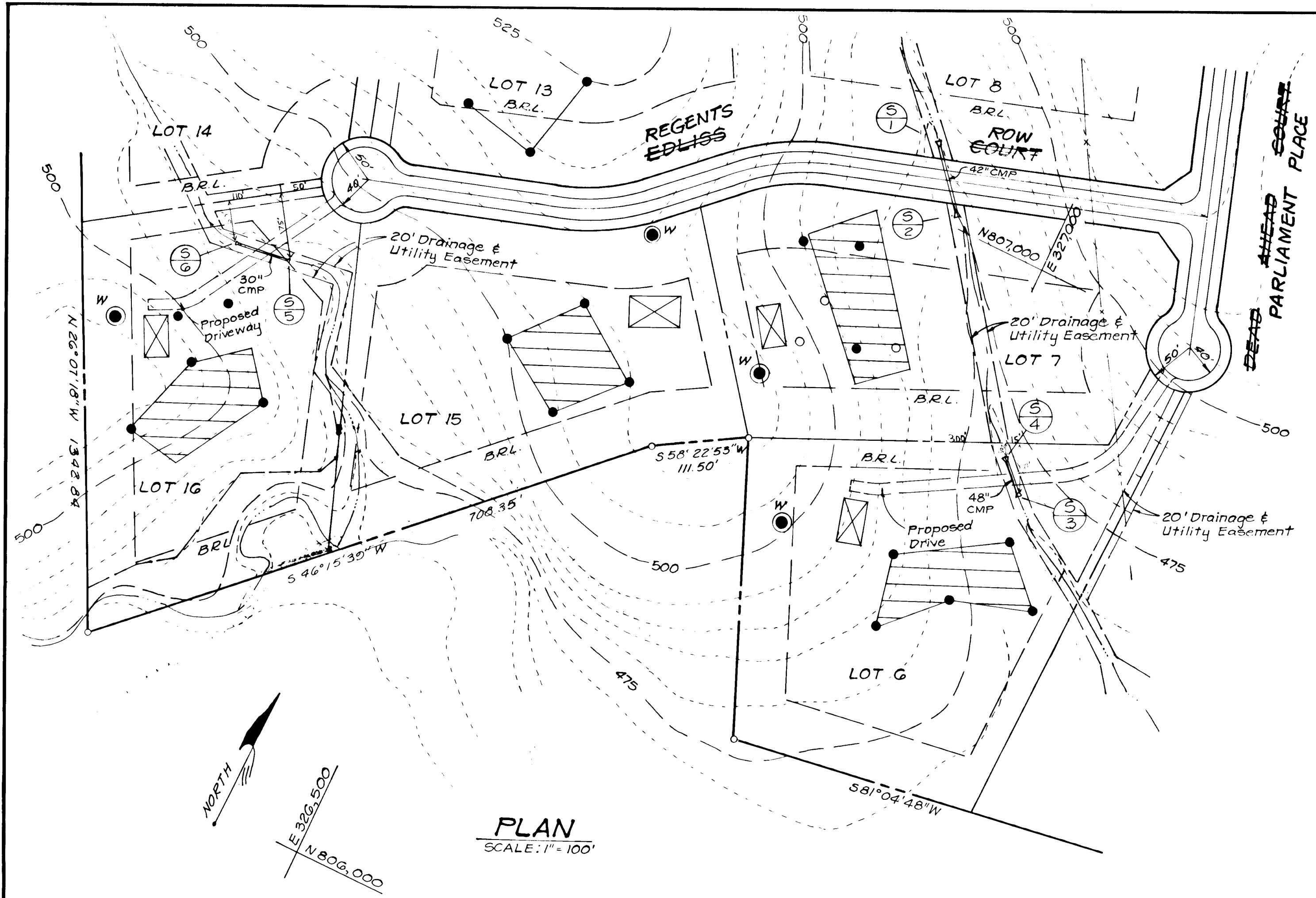
U.S. SOIL CONSERVATION SERVICE  
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL  
EROSION AND SEDIMENT CONTROL BY THE HOWARD  
SOIL CONSERVATION DISTRICT.  
*John E. Patmore*  
Approved Howard S.C.D.  
DATE: 9-24-87

ENGINEERS 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 condi-  
tions and that it was prepared in accordance with  
the requirements of the Howard Soil Conservation  
District."  
*John E. Patmore*  
JOHN E. PATMORE  
Registered Professional Engineer # 8978  
DATE: 5/21/87

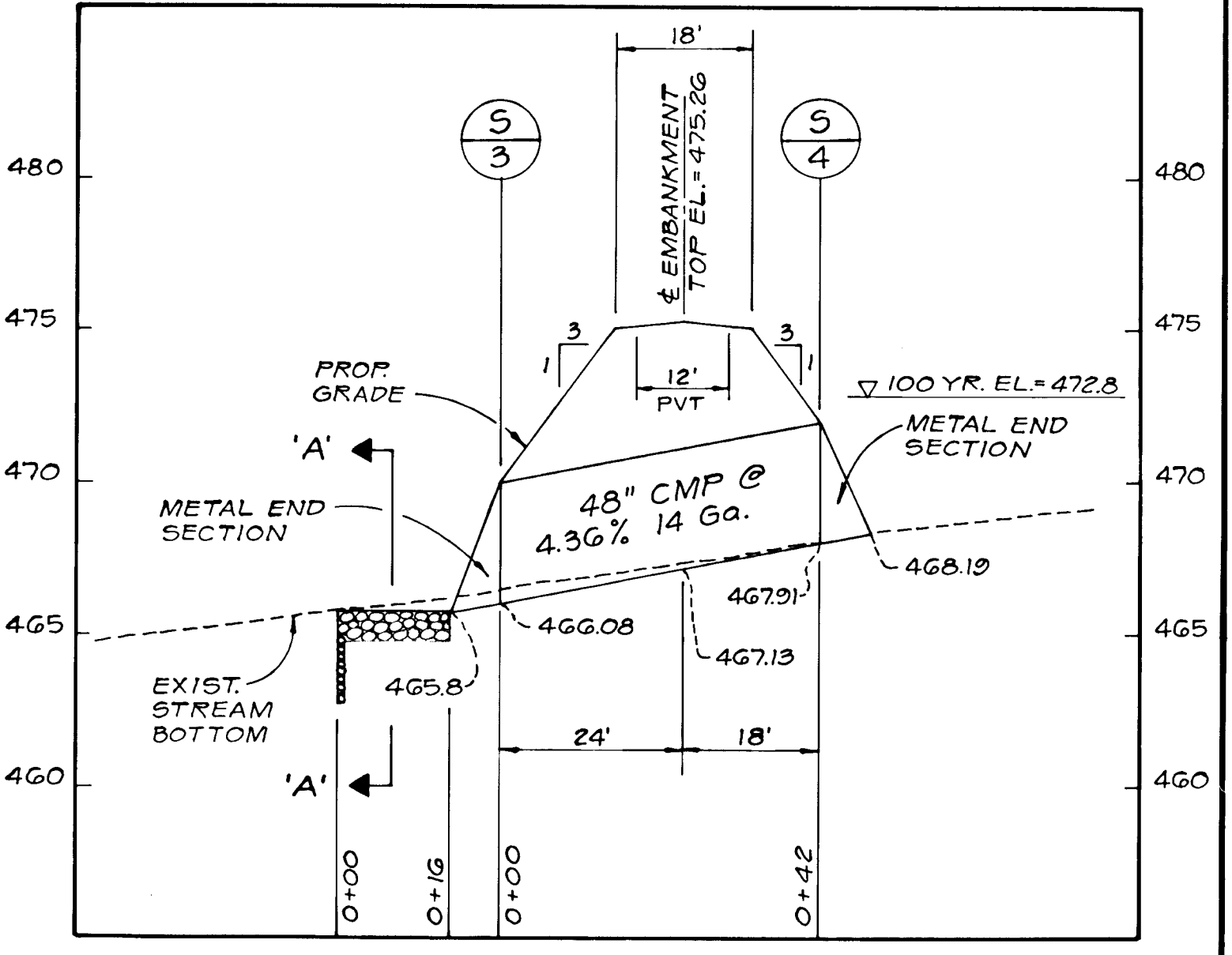
OWNER'S/DEVELOPER'S CERTIFICATION  
"I/We certify that all development and construction  
will be done according to this plan, and that any  
responsible personnel involved in the construction  
project will have a Certificate of Attendance at a  
Department of Natural Resources Approved Training  
System for the Control of Sediment and Erosion  
before beginning the project. I also authorize  
periodic on-site inspection by the Howard Soil  
Conservation District."  
Signature: *John E. Patmore* Date: 5/21/87  
Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Firm: \_\_\_\_\_ Complete Address: \_\_\_\_\_

DEVELOPER:  
HOWARD COUNTY LAND SERVICES INC.  
8307 MAIN STREET  
ELLCOTT CITY MARYLAND 21043  
OWNER:  
JOHN C. MOBBERLEY  
3205 MD. RT. 32  
GLENELG, MARYLAND 21137

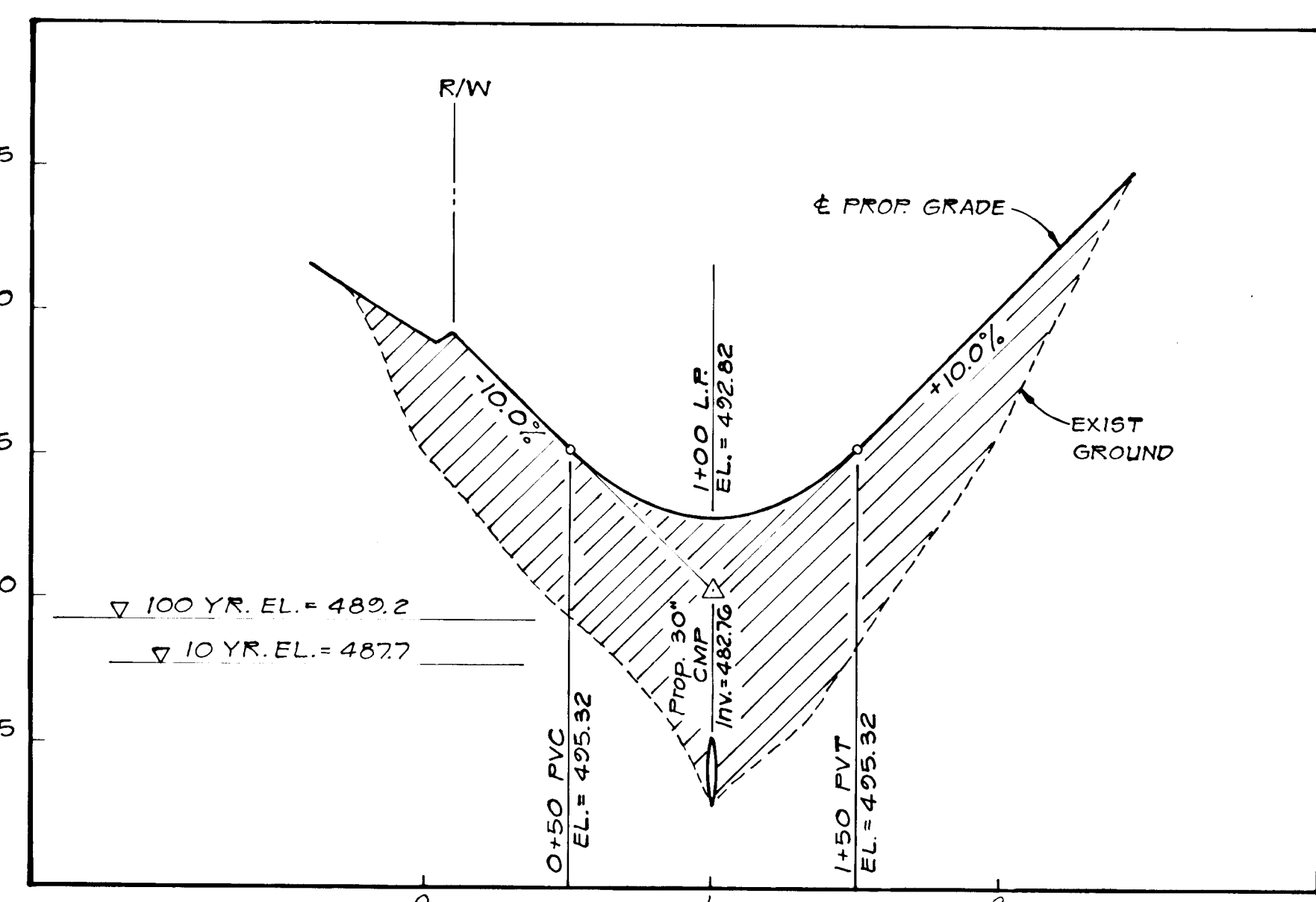
KINGS CONSULTANTS, INC.  
ENGINEERS • PLANNERS • SURVEYORS  
1100 WEST STREET / SUITE 100 / LAUREL, MD 20707  
(Wash.) (301) 953-1821 / 792-8086 (Balt.)  
DATE: APRIL, 1987 SCALE: 1" = 50'  
1685111



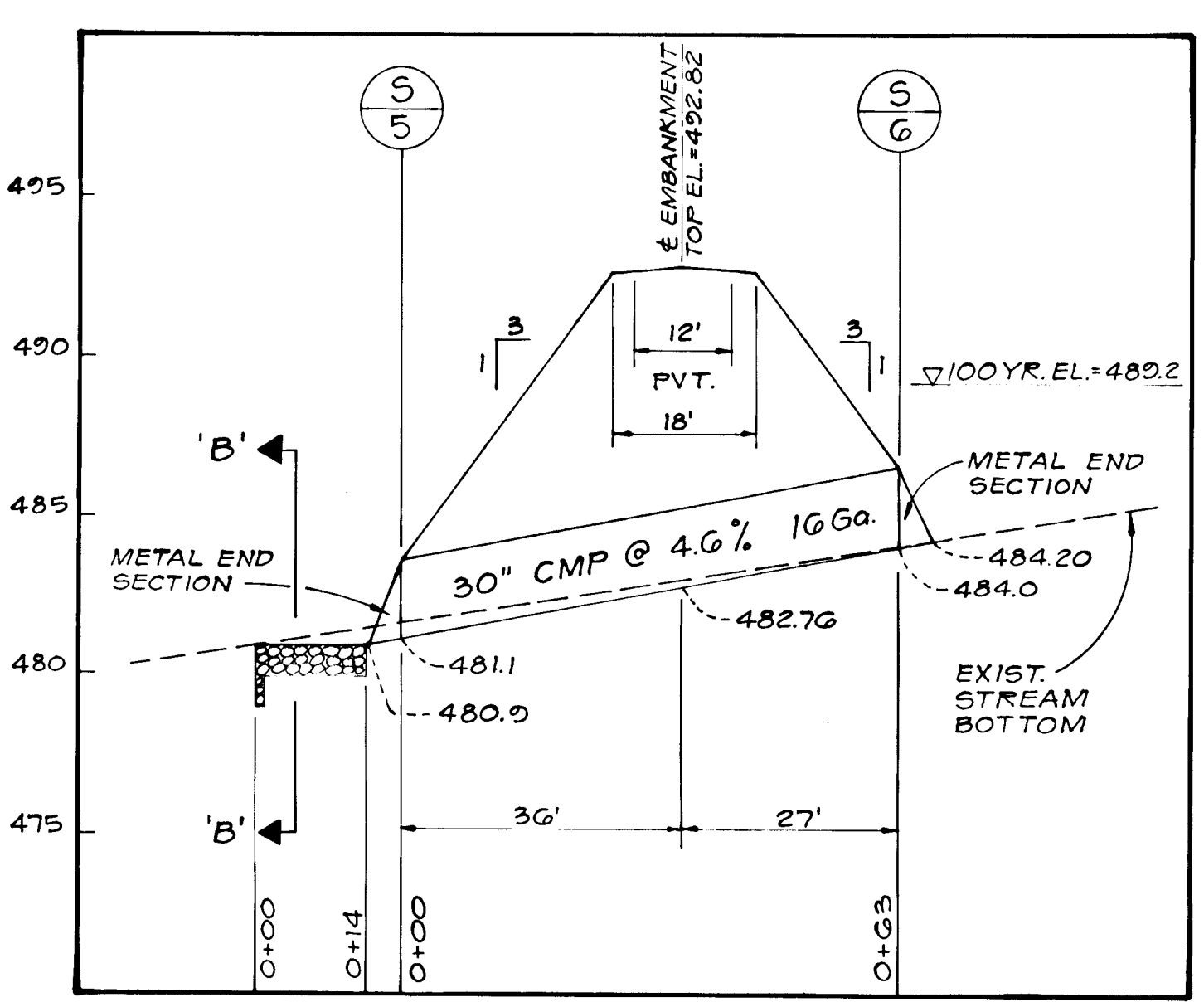
PROFILE & EMBANKMENT LOT G  
 SCALES: HORIZ. 1"=50'  
 VERT. 1"=5'



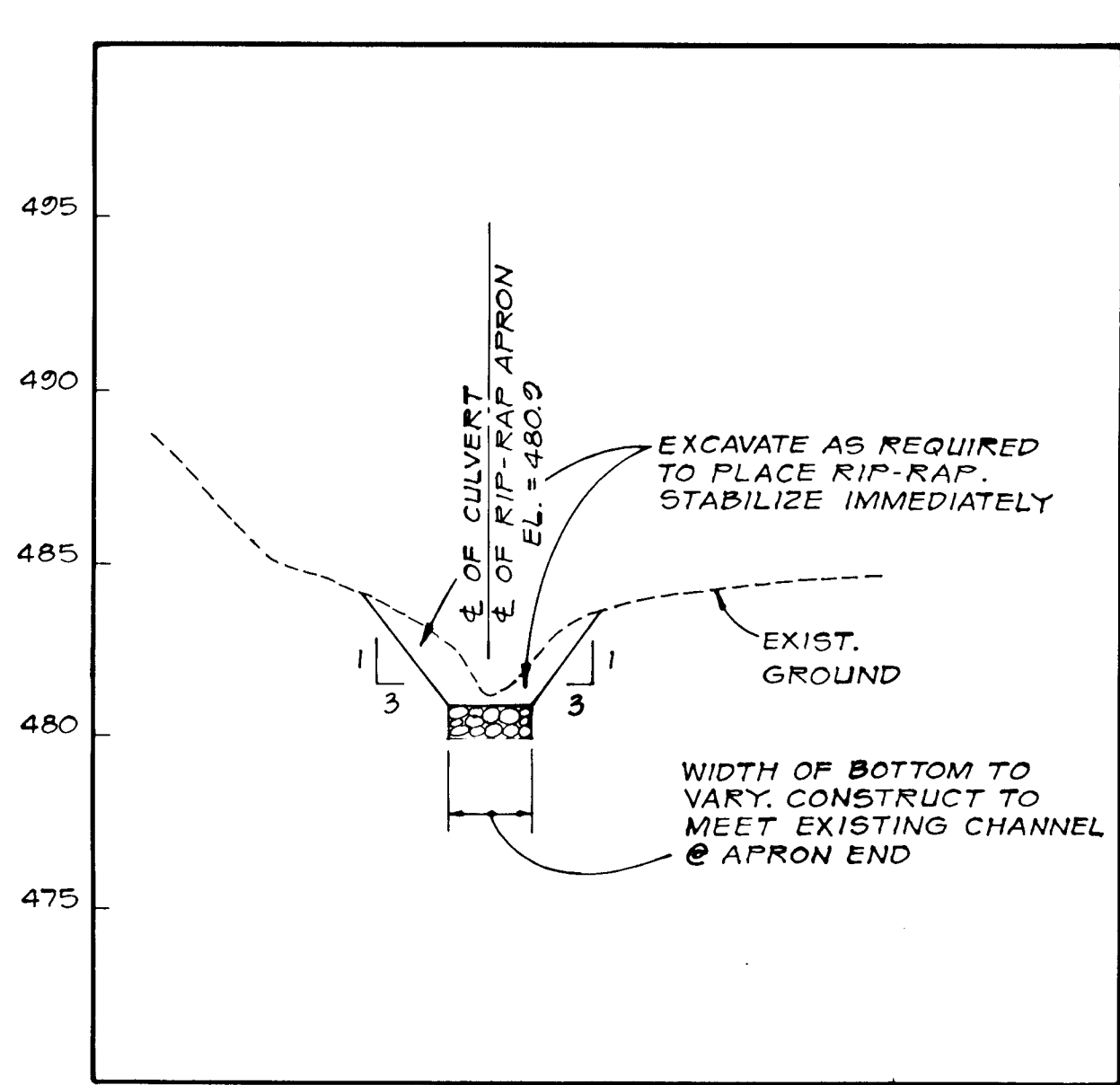
PROFILE & CULVERT LOT G  
 SCALES: HORIZ. 1"=20'  
 VERT. 1"=5'



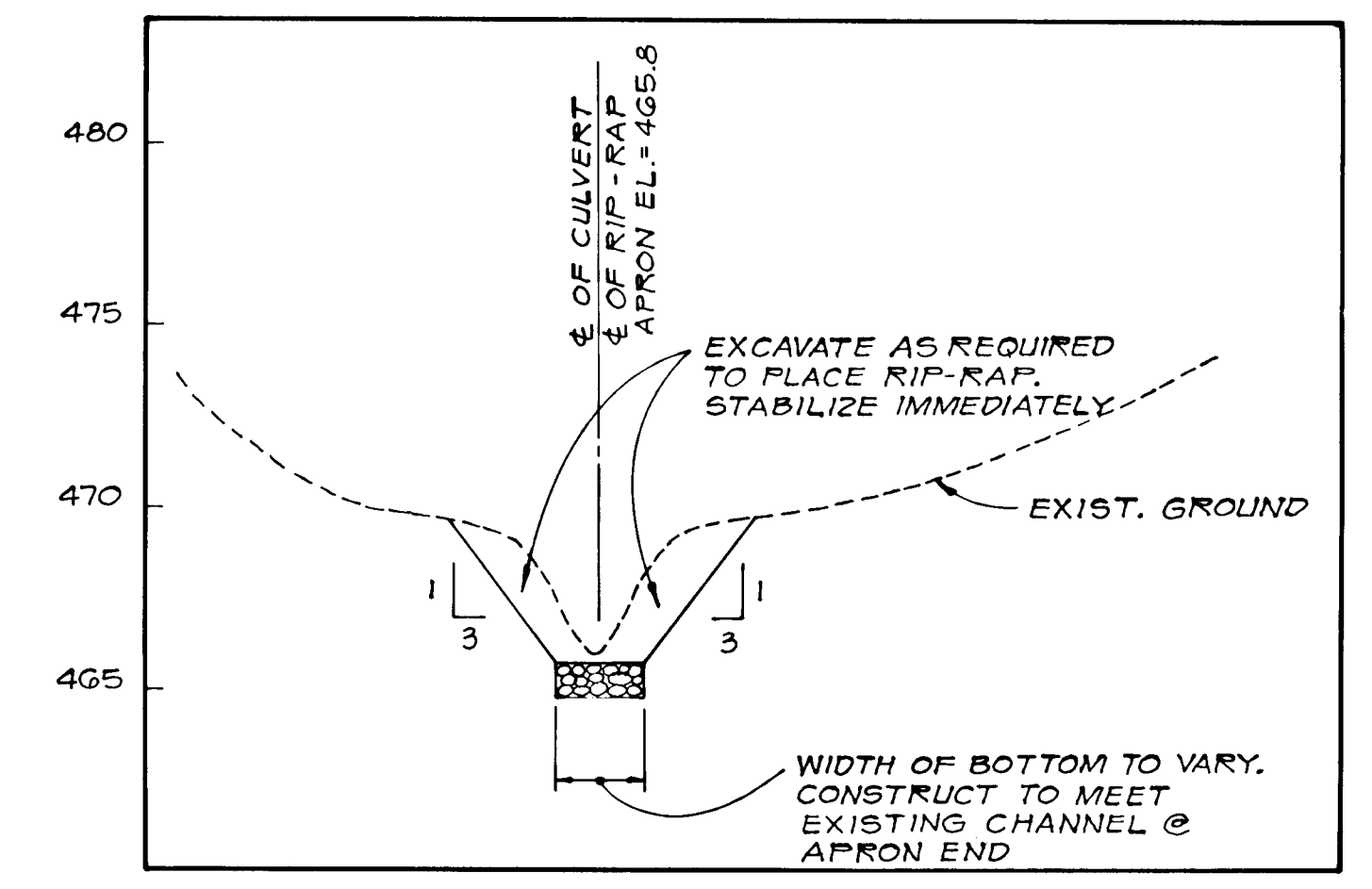
PROFILE & EMBANKMENT LOT 16  
 SCALES: HORIZ. 1"=50'  
 VERT. 1"=5'



PROFILE & CULVERT LOT 16  
 SCALES: HORIZ. 1"=20'  
 VERT. 1"=5'



SECTION 'B-B'  
 SCALES: HORIZ. 1"=20'  
 VERT. 1"=5'



SECTION 'A-A'  
 SCALES: HORIZ. 1"=20'  
 VERT. 1"=5'

GRADING AND SEDIMENT CONTROL PLAN  
 KINGS GRANT/GLEN MOOR  
 TAX MAP 29 LOTS 12 AND 13 PART OF PARCEL 41  
 5th ELECTION DISTRICT HOWARD CO. MD.

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 Louis F. Dunn 9-25-87  
 CHIEF, BUREAU OF PLANNING & ZONING ADMINISTRATION

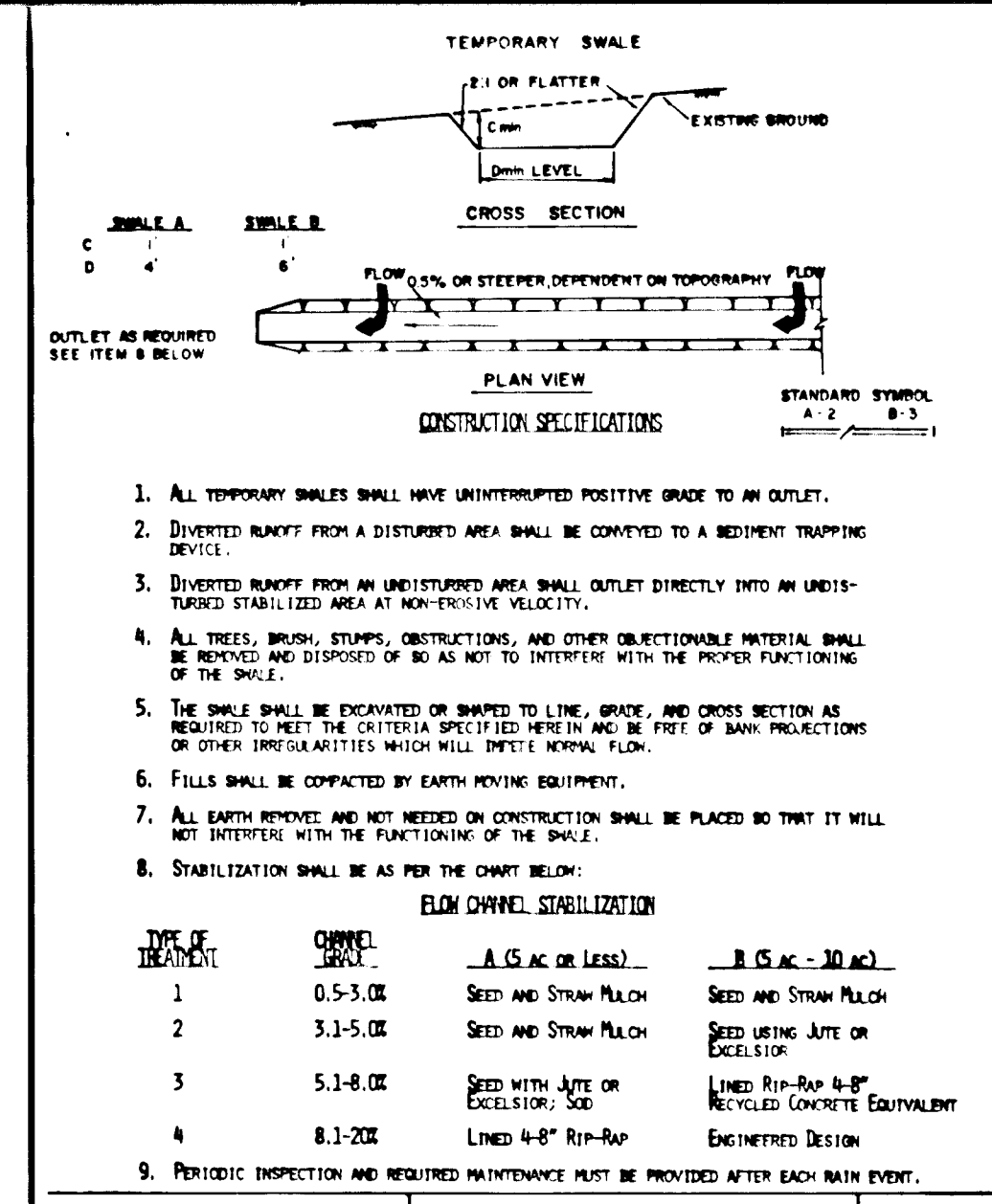
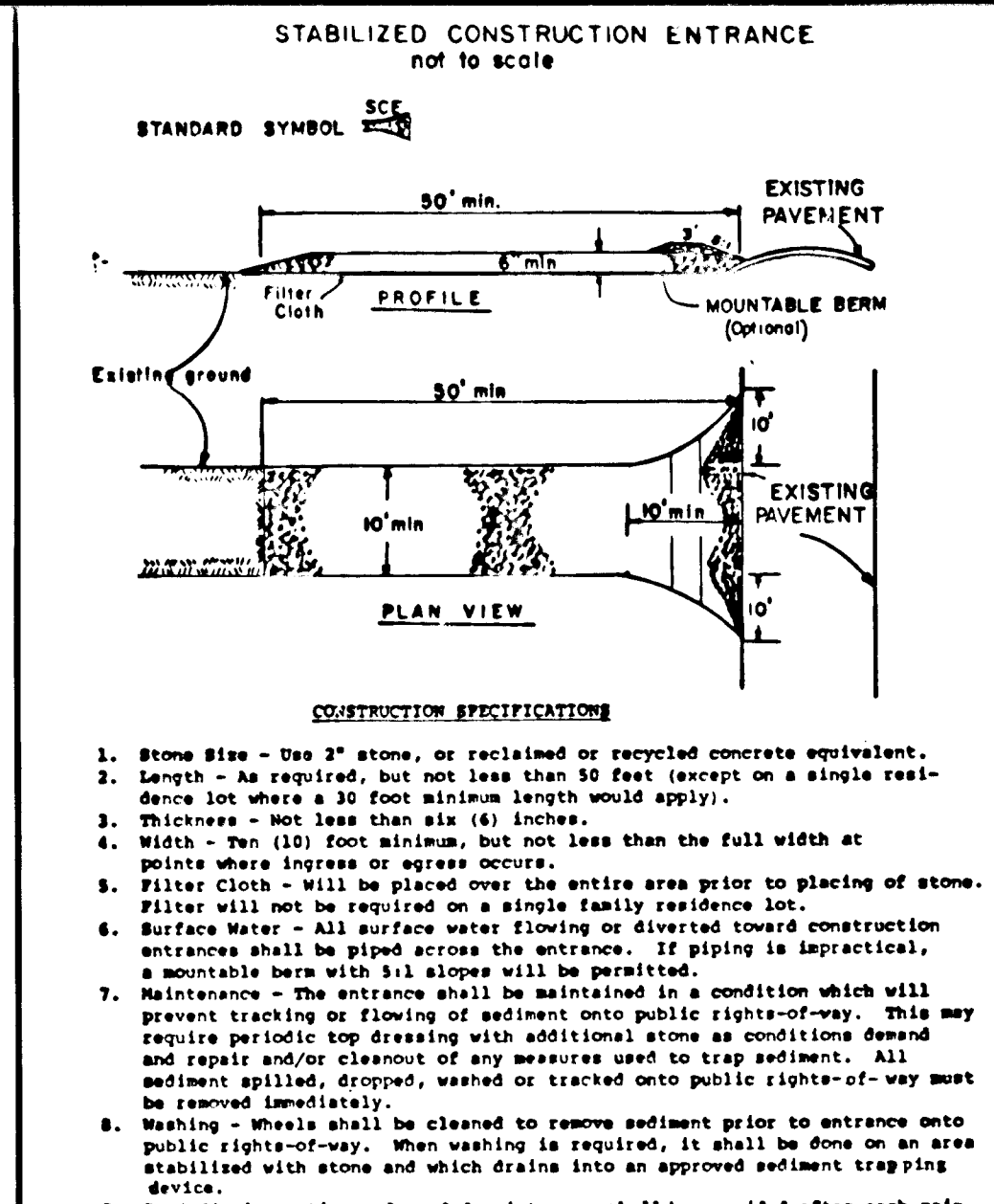
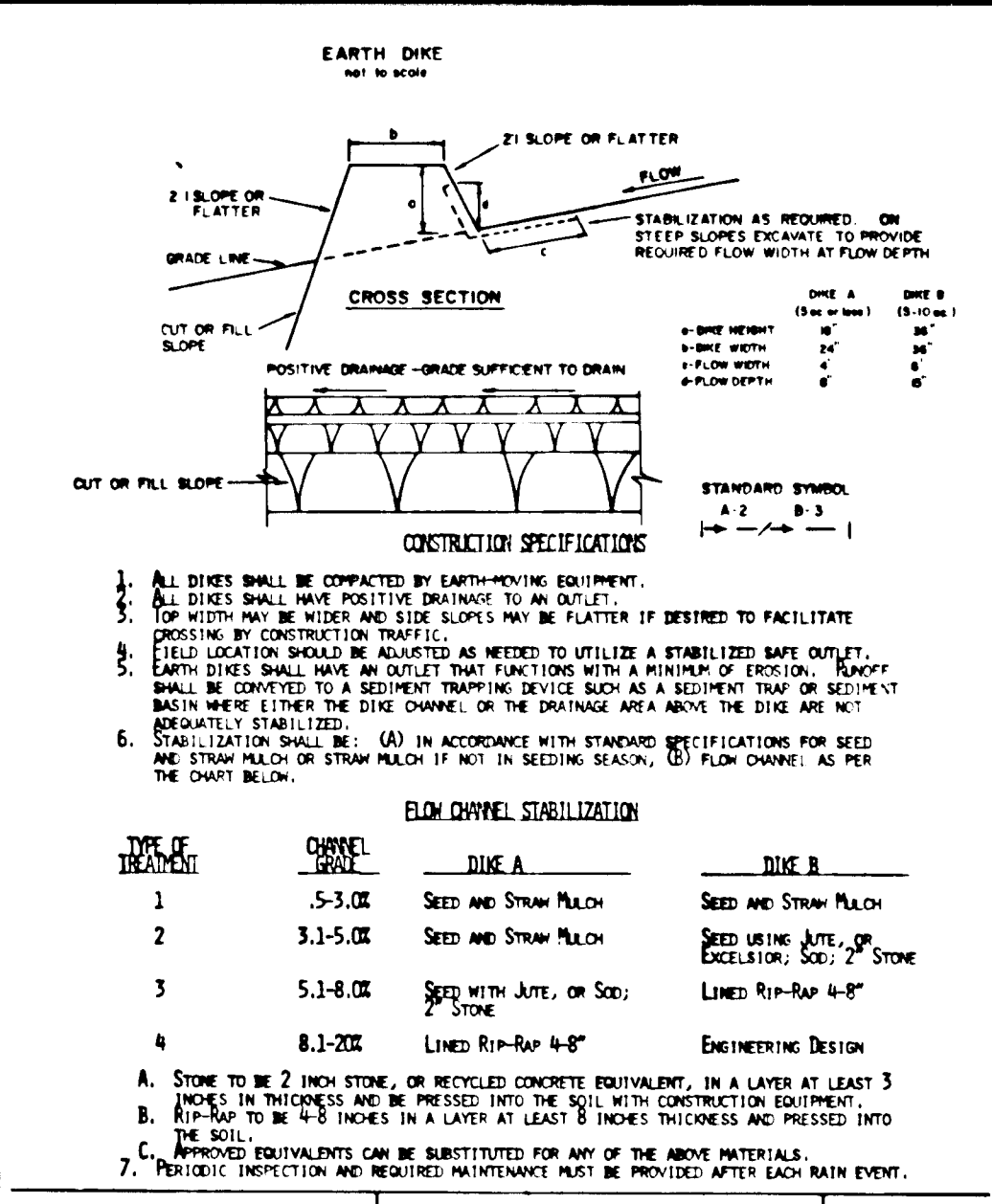
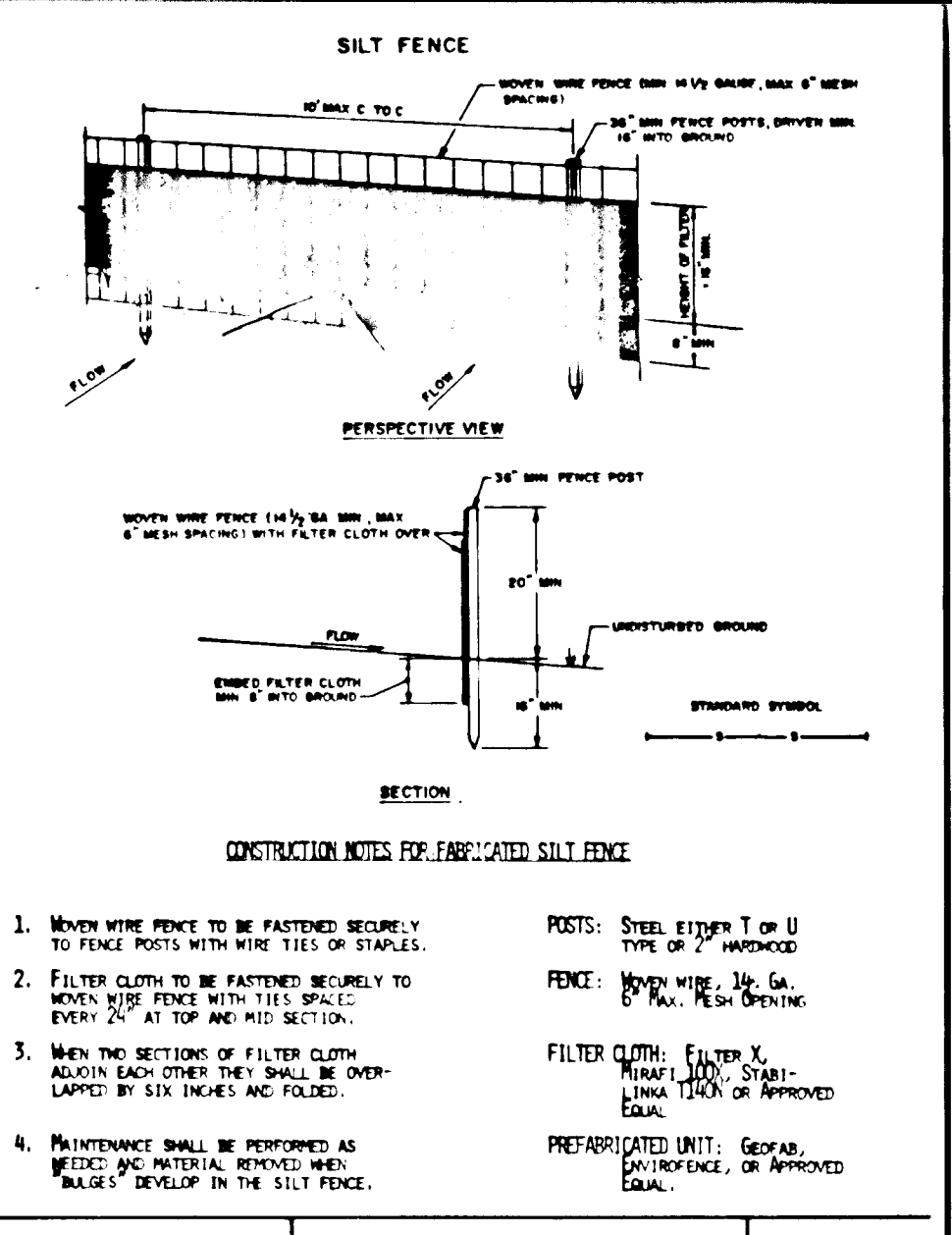
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Land Development Division 10/1/87  
 Chief, Bureau of Highways  
 Chief, Bureau of Engineering 10/1/87

ENGINEERS 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."  
 Registered Professional Engineer # 8978

OWNER'S/DEVELOPER'S CERTIFICATION  
 "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 site inspection by the Howard Soil Conservation District."  
 Signature: [Signature] Date: 7/10/87  
 Name: [Name] Complete Address: [Address] Phone No.: [Phone No.]

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
 Signature: [Signature] Date: 9-24-87  
 U.S. SOIL CONSERVATION SERVICE  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: [Signature] Date: 9/24/87  
 Approved Howard S.C.D.

KIDD CONSULTANTS, INC.  
 ENGINEERS • PLANNERS • SURVEYORS  
 1100 WEST STREET / SUITE 100 / LAUREL, MD 20707  
 (Wash.) (301) 953-1821 / 792-8086 (Balt.)  
 DATE July, 1987 SCALE As Shown  
 AS-BUILT F-87-196



**PERMANENT SEEDING NOTES**

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

**Seeded Preparation:** Loosen upper three inches of soil by raking, disking 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 sq ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) 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 sq ft).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Narrow or disc into upper three inches of soil.

**Seeding -** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 50 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use seed. 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.

**TEMPORARY SEEDING NOTES**

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

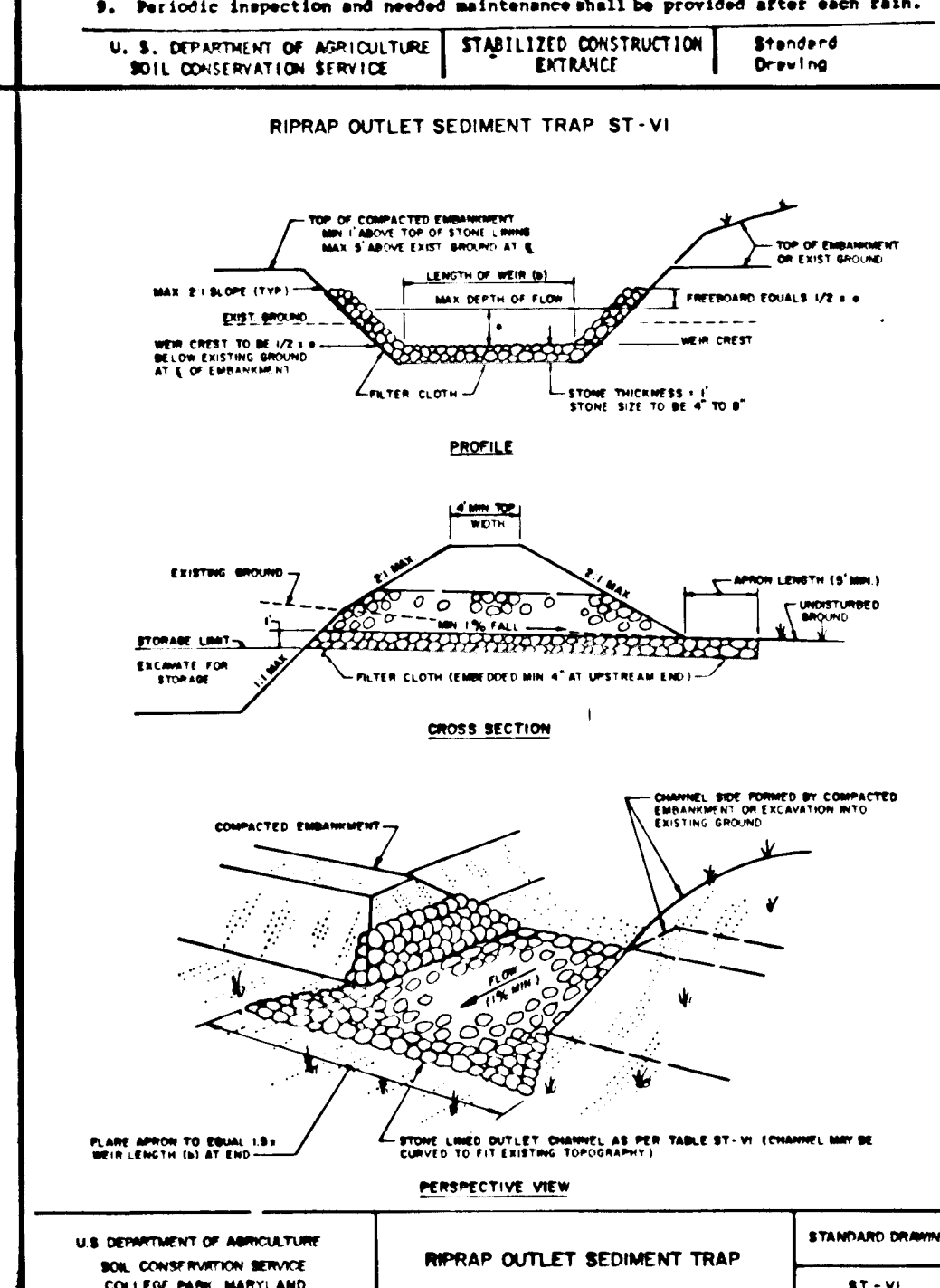
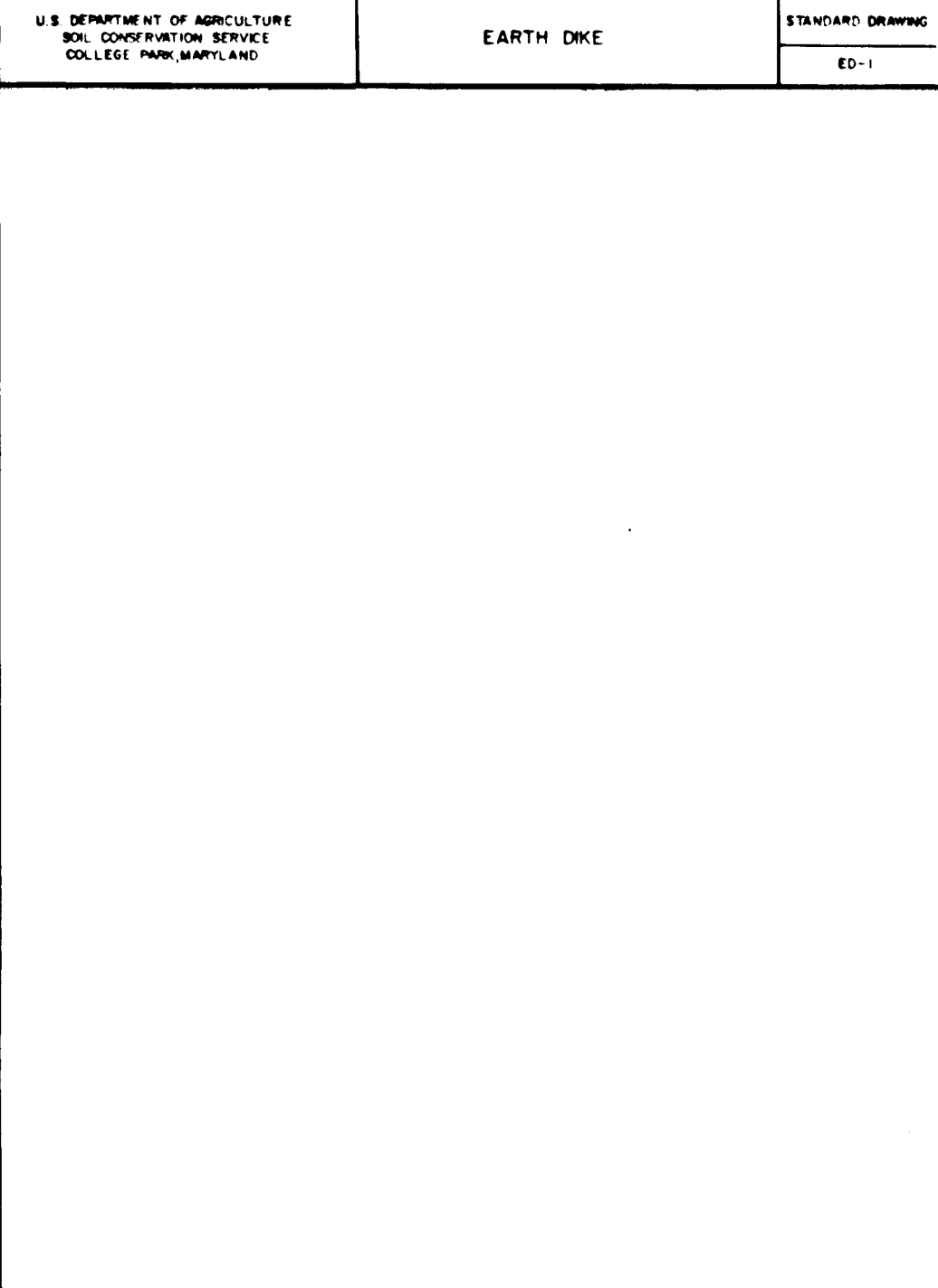
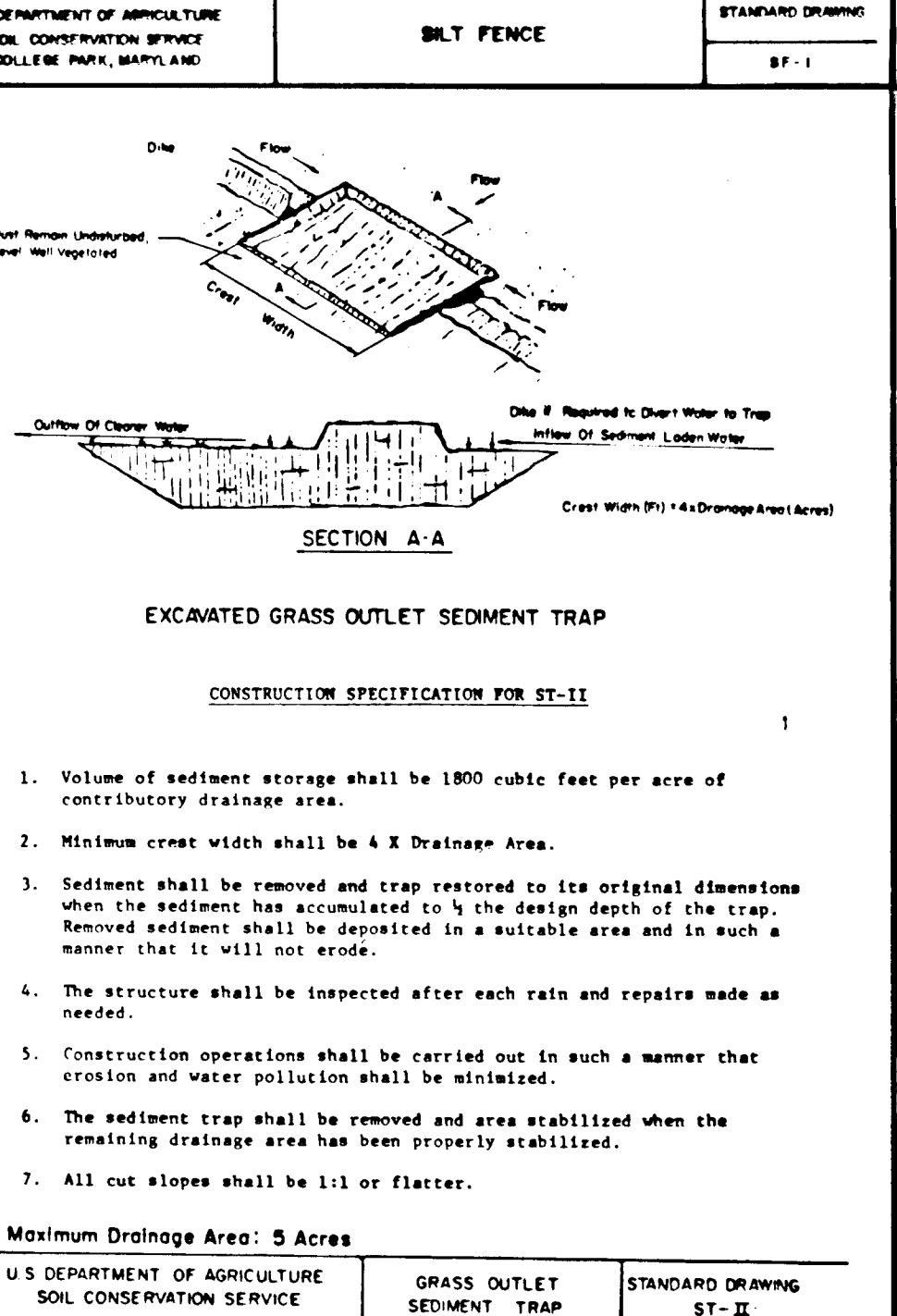
**Seeded Preparation:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding.

**Soil Amendments:** Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

**Seeding:** For periods March 1 thru April 30 and from August 15 thru November 15, seed with 24 bushel per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use seed.

**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.

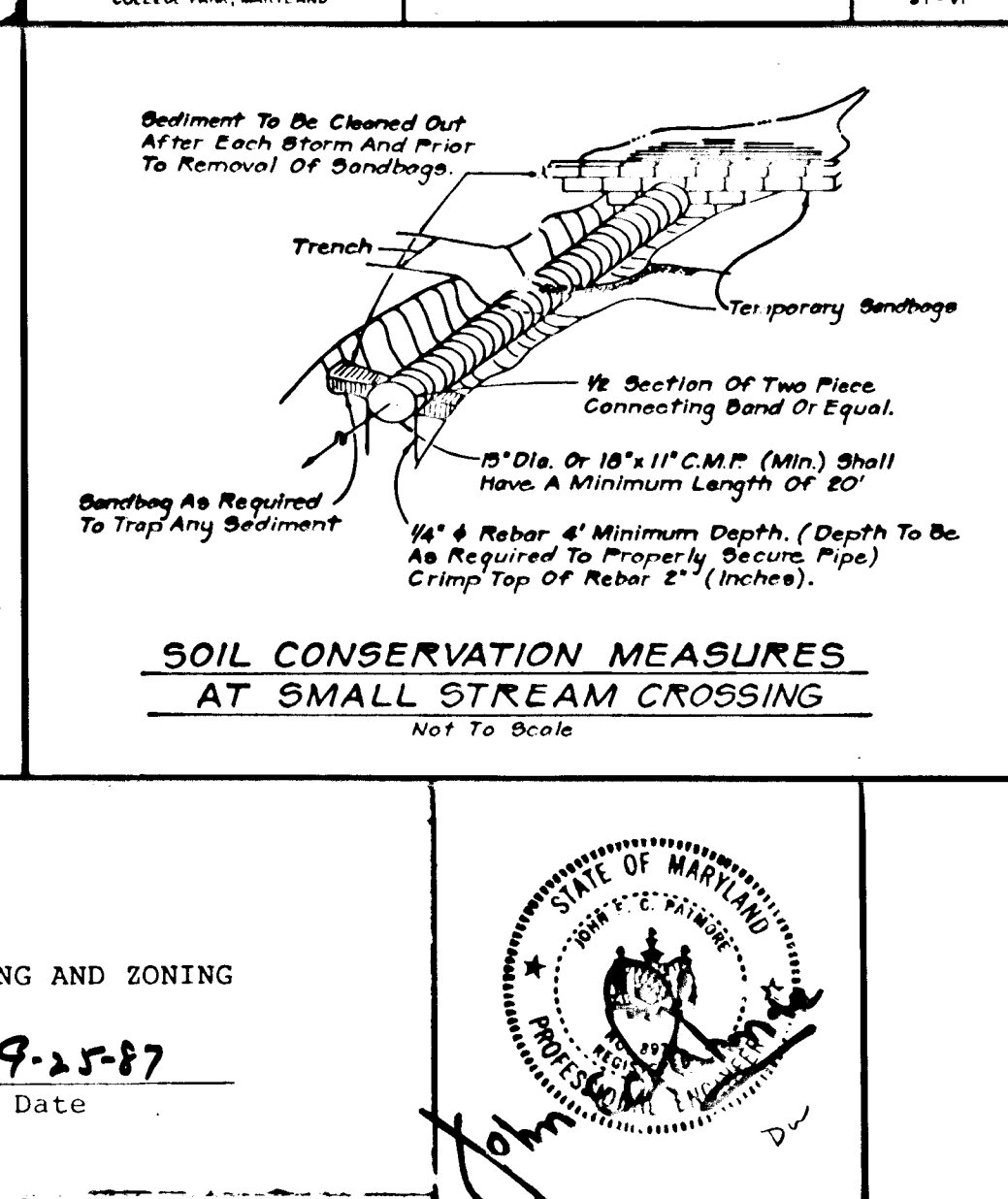
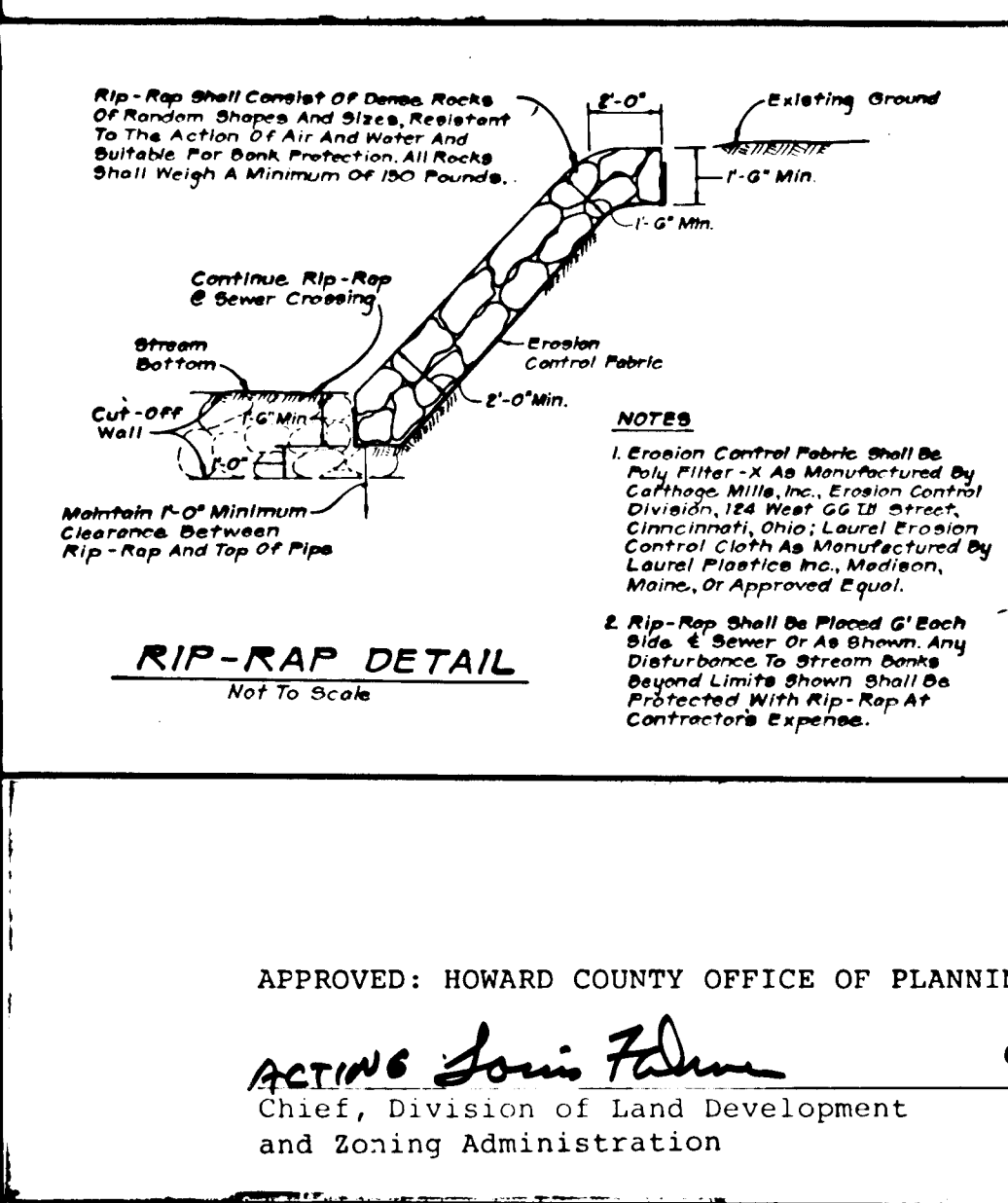
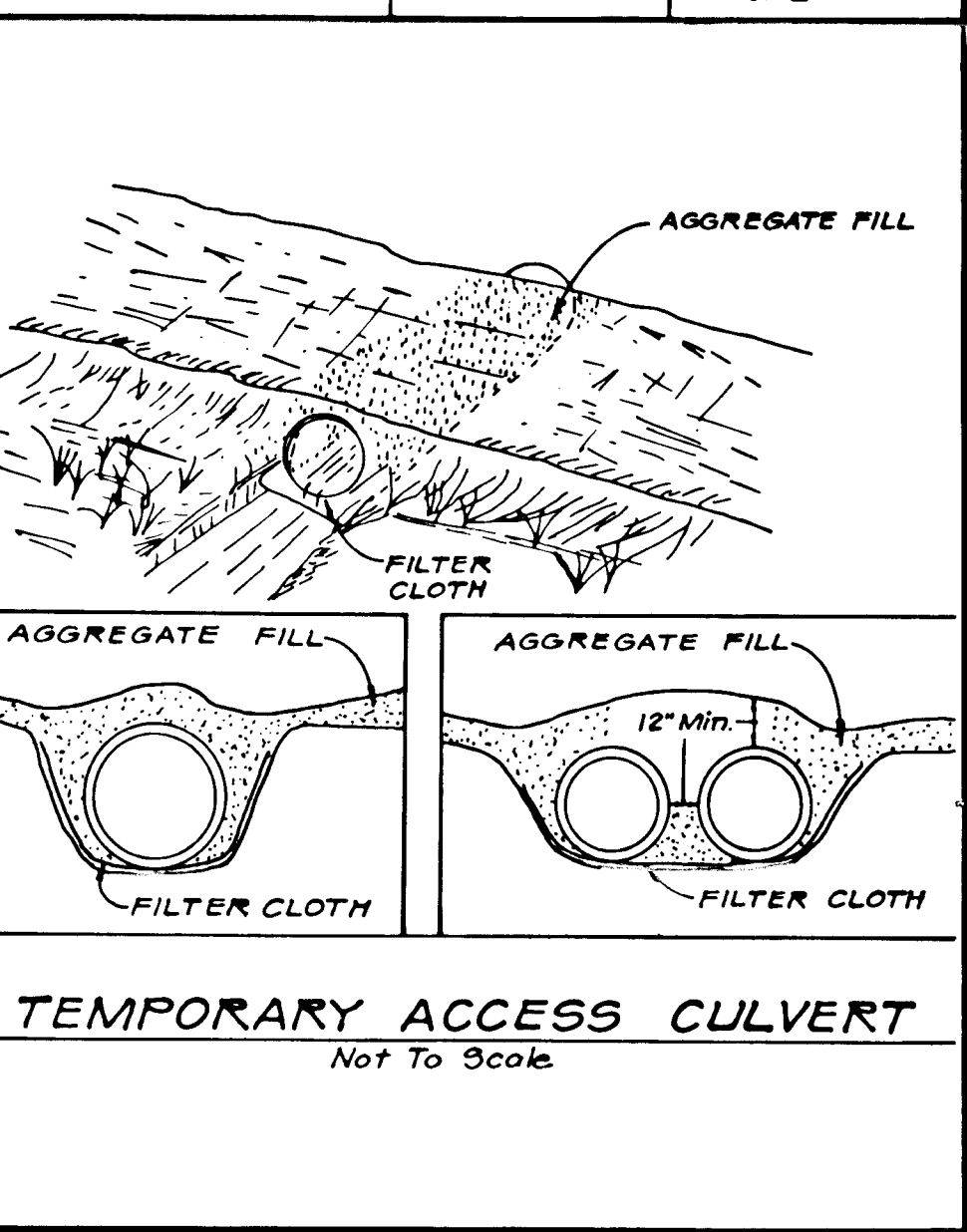
Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.



**Riprap Outlet Sediment Trap**

ST-VI (for Stone Lined Channel)

Contributing Drainage Area (Acres)	Depth of Channel (Feet)	Length of Weir (ft)
1	1.5	4.0
2	1.5	5.0
3	1.5	6.0
4	1.5	7.0
5	1.5	8.0
6	1.5	9.0
7	1.5	10.0
8	2.0	10.0
9	2.0	10.0
10	2.0	12.0
11	2.0	14.0
12	2.0	16.0
13	2.0	18.0
14	2.0	18.0
15	2.0	18.0



**Riprap Outlet Sediment Trap**

ST-VI (for Stone Lined Channel)

Contributing Drainage Area (Acres)	Depth of Channel (Feet)	Length of Weir (ft)
1	1.5	4.0
2	1.5	5.0
3	1.5	6.0
4	1.5	7.0
5	1.5	8.0
6	1.5	9.0
7	1.5	10.0
8	2.0	10.0
9	2.0	10.0
10	2.0	12.0
11	2.0	14.0
12	2.0	16.0
13	2.0	18.0
14	2.0	18.0
15	2.0	18.0

**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 embankment and all slopes greater than 3:1, b) 14 days for all other disturbed or graded areas on the project site.
- 4) All sediment traps/basins shown must be fenced and warning signs posted around the perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (Sec. 54), temporary seedings (Sec. 50) and mulching (Sec. 52.) Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 6) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- 7) Site Analysis:
 

Total Area of Site	58.14 Acres
Area Disturbed	4.77 Acres
Area to be seeded or planted	1.98 Acres
Area to be vegetatively stabilized	4.07 Acres
Total Cut	16,415 Cu. yds.
Total Fill	18,307 Cu. yds.
Offsite waste/borrow area location	1,108 CU. YDS.
- 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 DPM sediment control inspector.

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.

NOTE: FOR SEQUENCE OF CONSTRUCTIONS, SEE SHEET 5 OF 9

**OWNER**  
JOHN C. MOBERLY  
3205 MARYLAND RT. 32  
GLENELG, MARYLAND 21794

**DEVELOPER**  
HOWARD COUNTY LAND SERVICES INC.  
8307 MAIN STREET  
ELLCOTT CITY, MARYLAND 21043

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*John C. Moberly* 9-24-87 DATE

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

*Stephen L. Fisher* 9/24/87 DATE  
Approved Howard S.C.D.

**OWNER'S/DEVELOPER'S CERTIFICATION**

"I/We hereby certify that I have reviewed this erosion and sediment control plan and that all clearing, grading, construction and/or development will be done pursuant 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 on the beginning of the project."

Signature: *John C. Moberly* Date: 5/11/87  
Name: MR. DONALD R. REINHOLD, Title: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
Firm: HOWARD CO. LAND SERVICES, Complete Address: \_\_\_\_\_

**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: *John E.C. Patmore* Date: 5/11/87  
Name: JOHN E.C. PATMORE, Title: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
Registered Professional Engineer # 8978

**KIDDE CONSULTANTS, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
1100 WEST STREET / SUITE 100 / LAUREL, MD 20707  
(Wash.) (301) 953-1821 / 792-8086 (Balt.)

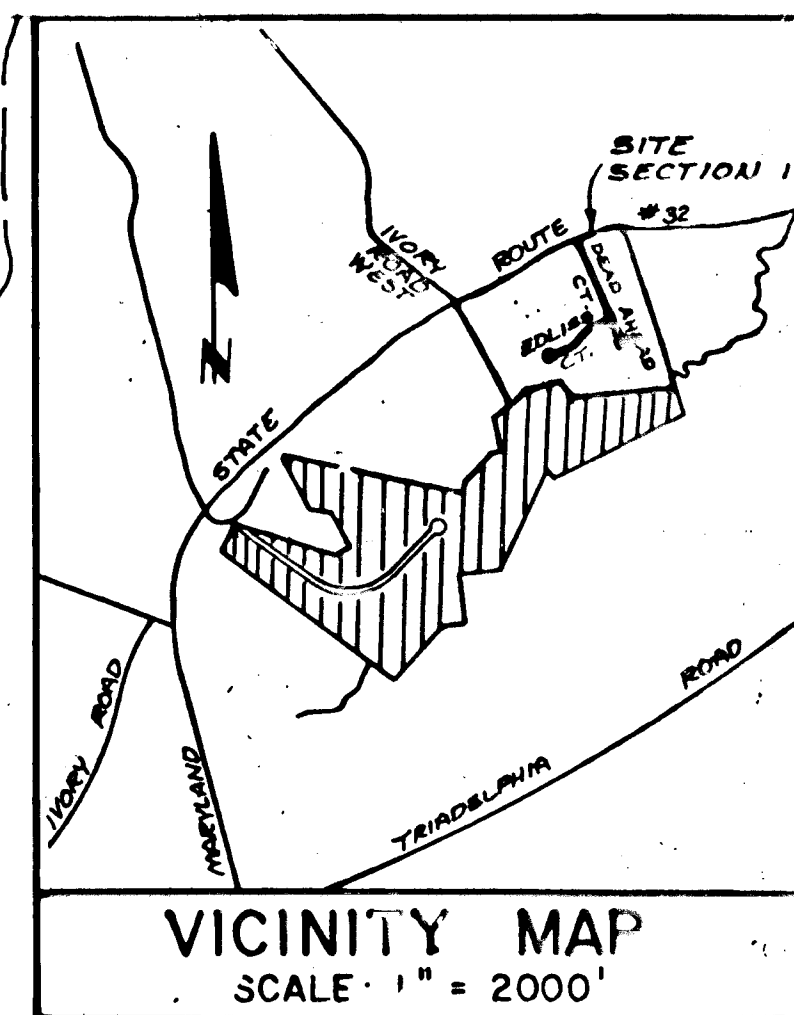
**KINGS GRANT/GLEN MOOR**  
LOTS 1 THRU 16  
SECTION 1  
TAX MAP 22 PARCEL 7  
3rd ELECTION DIST. HOWARD COUNTY MD.

Drawing MWG	DATE	REVISIONS	SHEET	DATE	JOB
Check D.C.W.	4/24/88	SITE ANALYSIS	8	APRIL/1987	NUMBR
Design MWG			11	SCALE	
				N/A	1685111

1316

F-87-196





MD. RT. 32

OLD IVORY ROAD

MD RT. 32 (150' ROW)

30 ACRES DRAINING TO STA. 12+00

N  
E 802.000  
N 326.000

N 328.000  
E 809.000

N 325.000  
E 808.000

HUNTSMAN'S RUN

LIMIT OF SUBMISSION

NOTE: ALL DRIVEWAY CULVERTS TO BE 15" IN DIAMETER.

DITCH NO	EXISTING AREA NO.	Q-10(FPS)	V-10(FPS)	D-10 FT.	SLOPE %	LINING TYPE	DITCH LENGTH
1	1	1.97	3.57	.52'	5	GRASS	4070
2	2	2.85	3.96	.60'	5	GRASS	879
3	3	1.30	3.72	.42'	7	GRASS	205
4	4	2.42	3.31	.60'	3.0	GRASS	355
5	5	0.70	2.50	.38'	3.5	GRASS	340
6	6	1.06	2.50	.47'	2.8	GRASS	455
7	7	0.54	2.17	.38'	2.8	GRASS	277
8	8	0.65	2.53	.37'	3.9	GRASS	195
* THE BOTTOM PORTIONS OF THESE DITCHES ARE LINED WITH RIP-RAP.							
* 2	2	2.85	3.88	.61'	10.6%	RIP-RAP	209
* 3	3	1.33	3.32	.44'	10.6%	RIP-RAP	
* 6	6	1.06	2.97	.42'	6.4%	RIP-RAP	180
* 7	7	.54	2.62	.33'	8.0%	RIP-RAP	140

DRAINAGE AREA MAP

**GLEN MOOR**  
SECTION I

TAX MAP 22 PARCEL 7  
3RD ELECTION DISTRICT HOWARD CO, MD

SHEET 9 OF 11

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

ACTING *Louis F. Dinn* 9-25-87  
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*William T. [Signature]* 10/1/87  
Chief, Land Development Division DATE

*Granville W. [Signature]* 10/1/87  
Chief, Bureau of Highways DATE

*William [Signature]* 10-5-87  
Chief, Bureau of Engineering DATE

**LEGEND**

EXISTING DRAINAGE DIVIDE

PROPOSED DRAINAGE DIVIDE

**OWNER**  
JOHN C. MOBERLY  
3205 MARYLAND RT. 32  
GLENELG, MARYLAND 21794

**DEVELOPER**  
HOWARD COUNTY LAND SERVICES  
8307 MAIN STREET  
ELLICOTT CITY, MARYLAND 21043

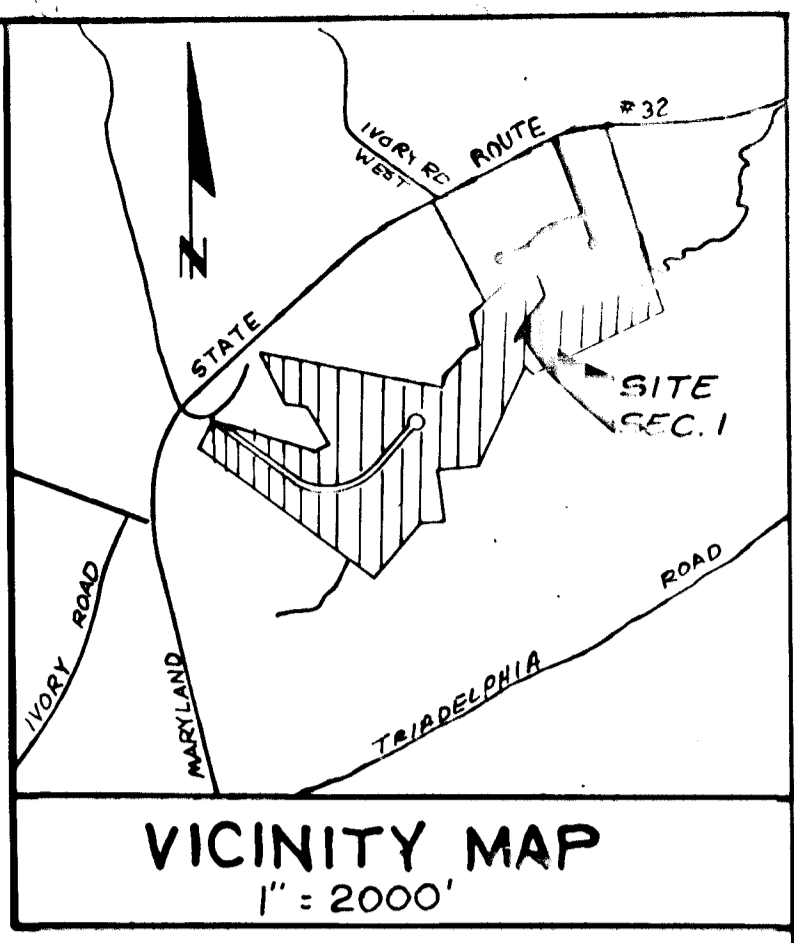
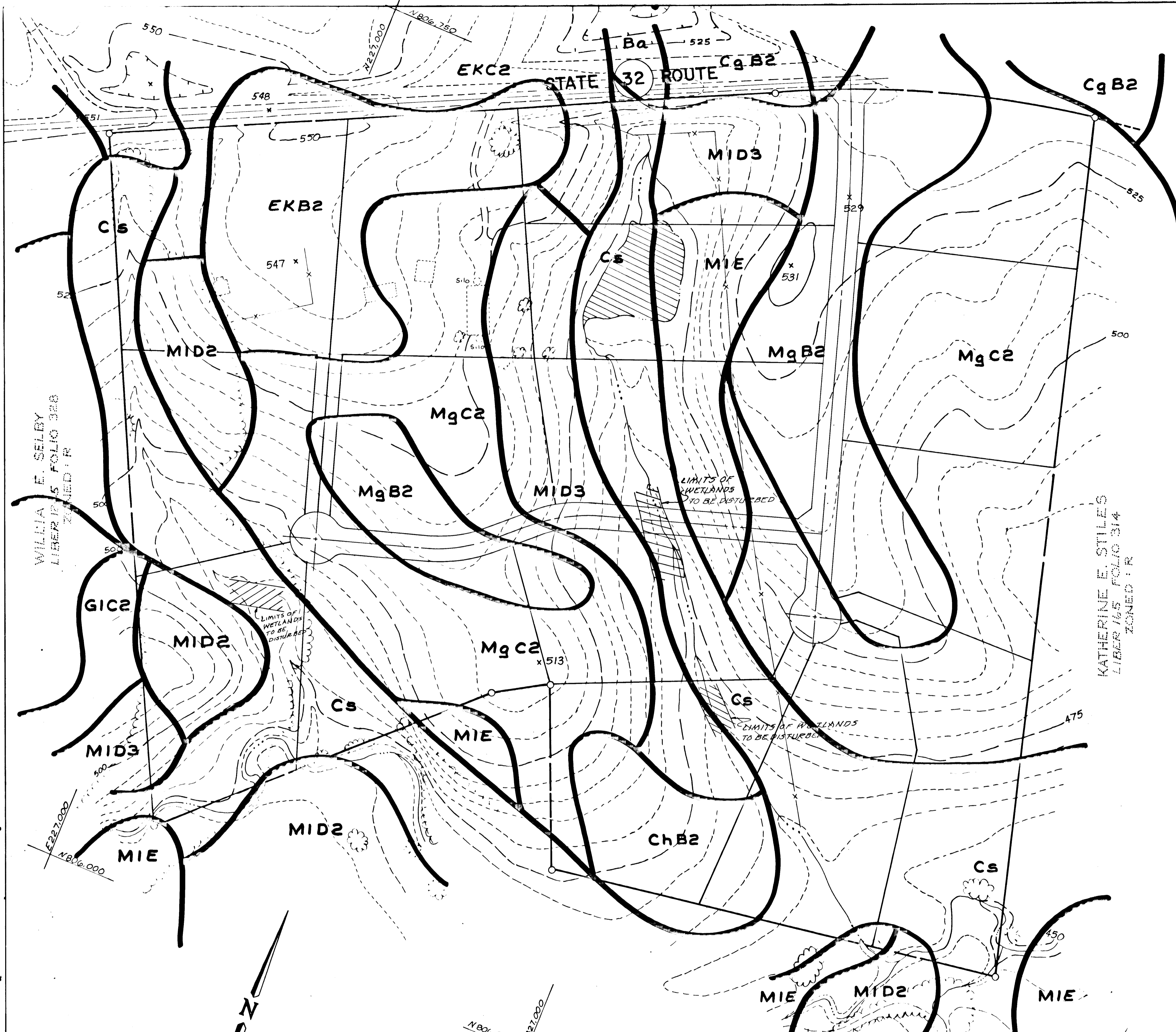
DATE 2/24/88 TABLE EMM

STATE OF MARYLAND  
Professional Engineer  
*John E. Patmore*  
1685111

JOHN E.C. PATMORE MD PF 8978  
DATE APRIL, 1987 1" = 200'

1316

F-87-196



SOILS LEGEND

SYMBOL	TYPE	NAME, DESCRIPTION
Ba	D	Jaille Silt Loam
CgB2	B	Chester Gravelly Silt Loam, 7 to 8 percent slopes, moderately eroded
CgC2	B	Chester Gravelly Silt Loam, 8 to 15 percent slopes, moderately eroded
ChB2	B	Chester Silt Loam, 3 to 8 percent slopes, moderately eroded
Cs	B	Comus Silt Loam
GIC2	B	Glenelg Loam, 8 to 15 percent slopes, moderately eroded
MgB2	B	Manor Gravelly Loam, 3 to 8 percent slopes, moderately eroded
MgC2	B	Manor Gravelly Loam, 8 to 15 percent slopes, moderately eroded
M32	B	Elioak Silt Loam, 3 to 8 percent slopes, moderately eroded
EkC2	B	Elioak Silt Loam, 8 to 15 percent slopes, moderately eroded
MID2	B	Manor Loam, 15 to 25 percent slopes, moderately eroded
MID3	B	Manor Loam, 15 to 25 percent slopes, severely eroded
MIE	B	Manor Loam, 25 to 45 percent slopes

NOTE - WETLANDS PERMIT APPLICATION IS CURRENTLY BEING PROCESSED BY CORP OF ENGINEERS. WATER QUALITY CERTIFICATION HAS BEEN REQUESTED FROM THE STATE OF MD

**SOILS MAP**  
**KINGS GRANT / GLEN MOOR**  
**SECTION 1**

TAX MAP 22      PARCEL -7  
 3RD ELECTION DISTRICT    HOWARD CO, MD

SHEET 10 OF 11

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

*Active Louis F. Adams*      9-25-87  
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION      DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Michael P. ...*      10-5-87  
 Chief, Land Development Division      DATE

*Francis W. Weisand*      10-5-87  
 Chief, Bureau of Highways      DATE

*William E. ...*      10-5-87  
 Chief, Bureau of Engineering      DATE

**OWNER :**  
 JOHN C. MOBBERLEY  
 3205 MD RT 32  
 GLENELG, MD 21794

**DEVELOPER :**  
 HOWARD COUNTY LAND SERVICES  
 8307 MAIN STREET  
 ELLICOTT CITY, MARYLAND

**RIDGE CONSULTANTS, INC.**

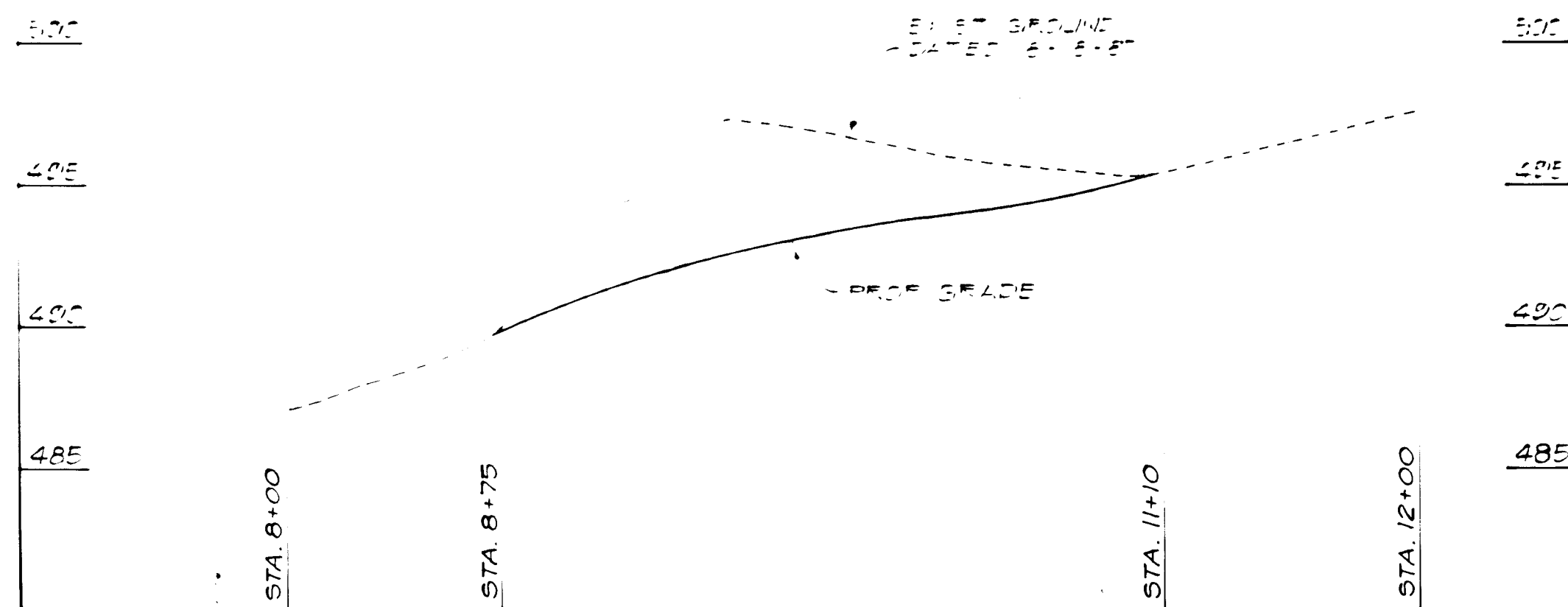
ENGINEERS • PLANNERS • SURVEYORS  
 1100 WEST STREET, SUITE 100, LAUREL, MD 20646  
 (301) 481-9121 / (301) 792-8998 (FAX)

DATE: APRIL, 1987      SCALE: 1" = 100'

1685111

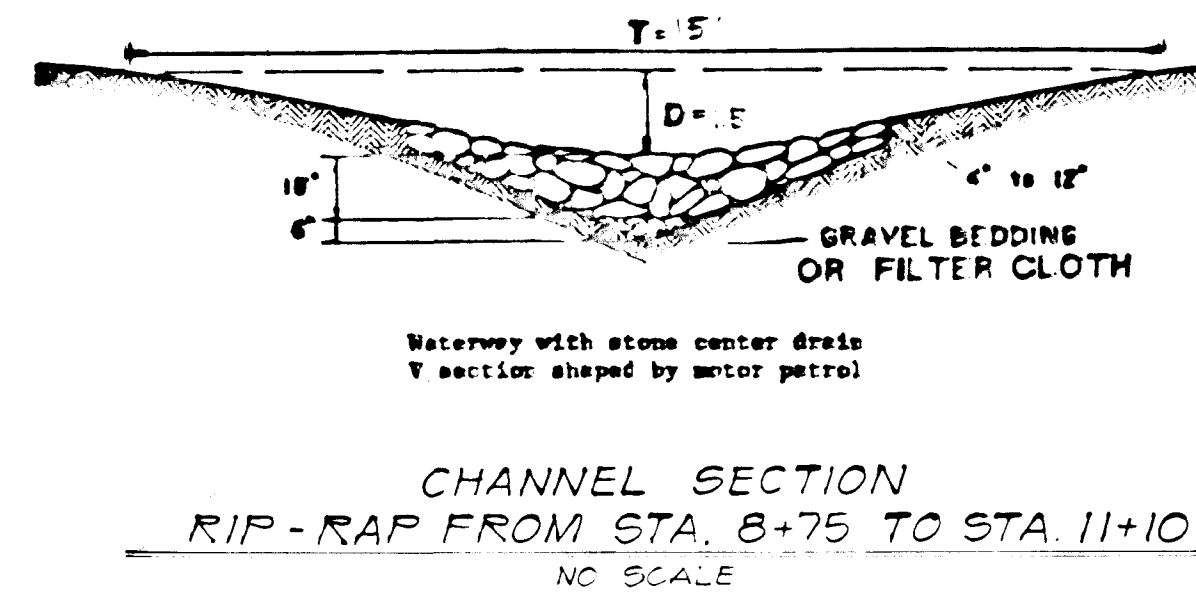
1316

F-87-196



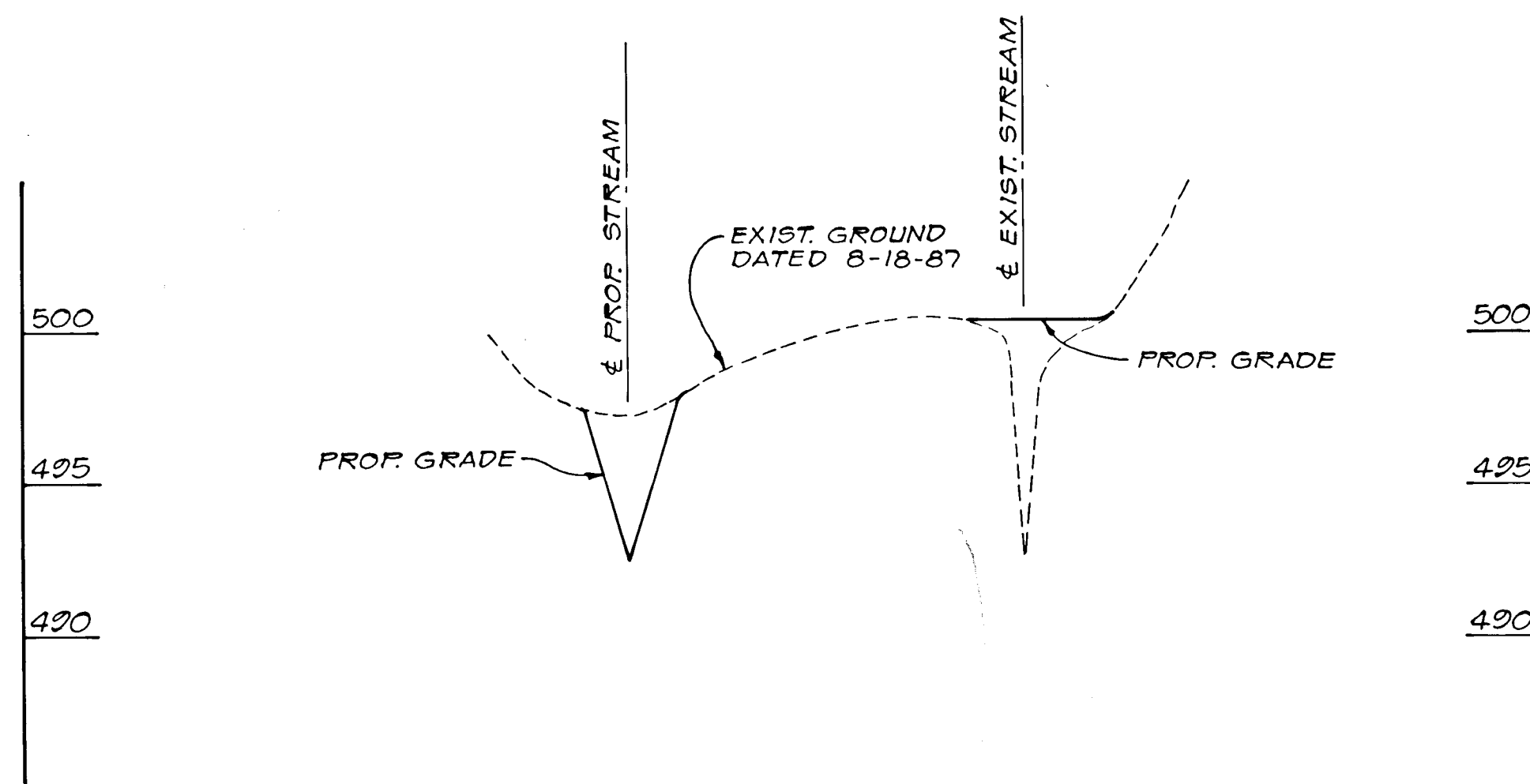
**CHANNEL PROFILE**

SCALES: HORIZ. 1"=50'  
VERT. 1"=5'



**CHANNEL SECTION**  
RIP-RAP FROM STA. 8+75 TO STA. 11+10  
NO SCALE

*James W. McNeill*



**SECTION 'A'-'A'**

SCALES: HORIZ. 1"=50'  
VERT. 1"=5'

SEQUENCE OF CONSTRUCTION FOR THE PROPOSED CHANNEL

- 1 : INSTALL SCE
- 2 : GRADE DEAD AHEAD COURT TO STATION 9+00
- 3 : GRADE EDLISS COURT TO STATION 5+00
- 4 : GRADE TEMP. ACCESS ROAD TO STREAM (AT STATION 4+90 ON EDLISS COURT)
- 5 : INSTALL TEMP. STREAM CROSSING AT STATION 8+60
- 6 : CONSTRUCT PROPOSED STREAM CHANNEL FROM STATION 8+75 TO STATION 11+10
- 7 : LINE STREAM CHANNEL WITH RIP-RAP USING 6 INCH STONE FROM STATION 8+75 TO STATION 11+10
- 8 : DIVERT EXISTING STREAM TO PROPOSED STREAM ALIGNMENT
- 9 : RESTORE POND DAM, SEED & MULCH THE ENTIRE DISTURBED AREA

**CONSTRUCTION DETAIL SHEET**  
**KINGS GRANT/GLENMOOR**  
**SECTION 1**  
SECTION 1 TAX MAP 22 PARCEL 7  
3rd ELECTION DIST. HOWARD COUNTY MD.

SHEET 11 OF 11

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  <b>ACTING</b> <i>Louis F. Dime</i> <b>9-25-87</b> <small>CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION</small>	APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  <i>George J. McNeill</i> <b>10/1/87</b> <small>CHIEF, LAND DEVELOPMENT DIVISION</small> <i>Franklin W. McNeill</i> <b>10/1/87</b> <small>CHIEF, BUREAU OF HIGHWAYS</small> <i>William E. P. Kelly</i> <b>10-5-87</b> <small>CHIEF, BUREAU OF ENGINEERING</small>	<b>ENGINEERS CERTIFICATE</b>  "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."  <i>John E. C. Patmore</i> <b>8/26/87</b> <small>JOHN E. C. PATMORE</small> Registered Professional Engineer # 8978	<b>OWNER'S/DEVELOPER'S CERTIFICATION</b>  "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 inspection by the Howard Soil Conservation District."  <i>Conrad R. King</i> <b>8/20/87</b> <small>Signature</small> <small>Date</small> <small>Name</small> <small>Phone No.</small> <small>Firm</small> <small>Complete Address</small>	REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  <i>James McNeill</i> <b>9-24-87</b> <small>SIGNATURE</small> <small>DATE</small>  <b>U.S. SOIL CONSERVATION SERVICE</b>  THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  <i>Stephen L. Fisher</i> <b>9/28/87</b> <small>Approved Howard S.C.D.</small> <small>DATE</small>	<b>KIDDE CONSULTANTS, INC.</b>  ENGINEERS • PLANNERS • SURVEYORS 1100 WEST STREET / SUITE 100 / LAUREL, MD 20707 (Wash.) (301) 953-1821 / 792-8086 (Balt.)  DATE <b>AUG. 1987</b> SCALE AS SHOWN  
---	---	---	--	---	--

1316

F-87-196