

**DEVELOPER'S CERTIFICATE**

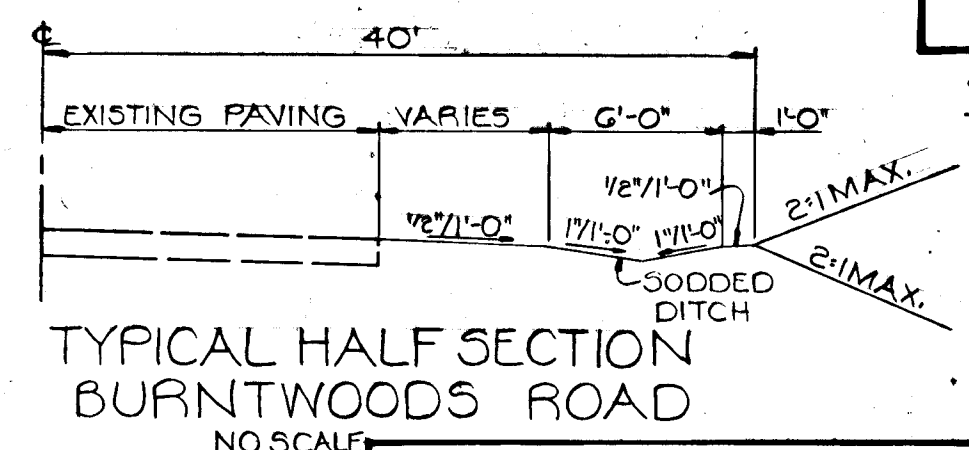
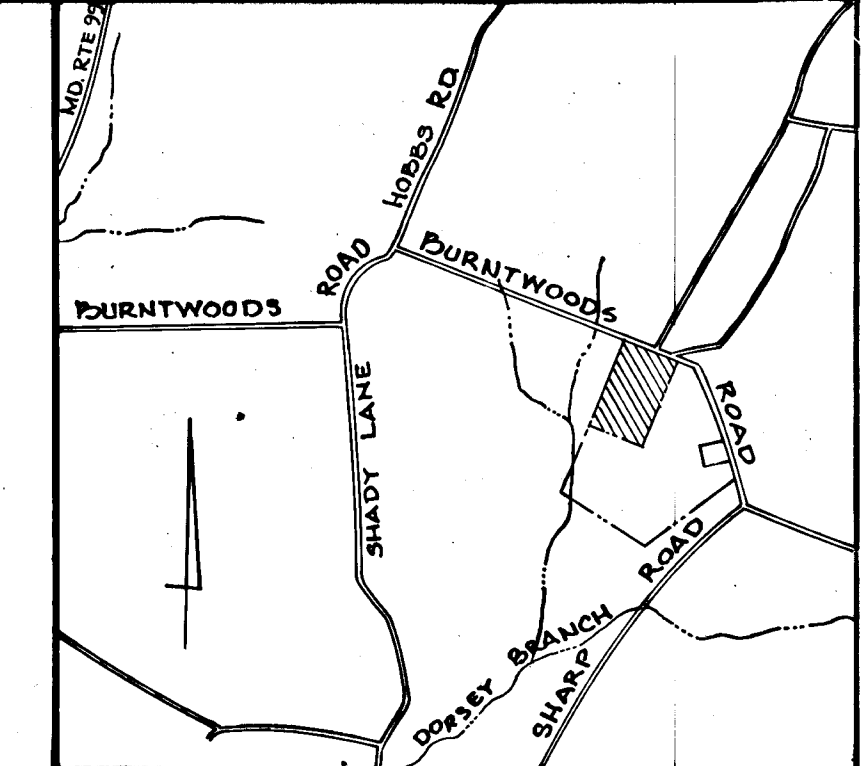
I certify that all development and/or construction will be done according to this plan of development and plan for Erosion and Sediment Control, and I also authorize periodic on site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District.

*Brantly Associates* 9/17/76  
 Developer Date

Chief, Bureau of Highways Date  
 Chief, Division of Land Development / Transportation Planning Date

**GENERAL NOTES**

- All construction shown hereon shall be in accordance with the Howard County Road Construction Code and Standard Specifications dated November 27, 1962 and revised August, 1967.
- Reference to page and drawing number shown hereon and referred to the above mentioned Road Construction Code and Standard Specifications.
- Design Speed - 30 mph.
- Elevations shown hereon are based on an assumed datum.



Drafted By..... T.E. Epps Jr.  
 Designed By..... T.A.K./J.deA. Brito  
 Checked By..... R.B. Carter

OWNER AND DEVELOPER  
**BRANTLY ASSOCIATES**  
 218 TEACHERS BLDG.  
 COLUMBIA, MARYLAND 21044

PURDUM AND JESCHKE  
 CONSULTING ENGINEERS AND  
 LAND SURVEYORS  
 1023 N. CALVERT STREET  
 BALTIMORE, MARYLAND 21202

PLAN AND PROFILE : BRANTLY ROAD

**BRANTLY**

SECTION ONE  
 4TH. ELECTION DISTRICT HOWARD COUNTY, MD.  
 FEBRUARY 15, 1974 SCALE : AS SHOWN  
 SHEET 1 OF 3

PLAN  
 SUPERVISOR: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_

PROFILE  
 SUPERVISOR: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 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.

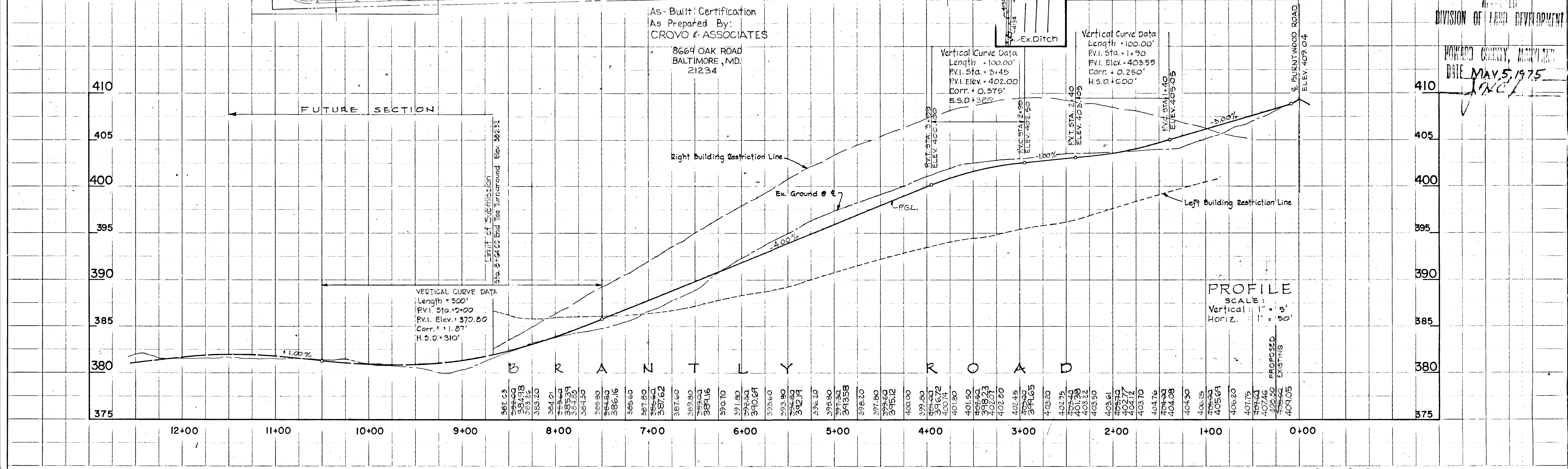
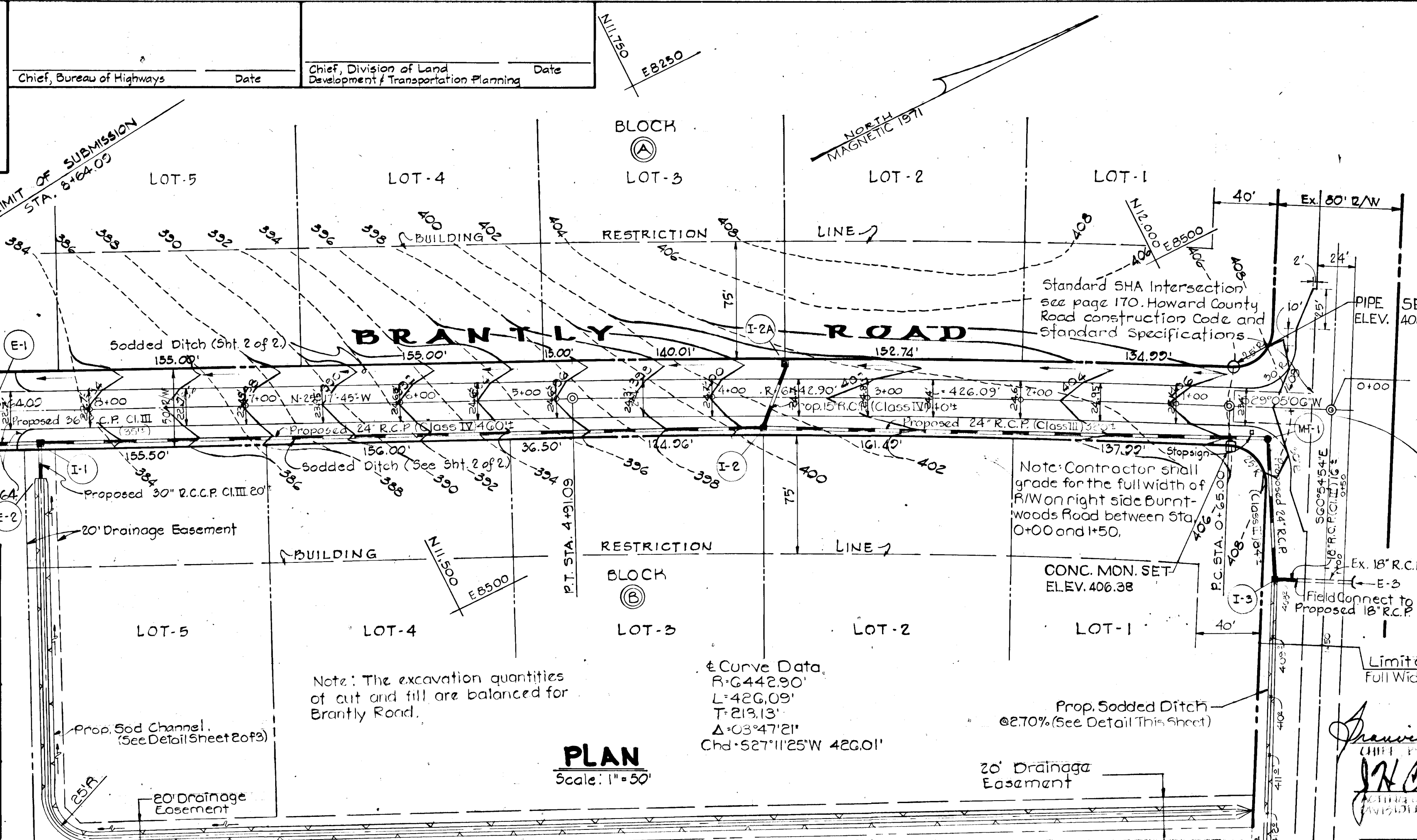
*William Glasche* 6/7/74  
 Signature of Engineer Date

Reviewed for Howard County Soil Conservation District and meets Technical Requirements.

*Eric H. Korman* 9/17/76  
 U.S. Soil Conservation Service Date

This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED: *Robert Z. Johnson* 9/17/76  
 Date





**SEDIMENT CONTROL NOTES**

- The developer shall notify the Howard County Soil Conservation District at least 24 hours prior to beginning any construction shown hereon (465-3180)
- Berms, sediment traps, etc., to be constructed prior to any onsite grading or disturbance to any existing surface material, and are to be stabilized as soon as constructed.
- All sediment control structures to remain in place until permission for their removal has been obtained from the Howard County Soil Conservation District. (465-3180 or 465-5000 Ext. 291.)
- All graded areas not to be sodded shall be stabilized by seeding and mulching in accordance with the following:

**1. Site Preparation:**

- Harrow or disc in areas proposed to be seeded with the following materials at the specified rate, to a depth of 3":
  - Pulverized limestone at 1/2 tons/acre.
  - Commercial fertilizer 10-10-10 at 3/4 tons/acre.
  - Super phosphate at 600 lbs./acre.

**2. Seeding:**

- Sow the following seed mixture at the rate of 200 lbs./acre with a mechanical spreader.
  - 20% Annual Ryegrass
  - 80% Kentucky 31 Fescue
- The seeded area shall then be raked with a York Rake (minimum of 2 passes), covered and compacted with Cultipacker or other approved method.

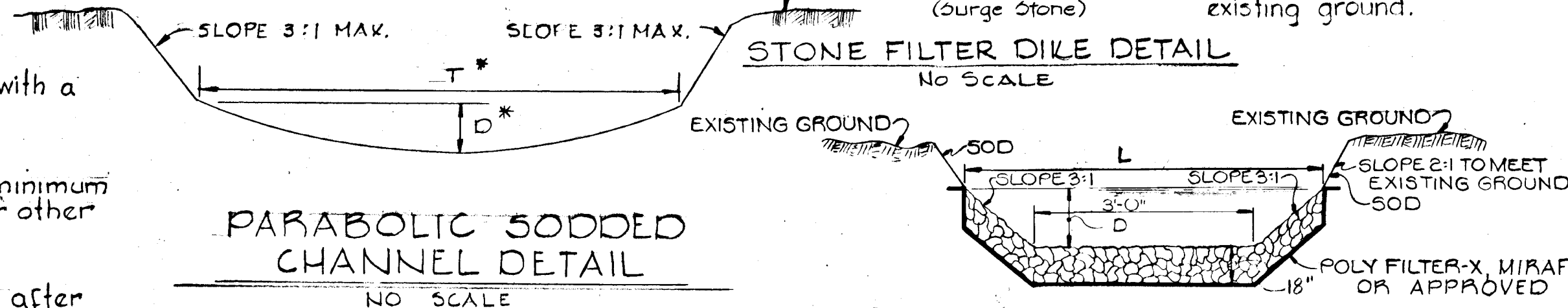
**3. Mulching**

- Seeded areas shall be uniformly mulched immediately after seeding with unweathered small grain straw at the rate of 1/2 to 2 tons/acre.
- Tie mulch down with liquid asphalt at 0.1 gal./sq. or emulsified asphalt at 0.04 gal./sq. on mulch netting.

**SODDING NOTES**

- Apply 10-10-10 Fertilizer @ 1000 lbs./acre (25 lbs./1000\*)
- Apply Ground Agricultural Limestone @ 2000 lbs./acre (50 lbs./1000\*)
- Incorporate both lime and fertilizer into soil by disking. Firm up after incorporation.
- Lay sod to a tight fit. Roll to ensure contact with underlying soil. Water as necessary for first two weeks (in summer) to ensure establishment.

\* VALUES FOR T & D ARE TAKEN FROM SECTION A-36.03 OF THE STANDARDS & SPECS. FOR SOIL EROSION & SEDIMENT CONTROL IN DEVELOPING AREAS.



CHANNEL DESIGN DATA @ E-1

A = 15.12"	S = 0.5%
P = 14.38'	S 1/2 = 0.07071
R = 1.051	n = 0.03
R 2/3 = 1.034	

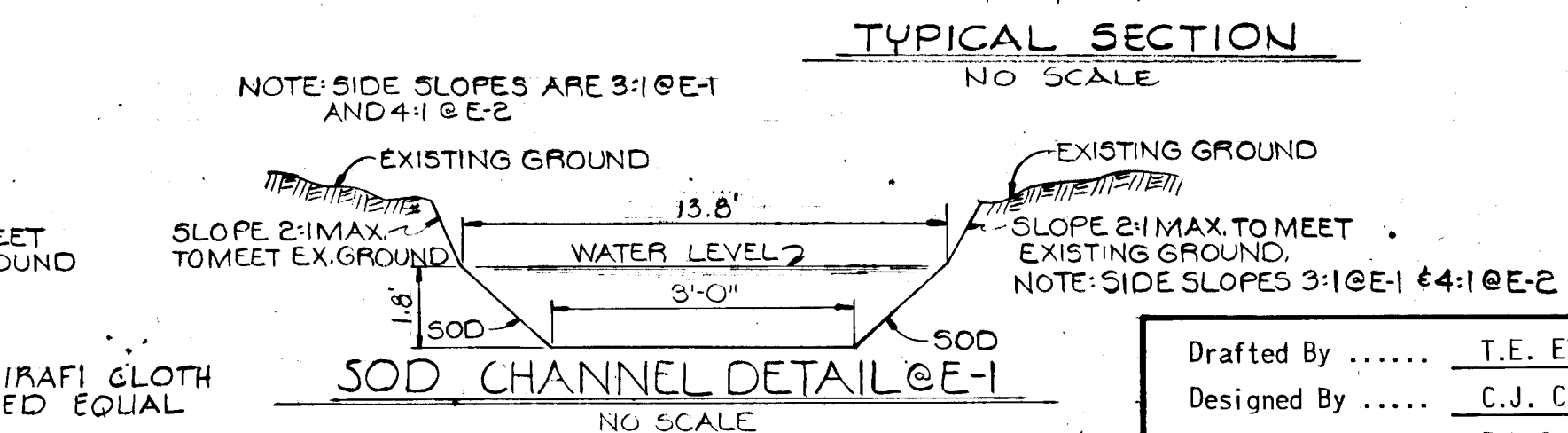
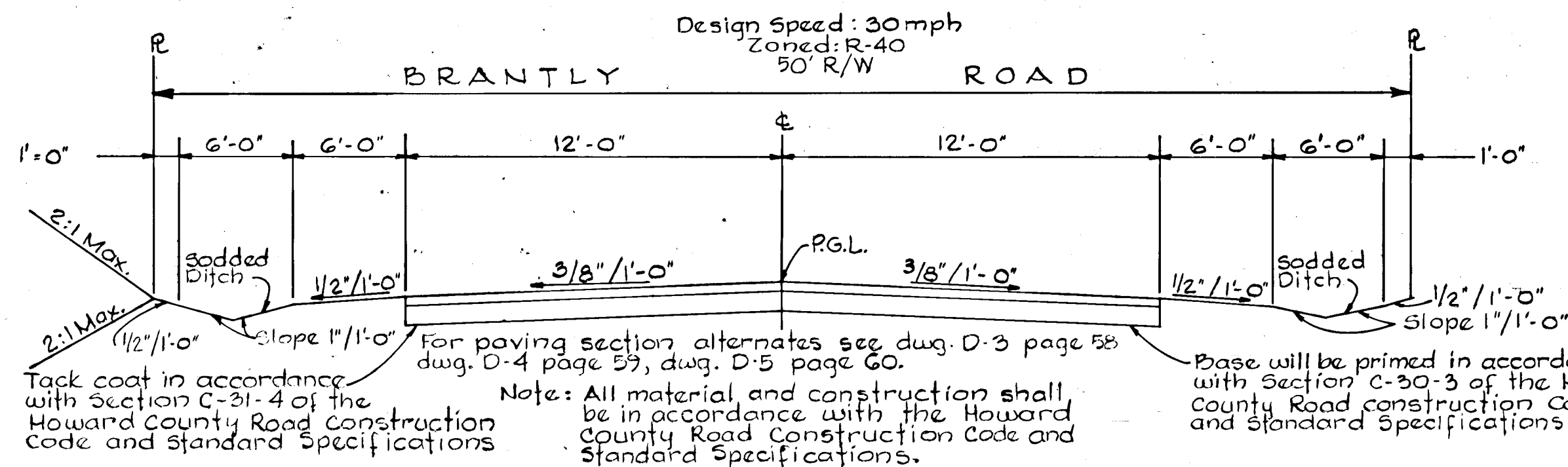
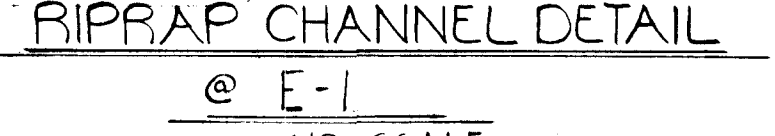
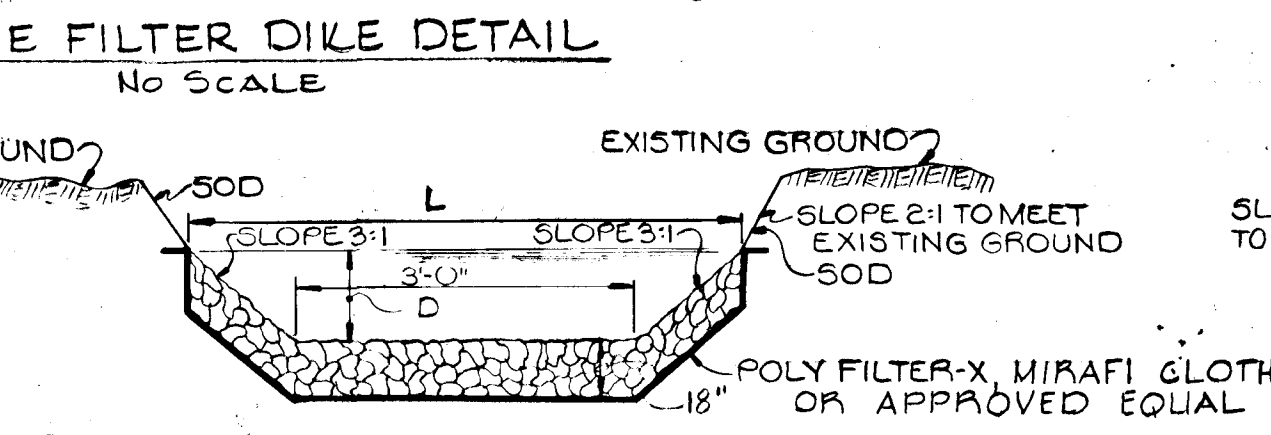
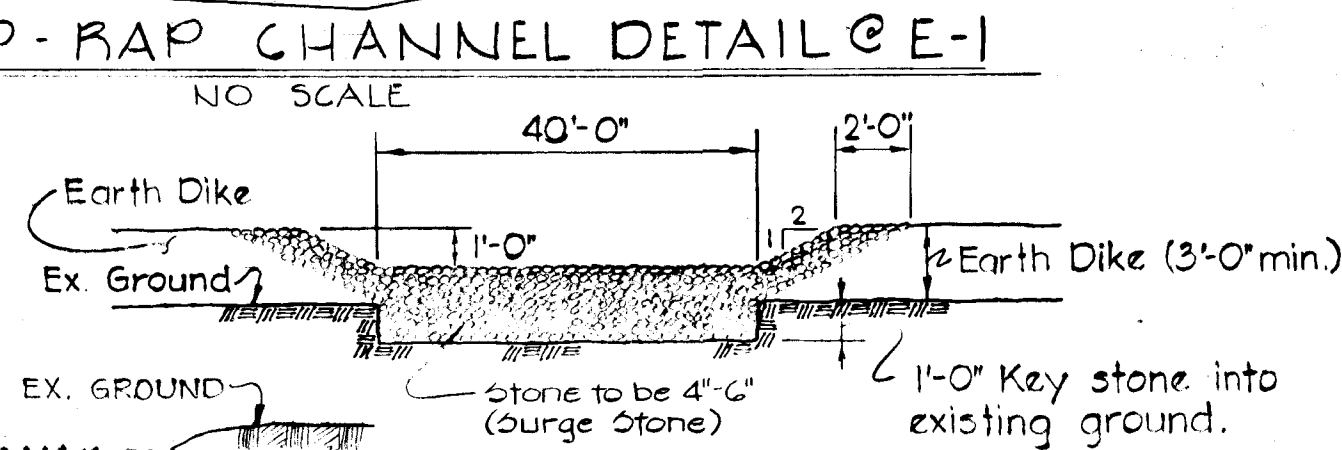
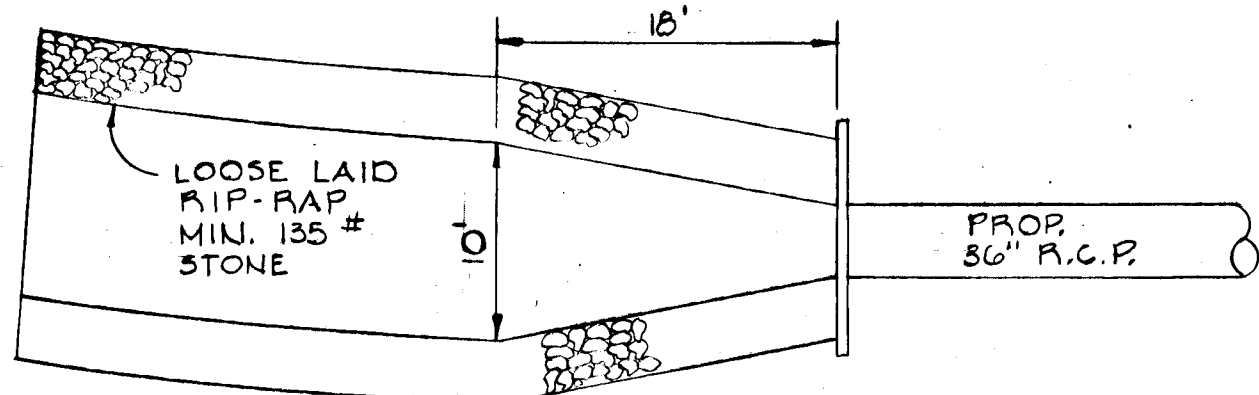
CHANNEL DESIGN DATA @ E-1

A = 19.53"	S = 0.8%
P = 16.28'	S 1/2 = 0.08944
R = 1.20	n = 0.05
R 2/3 = 1.130	

V = 1.485/n x R 2/3 x S 1/2  
 V = 1.485/0.03 x 1.034 x 0.07071  
 V = 3.6 fps  
 Q = V x A  
 Q = 3.6 x 15.12  
 Q = 54.4 cfs

**SPECIAL NOTES**

- Outlet channel to be surface grouted for a centerline distance of 12' from E-1 outlet
- Sodded ditch is to be transitioned into "K" inlet openings. This transition is to begin at a distance of 10' from opening.



**STRUCTURE SCHEDULE**

N#	TYPE	INV. IN	INV. OUT	TOP ELEV.	REMARKS	LOCATION
E-1	Endwall Type "B"	375.70	379.70	379.70	Ho. Co. Dwg. S.D.D. 21	± Sta. 0+73; 21' Lt.
I-1	"K"	377.35	376.10	381.71	Ho. Co. Dwg. S.D.D. 41	± Sta. 0+32; 21' Lt.
E-2	Headwall "E"	378.21	381.71	381.71	Ho. Co. Dwg. S.D.D. 21	± Sta. 0+32; 41' Lt.
I-2	"K"	392.13	391.30	400.31	Ho. Co. Dwg. S.D.D. 41	± Sta. 3+67; 20' Lt.
I-2A	"K"	393.76	400.71	400.71	Ho. Co. Dwg. S.D.D. 41	± Sta. 3+53; 21' Lt.
MH-1	MH "B"	402.36	400.26	406.94	Ho. Co. Dwg. S.D.D. 2	± Sta. 0+41; 21' Lt.
I-3	"K"	404.45	404.12	408.48	Ho. Co. Dwg. S.D.D. 41	± Sta. 0+34; 110' Lt.
Ex-3	Existing	—	405.71	—	—	Existing

Drafted By ..... T.E. EPPS, JR.  
 Designed By ..... C.J. CROVO  
 Checked By ..... R.B. CARTER

**OWNER AND DEVELOPER**  
 BRANTLY ASSOCIATES  
 218 TEACHERS BLDG.  
 COLUMBIA, MARYLAND 21044

**PURDUM AND JESCHKE**  
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 1023 N. CALVERT STREET  
 BALTIMORE, MARYLAND 21202

PLAN AND PROFILE : BRANTLY ROAD

**BRANTLY**

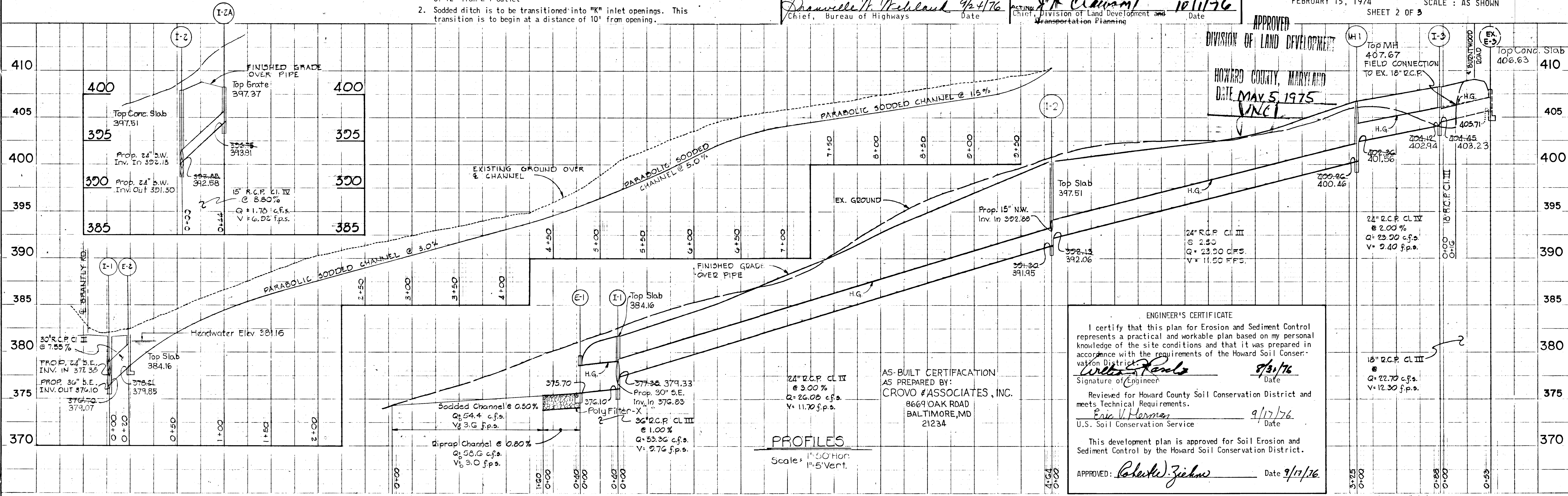
SECTION ONE  
 4TH ELECTION DISTRICT  
 FEBRUARY 15, 1974

HOWARD COUNTY, MD.  
 SCALE : AS SHOWN

SHEET 2 OF 3

*Lawrence H. Keiland* 9/24/76  
 Chief, Bureau of Highways Date

*J.H. Clamm* 10/17/76  
 Chief, Division of Land Development and Transportation Planning 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.

*Eric V. Herman* 9/17/76  
 Signature of Engineer Date

Reviewed for Howard County Soil Conservation District and meets Technical Requirements.  
*Eric V. Herman* 9/17/76  
 U.S. Soil Conservation Service Date

This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

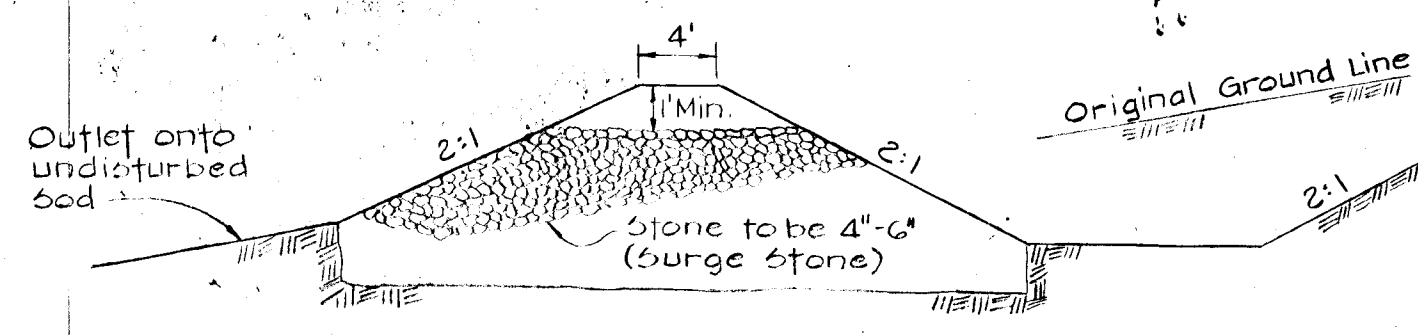
APPROVED: *Robert J. Zichow* Date 9/17/76

**PROFILES**  
 Scale: 1"=50' Hor.  
 1"=5' Vert.

DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 SUPERVISOR: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_

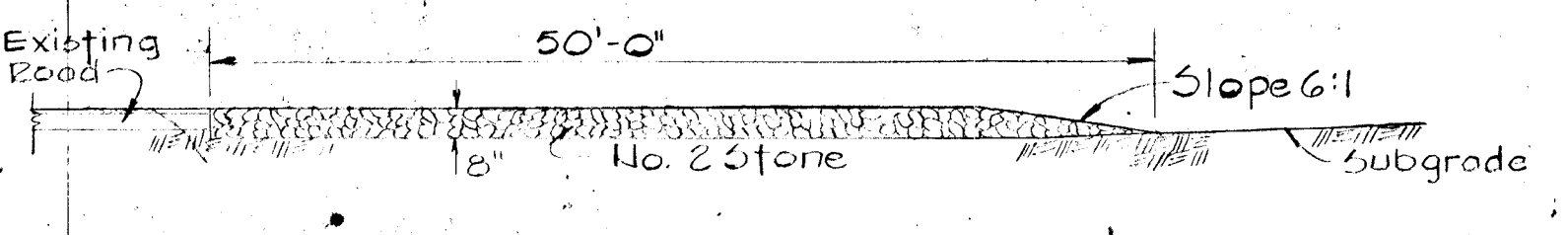
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 CHECKED: \_\_\_\_\_  
 SUPERVISOR: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_





**TYPICAL  
STONE FILTER DIKE**  
No Scale

**SEDIMENT TRAP**  
 Drainage Area = 31.58 Ac.±  
 Disturbed Area = 1.30 Ac.±  
 Vol. Required = 1340 C.Y.  
 Vol. Available = 1375 C.Y.  
 Size of Trap: Major axis = 225'  
 Minor axis = 82.5'  
 Depth = 2'  
 Cleanout Level = 1.2' Below Stone Weir

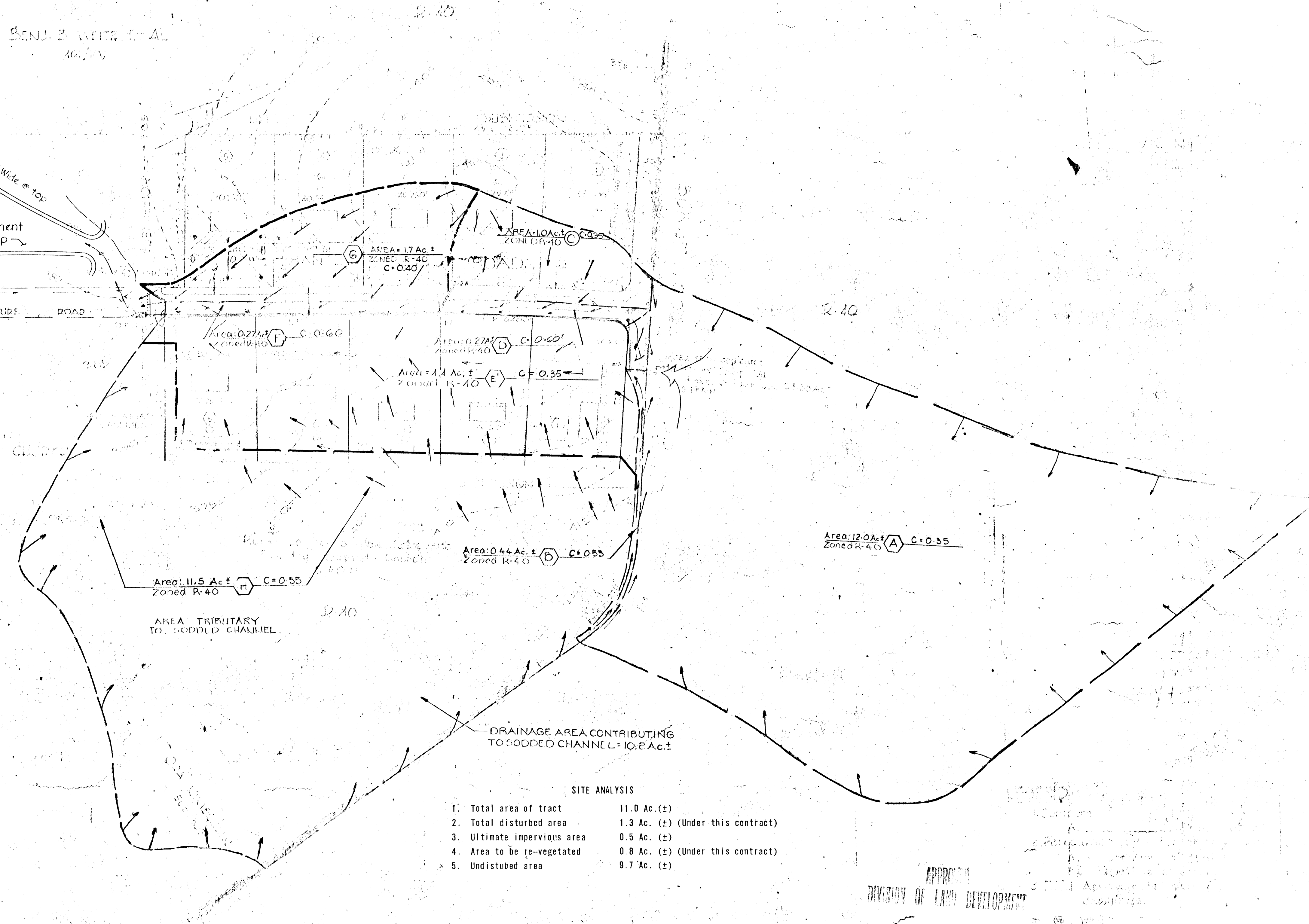


**STONE CONSTRUCTION ENTRANCE DETAIL**  
NOT TO SCALE

**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.  
*Eric N. Herman* 9/3/76  
 Signature of Engineer Date  
 Reviewed for Howard County Soil Conservation District and meets Technical Requirements.  
*Eric N. Herman* 9/17/76  
 U.S. Soil Conservation Service Date  
 This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.  
 APPROVED: *Robert Z. Zimm* Date 9/17/76

- CONSTRUCTION SEQUENCE**
1. Construct stabilized stone construction entrance.
  2. Construct stone filter dike, earth dike and sediment trap downstream from structure No. E-1.\*
  3. Construct sodded channels where indicated.\*\*
  4. Grade road to subgrade.
  5. Construct storm drain system and rip rap channels where indicated.\*\*\*
  6. Cap storm drain inlets.
  7. Stabilize roadway slopes; seed and mulch.
  8. Lay base course for road.
  9. Lay surface course for road.
  10. Fine grade slope areas and sodded ditch between edge of paving and property line; seed and mulch slopes.
  11. Uncap inlets and remove stone filter dike downstream of E-1 and stabilize the areas where removed.
- NOTE: No building permits for lots to be issued until such time as a master grading and sediment control plan is submitted and approved by the Howard Soil Conservation Service.
- \* Contractor shall remove and dispose of sediment trapped in back of the stone filter dike following any rainfall of sufficient intensity to generate silt to these traps.
- \*\* The sodded channel which extends from the rear of Lot 1 to structure E-2 must be constructed in such a manner as to minimize erosion. The Contractor shall construct and stabilize the channel in 100 foot sections.
- \*\*\* Contractor shall cover any exposed storm drain pipe at the end of each day with a sheet of plywood held in place with sandbags.

**OWNER & DEVELOPER**  
 BRANTLY ASSOCIATES  
 218 TEACHERS BLDG  
 COLUMBIA, MARYLAND 21044



**SITE ANALYSIS**

1. Total area of tract	11.0 Ac. (±)
2. Total disturbed area	1.3 Ac. (±) (Under this contract)
3. Ultimate impervious area	0.5 Ac. (±)
4. Area to be re-vegetated	0.8 Ac. (±) (Under this contract)
5. Undisturbed area	9.7 Ac. (±)

APPROVED  
 DIVISION OF LAND DEVELOPMENT  
 HOWARD COUNTY, MARYLAND  
 DATE May 5, 1975  
*WCI*

APPROVED: Howard County Office of Planning & Zoning  
*W. C. ...* 10/17/76  
 Chief, Division of Land Development and Transportation Planning Date  
 APPROVED: Howard County Department of Public Works  
*Francis M. ...* 9/24/76  
 Chief, Bureau of Highways Date

DRAINAGE AREA MAP  
 BRANTLY

Sheet No 3 of 3