

**GENERAL NOTES**

1. ALL STORM DRAIN AND PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST DETAILS AND SPECIFICATIONS OF HOWARD COUNTY AND MARYLAND S.H.A.
2. TRENCH COMPACTION FOR STORM DRAINS WITHIN ROAD OR STREET RIGHT-OF-WAY LIMITS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOL. II (CLASS "C" TRENCH BEDDING TO BE USED FOR ALL STORM DRAIN UNLESS SHOWN OTHERWISE)
3. 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.
4. ALL UTILITY COMPANIES SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF CONSTRUCTION.
5. ZONING: R-20
6. CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION/SURVEY DIVISION, 24 HOURS BEFORE COMMENCING WORK, AT 702-7272.

**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.

*C.K. Muter* 5/30/90  
Date

**Developer's/Bulker's Certificate**

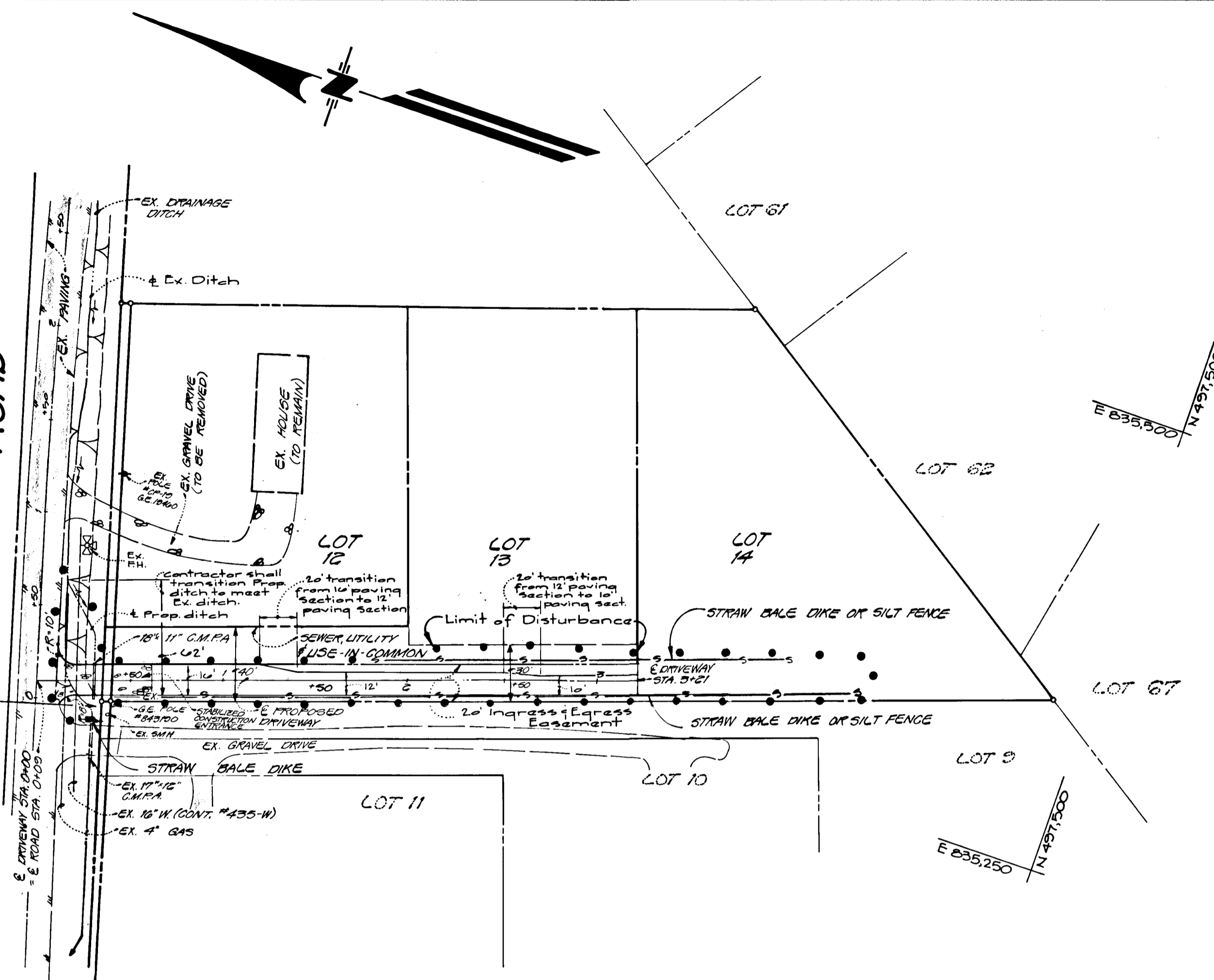
I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the HSCD.

*Suzanne Warren* 5/30/90  
Signature of Developer/Bulker Date



*C.K. Muter*

Notes: Contractor shall insure against damage from Prop. 1611. C.A.P.A. # 2.

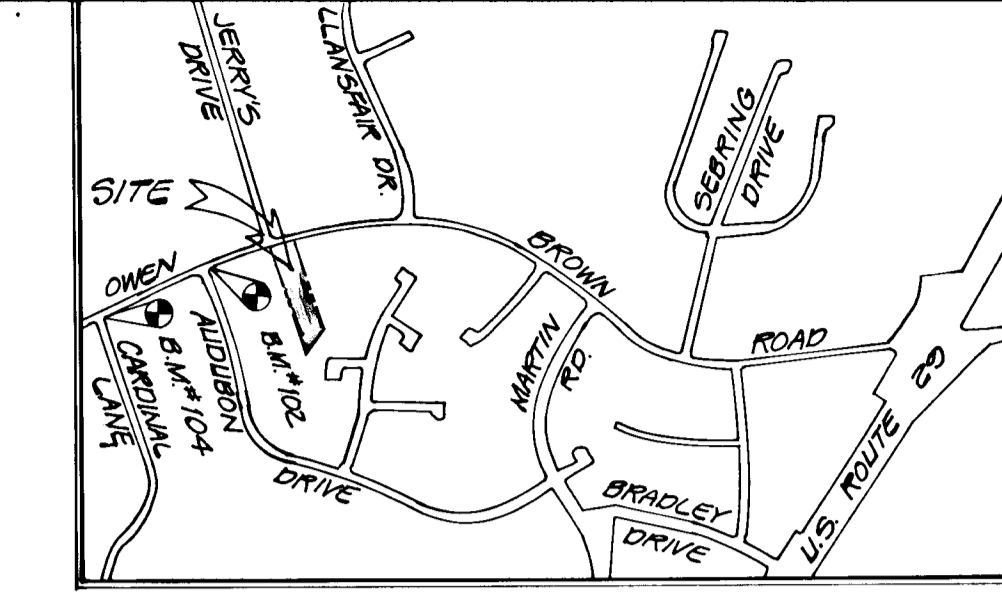


Approved: Department of Public Works  
*John M. Pappas* 3/6/91  
Chief, Land Development Division Date

Approved: Department of Public Works  
*Genevieve W. Welton* 2/19/91  
Chief, Bureau of Highways Date

Approved: Department of Public Works  
*Paula M. P. Pappas* 3-11-91  
Chief, Bureau of Engineering Date

Approved: Department of Planning and Zoning  
*Janet J. Payne* 3/5/91  
Chief, Division of Community Planning and Land Development Date



**VICINITY MAP**  
SCALE: 1" = 1200'

**BENCH MARKS**

- B.M. # 104 ELEV. 392.12  
BONNET BOLT ON EX. FH. - INTERSECTION OF CHATELAIN LANE AND OWEN BROWN ROAD (SEE VICINITY MAP)
- B.M. # 102 ELEV. 370.08  
BONNET BOLT ON EX. FH. - INTERSECTION OF AUDUBON DRIVE AND OWEN BROWN ROAD (SEE VICINITY MAP)

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

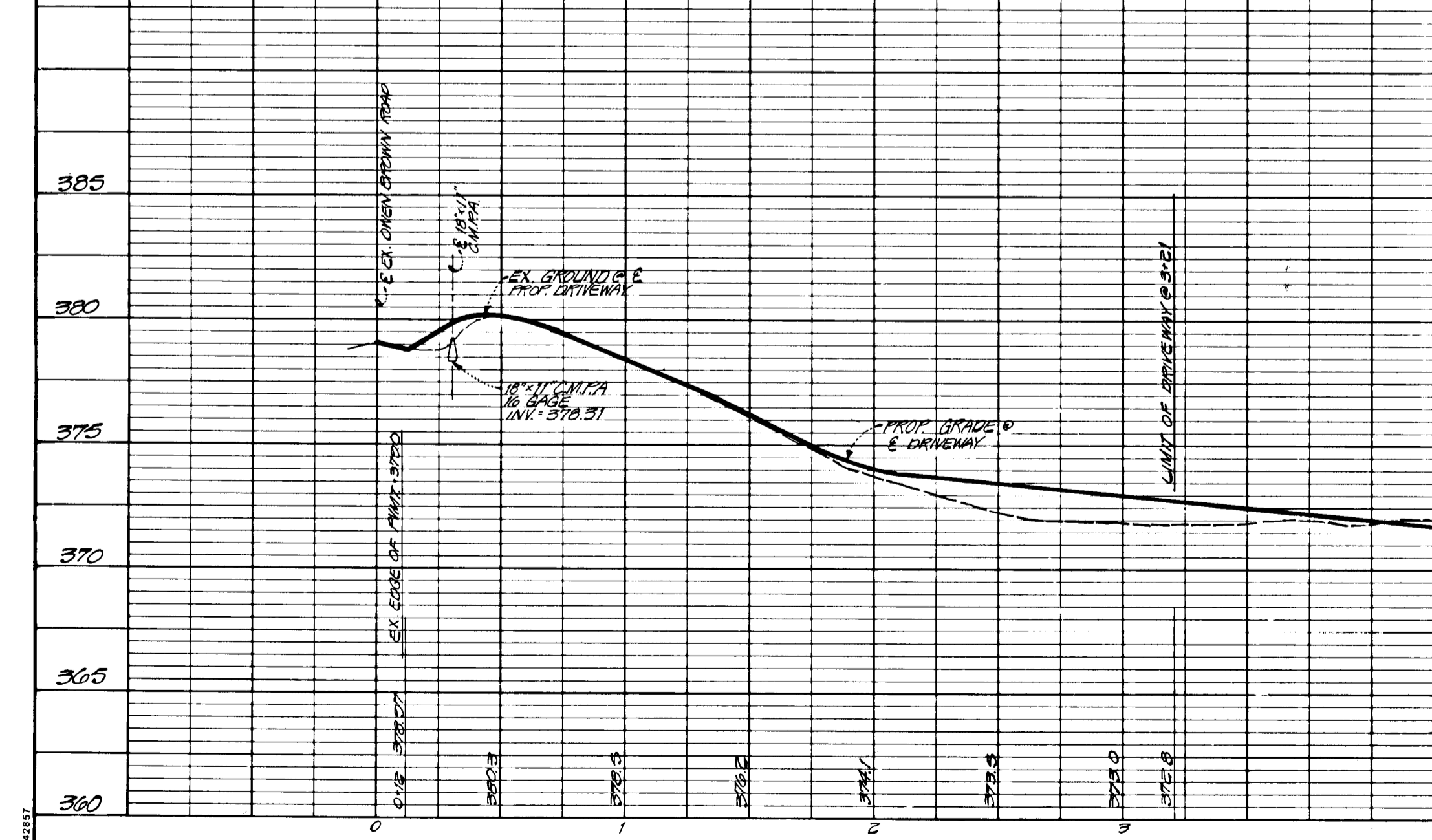
*John M. Helm* 2/6/91  
Howard S.C.D. Date

Reviewed for *Howard* S.C.D. Name  
and meets Technical Requirements.

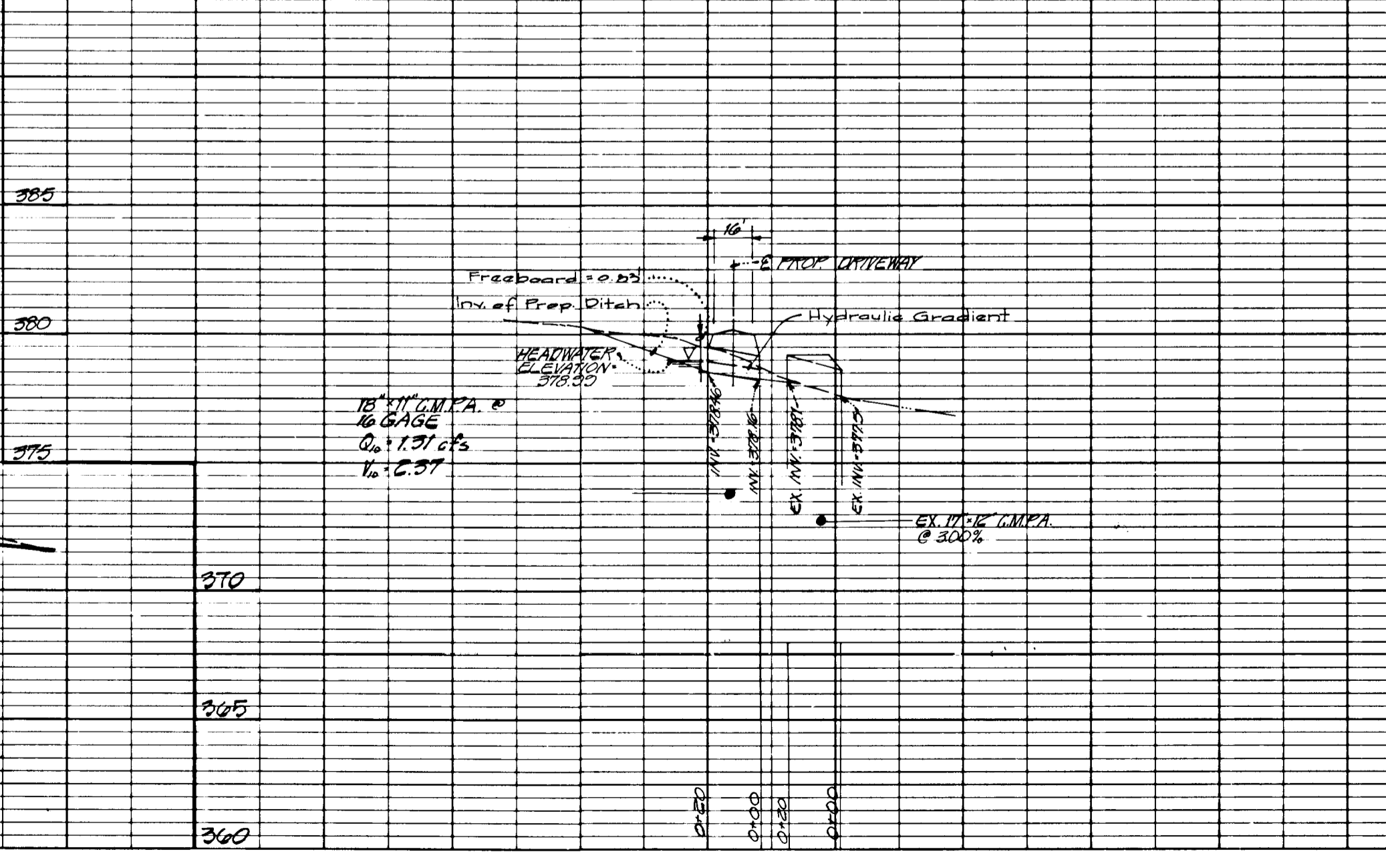
*John M. Helm* 2/6/91  
U.S. Soil Conservation Service Date

<b>GOW GUTSCHICK LITTLE &amp; WEBER, P.A.</b>	
ENGINEERS, PLANNERS, SURVEYORS	
3909 NATIONAL DRIVE SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20886 TEL.: (301) 421-4024	
DESIGNED M/DV	<b>WARREN PROPERTY</b> LOTS 12-14
DRAWN AK	
CHECKED CKG	5 <sup>TH</sup> ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE Feb. 1991	PREPARED FOR: SUZANNE WARREN 10425 OWEN BROWN RD. COLUMBIA, MARYLAND 21045 (301) 596-0406
	JOB NO. 80-056

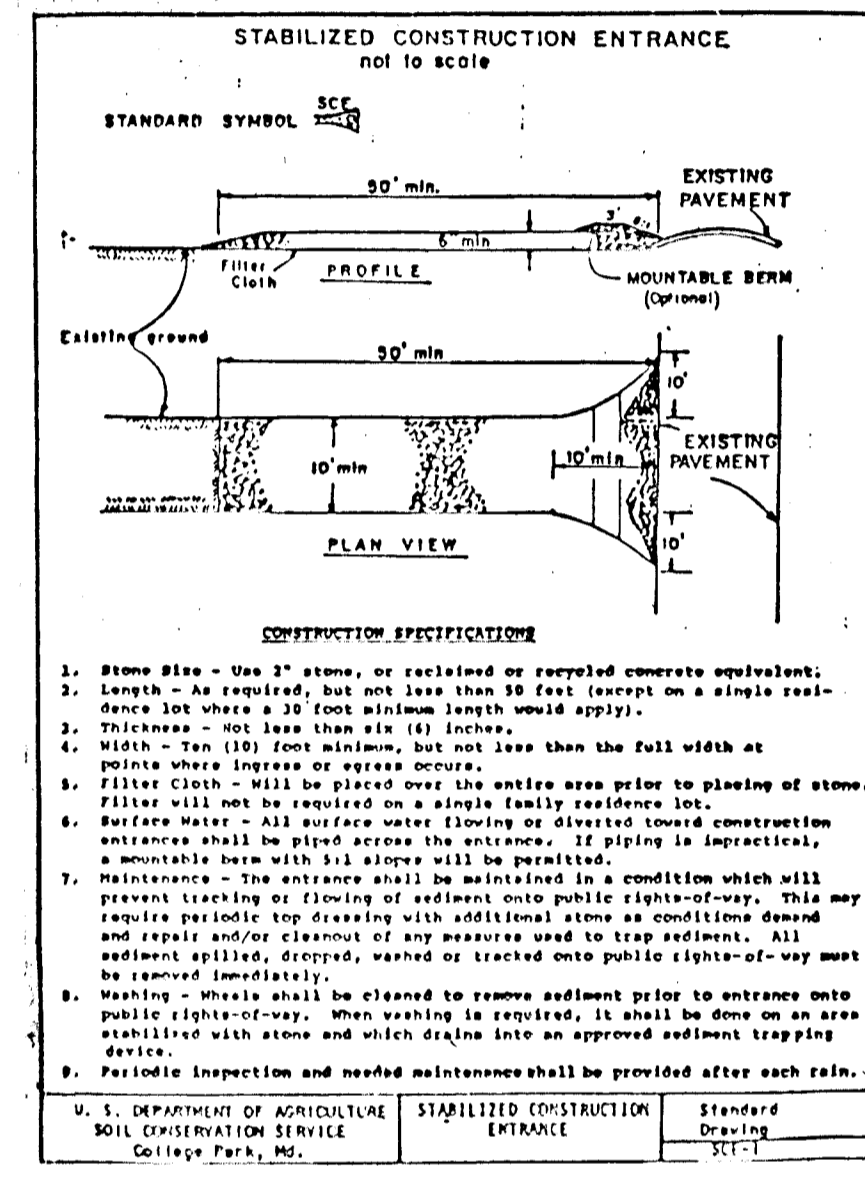
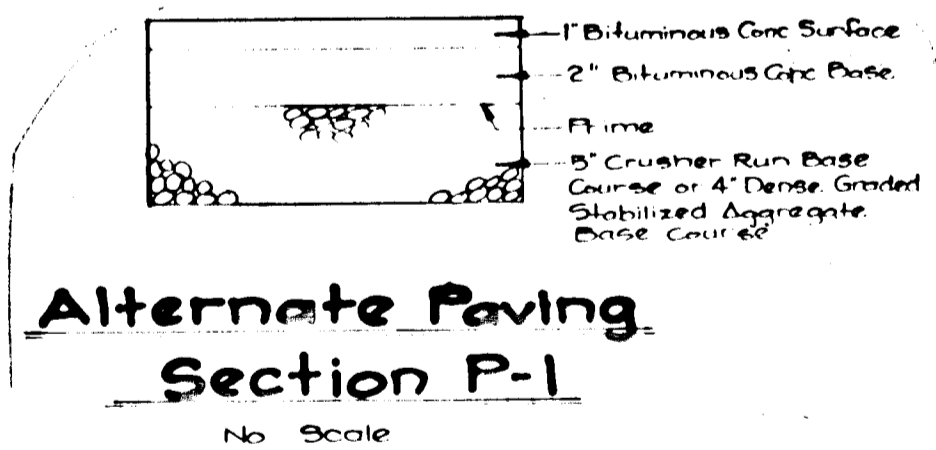
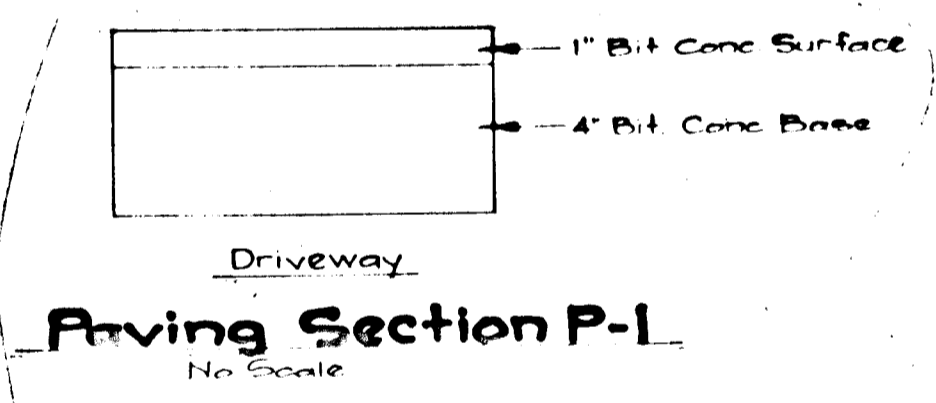
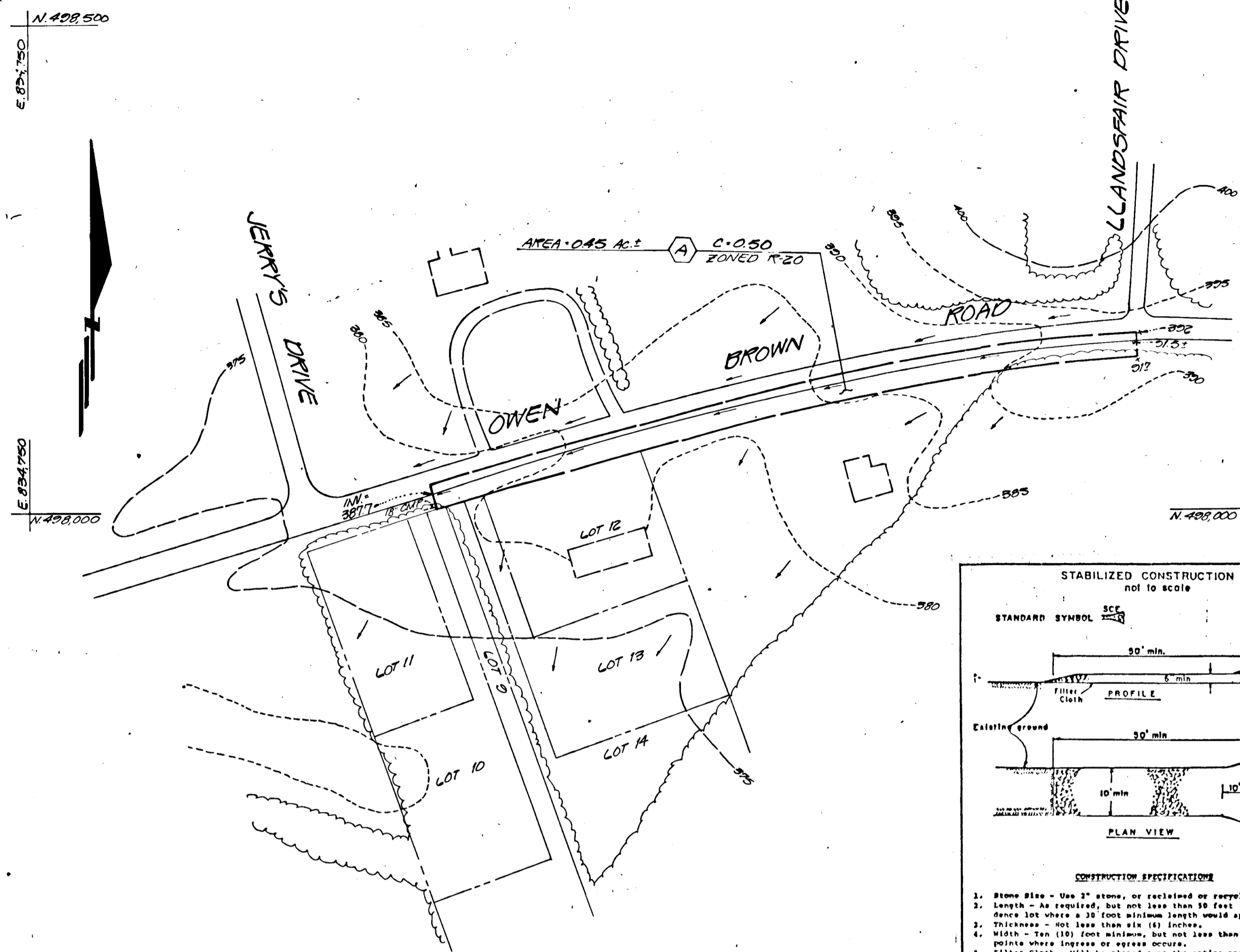
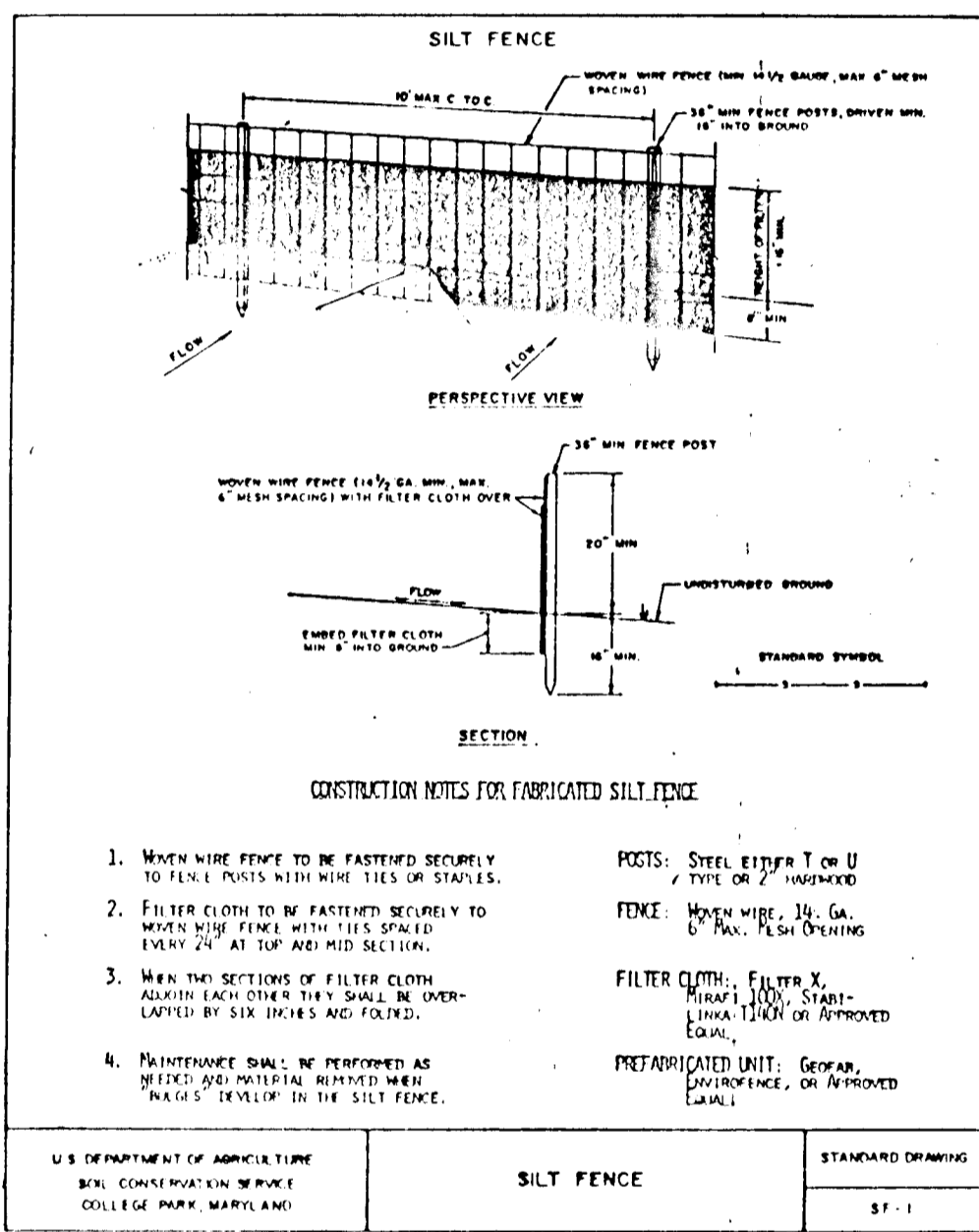
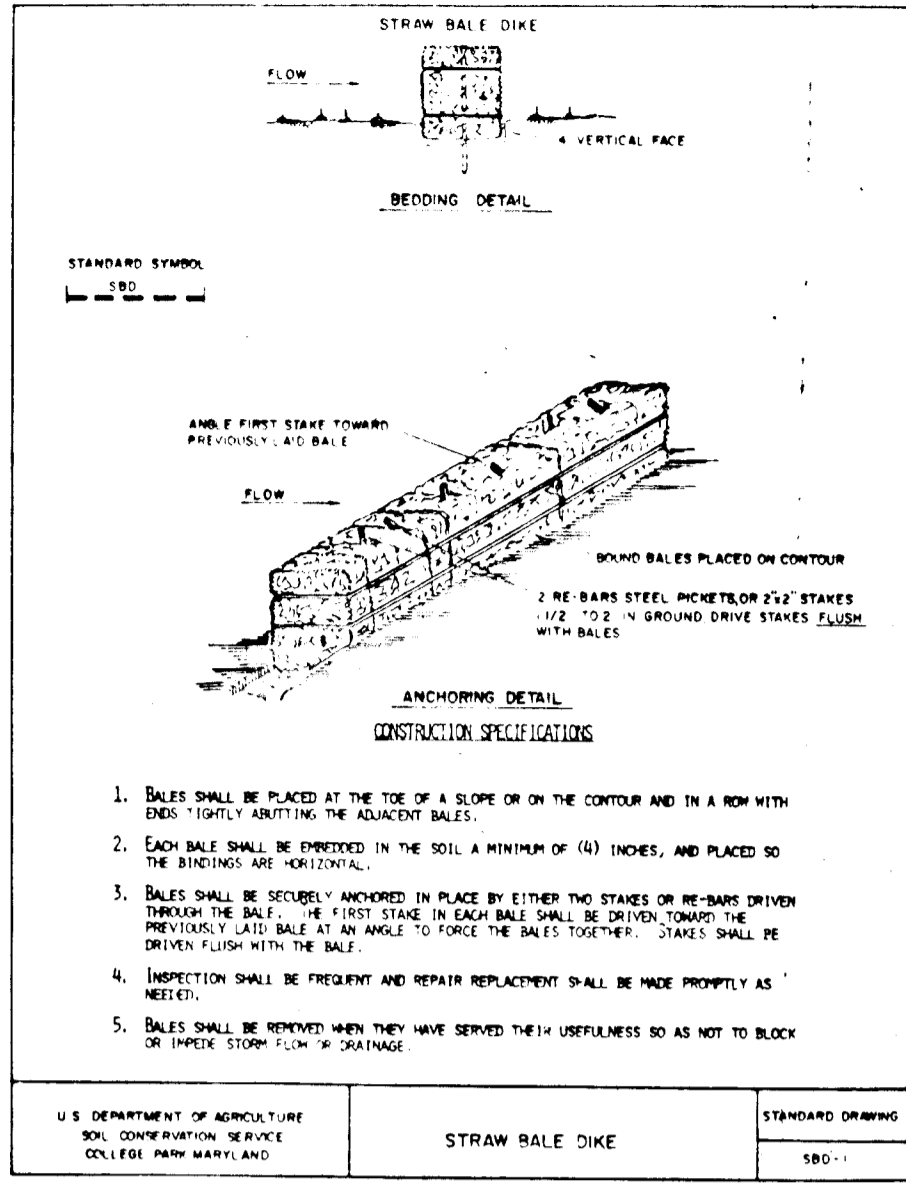
**PROFILE ALONG E DRIVEWAY**  
SCALE: HORIZ. 1" = 20'  
VERT. 1" = 5'



**PROFILE ALONG E PROPOSED DITCH**  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'



1619



- SEQUENCE OF CONSTRUCTION**
- Obtain grading permit.
  - Place straw bale dike in the existing ditch at the up-stream end of the existing 12"x12" CMPA.
  - Install 18" x 11" CMPA, and grade proposed ditch as shown in these plans.
  - When sufficient cover has been placed over the culvert, install sediment control measures in the proposed driveway area.
  - Grade the proposed driveway.
  - Lay base course for driveway.
  - Clean base course, apply tack coat to base course and lay surface course for driveway. Stabilize all shoulders using permanent seeding.
  - All disturbed areas due to the removal of sediment control measures shall be graded and stabilized by permanent seeding.

**SEDIMENT CONTROL NOTES**

- 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)
- 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.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 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), sod (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.
- 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.
- Site Analysis:  
Total Area of Site: 2.10 Acres  
Area Disturbed: 0.25 Acres  
Area to be roofed or paved: 0.10 Acres  
Area to be vegetatively stabilized: 0.07 Acres  
Total Cut: 130 Cu. Yds.  
Total Fill: 130 Cu. Yds.  
Off-Site waste/borrow area location
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County DPW 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.

**PERMANENT SEEDING NOTES**

Apply to graded or cleared area 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, discing or other acceptable means before seeding (unless previously loosened).

**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 square feet) 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 lbs 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 thru April 30, and August 1 thru October 15, seed with 60 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 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 unrattled 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, discing or other acceptable means before seeding (unless previously loosened).

**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 2-1/2 bushel per acre of annual rye (3 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.) or 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 sod.

**Mulching:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrattled 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.

**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.

*CK [Signature]* 5/30/90

**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/We certify that all development and/or 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 HSCD.

*Suzanne Warren* 5/30/90

Approved Department of Public Works <i>Chad [Signature]</i> 3/6/91 Chief, Bureau of Transportation Division
Approved Department of Public Works <i>Lawrence W. Deleard</i> 2/19/91 Chief, Bureau of Highways
Approved Department of Public Works <i>William [Signature]</i> 2-11-91 Chief, Bureau of Engineering
Approved Department of Planning and Zoning <i>Robert J. DeLuigi</i> 2/10/91 Chief, Division of Community Planning and Land Development

**GUTSCHICK LITTLE & WEBER, P.A.**  
ENGINEERS, PLANNERS, SURVEYORS

3909 NATIONAL DRIVE SUITE 250 BURTONSVILLE OFFICE PARK BURTONSVILLE, MD 20886

PHONE (301) 421-4024 DES. MJ/DV DRN. HK CHK. CKG

DATE	REVISION	BY	APP'R.

PREPARED FOR:  
**SUZANNE WARREN**  
10455 OWEN BROWN ROAD  
COLUMBIA, MARYLAND 21045  
(301) 536-0405

**DRAINAGE AREA MAP, SEDIMENT CONTROL & PAVING SECTIONS**

**WARREN PROPERTY**

ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN	ZONING R-20	G.L.W. FILE No. 89-056
DATE Feb. 1991	TAX MAP No. 35	SHEET 2 OF 2

1619