

STRUCTURE SCHEDULE							
NO.	TYPE	INV. IN	INV. OUT	UPPER END	LOWER END	HO. CO. STD.	LOCATION
I-1	A-5	2.00	2.00	82-401	0+43.14' RT		
I-2	A-5	2.00	2.00	82-401	0+53.14' RT		
M-1	MANHOLE	2.00	2.00	G-5.12	2+00.17' RT		
M-2	MANHOLE	2.00	2.00	G-5.12	2+00.17' RT		

PIPE SCHEDULE			
DIAMETER	MATERIAL	CLASS	LENGTH
18"	CMF		66'
18"	CMF		10'
21"	CMF		128'
24"	CMF		153'

LEGEND	
PROPOSED STORM DRAIN	18" RCP CLV
PROPOSED CONTOURS	2.00
PROPOSED R/W	-----
EXISTING CONTOURS	2.14
LIMITS OF SUBMISSION	-----
MANHOLE NUMBER	M-1
EASEMENT	-----

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Mark S. Milne
 Chief, Division of Community Planning & Land Development
 Date: 12-29-88

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT
J. Adams
 SIGNATURE DATE: 12/7/88

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
J. Adams
 Chief, Land Development Division DATE: 12/21/88

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.
 APPROVED: *Stephen F. Fisher*
 HOWARD SCD DATE: 12/9/88

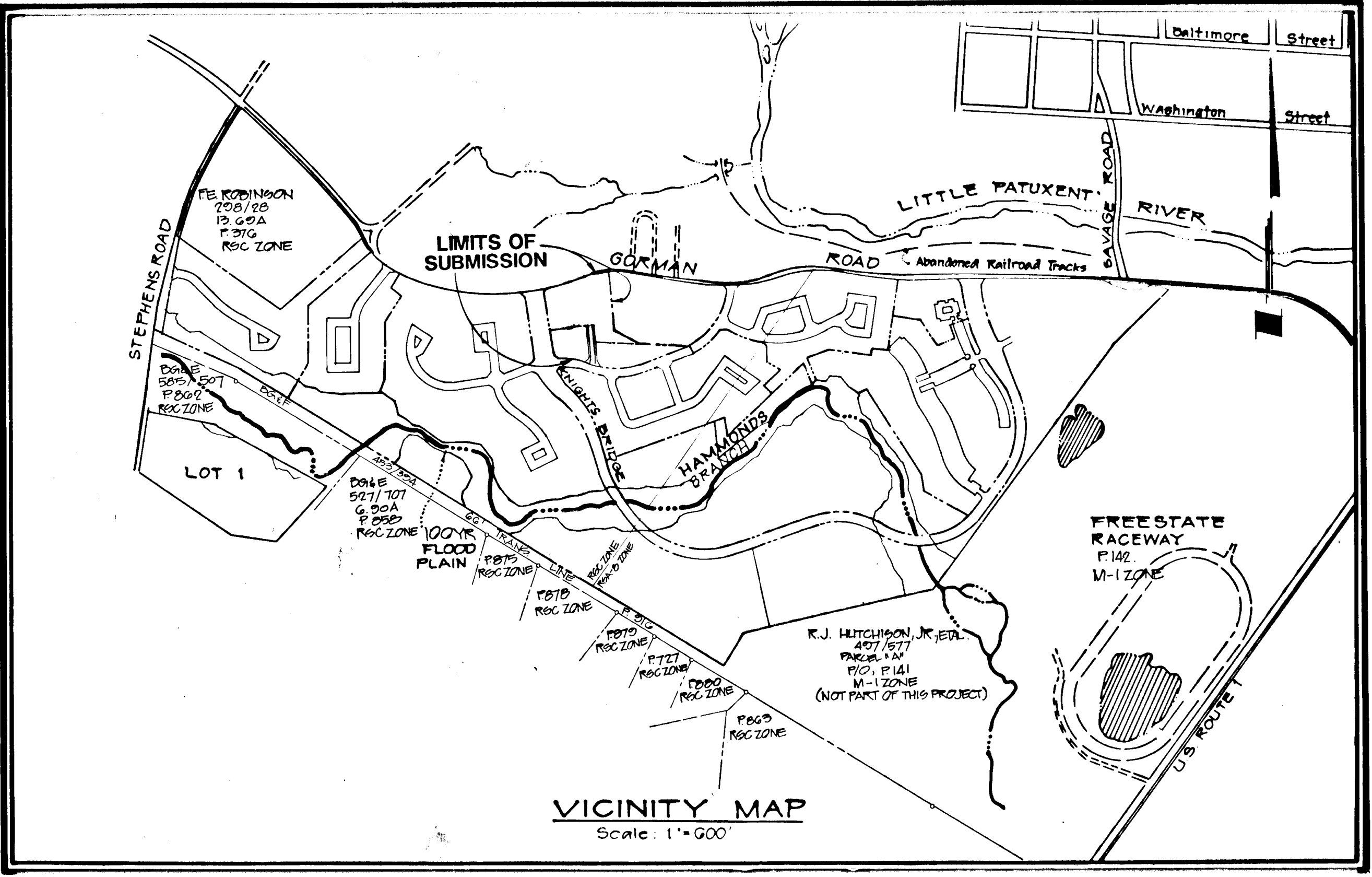
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
J. Adams
 Chief, Bureau of Highways DATE: 12-21-88

OWNER/DEVELOPER
 GORMAN ROAD LIMITED PARTNERSHIP
 C/O JAMES F. KNOTT DEVELOPMENT CORPORATION
 110 WEST ROAD, SUITE 203
 TOWSON, MARYLAND 21204
 (801) 321-6436

BOWLING BROOK FARMS

DURNNESS LANE

LOTS N, O, P AND 218



PAVING AND STORM DRAIN CONSTRUCTION PLANS

HOWARD COUNTY, MARYLAND

- GENERAL NOTES
- THE APPROXIMATE LOCATION OF ALL UTILITIES IS SHOWN BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL LOCATE, PROTECT AND SUPPORT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER/INSPECTOR, AT THE CONTRACTOR'S EXPENSE.
 - CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.
 - STATE HIGHWAY ADMINISTRATION - 531-5533
 - BALTIMORE GAS & ELECTRIC COMPANY - 561-2585 (CONTRACTOR SERVICES)
 - BALTIMORE GAS & ELECTRIC COMPANY - 234-6313 (UNDERGROUND DAMAGE CONTROL)
 - BALTIMORE GAS & ELECTRIC COMPANY - 298-9813 (TROUBLE SHOOTING)
 - "MISS UTILITY" - 800-257-7777
 - CHESAPEAKE & POTOMAC (C&P) TELEPHONE COMPANY - 725-9976
 - BUREAU OF UTILITIES/HOWARD COUNTY - 992-2366
 - ALL DETAILS NOT SHOWN ON THE DRAWINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS.
 - ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS AND HOWARD COUNTY DESIGN MANUAL, VOLUME IV.
 - SEE TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST EDITION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 - TREES SHALL BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT POSSIBLE. TREES SIX INCH (6") DIAMETER OR GREATER (MEASURED FOUR FEET (4') ABOVE EXISTING GRADE) ADJACENT TO THE LIMITS OF CONSTRUCTION SHALL NOT BE REMOVED OR DAMAGED BY THE CONTRACTOR.
 - ALL HORIZONTAL AND VERTICAL CONTROLS ARE BASED ON MARYLAND STATE PLANE COORDINATES SYSTEM PROVIDED BY HOWARD COUNTY.
 - TOPOGRAPHY TAKEN FROM MAPS PREPARED BY PHOTOGRAMMETRY BY "AERIAL SURVEYS" IN 1984. TOPOGRAPHY FIELD CHECKED 1986.
 - ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12" CLEAR. CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR EXCAVATION AND SHALL BE INCLUDED IN UNIT PRICES BID FOR EXCAVATION BACKFILL.
 - ALL PIPE BEDDING SHALL BE CLASS C.
 - ROAD RIGHT-OF-WAY INFORMATION IS SHOWN ON THE RECORD PLATS.
 - SPOT ELEVATIONS SHOWN ARE TOP OF CURB UNLESS OTHERWISE NOTED.
 - SHADED AREAS INDICATE WATER, SEWER, UTILITY, DRAINAGE AND/OR ACCESS EASEMENT(S).

- LANDSCAPING NOTES
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO PLANTING (SEE NOTE #3 ABOVE).
 - ALL PLANT MATERIAL AND PLANTING SHALL BE IN ACCORDANCE WITH "AMERICAN STANDARD FOR NURSERY STOCK" BY THE A.A.N.
 - SUBSTITUTIONS MAY BE PERMITTED WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT, (762-2220).
 - PLANT REGENT SCHOLAR TREE 2' BEHIND THE SIDEWALK ALONG THE ROADWAY.

PLANT SCHEDULE				
KEY	PLANT NAME	SIZE	QUANTITY	REMARKS
(A)	SOPHORA JAPONICA 'REGENT'	2"-2 1/2" CAL	8	B&B
	REGENT SCHOLAR TREE	11-13 BRANCHING HT.		

- INDEX TO DRAWINGS
- TITLE SHEET
 - PAVING AND STORM DRAIN PLAN AND PROFILE DURNNESS LANE
 - STORM DRAIN PROFILE AND DETAIL SHEET
 - EROSION AND SEDIMENT CONTROL DETAIL SHEET
 - EROSION AND SEDIMENT CONTROL PLAN
 - DRAINAGE AREA MAP

NO.	DESCRIPTION	DATE	APPROVED	DATE
2	AS-BUILT REVISIONS	5-6-91		
1	ISSUED FOR REVIEW	7-1-88		

REVISION APPROVED BY: *[Signature]*

REVISED

TITLE SHEET

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Maryland 20855 (301)762-2220

SURVEY	DATE
DESIGN M.J.K.	6-10-88
DRAWN J.D.W.	SHEET
CHECKED	1 OF 6
SCALE AS SHOWN	FILE NO.
	2124-1-3

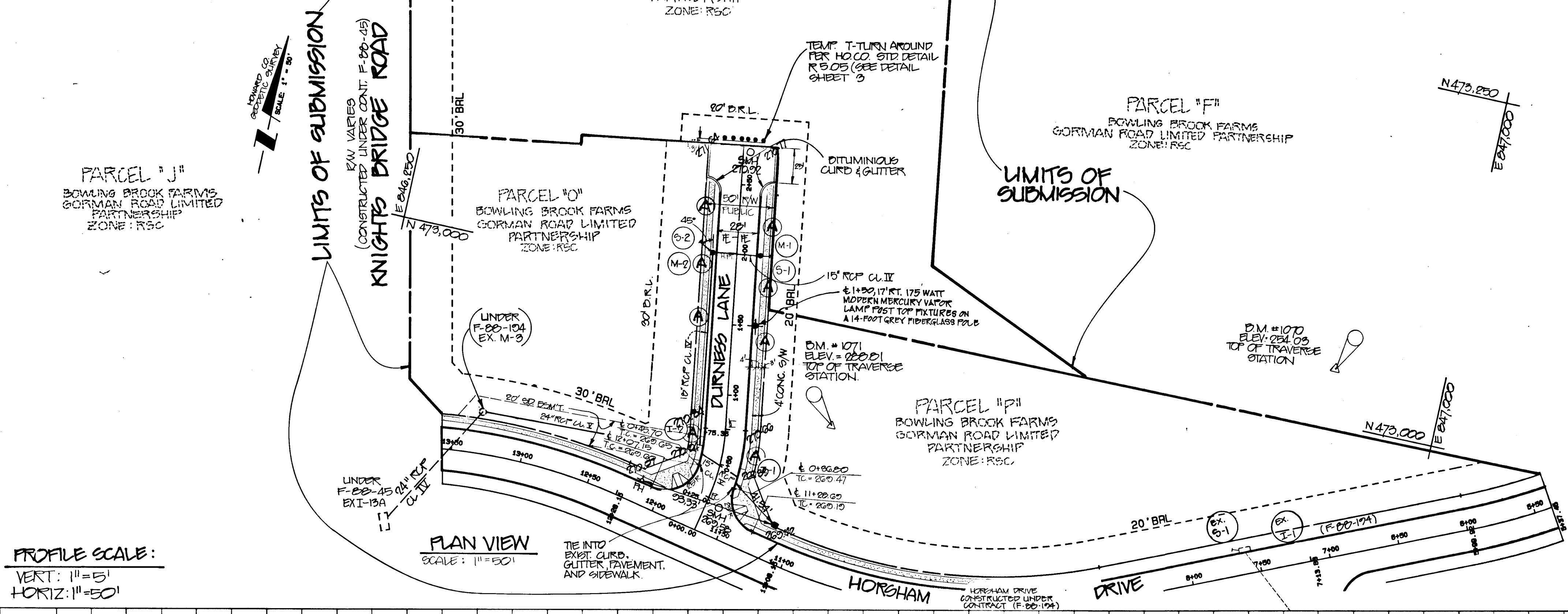
AS-BUILT F-89-146

12/21/88

CENTER LINE CURVE DATA						
PC STA. TO PT STA.	RADIUS	Δ	ARC	TAN	CHORD	CHORD BEARING
0+25	0+75.36	143.00	20°10'36.50"	25.44	50.10	N 1°20'01"E

CENTERLINE LINE DATA			
PC STA. TO PT STA.	BEARING	DISTANCE	
0+00	0+25	N 11°25'19"E	25.00'
0+75.36	2+77.36	N08°45'18"W	202.00'

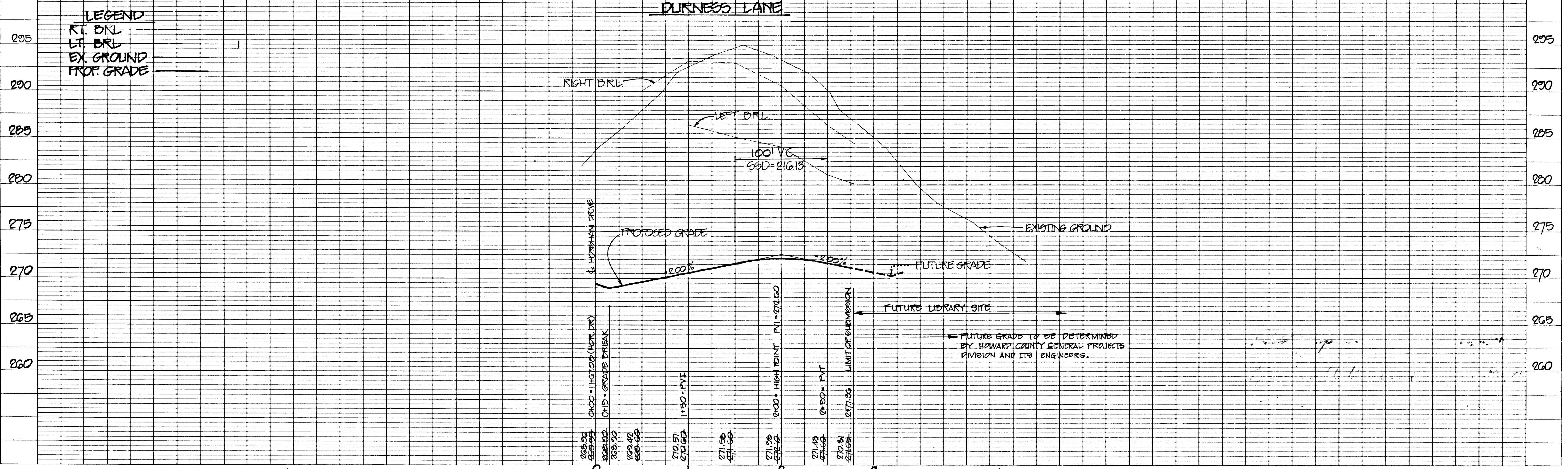
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Paul D. Pappas 12/21/88
 Chief, Land Development Division Date
James W. Weiland 12/20/88
 Chief, Bureau of Highways Date
James E. Riley 12-21-88
 Chief, Bureau of Engineering Date
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Janice S. DeLong 12-19-88
 Chief, Division of Community Planning & Land Development Date



PROFILE SCALE:
 VERT: 1"=5'
 HORIZ: 1"=50'

PLAN VIEW
 SCALE: 1"=50'

OWNER/DEVELOPER
 GORMAN ROAD LIMITED PARTNERSHIP
 C/O JAMES P. KNOTT DEVELOPMENT CORPORATION
 110 WEST ROAD, SUITE 203
 TOWSON, MARYLAND 21284



LEGEND
 RT. BRL
 LT. BRL
 EX. GROUND
 PROP. GRADE

NO.	DESCRIPTION	DATE	APPROVED	DATE
2	AS-BUILT REVISION	05-02		5-6-90
1	ISSUED FOR REVIEW	7-1-88		



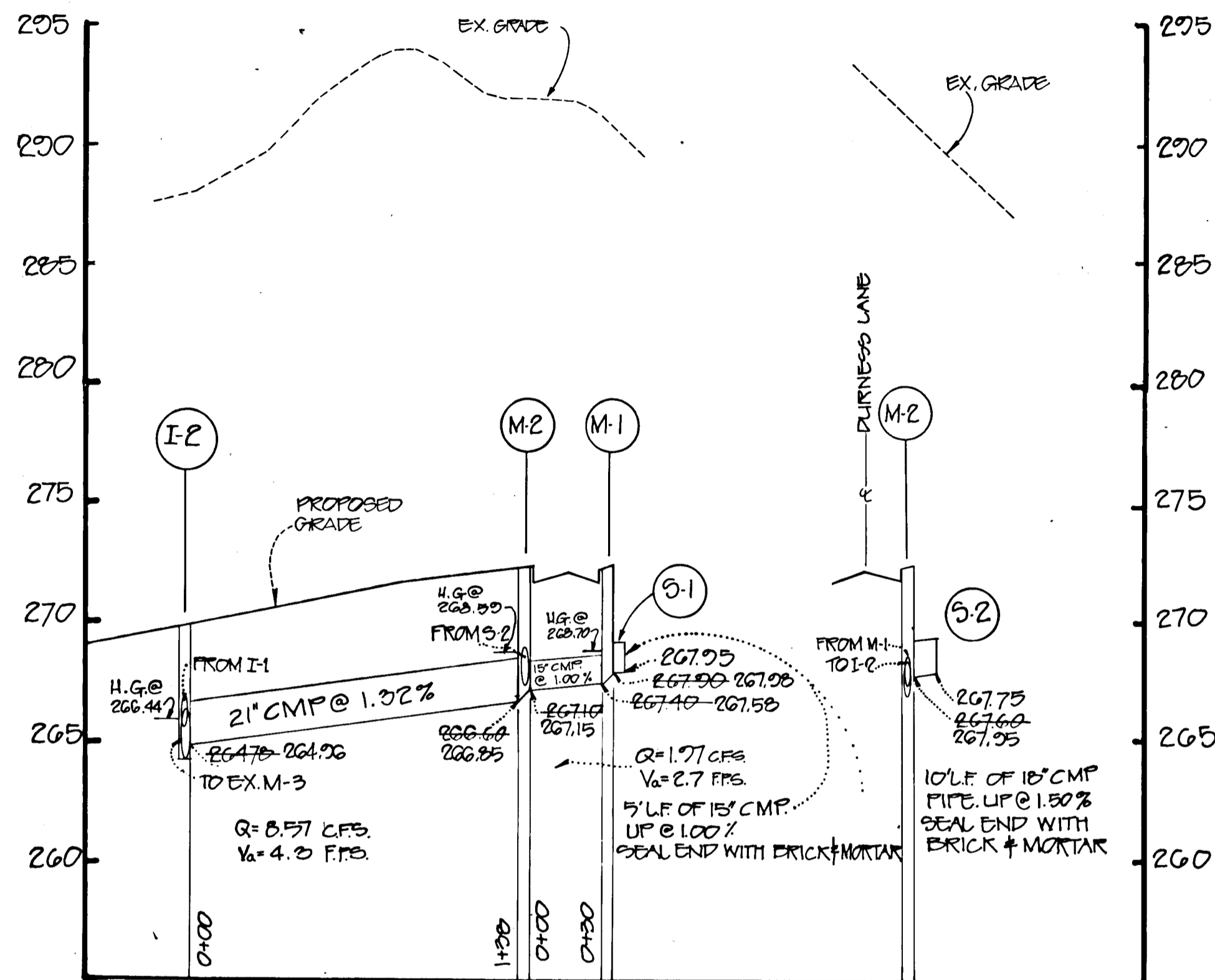
REVISED
**PAVING AND STORM DRAIN
 PLAN AND PROFILE
 DURNESS LANE**

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 STANDISH PLACE ROCKVILLE, MD 20855 (301) 762-2220

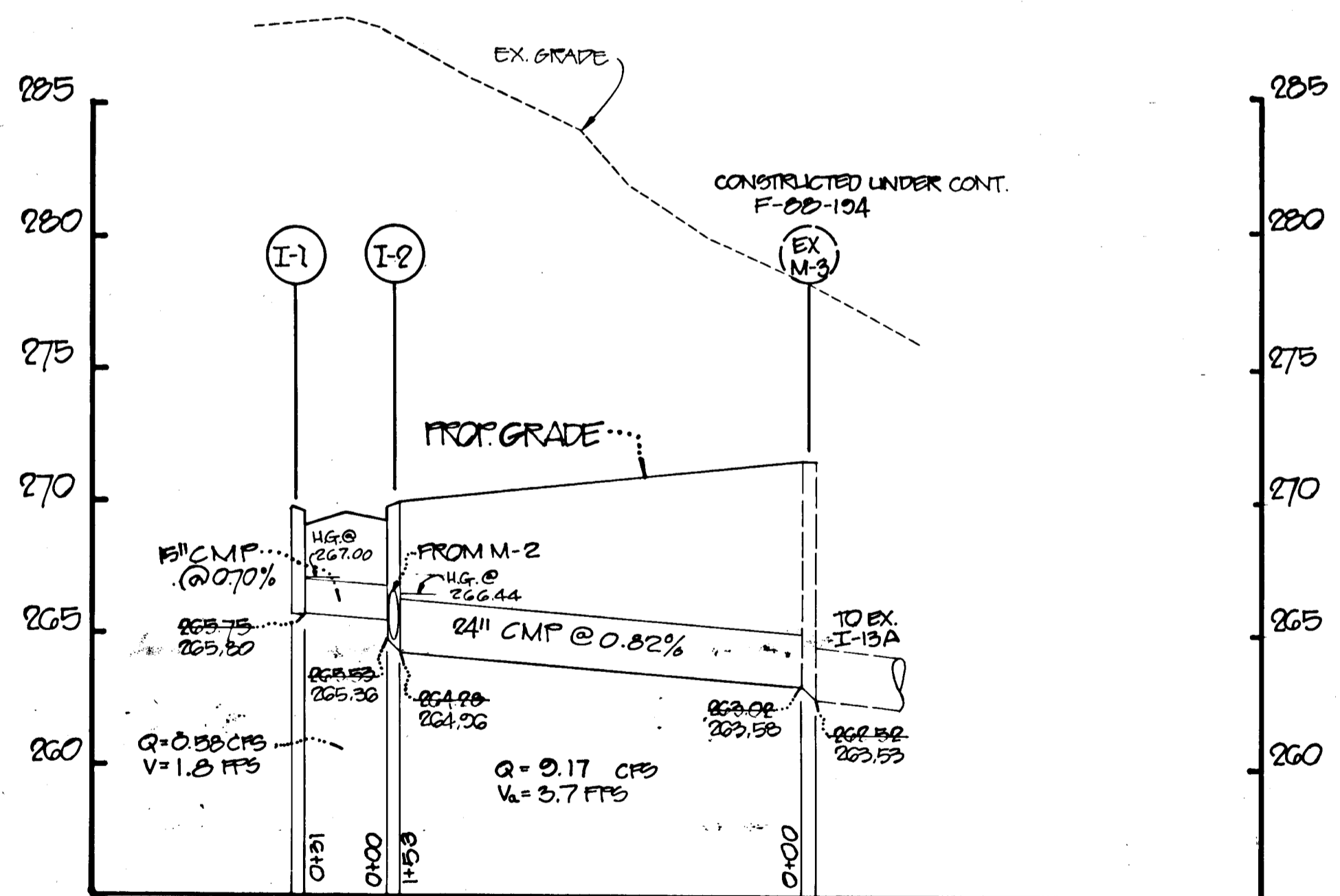
**BOWLING BROOK FARMS
 DURNESS LANE LOTS N.O.P AND 218**
 A RESUBDIVISION OF BOLLING BROOKE, LOT 217
 SIXTH ELECTION DISTRICT
 TAX MAP 47 PARCEL 141
 L.1394 F.632

SURVEY P.H.R. & A.	DATE
DESIGN M.J.K.	6-10-88
DRAWN J.D.W.	SHEET
CHECKED	2 OF 6
SCALE AS SHOWN C.I.	FILE NO. 124-1-3

AS-BUILT F-88-166



DURNESS LANE
PROFILE SCALE
VERT: 1"=5'
HORIZ: 1"=50'



DURNESS LANE
PROFILE SCALE
VERT: 1"=5'
HORIZ: 1"=50'

OWNER/DEVELOPER
GORMAN ROAD LIMITED PARTNERSHIP
C/O JAMES F. KNOTT DEVELOPMENT CORPORATION
110 WEST ROAD, SUITE 203
TOWSON, MARYLAND 21284

LEGEND
O.D. Outside Diameter
I.D. Inside Diameter
d depth of bedding material below pipe
H backfill cover above top of pipe

NOTES:
1. For rock or other incompressible materials, the trench should be overexcavated a minimum of 6 inches and refilled with granular material.
2. Compacted Backfill shall be placed in accordance with section 1003.03.15 Volume IX.

CLASS A
12" min. 2000 psi concrete
Reinforced $A_s = 1.06$ $L_f = 4.8$
Plain $A_s = 0.45$ $L_f = 3.4$
 $L_f = 2.8$

CLASS B
12" min. 2000 psi concrete
 $L_f = 1.9$

CLASS C
6" min. 2000 psi concrete
 $L_f = 1.5$

CLASS D (Not Acceptable)
6" min. Loose Backfill
 $L_f = 1.1$

DEPTH OF BEDDING MATERIAL BELOW PIPE

B	d (min.)
27" & smaller	3"
30" thru 60"	4"
66" & larger	6"

Ref: (4) APCA Design Data 7, Fig. 1
Modified by Purdon & Jeschke

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

Figure 11.4
Date 5-15-78
Revised

* NOTE USE CLASS "C" PIPE BEDDING FOR ALL STORM DRAIN PIPES

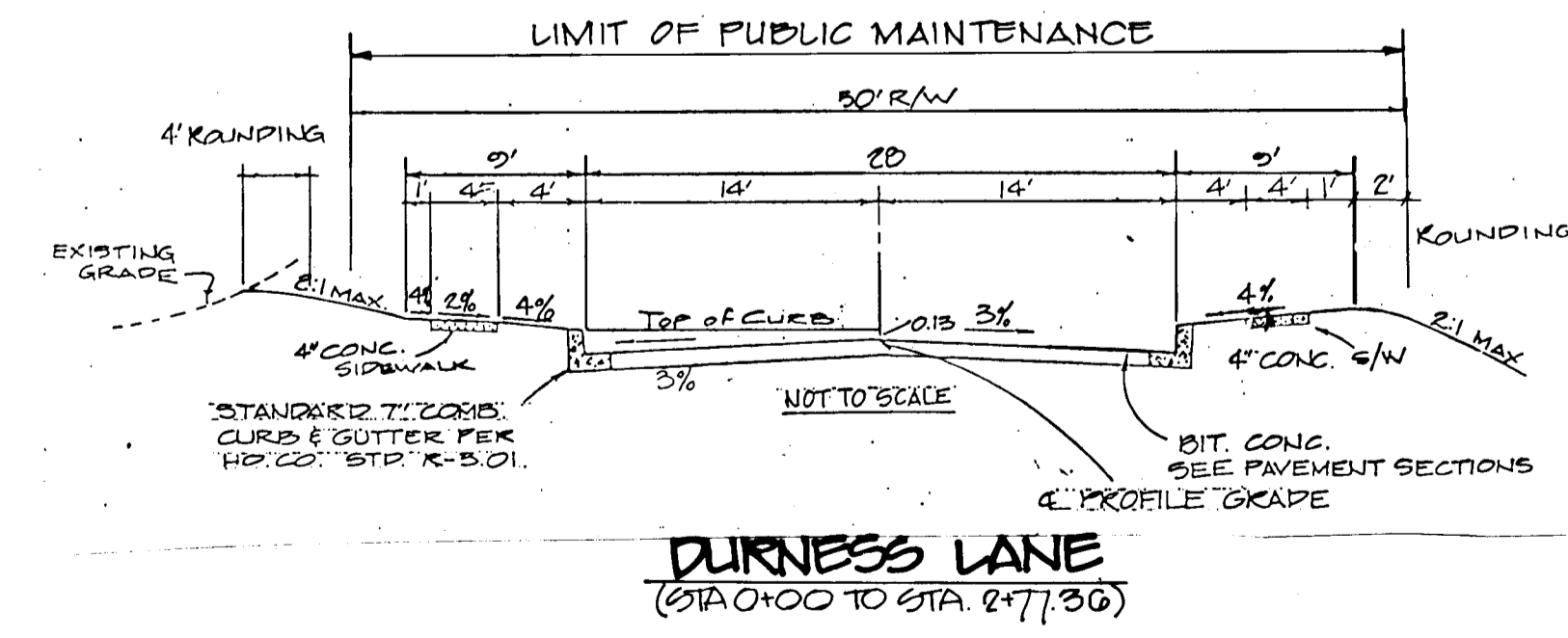
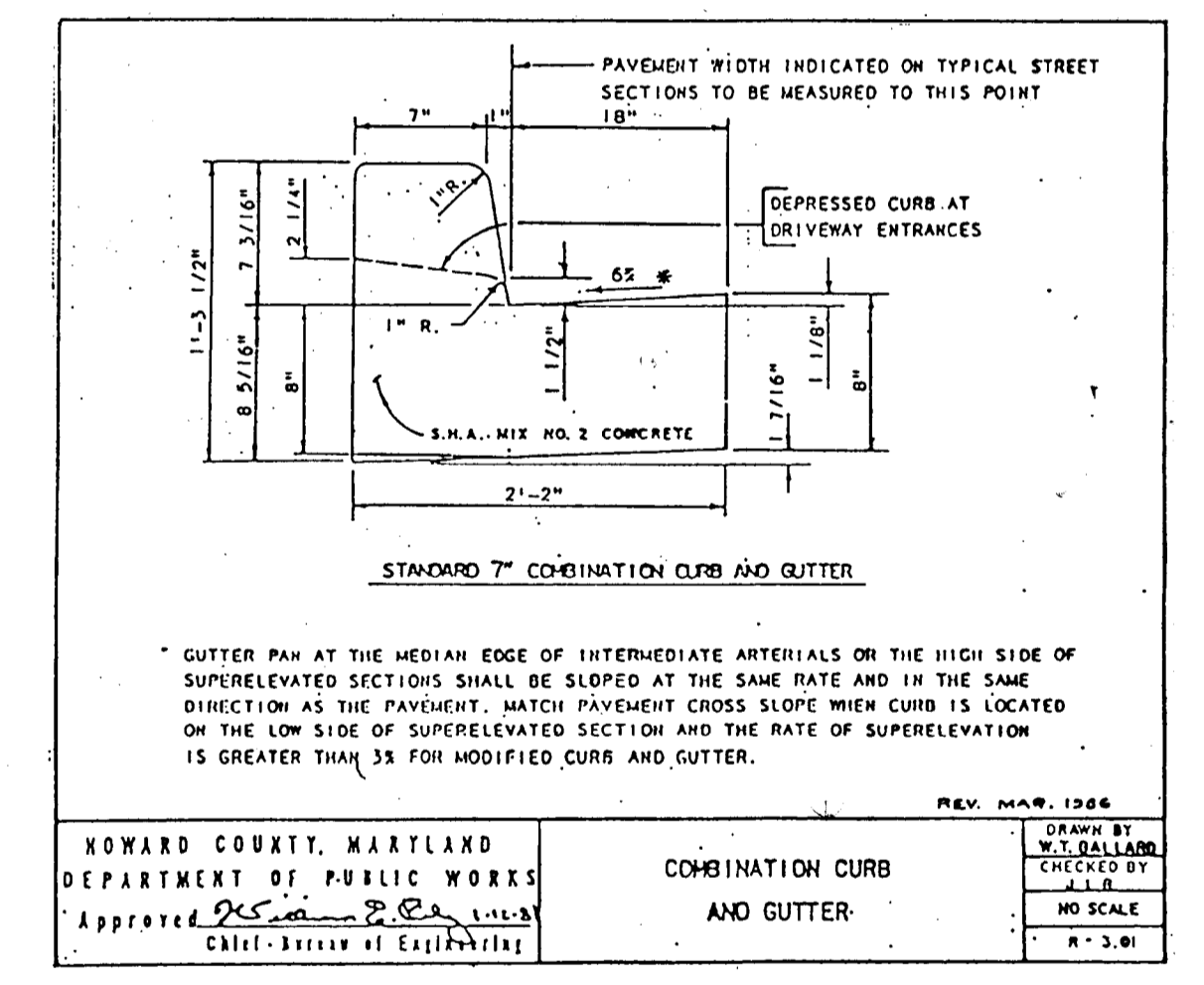
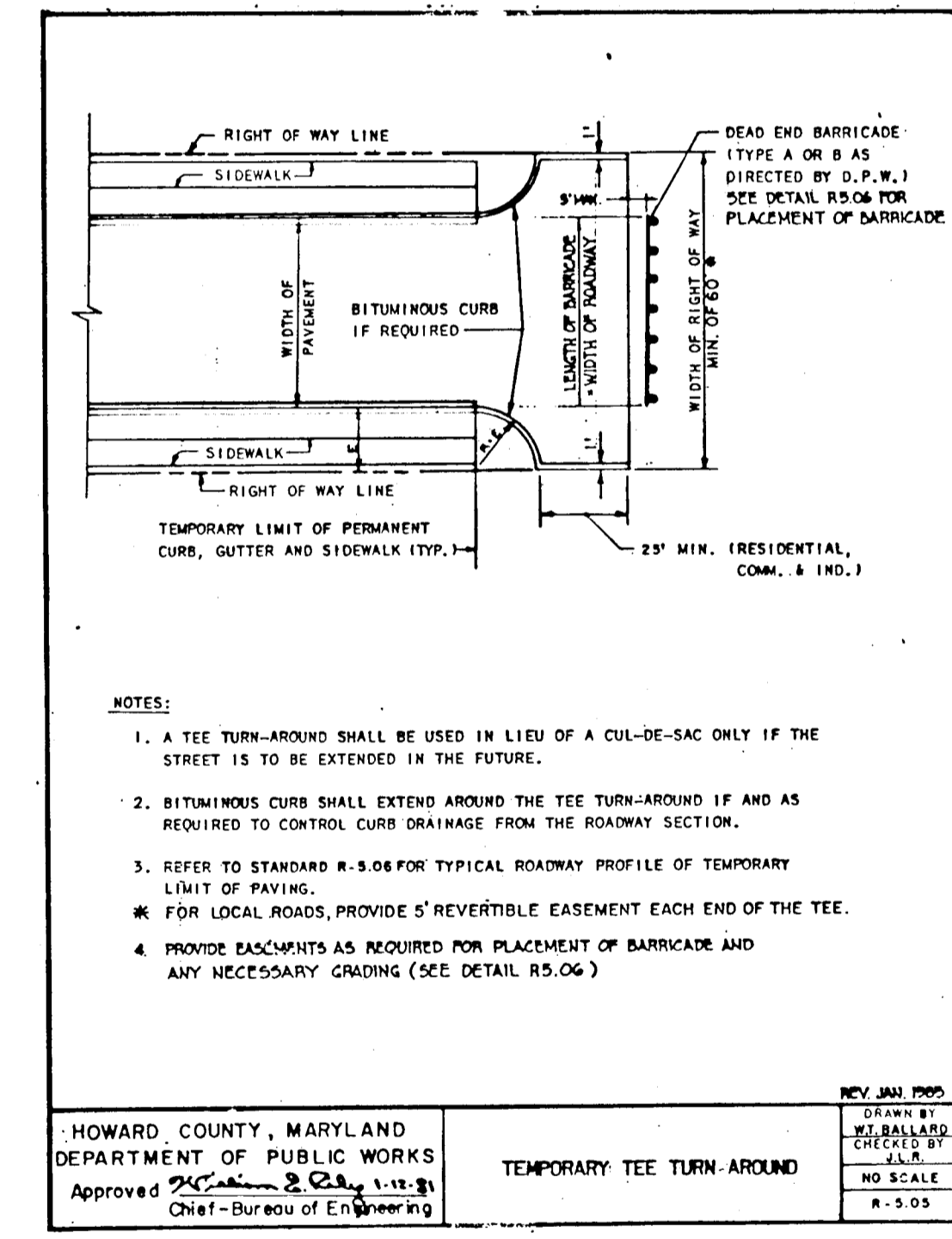
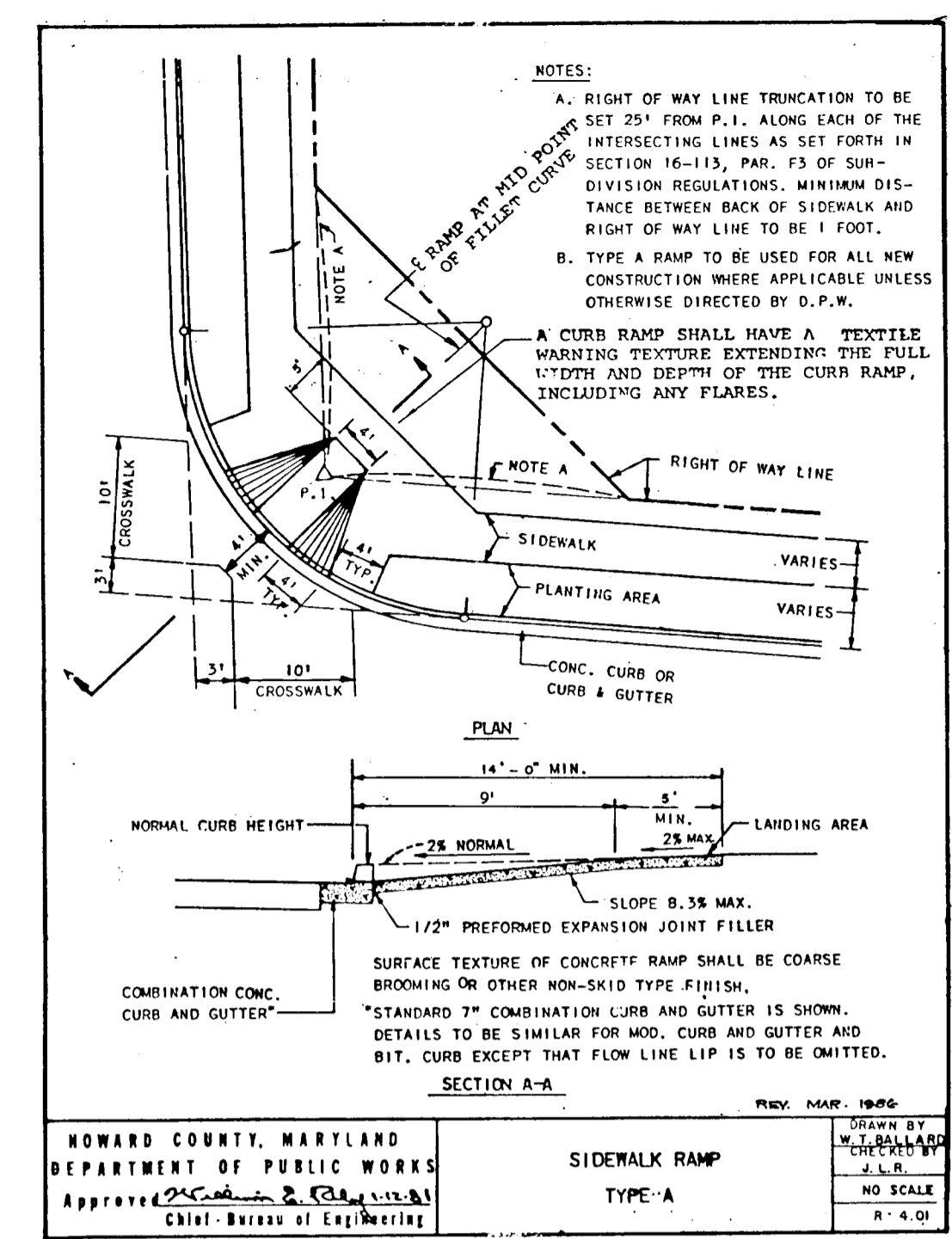
* NOTE: USE SECTION P-2 FOR ALL ROADWAY PAVING

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATES
P-1	PARKING AREAS AND TRAVELWAYS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	1" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1" BIT. CONC. SURFACE 3" BIT. CONC. BASE PRIME 3" CRUSHED RUN BASE COURSE OR 4" DENSE GRADED STABILIZED AGGREGATE BASE COURSE
P-2	RESIDENTIAL ZONES LOCAL CUL-DE-SAC STS. ALLEYS AND PRIVATE ROADS SERVING INDIVIDUAL LOTS PARKING AREAS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	1 1/2" BIT. CONC. SURFACE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 2 1/2" BIT. CONC. BASE PRIME 3" CRUSHED RUN BASE COURSE OR 4" DENSE GRADED STABILIZED AGGREGATE BASE COURSE
P-3	RESIDENTIAL ZONES MINOR AND MAJOR COLLECTORS COMMERCIAL-INDUSTRIAL ZONES LOCAL AND CUL-DE-SAC STREETS ALLEYS PARKING AREAS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH MORE THAN 10 HEAVY TRUCKS PER DAY	1 1/2" BIT. CONC. SURFACE 4 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE PRIME 3" CRUSHED RUN BASE COURSE OR 4" DENSE GRADED STABILIZED AGGREGATE BASE COURSE
P-4	COMMERCIAL-INDUSTRIAL ZONES MINOR COLLECTOR	1 1/2" BIT. CONC. SURFACE 3 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE PRIME 3" CRUSHED RUN BASE COURSE OR 4" DENSE GRADED STABILIZED AGGREGATE BASE COURSE

* HEAVY TRUCKS DEFINED AS THOSE WITH 6 WHEELS OR MORE.

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

PAVING SECTIONS
P-1 THROUGH P-4



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

12/21/88
12/20/88
12-21-88

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Chief, Division of Community Planning & Land Development

12-21-88

NO.	DESCRIPTION	DATE	APPROVED	DATE
2	AS-BUILT REVISIONS	BP		5-6-91
3	ISSUED FOR REVIEW			7-1-88

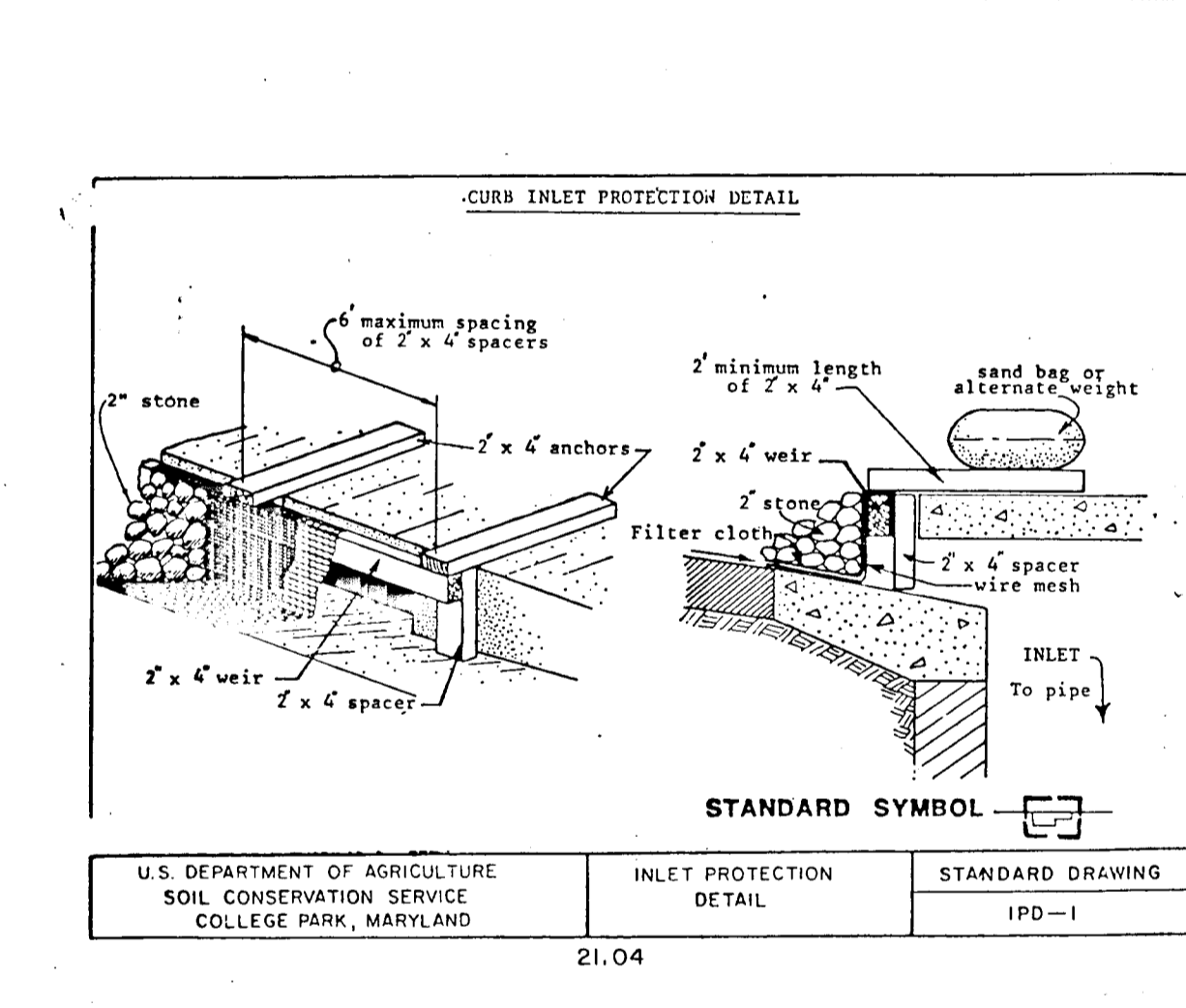
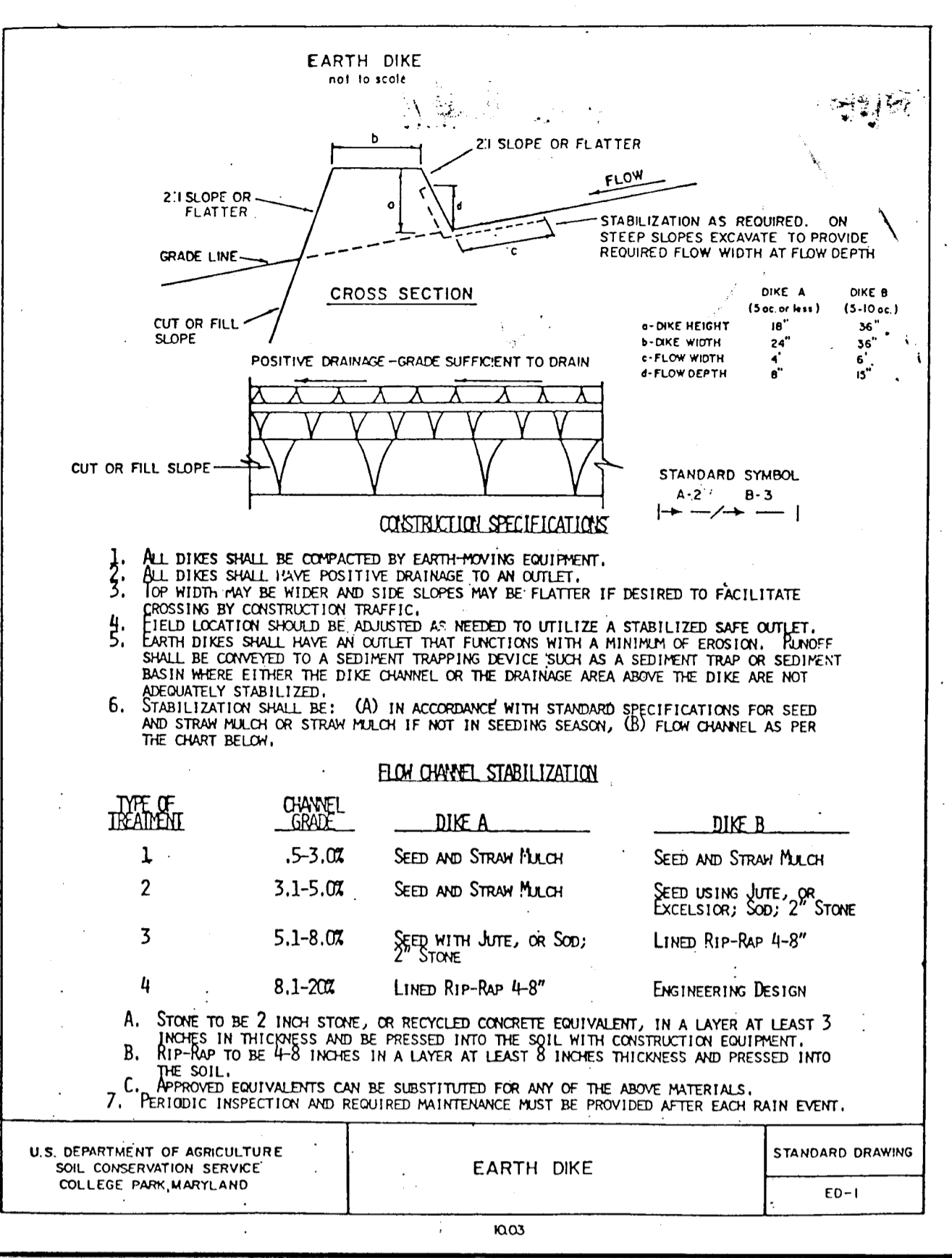
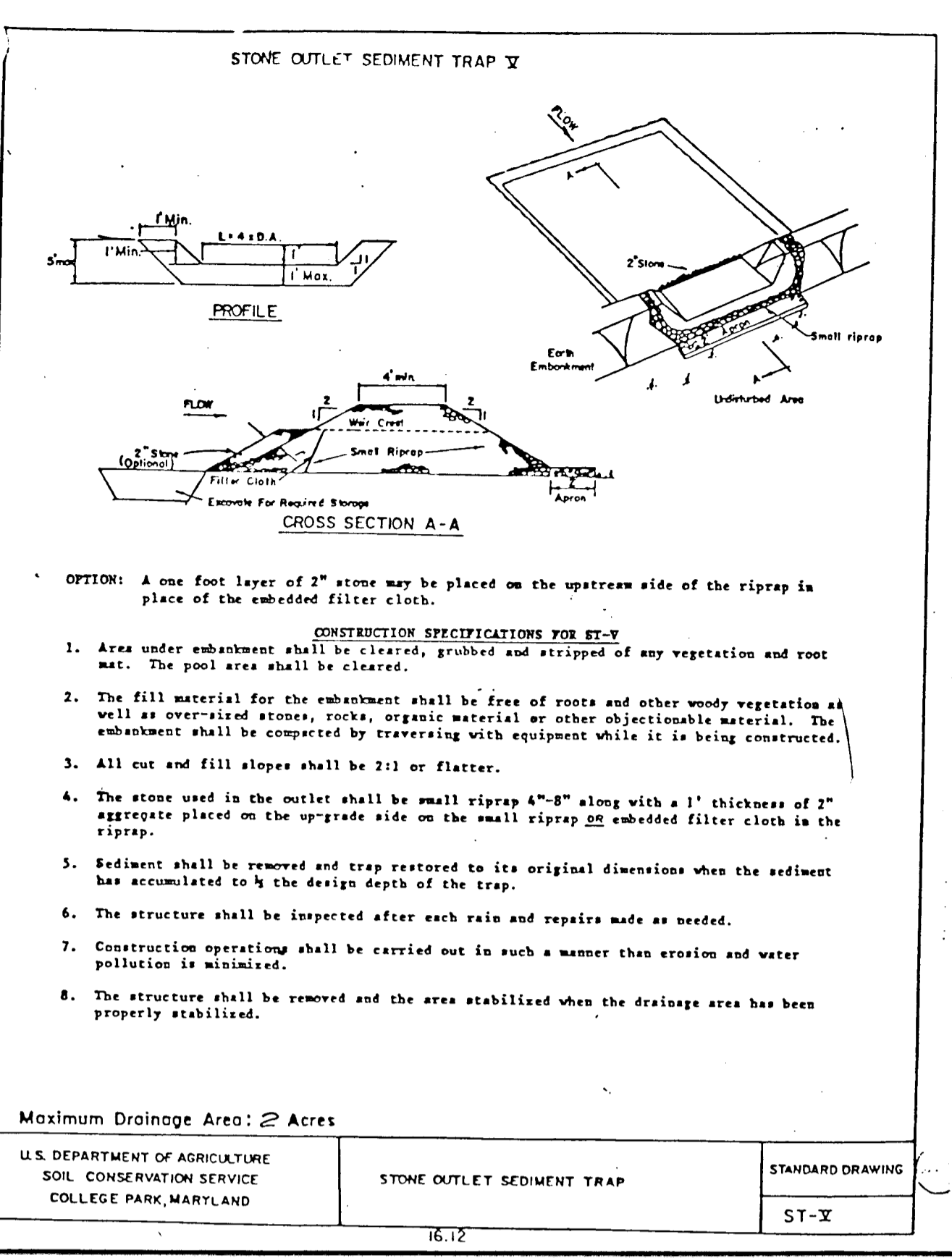
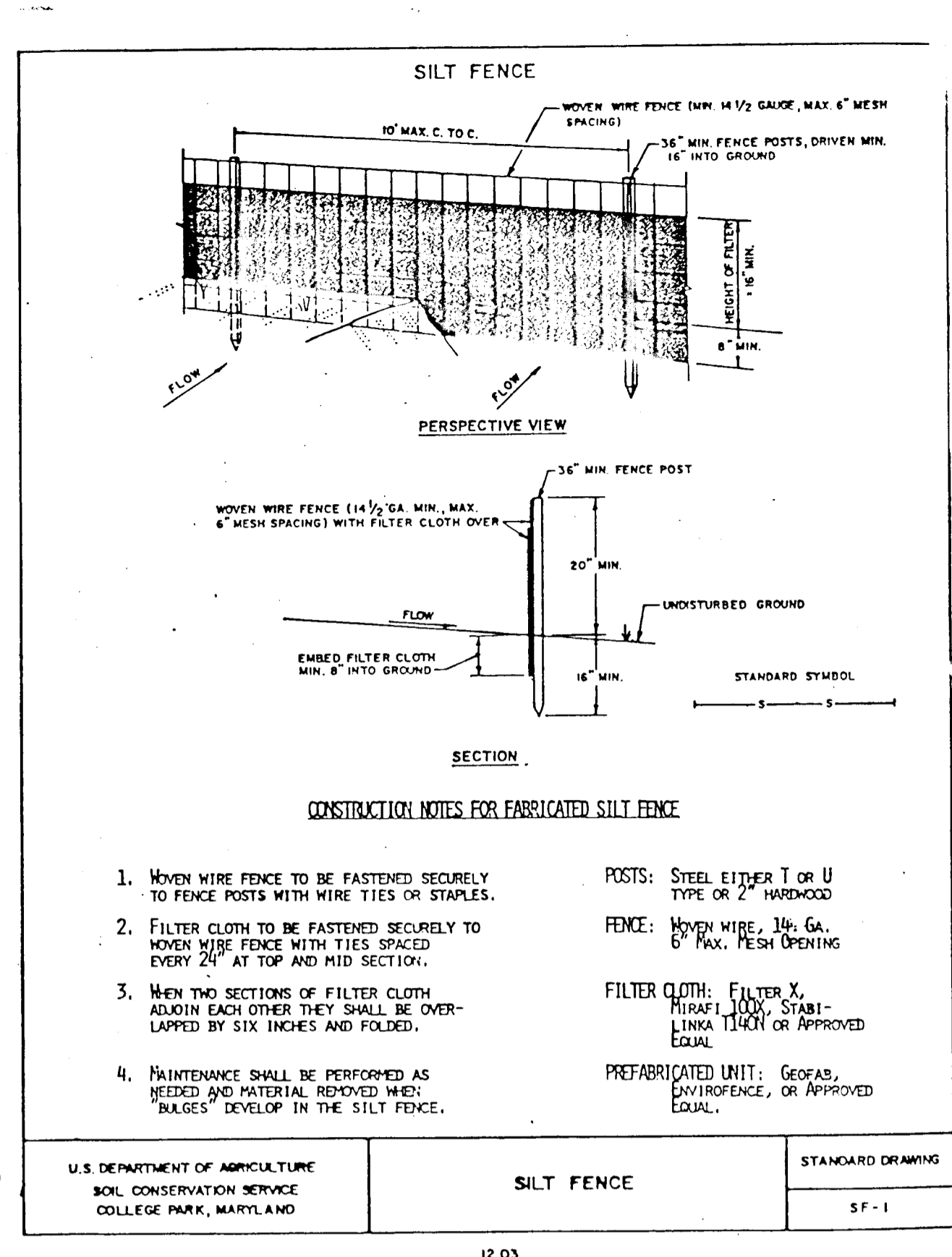
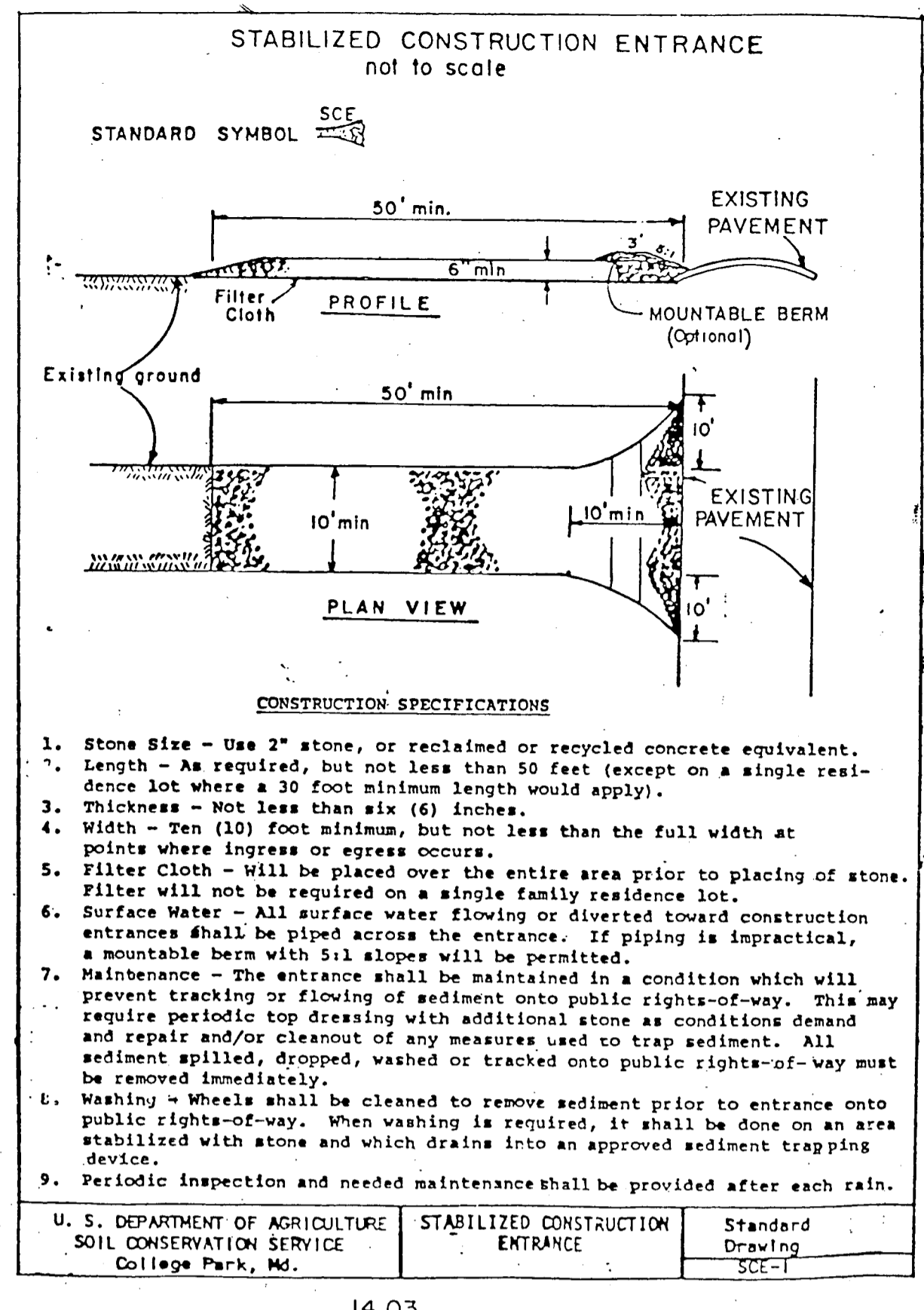
REVISION APPROVED BY

PROFESSIONAL SEAL

STORM DRAIN PROFILE AND DETAIL SHEET

Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place Rockville, Maryland 20855 (301)762-2220

SURVEY P.H.R. & A.	DATE
DESIGN M.J.K.	6-10-88
DRAWN J.D.W.	SHEET
CHECKED	3 OF 6
SCALE AS SHOWN	FILE NO.
C.I.	2104-1-3



- B. Curb Inlet Protection.**
- Attach a continuous piece of wire mesh (30" min. width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
 - Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
 - Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' apart).
 - Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
 - The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
 - Form the wire mesh and filter cloth to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
 - This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 - Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permitting 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, 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 seedling 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: 0.92 Acres
 Area Disturbed: 0.97 Acres
 Area to be roofed or paved: 0.22 Acres
 Area to be vegetatively stabilized: 0.74 Acres
 Total Cur: 11000 Cu. Yds
 Total Fill: 100 Cu. Yds WITHIN BOWLING OFFSITE WASTE/BORROW AREA LOCATION: BOWLING SUBDIVISION
- 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 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.

PERMANENT SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- Preferred -- Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 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 26, 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 rotted 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.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 60 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 7 1/2 bushel per acre of annual rye (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 26, 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 rotted 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.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Donald J. Sposm 12/21/88
 Chief, Land Development Division Date

Francis W. McLeod 12/20/88
 Chief, Bureau of Highways Date

James E. Rely 12-21-88
 Chief, Bureau of Engineering Date

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction 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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Kimberly J. von Paris 11/29/88
 Signature of Developer/Builder Date

CONSTRUCTION SEQUENCE

- OBTAIN GRADING PERMITS.
- INSTALL SEDIMENT CONTROL DEVICES AND MEASURES AS REQUIRED BY THIS PLAN AND THE SEDIMENT CONTROL INSPECTOR.
- CONSTRUCT SANITARY SEWER, WATER MAINS AND STORM DRAIN AS INDICATED ON PLANS.
- CONSTRUCT REMAINING UNDERGROUND UTILITIES, PAVE STREET
- APPLY TEMPORARY AND/OR PERMANENT VEGETATIVE STABILIZATION TO DISTURBED AREAS NOT SUBJECT TO IMMEDIATE CONSTRUCTION.
- SEDIMENT CONTROL MEASURES TO REMAIN FOR FUTURE PLAN STAGE.

COWNER/DEVELOPER

GORMAN ROAD LIMITED PARTNERSHIP
 C/O JAMES F. KNOTT DEVELOPMENT CORPORATION
 110 WEST ROAD, SUITE 203
 TOWSON, MARYLAND 21204

APPROVED: *John S. C. C.* 12/21/88
 Howard S.C.C. Date

PLAN NUMBER _____

THIS PLAN IS TO BE USED FOR THE CONSTRUCTION AND MAINTENANCE OF SEDIMENT CONTROL MEASURES ONLY.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS.

J. Helms 12/9/88
 S.S. Soil Conservation Service Date

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

John S. C. C. 12/21/88
 Howard S.C.C. Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Janet S. C. C. 12-21-88
 Chief, Division of Community Planning and Development Date

ENGINEER'S CERTIFICATE

I hereby 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.

John S. C. C. 11/23/88
 SIGNATURE OF ENGINEER DATE

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Maryland 20855 (301)762-2220

BOWLING BROOK FARMS
 DURNES LANE LOTS N,O,P AND 218
 A RESUBDIVISION OF BOLLING BROOKE, LOT 217
 SIXTH ELECTION DISTRICT
 TAX MAP 47 PARCEL 141
 L.1394 F.632

REVISION APPROVED BY

NO.	DESCRIPTION	DATE	APPROVED	DATE
1	REVISED FOR REVIEW	7-1-88		

REVISION APPROVED BY _____

SEDIMENT TRAP #2	
(STONE OUTLET ST V)	
EXISTING DRAINAGE AREA:	1.28 Ac.
DEVELOPED DRAINAGE AREA:	1.07 Ac.
TOP OF EMBANKMENT ELEVATION:	275.00
CREST ELEVATION:	273.00
CREST LENGTH:	5.10'
STORAGE DEPTH:	3.0'
BOTTOM ELEVATION:	270.69
AVERAGE BOTTOM DIMENSIONS:	40'X20'
APPROXIMATE STORAGE VOLUME PROVIDED:	2,400 CF.
REQUIRED STORAGE VOLUME:	2,304 CF.
SIDE SLOPES:	2:1

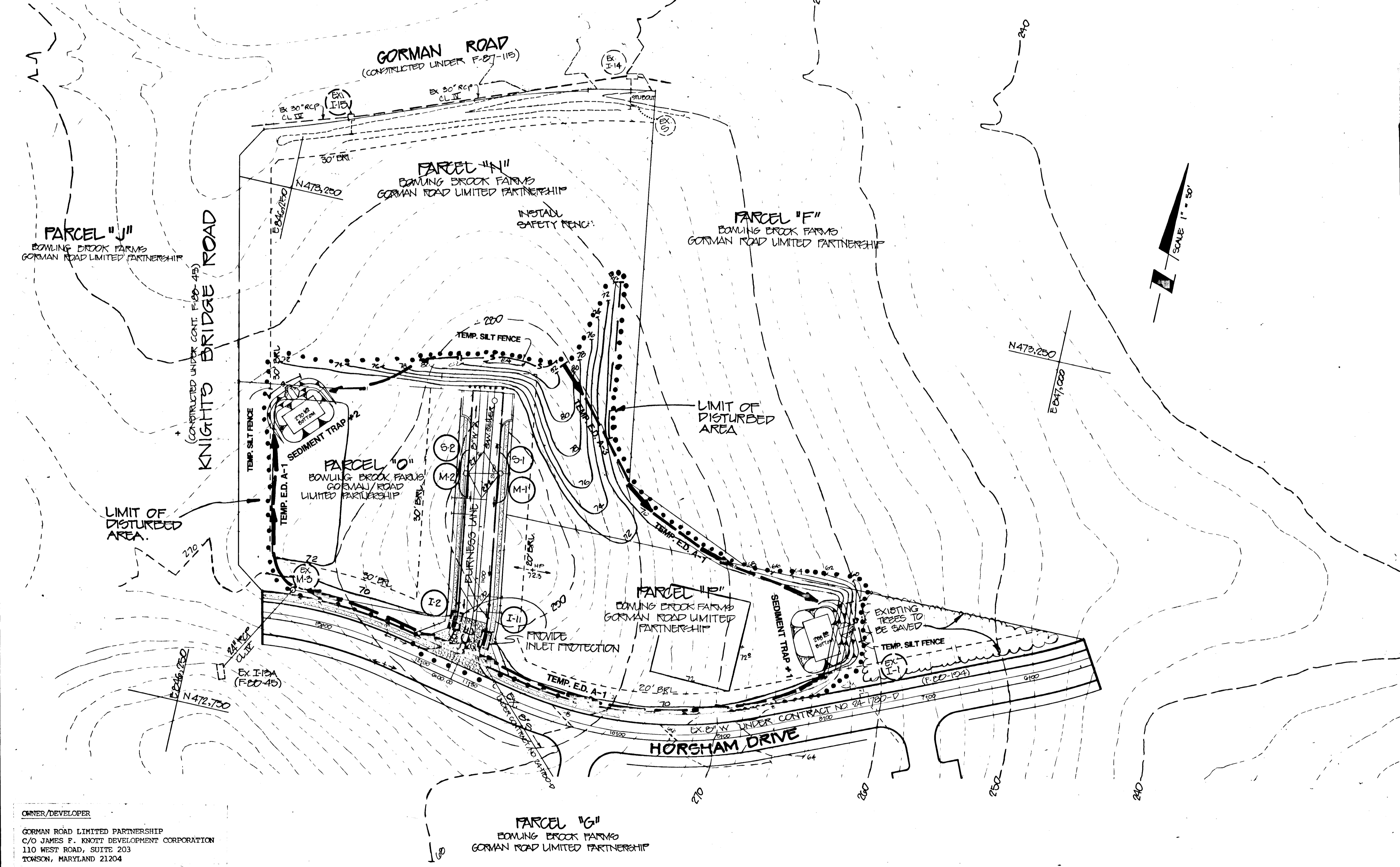
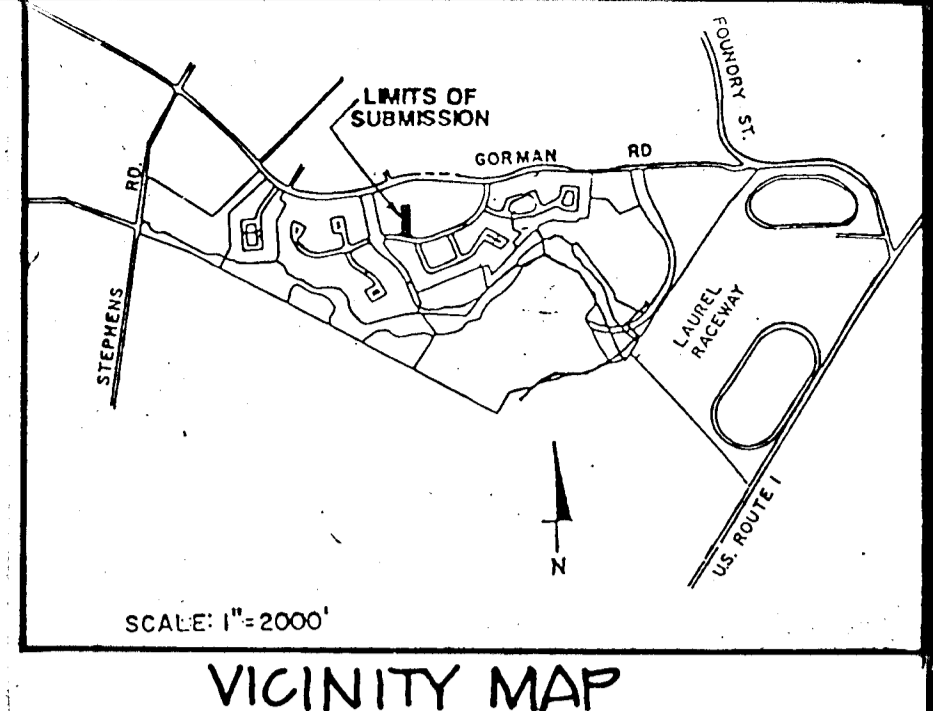
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS.

J. Helms 12/17/88
Soil Conservation Service Date

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

APPROVED *Stephen L. Fisher* 12/19/88
Howard S.C.D. Date

PLAN NUMBER _____



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Mark S. McLaughlin 12-19-88
Chief, Division of Community Planning & Land Development Date

THIS PLAN IS TO BE USED FOR THE CONSTRUCTION AND MAINTENANCE OF SEDIMENT CONTROL MEASURES ONLY.

SEDIMENT TRAP #1	
(STONE OUTLET ST V)	
EXISTING DRAINAGE AREA:	1.55 Ac.
DEVELOPED DRAINAGE AREA:	1.26 Ac.
TOP OF EMBANKMENT ELEVATION:	263.00
CREST ELEVATION:	261.00
CREST LENGTH:	6.20'
DEPTH OF FLOW:	
STORAGE DEPTH:	3.0'
BOTTOM ELEVATION:	258.85
AVERAGE BOTTOM DIMENSIONS:	40'X25'
APPROXIMATE STORAGE VOLUME PROVIDED:	3,000 CF.
REQUIRED STORAGE VOLUME:	2,790 CF.
SIDE SLOPES:	2:1

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James W. Wickard 12/21/88
Chief, Land Development Division Date

James W. Wickard 12/20/88
Chief, Bureau of Highways Date

James W. Wickard 12-21-88
Chief, Bureau of Engineering Date

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction 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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Kimberly Tompkins 11/23/88
Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE

I hereby 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] 11/23/88
Signature of Engineer Date

OWNER/DEVELOPER
GORMAN ROAD LIMITED PARTNERSHIP
C/O JAMES F. KNOIT DEVELOPMENT CORPORATION
110 WEST ROAD, SUITE 203
TOWSON, MARYLAND 21284

NO.	DESCRIPTION	DATE	APPROVED	DATE
1	REVISION FOR REVIEW	7/1/88		

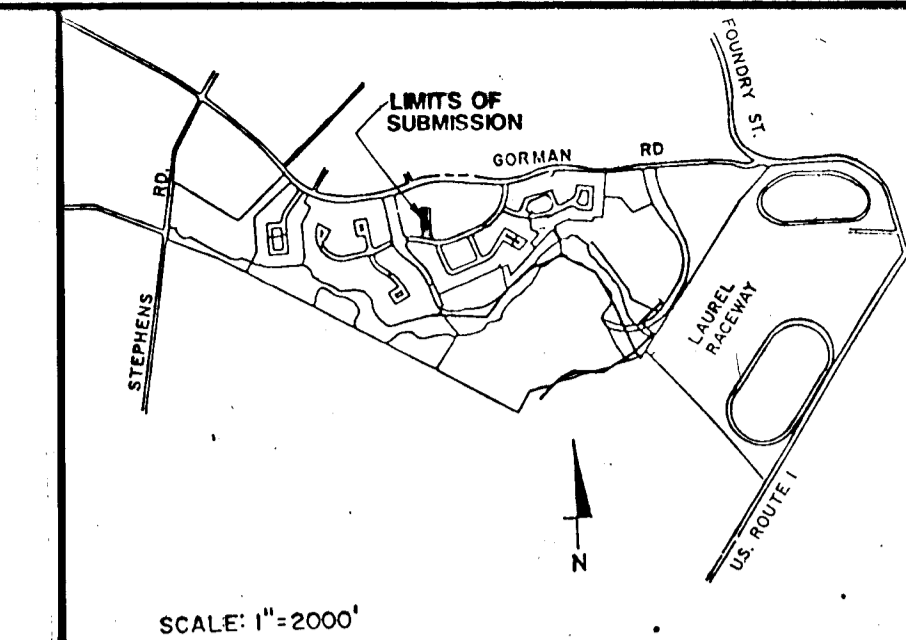
REVISION APPROVED BY _____
PROFESSIONAL SEAL

EROSION AND SEDIMENT CONTROL PLAN

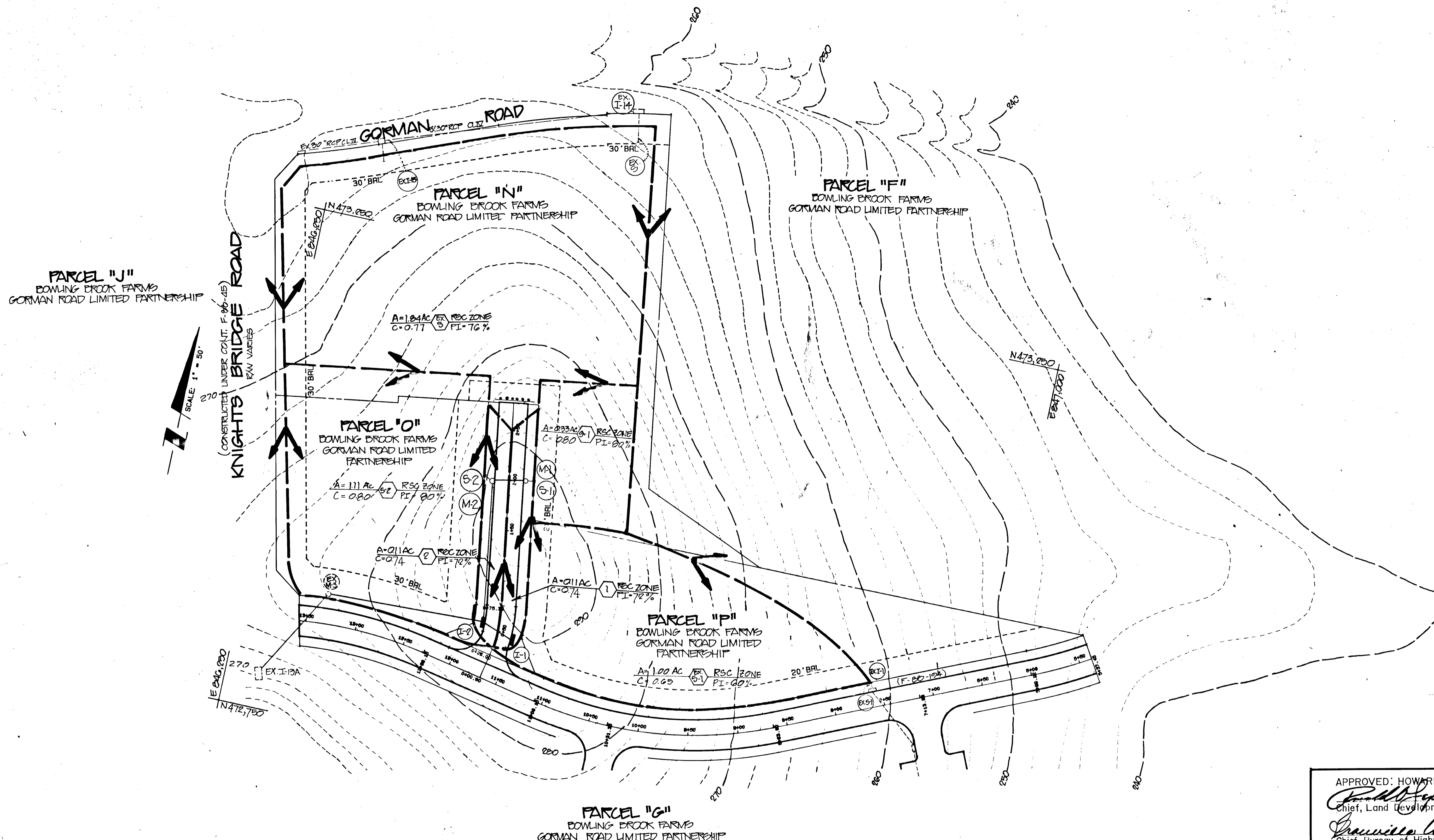
Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place Rockville, Maryland 20855 (301)762-2220

SURVEY PARRA	DATE
DESIGNER LC	6-20-88
DRAWN CNZ	SHEET
CHECKED	5 OF 6
SCALE 1" = 50'	FILE NO.
C.I.	2184-15

F-88-166



VICINITY MAP



THIS PLAN FOR DRAINAGE AREA MAP ONLY

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Frank J. Sposato 12/21/88
Chief, Land Development Division Date

Lawrence W. Weiland 12/20/88
Chief, Bureau of Highways Date

James E. Ryan 12.21.88
Chief, Bureau of Engineering Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Frank J. Sposato 12-21-88
Chief, Division of Community Planning & Land Development Date

OWNER/DEVELOPER
GORMAN ROAD LIMITED PARTNERSHIP
C/O JAMES F. KNOTT DEVELOPMENT CORPORATION
110 WEST ROAD, SUITE 203
TOWSON, MARYLAND 21204

NO.	DESCRIPTION	DATE	APPROVED	DATE
1	ISSUED FOR REVIEW			7-1-88
REVISION APPROVED BY				



REVISION:

DRAINAGE AREA MAP

Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place Rockville, Maryland 20855 (301)762-2220

BOWLING BROOK FARMS
DURNES LANE LOTS N,O,P AND 218
A RESUBDIVISION OF BOLLING BROOKE, LOT 217
SIXTH ELECTION DISTRICT
TAX MAP 47 PARCEL 141
L.1394 F.632

SURVEY P.H.R. #4A	DATE
DESIGN M.J.K.	6-10-88
DRAWN/D.W.	SHEET
CHECKED	G OF G
SCALE 1"=50'	FILE NO.
C12	2184-1-3