

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

[Signature] 11-22-89
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 11/13/90
DIRECTOR DATE

[Signature] 11/2/90
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE
STORM DRAINAGE SYSTEM AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 11/20/89
DIRECTOR DATE

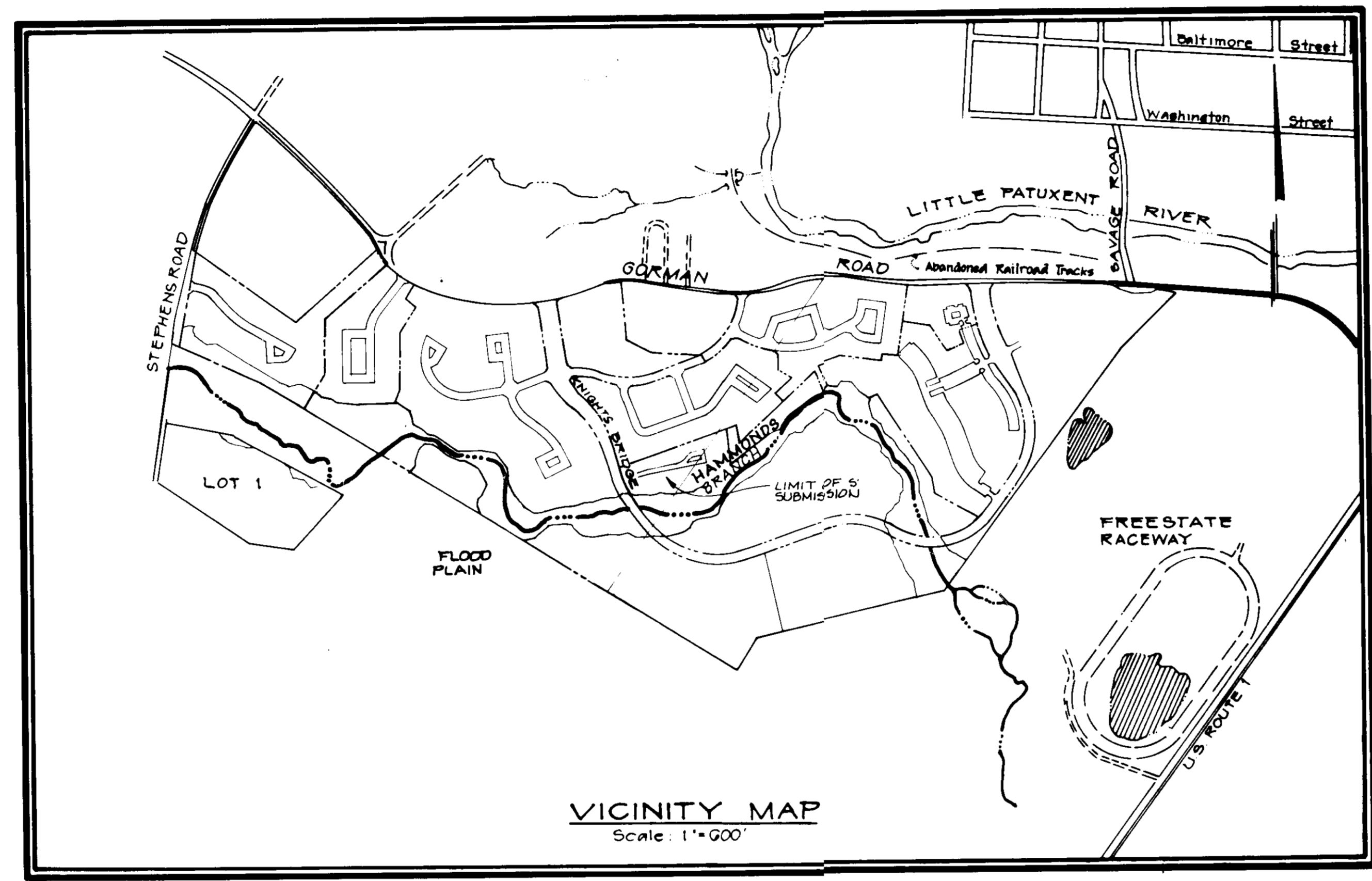
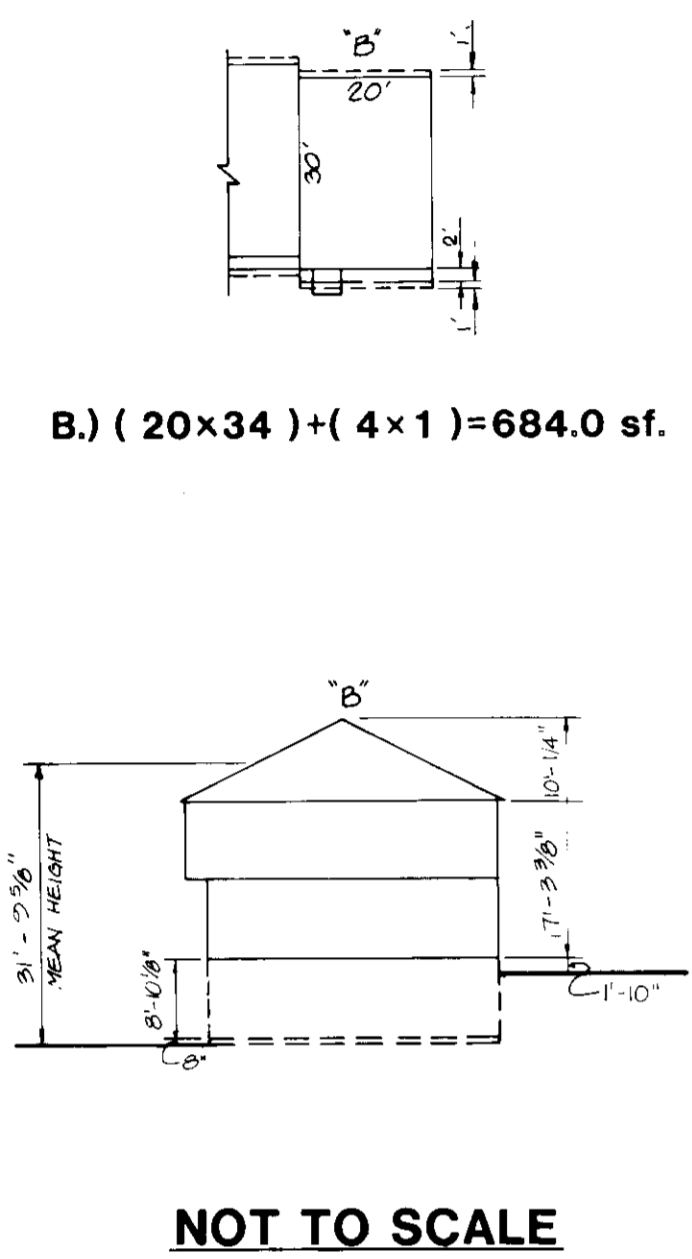
[Signature] 11-20-89
CHIEF BUREAU OF ENGINEERING DATE

HOWARD COUNTY APPROVAL

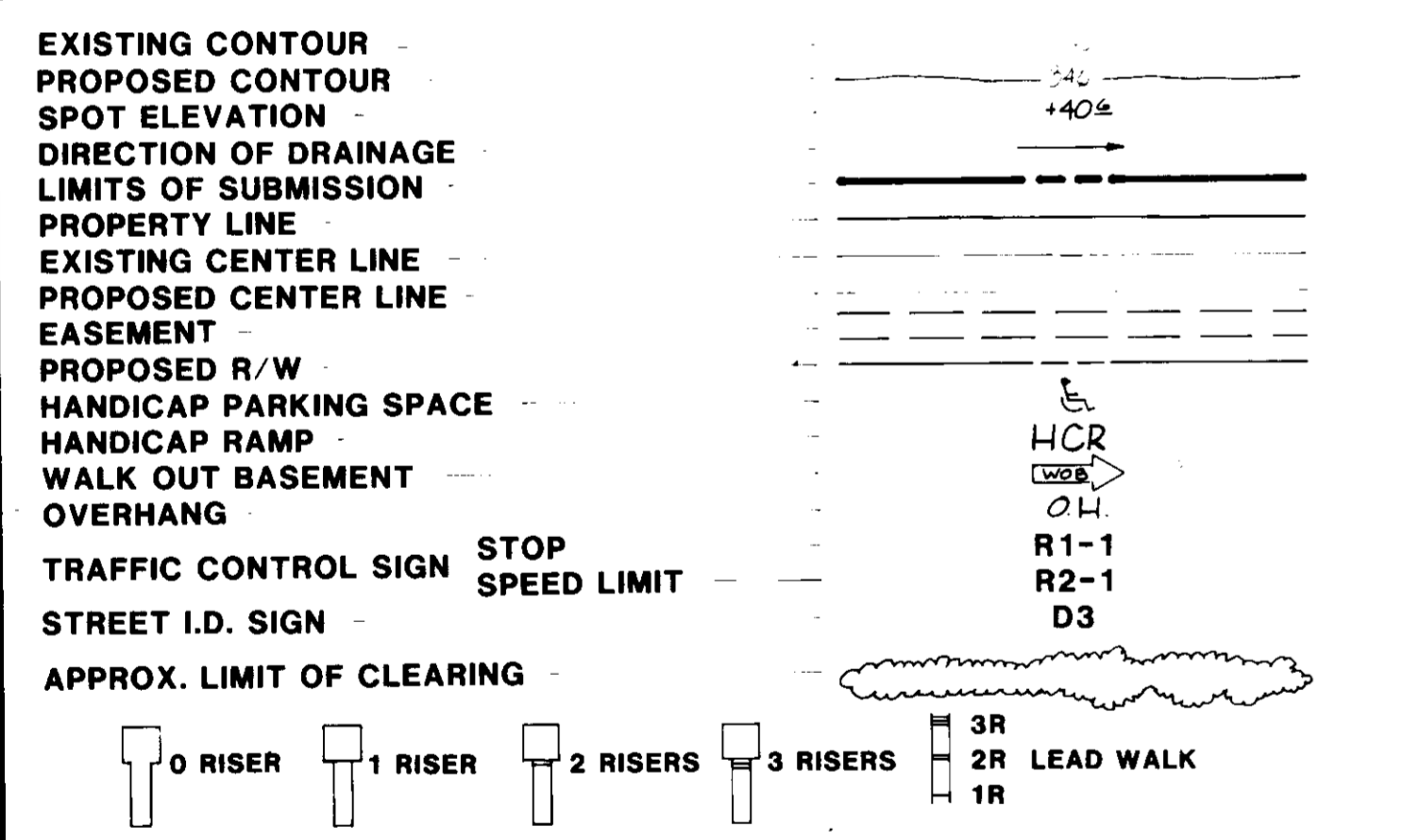
SECTION 4, AREA 2 BOWLING BROOK FARMS LOTS H-1 TO H-24

- GENERAL NOTES**
- 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 CONTRACTORS 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 - 298-9013 (TROUBLESHOOTING)
 - "MISS UTILITY" - 500-257-7777
 - CHESSAPEAKE & POTOMAC (CAP) TELEPHONE COMPANY - 725-9976
 - BUREAU OF UTILITIES/HOWARD COUNTY - 992-2366
 - THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION TWENTY-FOUR (24) HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT 792-2630.
 - 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.
 - ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST ADDITION 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 HOWARD COUNTY GEODETIC SURVEY.
 - TOPOGRAPHY TAKEN FROM MAPS PREPARED BY PHOTOGRAMMETRY BY "AERIAL SURVEYS" IN 1984. TOPOGRAPHY FIELD CHECKED 1986.
 - ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
 - ALL ROADS SHALL BE PAVED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL R-2.01, P-2. AN ALTERNATE PAVING SECTION P-1 MAY BE USED FOR PARKING AREAS OUTSIDE R/W.
 - STANDARD PARKING SPACES ARE 9' X 18' AND HANDICAPPED PARKING SPACES ARE 13' X 18'.
 - PARKING AREAS SHALL MEET ALL ZONING REGULATIONS AND ALL DEPARTMENT OF PUBLIC WORKS PAVING SPECIFICATIONS.
 - NUMBER OF PARKING SPACES PER DAY ARE INSCRIBED IN A CIRCLE.
 - ALL STREET SIGNS SHALL CONFORM TO REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES." THE FOLLOWING SIGNS ARE SHOWN ON THESE PLANS:
 - D-3 - STREET IDENTIFICATION SIGN
 - R2-1 - SPEED LIMIT SIGN
 - R1-1 - STOP SIGN
 - R4-7 - KEEP RIGHT SIGN
 - THIS PROPERTY IS BOUNDED ON THE NORTH BY PARCEL G, ON THE EAST BY SECTION 3, AREA 1, ON THE SOUTH BY HAMMOND BRANCH, AND ON THE WEST BY KNIGHTS BRIDGE ROAD. SECTION 3, AREA 1, PARCEL G AND THIS PROPERTY ARE OWNED BY GORMAN ROAD LIMITED PARTNERSHIP AND ZONED RSC/RSA-8.
 - THIS SUBMISSION IS ZONED RSC/RSA-8.
 - SEE OPZ FILE NOS. VP-85-78, VP-85-78A-1, VP-85-78A-2, S-85-23, S-86-57, S-87-07, S-87-78, P-89-06, AND P-89-120.
 - RESIDENTS WILL PROVIDE MODIFIED REFUSE COLLECTION.
 - FIRE LANES SHALL BE MARKED IN ACCORDANCE WITH TITLE 21 OF THE HOWARD COUNTY CODE AND WHERE DESIGNATED BY COMMENTS OF THE OFFICE OF THE FIRE ADMINISTRATOR, DATED JULY 12, 1989.

TYPICAL BUILDING UNIT



LEGEND



SITE DEVELOPMENT PLANS HOWARD COUNTY, MARYLAND

DENSITY TABULATIONS

RSB-8	GORMAN ROAD	SECTION 2	SECTION 3	SECTION 4	PARCEL H	TOTAL
1. GROSS AREA	2.76	307.20	39.12	2.06	1.33	57.13
2. FLOODPLAIN/STEEP SLOPES	-	2.23	-	-	-	3.48
3. NET AREA	2.76	38.40	4.89	4.26	2.06	53.70
4. NO. OF DWELLING UNITS ALLOWED (based on net area)	22.08	307.20	39.12	34.08	16.48	429.60
5. FLOODPLAIN LOT ADJUSTMENT - LOT ALLOWANCE	-	-	-	-	-	-
6. TOTAL NO. OF DWELLING UNITS ALLOWED	22.08	307.20	39.12	34.08	16.48	429.60
7. TOTAL NO. OF DWELLING UNITS PROPOSED	0	366	33	40	18	467
8. DENSITY PER ACRE	0	9.01	5.42	9.39*	8.74*	8.17

RSC	GORMAN ROAD	SECTION 1	SECTION 3	SECTION 4	PARCEL L	PARCEL H	TOTAL
1. GROSS AREA	4.40	49.16	3.94	5.43	11.05	22.69	96.29
2. FLOODPLAIN/STEEP SLOPES	-	10.76	-	-	-	-	11.07
3. NET AREA	4.40	38.40	3.94	5.43	11.05	22.38	87.22
4. NO. OF DWELLING UNITS ALLOWED (based on net area)	17.60	153.60	12.16	21.72	44.20	89.52	348.88
5. FLOODPLAIN LOT ADJUSTMENT - LOT ALLOWANCE	-	15.36	1.22	2.17	4.42	8.95	32.12
6. TOTAL NO. OF DWELLING UNITS ALLOWED	17.60	168.96	13.38	23.89	48.62	98.47	381.00
7. TOTAL NO. OF DWELLING UNITS PROPOSED	0	198	19	0	82	52	353
8. DENSITY PER ACRE	0	4.03*	6.25*	0	7.42*	2.29	4.76*

*DENSITY PER ACRE WILL NOT VIOLATE THAT ALLOWED BY ZONING REGULATIONS WHEN RECORDED BASED UPON UNZONED DENSITY FROM PREVIOUSLY RECORDED SEC. 1, PAR. B PART E, AND LITMAY SITE.

**THE DENSITY FOR THE RSB-8 ZONE WILL NOT EXCEED 8 UNITS PER ACRE UPON RECORDED PARCELS I AND G.

- INDEX TO DRAWINGS**
- TITLE SHEET
 - SITE DEVELOPMENT PLAN
 - DETAIL SHEET
 - LANDSCAPE PLAN
 - EROSION AND SEDIMENT CONTROL DETAIL SHEET
 - EROSION AND SEDIMENT CONTROL PLAN

SEDIMENT CONTROL MEASURE FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THE STANDARD SPECIFICATIONS AND ROAD CONSTRUCTION PLAN F-89-120 AND SDP 89-267

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

[Signature] 10/26/89
SIGNATURE DATE

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

[Signature] 11/26/89
APPROVED DATE
HOWARD SCD

Lot Number	Invert Elev. @ Prop. Line	Cellar Elev.
H-1	216.14	220.16
H-2	216.14	220.16
H-3	214.90	218.83
H-4	214.90	218.83
H-5	213.75	217.49
H-6	213.75	217.49
H-7	212.59	216.83
H-8	212.59	216.83
H-9	210.57	214.49
H-10	210.57	214.49
H-11	209.42	213.16
H-12	209.42	213.16
H-13	208.28	211.83
H-14	208.28	211.83
H-15	207.13	210.49
H-16	207.13	210.49
H-17	206.45	210.49
H-18	206.45	210.49
H-19	207.30	211.16
H-20	207.30	211.16
H-21	208.19	213.16
H-22	208.19	213.16

OWNER/DEVELOPER

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

SITE ANALYSIS

AREA OF PARCEL	3.85 AC
PRESENT ZONING	RSC/RSA-8
NUMBER OF PARKING SPACES (REQUIRED)	44 SP.
NUMBER OF PARKING SPACES (PROVIDED)	48 SP.
OPEN SPACE TO REMAIN ON SITE	2.03 AC 52.7%
BUILDING COVERAGE OF SITE	0.35 AC 9.1%

FOR REFERENCE SEE PB-196, VP-85-78, VP-85-78A-1, VP-85-78A-2, S-85-23, S-86-57, S-87-07, S-87-78, P-89-06.

SUBDIVISION NAME	SECTION 4, AREA 2	LOT/PARCEL #
BOWLING BROOK FARMS	SECTION 4, AREA 2	PARCEL 141
PLAT # OR L/F	BLOCK #	TAX/ZONE MAP
L 1392 F.632	16	47
PLAT # OR L/F	BLOCK #	TAX/ZONE MAP
L 1392 F.632	16	47
PLAT # OR L/F	BLOCK #	TAX/ZONE MAP
L 1392 F.632	16	47
PLAT # OR L/F	BLOCK #	TAX/ZONE MAP
L 1392 F.632	16	47

WATER CODE: C03 SEWER CODE: 7270000

REVISION APPROVED BY

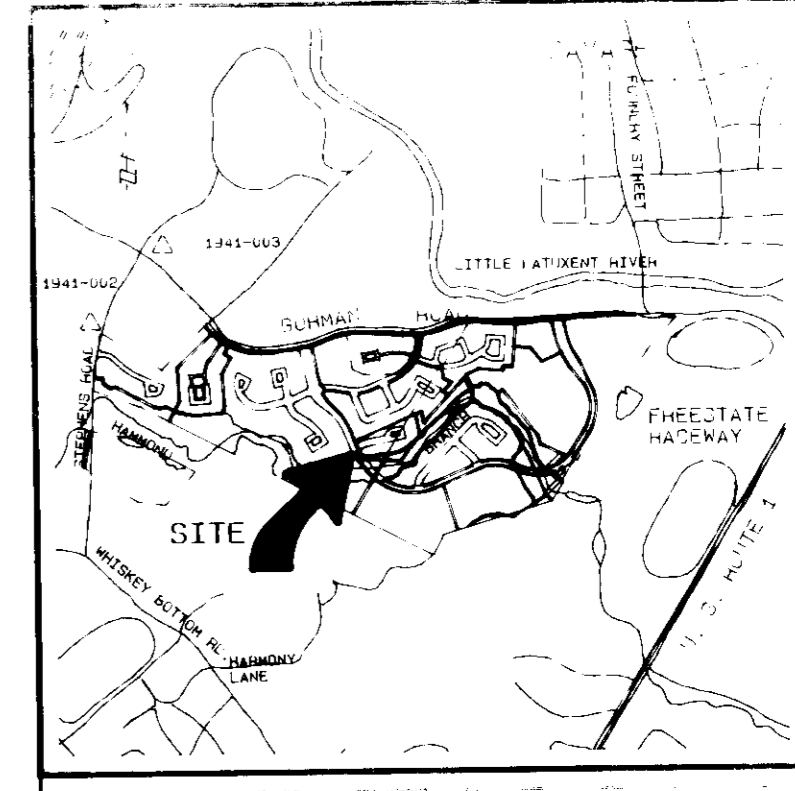
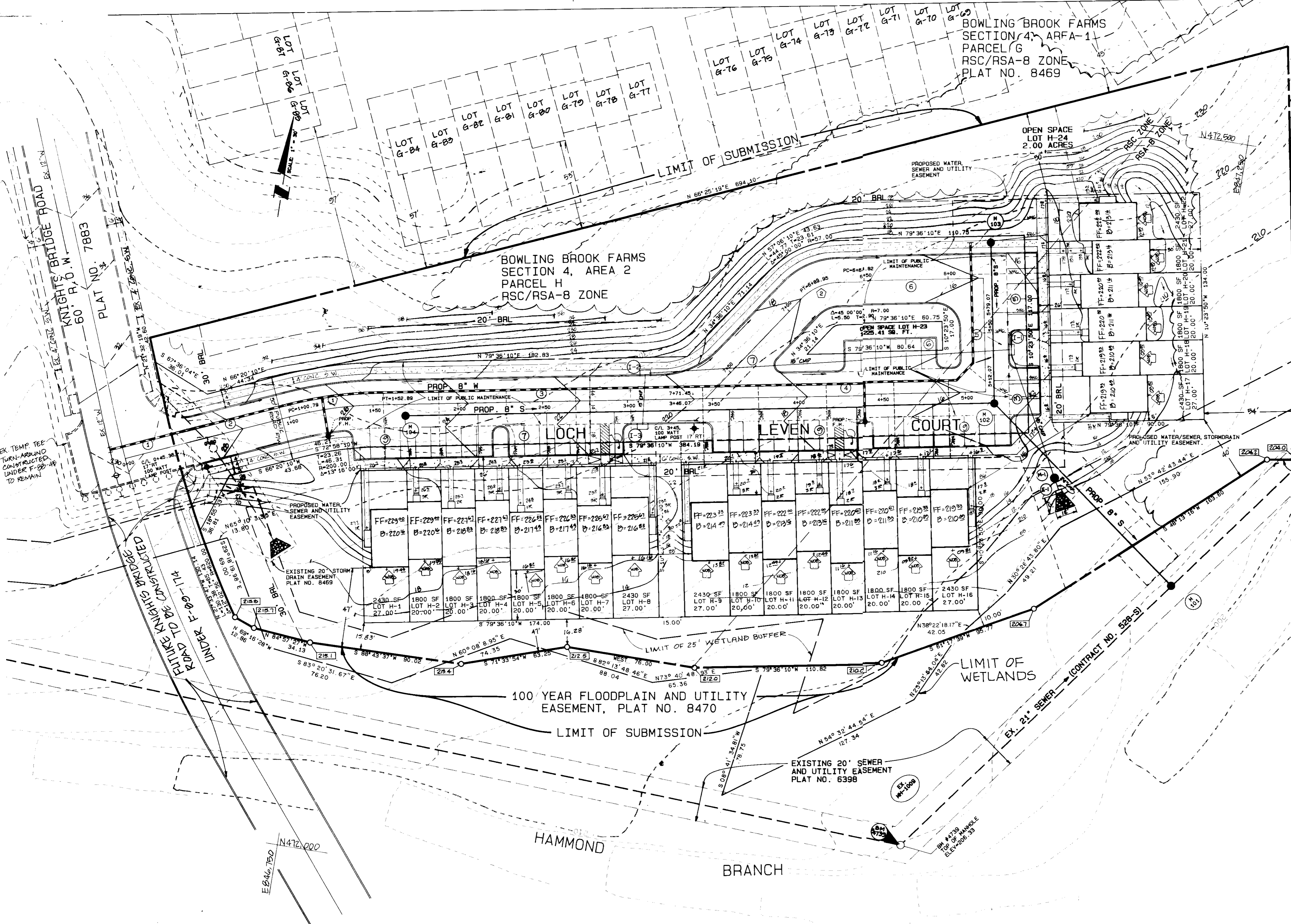
NO.	DESCRIPTION	DATE	APPROVED	DATE
1	ISSUED TO HO. CO. FOR SIGNATURE	10/26/89	<i>[Signature]</i>	10/26/89

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

BOWLING BROOK FARMS
SECTION 4, AREA 2
LOTS H-1 TO H-24
A RESUBDIVISION OF PARCEL H, BOWLING BROOK FARMS
TAX MAP 47 PARCEL 141 L. 1394 F.632
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY	DATE
DESIGN MJK	6-20-89
DRAWN	SHEET
CHECKED	1 OF 6
SCALE	FILE NO.
C.I.	2184-1-B



BOWLING BROOK FARMS
SECTION 3, AREA 1
PARCEL E-1
RSC/RSA-8 ZONE
PLAT NO. 7944

NOTES:

- ALL ROADWAYS AND PARKING AREAS WITHIN THE LIMIT OF PUBLIC MAINTENANCE SHALL BE PAVED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL R 2.01, P-2. AN ALTERNATIVE PAVING SECTION, P-1, MAY BE USED FOR PARKING AREAS OUTSIDE OF THE LIMIT OF PUBLIC MAINTENANCE.
- ALL RADII ARE 5-FOOT UNLESS OTHERWISE NOTED.
- ALL PROPOSED WATER AND SEWER MAINS SHALL BE CONSTRUCTED UNDER CONTRACT NO. 24-1847-D.
- FIRE LANES SHALL BE MARKED IN ACCORDANCE WITH TITLE 21 OF THE HOWARD COUNTY CODE AND WHERE DESIGNATED BY COMMENTS OF THE OFFICE OF THE FIRE ADMINISTRATOR.
- THE WETLANDS BUFFER INDICATED ON THIS SITE DEVELOPMENT PLAN DOES NOT EFFECT THE INITIAL CONSTRUCTION OF A RESIDENTIAL UNIT ON ANY LOT. IT DOES PROHIBIT SUBSEQUENT CLEARING, GRADING OR CONSTRUCTION IN THE BUFFER AREA MAINTENANCE OF RESIDENCES, LANDSCAPING AND UTILITIES IS PERMITTED.

LOT	STREET ADDRESS CHART
H-1	2410 LOCH LEVEN COURT
H-2	2412
H-3	2414
H-4	2416
H-5	2418
H-6	2420
H-7	2422
H-8	2424
H-9	2426
H-10	2428
H-11	2430
H-12	2432
H-13	2434
H-14	2436
H-15	2438
H-16	2440
H-17	2442
H-18	2444
H-19	2446
H-20	2448
H-21	2450
H-22	2452

LINE DATA		
LINE NO.	BEARING	DISTANCE
1	N 66° 20' 10" E	30.00
2	N 66° 20' 10" E	70.79
3	N 79° 36' 10" E	193.19
4	N 79° 36' 10" E	166.00
5	N 10° 23' 50" W	67.00
6	S 79° 36' 10" W	85.75

CURVE DATA						
NO.	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD DIST.
1	13° 16' 00"	225.00	52.10	26.17	N 72° 58' 10" E	51.98
2	45° 00' 00"	32.00	25.13	13.25	S 57° 06' 10" W	24.49

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
John Zeller 11/22/89
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
James R. Smith 11/22/90
DIRECTOR DATE

APPROVED: CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
James P. Campbell 11/22/90
DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEM AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
James P. Campbell 11/20/89
DIRECTOR DATE

APPROVED: CHIEF BUREAU OF ENGINEERING
James P. Campbell 11/20/89
DATE

HOWARD COUNTY APPROVAL

PHRA
Patton Harris Hunt & Associates, Inc.
Planners, Landscape Architects
7700 Woodlark Place
Rockville, Maryland 20855
301.762.2220

SITE DEVELOPMENT PLAN

BOWLING BROOK FARMS
SECTION 4, AREA 2
LOTS H-1 TO H-22 PARCEL H, BOWLING BROOK FARMS
7-AX MAP AT PARCEL H-1
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PROJECT: BOWLING BROOK FARMS SECTION 4, AREA 2 LOTS H-1 TO H-22 PARCEL H, BOWLING BROOK FARMS 7-AX MAP AT PARCEL H-1 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PLAN: SITE DEVELOPMENT PLAN

DATE: 11-22-89

ISSUED TO: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

DATE: 11-22-89

BY: JAMES P. CAMPBELL

FOR: JAMES P. CAMPBELL

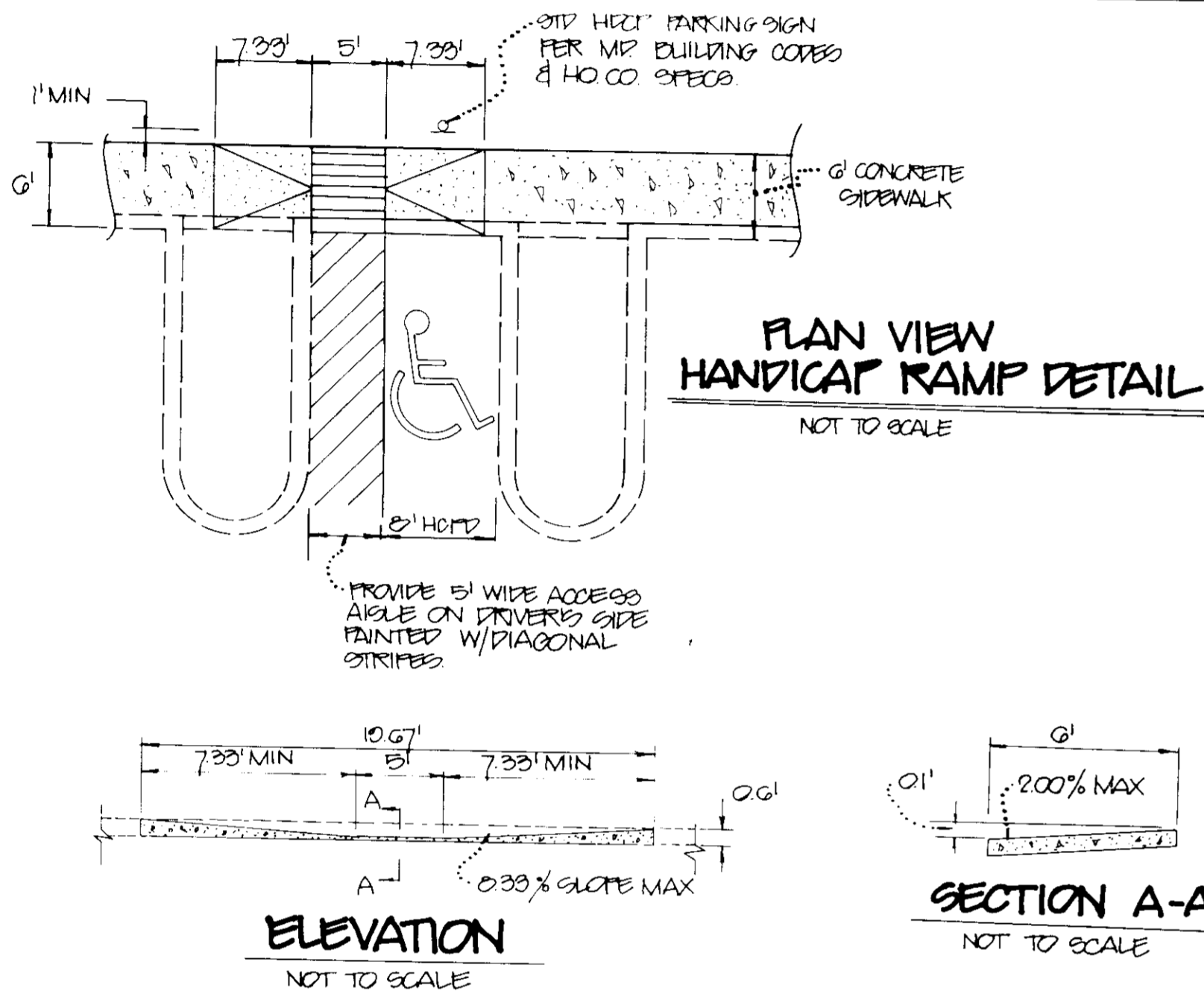
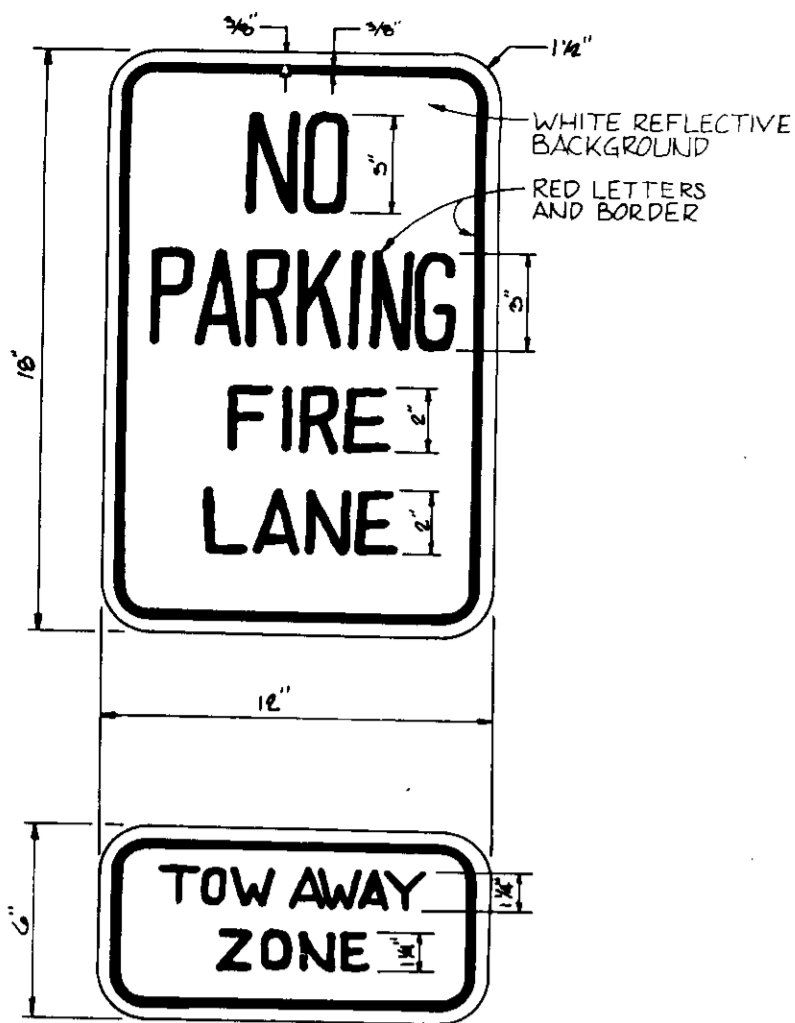
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DATE: 11-20-89

SHEET 2 OF 6

FILE: 2184-1-B

SDP 81-267



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM,
HOWARD COUNTY HEALTH DEPARTMENT.

COUNTY HEALTH OFFICER _____ DATE _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

PLANNING DIRECTOR _____ DATE 1/12/90

CHIEF, DIVISION OF COMMUNITY
PLANNING AND LAND DEVELOPMENT _____ DATE 1/12/90

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, PUBLIC STORM
DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

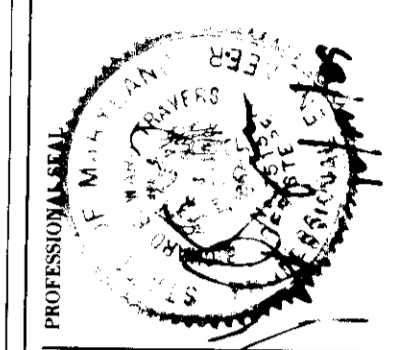
DIRECTOR _____ DATE 11.20.89

CHIEF, BUREAU OF ENGINEERING _____ DATE 11.20.89

HOWARD COUNTY APPROVAL

PH&A

Professional Engineers, Planners, Landscapers & Architects
7609 Stratford Place
Rockville, Maryland 20855
301-762-2229



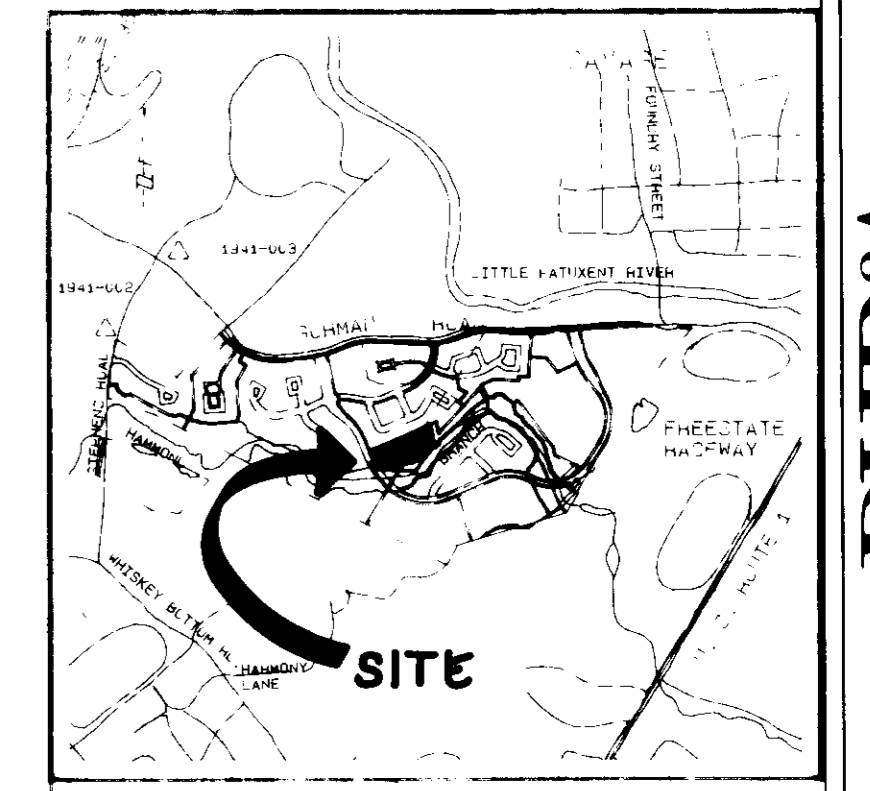
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PREPARED TO 40 LG FOR REVIEW	6-14-89		
REVIEWED TO 40 LG FOR REVIEW	10-10-89		
SIGNATURE			

BOWLING BROOK FARMS
SECTION 4, AREA 2
LOTS H-1 TO H-24
A RESUBDIVISION OF PARCEL H, BOWLING BROOK FARMS
TAX MAP 47 PARCEL 141 L 1384 F 632
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DETAIL SHEET

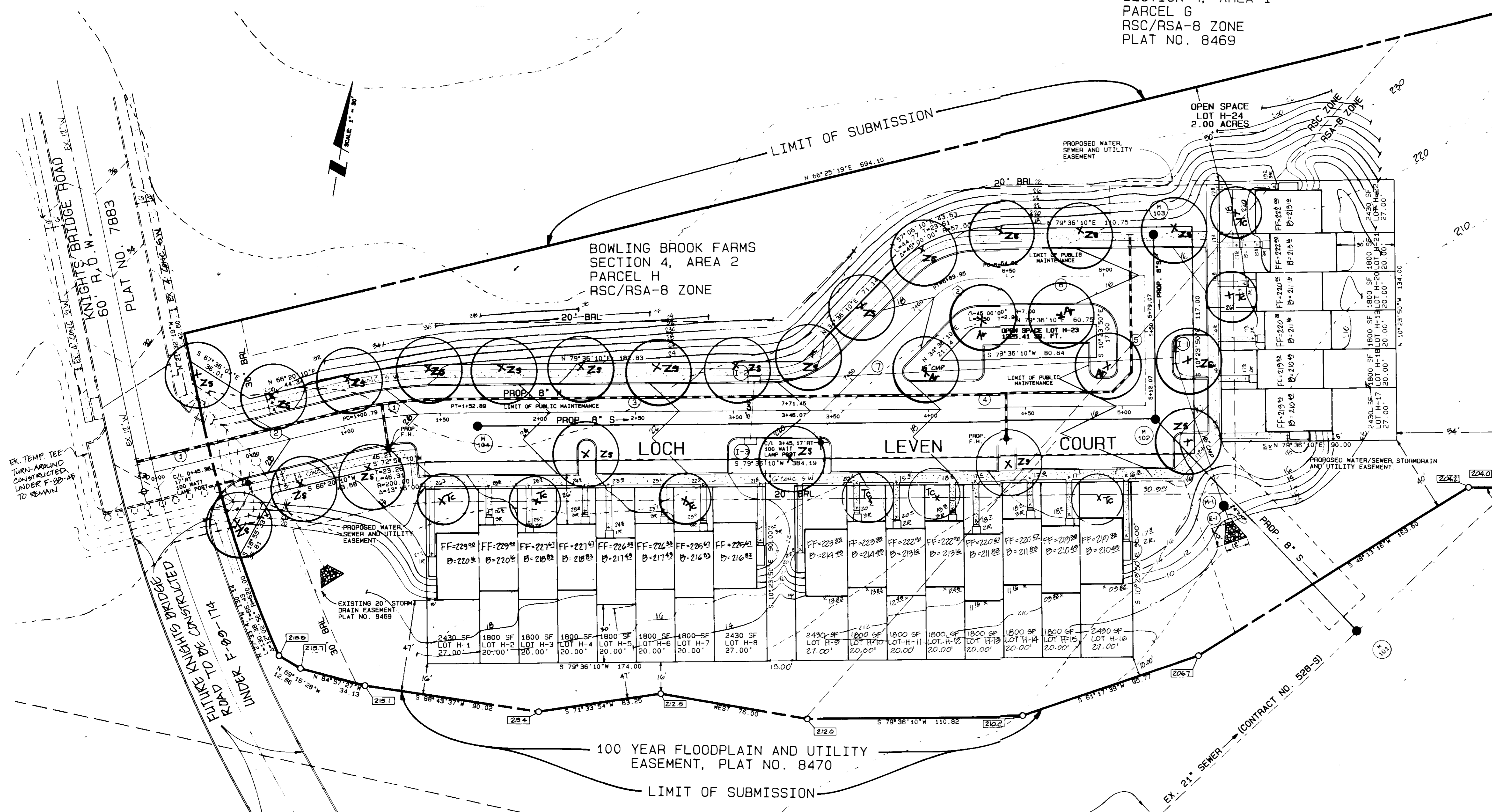
PROJECT	PLAN
SURVEY	CHECKED
OTHERS	
DESIGN	SCALE/C1
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DRAWN	DATE
MFR	6-20-89
SHEET	3 OF 6
FILE	2104-16

BOWLING BROOK FARMS
SECTION 4, AREA 1
PARCEL G
RSC/RSA-8 ZONE
PLAT NO. 8469



VICINITY MAP

BOWLING BROOK FARMS
SECTION 3, AREA 1
PARCEL E-1
RSC/RSA-8 ZONE
PLAT NO. 7944

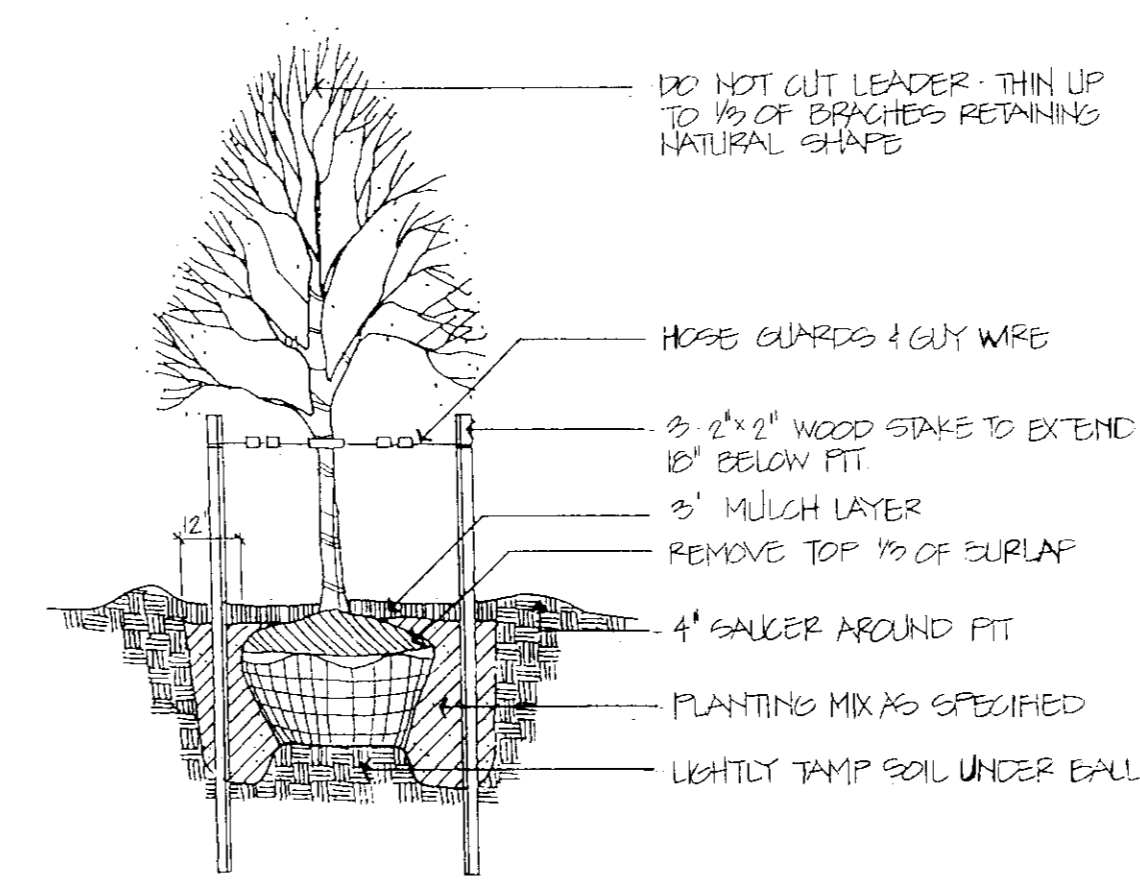
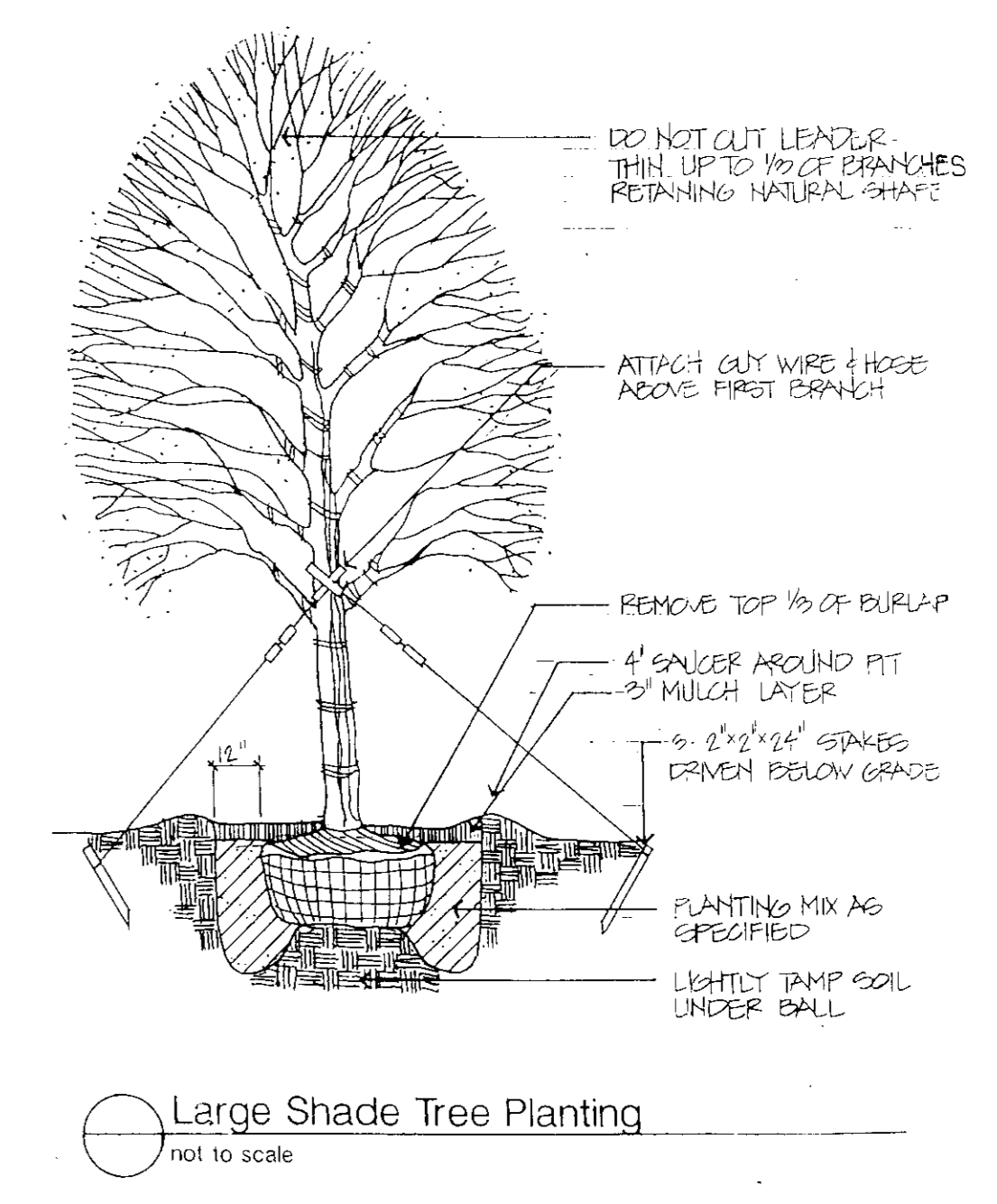


NOTES:

PLANT SCHEDULE

Deciduous Trees

Key	Quantity	Botanical Name	Common Name	Size	Condition
Ac	4	Acer rubrum	Red Maple	2 1/2" cal	B&B
Tc	8	Tilia cordata	Greenspire Linden	2" cal	B&B
Zs	22	Zelkora serrata	GreenVase Zelkova	2 1/2" cal	B&B



Large Shade Tree Planting
not to scale

Small Deciduous Tree Planting
not to scale

NOTE:
THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY. REFER TO SITE DEVELOPMENT PLAN FOR OTHER INFORMATION.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
Joan Ziegen 11-22-89
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Robert J. Miller 1/12/90
DIRECTOR DATE

APPROVED: CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
Mark L. DeLong 1/12/90
DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEM AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
James H. Lee 1/13/90
DIRECTOR DATE

APPROVED: CHIEF BUREAU OF ENGINEERING
William B. Ray 1-13-89
DATE

HOWARD COUNTY APPROVAL

PHR&A
Pattam Harris-Russ & Associates
P.L.L.C.
1700 Spandahl Place
Baltimore, Maryland 21205
Tel: 410-528-2220

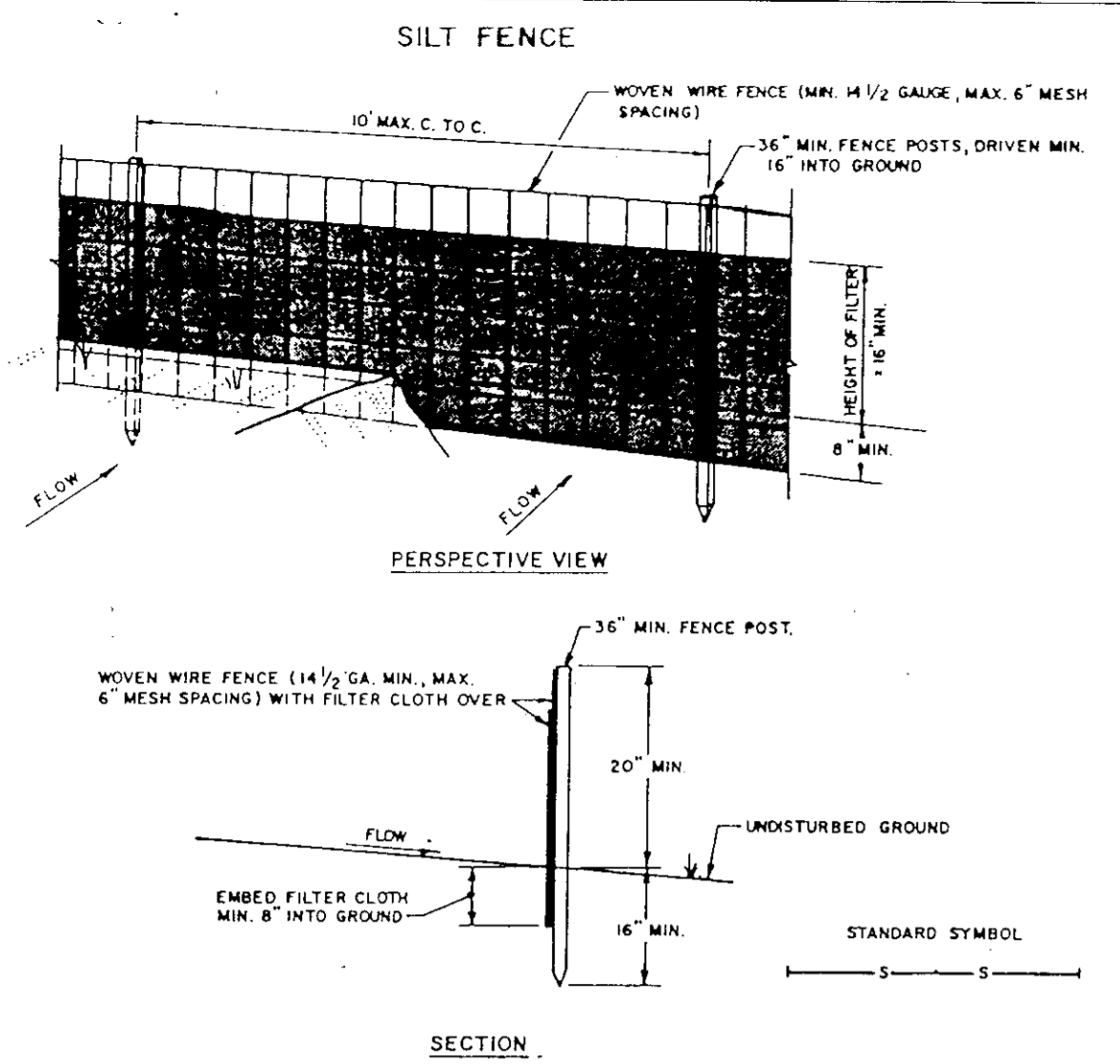
PROFESSIONAL SEAL
DATE ISSUED BY: 06-16-89
DATE FOR REVIEW: 10-18-89
DATE FOR REVISION: 10-18-89

PROJECT: BOWLING BROOK FARMS SECTION 4, AREA 2 LOTS H-1 THROUGH H-24 PARCEL G, RSC/RSA-8 ZONE, PLAT NO. 8469
SIXTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

PLAN: LANDSCAPE PLAN

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

SHEET 4 OF 6
FILE: 2104-1-b
SDP-89-267



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
 FENCE: WOVEN WIRE, 1/2 GA. 6' MAX. MESH OPENING
 FILTER CLOTH: FILTER X, MIRAFIL 100, STABILINA 1100N OR APPROVED EQUAL
 PREFABRICATED UNIT: GEOPAB, SWIRFOFENCE, OR APPROVED EQUAL

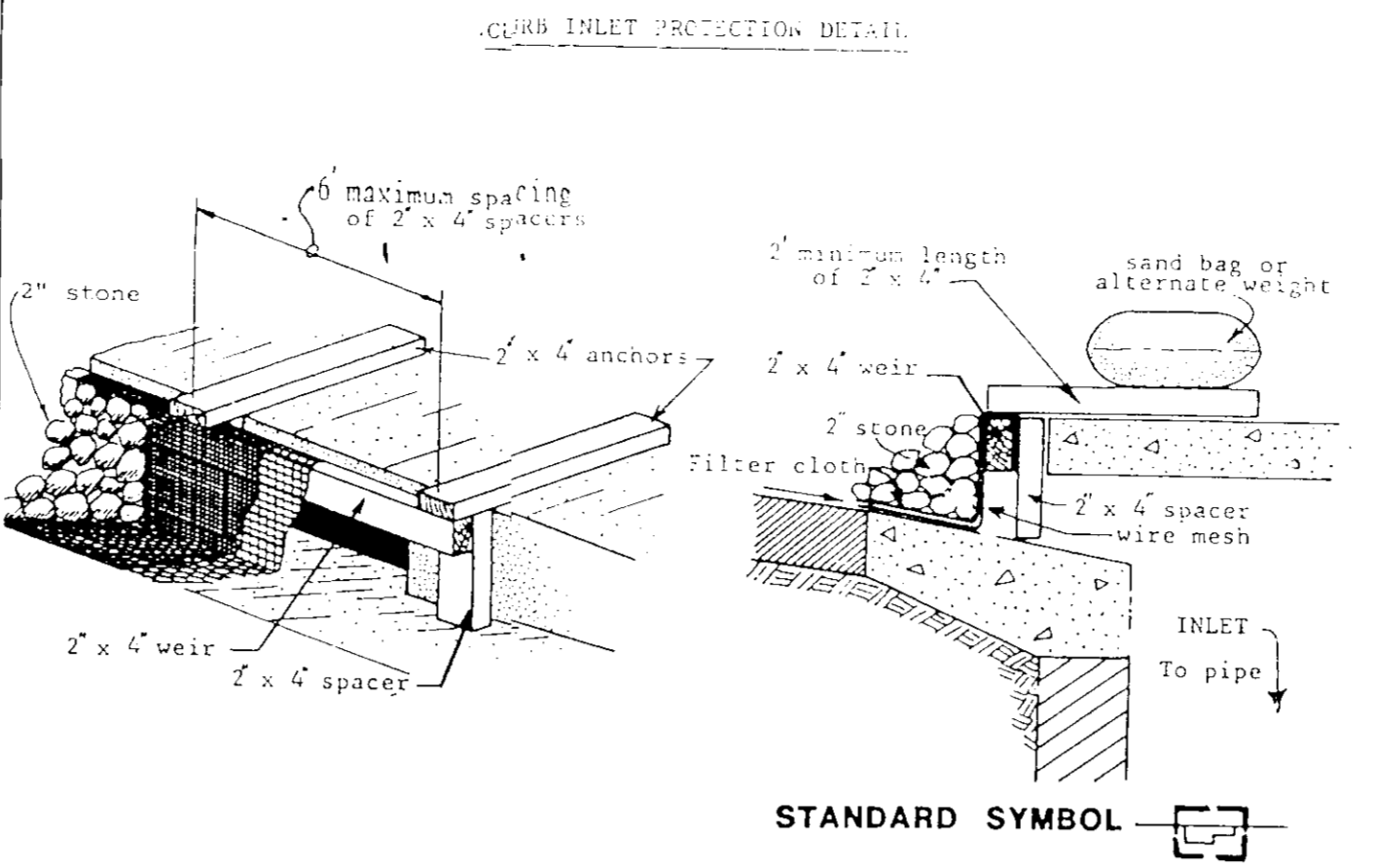
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND

SILT FENCE

STANDARD DRAWING SF-1

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 slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- 4) 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.
- 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. 31) sod (Sec. 54), temporary seeding (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: 3.85 Acres
 Area Disturbed: 1.32 Acres
 Area to be roofed or paved: 0.40 Acres
 Area to be vegetatively stabilized: 0.92 Acres
 Total Cut: 1.40 Cu. yds
 Total Fill: 1.40 Cu. yds
 Offsite waste/borrow area location
- 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 DFW sediment control inspector.
- 10) 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.



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND

INLET PROTECTION DETAIL

STANDARD DRAWING IPD-1

Construction Specifications

I. Materials

- A. Wooden frame is to be constructed of 2" x 4" construction grade lumber.
- B. Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.
- C. Filter cloth must be of a type approved for this purpose; resistant to sunlight with sieve size, E08, 40-85, to allow sufficient passage of water and removal of sediment.

Stone is to be 2" in size and clean, since fines would clog the cloth.

II. Procedure

- A. Curb Inlet Protection.
 1. 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.
 2. 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.
 3. Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' apart).
 4. 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.
 5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
 6. Form the wire mesh and filter cloth to the concrete gutter and against the face of 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.
 7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 8. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

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, discing 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 square 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).
- 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. 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 40 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 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.

Seeded 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 2 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 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 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.

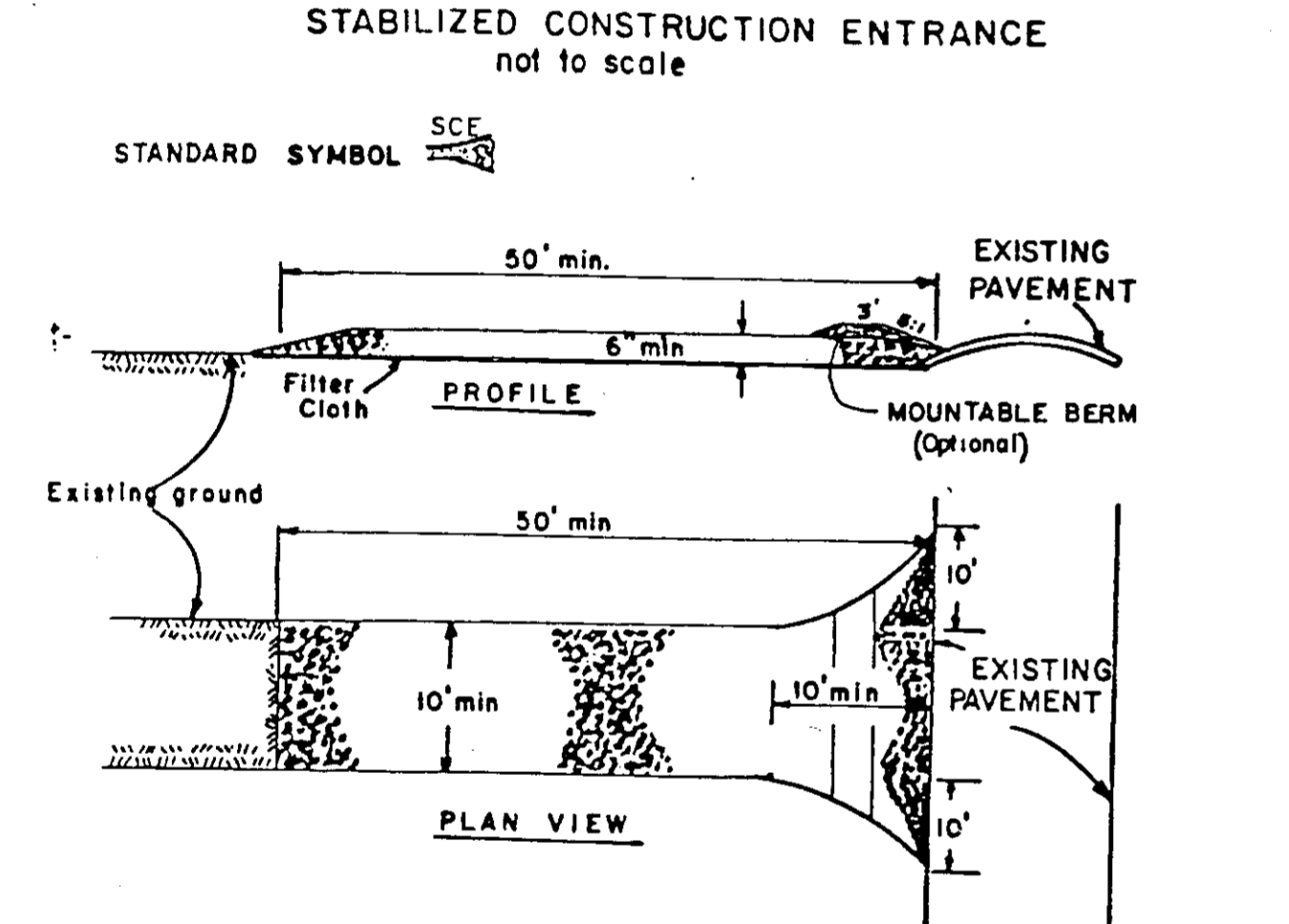
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS.

James M. Hester 10/26/89
 Soil Conservation Service

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

APPROVED *Paul K. Roberts* 10/24/89
 Howard S C D

PLAN NUMBER _____



CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.

STABILIZED CONSTRUCTION ENTRANCE

Standard Drawing SCE-1

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

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM, HOWARD COUNTY HEALTH DEPARTMENT.

William J. ... COUNTY HEALTH OFFICER DATE _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

James S. ... PLANNING DIRECTOR DATE 11/2/90

Charles S. ... CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE 11/2/90

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE, PUBLIC STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James S. ... DIRECTOR DATE 11/2/89

James S. ... CHIEF, BUREAU OF ENGINEERING DATE 11/2/89

HOWARD COUNTY APPROVAL

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.

James S. ... Signature of Developer/Builder DATE 025 19 1989

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.

James S. ... Signature DATE 10/17/89

STATE OF MARYLAND
 HOWARD COUNTY
 REGISTERED PROFESSIONAL ENGINEER

SWALE SEDIMENT TRAP ST-IV

CONSTRUCTION SPECIFICATION FOR ST-IV

1. The swale sediment trap shall be constructed in accordance with the dimensions provided on the design drawings or sized to provide the minimum storage necessary 1800 cubic feet of storage for each acre of drainage area.
2. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
3. The structure shall be inspected after each rain and repairs made as needed.
4. Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
5. The sediment trap shall be removed and area stabilized when the contributory drainage area has been properly stabilized.
6. The swale sediment trap will be properly backfilled and the swale or ditch reconstructed.

Maximum Drainage Area: 2 Acres

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND

SWALE SEDIMENT TRAP

STANDARD DRAWING ST-IV

PH&A
 Patton Harris-Rios & Associates, P.C.
 Engineers, Surveyors, Planners, Landscape Architects
 Rockville, Maryland 20855
 301-762-2220
 Virginia Beach, VA

PROFESSIONAL SEAL

DATE REVIEWED 6-16-89
 DATE 10-18-89

NO. 2

DISCUSSION

ISSUED TO: 10-16-89
 ISSUED TO: 10-18-89

PROJECT

BOWLING BROOK FARMS
 SECTION 4, AREA 2
 LOTS H-1 TO H-24
 A RESUBDIVISION OF PARCEL L-1, 1394 F. 632
 TAX MAP 47 PARCEL 141
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PLAN

EROSION AND SEDIMENT CONTROL
 DETAIL SHEET

CHECKED

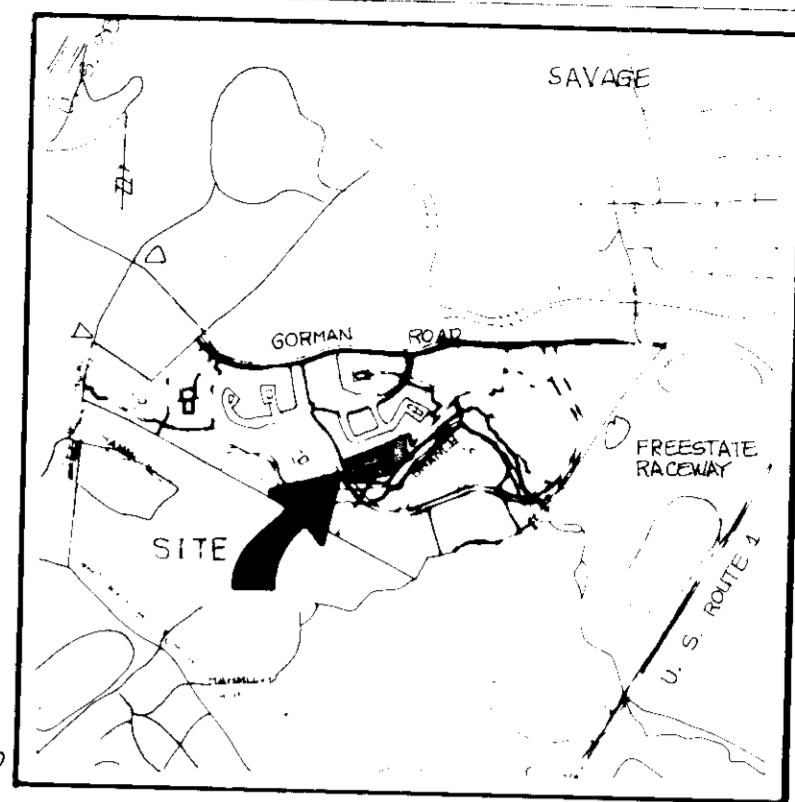
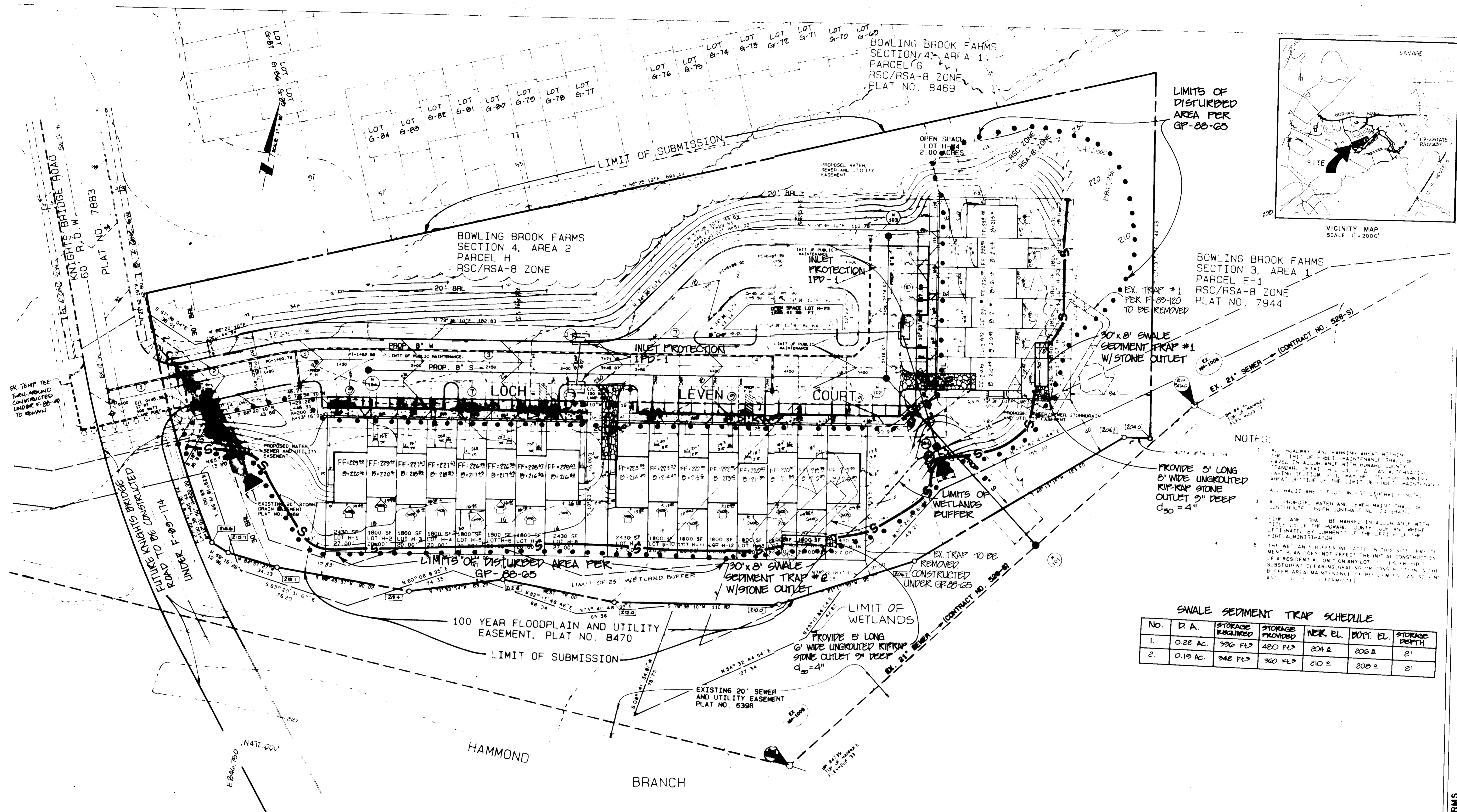
SCALE 1"=20'-0"

DATE 6-20-89

SHEET 5 OF 6

FILE 2184-1-B

SDP 89-267



LIMITS OF DISTURBED AREA PER GP-88-85

BOWLING BROOK FARMS SECTION 3, AREA 1 PARCEL E-1 RSC/RSA-8 ZONE PLAT NO. 7944

NOTES:

1. PROVIDE 5' LONG 6" WIDE UNGROUTED RIP-RAP STONE OUTLET 2" DEEP $d_{50} = 4"$
2. EX TRAP #1 PER F-89-120 TO BE REMOVED
3. EX TRAP TO BE REMOVED
4. EX TRAP TO BE REMOVED
5. EX TRAP TO BE REMOVED

SWALE SEDIMENT TRAP SCHEDULE

NO.	D. A.	STORAGE REQUIRED	STORAGE PROVIDED	NEAR EL.	BOFF. EL.	STORAGE DEPTH
1.	0.22 AC.	996 FL ³	480 FL ³	204.8	206.2	2'
2.	0.19 AC.	942 FL ³	300 FL ³	210.0	208.0	2'

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT
Joseph B. ... 11-22-89
 COUNTY HEALTH OFFICER
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
... 11/21/89
 CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEM AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
... 11/21/89
 DIRECTOR
 CHIEF BUREAU OF ENGINEERING

HOWARD COUNTY APPROVAL

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS.
... 10/26/89
 U.S. Soil Conservation Service
 APPROVED: *John P. ...* 10/26/89
 HOWARD S.C.D.
 PLAN NUMBER

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 is deemed necessary.
... 08/19/89
 Signature of Developer/Builder
 ENGINEER'S CERTIFICATE
 I hereby certify that this plan for Erosion and Sediment Control represents a practical and feasible plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the applicable regulations and that it was prepared in accordance with the Howard Soil Conservation District.
... 10/17/89
 Signature of Engineer

NOTE:
 THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY. REFER TO SITE DEVELOPMENT PLAN FOR OTHER INFORMATION.

PHR&A
 Planning, Surveying, Engineering, Architecture
 1000 ...
 OFFICE: ...
 PROJECT: BOWLING BROOK FARMS SECTION 4, AREA 2 LOTS H-1 TO H-24 A RESUBDIVISION OF PARCEL H, BOWLING BROOK FARMS TAX MAP 47 PARCEL 141 L 1394 F 632 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 PLAN: EROSION & SEDIMENT CONTROL PLAN
 SHEET: 6 OF 6
 DATE: 11-22-89
 SCALE: 1" = 200'