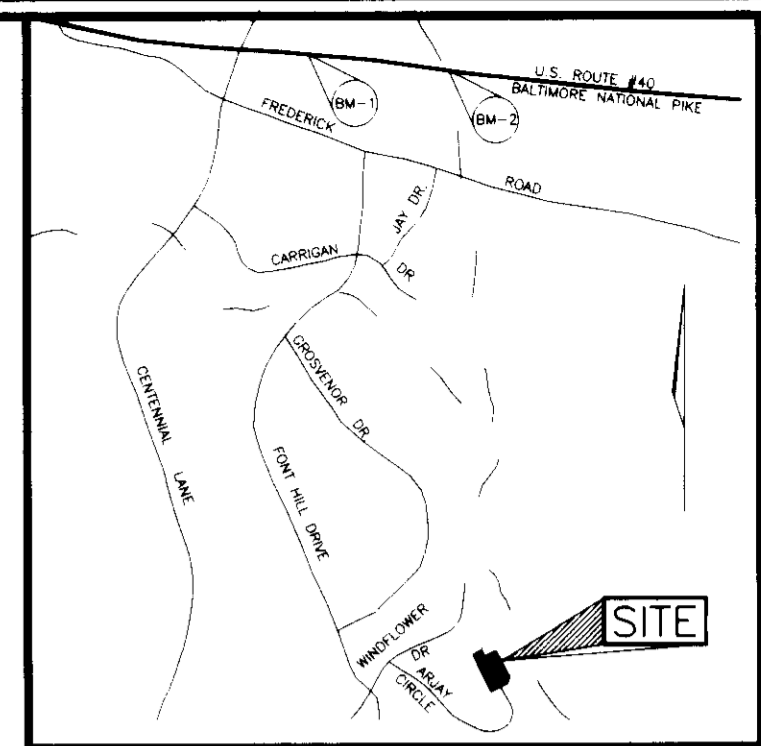


SHEET INDEX	
1	SITE DEVELOPMENT PLAN
2	GRADING AND SEDIMENT CONTROL PLAN
3	DETAIL SHEET



**BENCHMARKS**

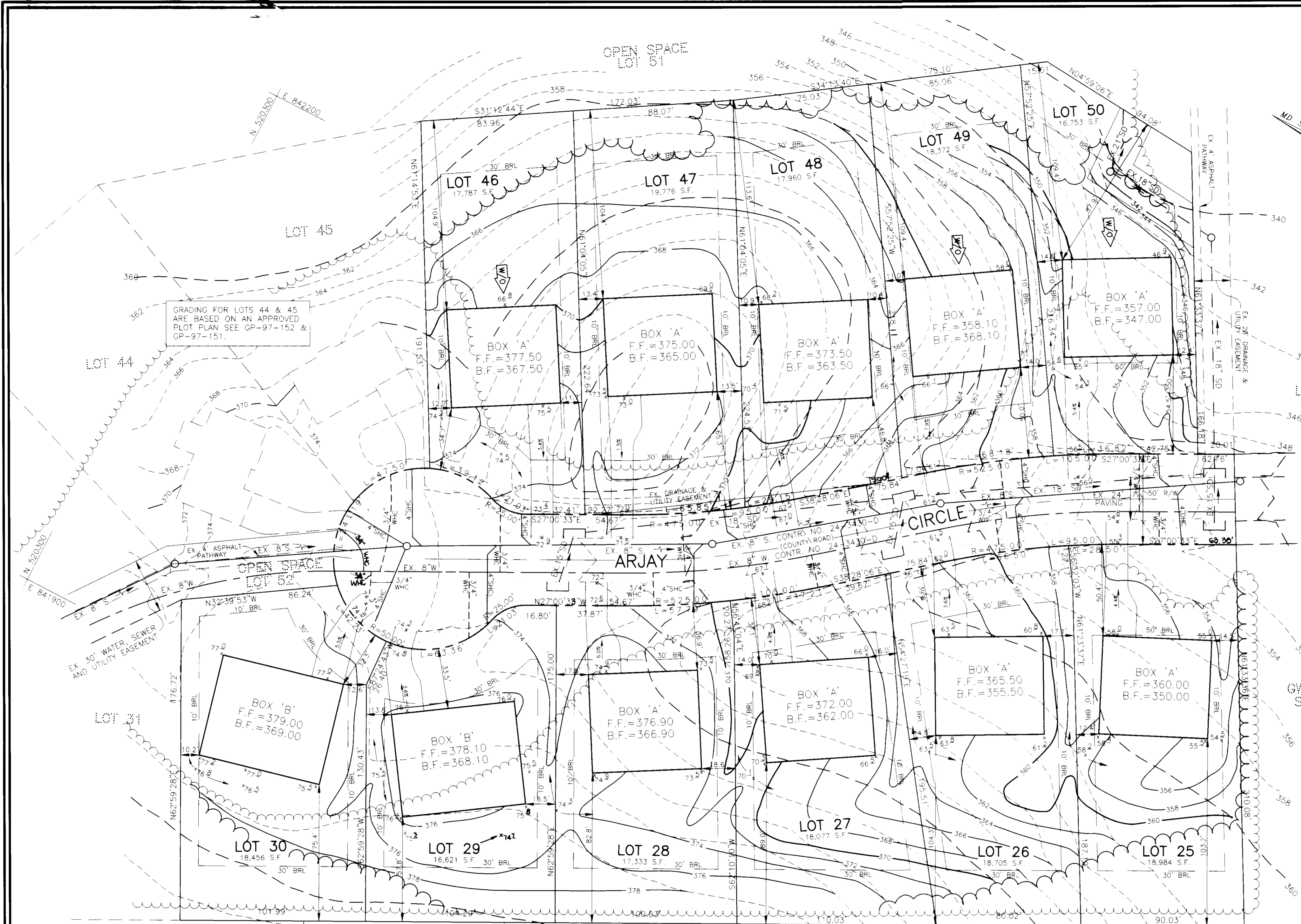
BM-1  
HOWARD COUNTY CONTROL NO. 3241001(NAD27)  
CONCRETE MONUMENT  
N. 526573.744 E. 840096.686  
ELEVATION 388.648

BM-2  
HOWARD COUNTY CONTROL NO. 3241002(NAD27)  
CONCRETE MONUMENT  
N. 526397.281 E. 841575.709  
ELEVATION 354.602

**GENERAL NOTES**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSMA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:  
MISS UTILITY 1-800-257-7777  
C & P TELEPHONE COMPANY 795-9976  
HOWARD COUNTY BUREAU OF UTILITIES 313-2366  
AT&T CABLE LOCATION DIVISION 393-3553  
B.G.A.E. CO. CONTRACTOR SERVICES 850-4620  
B.G.A.E. CO. UNDERGROUND DAMAGE CONTROL 787-4620  
STATE HIGHWAY ADMINISTRATION 531-0533
- SITE ANALYSIS:**  
AREA OF SITE: 25.31 AC  
AREA OF SUBMISSION: 4.56 AC  
PRESENT ZONING: R-20  
LIMIT OF DISTURBANCE: 3.87 AC  
PROPOSED USE OF SITE: SINGLE FAMILY DWELLINGS  
TOTAL NUMBER OF UNITS: 11
- PROJECT BACKGROUND:**  
LOCATION: TAX MAP: 24 PARCEL: 228  
ZONING: R-20  
SUBDIVISION: LITTLE PATUXENT RIDGE, SECTION 3  
DPZ REFERENCES: F-95-134
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS, APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ALL DRIVEWAY APRONS SHALL BE PER HOWARD COUNTY STANDARD DETAIL R-6-05.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOILS TEST.
- STORMWATER MANAGEMENT PROVIDED UNDER F-95-134.
- COORDINATES AND ELEVATIONS ARE BASED ON HOWARD COUNTY MONUMENTS 3241001 AND 3241002 (NAD 27).
- EXISTING TOPOGRAPHY IS BASED ON PLANS PREPARED BY REYER MUEGGE & ASSOCIATES DATED 9-12-95(F-95-134).
- SEWER AND WATER CONTRACT NO. 24-3430-D.

GRADING FOR LOTS 44 & 45 ARE BASED ON AN APPROVED PLOT PLAN SEE GP-97-152 & GP-97-151.



**SEWER CONNECTION INVERTS**

LOT	INV. @ R/W	M.C.E.
25	342.4	347.5
26	346.2	351.2
27	352.0	358.0
28	358.0	363.0
29	360.7	367.0
30	361.8	367.7
46	359.7	366.0
47	356.7	363.0
48	350.2	355.8
49	345.4	351.6
50	342.7	348.0

NOTE: SEWER INVERTS ARE BASED ON CONTRACT NO. 24-3430-D

**ADDRESS CHART**

LOT	STREET ADDRESS
25	4111 ARJAY CIRCLE
26	4115 ARJAY CIRCLE
27	4118 ARJAY CIRCLE
28	4123 ARJAY CIRCLE
29	4127 ARJAY CIRCLE
30	4131 ARJAY CIRCLE
46	4128 ARJAY CIRCLE
47	4124 ARJAY CIRCLE
48	4120 ARJAY CIRCLE
49	4118 ARJAY CIRCLE
50	4112 ARJAY CIRCLE

**OWNER/DEVELOPER**

FEAGA HOMES  
P.O. BOX 1309  
ELLCOTT CITY, MARYLAND 21041  
410-312-0482

**LITTLE PATUXENT RIDGE  
SECTION 3, LOTS 25 - 30 & 46 - 50**

**SITE DEVELOPMENT PLAN**

REFERENCE: F-95-134  
TAX MAP #24 BLOCK # 14  
2ND ELECTION DISTRICT

PARCEL 228  
HOWARD COUNTY, MARYLAND

**MARKS & VOGEL ASSOCIATES, INC.**

ENGINEERS - SURVEYORS - PLANNERS

3691 PARK AVENUE, SUITE 101  
ELLCOTT CITY, MARYLAND 21045

TELEPHONE: (410) 461-5828  
FAX: (410) 465-9968



DESIGN BY: R.H.V.  
DRAWN BY: J.C.O.  
CHECKED BY: R.H.V.  
DATE: MAY, 1997  
SCALE: 1"=30'  
W.O. NO.: 97-09

**LEGEND**

---	452	EXISTING 2' CONTOUR
---	450	EXISTING 10' CONTOUR
---	452	PROPOSED 2' CONTOUR
---	450	PROPOSED 10' CONTOUR
~~~~~		EXISTING TREELINE
~~~~~		PROPOSED TREELINE
W/O		WALKOUT BASEMENT

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

USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE: 7/10/97

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT DATE: 7/10/97

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*James S. Smith* 7/23/97  
DIRECTOR DATE

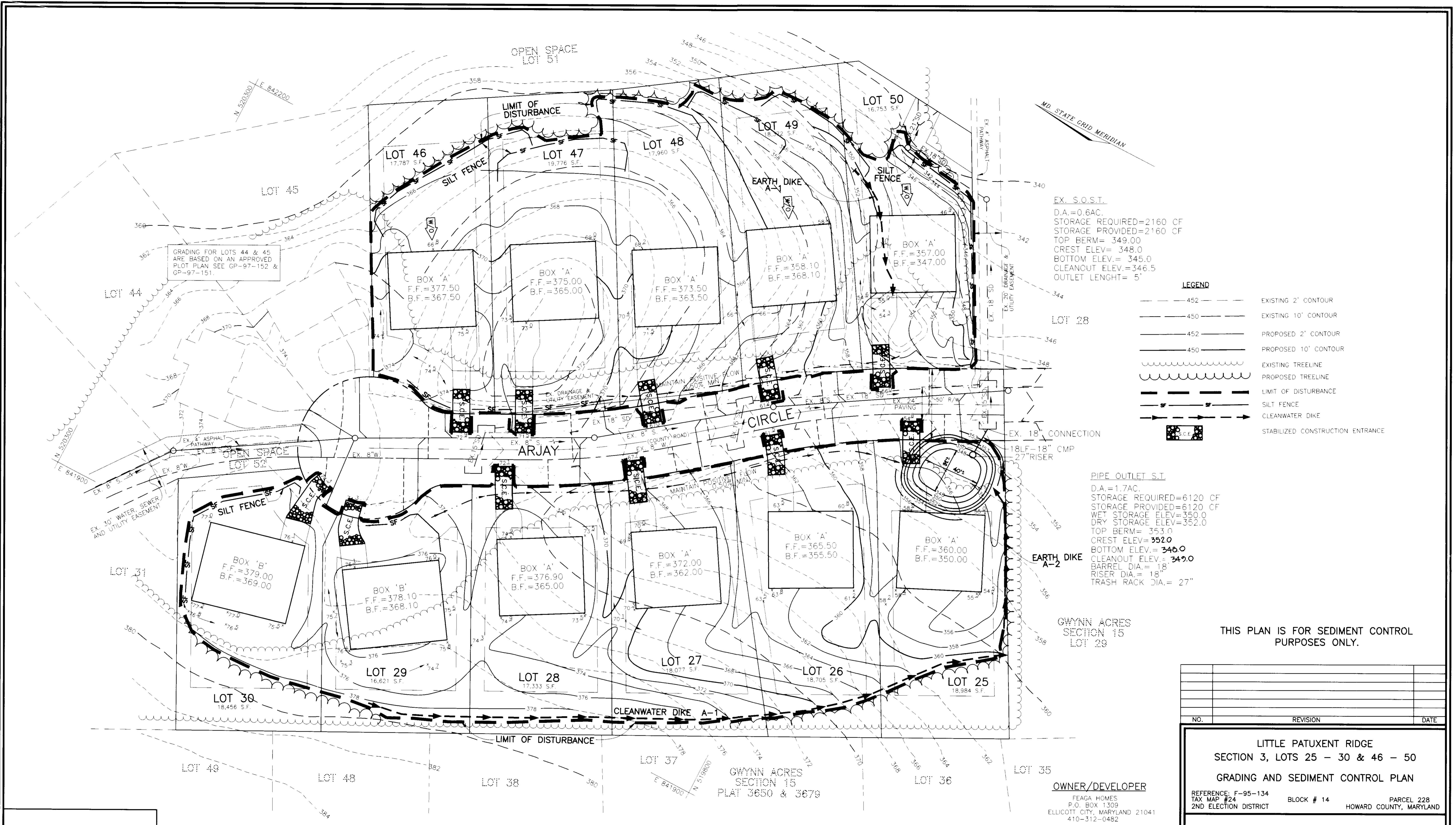
*J. Kent Sheehy* 7/21/97  
CHIEF, LAND DEVELOPMENT AND RESEARCH DATE

*John P. Williams* 7/10/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBER
LITTLE PATUXENT RIDGE	SECTION 3	228

PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
12911	15	R-20	PS	2ND	6023.01

F 12 SEWER CODE 5850000



EX. S.O.S.T.  
 D.A.=0.6AC.  
 STORAGE REQUIRED=2160 CF  
 STORAGE PROVIDED=2160 CF  
 TOP BERM= 349.00  
 CREST ELEV.= 348.0  
 BOTTOM ELEV.= 345.0  
 CLEANOUT ELEV.=346.5  
 OUTLET LENGTH= 5'

**LEGEND**

---	452	---	EXISTING 2' CONTOUR
---	450	---	EXISTING 10' CONTOUR
---	452	---	PROPOSED 2' CONTOUR
---	450	---	PROPOSED 10' CONTOUR
~~~~~		~~~~~	EXISTING TREELINE
~~~~~		~~~~~	PROPOSED TREELINE
---		---	LIMIT OF DISTURBANCE
---		---	SILT FENCE
---		---	CLEANWATER DIKE
---		---	STABILIZED CONSTRUCTION ENTRANCE

PIPE OUTLET S.T.  
 D.A.=1.7AC.  
 STORAGE REQUIRED=6120 CF  
 STORAGE PROVIDED=6120 CF  
 WET STORAGE ELEV.=350.0  
 DRY STORAGE ELEV.=352.0  
 TOP BERM= 353.0  
 CREST ELEV.= 352.0  
 BOTTOM ELEV.= 346.0  
 CLEANOUT ELEV.= 349.0  
 BARREL DIA.= 18"  
 RISER DIA.= 18"  
 TRASH RACK DIA.= 27"

THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY.

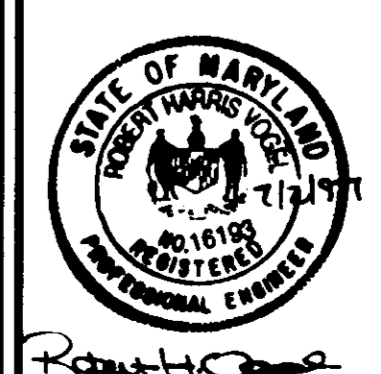
NO.	REVISION	DATE

**LITTLE PATUXENT RIDGE  
 SECTION 3, LOTS 25 - 30 & 46 - 50  
 GRADING AND SEDIMENT CONTROL PLAN**

REFERENCE: F-95-134  
 TAX MAP #24  
 BLOCK # 14  
 PARCEL 228  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**MARKS & VOGEL ASSOCIATES, INC.**  
 ENGINEERS - SURVEYORS - PLANNERS

3691 PARK AVENUE, SUITE 101  
 ELLICOTT CITY, MARYLAND 21043  
 TELEPHONE: (410) 461-5828  
 FAX: (410) 465-3988



DESIGN BY: R.H.V.  
 DRAWN BY: J.C.O.  
 CHECKED BY: R.H.V.  
 DATE: MAY, 1997  
 SCALE: 1"=30'  
 W.O. NO.: 97-09

**ENGINEERS 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: Robert H. Vogel  
 Date: 7/2/97

**DEVELOPER'S CERTIFICATE**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM 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: Barry P. Heagy, Pres  
 Date: 7/3/97

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.  
 Signature: [Handwritten]  
 DATE: 7/1/97  
 USDA-NATURAL RESOURCES CONSERVATION SERVICE  
 THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: [Handwritten]  
 DATE: 7/1/97  
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Signature: [Handwritten]  
 DATE: 7/22/97  
 Signature: [Handwritten]  
 DATE: 7/21/97  
 Signature: [Handwritten]  
 DATE: 7/27/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

SUBDIVISION NAME		SECTION/AREA	PARCEL NUMBER		
LITTLE PATUXENT RIDGE		SECTION 3	228		
PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
12011	15	R-20	MAP 24	2ND	6023.01
12012					
12013					
WATER CODE F 12		SEWER CODE 5850000			

TEMPORARY SEEDING

Apply to graded or cleared areas likely to be redistributed 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, if not 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 bushels per acre of annual ryegrass (3.2 lbs/1000 sq. ft.).

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.

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 3 inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.

Soil Amendments: 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.

Seeding: For the periods March 1 thru April 30 and August 1 thru October 15, seed with 60 lbs per acre (14 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue.

Mulching: Apply 1 1/2 to 2 tons per acre (70-90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding.

Maintenance: Inspect all seeded areas, and make needed repairs, replacements, and reseedings.

SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (313-1855).

2. All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.

3. 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 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 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall 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: 4.66 acres; Area Disturbed: 3.82 acres; Area to be roofed or paved: 1.03 acres; Area to be vegetatively stabilized: 2.84 acres; Total Cut: 2331 cu. yds; Total Fill: 4650 cu. yds; Offsite waste/borrow area location: To be determined by contractor, with pre-approval of the Sediment Control Inspector.

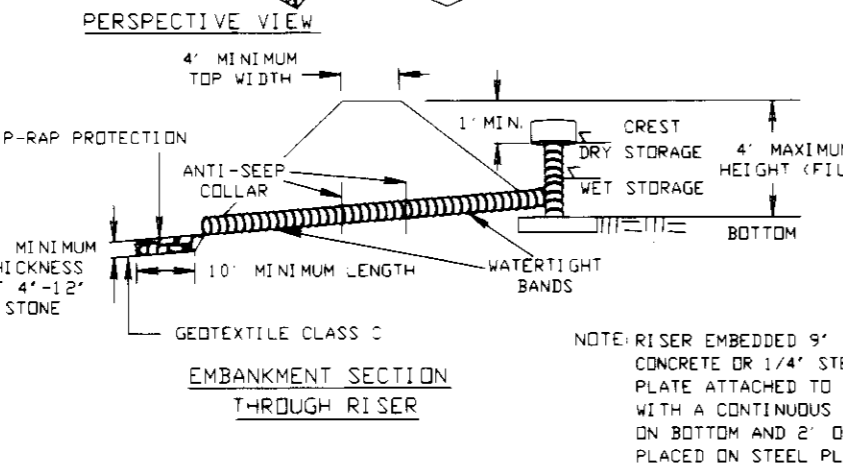
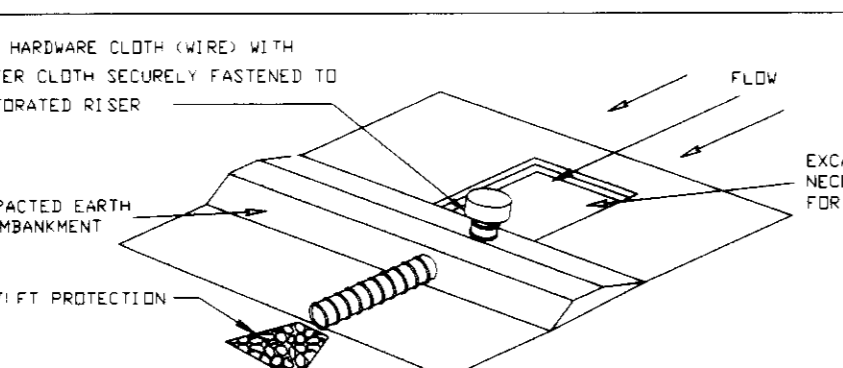
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9. Additional sediment controls must be provided, if deemed necessary by the Howard County 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.

11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.

DETAIL 8 - PIPE OUTLET SEDIMENT TRAP - ST 1



- 1. The area under the embankment shall be cleared, grubbed and strip stripped of any vegetation and roots...

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-7 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

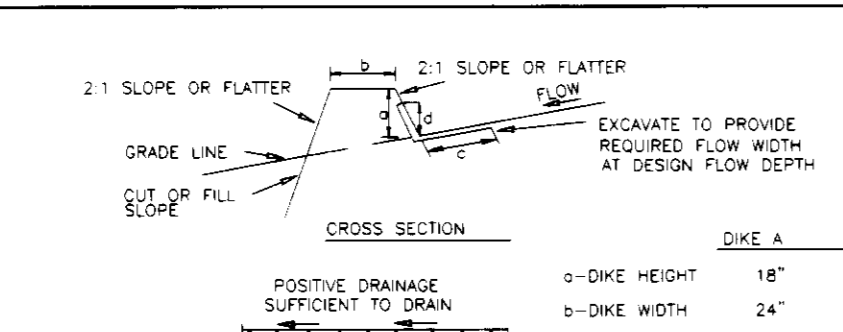
PIPE OUTLET SEDIMENT TRAP - ST 1

- 6. Construction operations shall be carried out in such a manner that erosion and water pollution are avoided...

- 15. Anti seep collars shall be constructed in accordance with plans (see table 9) and Details 13 and 14.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-7A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

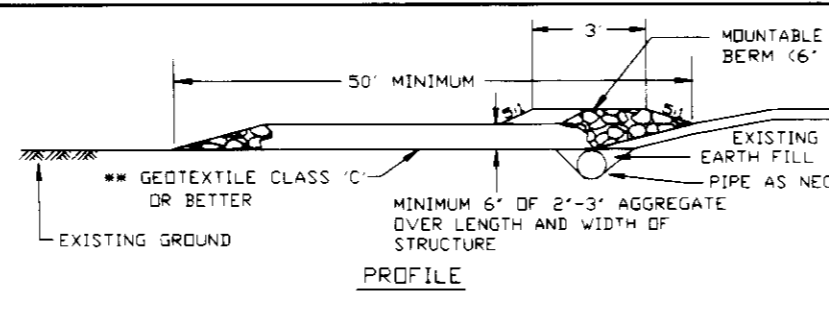
DETAIL 1 - EARTH DIKE



- 1. Seed and cover with erosion control matting or line with sod.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE A-3-6 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

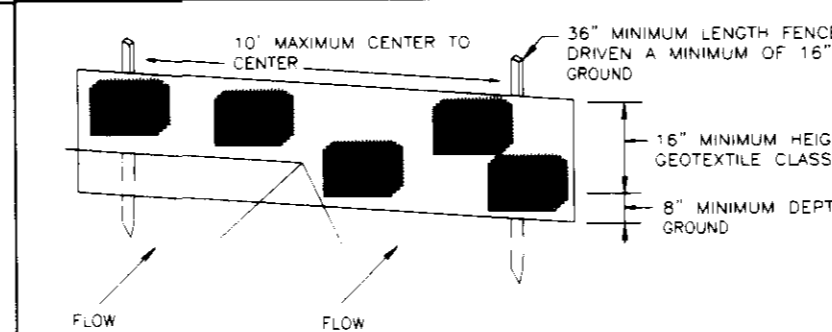
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



- 1. Length - minimum of 50' (30' for single residence lot).

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-10-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 22 - SILT FENCE



- 1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-15-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SOIL CONSERVATION SERVICE

- 1. Obtain grading permit.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

- 1. Topsoil salvaged from the existing site may be used.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

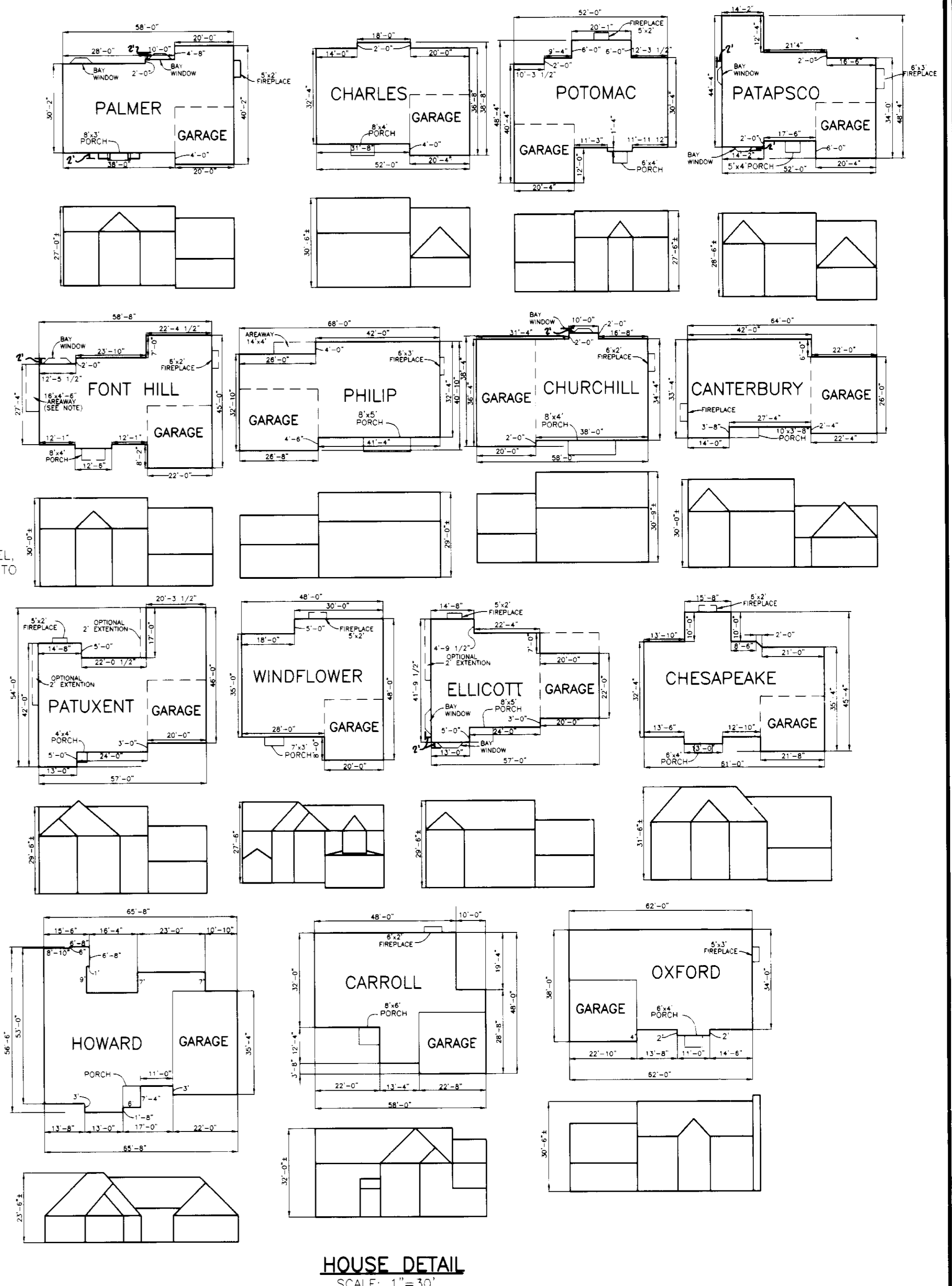
- 1. For sites having disturbed areas over 5 acres.

POTOMAC PATAPSCO FONT HILL PALMER ELLICOTT PATUXENT CHURCHILL CHARLES CARROLL WINDFLOWER BOX 'A'

POTOMAC WINDFLOWER PATAPSCO CHESAPEAKE FONT HILL PHILIP PALMER CANTERBURY ELLICOTT HOWARD PATUXENT CHURCHILL OXFORD CHARLES CARROLL BOX 'B'

GENERIC BOX DETAIL SCALE: 1"=30'

NOTE: THE EXTERIOR AREA OF THE FONT HILL MODEL, NOT TO EXCEED 16' IN WIDTH, CAN EXTEND UP TO 4" INTO ANY REQUIRED SETBACK AREA.



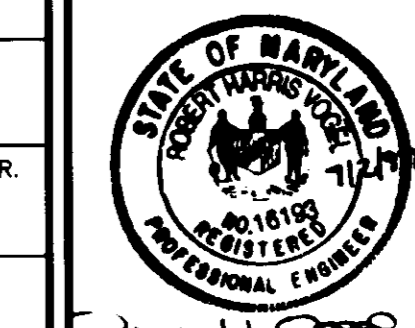
HOUSE DETAIL SCALE: 1"=30'

Table with columns: NO., REVISION, DATE.

LITTLE PATUXENT RIDGE SECTION 3, LOTS 25 - 30 & 46 - 50 DETAIL SHEET OWNER/DEVELOPER: FEAGA HOMES P.O. BOX 1309 ELLICOTT CITY, MARYLAND 21041 410-312-0482

MARKS & VOGEL ASSOCIATES, INC. ENGINEERS - SURVEYORS - PLANNERS

3691 PARK AVENUE, SUITE 101 ELLICOTT CITY, MARYLAND 21043 TELEPHONE: (410) 461-5828 FAX: (410) 466-3968



DESIGN BY: R.H.V. DRAWN BY: J.C.D. CHECKED BY: R.H.V. DATE: MAY, 1997 SCALE: 1"=30' W.O. NO.: 97-09

ENGINEERS 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.

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Director: [Signature] DATE: 7/22/97. Chief, Development Engineering Division: [Signature] DATE: 7/27/97.

Table with columns: SUBDIVISION NAME, SECTION/AREA, PARCEL NUMBER, PLAT NO., BLOCK NO., ZONE, TAX/ZONE, ELECT. DIST., CENSUS TR., WATER CODE, SEWER CODE.