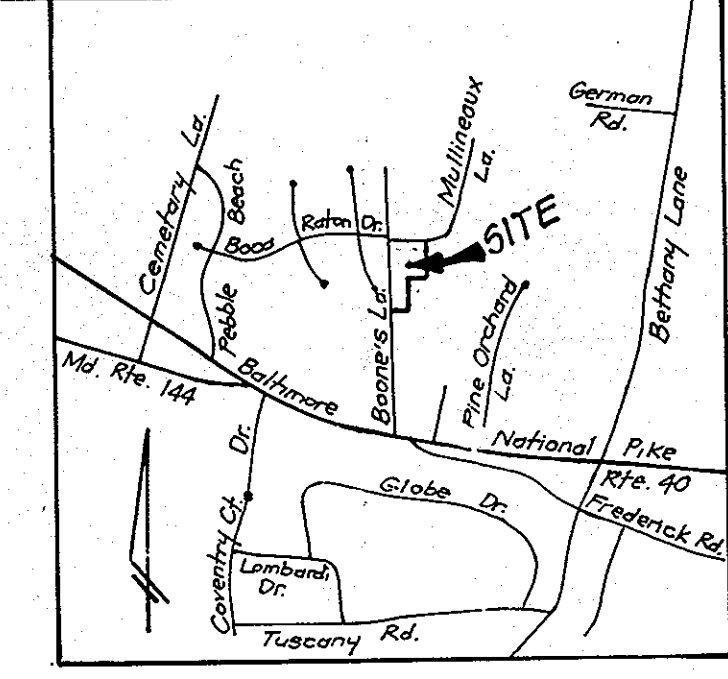


LEGEND

- Contour Interval 2 Ft
- Existing Contour
- Proposed Contour
- Spot Elevation
- Direction of Drainage
- Existing Trees to be saved
- Forest Conservation Easement Limit
- Limit of Disturbance
- Silt Fence
- Earth Dike
- Stabilized Construction Entrance



BENCH MARKS

BM #1 ELEV. 325.37
TACK SET IN THE SOUTHBOUND LANE OF BOONES LANE
@ 7' RIGHT FROM E. ROAD AT STA. 3+58

BM #2 ELEV. 404.55
PK NAIL SET IN HUB BETWEEN THE CURB & GLITTER @
SIDEWALK @ 18' RIGHT FROM E. STA. 4+18

Trap No. 1 S.I.S.T. ST-III

Drainage Area 1.4 Ac
Storage Required 2520 c.f.
Storage Provided 2520 c.f.
Top of Inlet Crest 405.5
Bottom Elev. 402.0
Clean-Out Elev. 405.5
Bottom Dim. 42x18
Depth 5'
2:1 Side Slopes in Cut

NOTE: Delay Construction of House on Lot 2 until permission to remove the Sediment Trap has been obtained.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Mark U. McLaughlin 6/11/95
DIRECTOR DATE

Chris Summary 6/16/95
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

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

James G. Lewis 6/13/95
DIRECTOR DATE

William J. Brown 6/8/95
CHIEF BUREAU OF ENGINEERING DATE

Reviewed for HOWARD S.C.D. and meets Technical Requirements.

Patricia Engle 6/6/95
Signature Date

U.S. Natural Resources Conservation Service

This Development Plan is Approved For Soil Erosion and Sediment Control By The Howard Soil Conservation District

John R. Roberts 6/6/95
Approved

DEVELOPER'S/BUILDERS 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 Dept. 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 Howard Soil Conservation District or their authorized agencies, as are deemed necessary."

Dick Jenkins 6-1-95
Signature of Developer/Builder Date
Dick Jenkins, Mt. Bay Homes, Inc.

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.

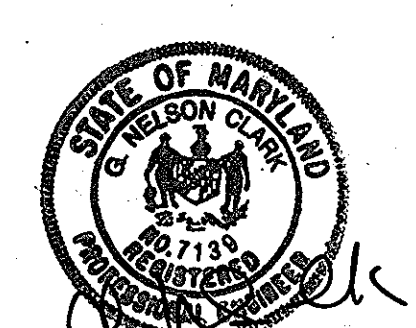
G. Nelson Clark 6-1-95
Signature Date
G. Nelson Clark

OWNER

JOSEPH and AMY BARTH
3141 Boones Lane
Ellicott City, Md. 21042

DEVELOPER

PINE MEADOWS PARTNERSHIP
96 Land Design & Development, Inc.
10304-A Hickory Ridge Road
Columbia, Md. 21044



SUBDIVISION NAME PINE MEADOWS AT TURF VALLEY		SECTION/AREA	LOTS/PARCELS 2, 3, 4 & 9-15
PLAT NO. 11750	BLOCK NO.	ZONE R-20	TAX MAP NO. 17
WATER CODE H08		ELECTION DIST. 2ND	CENSUS TRACT 6022
		SEWER CODE 598000	

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

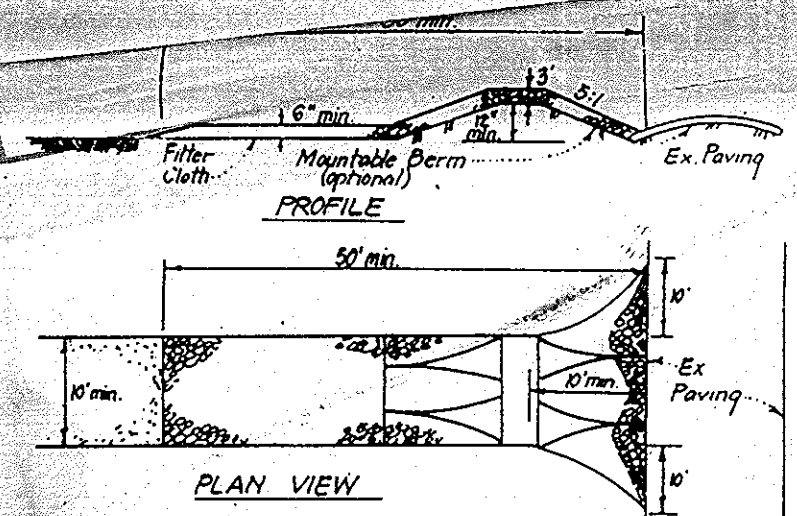
DESIGNED: ZAL
DRAWN: MCR
CHECKED: JLB
DATE: 5/30/95

SEDIMENT & EROSION CONTROL PLAN
LOTS 2, 3, 4 and 9-15
PINE MEADOWS AT TURF VALLEY
2ND ELECTION DISTRICT
HOWARD COUNTY MARYLAND

SCALE: 1" = 30'
DRAWING: 20F3
JOB NO.: 94-074
FILE NO.: 94-074-5E

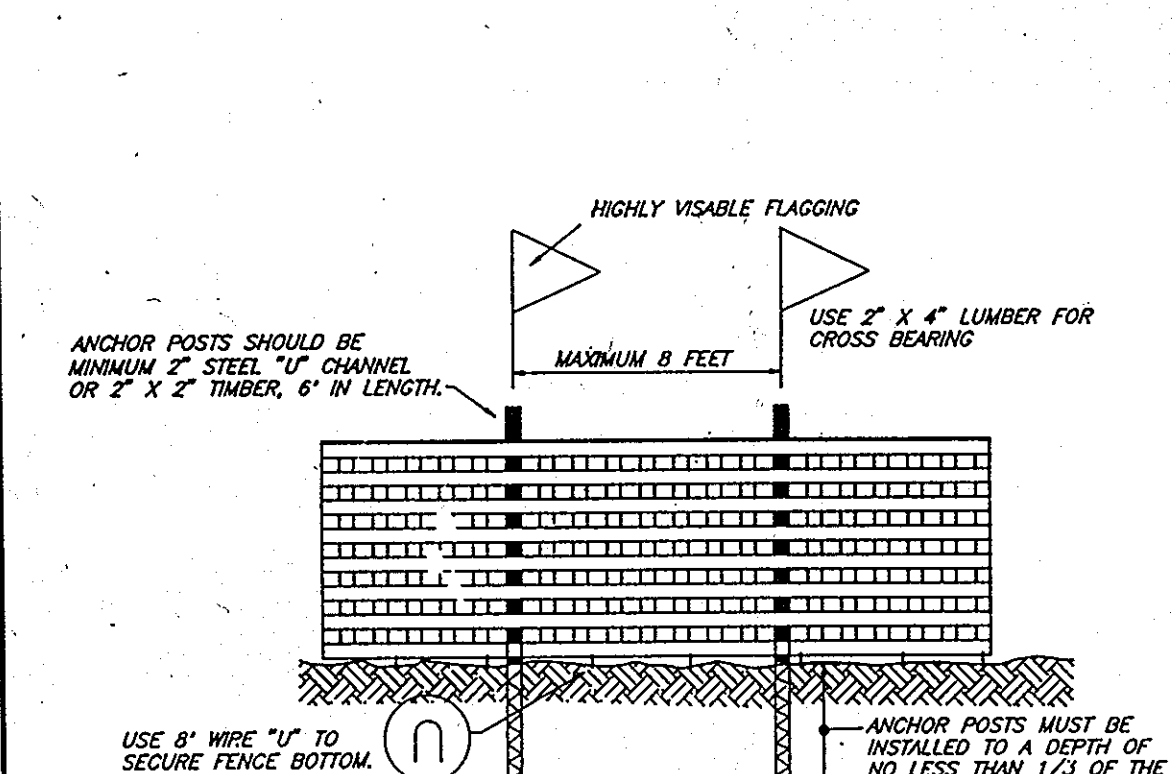
For: MT. BAY HOMES, INC.
10304-A Hickory Ridge Road
Ellicott City, Maryland 21043

SDP-95-01



- 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 simple 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 picking 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 kept across the entrance. If tipping is impractical, a mound side berm with 5% slope will be permitted.
 7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment into public rights-of-way. This may require periodic top dressing with additional stone to condition desired and repair and/or cleanup of any measures used to trap sediment. All sediment spilled, dripped, 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.

STABILIZED CONSTRUCTION ENTRANCE (SCE)



BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL

- NOTES:**
1. Forest protection device only.
 2. Retention area will be set as part of the review process.
 3. Boundaries of retention area should be staked and flagged prior to installing device.
 4. Root damage should be avoided.
 5. Protection signage may also be used.
 6. Device should be maintained throughout construction.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Director: *John J. ...* DATE: 6/16/95

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE: 6/14/95

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

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Director: *James J. ...* DATE: 6/18/95

CHIEF BUREAU OF ENGINEERING DATE: 6/16/95

Reviewed for HOWARD S.C.D. and meets Technical Requirements

Patricia Engle... Signature Date

U.S. Natural Resources Conservation Service

DEVELOPER'S/BUILDER'S CERTIFICATE

This Development Plan is Approved For Soil Erosion and Sediment Control By The Howard Soil Conservation District

John R. ... Approved Date: 6/14/95

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all 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 or their authorized agents, as are deemed necessary."

Dick Jenkins DATE: 11-14-94

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

G. Nelson Clark DATE: 6-1-95



OWNER: JOSEPH and AMY BARTH, 3141 Boones Lane, Ellicott City, Md. 21042

DEVELOPER: PINE MEADOWS PARTNERSHIP, % Land Design & Development, Inc., 10805 Hickory Ridge Road, Columbia, Md 21044

CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS

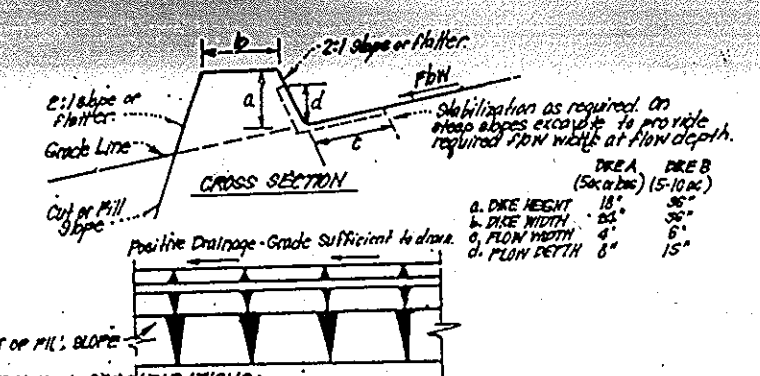
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DESIGNED	ZAL	SCALE	As Shown
DRAWN	MCR	DRAWING	3 OF 3
CHECKED	JLS	JOB NO.	94-074
DATE	5/30/95	FILE NO.	94-074 SE

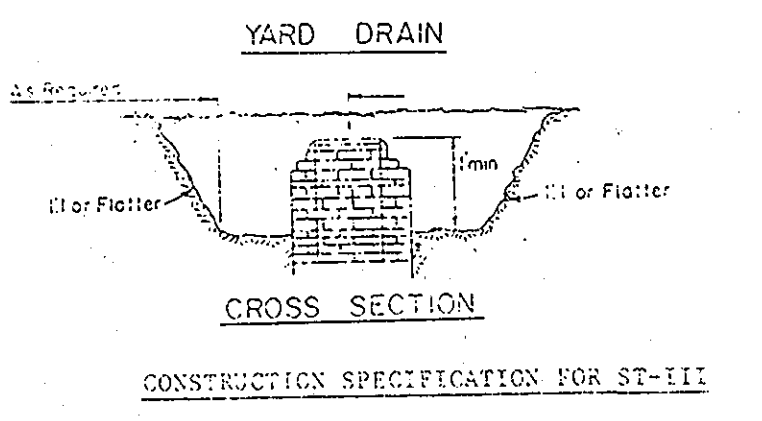
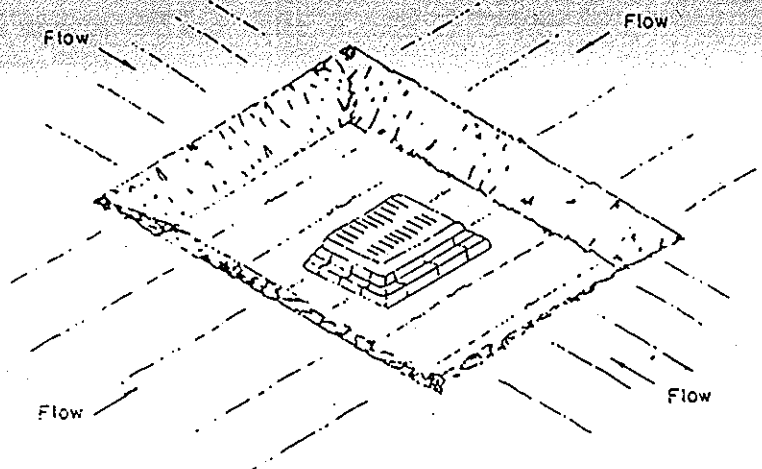
FOR: MT. BAY HOMES, INC. 10304-A Baltimore National Pike, Ellicott City, Maryland 21043

SDP 95-01

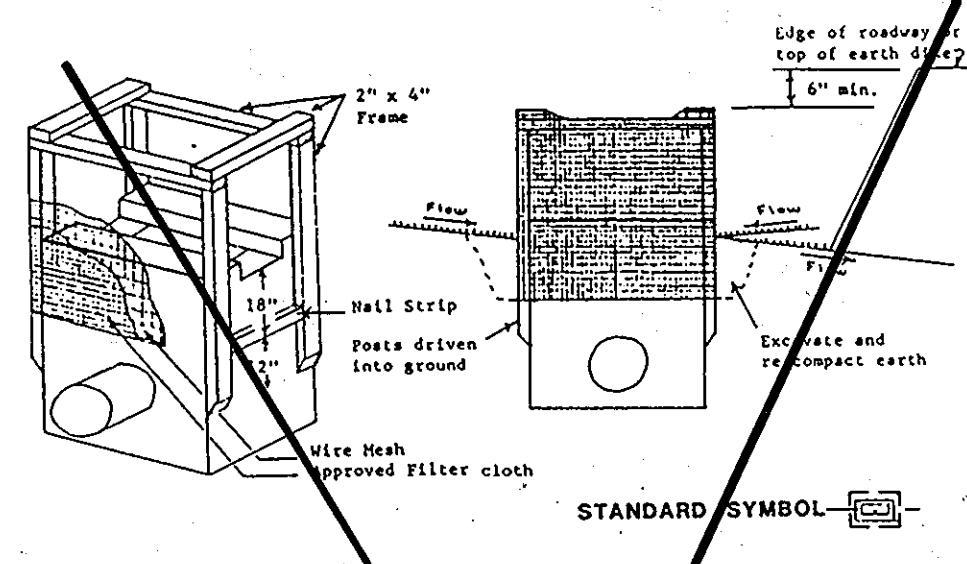
STORM INLET SEDIMENT TRAP ST-III



- CONSTRUCTION SPECIFICATIONS:**
1. All pipes shall be installed by trenching equipment.
 2. All pipes shall have positive drainage to an outlet.
 3. This manhole may be wider and shall slope may be flatter if desired to facilitate cleaning by construction traffic.
 4. Final location should be adjusted as needed to utilize a stabilized side with a minimum of erosion.
 5. Earth dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or treatment tank where outlet, this outlet channel, or the drainage area above the dike are not adequately stabilized.
 6. Stabilization shall be: (A) in accordance with standard specifications for seed and straw mulch or straw mulch in soil in wetting season; (B) flow channel as per chart below.
- | TYPE OF TERRAIN | CHANGE | ONE A | ONE B |
|-----------------|--------|----------------------------|----------------------------|
| 1 | 45-75% | Seed mulch, or straw mulch | Seed mulch, or straw mulch |
| 2 | 15-45% | Seed mulch, or straw mulch | Seed mulch, or straw mulch |
| 3 | 5-15% | Seed mulch, or straw mulch | Seed mulch, or straw mulch |
| 4 | 1-5% | Seed mulch, or straw mulch | Seed mulch, or straw mulch |
- EARTH DIKE DETAIL (E.D.)**



1. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 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.
 2. The volume of sediment storage shall be 1800 cubic feet per acre of contributory drainage.
 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 the area stabilized when the constructed drainage area has been properly stabilized.
 6. All cut slopes shall be 1:1 or flatter.
- Maximum Drainage Area: 3 Acres



- Construction Specifications**
1. 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 stone size, 20-30 mesh; to allow sufficient passage of water and removal of sediment.
 - D. Stone is to be 2" in size and clean, since fines would clog the cloth.
 2. Procedure
 - A. A swale, ditchline or yard inlet protection.
 1. Excavate completely around inlet to depth of 18" below notch elevation.
 2. Drive 2 x 4 post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2 x 4 frame using overlap joints. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
 3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
 4. Stretch filter cloth tightly over mesh, the cloth must extend from top of frame to 18" below inlet notch level. Fasten securely to frame. Ends must meet at post, overlapped and folded, then fastened down.
 5. Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
 6. If the inlet is not in a low point, construct a compacted earth dike to the ditchline below it. The top of this dike to be at least 6" higher than the top of frame (weir).
 7. This structure must be inspected frequently and the filter fabric replaced when clogged.

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, if not previously loosened.

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 sq ft) before seeding, 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 the time of seeding, apply 100 lbs. per acre 33-0-0 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 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 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 unrotted 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 mulch anchoring tool or 218 gallons per acre (8 gal/1000 sq ft) 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

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing, 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 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 unrotted 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 mulch anchoring tool or 218 gallons per acre (8 gal/1000 sq ft) on flat areas. On slopes 8 feet or higher, use 348 gallons 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

SEDIMENT AND EROSION CONTROL NOTES

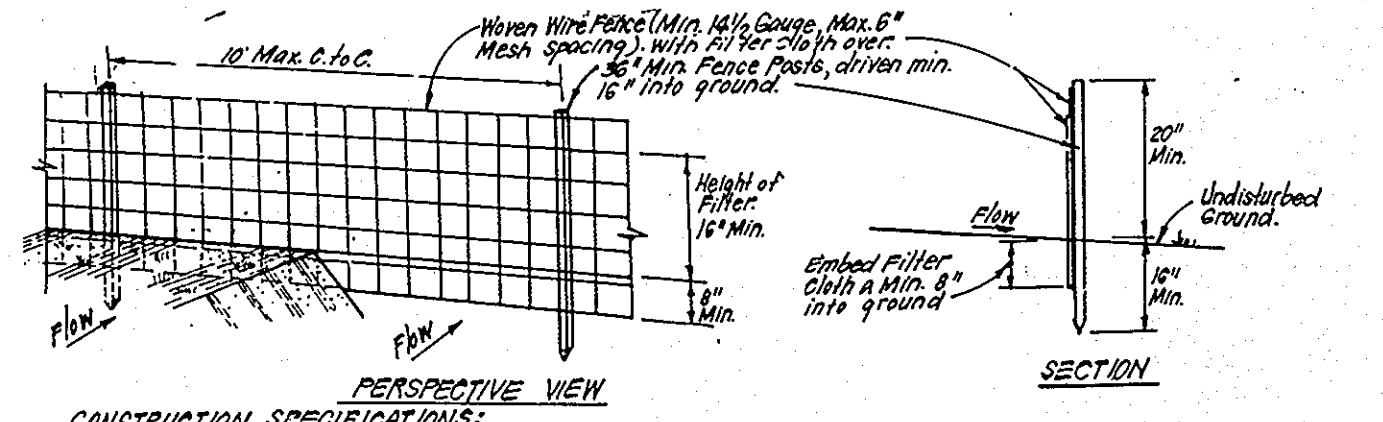
1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permit prior to the start of any construction. (313-1895).
 2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.
 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 as to all other disturbed or graded areas on the project site.
 4. All sediment traps/basins must be fenced and warning signs posted around their perimeters 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. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with sod 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:	3.35 Ac.
Area to be seeded or paved:	0.10 Ac.
Area to be vegetatively stabilized:	2.85 Ac.
Total SW	188 CY
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 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.
 11. The total amount of silt fence 1015 lf.
- * It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment control inspector of the site and its grading permit number at the time of construction.

CONSTRUCTION SEQUENCE:

NO. OF DAYS	NO. OF DAYS
1. Obtain grading permit	7
2. Install tree protection fence	2
3. * Install sediment and erosion control devices and stabilize	14
4. Excavate for foundations, rough grade and temporarily stabilize	30
5. Construct structures, sidewalks and driveways	60
6. Final grade and stabilize in accordance with Stds. and Specs.	14
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7

* NOTE - Delay construction of house on lot 2; see single lot sediment control detail this sheet



- CONSTRUCTION SPECIFICATIONS:**
1. Weir 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 2 sections of filter cloth adjoin each other they shall be overlapped 6" and stapled.
 4. Maintenance shall be performed as needed and material removed when "bulges" develop in silt fence.
- RESPECTIVE VIEW**
- SECTION**

SILT FENCE DETAIL (S)

OWNER: JOSEPH and AMY BARTH, 3141 Boones Lane, Ellicott City, Md. 21042

DEVELOPER: PINE MEADOWS PARTNERSHIP, % Land Design & Development, Inc., 10805 Hickory Ridge Road, Columbia, Md 21044

CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS

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DESIGNED	ZAL	SCALE	As Shown
DRAWN	MCR	DRAWING	3 OF 3
CHECKED	JLS	JOB NO.	94-074
DATE	5/30/95	FILE NO.	94-074 SE

FOR: MT. BAY HOMES, INC. 10304-A Baltimore National Pike, Ellicott City, Maryland 21043

SDP 95-01