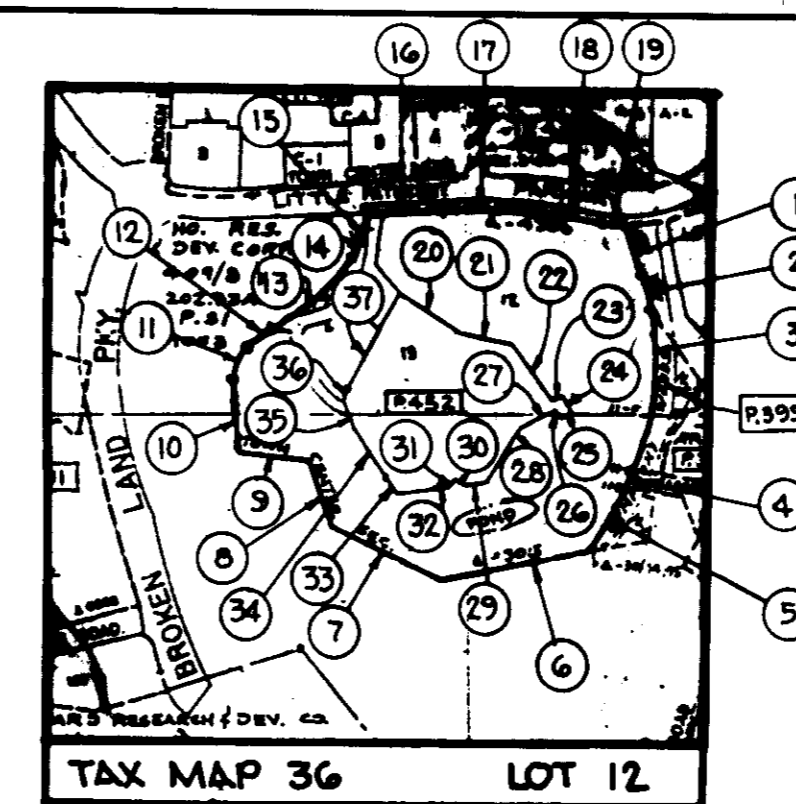


REMOVE EXIST. HEADWALL AND 20 LF ± OF EXIST. 6" CMP. PLUG REMAINING EX. 6" CMP W/ CONCRETE CAP. INV. = 598.80

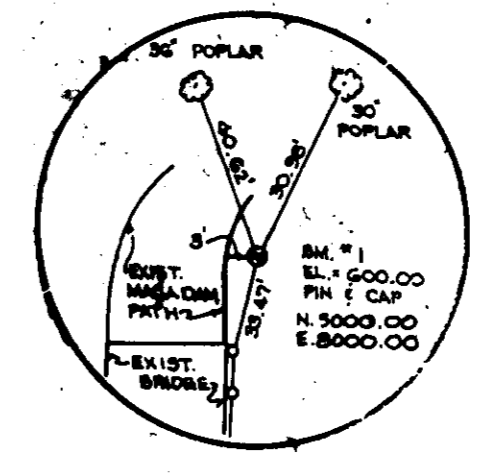
SHEET INDEX	
No.	DESCRIPTION
1	GRADING AND SEDIMENT CONTROL PLAN
2	PROFILE AND STRUCTURE DETAILS
3	SEDIMENT CONTROL NOTES & DETAILS



- GENERAL NOTES**
- APPROXIMATE LOCATION OF EXISTING UTILITIES IS SHOWN FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
  - ALL HORIZONTAL CONTROLS ARE BASED ON AN ASSUMED DATUM.
  - ALL VERTICAL CONTROLS ARE BASED ON AN ASSUMED DATUM.
  - THE CONTRACTOR SHALL TEST FIT EXISTING UTILITIES AT LEAST (8) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY SIZE, TYPE, LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
  - CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:  
MISS UTILITY 1-800-287-7777  
BELL ATLANTIC-CMD TELEPHONE COMPANY 725-9978  
HOWARD COUNTY BUREAU OF UTILITIES 313-500  
AT&T CABLE LOCATION DIVISION 383-3853  
BALTIMORE GAS & ELECTRIC COMPANY 688-0123
  - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, MARYLAND DEPARTMENT OF NATURAL RESOURCES, AND THE SOIL CONSERVATION SERVICE.
  - THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
  - CONTRACTOR SHALL MAINTAIN A CLEAN AND SAFE PEDESTRIAN ACCESS TO THE THEATRE AREA ALONG A PORTION OF THE EXISTING ASPHALT PATH.
  - TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION AREA ARE NOT TO BE DAMAGED AND SHALL BE PROTECTED WITH TREE PROTECTIVE FENCING. CONTRACTOR SHALL MAKE EVERY EFFORT TO AVOID DAMAGE TO EXISTING TREES.
  - THE 100-YEAR FLOODPLAIN IS TAKEN FROM FEMA PANEL #240440034A.
  - DO NOT CUT ANY PORTION OF THE SOUTHERN EDGE OF POND AS SHOWN TO FORM A POND ACCESS RAMP.
  - THE POSITION OF THE INFLOW HEADWALL MAY BE SLIGHTLY MODIFIED IN FIELD TO "BEST FIT" HEADWALL INTO THE EXISTING BANK.
  - FILTER FABRIC TO BE MIRAFI 600X OR APPROVED EQUAL.
  - EXISTING PEDESTRIAN BRIDGE IS NOT TO BE USED FOR VEHICULAR ACCESS.
  - THE BENCHMARK FOR THIS SITE IS A PIN AND CAP SET TO AN ASSUMED ELEVATION OF 800.00.
  - ALL TREES WILL REMAIN EXCEPT THOSE SMALL SAMPLINGS LOCATED IN RIPRAP CHANNEL OUTFALL.
  - MARYLAND DEPT. OF THE ENVIRONMENT TRACKING NO. 19980281, NON-TIDAL WETLANDS NO. 98-47-1128.
  - MATERIALS AND EQUIPMENT MAY NOT BE STOCKPILED WITHIN THE 100-YEAR FLOODPLAIN.
  - EXCAVATED MATERIAL TO BE DISPOSED OF AT THE HOWARD COUNTY LANDFILL OR OTHER APPROVED SITE.
  - DIRECTIONS TO SITE:  
FROM LITTLE PATUZIENT PARKWAY & ENTRANCE ROAD, GO SOUTH ON ENTRANCE ROAD FOR 800 FT., TURN RIGHT ONTO SYMPHONY WOODS ROAD, GO TO MERRYWEATHER POST PAVILION, PARKING AT END.
  - WATER WEAR(S) TO BE PLACED PER MANUFACTURER'S RECOMMENDATIONS.

LINE	DIRECTION	DISTANCE
1	S19°30'00"E	263.46'
2	S09°38'55"E	170.84'
3	E = 860.00'	L = 501.43'
4	S23°45'29"W	200.00'
5	R = 760.00'	L = 296.77'
6	S79°39'26"W	603.16'
7	N65°25'06"W	516.84'
8	N161°51'35"W	275.00'
9	N82°38'02"W	315.92'
10	N02°30'00"W	272.12'
11	R = 225.00'	L = 251.98'
12	N61°40'00"E	402.75'
13	R = 905.00'	L = 350.00'
14	N39°00'00"E	20.04'
15	R = 260.75'	L = 200.24'
16	N85°00'00"E	281.14'
17	R = 1830.86'	L = 399.43'
18	S02°30'00"E	364.82'
19	R = 629.67'	L = 67.08'
20	S58°48'23"E	299.27'
21	S80°00'00"E	215.00'
22	S33°56'35"E	284.45'
23	N65°05'43"E	65.00'
24	S24°54'17"E	80.00'
25	S65°05'43"W	52.97'
26	N24°54'17"W	38.15'
27	S65°05'43"W	177.61'
28	S31°00'05"W	360.16'
29	S81°16'28"W	93.06'
30	N64°50'04"W	41.93'
31	S50°17'30"W	38.51'
32	S84°16'28"W	219.92'
33	N40°05'25"W	126.89'
34	N33°04'35"W	202.00'
35	N10°24'00"W	123.00'
36	N14°42'00"E	89.66'
37	N33°05'06"E	345.40'

- LEGEND**
- L.O.D. ——— LIMIT OF DISTURBANCE
  - SFD ——— SUPER FENCE DIVERSION
  - S — S — SILT FENCE
  - (Circle with cross) TREE PROTECTIVE FENCE
  - (Hatched box) STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM.
  - E — E — UNDERGROUND ELECTRIC LINE (EXISTING AND/OR ABANDONED)
  - 90.00/90.00 ——— EXISTING/PROPOSED SPOT ELEVATIONS
  - WB—WB— 100 YEAR FLOODPLAIN
  - WB—WB— WETLAND BUFFER (25')
  - SB—SB— STREAM BUFFER (75')



PROVISION NAME	TOHNCENTER	SECT/AREA	SEC. 1	LOT	LOT 12
PLAT #	4306	BLOCK #	718	ZONING	NT
TAX MAP NO.	36	ELECT. DIST.	53	CENSUS TRACT	G094
WATER CODE	N/A	SEWER CODE	N/A		

**TYPICAL SECTION AT PERIMETER**  
NOT TO SCALE

\* THIS DOES NOT APPLY IN VICINITY OF ISLAND.



**BY THE DEVELOPER:**  
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Thedrick M. Papp* 3/20/96  
DEVELOPER DATE

**BY THE ENGINEER:**  
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT I/WE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*J. Sarell* 3/20/96  
ENGINEER DATE

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

*J. H. Wayfield III* 3/27/96  
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*John P. Robertson* 3/27/96  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James A. Butler* 4/1/96  
DIRECTOR DATE

*John J. Sumner* 3/20/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*John J. Sumner* 4/1/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

DATE NO. REVISION

OWNER / DEVELOPER  
COLUMBIA ASSOCIATION  
10221 WINCOPIN CIRCLE SUITE 100  
COLUMBIA, MD 21044

PROJECT SYMPHONY WOODS POND REHABILITATION

AREA SYMPHONY WOODS TAX MAP 36 ZONED NT 5<sup>TH</sup> ELECTION DISTRICT HOWARD COUNTY, MARYLAND 21044

TITLE GRADING & SEDIMENT CONTROL PLAN

**RIEMER MUEGGE & ASSOCIATES, INC**  
Planners • Engineers • Surveyors  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21046  
410-997-8900 FAX: 410-997-8888

3/20/96  
DATE

DESIGNED BY: A.C.P.  
DRAWN BY: R.J.C.  
PROJECT NO: HOOD1148  
DATE: MARCH 20, 1996  
SCALE: 1" = 30'  
DRAWING NO. 1 OF 3

*J. Sarell*  
JAYKANT D. PAREKH #19148

SDP-96-55





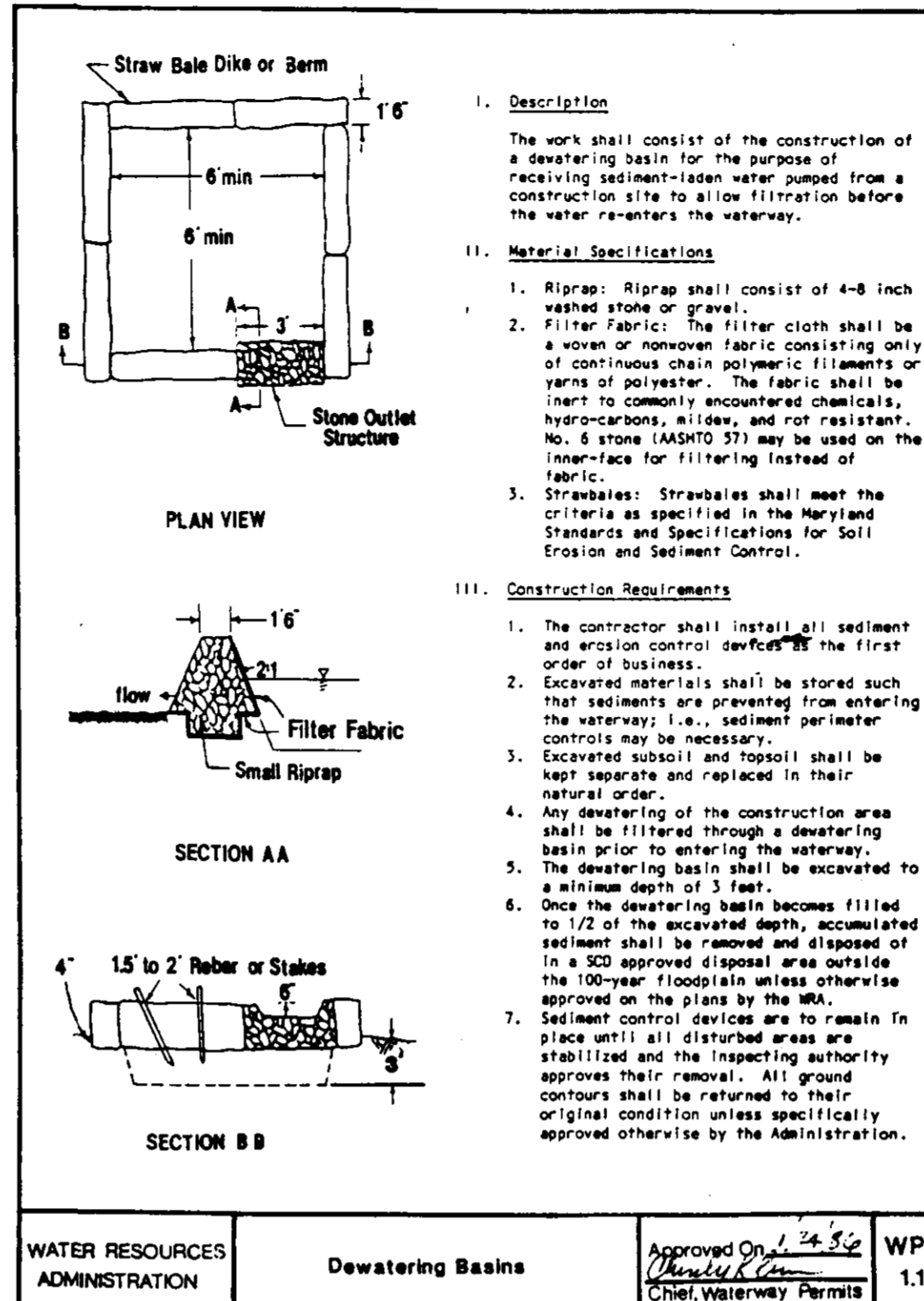
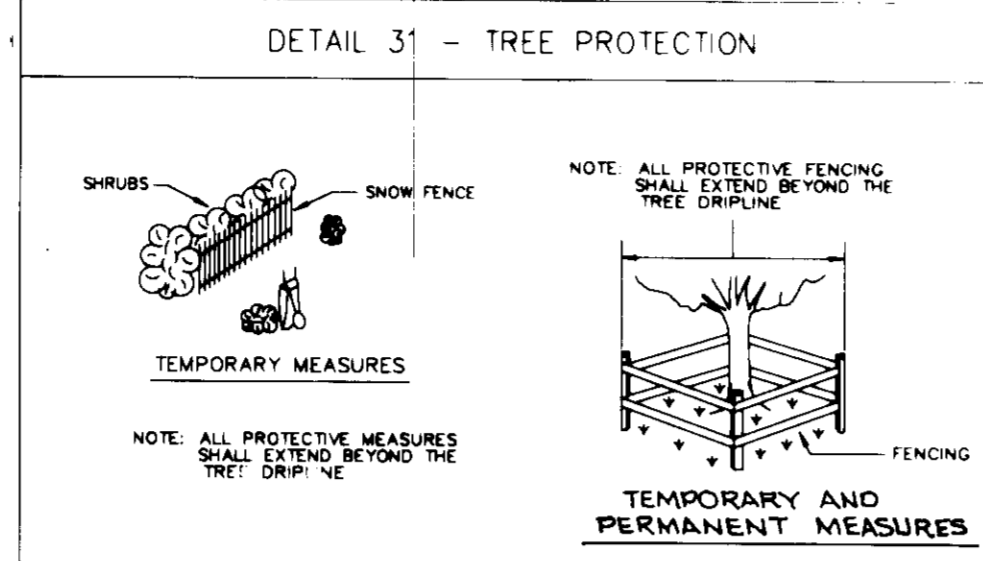
**SEDIMENT CONTROL NOTES**

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
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 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL, EROSION CONTROL, AND REVISIONS THERE TO.
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 AND ALL SLOPES GREATER THAN 3:1; B) 14 DAYS AS TO OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, FOR PERMANENT SEEDINGS (SEC. 51); SOD (SEC. 54); TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONG CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
5. 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.
6. SITE ANALYSIS:  
 TOTAL AREA OF SITE: 3.0 ACRES  
 AREA DISTURBED: 1.9 ACRES  
 AREA TO BE ROOFED OR PAVED: 0.4 ACRES  
 AREA TO BE VEGETATIVELY STABILIZED: 0.6 ACRES  
 TOTAL CUT: 3000 CU. YDS.  
 TOTAL FILL: 0 CU. YDS.
7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
9. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
10. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.
11. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 AC., 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.
12. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

SPOIL MATERIAL TO BE HAULED TO THE ALPHA RIDGE LANDFILL.

**SEQUENCE OF CONSTRUCTION**

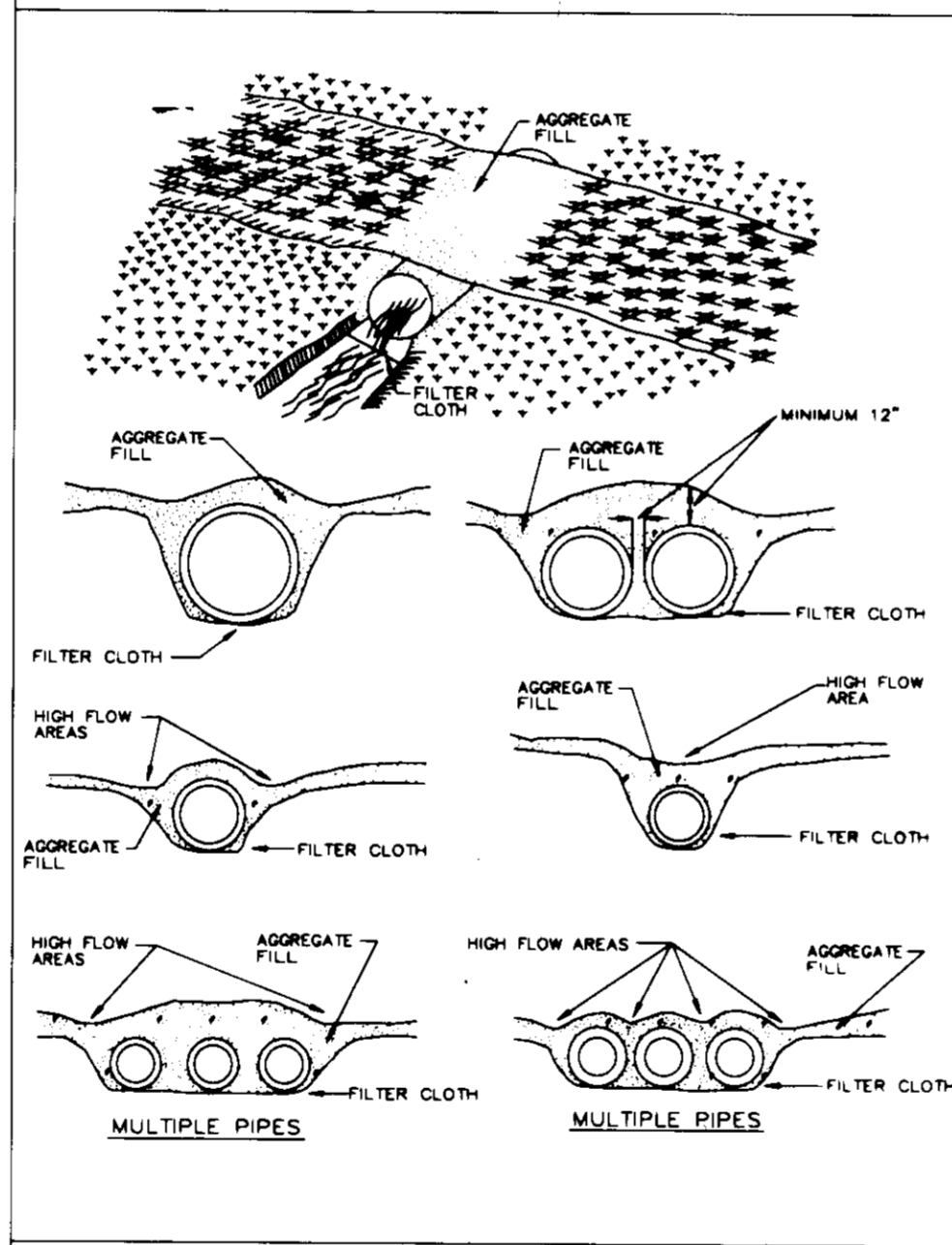
1. OBTAIN A GRADING PERMIT AND OTHER NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION. ALL WORK SHALL CONFORM TO THE 1994 MD STANDARDS AND SPECIFICATIONS FOR SOIL, EROSION AND SEDIMENT CONTROL.
2. INSTALL PERIMETER CONTROLS - STABILIZED CONSTRUCTION ENTRANCE, TEMPORARY ACCESS CULVERT, TEMPORARY 24" CMP (UNDER PEDESTRIAN PATH) SUPER DIVERSION FENCE, DRAINAGE BASINS, SILT FENCE, AND TREE PROTECTIVE FENCING. (1 WEEK)
3. FILL 6" CMP POND INFLOW. (1 DAY)
4. DRAINER POND, PUMP WATER TO DRAINAGE BASIN (ALTERNATE DRAINAGE BASINS TO ALLOW FOR CLEANING). (1 WEEK)
5. BEGIN POND EXCAVATION. (3 WEEKS)
6. REMOVE EXISTING INFLOW HEADWALL AND OUTFLOW WEIR, 30' OF EXISTING INFLOW 6" PIPE, AND 15' OF EXISTING OUTFLOW CMP. (1 WEEK)
7. INSTALL INFLOW 8" DIP, HEADWALL, 8" VALVE (KEEP VALVE CLOSED DURING INSTALLATION). (1 WEEK)
8. INSTALL WEIR WALL OUTFALL AND REPAIR RIPRAP OUTFALL DITCH (DITCH TO BE REPAIRED DURING DRY WEATHER FORECAST). DISTURB ONLY THAT DITCH PORTION THAT CAN BE COMPLETED THAT SAME DAY. UNSTABILIZED SLOPES SHALL NOT BE REMAIN OVER NIGHT. (2 WEEKS)
9. COMPLETE POND GRADING.
10. UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROLS. STABILIZE AREAS DISTURBED BY THIS PROCESS WITH PERMANENT SEEDING. (1 WEEK)
11. FILL POND BY OPENING 8" VALVE. (1 WEEK)
12. INSTALL WATER WEASLES. (2 DAYS)



- Description**  
The work shall consist of the construction of a dewatering basin for the purpose of receiving sediment-laden water pumped from a construction site to allow filtration before the water re-enters the waterway.
- Material Specifications**
1. Riprap: Riprap shall consist of 4-8 inch washed stone or gravel.
  2. Filter Fabric: The filter cloth shall be a woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydrocarbons, acids, and rot resistant. No. 6 stone (LIGHT 57) may be used on the inner-face for filtering instead of fabric.
  3. Strawbales: Strawbales shall meet the criteria as specified in the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- Construction Requirements**
1. The contractor shall install all sediment and erosion control devices at the first order of business.
  2. Excavated materials shall be stored such that sediments are prevented from entering the waterway. i.e., sediment perimeter controls may be necessary.
  3. Excavated subsoil and topsoil shall be kept separate and replaced in their natural order.
  4. Any dewatering of the construction area shall be filtered through a dewatering basin prior to entering the waterway.
  5. The dewatering basin shall be excavated to a minimum depth of 3 feet.
  6. Once the dewatering basin becomes filled to 1/2 of the excavated depth, accumulated sediment shall be removed and disposed of in a SOD approved disposal area outside the 100-year floodplain unless otherwise approved by the permittee.
  7. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal. All ground contours shall be returned to their original condition unless specifically approved otherwise by the Administration.

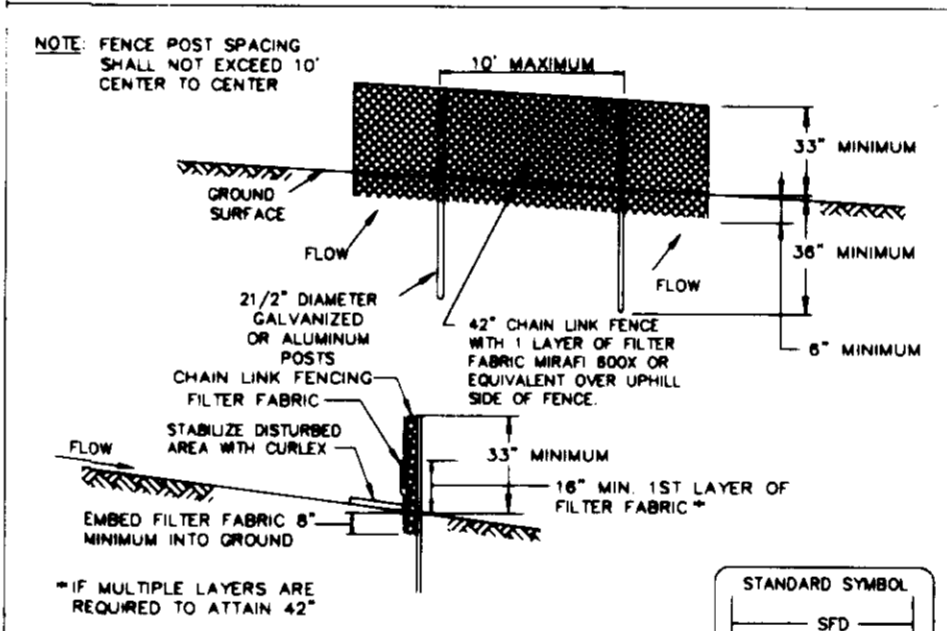
WATER RESOURCES ADMINISTRATION	Dewatering Basins	Approved On: 3/26/96 Chief, Waterway Permits	WPD 1.1
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**DETAIL 36 - TEMPORARY ACCESS CULVERT**



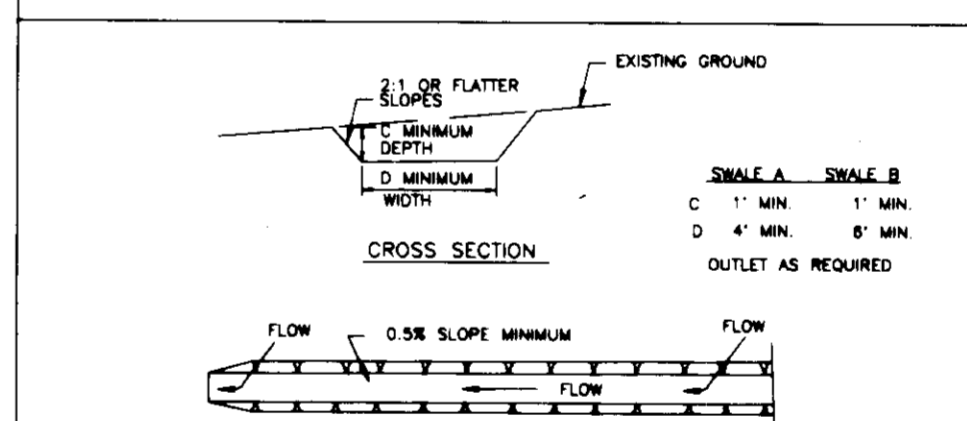
- Construction Specifications**
1. Restrictions - No construction or removal of a temporary access culvert will be permitted between October 1 through April 30 for Class III and Class IV Trout Waters or between March 1 through June 15 for non-trout waterways.
  2. Culvert Strength - All culverts shall be strong enough to support their cross sectional area under maximum expected loads.
  3. Culvert Size - The size of the culvert pipe shall be the largest pipe diameter that will fit into the existing channel without major excavation of the waterway channel or without major approach fill. If a channel width exceeds 3 feet, additional pipes may be used until the cross sectional area of the pipe is greater than 80 percent of the cross sectional area of the existing channel. The minimum size culvert that may be used is a 12" diameter pipe. In all cases, the pipe(s) shall be large enough to convey normal stream flows.
  4. Culvert Length - The culvert(s) shall extend a minimum of one foot beyond the upstream and downstream toe to the aggregate placed around the culvert. In no case shall the culvert exceed 40 feet in length.
  5. Filter Cloth - Filter cloth shall be placed on the streambed and streambanks prior to placement of the pipe culvert(s) and aggregate. The filter cloth shall cover the streambed and extend a minimum six inches and a maximum one foot beyond the end of the culvert and bedding material. Filter cloth reduces settlement and improves crossing stability.
  6. Culvert Placement - The invert elevation of the culvert shall be installed on the natural streambed grade to minimize interference with fish migration (free passage of fish).
  7. Culvert Protection - The culvert(s) shall be covered with a minimum of one foot of aggregate. If multiple culverts are used they shall be separated by at least 12" of compacted aggregate fill.
  8. Stabilization - All areas disturbed during culvert installation shall be stabilized within 14 calendar days of the disturbance in accordance with the Standards for Critical Area Stabilization With Permanent Seeding.

**SUPER FENCE DIVERSION**



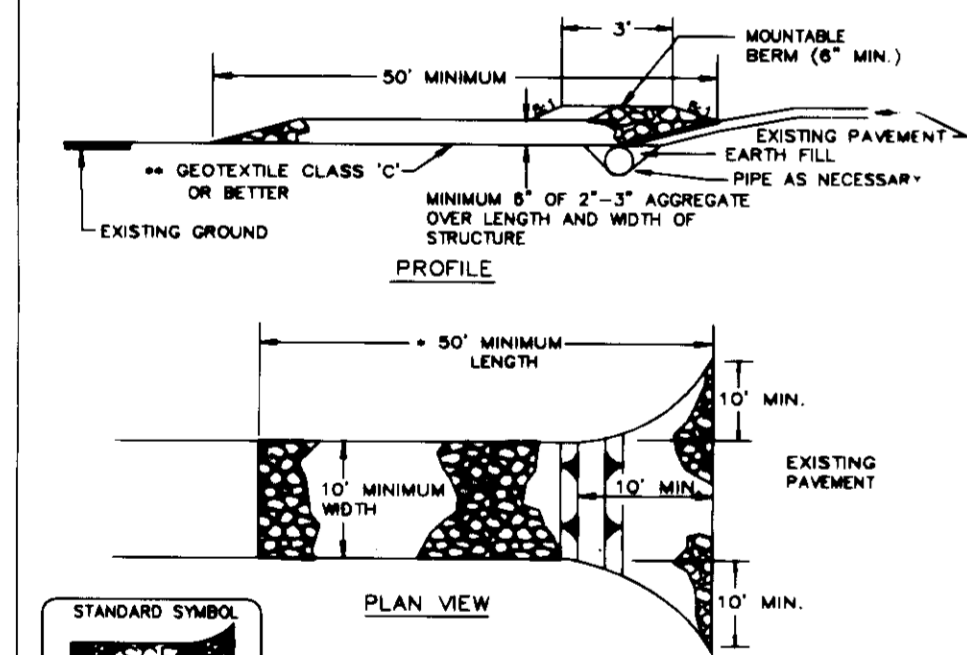
- Construction Specifications**
1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Database for Chain Link Fencing. The specification for a 6" fence shall be used, substituting 42" fabric and 6" length posts.
  2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and true rods, drive anchors and post caps are not required except on the ends of the fence.
  3. Filter fabric shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
  4. All sections of super fence diversion shall be laid on a grade 0.5% min and 8.0% max.
  5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
  6. Maintenance shall be performed as needed.
  7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:
- | Fabric Properties                   | Minimum Acceptable Value | Test Method              |
|-------------------------------------|--------------------------|--------------------------|
| Grab tensile strength (psi)         | 90                       | ASTM D1682               |
| Compressive strength (psi)          | 50                       | ASTM D1682               |
| Mullen burst strength (psi)         | 190                      | ASTM D3776               |
| Puncture strength (psi)             | 40                       | ASTM D751                |
| Shrinkage (%)                       | 0.3                      | (modified) Wipac         |
| Equivalent opening size             | 40-80                    | DOT VTM-51               |
| Ultraviolet radiation stability (%) | 90                       | ASTM D 2215<br>ASTM D-28 |

**DETAIL 2 - TEMPORARY SWALE**



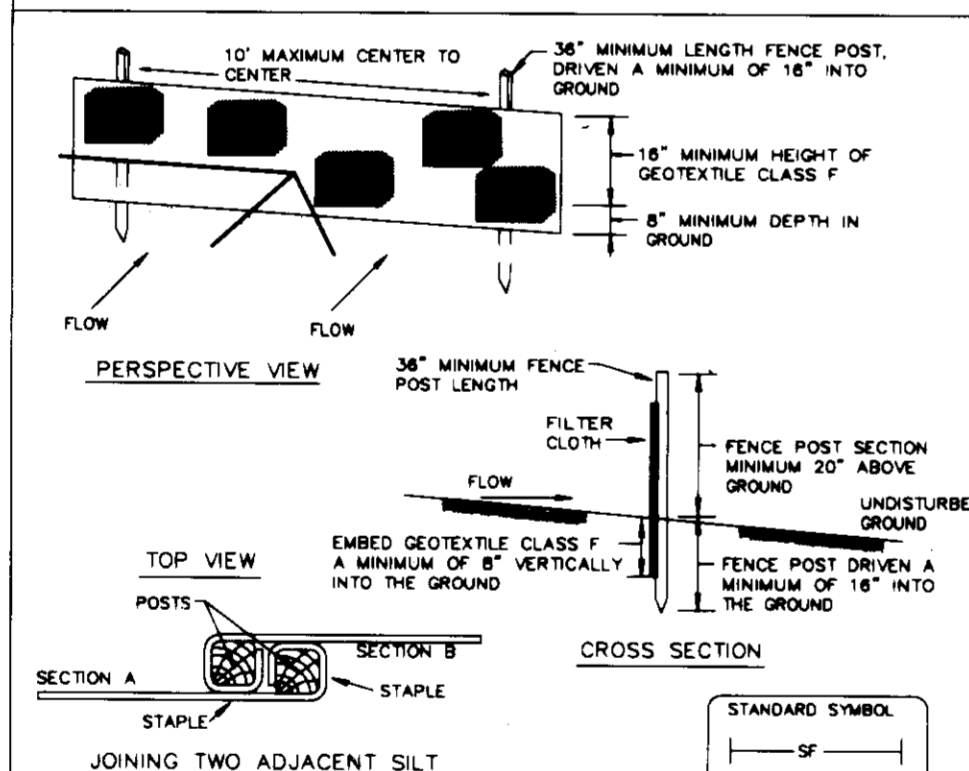
- Construction Specifications**
1. All temporary swales shall have unimproved positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
  2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
  3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed stabilized area at a non-erosive velocity.
  4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.
  5. The swale shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
  6. Fill, if necessary, shall be compacted by earth moving equipment.
  7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the swale.
  8. Inspection and maintenance must be provided periodically and after each rain event.

**DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE**



- Construction Specification**
1. Length - minimum of 50' (+30' for single residence lot).
  2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
  3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
  4. Stone - crushed aggregate (2" to 3"), or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
  5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 8" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
  6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.
- Construction Specification**
1. Length - minimum of 50' (+30' for single residence lot).
  2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
  3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
  4. Stone - crushed aggregate (2" to 3"), or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
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  6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

**DETAIL 22 - SILT FENCE**



- Construction Specifications**
1. Fence posts shall be a minimum of 36" long driven 18" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) and 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.
  2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
- | Tensile Strength     | 50 lb/in (min.)                     | Test: MSMT 509 |
|----------------------|-------------------------------------|----------------|
| Tensile Modulus      | 20 lb/in (min.)                     | Test: MSMT 509 |
| Flow Rate            | 0.3 gal ft <sup>2</sup> /min (max.) | Test: MSMT 322 |
| Filtering Efficiency | 75% (min.)                          | Test: MSMT 322 |
3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
  4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.
- Silt Fence Design Criteria**
- | Slope Steepness   | (Maximum)    |                   |
|-------------------|--------------|-------------------|
|                   | Slope Length | Silt Fence Length |
| Flatter than 50:1 | unlimited    | unlimited         |
| 50:1 to 10:1      | 125 feet     | 1,000 feet        |
| 10:1 to 5:1       | 100 feet     | 750 feet          |
| 5:1 to 3:1        | 80 feet      | 500 feet          |
| 3:1 to 2:1        | 40 feet      | 250 feet          |
| 2:1 and steeper   | 20 feet      | 125 feet          |
- Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

BY THE DEVELOPER:  
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Richard M. Ryan, Vice President* 3/20/96  
DEVELOPER DATE

BY THE ENGINEER:  
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*J. Laeth* 3.20.96  
ENGINEER DATE

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

*J.A. Wainfield, Director* 3/27/96  
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*John P. Rhoton* 3/27/96  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James R. Rhoton* 4/14/96  
DIRECTOR DATE

*Mike Demaris* 3/29/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Quia Jaurman* 4/14/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

OWNER / DEVELOPER

COLUMBIA ASSOCIATION  
10221 WINCOPIN CIRCLE SUITE 100  
COLUMBIA, MD 21044

PROJECT: SYMPHONY WOODS POND REHABILITATION

AREA: SYMPHONY WOODS TAX MAP: 36  
ZONED: NT 5<sup>th</sup> ELECTION DISTRICT

HOWARD COUNTY, MARYLAND 21044

TITLE: SEDIMENT CONTROL NOTES & DETAILS

RIEMER MUEGGE & ASSOCIATES, INC.  
Planners • Engineers • Surveyors  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-8900 FAX: 410-997-9282

3.20.96  
DATE

DESIGNED BY: A.A.P.  
DRAWN BY: R.J.C.  
PROJECT NO.: HOC0111500  
DATE: MARCH 20, 1996  
SCALE: AS SHOWN  
DRAWING NO. 3 OF 3

*J. Laeth*  
JAYKANT D. PAREKH #19148