A STATE OF THE PARTY OF THE PAR	SHEET INDEX
SHEET No.	SHEET
1	TITLE SHEET
2	STONE HOLLOW CT PLAN AND PROFILE, MILLDAM COURT PROFILE
3	UNION MILLS CT PLAN & PROFILE, LAWRENCE MILL CT. PLAN & PROFILE
4	CARROLL WIND DRIVE - PLAN & PROFILE, GROUND MILL COURT - PLAN & PROFILE, MILLDAM CT PLAN
5	STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
6	STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
7	STORM DRAIN PROFILES
8	DRAINAGE ARFA MAP & LANDSCAPE PLAN
9	DRAINAGE AREA MAP & LANDSCAPE PLAN
10	SEDIMENT CONTROL NOTES & DETAILS
11	SEDIMENT CONTROL NOTES & DETAILS
12	STRUCTURE SCHEDULE, TRAP DATA & LANDSCAPE CHART
13	WATER QUALITY
14	WATER QUALITY

FINAL ROAD CONSTRUCTION AND STORM DRAIN PLANS

DANIELS MILL OVERLOOK

SECTION 2 AREA 4

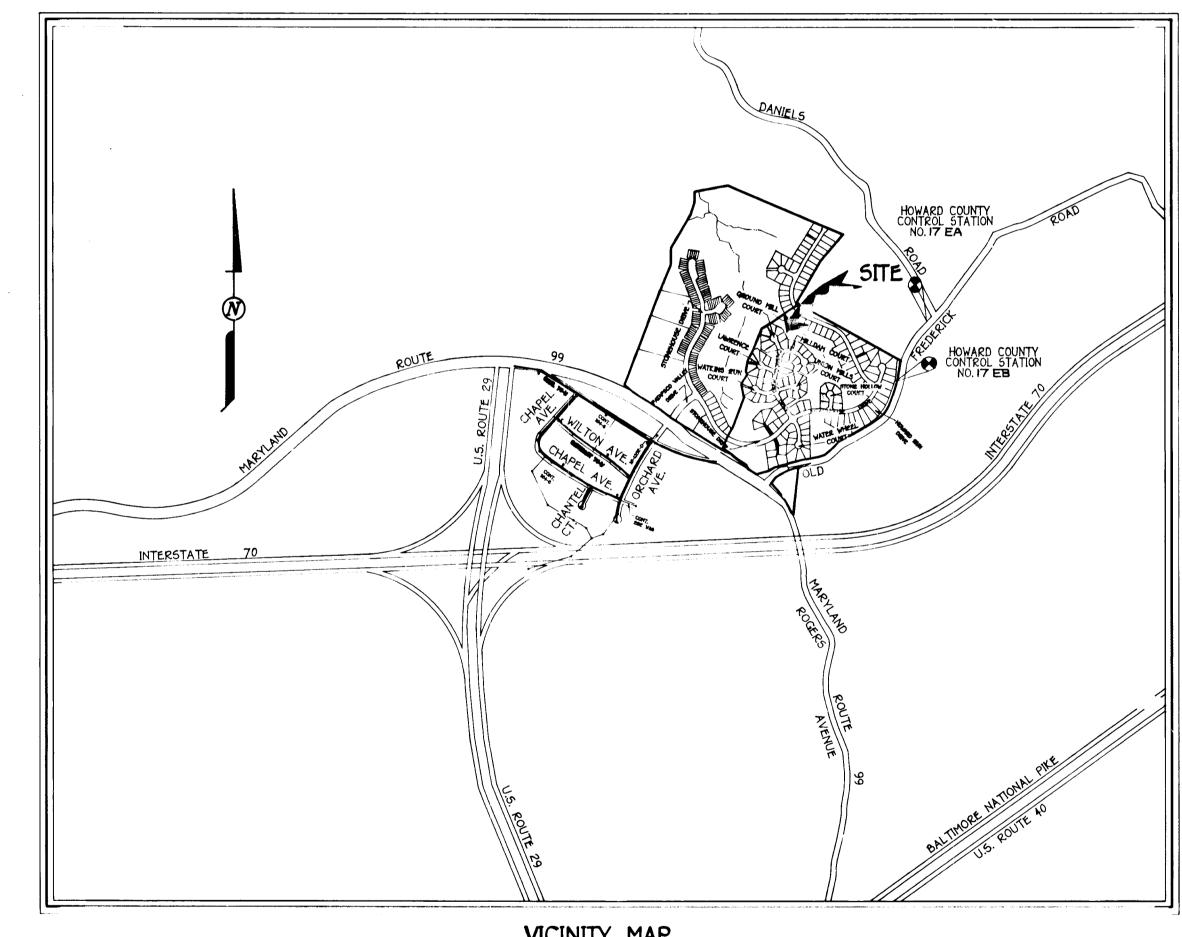
LOTS 177 THRU 228

TAX MAP NO. 17 PARCEL NOS. 41 AND 547

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

	STREET LIGHT CHART									
DWG. No.	STREET NAME	STATION	OFF- SET	FIXTURE/POLE TYPE						
2	STONE HOLLOW COURT	L.P. 5TA. . 1+75	2' L	100-WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON A 14-FOOT BLACK FIBERGLASS POLE						
3	UNION MILLS COURT	L.P. 5TA. 1+22	2' L	100-WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON A 14-FOOT BLACK FIBERGLASS POLE						
3	LAWRENCE MILL COURT	L.P. 5TA. 0+95	2' L	100-WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON A 14-FOOT BLACK FIBERGLASS POLE						
4	MILLDAM COURT	0+26	18' L	100-WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON A 14-FOOT BLACK FIBERGLASS POLE						
4	MILLDAM COURT	L.P. 5TA. 1+14	2' L	100-WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON A 14-FOOT BLACK FIBERGLASS POLE						

STREET NAME	STATION	OFFSET	POSTED SIGN	51GN CODE
LAWRENCE MILL COURT	0+38	14' L	5TOP	R1-1
MILLDAM COURT	0+38	14' L	5TOP	R1-1
CARROLL WIND DRIVE	8+40	15' L	SPEED LIMIT 30	R2-1



VICINITY MAP SCALE: 1" = 1200'

GENERAL NOTES

- HOWARD COUNTY CONTROL STATIONS HOWARD COUNTY MONUMENT NO. 17 EA

HOWARD COUNTY MONUMENT NO. 17 EB

N 593807.87 £ 1355718.1

- 6. NOISE STUDY WAS PROVIDED BY WILDMAN ENVIRONMENTAL SERVICES ON SEPTEMBER 20,1996.
- 7. FOREST DELINEATION AND WAS PROVIDED BY M.A. DIRCKS AND CO., INC. DATED JUNE, 1993.
- 8. THE 100 Yr. FLOODPLAIN AS SHOWN ON THESE PLANS ARE BASED ON THE FLOODPLAIN STUDY THAT WAS PROVIDED BY FISHER, COLLINS & CARTER, INC.
- 9. THE WETLANDS STUDY WAS PREPARED BY ENVIRONMENTAL SYSTEMS ANALYSIS UNDER 5-95-10 JUNE 15, 1995.
- 10. THE TRAFFIC STUDY WAS PROVIDED BY The Traffic Group ON OCTOBER 7,1996. 11. THE SOILS INVESTIGATION REPORT WAS PREPARED BY G.T.A. INC. ON NOVEMBER 1995.
- 12. THE SKETCH PLAN 5-95-10 WAS APPROVED ON 6/15/95. PRELIMINARY PLANS WERE WAIVED UNDER WP-97-02 ON AUGUST 12, 1996.
- 13. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THER PLACEMENT OF ANY ASPHALT.
- 14. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)."
- 15. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- 16. PUBLIC WATER AND PUBLIC SEWER WILL BE USED WITHIN THIS DEVELOPMENT.
- 17. EXISTING UTILITIES ARE BASED ON COUNTY RECORDS.
- 18. SECTION 16.116(a) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PROHIBITS CLEARING, GRADING OR CONSTRUCTION ACTIVITY WITHIN THE REQUIRED WETLAND OR STREAM BANK BUFFERS. A WAIVER (WP-95-94) WAS SUBMITTED UNDER 5-95-10.
- 19. STORMWATER MANAGEMENT ANALYSIS WAS APPROVED ON APRIL 27, 1996 UNDER F-96-128. WATER QUALITY IS PROVIDED BY SHALLOW MARSH.
- 20. FOREST CONSERVATION PLAN WAS PROVIDED UNDER SECTION 2, AREA 1. (F97-29)

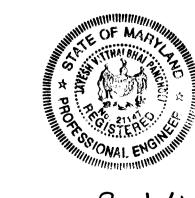
ROAD CLASSIFICATION CHART **CLASSIFICATION** STONE HOLLOW C CUL-DE-SAC UNION MILLS CT. CUL-DE-SAC MILLDAM CT. CUL-DE-SAC LAWRENCE MILL CT CUL-DE-SAC GROUND MILL CT. CUL-DE-SAC CARROLL WIND DRIVE LOCAL ROAD

FISHER, COLLINS & CARTER, INC. ENGINEERING CONSULTANTS & LAND SURVEYORS 9171 BALTIMORE NATIONAL PIKE, SUITE 100 ELLICOTT CITY, MARYLAND 21042

DANIELS MILL OVERLOOK, LLC c/o MR. MICHAEL DIFFENDAL 11900 TECH ROAD

SILVER SPRING, MARYLAND 20904

THE RYLAND GROUP c/o MR. CHARLES O'DONOVAN GALLERIA TOWERS SUITE # 705 1447 YORK ROAD LUTHERVILLE, MARYLAND 21093

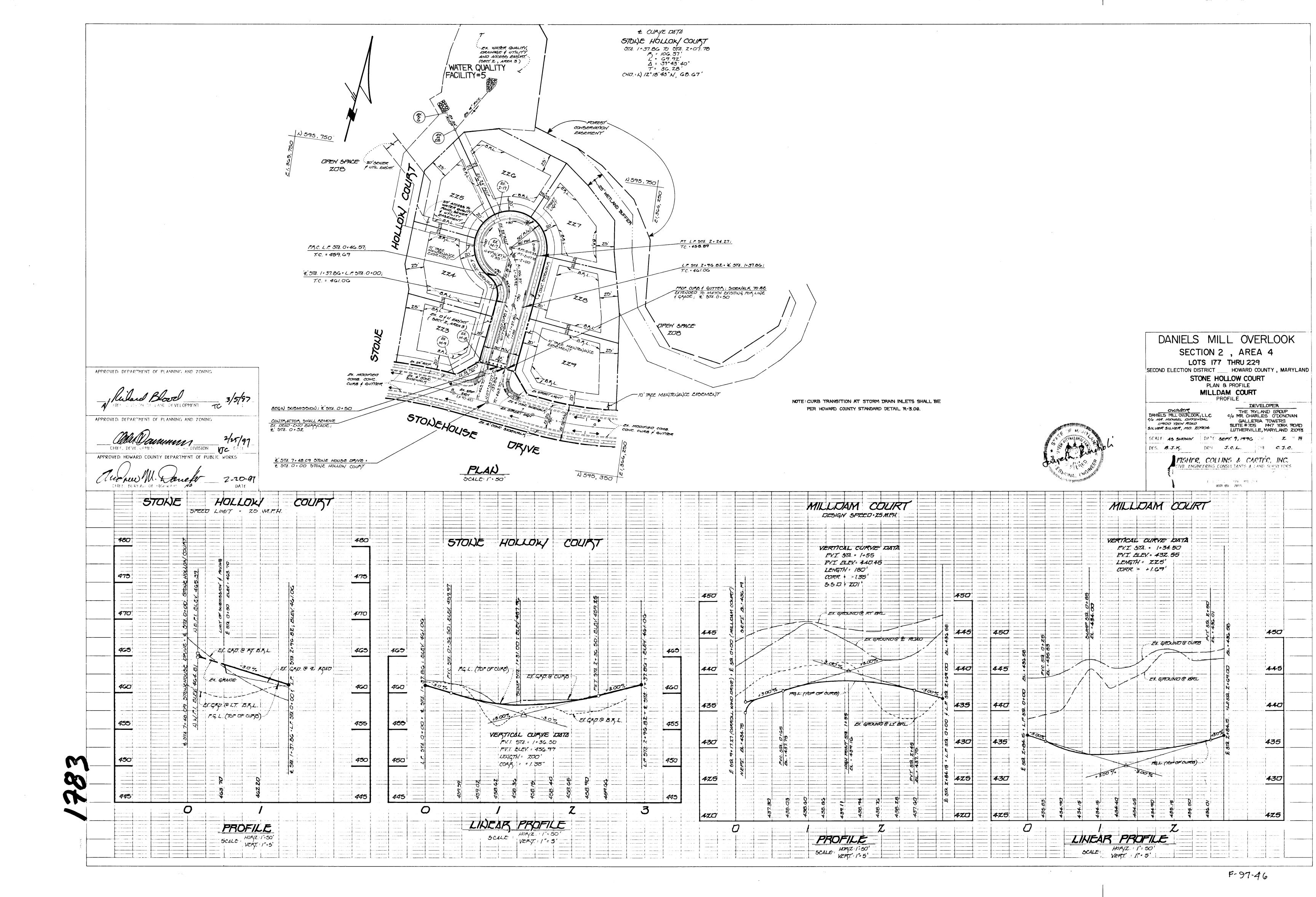


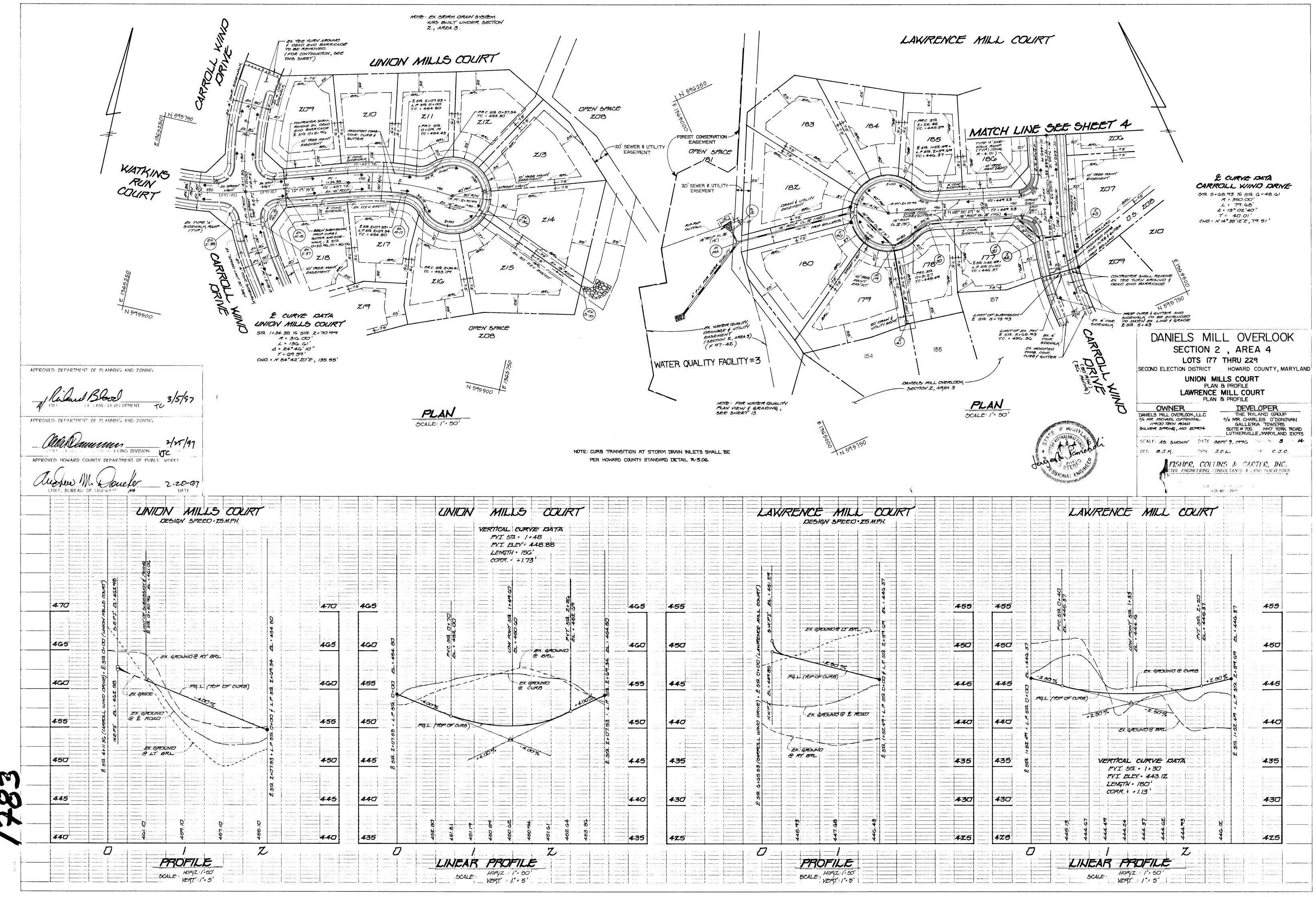
DANIELS MILL OVERLOOK

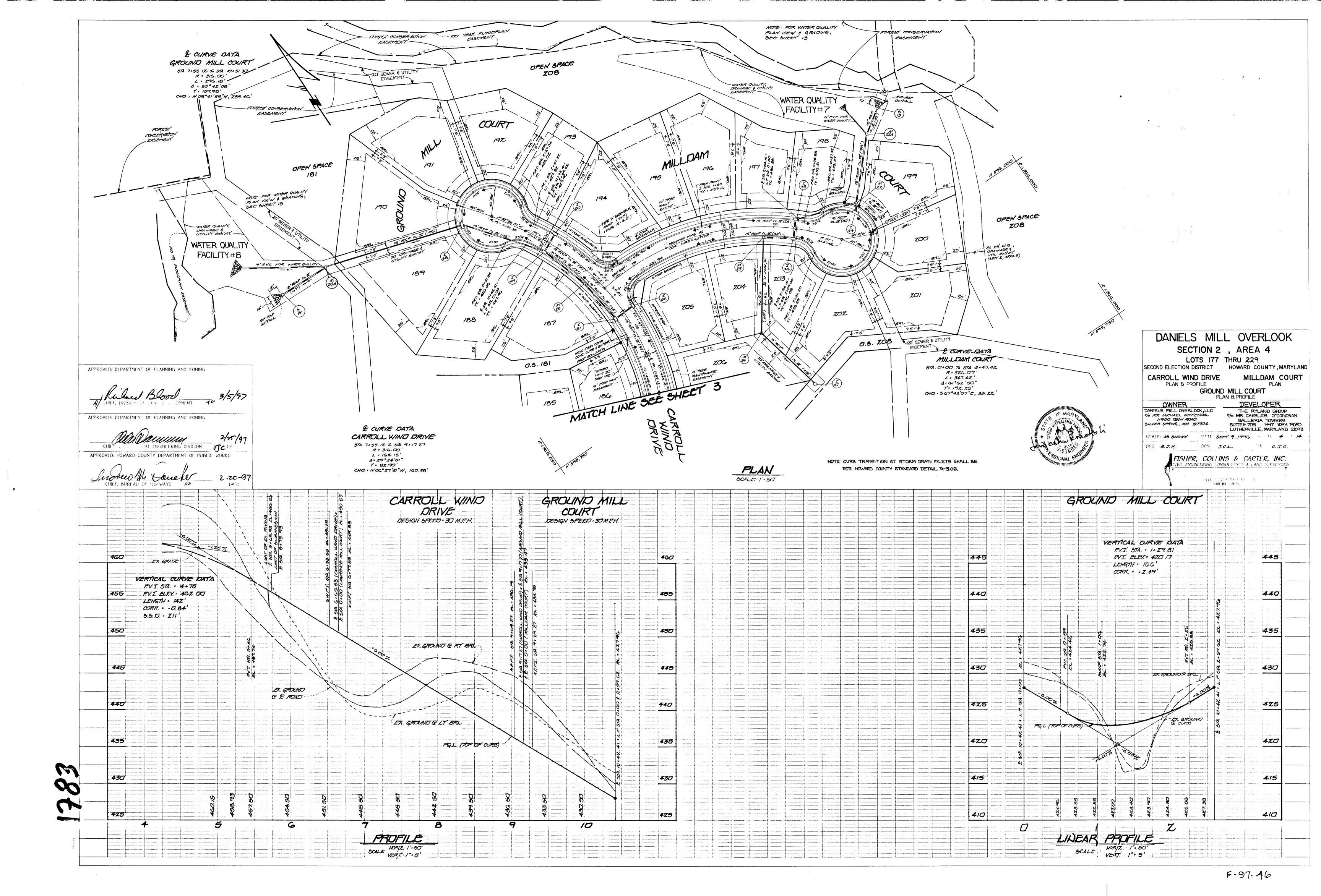
SECTION 2 AREA 4 LOTS 177 THRU 229 ZONED: R-ED TAX MAP No. 17 PARCEL Nos. 41 and 547 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: SEPT. 9, 1996

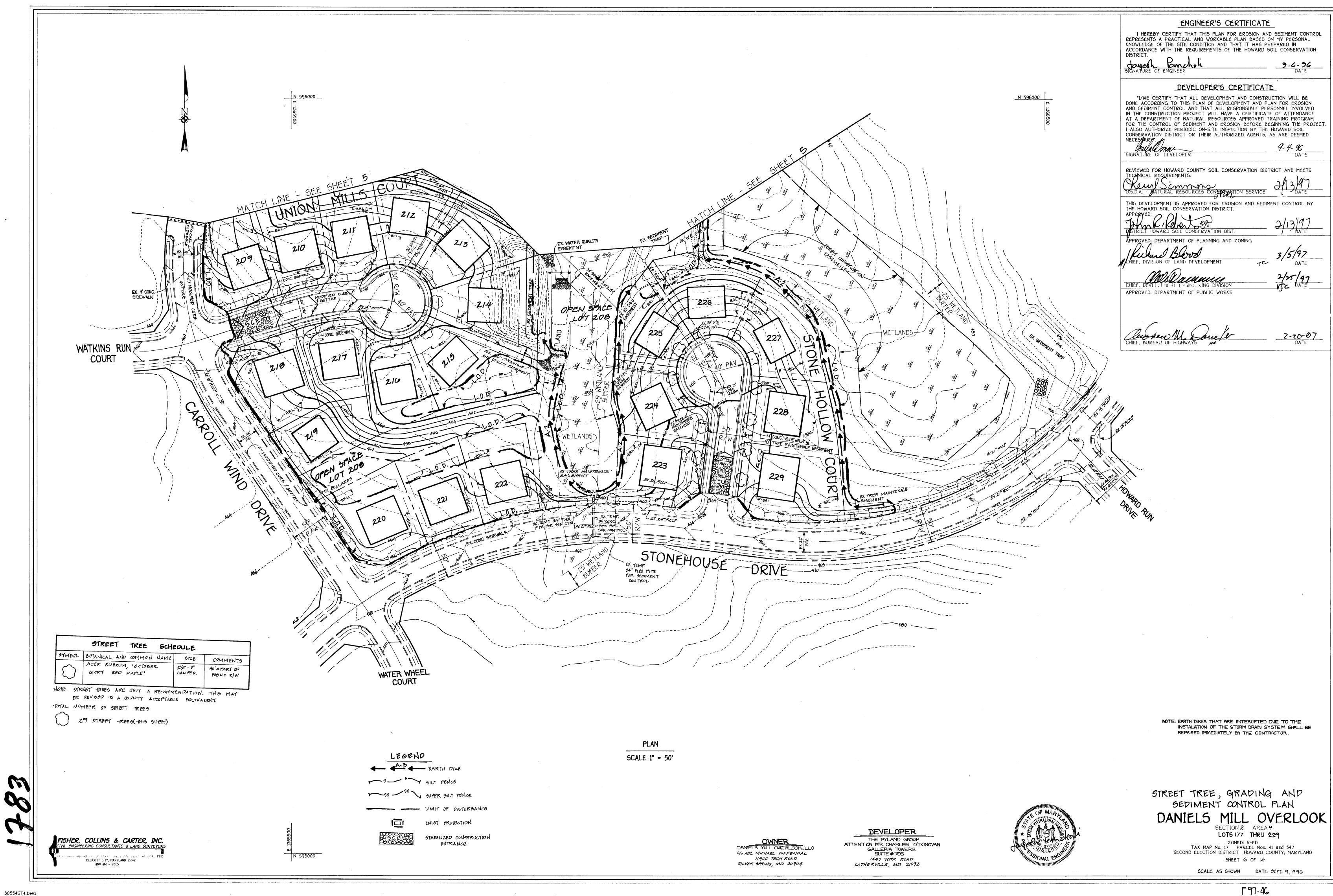
SHEET 1 OF 14

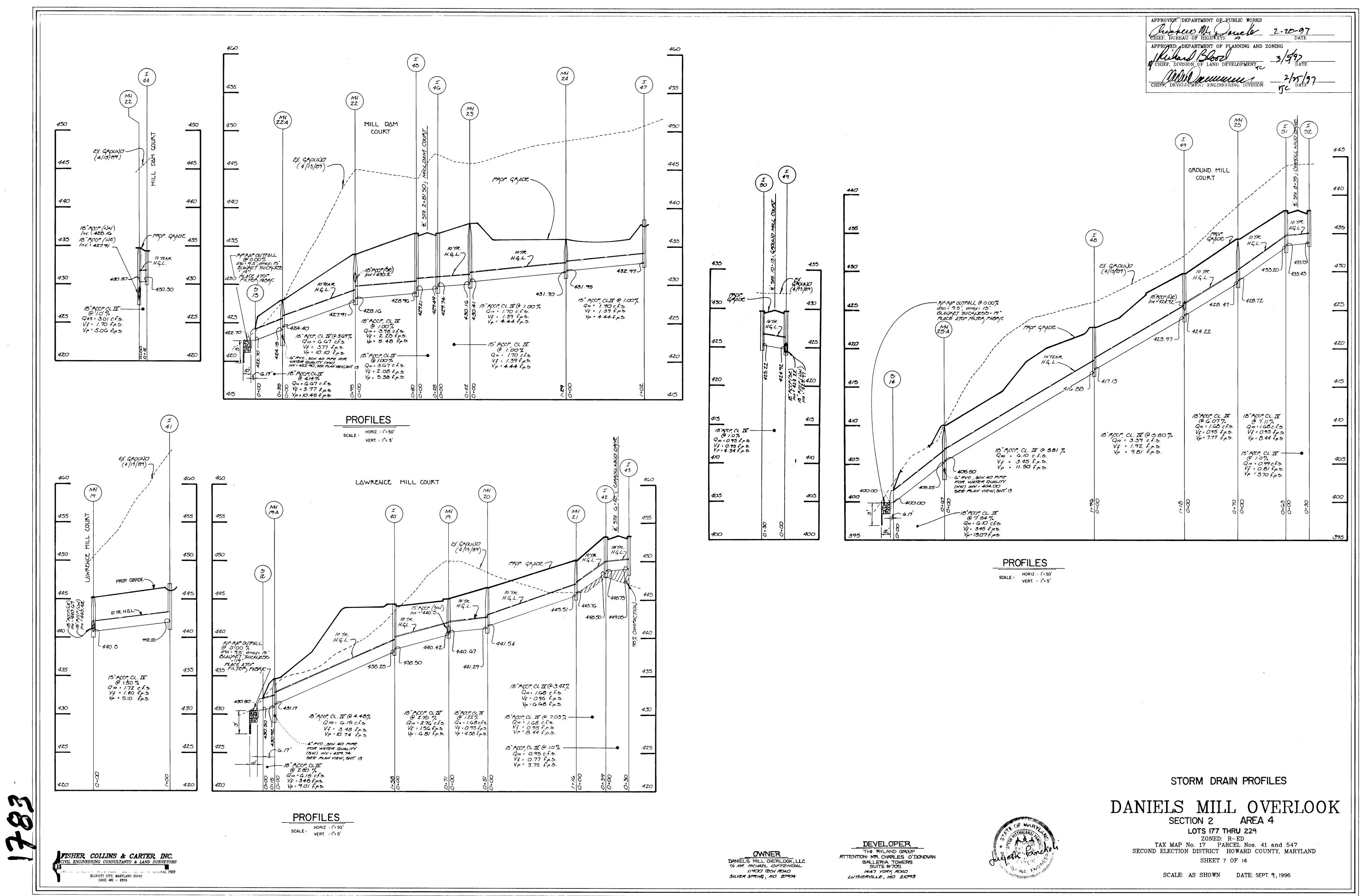




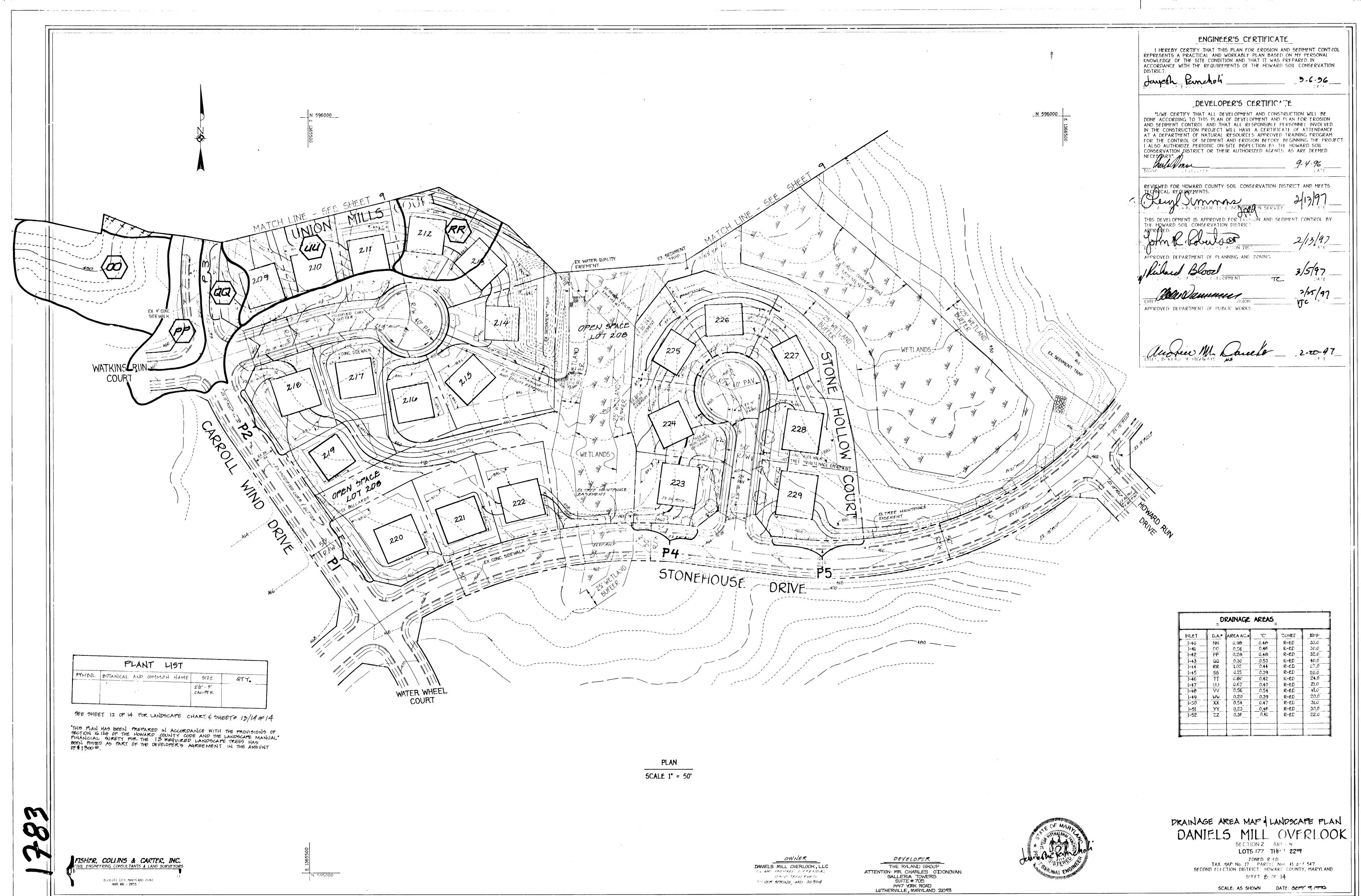






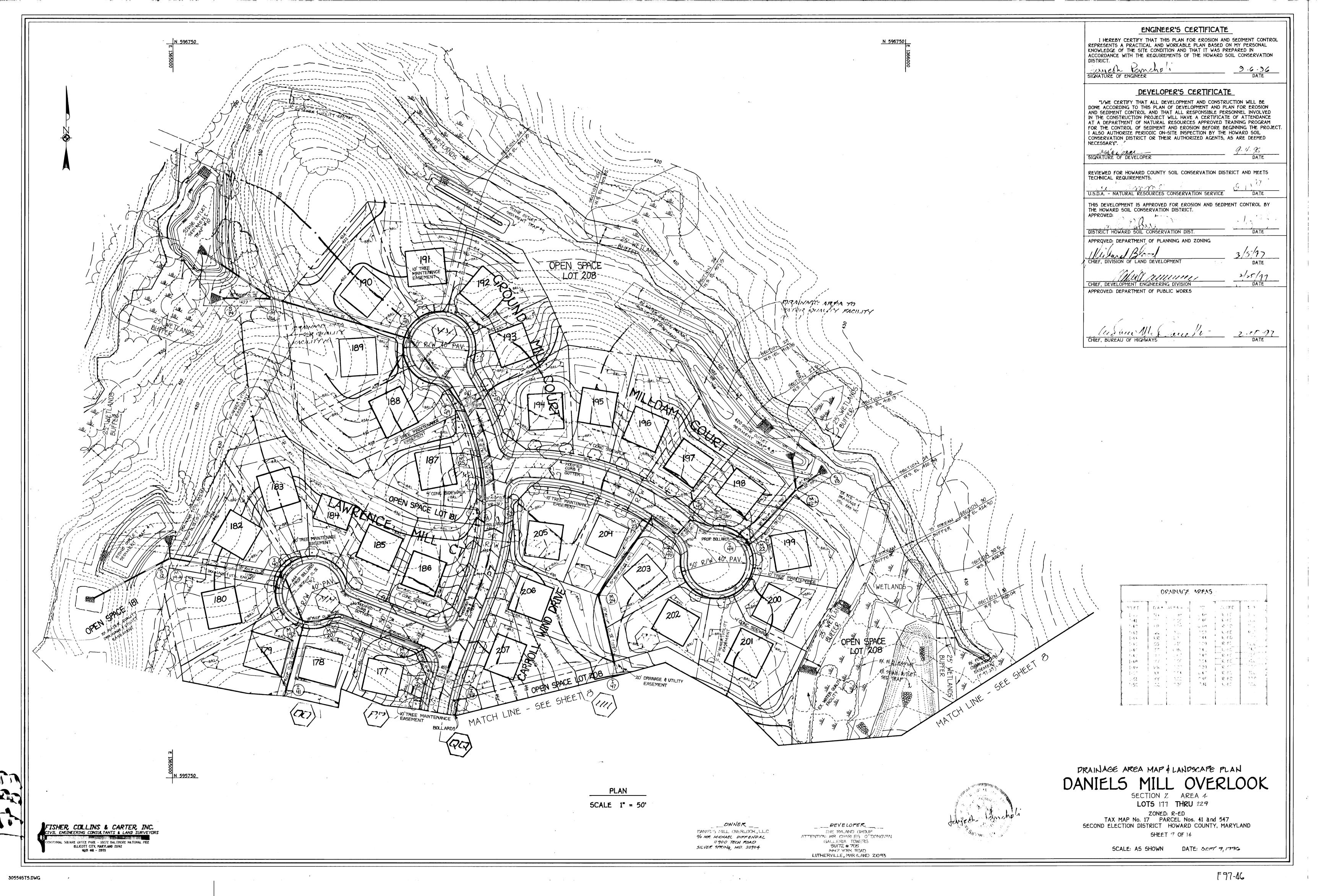


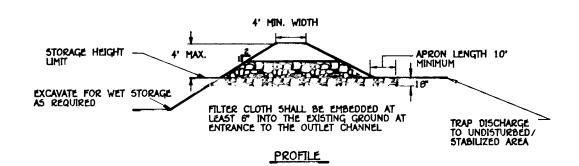
F97-46

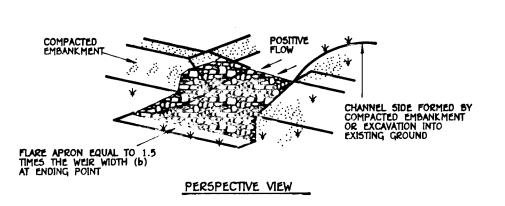


305545T4.DWG

F97-46







NOTE: MAXIMUM DRAINAGE AREA- 10 ac.

RIP-RAP OUTLET SEDIMENT TRAP - ST III

Constuction Specifications

1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.

2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be 4', measured at centerline of embankment.

3. All cut and fill slopes shall be 2:1 or flatter.

4. Elevation of the top of any dike directing water into trap must equal or exceed the height of trap embankment.

5. Storage area provided shall be figured by computing the volume measured from top of excavation. (For storage requirements see Table 10).

6. Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Section of fabric must overlap at least 1' with section nearest the entrance placed on top. Fabric shall be embedded at least 6" into existing ground at entrance of outlet channel.

7. Stone used in the outlet channel shall be 4" - 12" placed 18" thick.

9. Outlet - An outlet shall be provided, which includes a means of conveying the discharge in an erosion free manner to an existing stable channel. Protection against scour at the discharge end shall be provided as necessary.

9. Outlet channel must have positive drainage from the trap.

10. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/4 of the wet storage depth of the trap (1350 cf/ac). Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

11. The structure shall be inspected periodically after each rain and repaired

12. Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentrated inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.

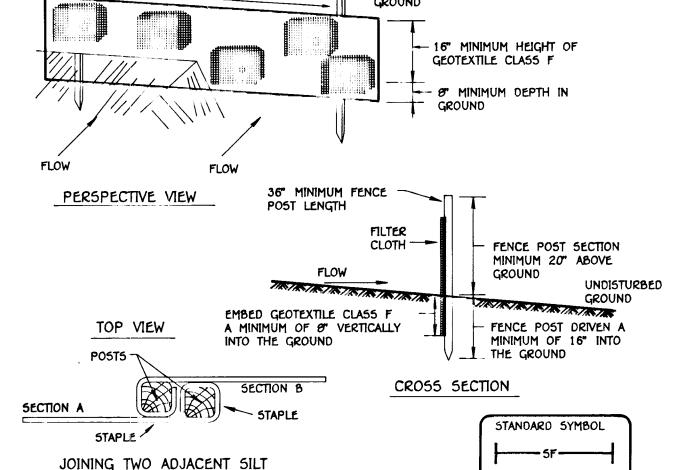
13. The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.

DETAIL 22 - SILT FENCE

10' MAXIMUM CENTER TO

- 36" MINIMUM LENGTH FENCE POST,

DRIVEN A MINIMUM OF 16" INTO



FENCE SECTIONS Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" 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 pond 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 Tensile Modulus Flow Rate Filtering Efficiency

50 [bs/in (min.) 20 lbs/in (min.) 0.3 gal ft / minute (maxt) 75% (min.)

Test: MSMT 509 Test: MSMT 509 Test: MSMT 322 Test: M5MT 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.

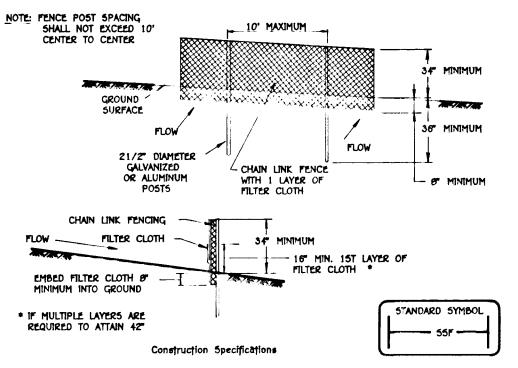
SILT FENCE

Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimițed
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 †o 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

DETAIL 33 - SUPER SILT FENCE



1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length

2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not

required except on the ends of the fence. 3. Fifter cloth shall be fastened securely to the chain link tence with ties spaced

4. Filter cloth shall be embedded a minimum of 5" into the ground.

every 24" at the top and mid section.

5. When two sections of filter cloth adjoin each other, they shall be overlapped 6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height

7. Fifter 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 Test: M5MT 509 Tensile Strength

Test: MSMT 509 20 lbs/in (min.) 0.3 gal/ft /miñute (max.) Test: M5MT 322

SUPER SILT FENCE

Design Criteria

Slope	5lope Steepness	5lope Length (maximum)	Silt Fence Length (mäximum)
0 - 10%	0 - 10:1	Unlimițed	Unlimițed
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

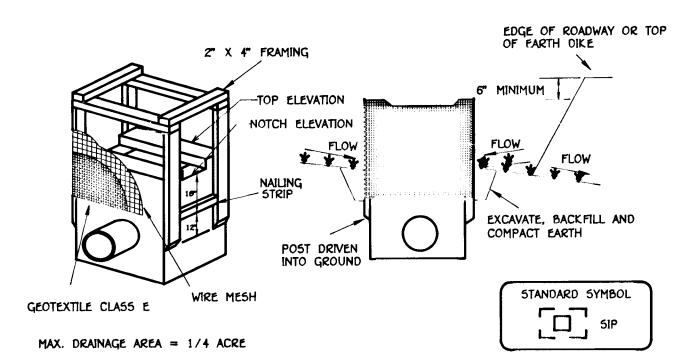
50' R/W SEED AND MULCH SEED AND MULCH 2% 4% 4% 2% 4' CONCRETE 4' CONCRETE SIDEWALK SIDEWALK TACK COAT IN ACCORDANCE WITH HOWARD MODIFIED COMBINATION CONCRETE MODIFIED COMBINATION CONCRETE COUNTY DESIGN MANUAL VOLUME IV. CURB AND GUTTER CURB AND GUTTER BASE WILL BE PRIMED IN ACCORDANCE WITH HOWARD COIUNTY DESIGN MANUAL VOLUME IV. PAVING SECTION SHALL BE IN ACCORDANCE WITH SECTION NUMBER P-2 DRWG. R-2.01 ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

TYPICAL ROADWAY SECTION (CUL-DE-SAC) NO SCALE

ROADWAY INFORMATION CHART									
ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	& STATION LIMITS	PAVING SECTION				
STONE HOLLOW COURT	CUL-DE SAC	25 M.P.H.	R-ED	0+50 TO 2+17.33	P-2				
LAWRENCE MILL COURT	CUL-DE-SAC	25 M.P.H.	R-ED	0+00 TO 2+10.94	P-2				
MILLDAM COURT	CUL-DE-SAC	25 M.P.H.	R-ED	0+00 TO 3+47.42	P-2				
UNION MILLS COURT	CUL-DE-SAC	25 M.P.H.	R-ED	0+50.96 TO 2+70.99	P-2				

OWNER DANIELS MILL OVERLOOK, LLC C/O MR. MICHAEL DIFFENDAL 11900 TECH ROAD SILVER SPRING MD. 20904

DETAIL 23A - STANDARD INLET PROTECTION



Construction Specifications

1. Excavate completely around the inlet to a depth of 18" below the notch elevation.

2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (weir) must be 6" below adjacent roadways where flooding and safety issues may arise.

3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a

4. Stretch the Geotextile Class E tightly over the wire mesh with the geotixtile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.

5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and top elevation on the sides.

6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be at least 6" higher than the top of the frame.

7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

DEVELOPER

THE YEARD GROUP

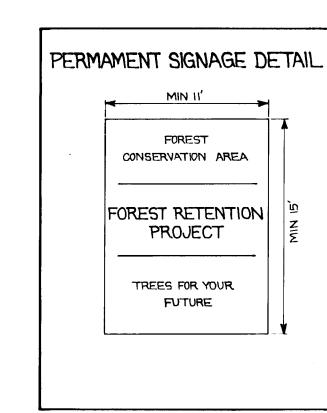
ATTENTION: MR. CHARLES O'DONOVAN

GALLERIA TOWERS

SUITE#705

1447 YORK ROAD

LUTHERVILLE, MD. 21093



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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION 9-6-96

ENGINEER'S CERTIFICATE

DEVELOPER'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 ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY".

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS

TECHNICAL REQUIREMENTS. 1/12/0-U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE

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

DISTRICT HOWARD SOIL CONSERVATION DIST. APPROVED: DEPARTMENT OF PLANNING AND ZONING

Ridard Blood 3/5/97 DATE

Mammu APPROVED: DEPARTMENT OF PUBLIC WORKS

2-20-97

SEQUENCE OF CONSTRUCTION

OBTAIN GRADING PERMIT (1 DAY). NOTIFY "MISS UTILITY" 40 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY HOWARD COUNTY OFFICE OF CONSTRUCTION/ INSPECTION DIVISION (410) 313-1870, 24 HOURS BEFORE STARTING ANY WORK (1 DAY).

INSTALL SEDIMENT CONTROL MEASURES: STONE CONSTRUCTION ENTRANCE, STONE OUTLET SEDIMENT TRAPS. EARTH DIKES, TREE PROTECTION DEVISES AND SILT FENCE STABILIZE TRAPS AND DIKES WITH TEMPORARY SEEDING (I WEEK).

GRADE SITE TO SUBGRADE, STABILIZE AND INSTALL STORM DRAINS AND INSTALL INLET PROTECTIONS (3 WEEKS).

THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAIN-TENANCE ON ALL SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS.

SEDIMENT SHALL BE REMOVED FROM THE STONE OUTLET SEDIMENT TRAPS ONCE THE CLEANOUT ELEVATIONS HAVE BEEN REACHED, SEDIMENT MUST BE PLACED UPHILL FROM THE TRAPS. SEE PLANS FOR CLEANOUT ELEVATIONS (1 DAY).

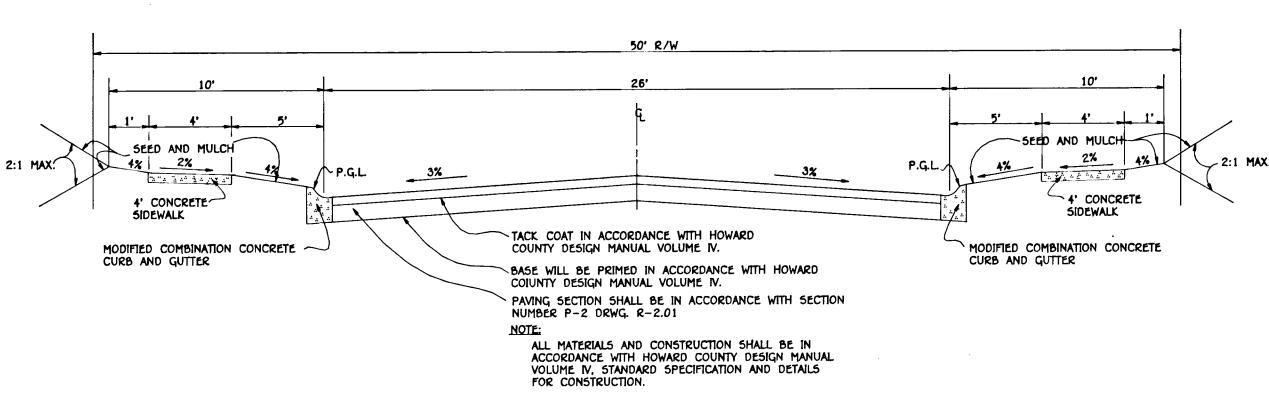
INSTALL ROAD BASE COURSE (5 DAYS).

INSTALL FOREBAY AND SHALLOW MARSH FACILITY (1 WEEK). REMOVE SEDIMENT FROM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED AND STABILIZE ALL DISTURBED AREAS (2 DAYS).

REMOVE INLET PROTECTIONS AND FLUSH STORM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT. APPLY TACK COAT TO SUB-BASE AND LAY SURFACE COURSE (4 DAYS).

REMOVE ALL SEDIMENT CONTROL MEASURES UPON SEDIMENT CONTROL INSPECTORS APPROVAL (2 DAYS).

13. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING (2 DAY5).



TYPICAL ROADWAY SECTION (LOCAL ROAD AND CUL-DE-SAC)

ROADWAY INFORMATION CHART									
ROAD NAME	CLA551FICATION	DESIGN SPEED	ZONING	& STATION LIMITS	PAVING SECTION				
GROUND MILL COURT	CUL-DE-5AC	30 M.P.H.	R-ED	9+17.27 TO 11+01.30	P-2				
CARROLL WIND DRIVE	LOCAL ROAD	30 M.P.H.	R-ED	5+60.93 TO 9+17.27	P-2				

SEDIMENT CONTROL NOTES AND DETAILS DANIELS MILL OVERLOOK

SECTION 2 AREA 4 LOTS 177 THRU 229

ZONED: R-ED TAX MAP No. 17 PARCEL Nos. 41 and 547 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SHEET 10 OF 14

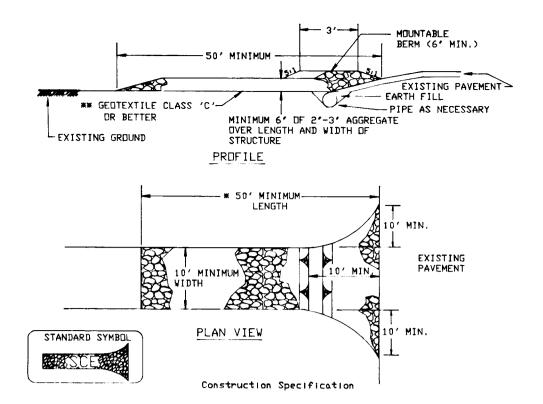
> SCALE: AS SHOWN DATE: SEPT. 9, 1996

FISHER, COLLINS & CARTER. INC. VIL ENGINEERING CONSULTANTS & LAND SURVEYORS JUARE OFFICE PARK - 10272 BALITMORE NATIONAL PIK ELLICOTT CITY, MARYLAND 21042

30554DT3.DWG

Ca

F97-46



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

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.

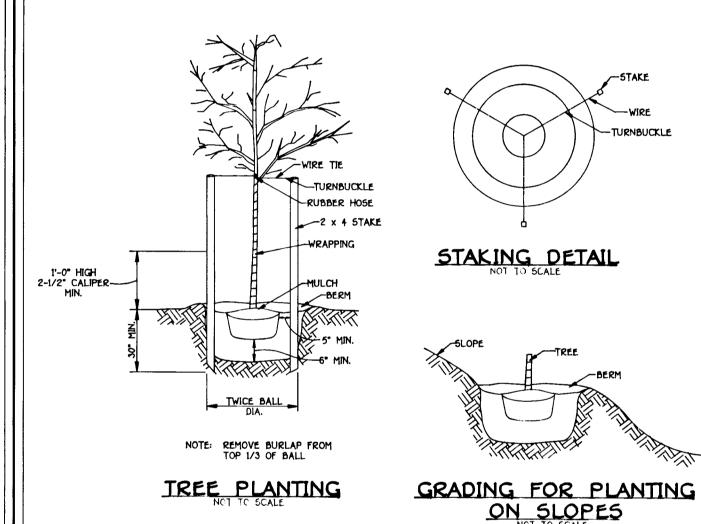
4. Stone - crushed aggregate (2° to 3°) or reclaimed or recycled concrete equivalent shall be placed at least 6' deep over the length and width of the

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 6' 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.

STABILIZED CONSTRUCTION ENTRANCE - 2

NOT TO SCALE



SEDIMENT CONTROL NOTES

1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY

DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855). ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED. ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN

CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO. 3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES,

DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER 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.

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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), 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 31.64 ACRES AREA DISTURBED 17, 27 ACRES AREA TO BE ROOFED OR PAVED 493 ACRES 0.15 + ACRES AREA TO BE VEGETATIVELY STABILIZED TOTAL CUT 35,400 CU.YDS. TOTAL FILL 35, 400 CU.YDS.

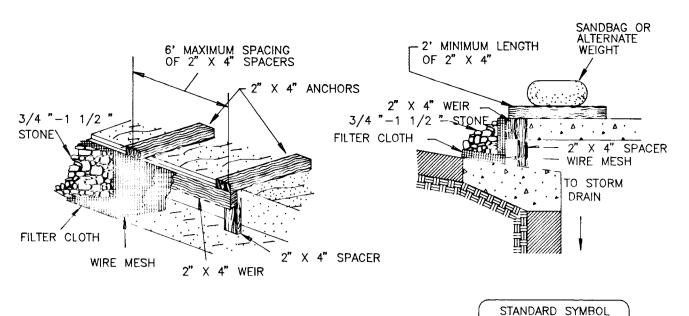
OFFSITE WASTE/BORROW AREA LOCATION N/A CU.YDS 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE

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.

1) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.





MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

1. Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard

2. Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.

3. Securely nail the 2" X 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4' 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 1/2 " x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4 " x 1 1/2 ' stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.

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 the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

STANDARD CURB INLET PROTECTION

NOT TO SCALE

20.0 STANDARDS AND SPECIFICATIONS VEGETATIVE STABILIZATION

Using vegetation as cover for barren soil to protect it from forces that cause erosion. PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration Olup to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff. infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters. SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.

iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres B. Soil Amendments (Fertilizer and Lime Specifications) Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the

University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses. ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according

to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a •100 mesh sieve and 90-100% will pass through a •20 mesh sieve. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

C. Seedbed Preparation Temporary Seeding a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope. Apply fertilizer and lime as prescribed on the plans.

In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means. a. Minimum soil conditions required for permanent vegetative establishment
 1. Soil pH shall be between 6.0 and 7.0.

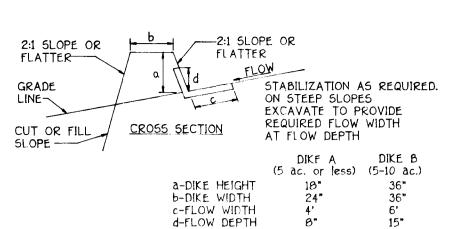
Soluble salts shall be less than 500 parts per million (ppm). The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (<30% silt

plus clay) would be acceptable. Soil shall contain 1.5% minimum organic matter by weight. Soil must contain sufficient pore space to permit adequate root penetration If these conditions cannot be met by soils on site, adding topsoil is required

in accordance with Section 21 Standard and Specification for Topsoil. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.

Apply soil amendments as per soil test or as included on the plans.

Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on



POSITIVE DRAINAGE-GRADE SUFFICIENT TO DRAIN

STABILIZED SAFE OUTLET.

STANDARD SYMBOL A-2 B-3

1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT 2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC. 4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A

5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT BASIN WHERE EITHER THE DIKE 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 IF

NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART

FLOW CHANNEL STABILIZATION

TYPE OF IREAIMENT	CHANNEL GRADE	DIKE A	<u>D</u> IKE B
1	.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4"-8"
4	Ø.1-20 %	LINED RIP-RAP 4"-8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT

B. RIP-RAP TO BE 4-0 INCHES IN A LAYER AT LEAST Ø INCHES THICKNESS AND

C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS

or arop seeded, or a cultipacker seedel

without interruption.

F. Mulch Specifications (In order of preference)

i. Wood Cellulose Fiber Mulch (WCFM)

accordance with these specifications.

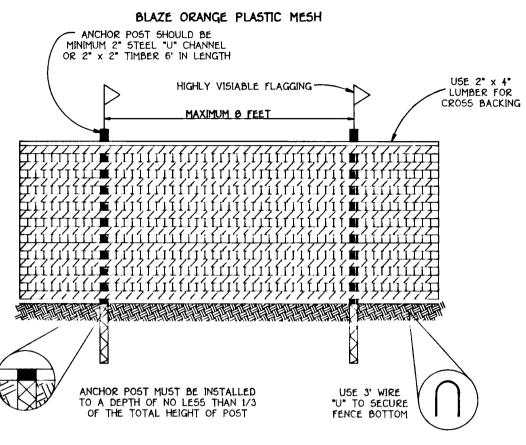
to be used, the rate should be increased to 2.5 tons/acre.

preference), depending upon size of area and erosion hazard:

7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE NOT TO SCALE

D. Seed Specifications



FOREST PROTECTION DEVICE ONLY.
RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE. ROOT DAMAGE SHOULD BE AVOIDED. PROTECTIVE SIGNAGE MAY ALSO BE USED.
DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION

NUT TO SCALE

SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED 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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION 9-6-96 REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS. .S.D.A. NATURAL RESOURCES CONSERVATION THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER'S CERTIFICATE

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 ON-SITE INSPECTION BY THE HOWARD

*I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND THAT ANY RESPONSIBLE PERSONNEL IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF

CHIEF DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PUBLIC WORKS

APPROVED: DEPARTMENT OF PLANNING AND ZONING MA Damum

Incremental Stabilization - Cut Slopes i. All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.

ii. Construction sequence (Refer to Figure 3 below): a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
 b. Perform Phase 1 excavation, dress, and stabilize.

Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as

necessary.

Perform final phase excavation, dress and stabilize. Overseed previously seeded

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions int he operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization. Incremental Stabilization of Embankments - Fill Slopes

imbankments shall be constructed in lifts as prescribed on the plans

ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15", or when the grading operation ceases as prescribed in the plans.

iii. At the end of each day, femporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to

iv. Construction sequence: Refer to Figure 4 (below).

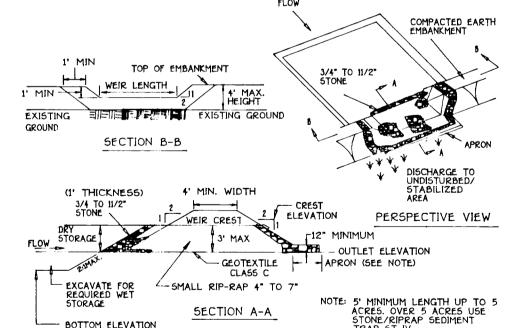
a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slope silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.

b. Place Phase 1 embarkment dress and stabilize.

Place Phase 2 embankment, dress and stabilize. Place final phase embankment, dress and stabilize. Overseed previously seeded

areas as necessary.

Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.



Construction Specifications 1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared. 2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, produice material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. 3. All cut and fill slopes shall be 2:1 or flatter. 4. The stone used in the outlet shall be small rip-rap 4" to 7" in size with a 1' thick layer of 3/4" to 11/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face 5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the

in a suitable area and in such a manner that it will not erode.

wet storage depth of the trap. Removed sediment shall be deposited

DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II

SEDIMENT CONTROL NOTES AND DETAILS

DANIELS MILL OVERLOOK SECTION 2 AREA 4

LOTS 177 THRU 229 ZONED: R-ED TAX MAP No. 17 PARCEL Nos. 41 and 547 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: SEPT. 9, 1996

SHEET 11 OF 14

OWNER DANIELS MILL OVERLOOK, LLC % MR. MICHAEL DIFFENDAL 11900 TECH ROAD SILVER SPRING, MD. 20904

DEVELOPER THE RYLAND GROUP % MR. CHARLES O'DONOVAN GALLERIA TOWERS SUITE 705 1447 YORK ROAD LUTHERVILLE, MARYLAND 21093

i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this Job.

ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than

Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast

a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous); 200 lbs/ac; K20 (potassium): 200 lbs/ac.

time. Do not use burnt or hydrated lime when hydroseeding.
Seed and fertilizer shall be mixed on site and seeding shall be done immediately and

Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.

Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

WCFM shall consist of specially prepared wood cellulose processed into a uniform

WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry. WCFM, including dye, shall contain no germination or growth inhibiting factors.

The mulch material shall form a blotter-like ground cover, on application, having

f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.

i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in

ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is

iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs.

application to minimize loss by wind or water. This may be done by one of the following methods (listed by

Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.

ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and

the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons

iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax

II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recom-

mendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.

wood cellulose fiber mulch will remain in uniform suspension in water under agitation

and will blend with seed, fertilizer and other additives to form a homogeneous slyrry.

WCFM materials shall be manufactured and processed in such a manner that the

a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the

ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders

iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

Lime - use only ground agricultural limestone, (Up to 3 tons per acre may be applied by

hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one

the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° f. can weaken bacteria and make the inoculant less effective.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used

30554DT1.DWG

SCHEDULE 'A' - PERIMETER LANDSCAPE EDGE SECTION 2 AREA 4

LANDSCAPE TYPE	B	25	В	8	ß	В	8	8	В
LANDSCAPE TYPE LINEAR FEET OF ROADWAY	100′	35	B 100°	B 90'	.B 120′	B 50'	B 120'	8 75'	B 70'
FRONTAGE PERIMETER									
CREDIT FOR EXISTING VEGETATION	NO	No	No.	110					
(YES, NO. LINEAR)	N.	NO	NO	NO	NO	NO	NO	NO	NO
DESCRIBE BELOW IF NEEDED									
CREDIT FOR WALL,									
FENCE, OR BERM	NO	. NO	NO	NO	NO	NO	NO	NO	NO
(YES, NO, LINEAR)								,,,	
DESCRIBE BELOW IF NEEDED									
NUMBER OF PLANTS REQUIRED									
SHADE TREES	2	2	2	2	2	1	2	2	1
EVERGREEN TREES	3	3	3	2	3	1	3	2	2
SHRUBS NUMBER OF PLANTS PROVIDED	-	-	-	-	-	-	-	-	
NUMBER OF PLANTS PROVIDED									
EVERGREEN TREES									
OTHER TREES (2:1 SUBST.)								j	
SHRUBS (10:1 SUBST.)									
DESCRIBE PLANT SUBSTITUTION									
CREDITS BELOW IF NEEDED									
B-BUILDER		_							
ISTALLED BY: D-DEVELOPER	8*	B	В	В	33	В	В	В	28

* PERIMETERS P-1 - P-9 TO BE INSTALLED AT TIME OF SITE DEVELOPMENT PLAN, WHEN ORIENTATION OF OF HOUSE, AND GRADING, ARE ESTABLISHED. BOND AT SDP.

TRAP DATA								
TRAP NO.	STONE OUTLET ST II TRAP •7	RIPRAP OUTLET ST IV	RIPRAP OUTLET 5T IV TRAP •9	STONE OUTLET ST II				
DRAINAGE AREA	3.10 AC.±	3.47 AC.±	1.40 AC.±	3.80 A.C.±				
STORAGE REQUIRED	11,160 C.F.	12,492 C.F.	5,040 C.F.	13,680 C.F.				
STORAGE PROVIDED	12,264 C.F.	12,500 C.F.	5,632 C.F.	13,800 C.F.				
WEIR CREST ELEV.	4 27.00	4 19.00	403.00	391.00				
BOTTOM ELEV.	424.00	4 16.00	400.00	388.00				
DEPTH	3'	3'	3'	3'				
SIDE SLOPES	2:1	3:1	2:1	2:1				
TOP EMBANKMENT	428.00	4 20.00	404.00	392.00				
WEIR LENGTH	13'	10'	6'	10'				
CLEANOUT ELEV.	425.50	417.50	401.50	389.50				

STRUCTURE NO.	TOP ELEVATION	INV.IN	INV.OUT	ROAD NAME	ROAD STA.	OFF5ET	TYPE	REMARKS
1-40	444.43	438.50	438.25	LAWRENCE MILL COURT	L.P. 5TA. 1+33.77	2.35° LT.	A-5 INLET	5.D. 4.40
I- 4 1	TOP EL = THROAT EL =		442.00		\$10 fts \$10 fts do ut to \$10 tes \$10 t	N 599864177 E 1365153.325	'D' INLET	5.D. 4.39
I- 4 2	453.30	440.75	448.50	CARROLL WIND DRIVE	C.L. 5TA. 6+20	15.35 LT	A-5 INLET	5.D. 4.40
1-43	453.30		449.05	CARROLL WIND DRIVE	C.L. STA. 6+20	15.35 RT	A-5 INLET	5.D. 4.40
I-44	434.00		430.30	MILDAM COURT	L.P. STA. 0+82.74	2.35' LT	A-5 INLET	5.D. 4.40
1-45	436.66	429.21	428.96	MILDAM COURT	C.L. STA. 2+83.50	14.35 LT	A-5 INLET	5.D. 4.40
I- 4 6	436.66	429.74	429.49	MILDAM COURT	C.L. STA. 2+01.50	14:35'RT	A-10 INLET	5.D. 4.41
I-47	438.58		432.97			N 595898.730 E 1365604.729	'D' INLET	5.D. 4.30
1-48	422.74	417.13	416.88	GROUND MILL COURT	L.P. STA. 1+06	2.35'LT	A-5 INLET	5.D. 4.40
!-49	439.58	424.92 424.22	423.97	GROUND MILL COURT	C.L. 5TA. 10+13	14.35 LT	A-5 INLET	5.D. 4.40
1-50	429.72		425.22	CARROLL WIND DRIVE	C.L. 5TA. 10+13	14.35 RT	A-10 INLET	5.D. 4.41
I-5 1	438.00	433.45	433.20	CARROLL WIND DRIVE	C.L. 5TA. 8+75	14:35 LT	A-5 INLET	5.D. 4.40
1-52	438.00		433.75	CARROLL WIND DRIVE	C.L. STA. 8+75	14:35' RT	A-5 INLET	5.D. 4.40
M-19	445.17	140.50 440.67	440.42	LAWRENCE MILL COURT	L.P. 5TA. 0+62.48	3.1' LT	STD. MANHOLE	G 5.01
M-20	446.54	441.54	441.29	LAWRENCE MILL COURT	L.P. STA. 0+07.5	9' LT	STD. MANHOLE	G 5.01
M-21	450.26	445.76	445.51	LAWRENCE MILL COURT	C.L. STA. 0+45	20'LT	STD. MANHOLE	G 5.01
M-22	434.06	430.20 429.85	429.60			N 596074.123 E 1365786.770	STD. MANHOLE	G 5.01
M-23	437.95	430.41	430.16	MILDAM COURT	C.L. STA. 2+38	15.1' RT	STD. MANHOLE	G 5.01
M-24	436.00	431.95	431.70			N 595998.457 E 1365581.649	STD. MANHOLE	G 5.01
M-25	434.22	428.72	428.47	GROUND MILL COURT	C.L. 5TA. 9+40	16' LT	5TD.MANHOLE	G 5.01
M-22A	428.00	424.40	424.15			N 596142.382 E 1365852.843	5TD.MANHOLE	G 5.01
M-19A	434.67	431.17	430.92			N 596048.471 E 1364996.164	STD.MANHOLE	G 5.01
M-25A	410.00	405.50	405.25			N 596 404 . 257 E 1365 134 . 482	STD.MANHOLE	G 5.01
						NP96N63 2m		
5-12	432.00	430.50	430.50			N 596063.300 F 1364993.908	CONC. END SECT.	5.D. 5.51
5-13	424.20	422.70	422.70			N 596163.092 E 1365881.059	CONC. END SECT.	5.D. 5.51
5-14	401.50	400.00	400.00			N 596 405. 195 E 1365064. 480	CONC. END SECT.	5.D. 5.51

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION

DEVELOPER'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.

1 ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL

CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

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

APPROVED:

APPROVED:HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

STRUCTURE SCHEDULE, TRAP DATA AND LANDSCAPE PLAN DANIELS MILL OVERLOOK

SECTION 2 AREA 4 LOTS 177 THRU 229

ZONED: R-ED
TAX MAP No. 17 PARCEL Nos. 41 and 547
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SHEET 12 OF 14

SCALE: AS SHOWN DATE: SEPT. 9, 1996

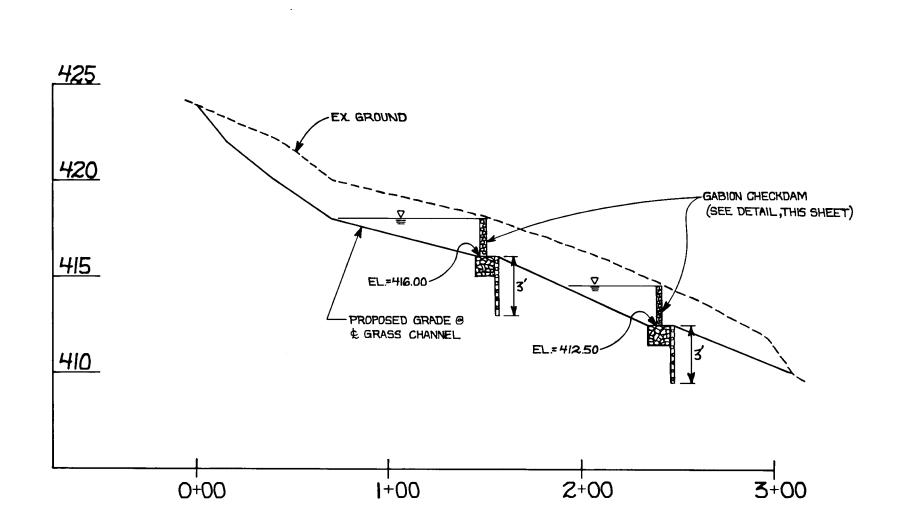
FISHER, COLLINS & CARTER, INC. ELLICOTI CITY, MARYLAND 21042 (410) 461 - 2855

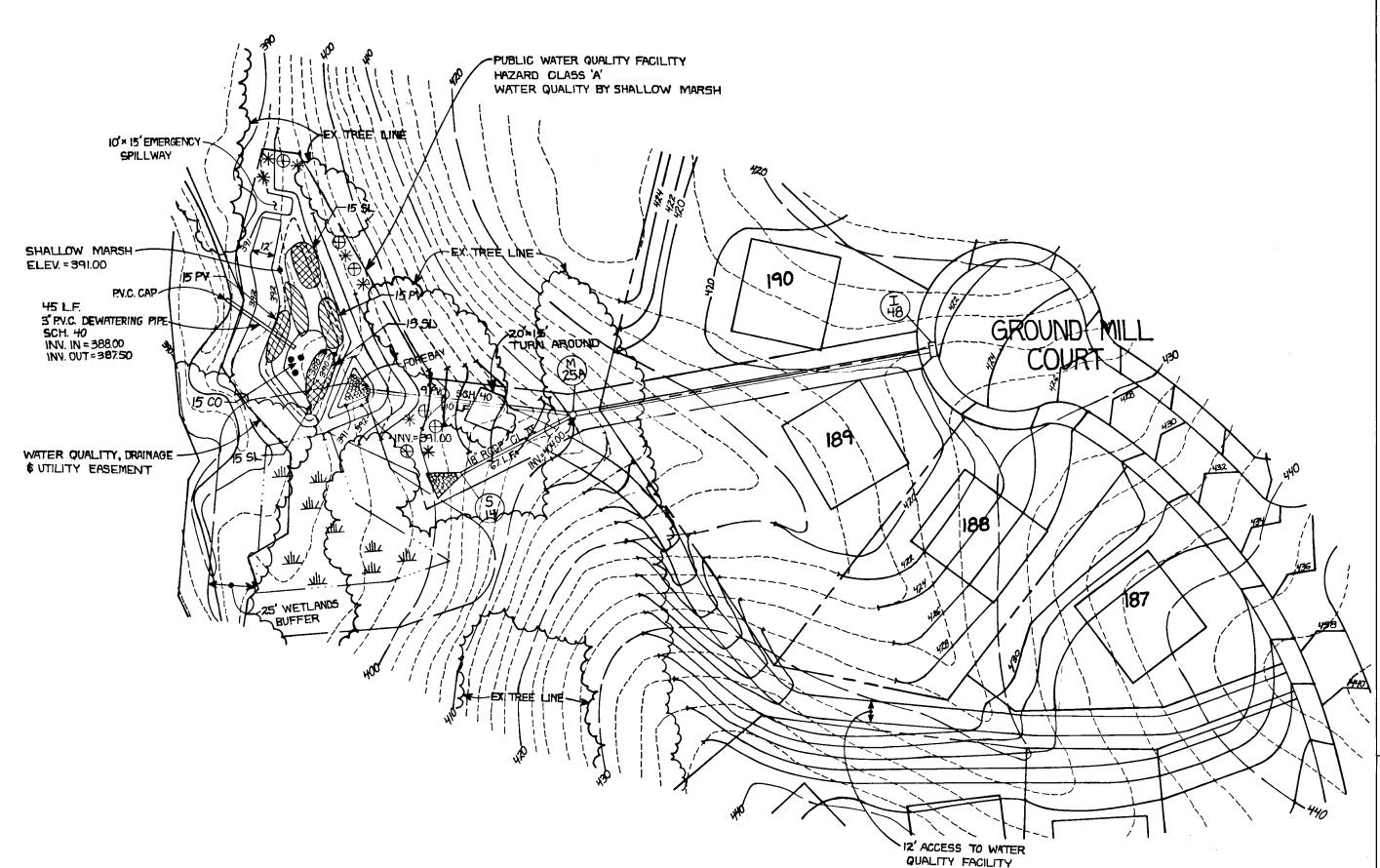
__OWNER DANIELS MILL OVERLOOK, LLC C/O MR. MICHAEL DIFFENDAL 11900 TECH ROAD SILVER SPRING, MD. 20904

DEVELOPER THE RYLAND GROUP
ATTENTION: MR. CHARLES O'DONOVAN
GALLERIA TOWERS
SUITE #705
1447 YORK ROAD
LUTHERVILLE, MARYLAND 21093 WATER QUALITY FACILITY NO.7

PLAN

SCALE: 1"=50"

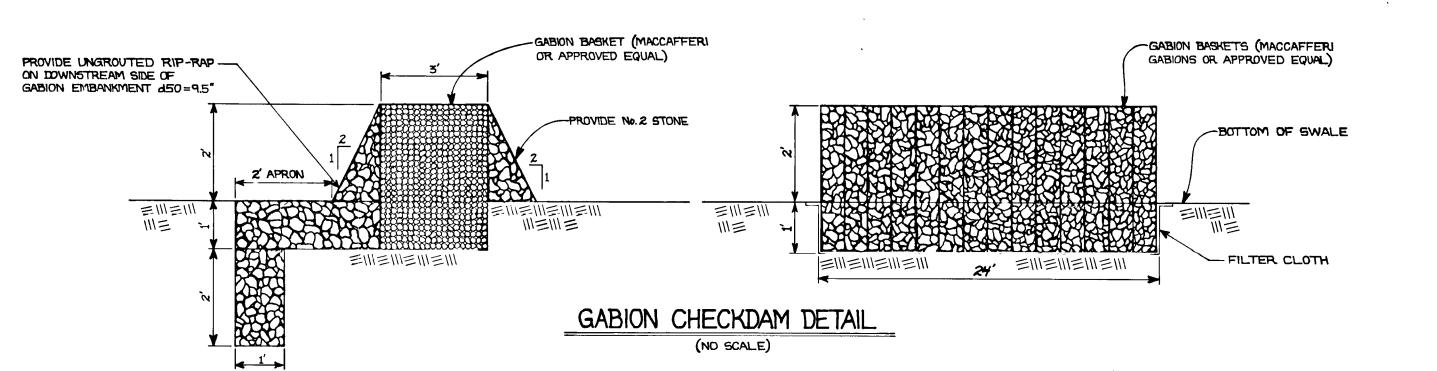




WATER QUALITY FACILITY NO. 8

PLAN

SCALE: 1"= 50"



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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION

dayesh Panchohi

9-6-96

DEVELOPER'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 ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY"

GNATUKE TETELOPER

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS
TECHNICAL REQUIREMENTS.

U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE

DATE

APPROVED:

DISTRICT HOWARD SOIL CONSERVATION DIST.

DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
APPROVED: DEPARTMENT OF PUBLIC WORKS

.

REAU OF HIGHWAYS 13 DATE

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

PE. NO. ______
SIGNATURE DATE _____

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ONSITE INSPECTIONS AND AMTERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ONSITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEANOR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF POND(5) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-370). THE POND OWNERS(5) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNERS(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

HOMEOWNER'S ASSOCIATION
MAINTENANCE RESPONSIBILITIES
FOR SHALLOW MARSH

TOK SHALLOW MAKSH

- INSPECTION FOREBAY AFTER EACH STORM IF SEDIMENT BUILDUP EXCEEDS FOUR (4) INCHES, NOTIFY THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF HIGHWAYS TO FACILITATE CLEANOUT OPERATIONS.
 REMOVAL OF ACCUMULATED PAPER, TRASH AND DEBRIS AFTER EVERY STORM, AS NECESSARY.
- ANNUAL INSPECTION AND REPAIR OF THE GABION STRUCTURES, AS NEEDED.

 VEGETATION GROWING ON THE EMBANKMENT TOP OR FACES IS NOT ALLOWED

 TO EXCEED 10 INCHES IN HEIGHT AT ANYTIME.
- CORRECTIVE MAINTENANCE IS REQUIRED ANYTIME THE FOREBAY DOES NOT DRAIN DOWN TO THE DESIGNED SURFACE ELEVATION WITHIN 60 HOURS.
- DRAIN DOWN TO THE DESIGNED SURFACE ELEVATION WITHIN 60 HOURS.

 NOTE: THIS FACILITY IS TO BE JOINTLY MAINTAINED BY THE H.O.A. FOR DANIELS MILL OVERLOOK AND THE DEPARTMENT OF PUBLIC WORKS.

JOHN OF MAR LIMITED TO THE MALES OF MAR LIMITED TO THE MALES OF MAR LIMITED TO THE MALES OF THE

WATER QUALITY
DANIELS MILL OVERLOOK
SECTION 2 AREA 4

LOTS 177 THRU 229

ZONED: R-ED

TAX MAP No. 17 PARCEL Nos. 41 and 547

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

5HEET 13 OF 14

SCALE: 1 50 DATE: SEPT. 9, 1996

FISHER, COLLINS & CARTER, INC.

CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

LETTERHINAL DOUANT OFFICE MARK THE L BALLETONE MATRICIAL FIRE

ELLICOTT CITY, MARYLAND 21042

(410) 461 - 2855

DANIELS MILL OVERLOOK, LLC

C/O MR. MICHAEL DIFFENDAL

11900 TECH ROAD

SILVER SPRING, MARYLAND 20904

DEVELOPER

THE RYLAND GROUP

ATTENTION: MR. CHARLES O'DONOVAN

GALLERIA TOWERS

SUITE 705

IHH7 YORK ROAD

LUTHERVILLE, MARYLAND 21093

WATER QUALITY CONSTRUCTION SPECIFICATIONS

SPECIFICATIONS

I SITE PREPARATION: AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1.

AREAS TO BE COVERED BY THE POND OR RESERVOIR WILL BE CLEARED OF ALL TREES, BRUSH, LOGS, FENCE, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE DESIGNATED ON THE PLANS. TREE, BRUSH AND STUMPS SHALL BE CUT APPROXIMATELY LEVEL WITH GROUND SURFACE. FOR DRY STORMWATER MANAGEMENT PONDS, A MINIMUM OF A 50 FOOT RADIUS AROUND THE INLET STRUCTURE SHALL BE CLEARED.

ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE DAM AND RESERVOIR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED, A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.

II <u>EARTH FILL</u>:

MATERIAL: THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREA OR AREAS. IT SHALL BE FREE OF ROOTS STUMPS, WOOD, RUBBISH, OVERSIZE STONES, FROZEN OR OTHER OBJECTIONALBE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT AND CUT OFF TRENCH SHALL CONFORM TO UNITED SOIL CLASSIFICATION GC, SC, CH, OR CL. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGN AND CONSTRUCTION ARE SUPERVISED BY A GEOTECHNICAL ENGINEER.

PLACEMENT: AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN 8-INCH MAXIMUM THICKNESS (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST PERMEABLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT. THE PRINCIPAL SPILLWAY MUST BE INSTALLED CONCURRENTLY WITH FILL PLACEMENT AND NOT EXCAVATED INTO THE EMBANKMENT.

COMPACTION: THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD TRACK OF THE EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER TIRED OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION WILL BE OBTAINED WITH THE EQUIPMENT USED. THE FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT IF FORMED INTO A BALL IT WILL NOT CRUMBLE YET NOT BE SO WET THAT WATER CAN BE SQUEEZED OUT.

WHERE A MINIMUM REQUIRED DENSITY IS SPECIFIED, IT SHALL NOT BE LESS THAN 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN ±2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY, AND IS TO BE CERTIFIED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. ALL COMPACTION IS TO BE DETERMINED BY

STRUCTURE BACKFILL: BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A CONCRETE STRUCTURE PIPE UNLESS THERE IS A COMPACTED FILL OF TWENTY-FOUR INCHES OR GREATER OVER THE STRUCTURE

PIPE CONDUITS: ALL PIPES SHLL BE CIRCULAR IN CROSS SECTION.

POLYVINYL CHLORIDE (PVC) PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR POLYVINYL CHLORIDE (PVC) PIPE:

- 1. MATERIALS PVC PIPE SHALL BE PVC-1120 OR PVC-1220 CONFORMING TO ASTM D-1785 OR ASTM D-2241.
- 2. JOINTS AND CONNECTIONS TO ANTI-SEEP COLLARS SHALL BE COMPLETELY
- BEDDING THE PIPE SHALL BE FIRMLY AN UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.
- 4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL".
- OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 608, MIX NO. 3.

ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 905.

THE RIPRAP SHALL BE PLACED TO THE REQUIRED THICKNESS IN THE OPERATION. THE ROCK SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL INSURE THE RIPRAP IN PLACE SHALL BE REASONABLY HOMOGENEOUS WITH THE LARGER ROCKS UNIFORMLY DISTRIBUTED AND FIRMLY IN CONTACT ONE TO ANOTHER WITH THE SMALLER ROCKS FILLING THE VOIDS BETWEEN THE LARGER ROCKS. FILTER CLOTH SHALL BE PLACED UNDER ALL RIPRAP AND SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION NAD MATERIALS, SECTION 919.12.

CARE OF WATER DURING CONSTRUCTION

ALL WORK ON PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DIKES. LEVEES, COFFERDAMS, DRAINAGE CHANNELS, AND STREAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE PERMANENT WORKS. THE CONTRACTOR SHALL ALSO FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL NECESSARY PUMPING AND OTHER EQUIPMENT REQUIRED FOR REMOVAL OF WATER FROM THE VARIOUS PARTS OF THE WORK AND FOR MAINTAINING THE EXCAVATIONS, FOUNDATION, AND OTHER PARTS OF THE WORK FREE FROM WATER AS REQUIRED OR DIRECTED BY THE ENGINEER FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE ALL TEMPORARY PRPOTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION IN ANY DEGREE WHATSOEVER OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS AND SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. STREAM DIVERSIONS SHALL BE MAINTAINED UNTIL THE FULL FLOW CAN BE PASSED THROUGH THE PERMANENT WORKS. THE REMOVAL OF WATER FROM THE REQUIRED EXCAVATION AND THE FOUNDATION SHALL BE ACCOMPLISHED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND BOTTOM OF REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF MATERIAL IN REQUIRED EXCAVATIONS, THE WATER LEVEL AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER TO SUMPS FROM WHICH THE WATER SHALL BE PUMPED.

STABILIZATION: ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SIGHTLY CONDITION. ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SPOIL AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING LIMING, FERTILIZING AND MULCHING AS REQUIRED IN ACCORDANCE WITH THE MARYLAND SOIL CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS FOR CRITICAL AREA PLANTING (MD-342) OR AS SHOWN ON THE ACCOMPANYING

EROSION & SEDIMENT CONTROL: CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED & WATER & AIR POLLUTION MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED. CONSTRUCTION PLANS SHALL DETAIL EROSION AND SEDIMENT CONTROL MEASURES TO BE EMPLOYED DURING THE CONSTRUCTION PROCESS.

						<u>-</u>	
WATER QUALITY FACILITY NUMBER		PRIMARY	Y W	etland v	EGETATION		
	8						
54	30		5AGGITTARIA LATIFOLIA (DUCK POTATO	(sr)	ROOTS		36" OC
5A	15		SCIRPUS AMERICANUS COMMON THREE SQUARE	(SA)	ROOTS		36° OC
			SECONDA	RY	WETLAND	VEGETATION	4
со	15		CEPHALATHUS OCCICENTIALS BUTTON BUSH	(co)	ROOT5		
PV	30		PELTANDRA VIRGINICA (ARROW - ARUM	(PV)	ROOTS		36° OC
PC	15		PONTEDERIA CORDATA (PICKEREL WEED	(PC)	ROOTS		36* OC

PLANT SPECIES

REMARKS

SEE SHEET 13 FOR PLAN VIEW.

- 1. ALL PLANT MATERIALTO BE WET GROWN OR ADAPTED TO WETLAND CONDITIONS
- 2. ALTERATIONS TO THE GRADING SHOWN MAY AFFECT THE SUCCESS OF THE PLANT MATERIAL 3. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING

PLANT LIST			
QTY.	KEY	NAME	SIZE
G	\oplus	ACER RUBRUM (OCTOBER GLORY) (OCTOBER RED MAPLE)	2-21 CALIPER FULL CROWN B\$B
7	*	PINUS STROBUS EASTERN WHITE PINE	6'-8' HEIGHT

*THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION IG.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE (13) REQUIRED LANDSCAPE TREES HAS BEEN POSTED AS PART OF THE DEVELOPERS AGREEMENT IN THE AMOUNT OF 13× 100 = \$1300.00

WATER QUALITY AREA LANDSCAPING

WATER QUALITY FACILITY NUMBER	
LINEAR FEET OF PERIMETER	450
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR) DESCRIBE BELOW IF NEEDED	140
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR) DESCRIBE BELOW IF NEEDED	
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES	BASED ON 310 L.F. 6 (1/50) 7(1/40)
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBST.) SHRUBS (10:1 SUBST.)	SYMBOL 6 ⊕ 7 **

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION

DISTRICT. 9-6-96 SIGNATURE OF ENGINEER

DEVELOPER'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 ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS. L.S.D.A. - NATIONAL RESOURCES CONSERVATION/SERVICE

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

APPROVED: DEPARTMENT OF PUBLIC WORKS

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

> SIGNATURE DATE _____

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ONSITE INSPECTIONS AND AMTERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ONSITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEANOR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY. IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-370). THE POND OWNERS(S) AND ANY AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNERS(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

HOMEOWNER'S ASSOCIATION MAINTENANCE RESPONSIBILITIES FOR SHALLOW MARSH

- INSPECTION FOREBAY AFTER EACH STORM IF SEDIMENT BUILDUP EXCEEDS FOUR (4) INCHES, NOTIFY THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF HIGHWAYS TO FACILITATE CLEANOUT OPERATIONS.
- REMOVAL OF ACCUMULATED FAPER, TRASH AND DEBRIS AFTER EVERY STORM. AS NECESSARY.
- ANNUAL INSPECTION AND REPAIR OF THE GABION STRUCTURES, AS NEEDED. VEGETATION GROWING ON THE EMBANKMENT TOP OR FACES IS NOT ALLOWED
- CORRECTIVE MAINTENANCE IS REQUIRED ANYTIME THE FOREBAY DOES NOT DRAIN DOWN TO THE DESIGNED SURFACE ELEVATION WITHIN 60 HOURS.

NOTE: THIS FACILITY IS TO BE JOINTLY MAINTAINED BY THE H.O.A. FOR DANIELS MILL OVERLOOK AND THE DEPARTMENT OF PUBLIC WORKS.

TO EXCEED 18 INCHES IN HEIGHT AT ANYTIME.

WATER QUALITY DANIELS MILL OVERLOOK SECTION 2 AREA 4

LOTS 177 THRU 229 TAX MAP No. 17 PARCEL Nos. 41 and 547 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET IH OF IH

DATE: SEPT. 9,1996

75HER, COLLINS & CARTER, INC. ELLICOTT CITY, MARYLAND 21042

DANIELS MILL OVERLOOK, LLC C/O MR. MICHAEL DIFFENDAL 11900 TECH ROAD SILVER SPRING, MARYLAND 20904

DEVELOPER THE RYLAND GROUP TTENTION: MR. CHARLES O'DONOVAN GALLERIA TOWERS SUITF#705 1447 YORK TROAD LUTHERVILLE, MARYLAND 21093