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**FINAL ROAD CONSTRUCTION, GRADING AND
STORMWATER MANAGEMENT PLANS**

ROCKY GLEN SUBDIVISION

LOTS 5 THRU 15

**(A RESUBDIVISION OF LOT 4, "PROPERTY OF ROCKY GLEN, L.L.C.",
LOTS 3 AND 4, PLAT NO. 14565)**

ZONED: R-20

TAX MAP NO. 18 GRID NO. 13 PARCEL NO. 41

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. White, Jr. 7-9-03
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cynthia Harman 7/25/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Robert D. ... 7/1/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

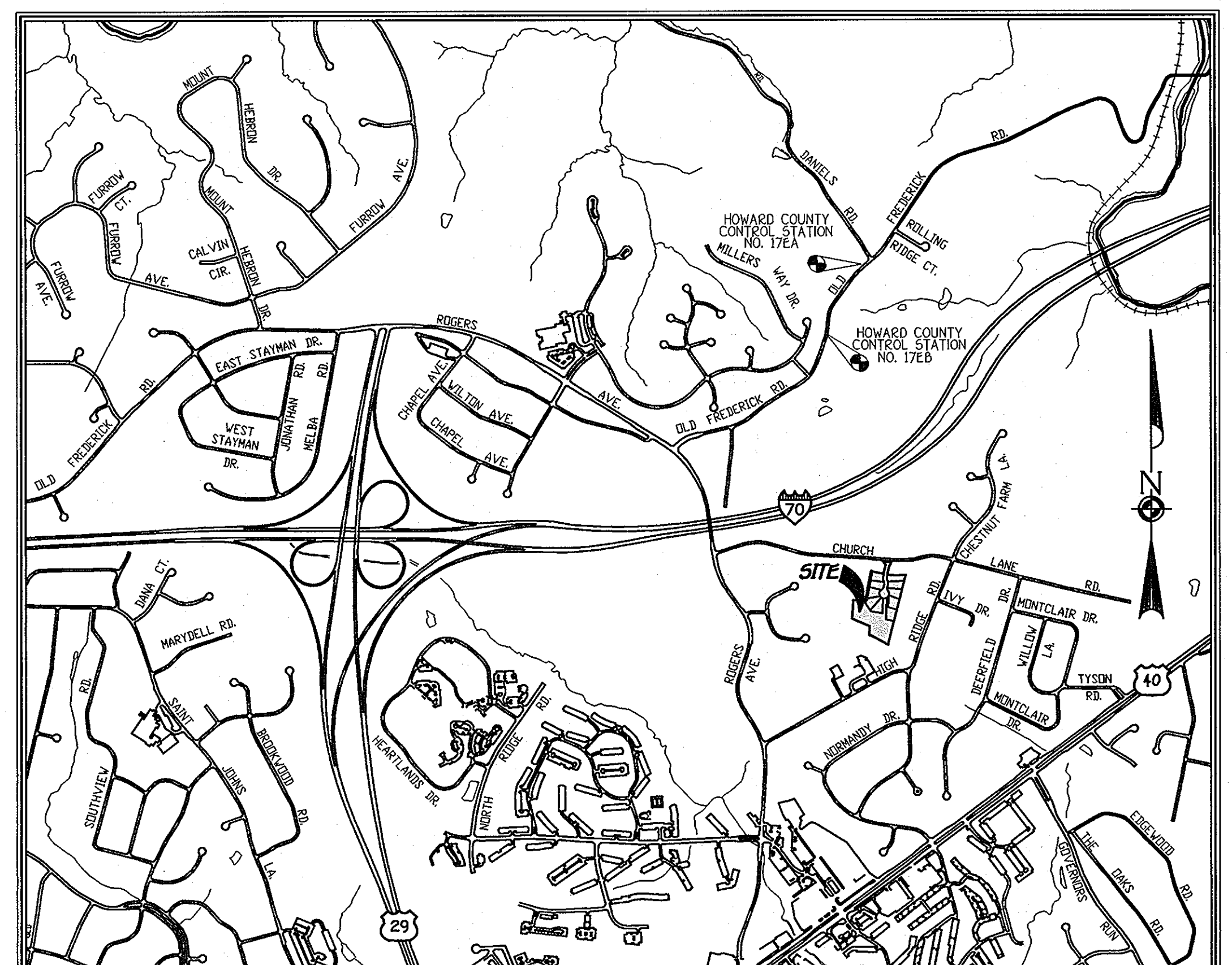
GENERAL NOTES

- THE SUBJECT PROPERTY IS ZONED R-ED AND R-20 PER COMPREHENSIVE ZONING EFFECTIVE, OCTOBER 18, 1993. SEE HOWARD COUNTY FILE NUMBER 5 99-19, P. 01-23, F. 00-171 & F. 00-172 FOR PAST PROJECT HISTORY.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410) 313-1800 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MSES UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- 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 THE PLACEMENT OF ANY ASPHALT.
- THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM, HOWARD COUNTY MONUMENT Nos. 17EA AND 17EB WERE USED FOR THIS PROJECT. STA. 17EA N 594,357.610 E 1,357,519.371 STA. 17EB N 593,813.919 E 1,355,731.862
- SITE INFORMATION:
 - SUBDIVISION NAME: ROCKY GLEN
 - TAX MAP NO.: 18, GRID: 13
 - PARCEL NO.: 41
 - ZONING: R-20
 - ELECTION DISTRICT: SECOND
 - TOTAL TRACT AREA: 6.510 AC.
 - C. NO. OF BUILDABLE LOTS: 10
 - H. NO. OF PRESERVATION PARCELS: 0
 - I. NO. OF OPEN SPACE LOTS: 1
 - J. AREA OF PUBLIC ROAD R/W: 0.527 AC.
 - K. AREA OF BUILDABLE LOTS: 5.983 AC.
 - L. AREA OF OPEN SPACE LOT 10: 2.703 AC.
 - M. PRELIMINARY PLAN APPROVAL DATE: OCTOBER 25, 2001
 - N. PREVIOUS FILE Nos.: 5 99-19, P. 01-23, F. 00-171, F. 00-172
 - O. TOTAL AREA OF OPEN SPACE REQUIRED:
 - AREA OF R-ED PROPERTY FROM RECORD PLAT NO. 14565 (F00-172) WHEREBY OPEN SPACE WAS DEFERRED UNTIL THE RESUBDIVISION OF LOT 4, ROCKY GLEN SUBDIVISION. LOT AREA = 0.309 AC. ROADWAY DEDICATION AREA = 0.242 AC. TOTAL AREA = (0.551 AC. x 254) = 0.138 AC.
 - AREA OF R-20 PROPERTY FROM RECORD PLAT NO. 14565 (F00-172) WHEREBY OPEN SPACE WAS DEFERRED UNTIL THE RESUBDIVISION OF LOT 4, ROCKY GLEN SUBDIVISION. LOT AREA = 0.079 AC. ROADWAY DEDICATION AREA = 0.025 AC. TOTAL AREA = (0.104 AC. x 303) = 0.031 AC.
 - A FEE-IN-LIEU OF OPEN SPACE IN THE AMOUNT OF \$1,500.00 WAS PROVIDED FOR LOT 2, PLAT NO. 14555 (F00-172). LOT 1 WAS EXEMPT FROM THE OPEN SPACE OBLIGATION.
 - AREA OF RESUBDIVISION OF LOT 4 (6.510 AC. x 303) = 1.953 AC.
 - TOTAL AREA OF REQUIRED OPEN SPACE = (0.138 AC. + 0.031 AC. + 1.953 AC.) = 2.122 AC.
 - P. TOTAL AREA OF OPEN SPACE PROVIDED:
 - AREA OF CREDITED OPEN SPACE PROVIDED (LOT 10) = 2.703 AC.
- WATER IS PUBLIC BY CONT. No. 14-401-D
- SEWER IS PUBLIC BY CONT. No. 14-401-D
- THE SUBJECT PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- EXISTING UTILITIES SHOWN HEREON ARE TAKEN FROM CURRENT HOWARD COUNTY CONTRACT DRAWINGS.
- TOPOGRAPHIC INFORMATION IS BASED ON FIELD RUN SURVEY BY FISHER, COLLINS & CARTER, INC. ON OR ABOUT APRIL, 1999.
- THERE ARE NO STEEP SLOPES WITH CONTIGUOUS AREAS OF 20,000 SQ.FT. OR GREATER ON THIS SITE.
- WETLAND AND FOREST STAND DELINEATION INFORMATION WAS TAKEN FROM REPORTS PREPARED BY EXPLORATION RESEARCH, INC. DATED MAY, 1999 AND APPROVED UNDER 5 99-19.
- A.P.F.O. TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC. DATED JAN. 23, 1999 AND APPROVED UNDER 5 99-19.
- SKETCH PLAN SUBJECT TO PLANNING BOARD CASE NO. 340. THE DECISION AND ORDER GRANTING APPROVAL TO THIS SKETCH PLAN WAS ON JANUARY 26, 2000. FILE NO. 5 99-19
- SOILS INFORMATION TAKEN FROM SOILS MAP NO. 16, "SOILS SURVEY", HOWARD COUNTY, MARYLAND JULY 1968 ISSUE.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE IS TO BE PROVIDED AT THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY AND NOT ONTO THE FLAG OR PIPESTEM DRIVEWAY.
- STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY AND MARYLAND 37B SPECIFICATIONS. RECHARGE VOLUME WILL BE PROVIDED THROUGH THE USE OF DRY SWALES, WASH CHANNEL PROTECTION VOLUME WILL BE PROVIDED BY A MICROPOOL EXTENDED DETENTION POND, OVERBANK FLOOD PROTECTION VOLUME AND EXTREME FLOOD VOLUME ARE NOT REQUIRED FOR THIS SITE.
 STORMWATER MANAGEMENT FACILITY (PRIVATE)
 TYPE - MICROPOOL EXTENDED DETENTION POND
 OWNER - HOMEOWNER'S ASSOCIATION
 MAINTENANCE - HOMEOWNER'S ASSOCIATION
- EXISTING SEPTIC FIELD LOCATED ON LOT 4 WILL BE ABANDONED PRIOR TO THE RECORDED OF THE RESUBDIVISION PLAT FOR THIS PROJECT.
- LOT Nos. 1 AND 2, PLAT NO. 14555 (F00-172) AND LOT NO. 3, PLAT NO. 14565 (F00-172) WERE PART OF THE ORIGINAL 599-19.
 LANDSCAPING OBLIGATIONS:
 - THE LANDSCAPE FOR THE EAST SIDE OF LOT 2 AND THE WEST SIDE OF LOT 1 (F00-172) WILL BE ADDRESSED WITH THIS SUBMISSION. LANDSCAPING IS NOT REQUIRED ALONG THE SOUTHERN BOUNDARY OF LOTS 1 AND 2.
 - THE LANDSCAPE FOR THE NORTH AND WEST BOUNDARIES OF LOT 3 WERE PLANTED UNDER SDPOI-105. THE BOUNDARIES OF LOT 4 (F00-172) WILL BE ADDRESSED WITH THIS SUBMISSION.
 FOREST CONSERVATION OBLIGATIONS:
 - THE FOREST CONSERVATION FOR LOTS 1 AND 2 (F00-172) HAVE BEEN MET WITH A FEE-IN-LIEU PAYMENT IN THE AMOUNT OF \$1,307.00.
 - THE FOREST CONSERVATION FOR LOT 3 AND R.O.W. (F00-172) HAVE BEEN MET WITH THE ESTABLISHMENT OF A 0.12 AC. ON-SITE FOREST CONSERVATION EASEMENT (RETENTION).
 OPEN SPACE OBLIGATIONS:
 - AREA OF R-ED PROPERTY FROM RECORD PLAT NO. 14565 (F00-172), OPEN SPACE WAS DEFERRED UNTIL THE RESUBDIVISION OF LOT 4, ROCKY GLEN SUBDIVISION.
 - AREA OF R-20 PROPERTY FROM RECORD PLAT NO. 14565 (F00-172), OPEN SPACE WAS DEFERRED UNTIL THE RESUBDIVISION OF LOT 4, ROCKY GLEN SUBDIVISION.
 - A FEE-IN-LIEU OF OPEN SPACE IN THE AMOUNT OF \$1,500.00 WAS PROVIDED FOR LOT 2, PLAT NO. 14555 (F00-172). LOT 1 WAS EXEMPT FROM THE OPEN SPACE OBLIGATION.
- NO CEMETERIES EXIST ON THE PROPERTY.
- THERE SHALL BE 95% COMPACTION PER AASHTO T-180 SPECIFICATIONS UNDER ALL IMPROVEMENTS.
- THE CURB TRANSITION AT INLET I-1 SHALL COMPLY WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, DETAIL R-3-06.
- STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT.
 *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)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- FINANCIAL SURETY FOR THE REQUIRED PERIMETER LANDSCAPING TREES (21 SHADE TREES AND 4 EVERGREEN TREES) AND THE REQUIRED 5MM. LANDSCAPING TREES (9 SHADE TREES AND 12 EVERGREEN TREES) HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$14,000.00.
- THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL FOR THIS PROJECT HAS BEEN FULFILLED BY THE ON-SITE RETENTION OF EXISTING FOREST IN THE AMOUNT OF 0.50 ACRES. THE REMAINING FOREST CONSERVATION OBLIGATION OF 0.60 AC. HAS BEEN FULFILLED BY A FEE-IN-LIEU PAYMENT. SURETY FOR ON-SITE RETENTION (0.50 AC. x \$2,000/SQ. FT. = \$1,000.00), AND A FEE-IN-LIEU PAYMENT (0.50 x \$2,000/SQ. FT. = \$1,000.00). SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION. TOTAL FOREST CONSERVATION SURETY AMOUNT FOR THIS SUBDIVISION IS \$20,000.00.
- SINCE THIS PLAN WAS SUBMITTED PRIOR TO NOVEMBER 15, 2001, IT MUST COMPLY WITH THE FOURTH EDITION OF THE SUBDIVISION REGULATIONS AND THE NEW ZONING REGULATIONS, AS AMENDED BY COUNCIL BILL 90-2001.
- THE MDE DAM SAFETY PERMIT NUMBER IS 03-P0-0011

ROAD CLASSIFICATION		
ROAD NAME	CLASSIFICATION	R/W
ROCKY GLEN WAY	PUBLIC ACCESS PLACE	40'

STREET LIGHT CHART				
DWG. No.	STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
2	ROCKY GLEN WAY	C.L. STA. 0+30	27' R	150-WATT H.P.S. VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.
2	ROCKY GLEN WAY	L.P. STA. 1+20	3' BEHIND CURB	100-WATT "PREMIER" H.P.S. VAPOR POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.
2	ROCKY GLEN WAY	C.L. STA. 2+32	13' R	100-WATT "PREMIER" H.P.S. VAPOR POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.

TRAFFIC CONTROL SIGNS				
STREET NAME	C.L. STATION	OFFSET	POSTED SIGN	SIGN CODE
ROCKY GLEN WAY	0+30	21' L	STOP	R1-1



SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 NATIONAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL FEE
 ELLICOTT CITY, MARYLAND 21114
 (410) 481-2855

OWNER/DEVELOPER
 ROCKY GLEN, L.L.C.
 3075 PARK AVENUE
 ELLICOTT CITY, MD 21143

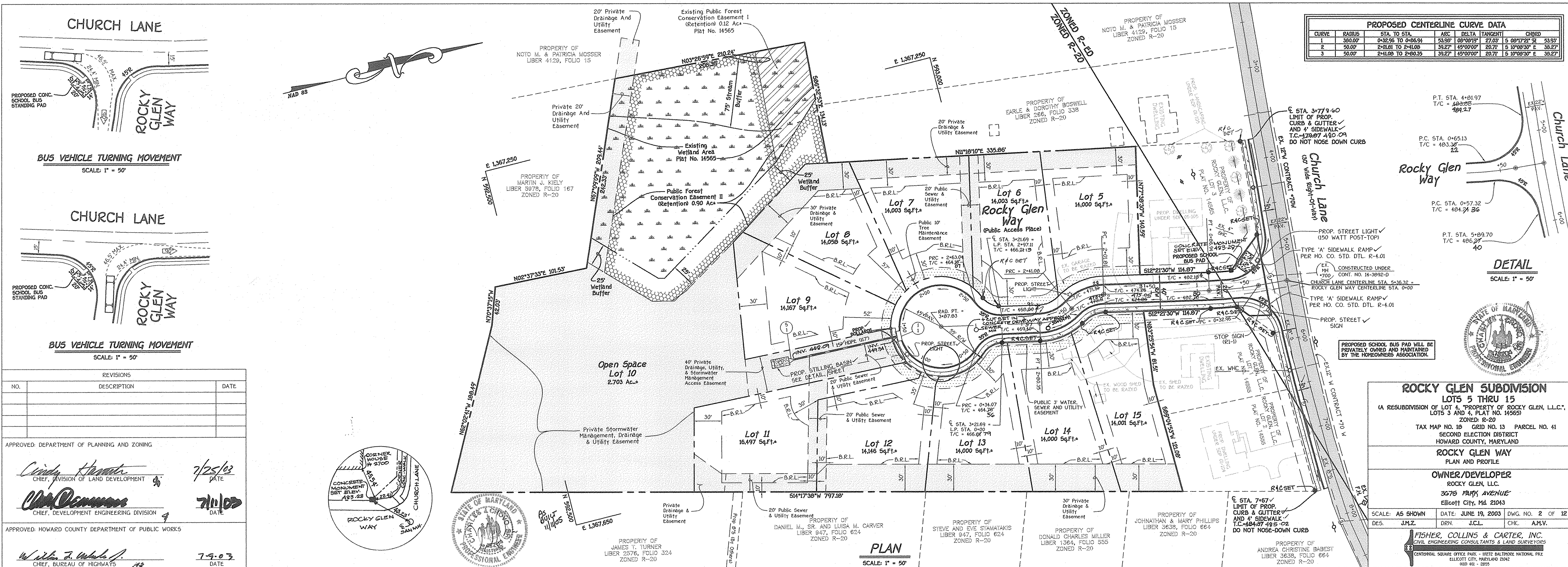


Charles J. Cervo, Sr., P.E., L.S.
 CHARLES J. CERVO, SR., P.E., L.S.
 DATE: 6/19/03



TITLE SHEET
ROCKY GLEN SUBDIVISION
LOTS 5 THRU 15
 (A RESUBDIVISION OF LOT 4, "PROPERTY OF ROCKY GLEN, L.L.C.",
 LOTS 3 AND 4, PLAT NO. 14565)
 ZONED: R-20
 GRID NO. 13
 TAX MAP NO. 18
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JUNE 19, 2003
 SHEET 1 OF 12

AS-BUILT 11-11-05 F 02 115



ROCKY GLEN SUBDIVISION
LOTS 5 THRU 15
(A RESUBDIVISION OF LOT 4, "PROPERTY OF ROCKY GLEN, L.L.C.",
LOTS 3 AND 4, PLAT NO. 14565)
ZONED R-20

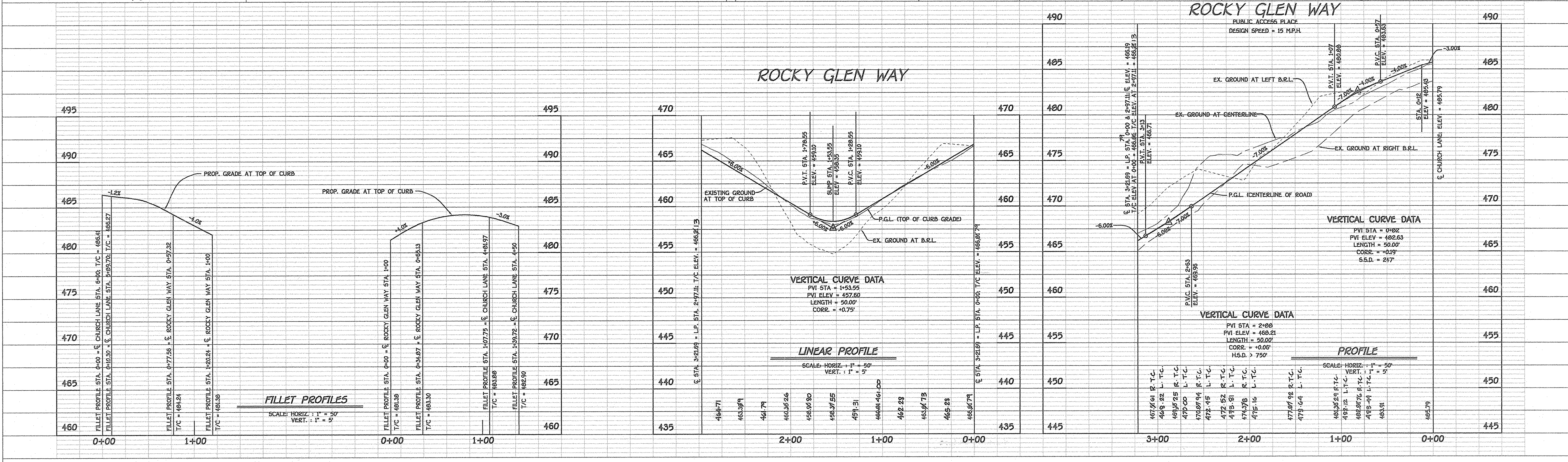
TAX MAP NO. 19 GRID NO. 13 PARCEL NO. 41
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

ROCKY GLEN WAY
PLAN AND PROFILE

OWNER/DEVELOPER
ROCKY GLEN, L.L.C.
3075 PARK AVENUE
ELICOTT CITY, MD 21043

SCALE: AS SHOWN DATE: JUNE 19, 2003 DWG. NO. 2 OF 12
DES. J.M.Z. DRN. J.C.L. CHK. A.M.V.

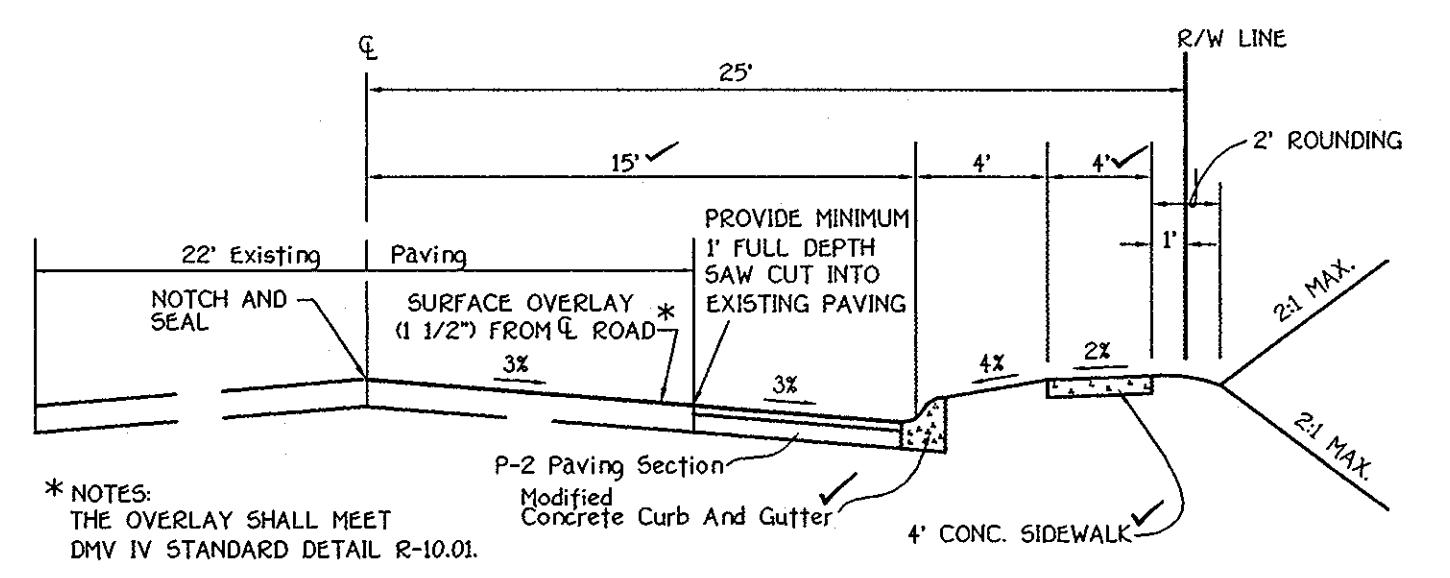
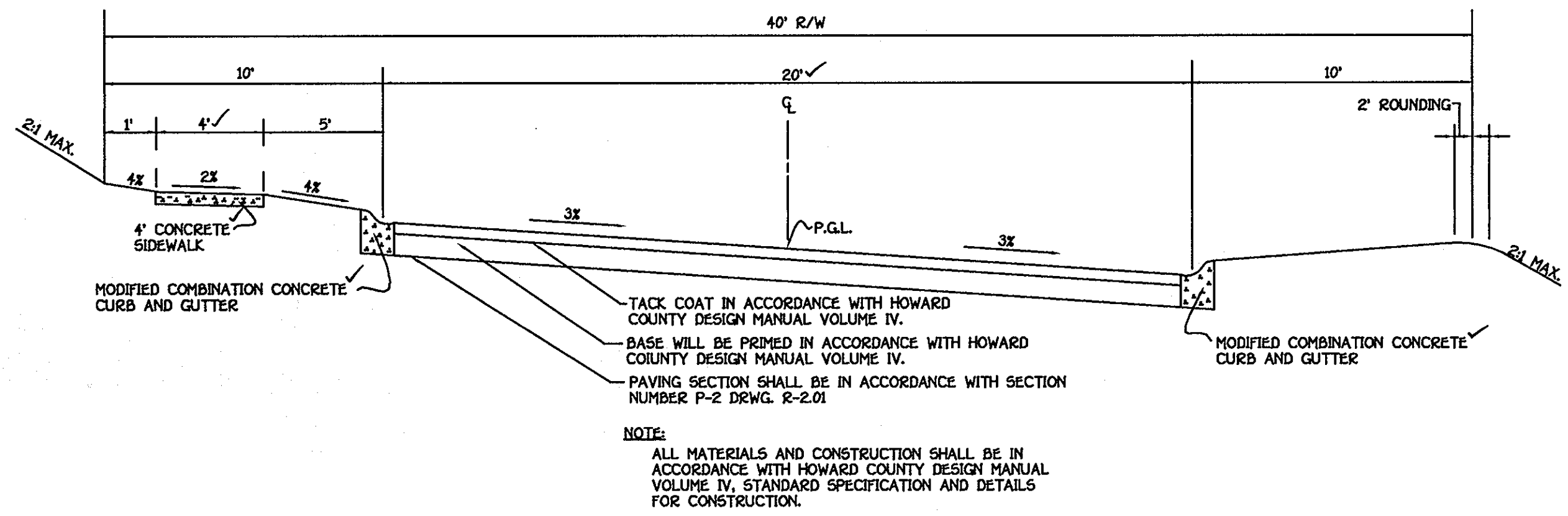
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FREE
ELICOTT CITY, MARYLAND 21042
4100.461 - 3293



Approved: Department Of Public Works
 Chief Bureau Of Highways
 Date 7-9-03

Approved: Department Of Planning And Zoning
 Chief, Division Of Land Development
 Date 7/25/03

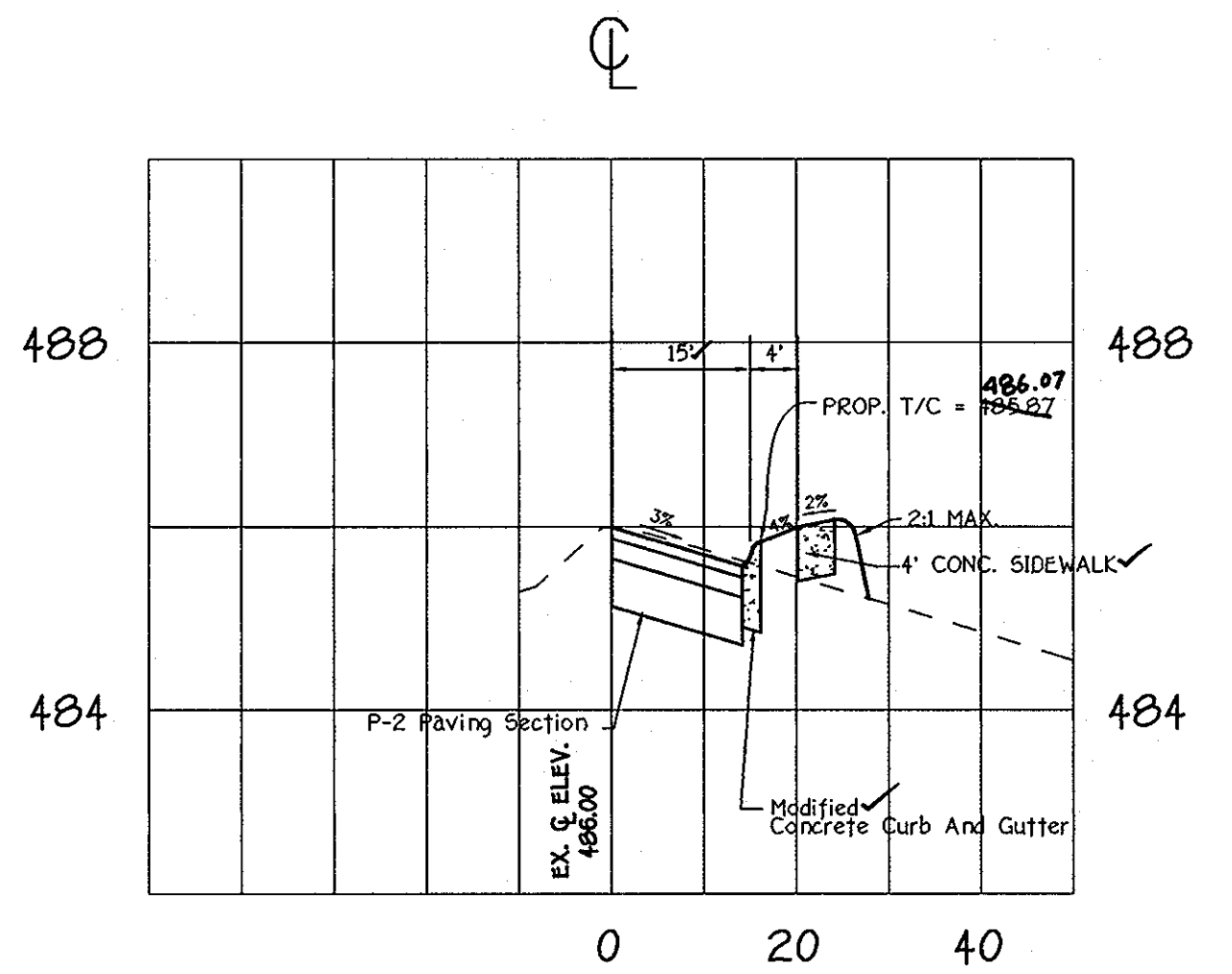
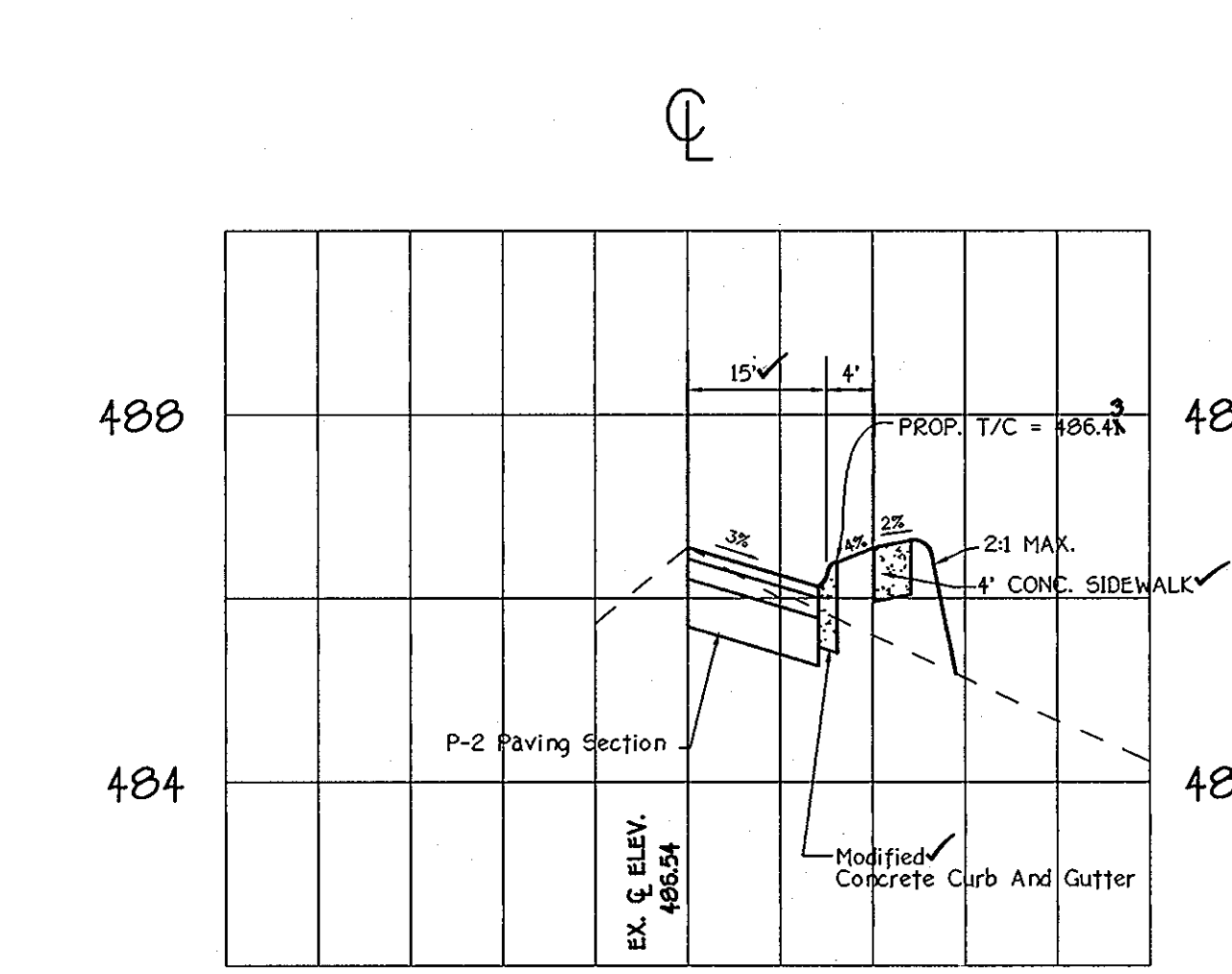
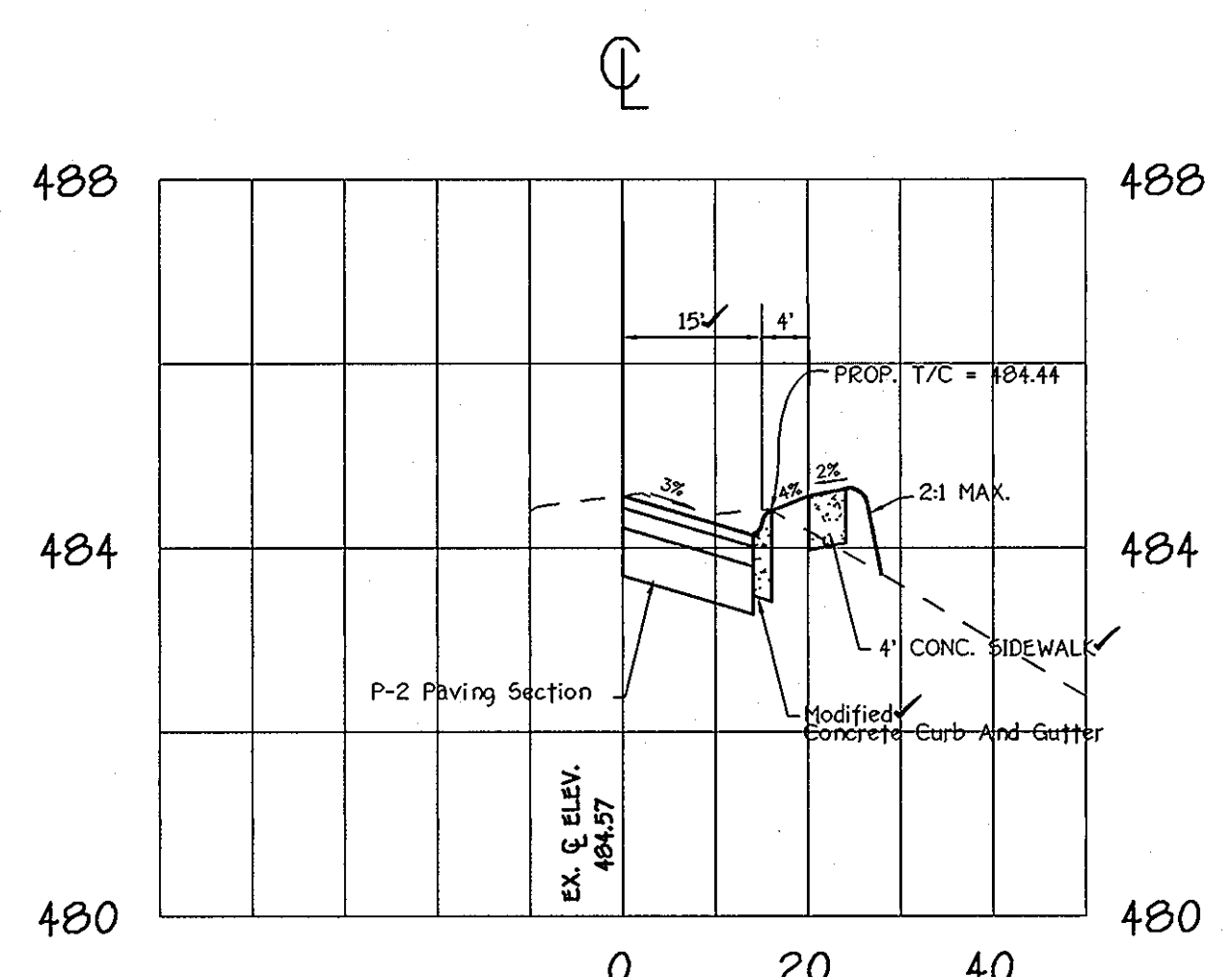
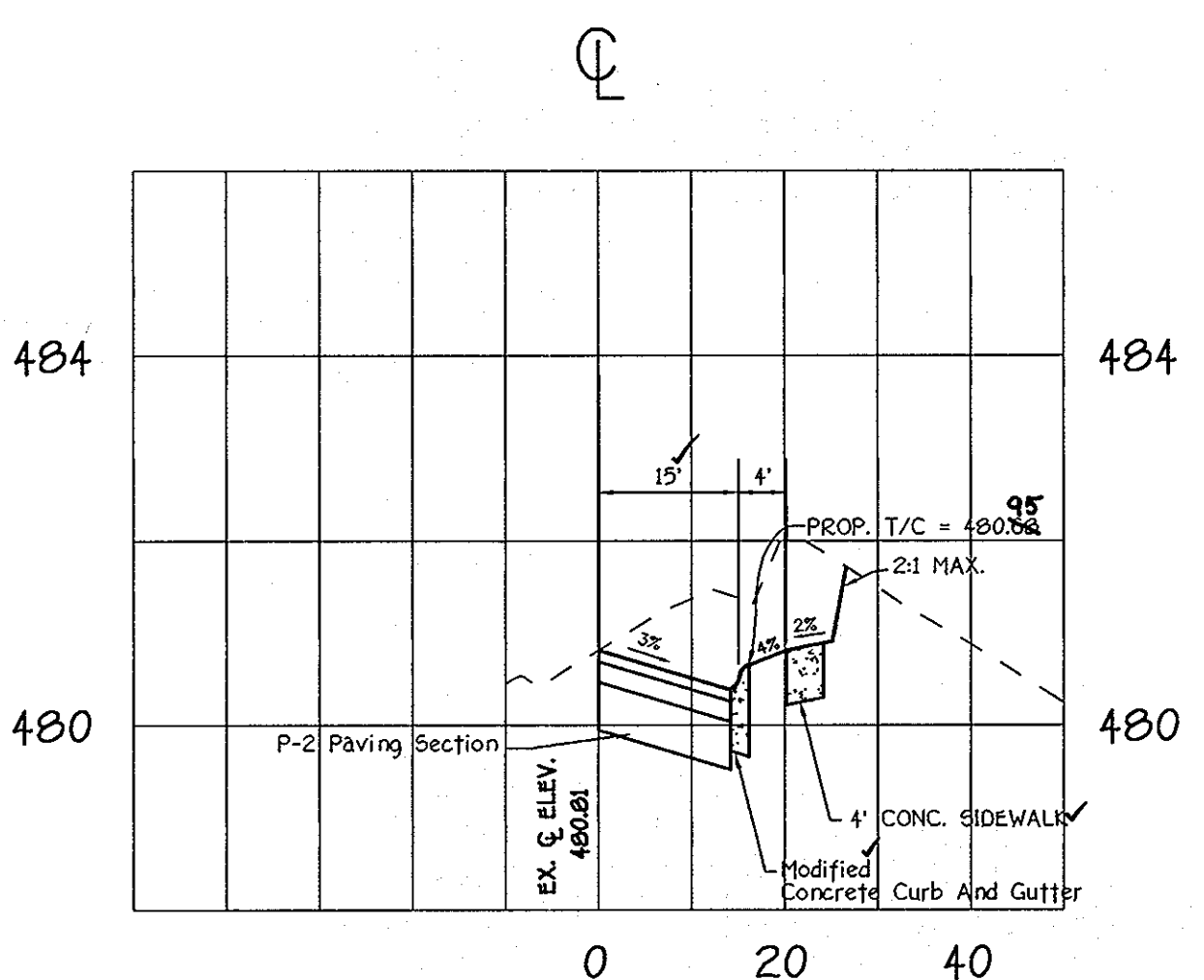
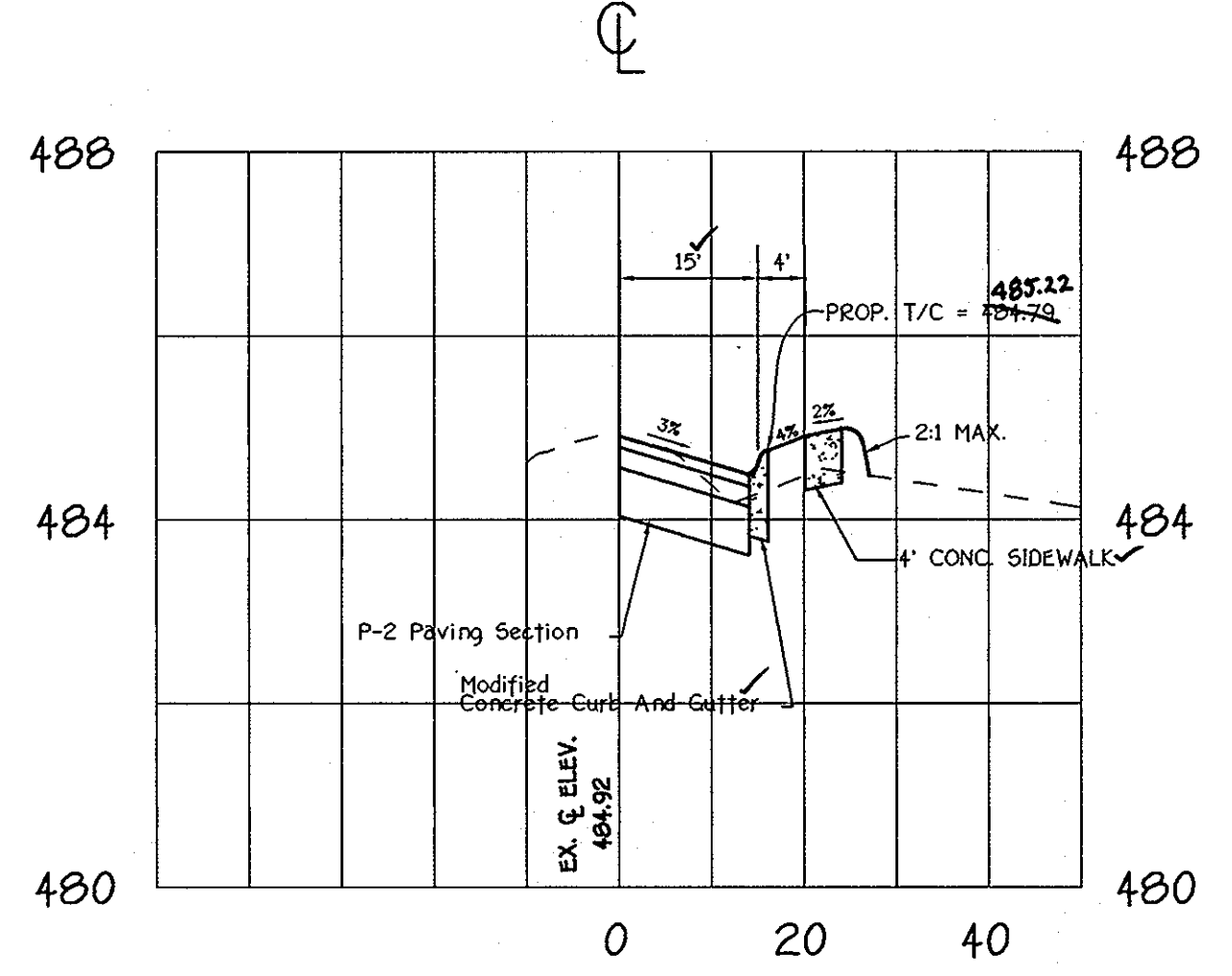
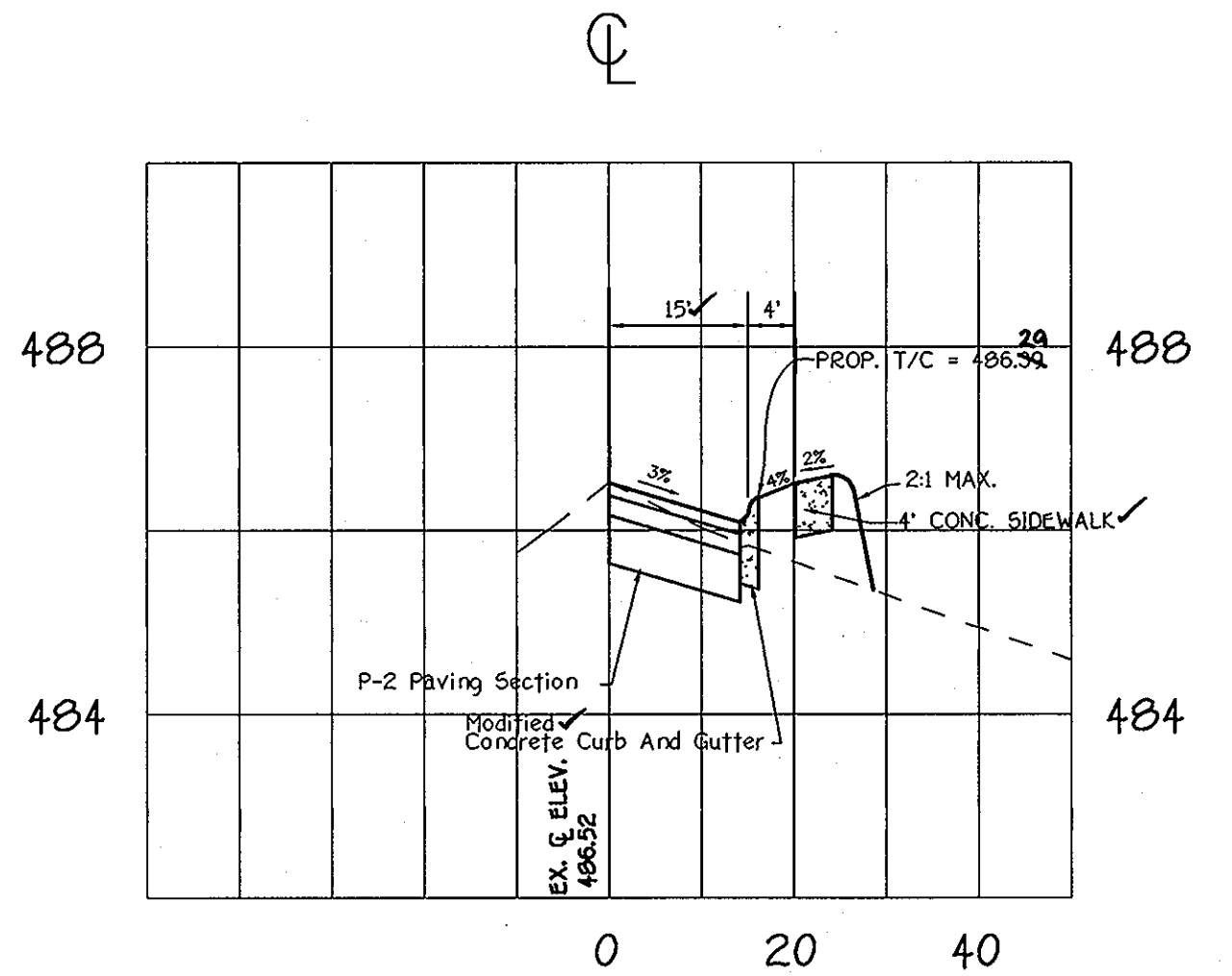
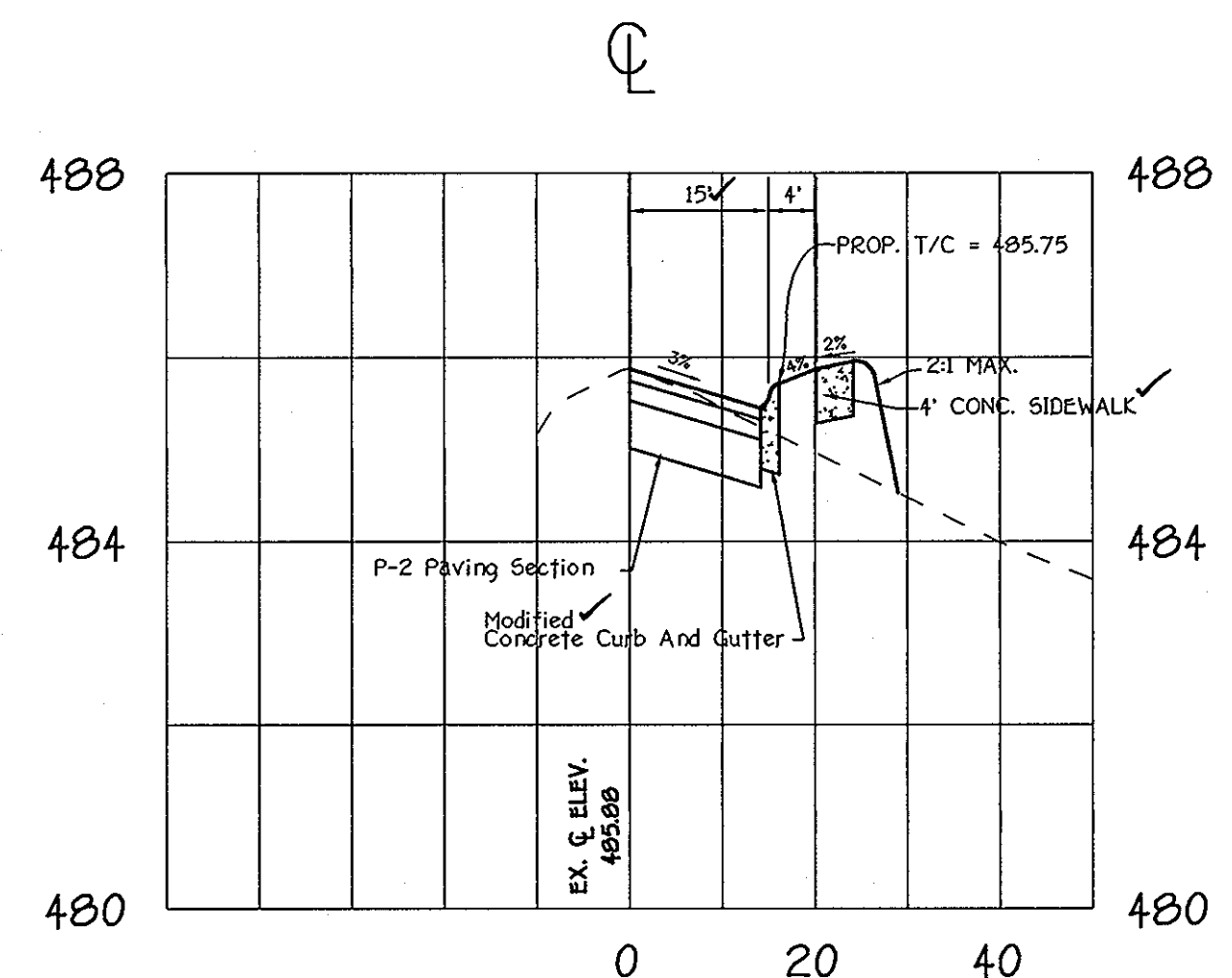
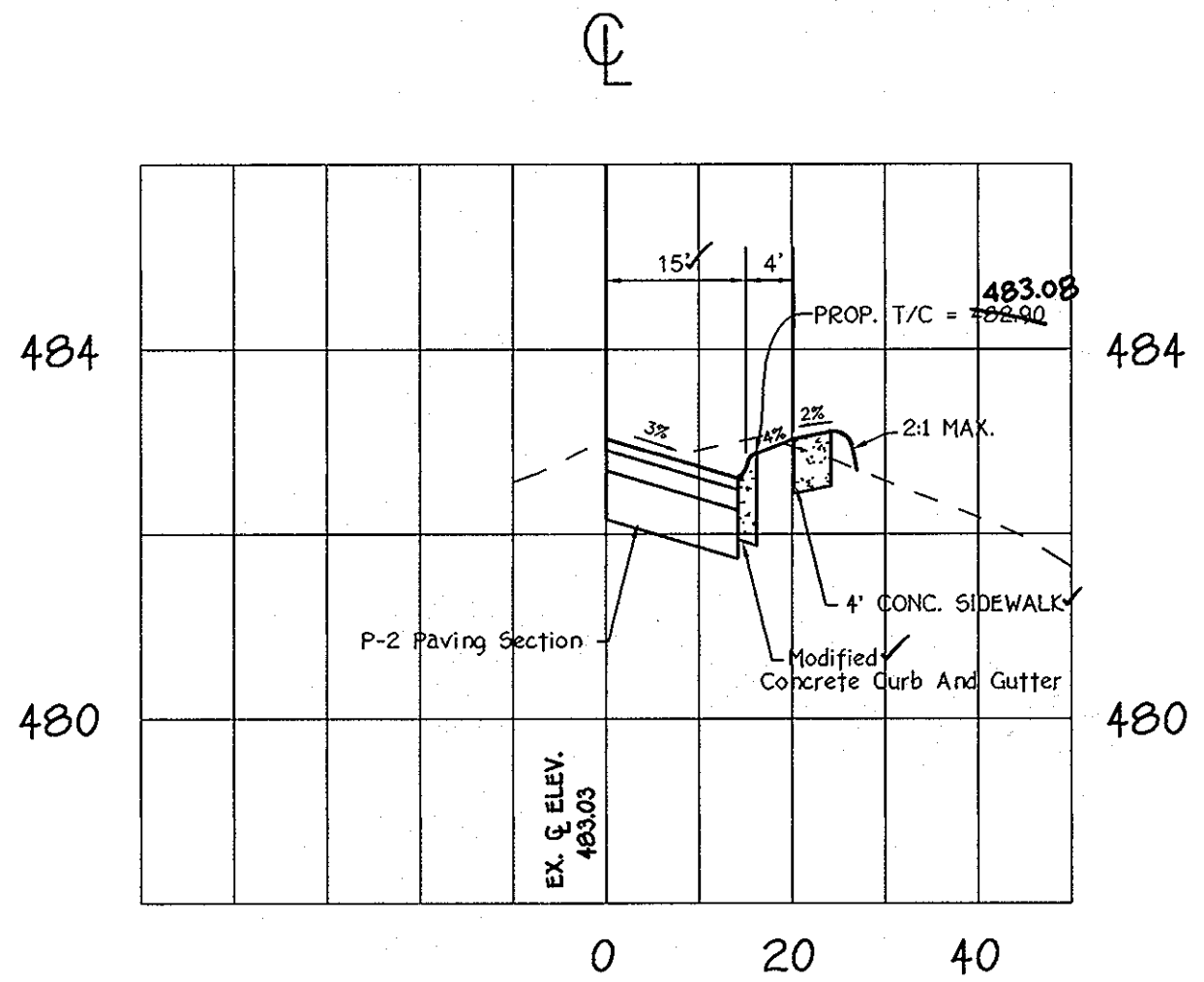
Chief, Development Engineering Division
 Date 7/11/03



TYPICAL ROADWAY SECTION (ROCKY GLEN WAY)
 NO SCALE

TYPICAL CHURCH LANE WIDENING SECTION
 NO SCALE

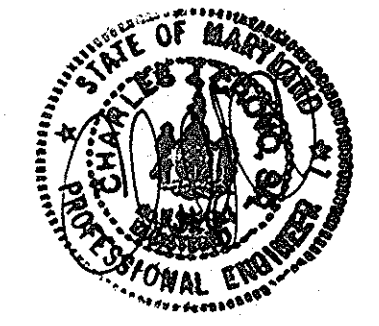
ROADWAY INFORMATION CHART						
ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STATION LIMITS	R/W	PAVING SECTION
ROCKY GLEN WAY	PUBLIC ACCESS PLACE	15 MPH	R-20	0+00 TO 3+21.69	40'	P-2



CROSS-SECTIONS

SCALE: HOR. 1" = 20'
 VER. 1" = 2'

OWNER/DEVELOPER
 ROCKY GLEN, LLC
 3076 PARK AVENUE
 ELICOTT CITY, MD 21043

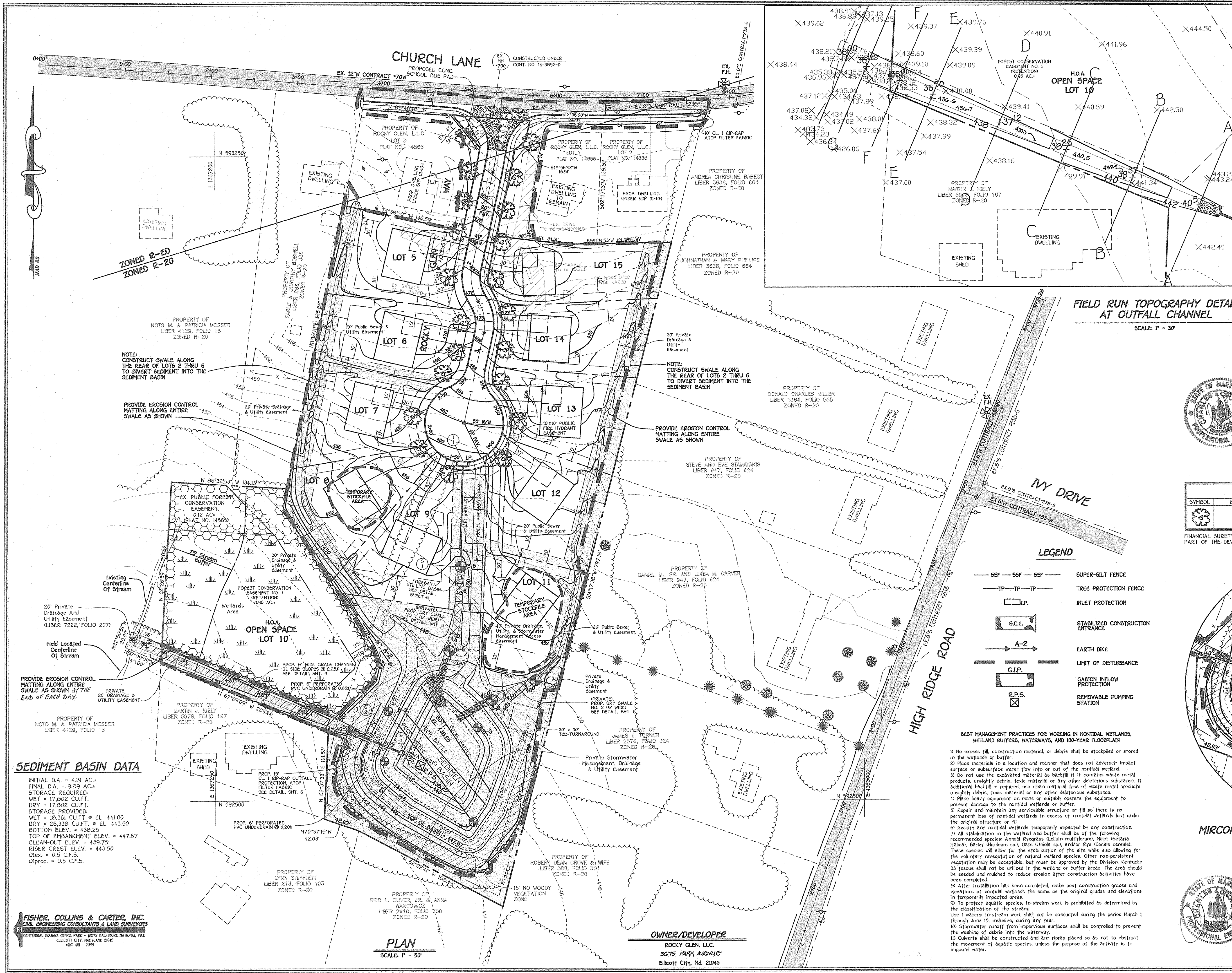


CROSS-SECTIONS (CHURCH LANE)
 ROCKY GLEN SUBDIVISION
 (A RESUBDIVISION OF LOT 4, PROPERTY OF ROCKY GLEN, L.L.C.,
 LOTS 3 AND 4, PLAT NO. 14965)
 LOTS 5 THRU 15
 ZONED: R-20
 TAX MAP NO. 18 GRID NO. 13 PARCEL NO. 41
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JUNE 19, 2003
 SHEET 3 OF 12

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 19272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2055

AS-BUILT 11-11-05

F02115

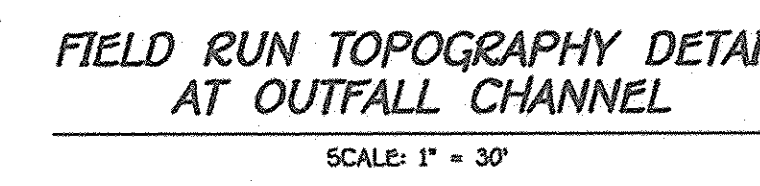


DEVELOPER'S CERTIFICATE
 I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control 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.
 Signature Of Developer: *Donald R. Reuser* Date: 6/19/03
 Printed Name Of Developer: Donald R. Reuser

ENGINEER'S CERTIFICATE
 I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Certificate Of Attendance At A Department Of The Environment Approved Training Program. 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.
 Signature Of Engineer: *Charles J. Crovo, Sr., P.E., L.S.* Date: 6/11/03
 Printed Name Of Engineer: Charles J. Crovo, Sr., P.E., L.S.
 These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Soil Erosion And Sediment Control.
 Signature: *Jim Mynas* Date: 7/3/03
 USDA-Natural Resources Conservation Service
 These Plans For Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.
 Signature: *John S. ...* Date: 7/3/03
 Note: Dam Permit: 03-P0-0011
 Howard Soil Conservation District
 Approved Department Of Public Works
 Signature: *Walter J. ...* Date: 7-9-03
 Chief, Bureau Of Highways
 Approved Department Of Planning And Zoning
 Signature: *Cindy Harvath* Date: 7/25/03
 Chief, Division Of Land Development
 Signature: *Paul ...* Date: 7/11/03
 Chief, Development Engineering Division

AS-BUILT CERTIFICATION
 I Herby 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: 1/30/04
 P.E. No. 111105
 Date: 1/30/04

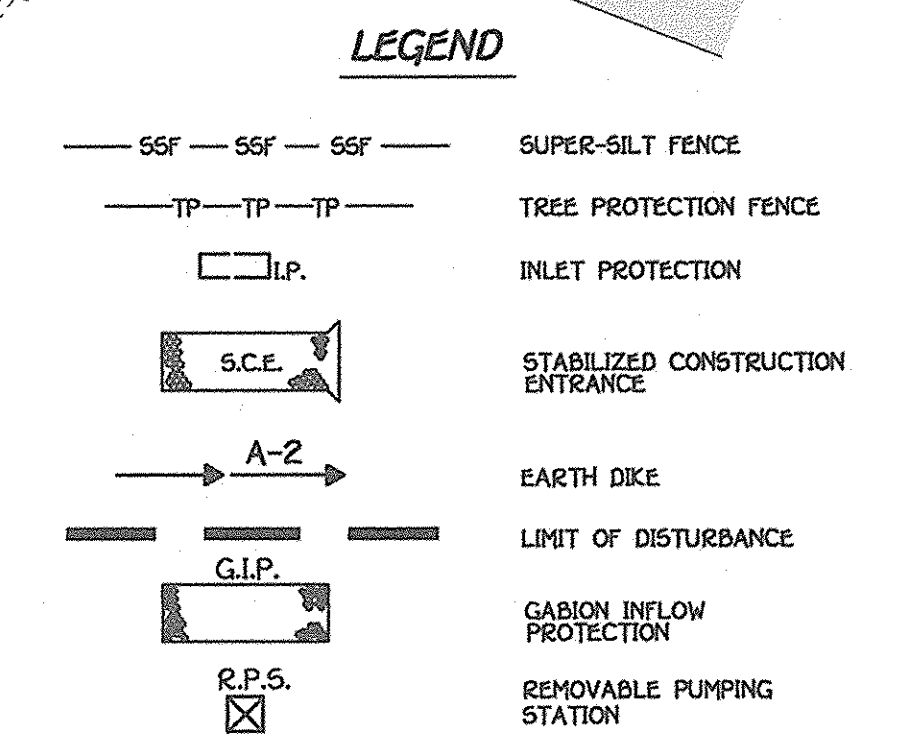
Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not Mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Release Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.



STREET TREE SCHEDULE

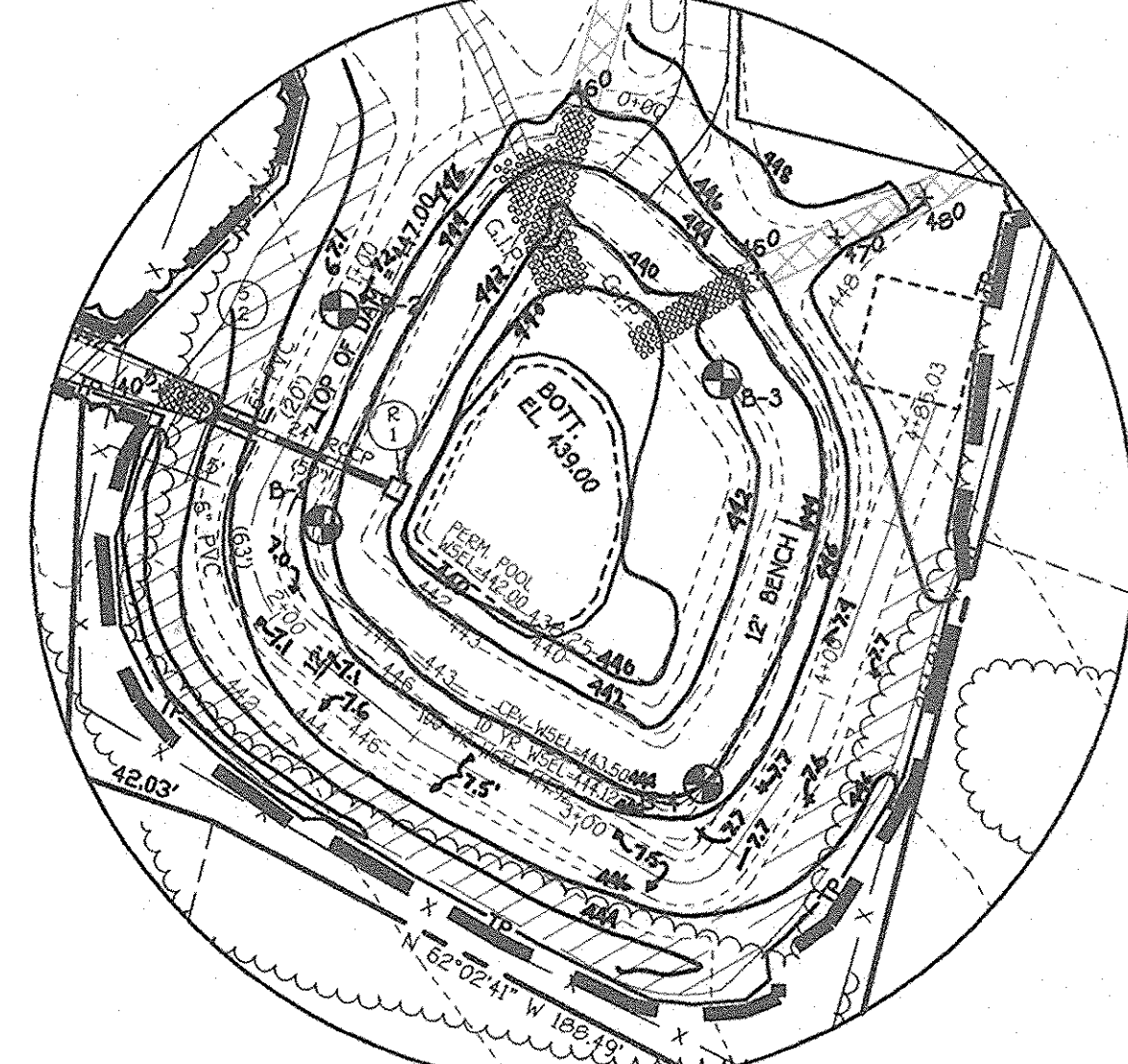
SYMBOL	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
	ACER RUBRUM "OCTOBER GLORY" RED MAPLE	2 1/2" - 3" CAL.	40' APART ON PUBLIC R/W

FINANCIAL SURETY FOR THE 21 REQUIRED STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$6,300.00.

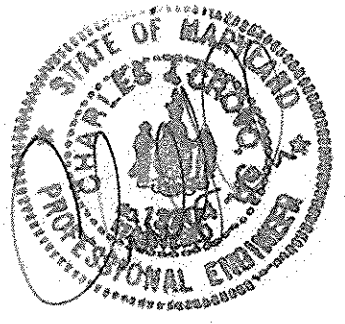


BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAIN

- No excess fill, construction material, or debris shall be stockpiled or stored in the wetlands or buffer.
- Place materials in a location and manner that does not adversely impact surface or subsurface water flow into or out of the nontidal wetland.
- Do not use the excavated material as backfill if it contains waste metal products, unsightly debris, toxic material or any other deleterious substance. If additional backfill is required, use clean material free of waste metal products, unsightly debris, toxic material or any other deleterious substance.
- Place heavy equipment on mats or suitably operate the equipment to prevent damage to the nontidal wetlands or buffer.
- Repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands in excess of nontidal wetlands lost under the original structure or fill.
- Rectify any nontidal wetlands temporarily impacted by any construction.
- All stabilization in the wetland and buffer shall be of the following recommended species: Annual Paspalum (Lolium multiflorum), Millet (Setaria italica), Barley Hordeum sp., Oats (Avena sp.), and/or Eye (Secale cereale). These species will allow for the stabilization of the site while also allowing for the voluntary revegetation of natural wetland species. Other non-persistent vegetation may be acceptable, but must be approved by the Division. Kentucky 33 fescue shall not be utilized in the wetland or buffer areas. The area should be seeded and mulched to reduce erosion after construction activities have been completed.
- After installation has been completed, make post construction grades and elevations of nontidal wetlands the same as the original grades and elevations in temporarily impacted areas.
- To protect aquatic species, in-stream work is prohibited as determined by the classification of the stream.
- Use 1 water in-stream work shall not be conducted during the period March 1 through June 15, inclusive, during any year.
- Stormwater runoff from impervious surfaces shall be controlled to prevent the washing of debris into the waterway.
- Culverts shall be constructed and any riprap placed so as not to obstruct the movement of aquatic species, unless the purpose of the activity is to impound water.



STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
ROCKY GLEN SUBDIVISION
 (A RESUBDIVISION OF LOT 4, "PROPERTY OF ROCKY GLEN, L.L.C.", LOTS 3 AND 4, PLAT NO. 14565)
 LOTS 5 THRU 15
 ZONED: R-20
 TAX MAP NO. 10 GRID NO. 13 PARCEL NO. 41
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JUNE 19, 2003
 SHEET 4 OF 12



SEDIMENT BASIN DATA
 INITIAL D.A. = 4.19 AC.
 FINAL D.A. = 9.89 AC.
 STORAGE REQUIRED:
 WET = 17,802 CUFT.
 DRY = 17,802 CUFT.
 STORAGE PROVIDED:
 WET = 10,361 CUFT @ EL. 441.00
 DRY = 26,328 CUFT @ EL. 443.50
 BOTTOM ELEV. = 439.25
 TOP OF EMBANKMENT ELEV. = 447.67
 CLEAN-OUT ELEV. = 439.75
 RISER CREST ELEV. = 443.50
 Olex = 0.5 C.F.S.
 OIprop = 0.5 C.F.S.

PLAN
 SCALE: 1" = 50'

OWNER/DEVELOPER
 ROCKY GLEN, L.L.C.
 3075 PARK AVENUE
 ELICOTT CITY, MD. 21043

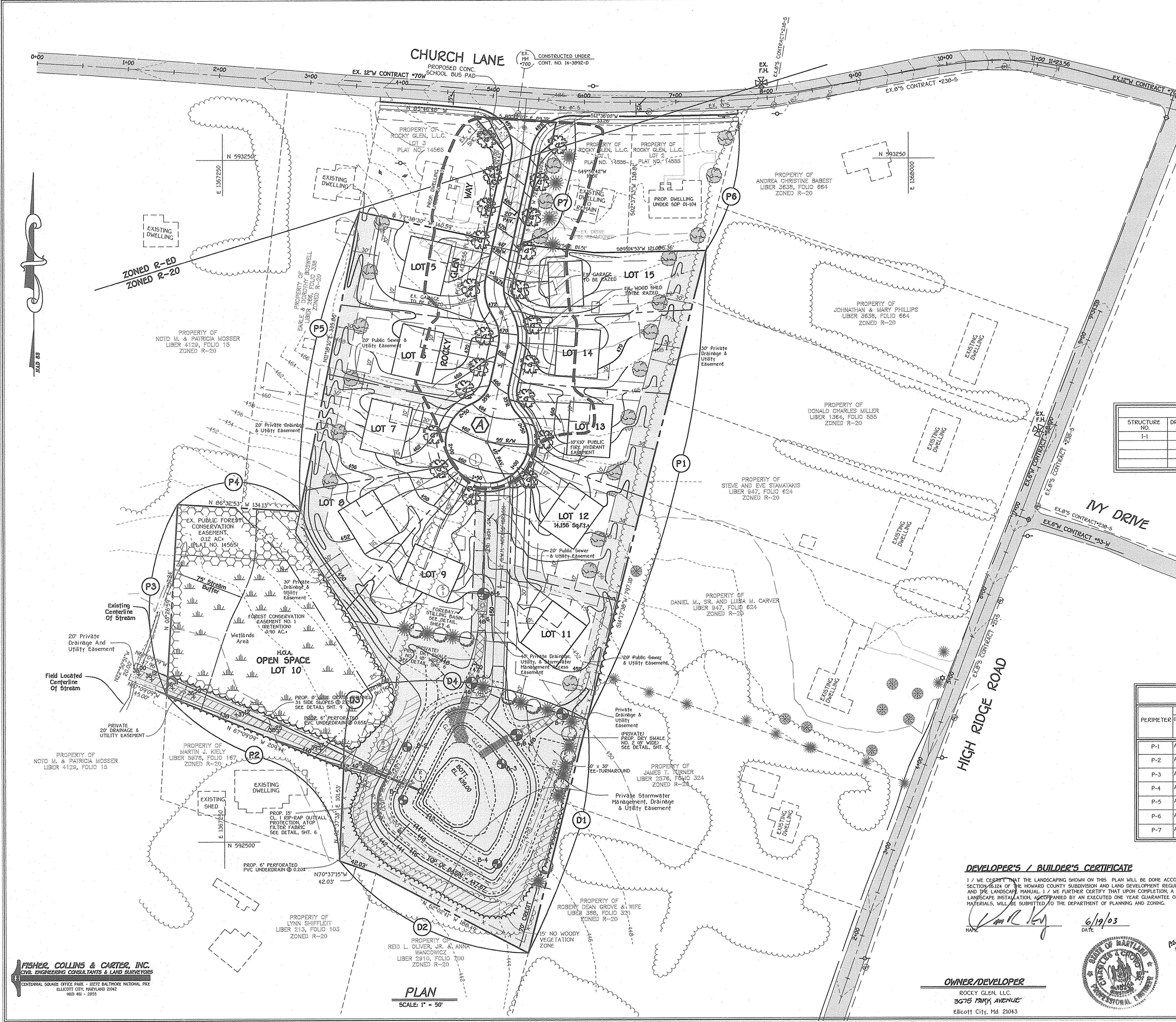
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 1672 BALTIMORE NATIONAL FREE
 ELLICOTT CITY, MARYLAND 21040
 410.488.2955

Approved: Department of Public Works
Walter J. Madala, Jr. 7-9-03
 Chief, Bureau of Highways Date

Approved: Department of Planning and Zoning
Cindy Hamilton 7/25/03
 Chief, Division of Land Development Date

Chris Dammann 7/11/03
 Chief, Development Engineering Division Date

REVISIONS		
NO.	DESCRIPTION	DATE



STORMWATER MANAGEMENT SUMMARY TABLE

Re _v	WQ _v	Cp _v
Re, managed in dry swale (BMP No. 2)	a. Apply Natural Area Conservation Credit b. Subtract Re, managed in BMP No. 2 (dry swale) c. Remaining WQ _v management in BMP No. 1 (micro-pool extended detention pond)	a. Apply Natural Area Conservation Credit to modify CN b. Remaining Cp _v management in BMP No. 1 (micro-pool extended detention pond)
Re, managed in dry swale (BMP No. 2)	No disturbance in area 2, therefore no WQ _v management required.	No Cp _v management required. 1-yr frequency storm discharge is less than 2 cfs.

DRAINAGE AREA DATA

STRUCTURE NO.	DRAINAGE AREA	AREA	C'	ZONED	% IMP.
I-1	A	1.46 AC.	0.49	R-20	77%

LANDSCAPING PLANT LIST

QTY.	KEY	NAME	SIZE
21		ACER RUBRUM "OCTOBER GLORY" (OCTOBER RED MAPLE)	2 1/2" - 3" CALIPER FULL CROWN, B&B
9		PLATANUS X ACERIFOLIA "BLOODGOOD" BLOODGOOD LONDON PLANE	2 1/2" - 3" CALIPER FULL CROWN, B&B
16		PINUS STROBUS EASTERN WHITE PINE	6' - 8' HT.

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE 46 REQUIRED LANDSCAPE TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$14,000.00.

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	D1: 229'	D2: 230'	D3: 111'	D4: 213'
NUMBER OF TREES REQUIRED:				
SHADE TREES	5	5	5	5
EVERGREEN TREES	6	7	6	6
CREDIT FOR EXISTING VEGETATION (NO, YES AND X)	YES (70')	YES (230')	YES (111')	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND X)	NO	NO	NO	NO
NUMBER OF TREES PROVIDED:				
SHADE TREES	4	0	0	5
EVERGREEN TREES	6	0	0	6
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-

SCHEDULE A PERIMETER LANDSCAPE EDGE

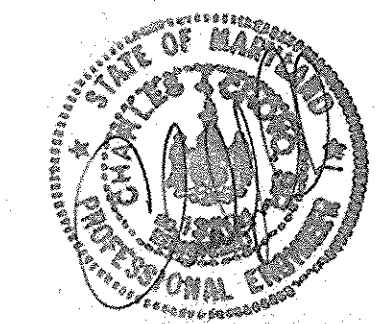
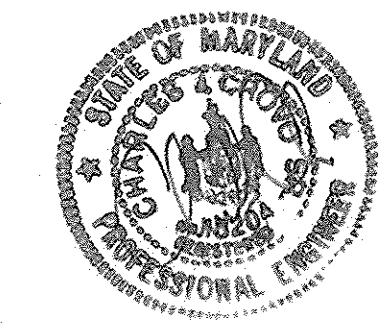
PERIMETER	CATEGORY (PROPERTIES/ROADWAYS)	LANDSCAPE TYPE	LINEAR FEET OF ROADWAY FRONTAGE PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NUMBER OF PLANTS REQUIRED		
						SHADE TREES	EVERGREEN TREES	SHRUBS
P-1	ADJACENT TO PERIMETER	A	532.34'	NO	NO	9	-	-
P-2	ADJACENT TO PERIMETER	A	310.97'	YES (310.97') (F.C.E.)	NO	0	-	-
P-3	ADJACENT TO PERIMETER	A	210.24'	YES (210.24') (F.C.E.)	NO	0	-	-
P-4	ADJACENT TO PERIMETER	A	134.13'	YES (134.13') (F.C.E.)	NO	0	-	-
P-5	ADJACENT TO PERIMETER	A	335.06'	NO	NO	6	-	-
P-6	ADJACENT TO PERIMETER	A	146.00'	NO	NO	3	-	-
P-7	ADJACENT TO ROADWAY	B	152.56'	NO	NO	3	4	-

DEVELOPER'S / BUILDER'S CERTIFICATE

I / WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I / WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

James T. Turner 6/19/03
 NAME DATE

OWNER/DEVELOPER
 ROCKY GLEN, LLC
 3675 PARK AVENUE
 ELICOTT CITY, MD. 21043



LANDSCAPE PLAN & DRAINAGE AREA MAP
ROCKY GLEN SUBDIVISION
 (A RESUBDIVISION OF LOT 4, PROPERTY OF ROCKY GLEN, L.L.C., LOTS 3 AND 4, PLAT NO. 14565)
LOTS 5 THRU 15
 ZONED: R-20
 TAX MAP NO. 10 GRID NO. 13 PARCEL NO. 41
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JUNE 19, 2003
 SHEET 5 OF 12

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE, SUITE 300 - 10772 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21043
 410.461.2855

PLAN
 SCALE: 1" = 50'

AS-BUILT 11-11-05

F02115

STORM WATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-37B. All references to ASTM and AASHTO specifications apply to the most recent version.

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. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below 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.

EARTH FILL

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #20 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8-inch thick 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 heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibrator 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.

When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within .4% of the optimum. Each layer of fill shall be compacted to necessary depth to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

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 compaction 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 or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" measured perpendicular to the outside of the pipe of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. 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 structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill zone) shall be of the type and quality conforming to the specified for the core of the embankment or other embankment materials.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Polymer Coated Steel Pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipes, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

Embankment and Cut-off Trench Construction

THE AREA OF THE PROPOSED SWM POND SHOULD BE STRIPPED OF TOPSOIL AND ANY OTHER UNSUITABLE MATERIALS FROM THE EMBANKMENT OR STRUCTURE AREA IN ACCORDANCE WITH SOIL CONSERVATION GUIDELINES. AFTER STRIPPING OPERATIONS HAVE BEEN COMPLETED, THE PROPOSED SUBGRADE MATERIALS SHOULD BE PROTECTED WITH A LOADED DUMP TRUCK OR SIMILAR EQUIPMENT IN THE PRESENCE OF A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE UTILIZING A DYNAMIC CONE PENETROMETER. ANY EXCESSIVELY SOFT OR LOOSE MATERIALS IDENTIFIED BY PROFFLING OR PENETROMETER TESTING SHOULD BE EXCAVATED TO SUITABLE FIRM SOIL, AND THEN GRADES RE-ESTABLISHED BY BACKFILLING WITH SUITABLE SOIL.

A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHOULD BE PRESENT TO MONITOR PLACEMENT AND COMPACTION OF FILL FOR THE EMBANKMENT AND CUT-OFF TRENCH. IN ACCORDANCE WITH MARYLAND SOIL CONSERVATION SPECIFICATION 57B SOILS CONSIDERED SUITABLE FOR THE CENTER OF EMBANKMENT AND CUT-OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL.

IT IS OUR PROFESSIONAL OPINION THAT IN ADDITION TO THE SOIL MATERIALS DESCRIBED ABOVE A FINE GRAINED SOIL, INCLUDING SILT ONLY WITH A PLASTICITY INDEX OF 10 OR MORE CAN BE UTILIZED FOR THE CENTER OF THE EMBANKMENT AND CORE TRENCH, BASED ON OUR VISUAL CLASSIFICATIONS IT APPEARS THAT SOME OF THE ON-SITE SOILS, ESPECIALLY THE NEAR SURFACE SOILS, WILL BE SUITABLE FOR USE AS CORE TRENCH MATERIAL. IT IS RECOMMENDED THAT ADDITIONAL EXPLORATION AND LABORATORY TESTING BE PERFORMED PRIOR TO FOND CONSTRUCTION TO IDENTIFY AND QUANTIFY POTENTIAL BORROW AREAS FOR CORE TRENCH MATERIAL. ALL FILL MATERIALS MUST BE PLACED AND COMPACTED WITH MD SCS 37B SPECIFICATIONS.

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding/cradle for their entire length. This bedding/cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the line and grade of the pipe. The first joint must be located within 4 feet from the riser.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (Anti-seep collars, valves, etc) shall be as shown on the drawings.

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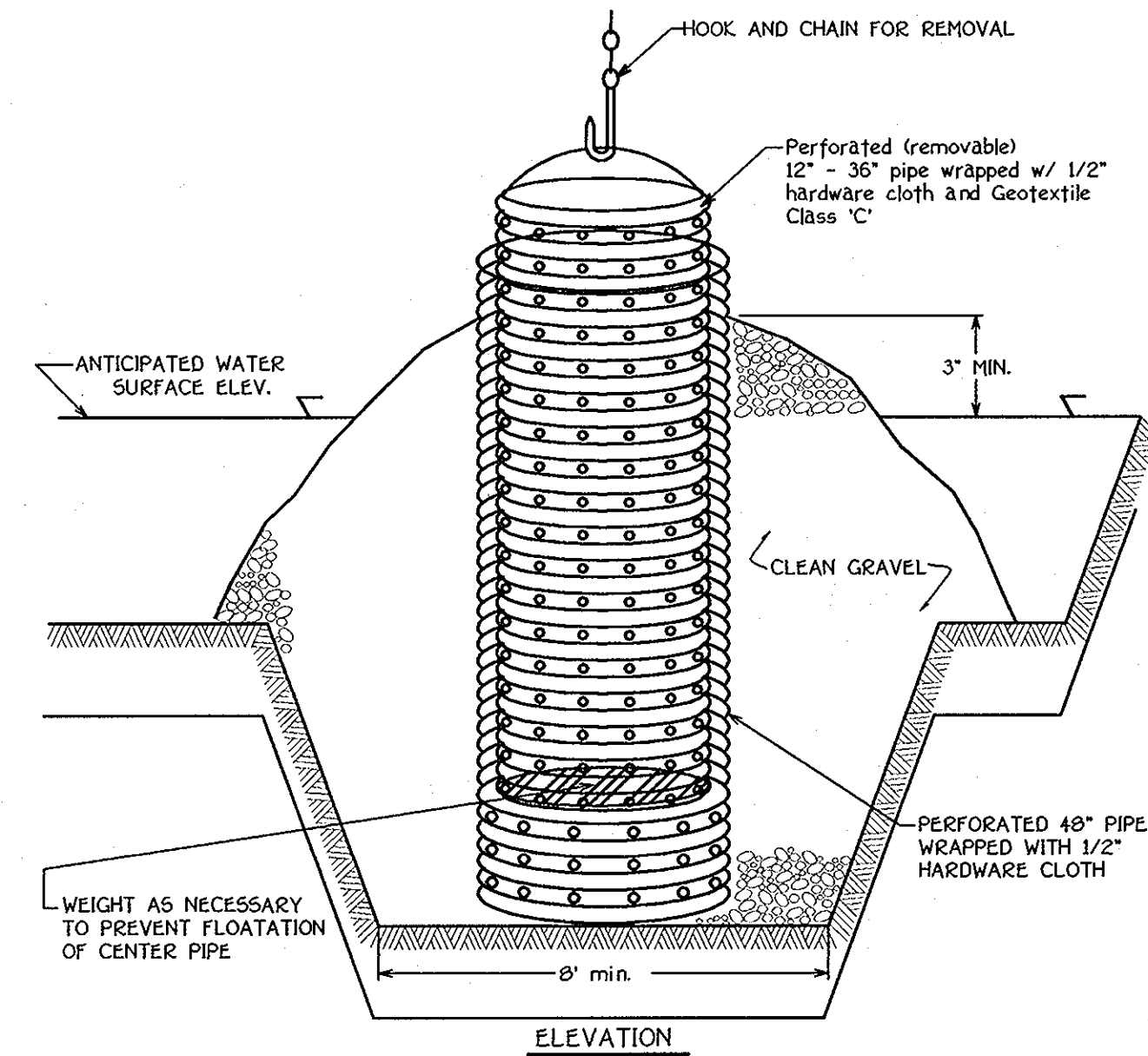
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REMOVABLE PUMPING STATION



Construction Specifications

- The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations.
- After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.
- The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be 1/2" x 6" slots or 1" diameter holes 6" on center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C.
- The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS

GENERAL

1. THE PURPOSE OF THIS PORTION OF THE SPECIAL PROVISION IS TO SET FOR THE TRAFFIC CONTROL REQUIREMENTS NECESSARY FOR THE SAFE AND EFFICIENT MAINTENANCE TO TRAFFIC WITHIN WORK AREAS AND TO MINIMIZE ANY INTERFERENCE TO THE TRAVELING PUBLIC AND THE CONTRACTOR AND/OR PERMITTEE.

2. PROPERTY TRAFFIC CONTROL THROUGH WORK AREAS IS ESSENTIAL FOR INSURING THE SAFETY AND THAT OF HIGHWAY WORKERS HAS THE HIGHEST PRIORITY OF ALL TASKS WITHIN THIS PROJECT. THE PROPER APPLICATION OF THE APPROVED TRAFFIC CONTROL PLAN (TCP) WILL PROVIDE THE DESIRED LEVEL OF SAFETY.

3. THROUGHOUT THESE SPECIAL PROVISIONS, ANY MENTION OF THE TCP SHALL BE IMPLIED TO INCLUDE ANY COMBINATION OF TYPICAL TRAFFIC CONTROL STANDARDS WHICH FORM THE OVERALL TCP FOR THIS PROJECT WHICH HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER.

4. THE CONTRACTOR AND/OR PERMITTEE SHALL BE REQUIRED TO ADHERE TO THE PROVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 1998 EDITION, ESPECIALLY PART VI AND TO SECTION 814 OF THE MARYLAND DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JANUARY, 1992), INCLUDING ALL REVISIONS AND SUPPLEMENTS TO EACH.

5. THE CONTRACTOR AND/OR PERMITTEE SHALL BE REQUIRED TO ADHERE TO THE REQUIREMENTS SET FORTH IN THE TCP AND THESE SPECIAL PROVISIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY REQUESTS TO MAKE MINOR CHANGES TO THE TCP OR THE SPECIAL PROVISIONS WITH REGARD TO THE TRAFFIC CONTROL ITEMS SHALL BE MADE IN WRITING TO THE ENGINEER A MINIMUM OF THIRTY DAYS PRIOR TO THE PROPOSED SCHEDULING CHANGE. THE CONTRACTOR AND/OR PERMITTEE SHALL HAVE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO THE IMPLEMENTATION OF ANY CHANGE.

6. NO WORK SHALL BEGIN ON ANY WORK ACTIVITY OR WORK PHASE UNTIL ALL REQUIRED TRAFFIC CONTROL PATTERNS AND DEVICES INDICATED ON THE TCP FOR THAT ACTIVITY OR PHASE ARE COMPLETELY AND CORRECTLY IN PLACE TO HAVE BEEN CHECKED FOR APPROVED USAGE.

7. TASKS AND SPECIFIC WARNING SIGNS SHALL ONLY BE IN PLACE WHEN SPECIFIC WORK TASKS AND ACTIVITIES ARE ACTUALLY UNDERWAY OR CONDITIONS EXIST THAT POSE A POTENTIAL HAZARD TO THE PUBLIC, AND ANY ADDITIONAL SIGNING HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER. THE PRACTICE OF PLACING SIGNING AND OTHER TRAFFIC CONTROL DEVICES IN ADDITION TO THOSE INDICATED ON THE APPROVED TCP IS NOT PERMITTED.

8. THE CONTRACTOR AND/OR PERMITTEE SHALL PROVIDE, MAINTAIN IN NEW CONDITION, AND MOVE WHEN NECESSARY, OR AS DIRECTED BY THE ENGINEER, ALL TRAFFIC CONTROL DEVICES USED FOR THE GUIDANCE AND PROTECTION OF MOTORISTS, PEDESTRIANS, AND WORKERS.

9. ALL TRAFFIC CONTROL DEVICES REQUIRED BY THE TCP SHALL BE KEPT IN GOOD CONDITION, FULLY PERFORMING AS SET FORTH IN THE TCP, THE MUTCD, AND/OR SECTION 814 OF THE SPECIFICATIONS. FOR REFLECTIVE DEVICES, PARTICULAR DEVICES ARE ASSUMED TO HAVE FAILED TO MEET MINIMUM OPERATIONAL STANDARDS WHEN THE DEVICE NO LONGER HAS RETRO-REFLECTANCE CAPABILITY OF AT LEAST 60% OF THE SPECIFIED MINIMUM VALUE OVER AT LEAST 90% OF THE REFLECTIVE SURFACE.

10. ALL TRAFFIC CONTROL DEVICES NOT REQUIRED FOR THE SAFE CONDUCT OF TRAFFIC SHALL BE PROMPTLY REMOVED, COMPLETELY COVERED, TURNED AWAY FROM TRAFFIC, OR OTHERWISE TAKEN OUT OF SERVICE. IT IS INTENDED THAT NO TRAFFIC CONTROL DEVICE IS TO BE IN SERVICE WHEN THERE IS NO CLEAR CUT REASON FOR THE DEVICE.

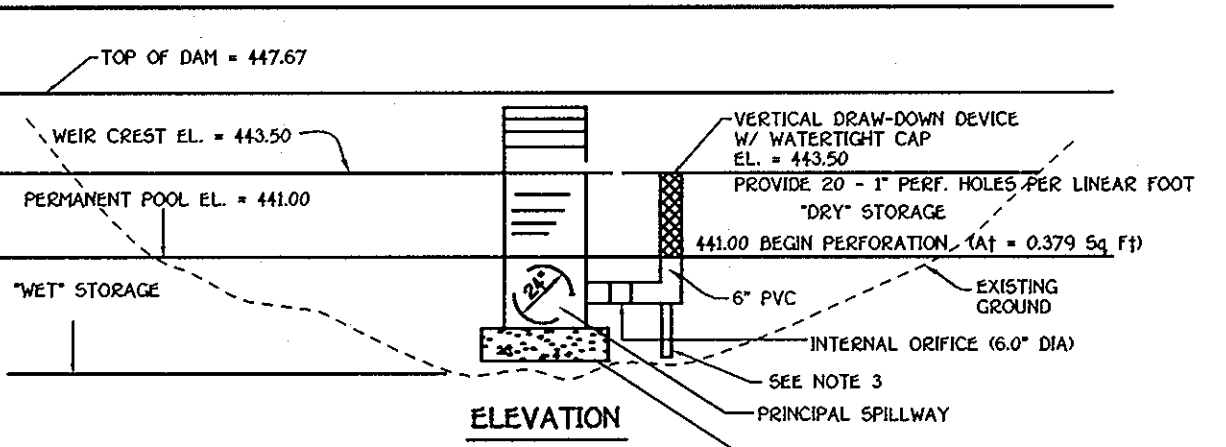
11. THROUGHOUT THE PERIODS OF WORK ACTIVITIES, TRAFFIC SHALL BE MAINTAINED BY IMPLEMENTING THE APPROVED TCP. IN LIEU OF THE TCP PREPARED FOR THIS PROJECT, AND/OR INDIVIDUAL TYPICAL TRAFFIC CONTROL STANDARDS, THE CONTRACTOR AND/OR PERMITTEE HAS THE OPTION OF PREPARING AND SUBMITTING A TCP, WHOLLY OR IN PART, OF HIS OWN DESIGN FOR REVIEW AND SET FORTH IN THE MUTCD AND PRESCRIBED BY THE ADMINISTRATION. A TCP DEVELOPED BY THE CONTRACTOR AND/OR PERMITTEE SHALL NOT BE IMPLEMENTED UNTIL ADVANCE WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. TCP'S MAY BE IMPLEMENTED WITHIN A SINGLE PROJECT OR JOINTLY BETWEEN TWO OR MORE PROJECTS. IN SITUATIONS WHERE TCP'S JOINTLY IMPLEMENTED, CARE SHALL BE EXERCISED TO PRESENT CORRECT AND NON-CONFLICTING GUIDANCE TO THE TRAVELING PUBLIC.

12. THROUGHOUT THESE SPECIAL PROVISIONS, WHERE SPEED OF TRAFFIC IS NOTED, THIS MEANS THE POSTED SPEED OR PREVAILING TRAVEL SPEED, WHICHEVER IS HIGHER, UNLESS OTHERWISE NOTED.

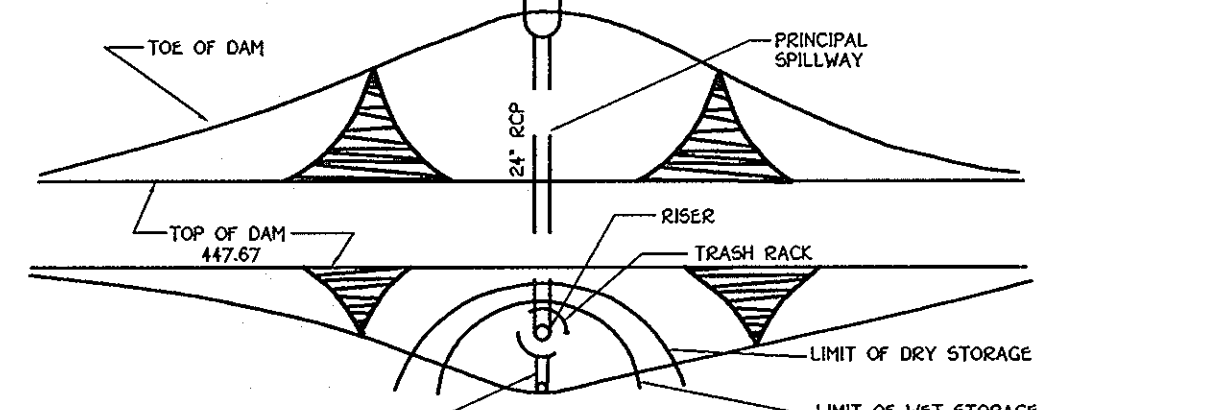
13. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT, UNLESS OTHERWISE NOTED. IN TRAVEL LANES OTHER THAN THOSE DESIGNATED FOR POSSIBLE CLOSURE IN THE TCP SHALL BE CLOSED WITHOUT OBTAINING PRIOR APPROVAL FROM THE ENGINEER. ALL INGRESS AND EGRESS TO THE WORK AREA BY THE CONTRACTOR AND/OR PERMITTEE SHALL BE PERFORMED WITH THE FLOW OF TRAFFIC.

S.W.M./SEDIMENT BASIN

VERTICAL DRAW-DOWN DEVICE



ELEVATION



PLAN VIEW

CONSTRUCTION SPECIFICATIONS

- PERFORATIONS IN THE DRAW-DOWN DEVICE MAY NOT EXTEND INTO THE WET STORAGE.
- THE TOTAL AREA OF THE PERFORATIONS MUST BE GREATER THAN 2 TIMES THE AREA OF THE INTERNAL ORIFICE.
- THE PERFORATION PORTION OF THE DRAW-DOWN DEVICE SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. THE GEOTEXTILE FABRIC SHALL MEET THE SPECIFICATIONS FOR GEOTEXTILE CLASS E.
- PROVIDE SUPPORT OF DRAW-DOWN DEVICE TO PREVENT SAGGING AND FLOATION AN ACCEPTABLE PREVENTATIVE MEASURE IS TO STAKE BOTH SIDES OF DRAW-DOWN DEVICE WITH 1" STEEL ANGLE OR 2" BY 4" SQUARE OR 2" BY 4" SQUARE OR 2" BY 4" SQUARE INTO THE GROUND THEN JOINING THEM TO THE DEVICE BY WRAPPING WITH 12 GAUGE MINIMUM WIRE.

STORMWATER MANAGEMENT POND

MAINTENANCE SCHEDULE

A. ROUTINE MAINTENANCE

Facility shall be Inspected Annually And After Major Storms. Inspections Should Be Performed During Wet Weather To Determine If The Pond Is Functioning Properly.

Top And Side Slopes Of The Embankment Shall Be Mowed A Minimum Of Two (2) Times A Year, Once In June And Once In September. Other Side Slopes, The Bottom Of The Pond, And Maintenance Access Should Be Mowed As Needed.

Debris And Litter Next To The Outlet Structure Shall Be Removed During Regular Mowing Operations And As Needed.

Visible Signs Of Erosion In The Pond As Well As Rip-Rap Outlet Area Shall Be Repaired As Soon As It Is Noticed.

Sediment Should Be Removed When Its Accumulation Reaches 6".

The Low Flow PVC Pipes Shall Be Visually Inspected For Clogging A Minimum Of Two (2) Times A Year, Once In June And Once In September. This Should Be Accomplished At The Same Time As The Mowing Of The Embankment.

B. NON-ROUTINE MAINTENANCE

Structural Components Of The Pond Such As The Dam, Riser Structure And The Pipes Shall Be Inspected Upon The Detection Of Any Damage. The Components Shall Be Inspected During Routine Maintenance Operations.

Sediment Should Be Removed When Its Accumulation Significantly Reduces The Design Storage, Interfere With The Function Of The Riser, When Deemed Necessary For Aesthetic Reasons, Or When Deemed Necessary By The Howard County Department Of Public Works.

DEVELOPER'S CERTIFICATE

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.

Signature Of Developer: *Donald R. Reuser* Date: 6/19/03

Printed Name Of Developer: Donald R. Reuser

ENGINEER'S CERTIFICATE

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.

Signature Of Engineer: *Charles J. Crovo, Sr., P.E., L.S.* Date: 6/19/03

Printed Name Of Engineer: Charles J. Crovo, Sr., P.E., L.S.

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Soil Erosion And Sediment Control.

Signature: *Jim Myers* Date: 7/3/03

USDA-Natural Resources Conservation Service

Signature: *John J. ...* Date: 7/3/03

Signature: *William R. ...* Date: 7-9-03

Signature: *...* Date: 7/25/03

Signature: *...* Date: 7/1/03

Signature: *...* Date: 7/1/03

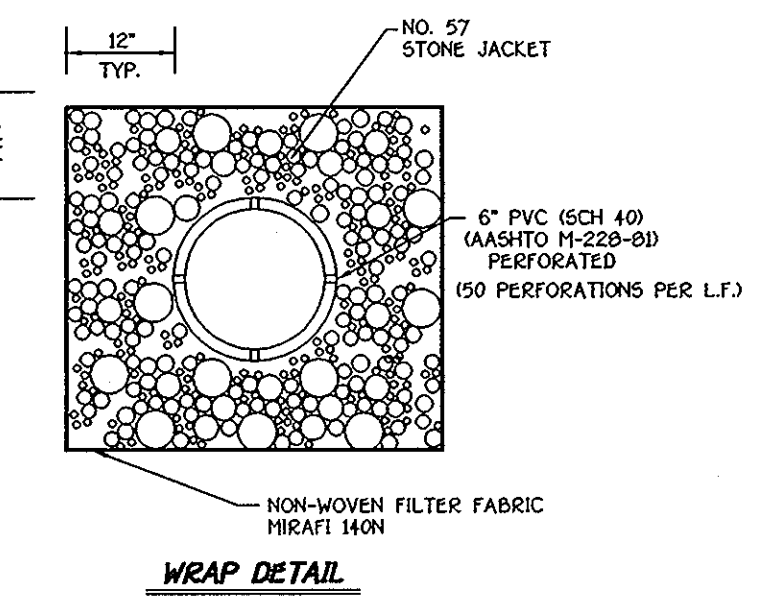
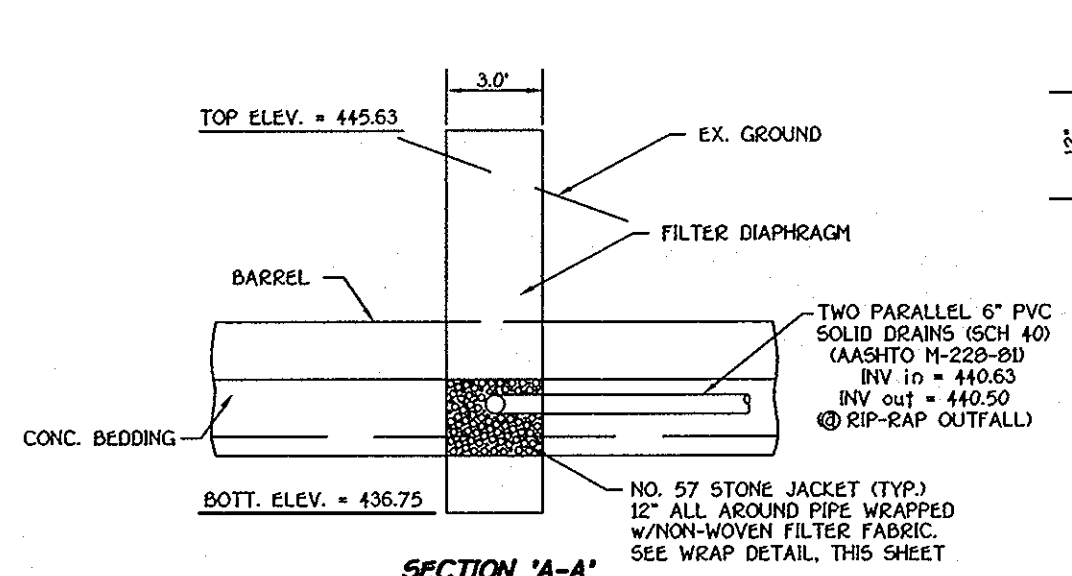
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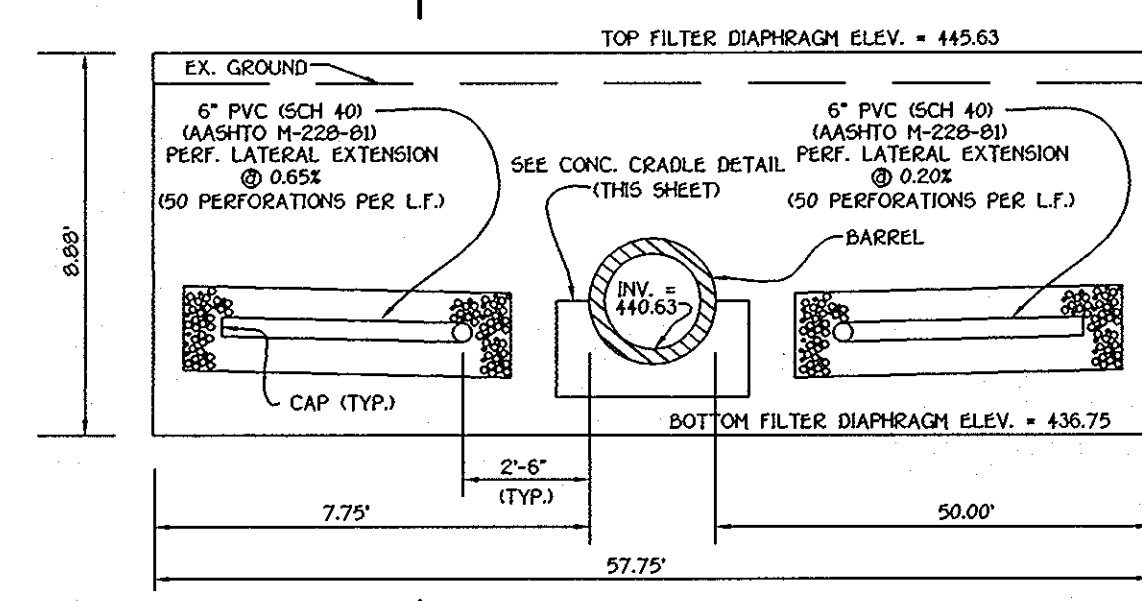
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Signature:

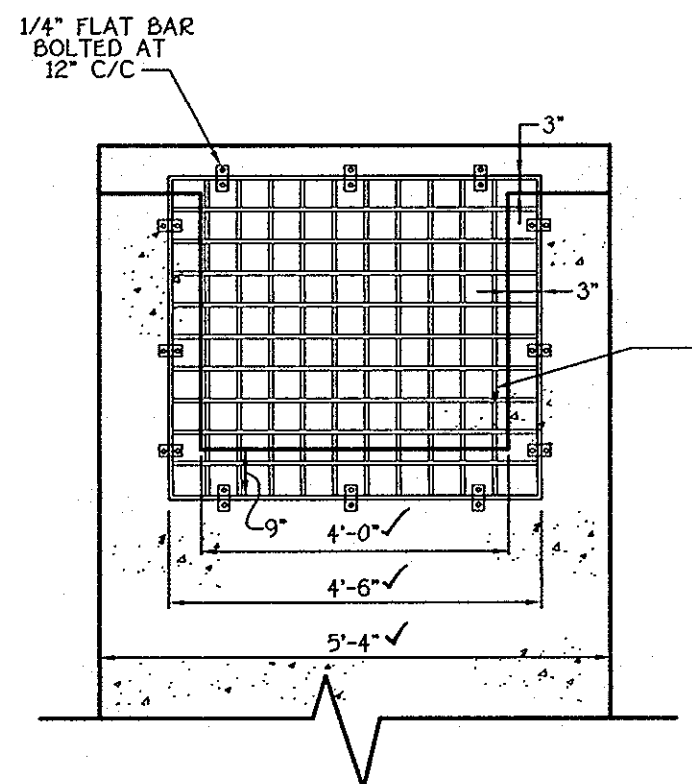
* NOTE:
PULL GRADE BACK SLIGHTLY
AT THE SIDES OF THE RISER STRUCTURE
TO ENSURE MINIMUM OF 1" OF CLEARANCE
BETWEEN FINAL GRADE AND THE TRASH RACK.
MOUND 12" BENCH SLIGHTLY TO ENSURE
THAT BARREL IS NOT EXPOSED.



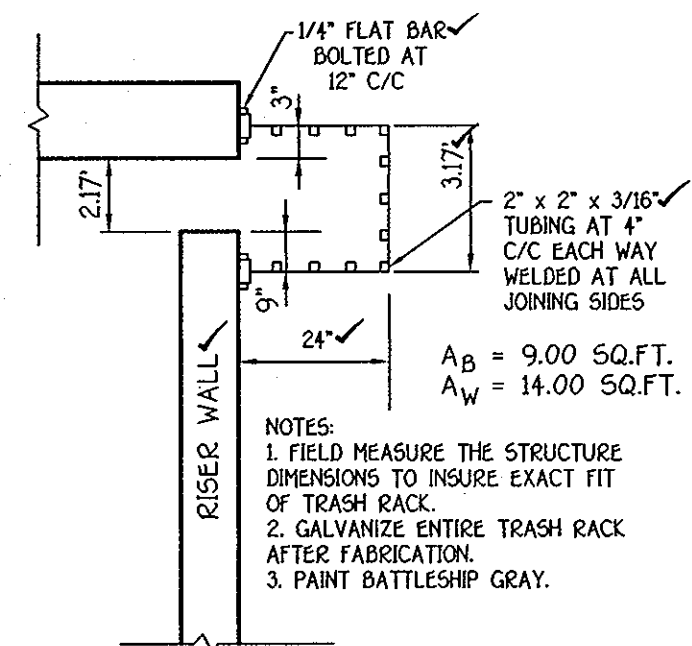
- NOTES:**
- FILTER MATERIAL SHALL CONFORM TO ASTM C-33 (CONCRETE SAND).
 - FILTER DIAPHRAGM SHALL BE CONSTRUCTED IN HORIZONTAL LAYERS, 12 INCHES THICK (BEFORE COMPACTION).
 - EACH LAYER SHALL BE HYDROCOMPACTED USING A SPRINKLER. MATERIAL MUST BE SATURATED.
 - CARE SHALL BE TAKEN SO THAT THE FILTER MATERIAL IS NOT CONTAMINATED.
 - ANY CONTAMINATED SAND SHALL BE REMOVED AND REPLACED WITH APPROVED MATERIAL.
 - PROTECTIVE COVERING OVER THE FILTER SAND MAY BE REQUIRED BETWEEN LIFTS.
 - ELBOWS SHALL BE USED FOR PVC INTERCONNECTIONS.



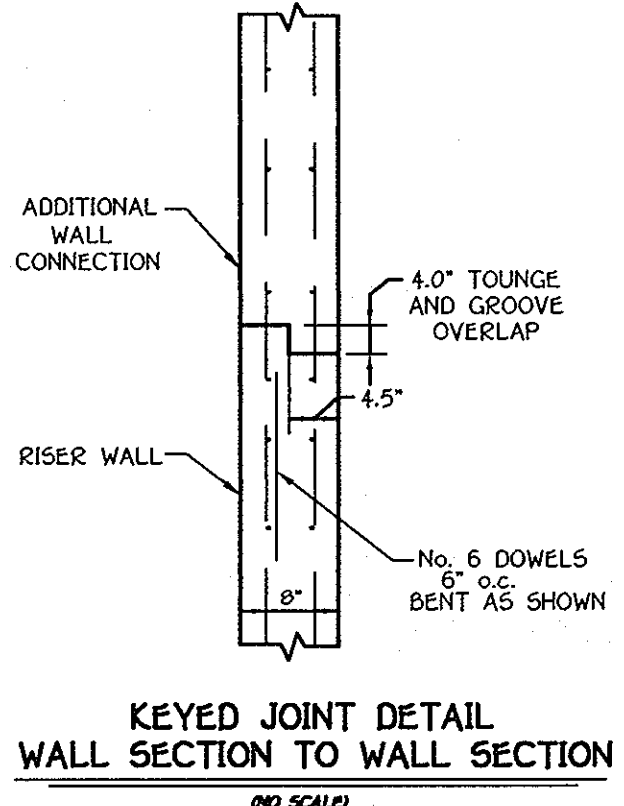
TYPICAL SECTION THROUGH BARREL AND CRADLE
FILTER DIAPHRAGM DETAIL
NO SCALE



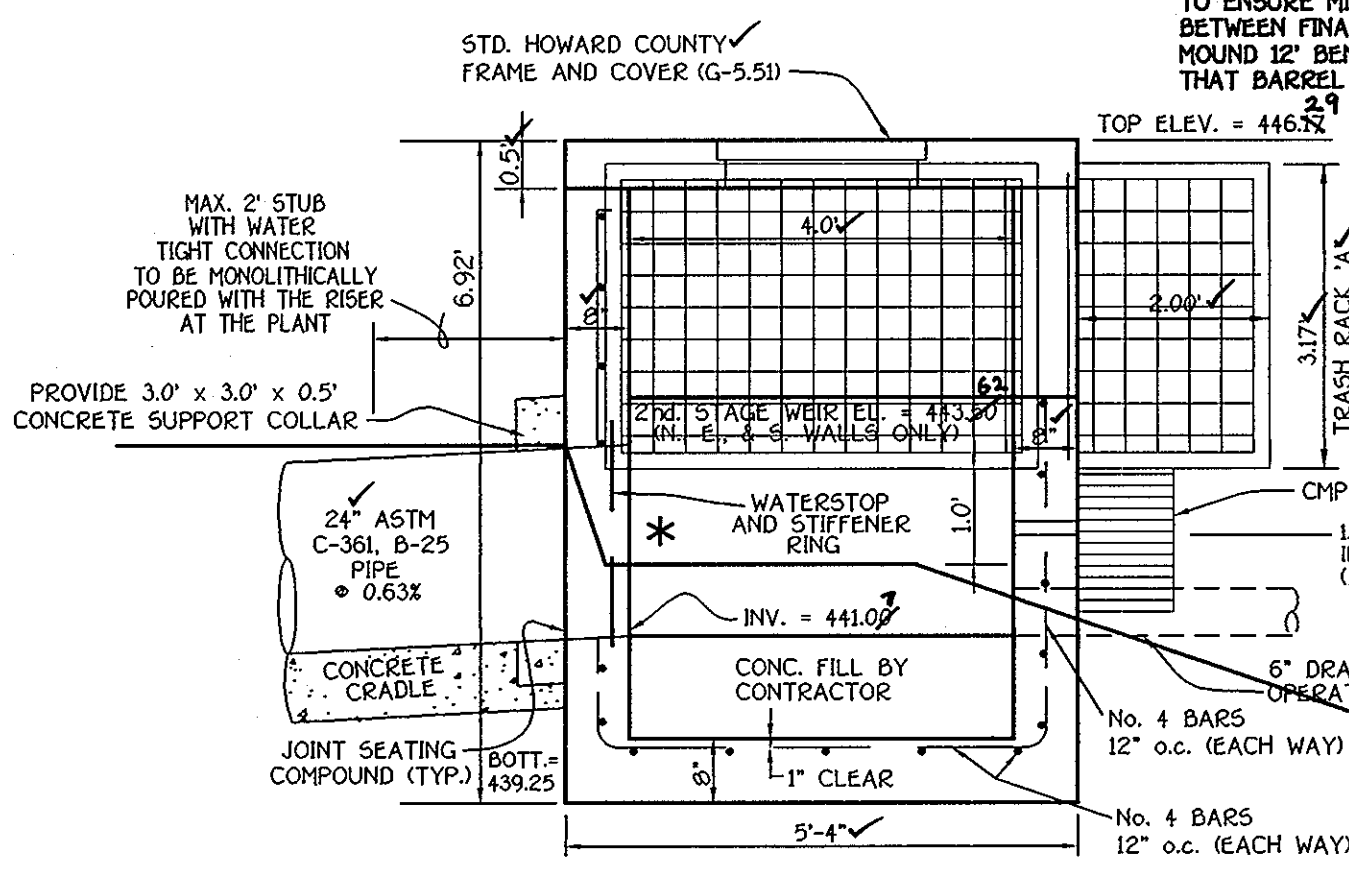
TRASH RACK 'B' DETAIL
NO SCALE



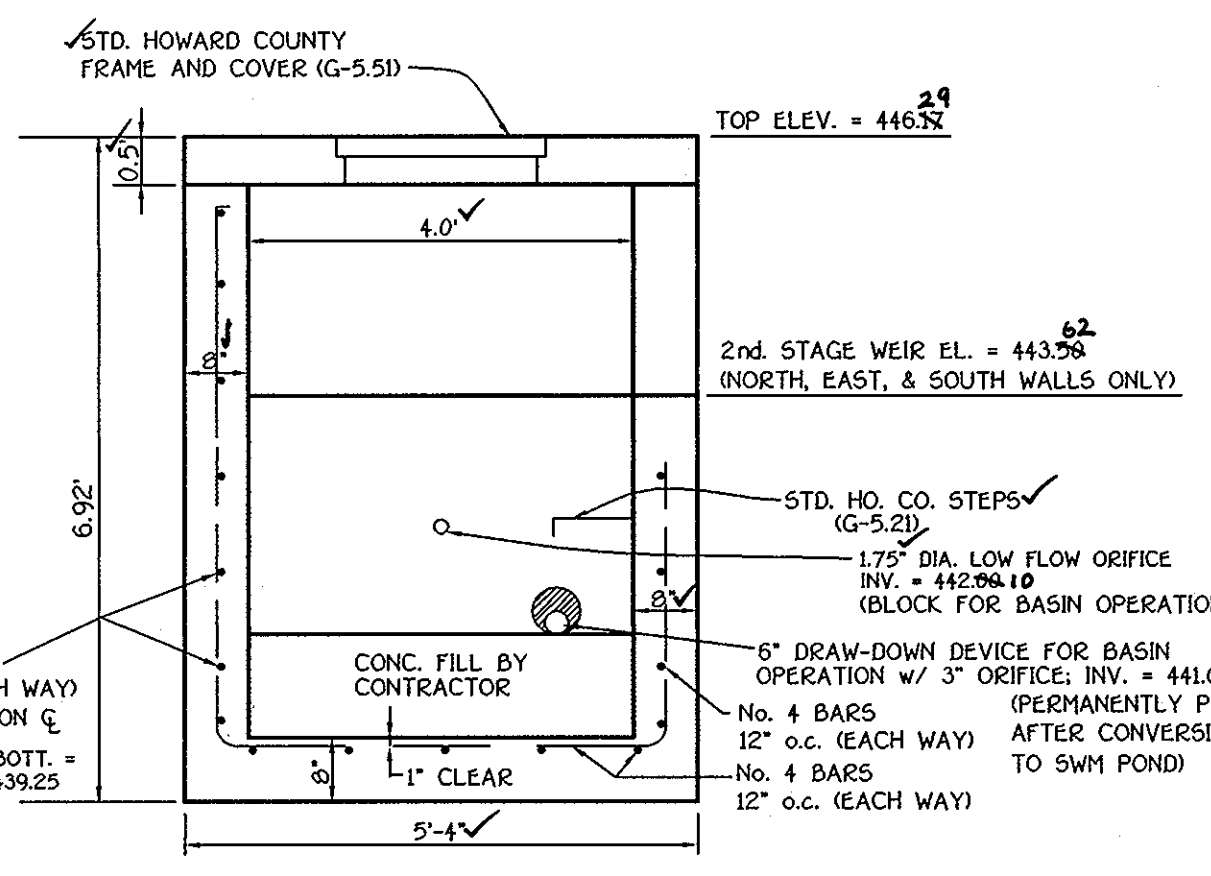
- NOTES:**
- FIELD MEASURE THE STRUCTURE DIMENSIONS TO INSURE EXACT FIT OF TRASH RACK.
 - GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 - PAIN BATTLESHIP GRAY.



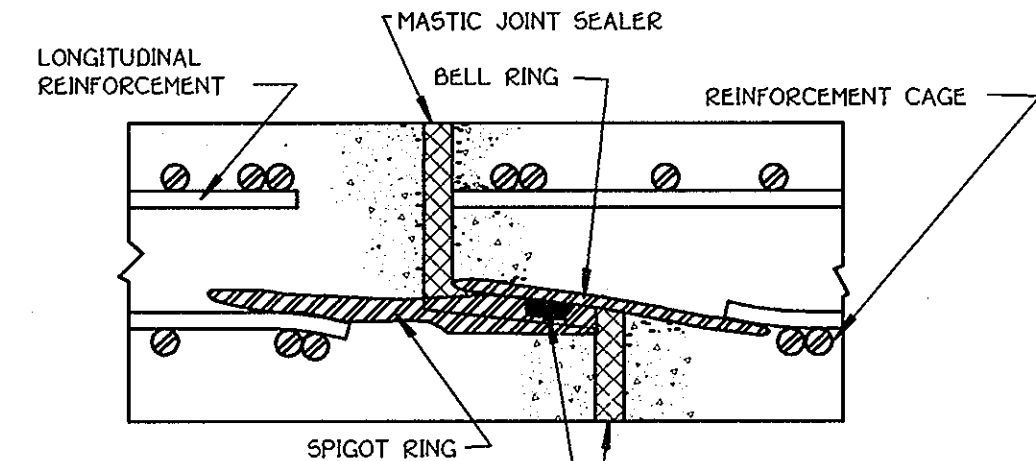
KEYED JOINT DETAIL
WALL SECTION TO WALL SECTION
NO SCALE



PROFILE VIEW A
CONCRETE RISER DETAIL
SCALE: 1" = 2'

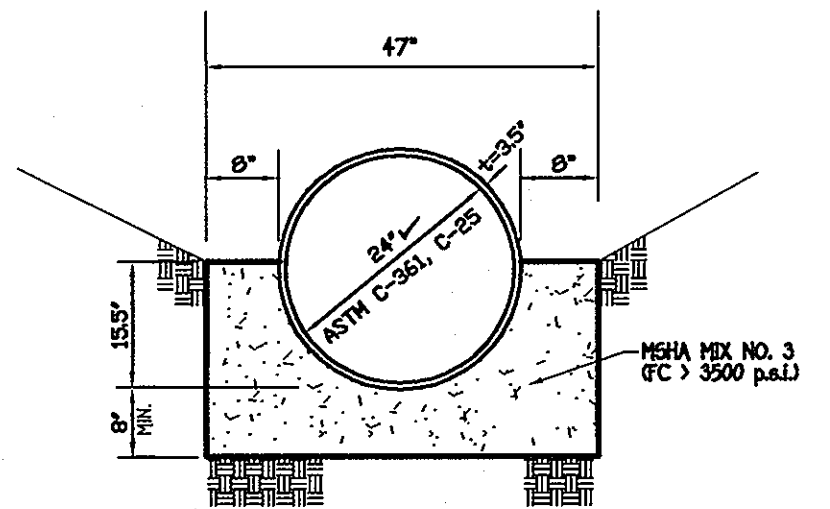


PROFILE VIEW B
CONCRETE RISER DETAIL
SCALE: 1" = 2'



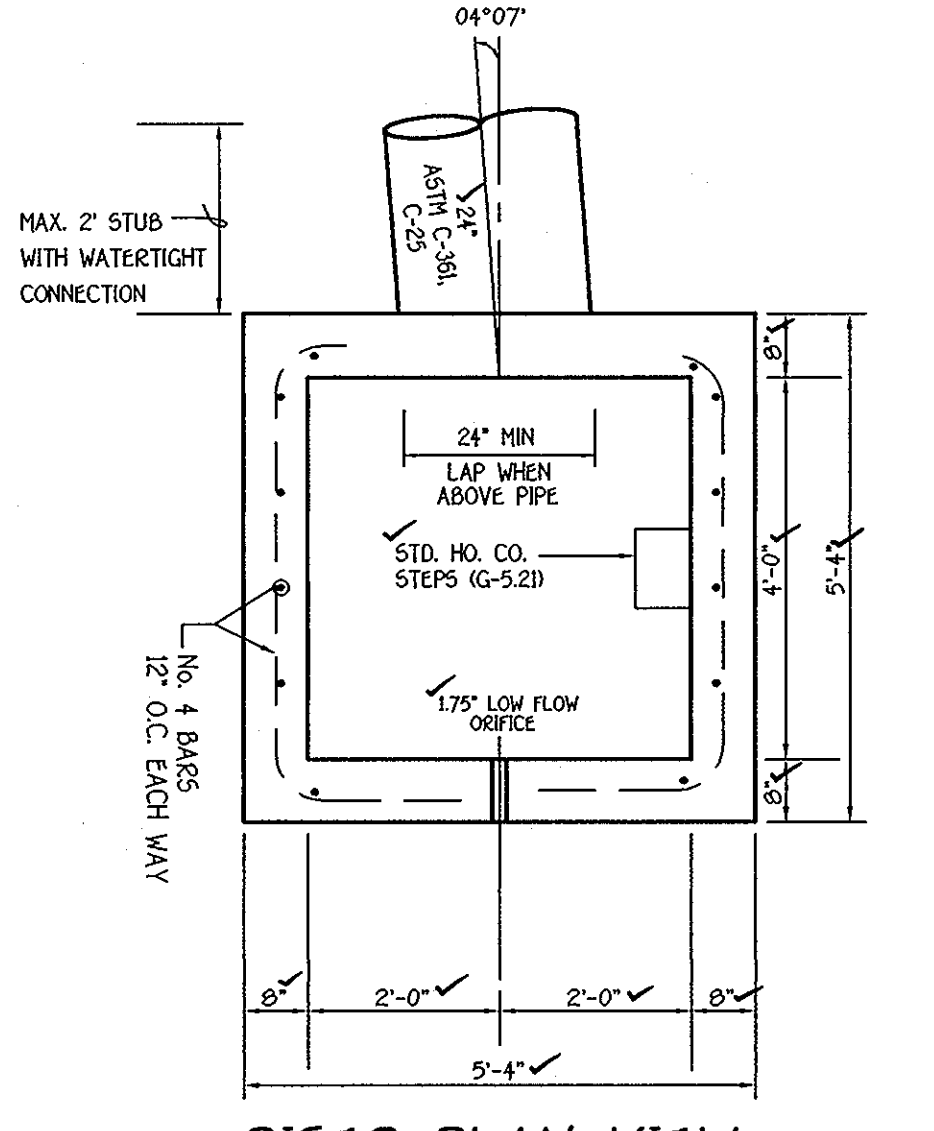
ROUND RUBBER O-RING GASKET
NOTE: PROVIDE MASTIC JOINT SEALER FROM OUTSIDE OF PIPE JOINTS PRIOR TO INSTALLING BARREL UNDERGROUND
ASTM DESIGNATION C361
DIAMETERS 12 THRU 168 INCH
PRESSURES TO 125 FEET OF HEAD

CONCRETE PIPE JOINT DETAIL
NO SCALE

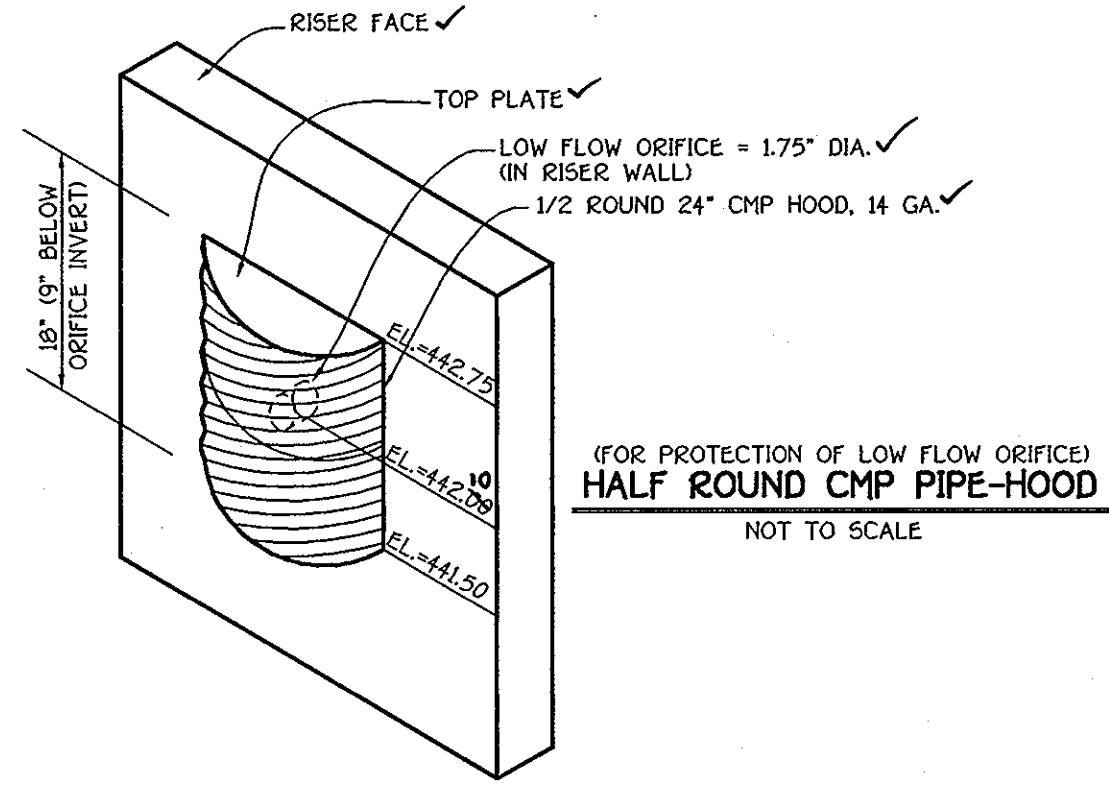


NOTE: CRADLE TO BE POURED DIRECTLY AGAINST EARTH BANKS. IF BOTTOM OF TRENCH IS WIDER THAN THE CRADLE, SLOPING SIDES (FRAMED) SHALL BE USED.

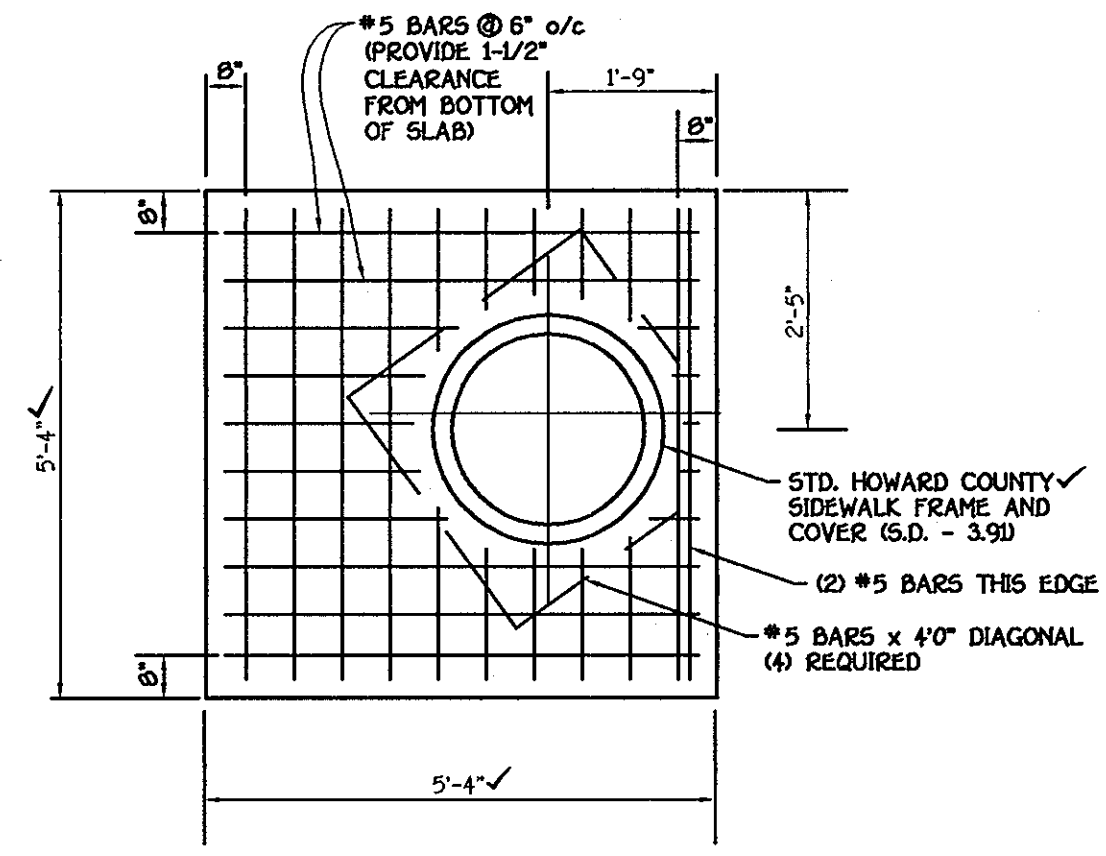
A2 CRADLE
NOT TO SCALE



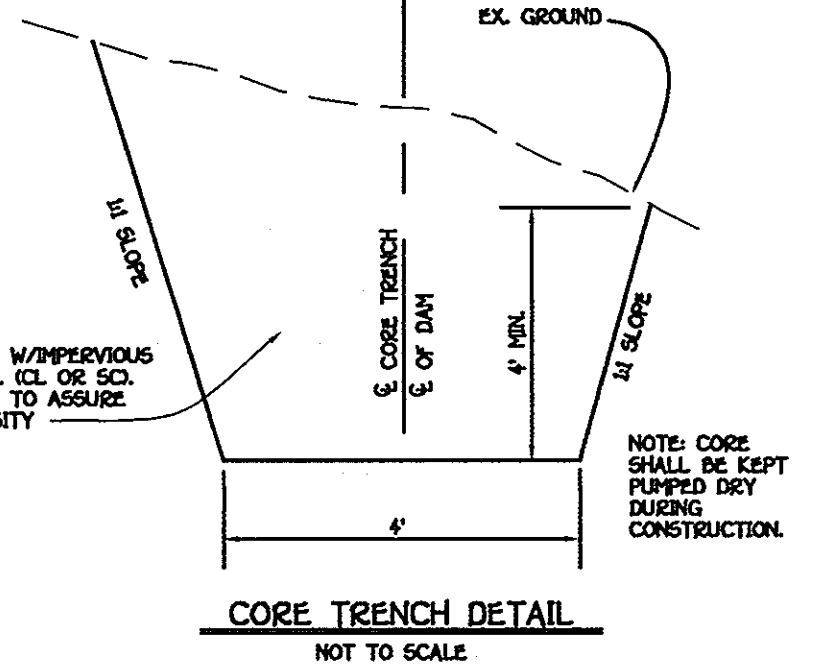
RISER PLAN VIEW
SCALE: 1" = 2'



TOP SLAB DETAIL
NO SCALE



TOP SLAB DETAIL
NO SCALE



CORE TRENCH DETAIL
NOT TO SCALE

DEVELOPER'S CERTIFICATE

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 Stormwater 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 Site Inspections By The Howard Soil Conservation District.

Signature Of Developer: *Donald R. Reuser* Date: 6/19/03
Printed Name Of Developer: Donald R. Reuser

ENGINEER'S CERTIFICATE

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.

Signature Of Engineer: *Charles J. Crovo, Sr., P.E., L.S.* Date: 6/11/03
Printed Name Of Engineer: Charles J. Crovo, Sr., P.E., L.S.

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements Soil Erosion And Sediment Control.

Signature: *Jim Mapples* Date: 7/3/03
USDA Natural Resources Conservation Service

Signature: *William J. Mullen, Jr.* Date: 7/3/03
Howard Soil Conservation District

Approved Department Of Public Works
Signature: *William J. Mullen, Jr.* Date: 7-9-03
Chief, Bureau Of Highways

Approved Department Of Planning And Zoning
Signature: *Cindy Hanrahan* Date: 7/29/03
Chief, Division Of Land Development

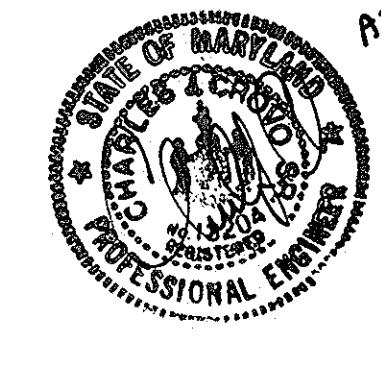
Signature: *Chad Dammann* Date: 7/11/03
Chief, Development Engineering Division

AS-BUILT CERTIFICATION

I Herby Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As-Built" Plans And Meets The Approved Plans And Specifications.

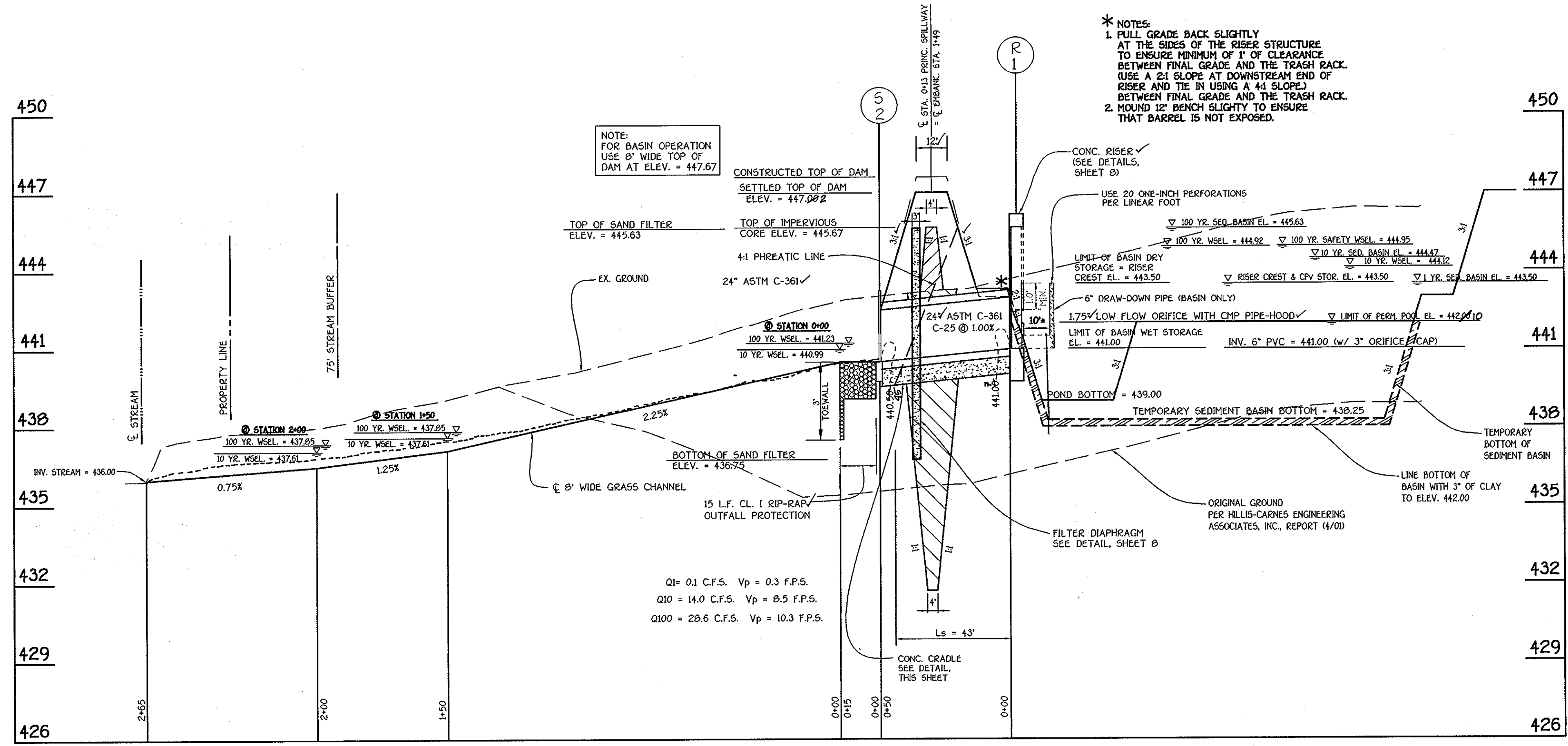
Signature: *Chad Dammann* Date: 12/04
P.E. No. 11/1/05

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not Mean Or 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.

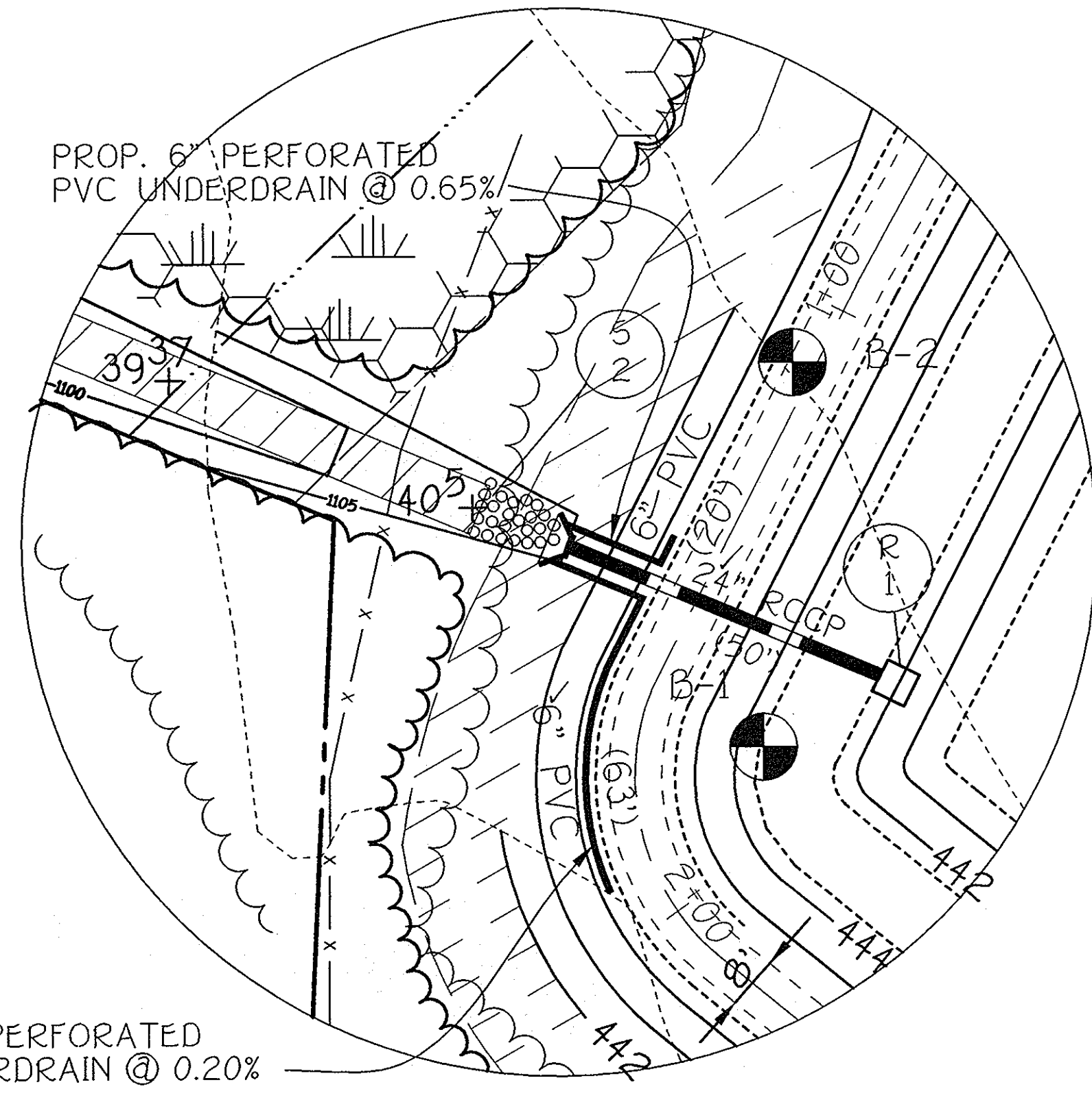


STORMWATER MANAGEMENT NOTES AND DETAILS
ROCKY GLEN SUBDIVISION
(A RESUBDIVISION OF LOT 4, PROPERTY OF ROCKY GLEN, L.L.C., LOTS 3 AND 4, PLAT NO. M565)
LOTS 5 THRU 15
ZONED: R-20
TAX MAP NO. 18 GRID NO. 13 PARCEL NO. 41
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: JUNE 19, 2003
SHEET 8 OF 12

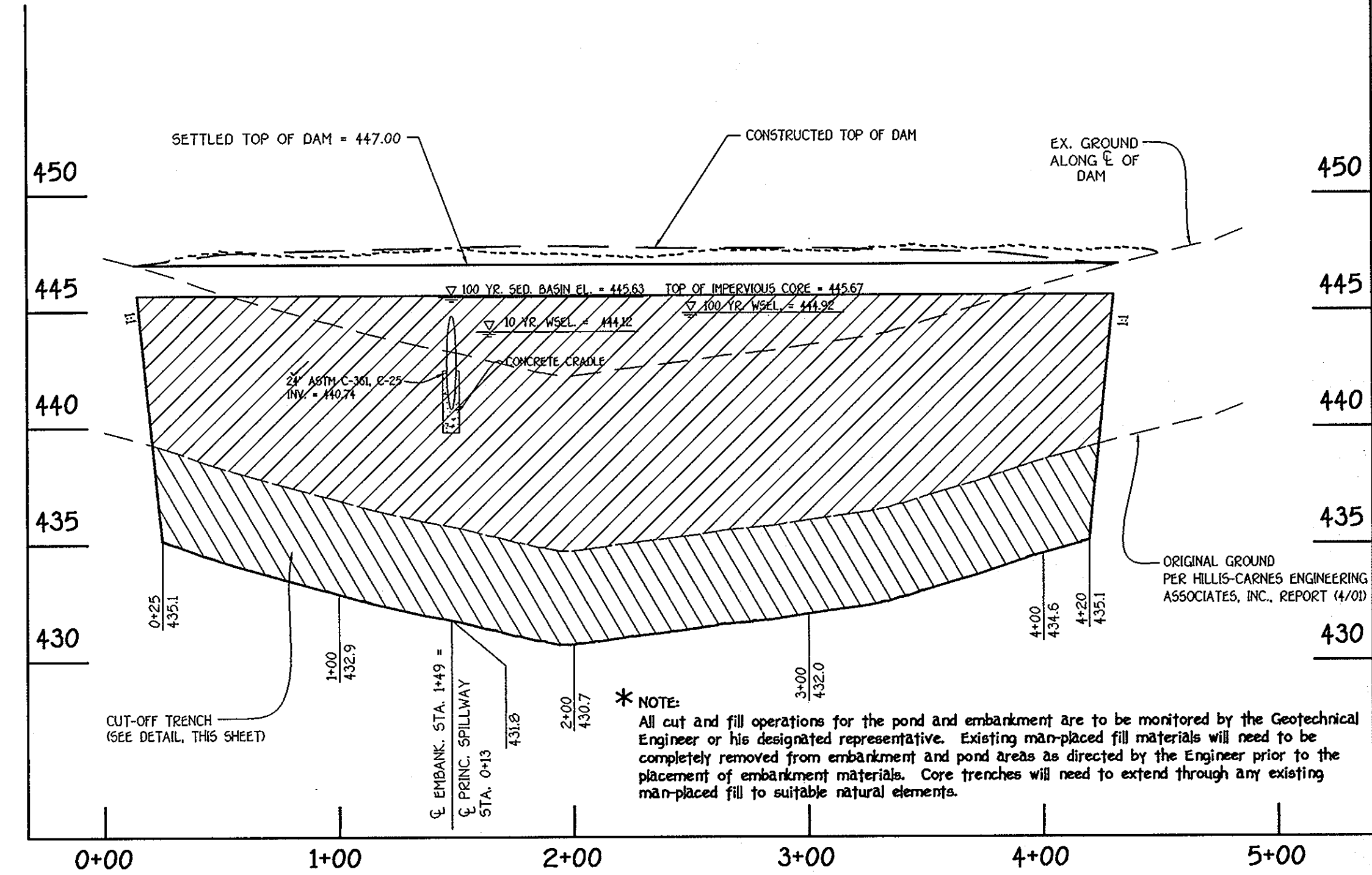




S.W.M. FACILITY NO. 1
PRINCIPAL SPILLWAY PROFILE
SCALE: HOR. : 1" = 30'
VER. : 1" = 3'



SAND FILTER PLAN VIEW DETAIL
SCALE: 1" = 20'



S.W.M. FACILITY NO. 1 PROFILE ALONG EMBANKMENT
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'

DEVELOPER'S CERTIFICATE

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.

Signature Of Developer: *Donald R. Reuser* Date: 6/17/03

Printed Name Of Developer: Donald R. Reuser

ENGINEER'S CERTIFICATE

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Printed Name Of Engineer: Charles J. Crovo, Sr., P.E., L.S.

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements Soil Erosion And Sediment Control.

Signature: *Jim [unclear]* Date: 7/3/03

USDA-Natural Resources Conservation Service

These Plans For Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Signature: *Mike Dan [unclear]* Date: 7/3/03

Howard Soil Conservation District

Approved Department Of Public Works

Signature: *William J. [unclear]* Date: 7-9-03

Chief Bureau of Highways

Approved Department Of Planning And Zoning

Signature: *Christy [unclear]* Date: 7/25/03

Chief, Division Of Land Department

Signature: *Carl [unclear]* Date: 7/11/03

Chief, Development Engineering Division

AS-BUILT CERTIFICATION

I Herby 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: *[unclear]* Date: 11/11/05

P.E. No. 111105

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not Mean Or 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.



STORMWATER MANAGEMENT POND MAINTENANCE SCHEDULE

A. ROUTINE MAINTENANCE

Facility Shall Be Inspected Annually And After Major Storms. Inspections Should Be Performed During Wet Weather To Determine If The Pond Is Functioning Properly.

Top And Side Slopes Of The Embankment Shall Be Mowed A Minimum Of Two (2) Times A Year, Once In June And Once In September. Other Side Slopes, The Bottom Of The Pond, And Maintenance Access Should Be Mowed As Needed.

Debris And Litter Next To The Outlet Structure Shall Be Removed During Regular Mowing Operations And As Needed.

Visible Signs Of Erosion In The Pond As Well As Rip-Rap Outlet Area Shall Be Repaired As Soon As It Is Noticed.

B. NON-ROUTINE MAINTENANCE

Structural Components Of The Pond Such As The Dam, Riser Structure And The Pipes Shall Be Repaired Upon The Detection Of Any Damage. The Components Should Be Inspected During Routine Maintenance Operations.

Sediment Should Be Removed When Its Accumulation Significantly Reduces The Design Storage, Interfere With The Function Of The Riser, When Deemed Necessary For Aesthetic Reasons, Or When Deemed Necessary By The Howard County Department Of Public Works.



STORMWATER MANAGEMENT NOTES AND DETAILS

ROCKY GLEN SUBDIVISION

(A RESUBDIVISION OF LOT 4, PROPERTY OF ROCKY GLEN, L.L.C., LOTS 3 AND 4, PLAT NO. 19569)

LOTS 5 THRU 15

ZONED: R-20

TAX MAP NO. 10 GRID NO. 13 PARCEL NO. 41

SECOND ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

DATE: JUNE 19, 2003

SHEET 9 OF 12

OWNER/DEVELOPER

ROCKY GLEN, L.L.C.

3076 PARK AVENUE

Ellicott City, Md. 21043

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

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

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 runoff to downstream areas, and increasing water infiltration.

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 (up 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: barns, dams, cut and fill slopes and other areas at final grade where erosion and visual resources.

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 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 absorbing those substances present with the root zone. Sediment control devices must remain in place during grading, seeded preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

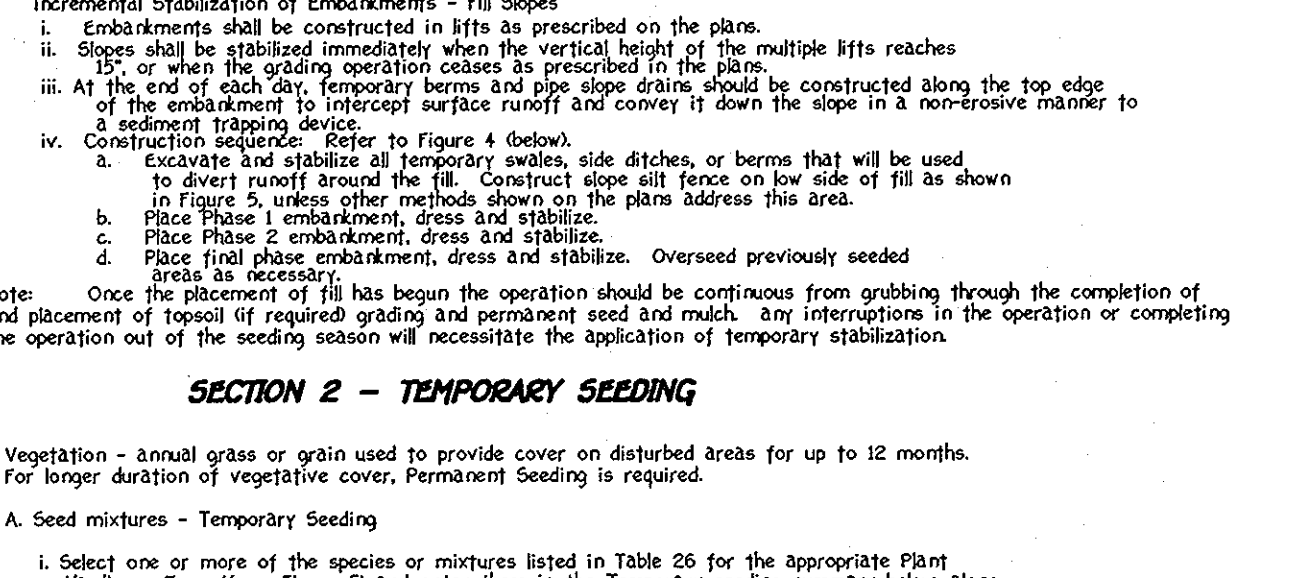
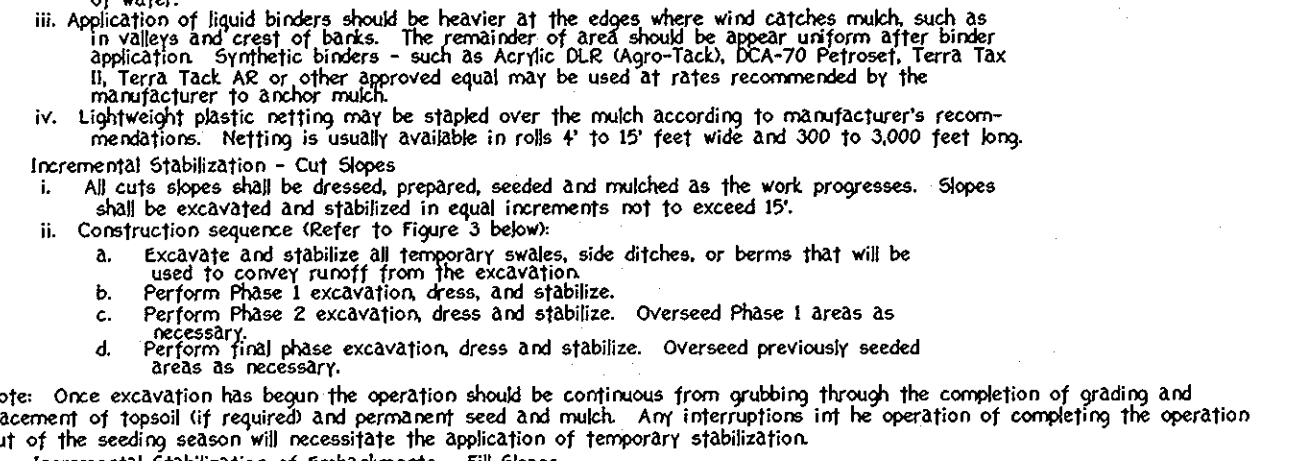
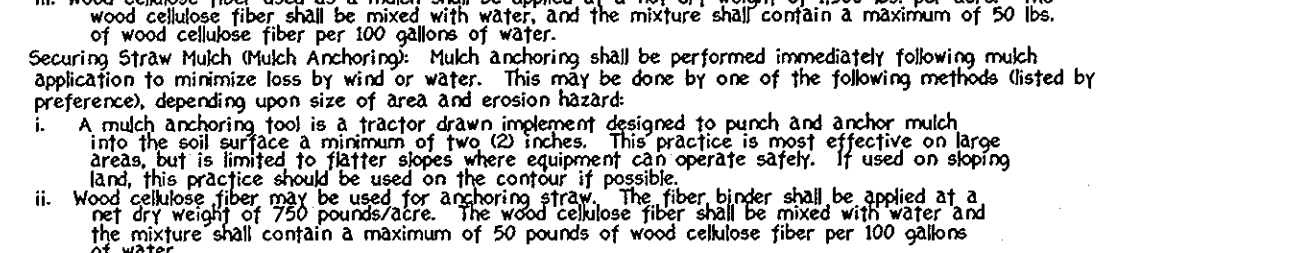
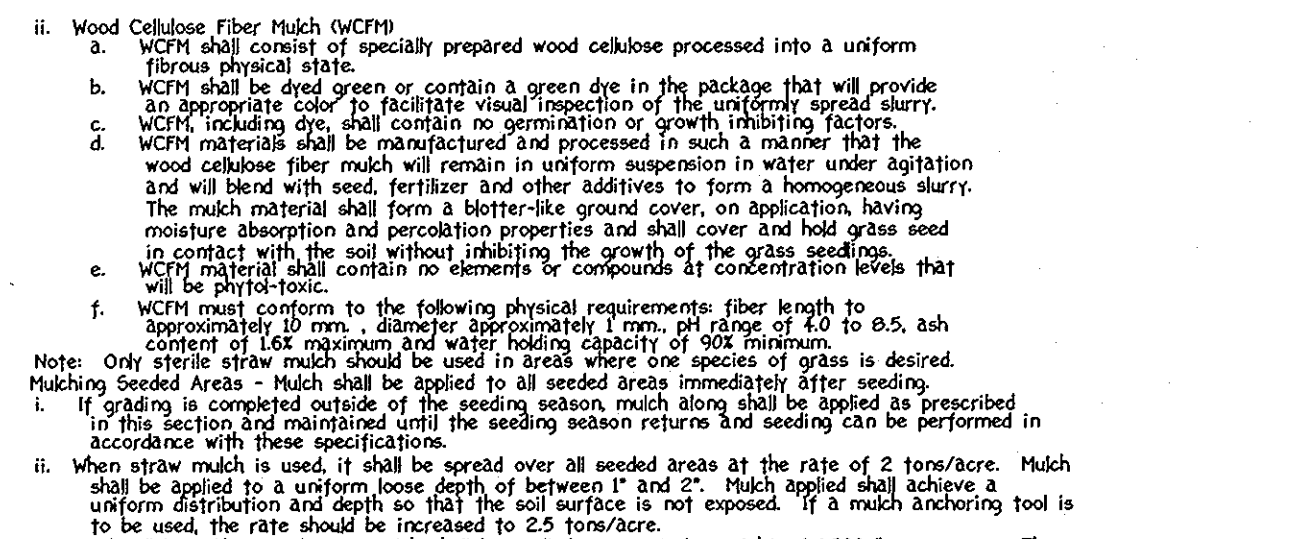
SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- Site Preparation
 - Install erosion and sediment control structures (either temporary or 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.
 - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres.
- 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 analysis.
 - Fertilizers shall conform to the following specifications and be suitable for accurate application by approved equipment. Mature may be substituted for fertilizer with prior approval from the appropriate 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 percentage of the producer.
 - Lime materials shall be ground limestone (dolomitic or burnt lime) but shall be substituted with calcium hydroxide (lime) if it passes through a #20 mesh sieve.
- Incorporate lime and fertilizer into the top 3-5" of soil by diking or other suitable means.
- Seeded Preparation
 - Temporary Seeding
 - Seeded 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%) 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.
 - Permanent Seeding
 - Minimum soil conditions required for permanent vegetative establishment: 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 6% clay, but enough fine grained material (30% silt plus clay) to provide the capability to hold a moderate amount of moisture. An exception is if leopards or similar animals are to be grazed, then a siltier soil (30% silt plus clay) would be acceptable.
 - Soil shall contain 1.2% 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 from sliding down a slope.
 - Apply soil amendments as per soil test or as included on the plans.
 - Site soil amendments into the top 3-5" of topsoil by diking or other suitable means. Lawn areas shall be rolled to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions are such that a roller is not recommended, areas shall be smoothed with a heavy chain or other equipment to roughen the surface. Slope slopes steeper than 3% should be tracked by a dzer 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. Seeded loosening may not be necessary on newly disturbed areas.
- Seed Specifications
 - All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to retesting by the inspector. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.
 - Seed tags shall be made available to the inspector to verify type and rate of seed used.
 - Inoculant - The inoculant 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 the date indicated on the 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. Temperature above 72°F can reduce the inoculant's effectiveness.
- Methods of Seeding
 - Hydroseeding - Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeds, or a cultipacker seeder.
 - If fertilizer is being applied at the time of seeding, the application rate amounts will not exceed the following: Nitrogen - minimum of 100 lbs. per acre total of soluble nitrogen (2000 phosphorus, 200 lbs/acre, 200 phosphorus, 200 lbs/acre).
 - Lime - use only ground agricultural limestone, 4 to 3 tons per acre may be applied by hydroseeding. Normally, not more than 2 tons are applied by hydroseeding at any one 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 without interruption.
 - Dry Seeding - This includes use of conventional drop or broadcast seeders.
 - Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 26 or 28. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
 - Where critical seed application is required, the seed shall be applied in two directions perpendicular to each other.
 - Apply the seeding rate in each direction.
 - Drill or Cultipacker Seeding - Mechanized seeders that apply and cover seed with soil.
 - Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil coverage. Seed must be firm after planting.
 - Where practical, seed should be applied in two directions perpendicular to each other.
- Mulch Specifications (in order of preference)
 - Straw mulch consisting of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be moist, moldy, oiled, or excessively dirty and shall be free of noxious weed seeds, as specified in the Maryland Seed Law.

SEDIMENT CONTROL NOTES

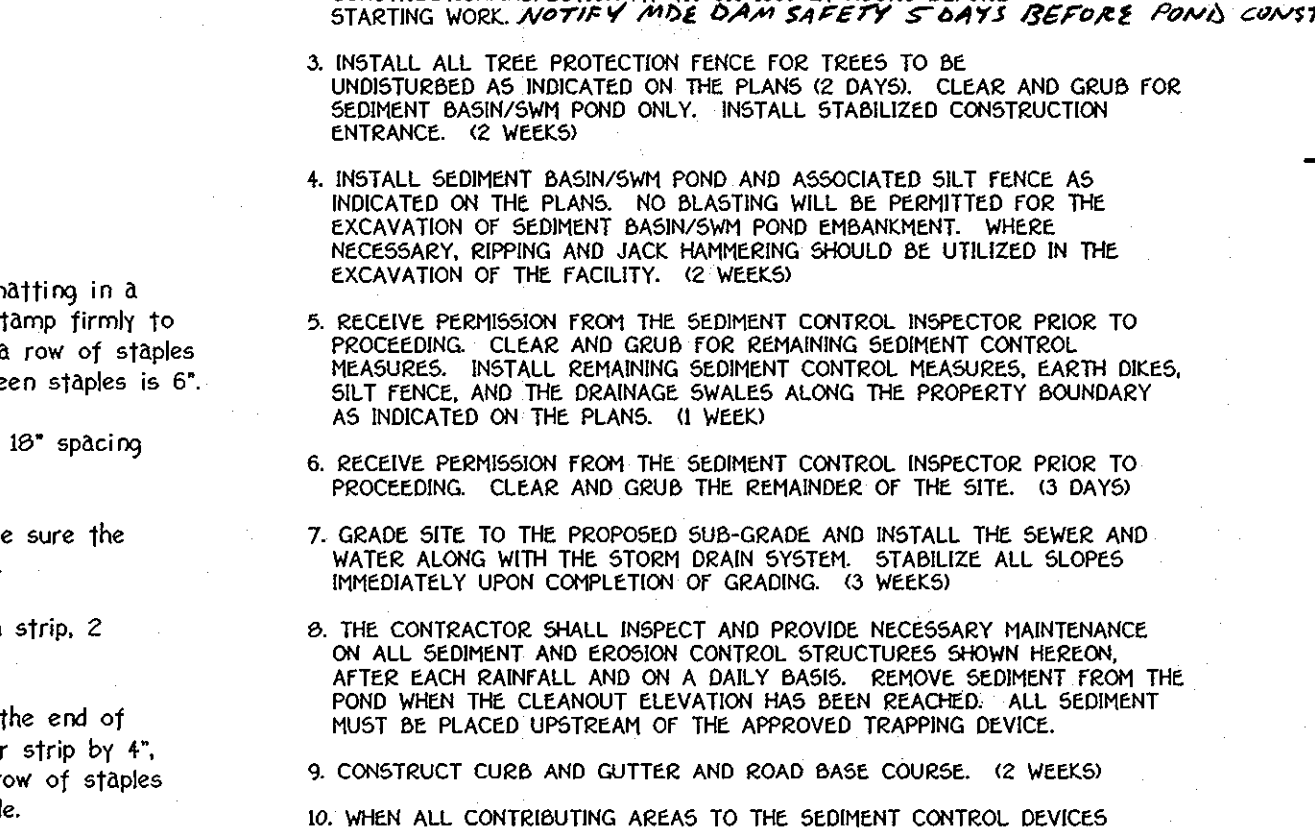
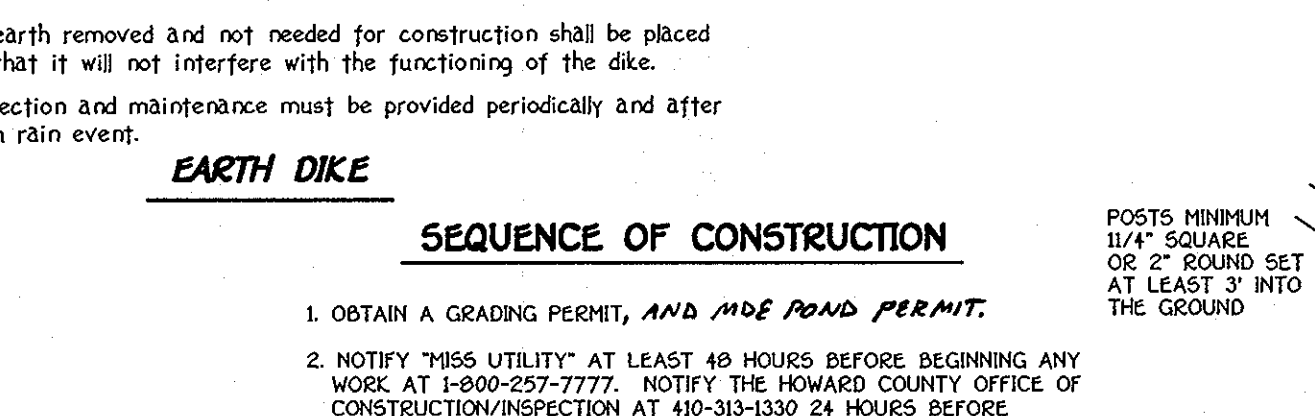
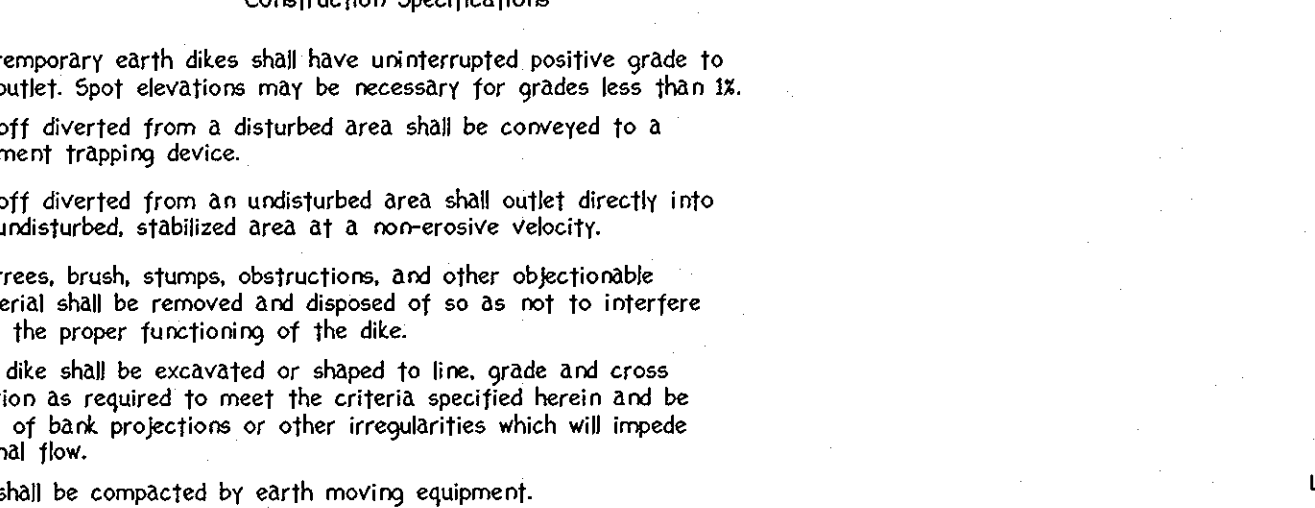
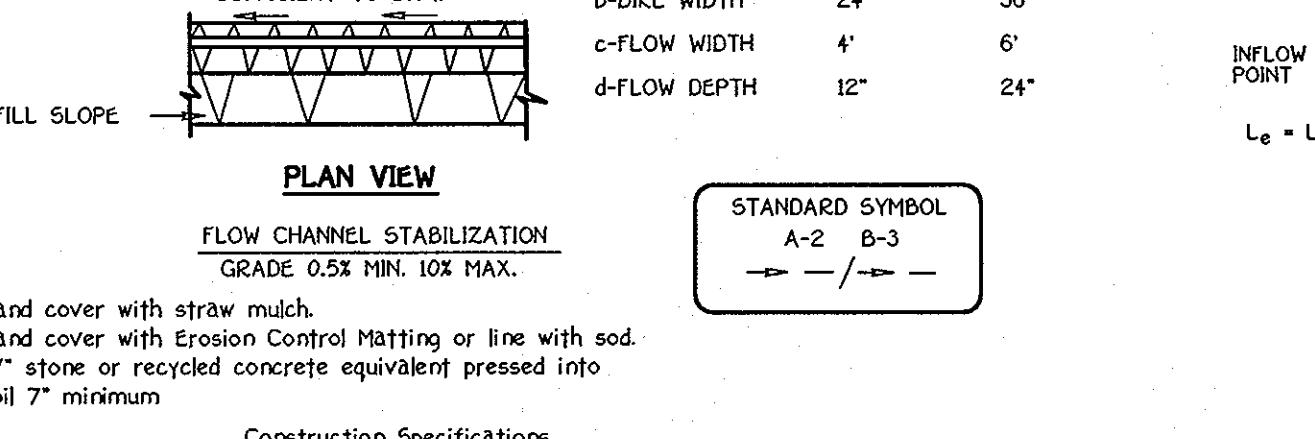
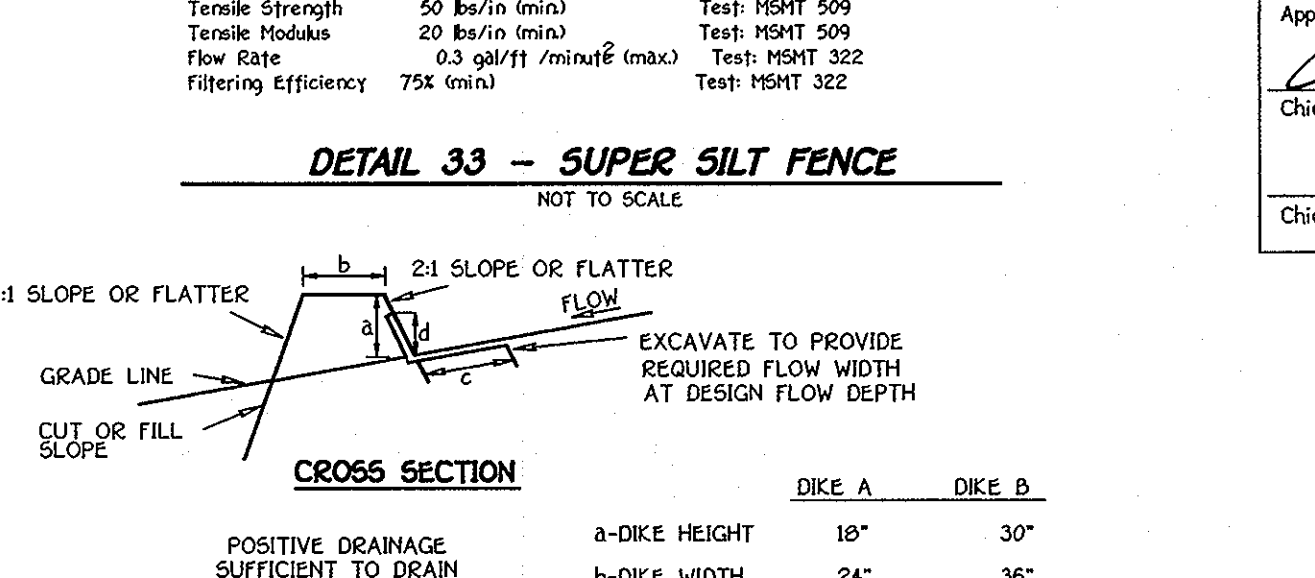
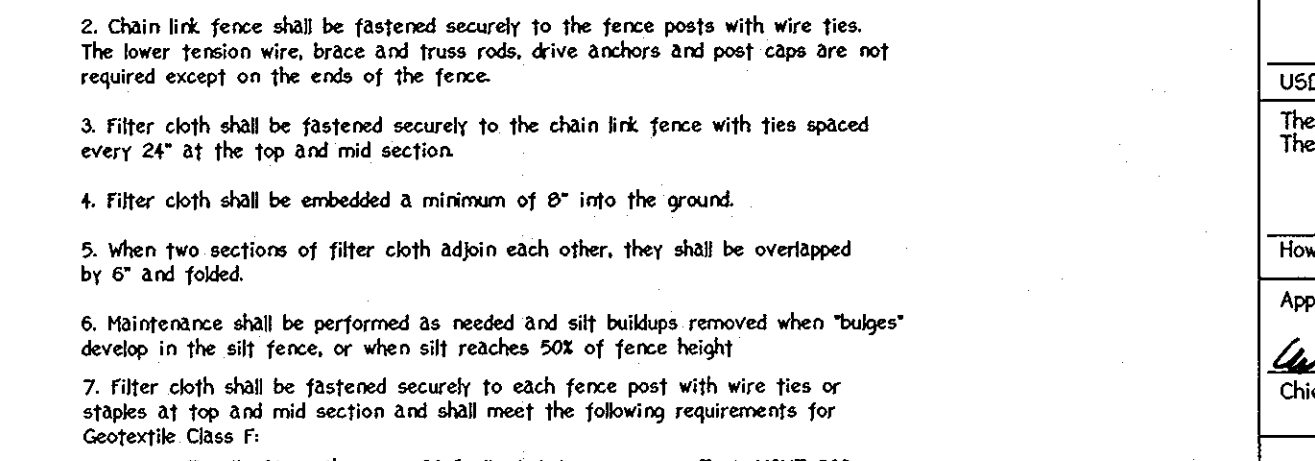
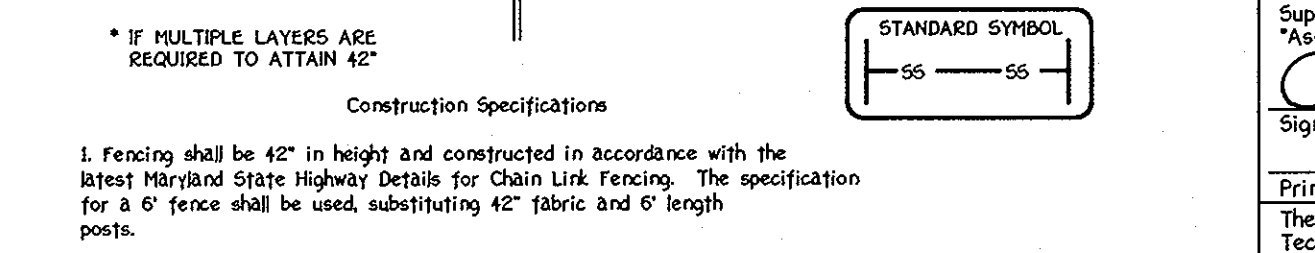
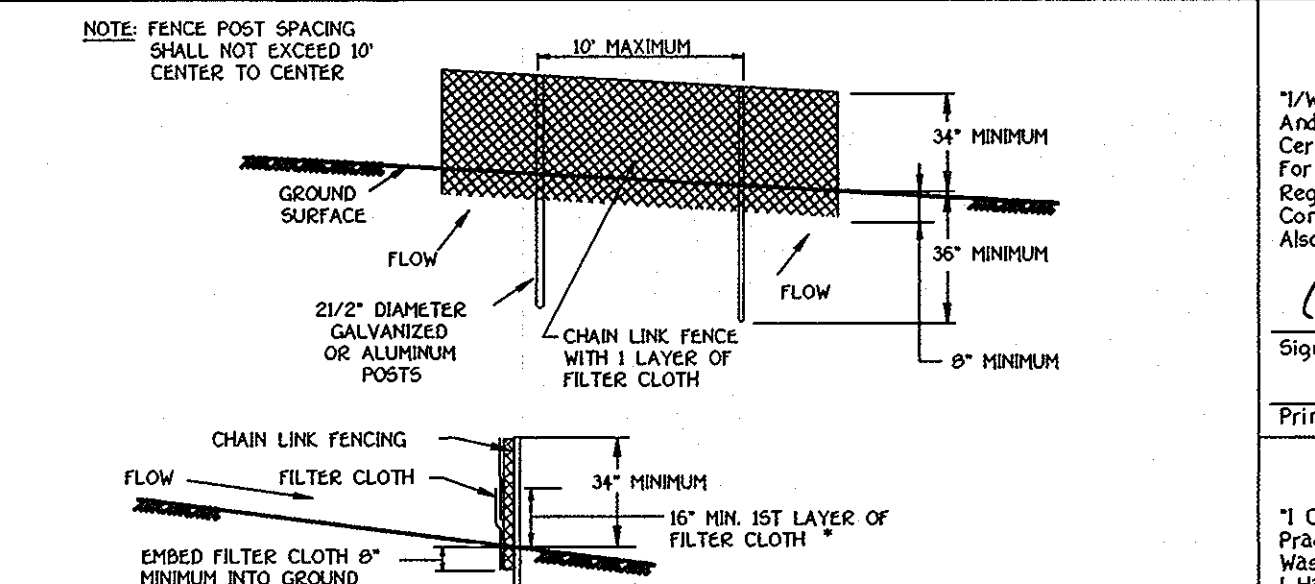
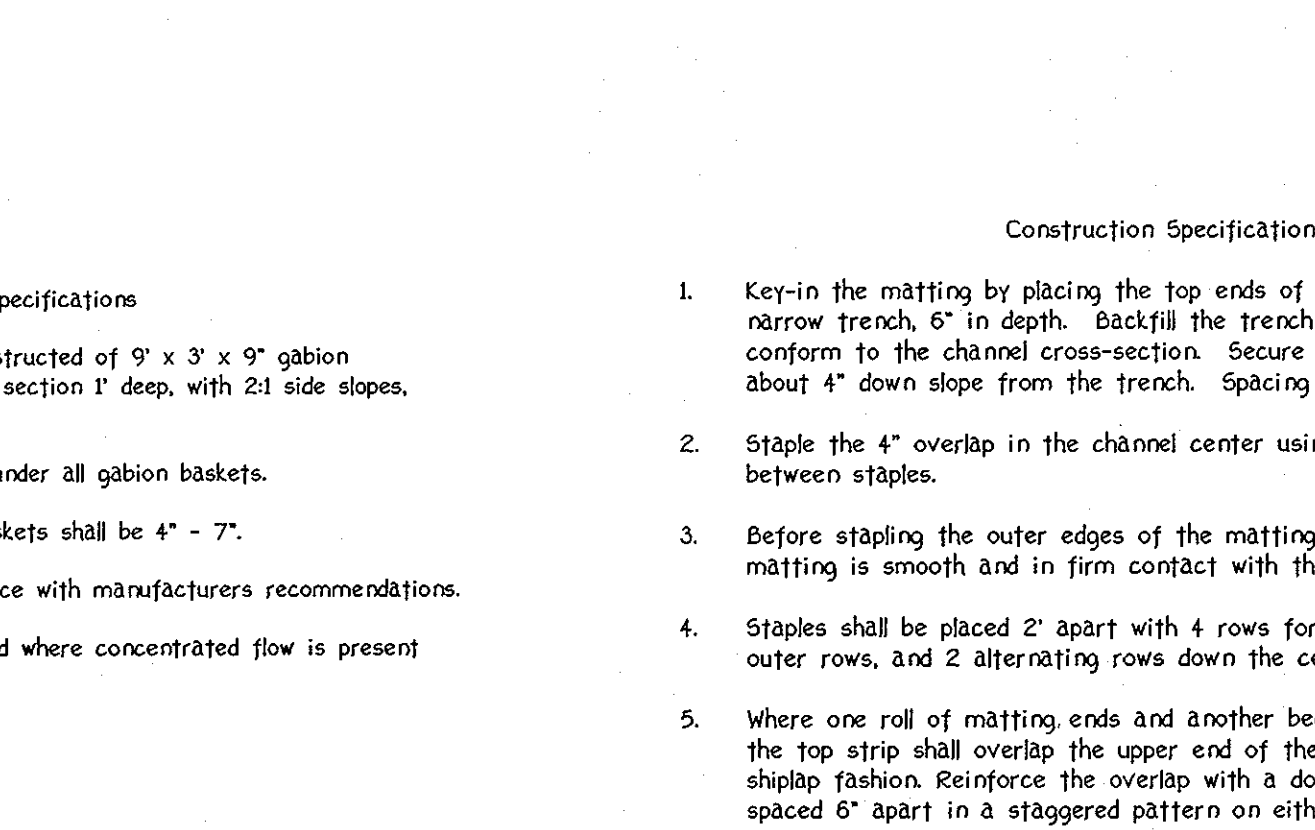
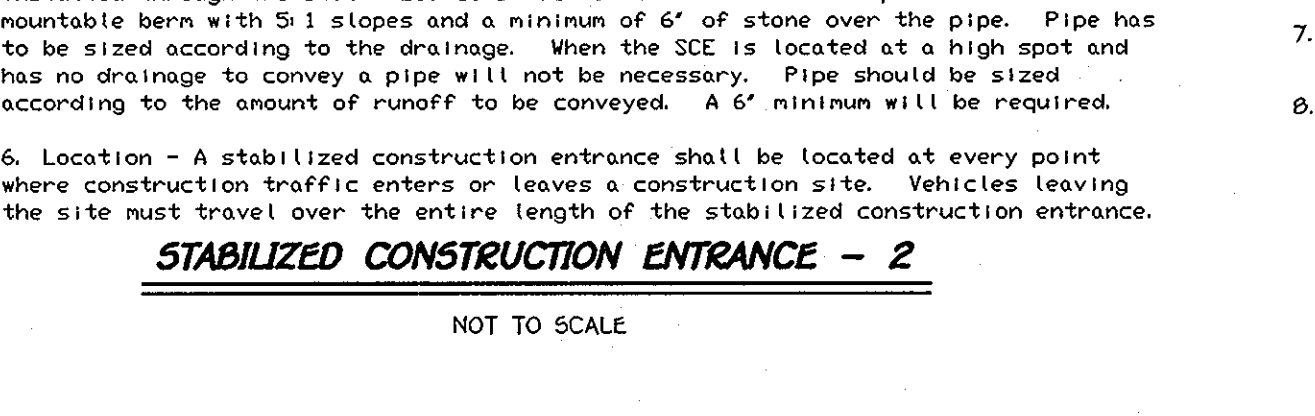
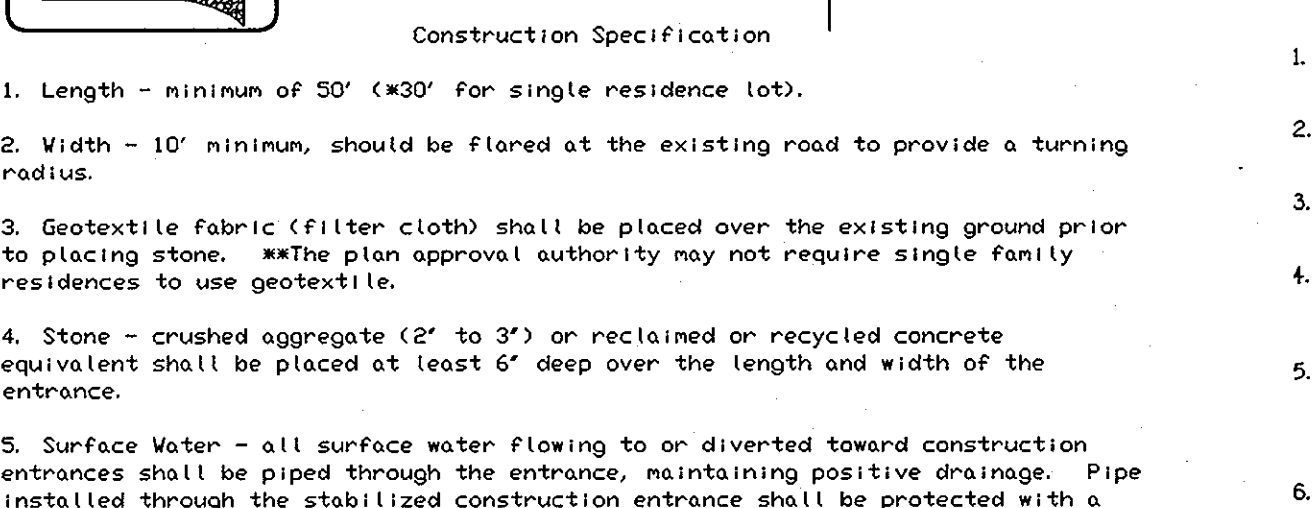
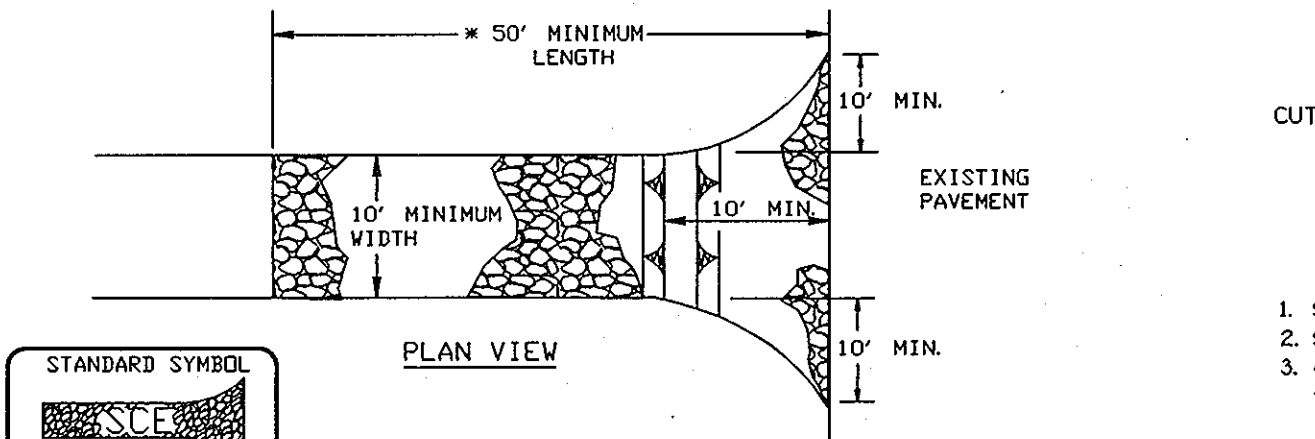
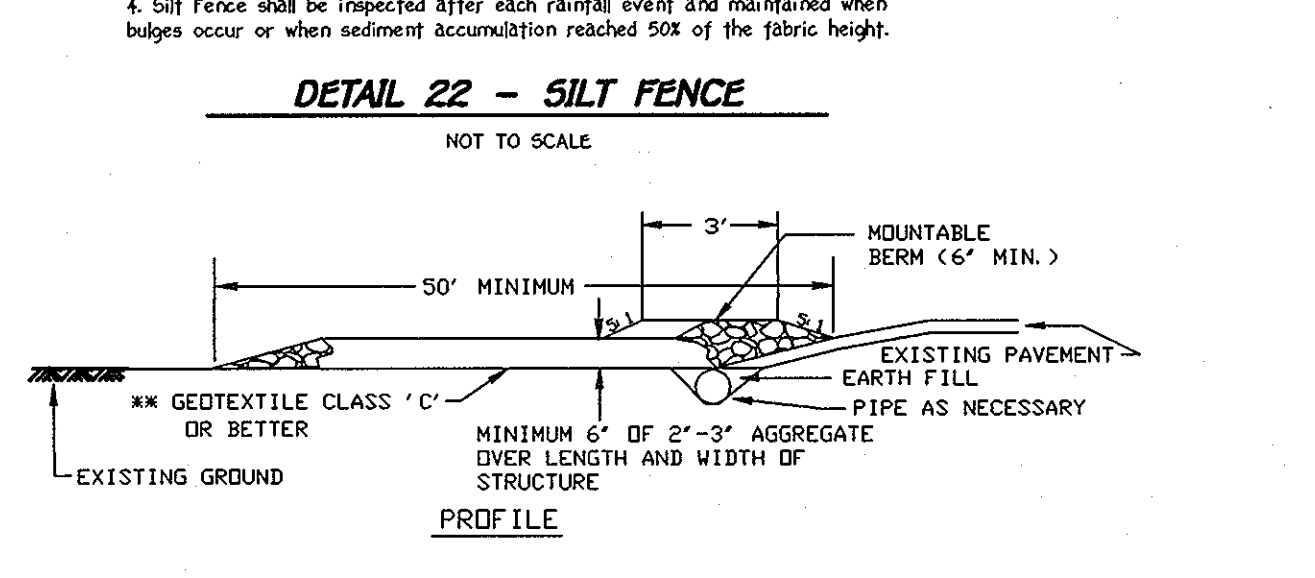
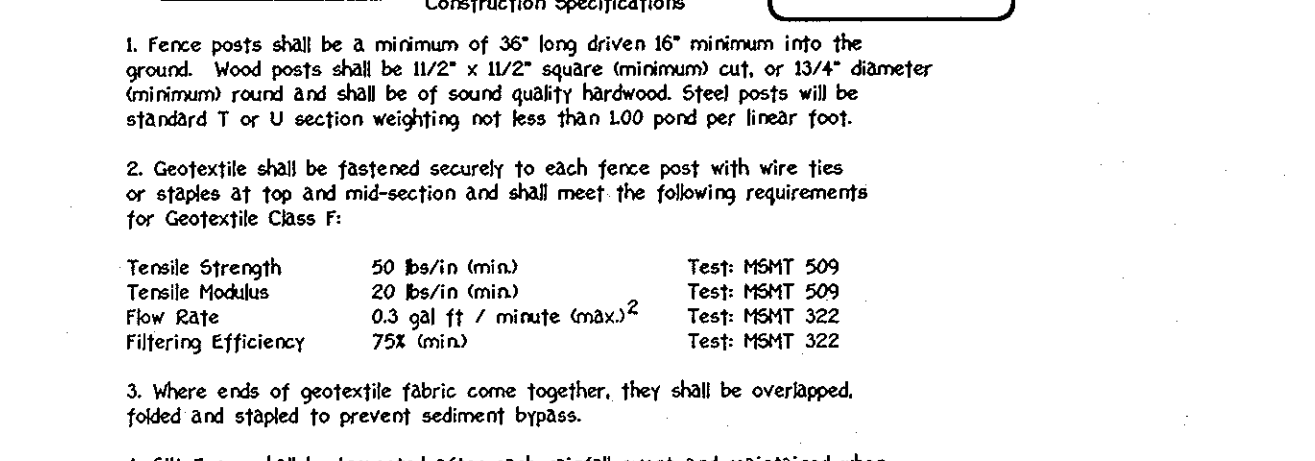
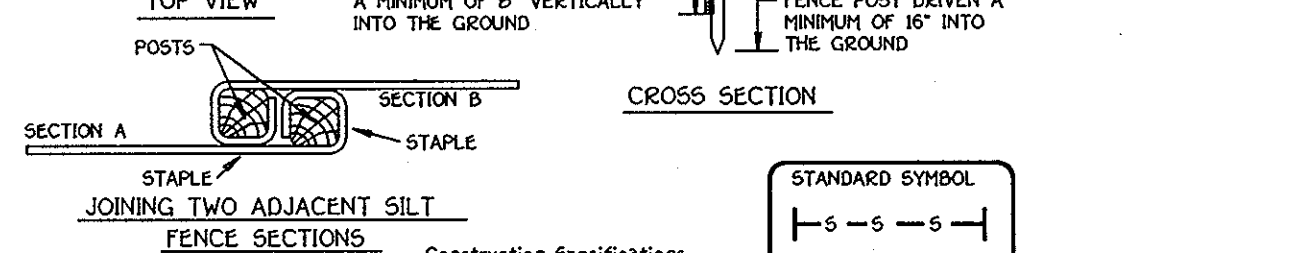
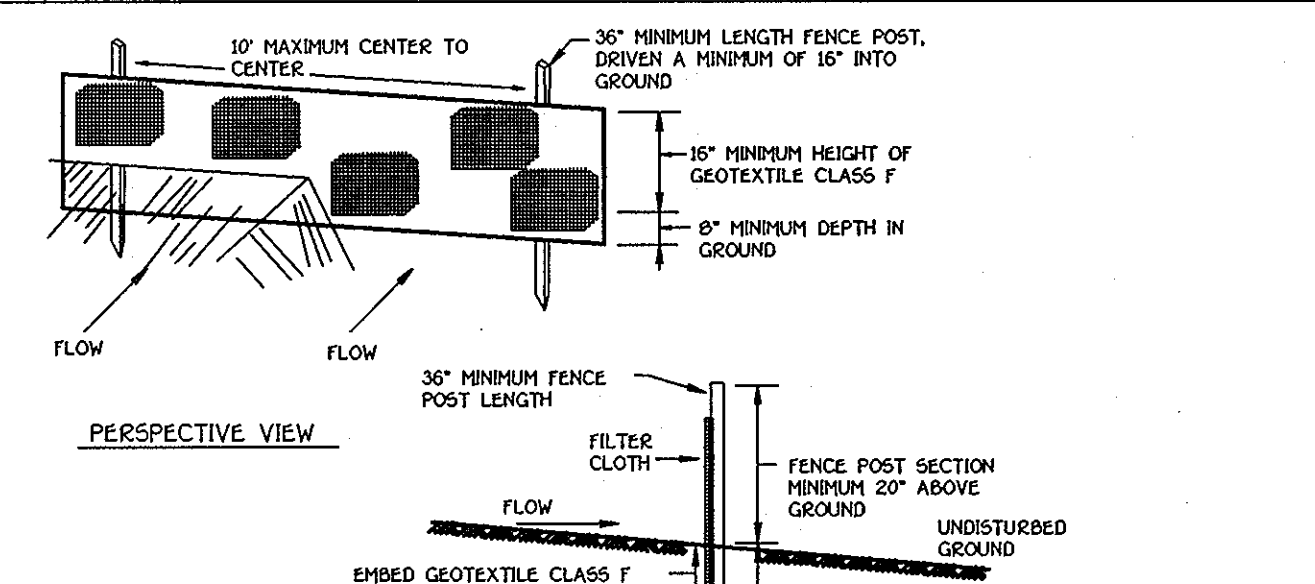
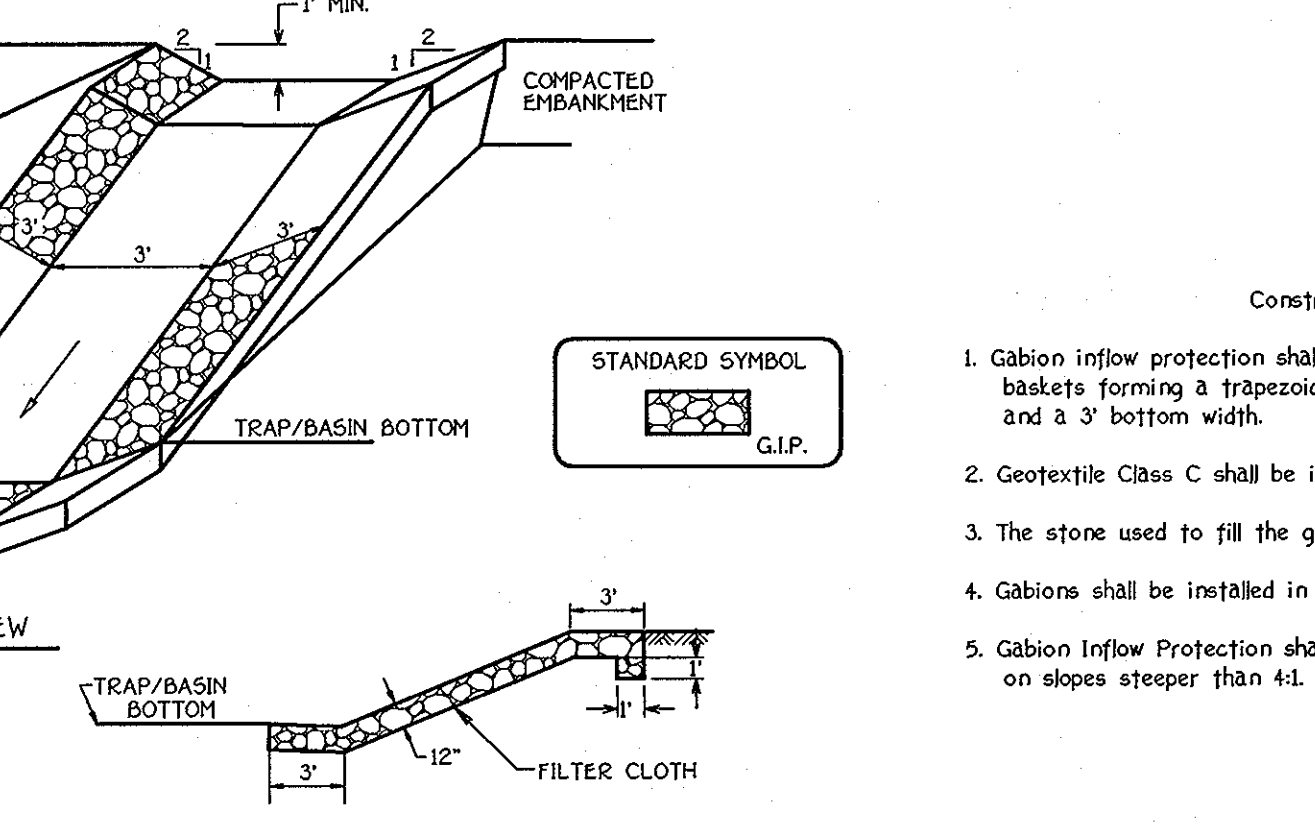
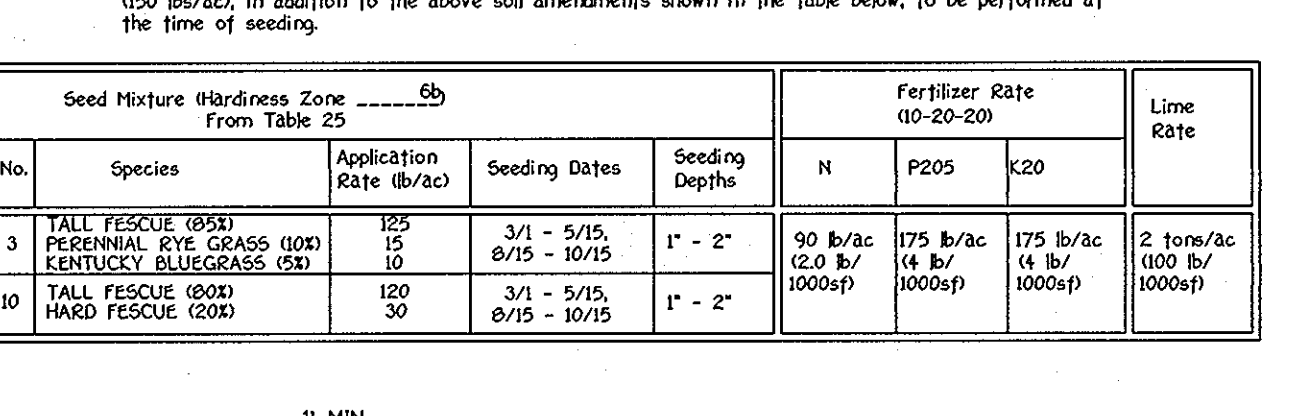
- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1825).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 - GRAVING NECESSARY TO INSTALL STORM DRAIN, SEDIMENT TRAP AND EARTH DIKES TO BE PERFORMED FIRST, REPAIRS OF THE GRADING TO BE PERFORMED AFTER STORM DRAINS, SEDIMENT TRAP AND EARTH DIKES ARE INSTALLED.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 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), 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.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	6,510 ACRES
AREA DISTURBED	540 ACRES
AREA TO BE ROOFED OR PAVED	150 ACRES
AREA TO BE VEGETATIVELY STABILIZED	350 ACRES
TOTAL CUT	15,000 CU.YDS.
TOTAL FILL	15,000 CU.YDS.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES.
- APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS BUT BEFORE PROCEEDING WITH ANY OTHER WORK.
- DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING OPERATIONS APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS LESS.



No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depth	Fertilizer Rate (0-10-10)	Line Rate
1	BARLEY	122	3/1 - 5/15	1" - 2"	600 lb/acre	2 tons/acre
	OATS	96	8/15 - 10/15	1" - 2"	05 lb/1000sf	1000 lb/1000sf
	RYE	140				

No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depth	N	P205	K20	Line Rate
3	TALL FESCUE (899F)	125	3/1 - 5/15	1" - 2"	90 lb/acre	175 lb/acre	175 lb/acre	2 tons/acre
4	PERENNIAL RYE GRASS (000)	15	8/15 - 10/15	1" - 2"	120 lb/acre	16 lb/acre	16 lb/acre	1000 lb/1000sf
10	TALL FESCUE (000)	120	3/1 - 5/15	1" - 2"	1000sf	1000sf	1000sf	1000sf
	HARD FESCUE (200)	30	8/15 - 10/15	1" - 2"				

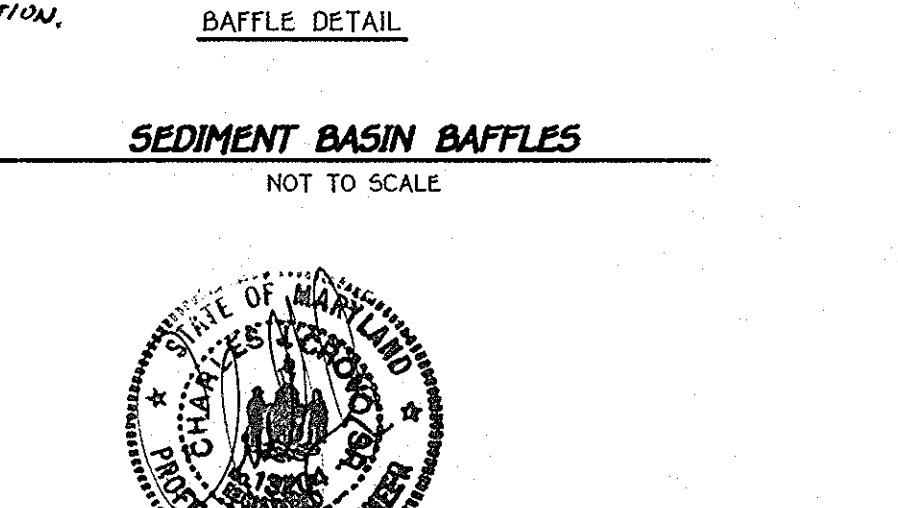
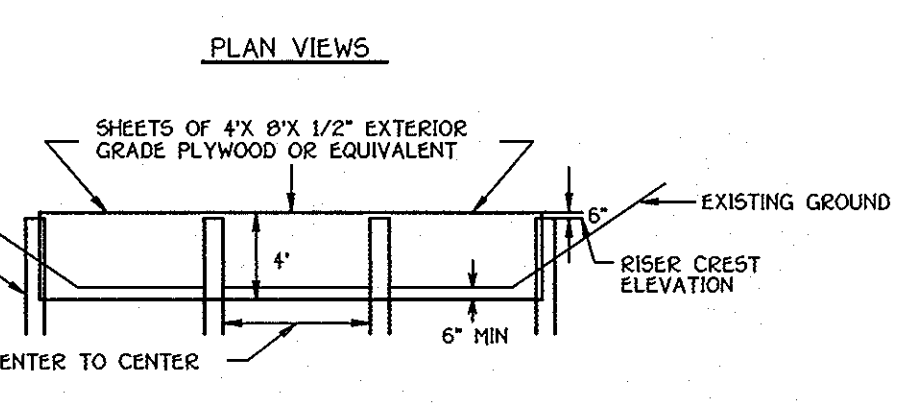
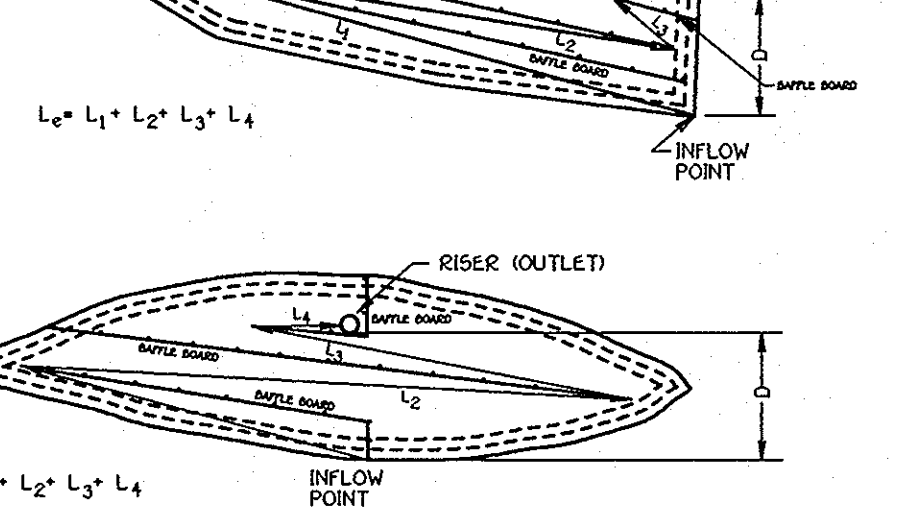
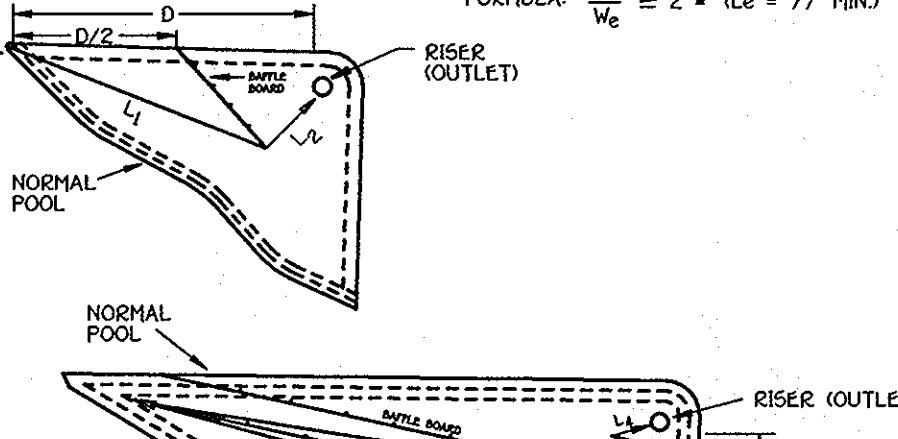


DEVELOPER'S CERTIFICATE
 I/We Certify that All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control 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 A "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District.
 Signature Of Developer: Donald R. Reuser
 Date: 6/19/03

ENGINEER'S CERTIFICATE
 I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practicable, Feasible 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.
 Signature Of Engineer: Charles J. Crovo, Sr., P.E., L.S.
 Date: 6/26/03

Printed Name Of Engineer: Charles J. Crovo, Sr., P.E., L.S.
 These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Soil Erosion And Sediment Control.
 Signature: [Signature]
 Date: 7/3/03
 Approved Department Of Public Works
 Signature: [Signature]
 Date: 7-9-03
 Chief, Bureau Of Highways

Approved Department Of Planning And Zoning
 Signature: [Signature]
 Date: 7/25/03
 Chief, Division Of Land Management
 Signature: [Signature]
 Date: 7/11/03
 Chief, Development Engineering Division



Sediment Control Notes and Details
ROCKY GLEN SUBDIVISION
 LOTS 5 THRU 15
 (A RESUBDIVISION OF LOT 1, PROPERTY OF ROCKY GLEN, L.L.C., LOTS 3 AND 4, PLAT NO. 14565)
 ZONED: R-20
 TAX MAP NO. 19 GRID NO. 13 PARCEL NO. 41
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JUNE 19, 2003
 SHEET 10 OF 12

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 1972 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21117
 (410) 481-2955

OWNER/DEVELOPER
ROCKY GLEN, L.L.C.
 3075 PARK AVENUE
 ELICOTT CITY, MD 21143

HILLIS - GARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Rocky Glen SWM Location: Howard County, Maryland

ELEV.	SOIL DESCRIPTION	DEPTH	SCALE	CON.	SAMPLE	NO.	REC.	BORING & SAMPLING NOTES
111.0	Dark brown, moist, very soft to plastic, silty fine sand, trace mica and rock (SM)	0.0	1:1	D	1-10	1	14"	Topsoil
109.5	Gray to brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	1.5	1:1	D	5-67	2	5"	Good on possible boulder at 1.5'
108.0	Brown to gray, moist, medium dense, silty fine sand, trace mica and rock (SM)	3.0	1:1	D	3-33	3	12"	Caved in at 12.0 R after 1 hour
106.5	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	4.5	1:1	D	2-22	4	14"	Caved in at 4.0 R after 24 hours
105.0	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	6.0	1:1	D	2-22	5	18"	Standing water all over site
103.5	Bottom of Hole at 15.0'	15.0						

STANDARD PENETRATION TEST-OBTAINING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

HILLIS - GARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Rocky Glen SWM Location: Howard County, Maryland

ELEV.	SOIL DESCRIPTION	DEPTH	SCALE	CON.	SAMPLE	NO.	REC.	BORING & SAMPLING NOTES
111.0	Dark brown, moist, very soft to plastic, silty fine sand, trace mica and rock (SM)	0.0	1:1	D	1-12	1	18"	Topsoil
109.5	Gray to brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	1.5	1:1	D	2-4-3	2	18"	Caved in at 14.0' at Completion
108.0	Brown to gray, moist, medium dense, silty fine sand, trace mica and rock (SM)	3.0	1:1	D	2-4-3	3	18"	Caved in at 12.0 R after 1 hr
106.5	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	4.5	1:1	D	2-3-7	4	18"	Caved in at 4.0 R after 24 hours
105.0	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	6.0	1:1	D	2-3-7	5	18"	Spot well at 11.5-12' sample
103.5	Bottom of Hole at 15.0'	15.0						

STANDARD PENETRATION TEST-OBTAINING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

HILLIS - GARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Rocky Glen SWM Location: Howard County, Maryland

ELEV.	SOIL DESCRIPTION	DEPTH	SCALE	CON.	SAMPLE	NO.	REC.	BORING & SAMPLING NOTES
111.0	Dark brown, moist, very soft to plastic, silty fine sand, trace mica and rock (SM)	0.0	1:1	D	1-2	1	18"	Topsoil
109.5	Gray to brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	1.5	1:1	D	2-2	2	18"	Caved in at 14.0' at Completion
108.0	Brown to gray, moist, medium dense, silty fine sand, trace mica and rock (SM)	3.0	1:1	D	1-3-4	3	18"	Caved in at 12.0 R after 1 hr
106.5	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	4.5	1:1	D	2-3-3	4	18"	Caved in at 4.0 R after 24 hours
105.0	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	6.0	1:1	D	2-3-3	5	18"	Spot well at 11.5-12' sample
103.5	Bottom of Hole at 15.0'	15.0						

STANDARD PENETRATION TEST-OBTAINING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

HILLIS - GARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Rocky Glen SWM Location: Howard County, Maryland

ELEV.	SOIL DESCRIPTION	DEPTH	SCALE	CON.	SAMPLE	NO.	REC.	BORING & SAMPLING NOTES
111.0	Dark brown, moist, very soft to plastic, silty fine sand, trace mica and rock (SM)	0.0	1:1	D	1-10	1	12"	Topsoil
109.5	Gray to brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	1.5	1:1	D	2-3-4	2	18"	Caved in at 14.0 R after 1 hour
108.0	Brown to gray, moist, medium dense, silty fine sand, trace mica and rock (SM)	3.0	1:1	D	2-4-6	3	10"	Caved in at 14.0 R after 1 hour
106.5	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	4.5	1:1	D	2-3-3	4	14"	Caved in at 3.7 after 24 hours
105.0	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	6.0	1:1	D	2-3-4	5	14"	
103.5	Bottom of Hole at 15.0'	15.0						

STANDARD PENETRATION TEST-OBTAINING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

DEVELOPER'S CERTIFICATE

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 Erosion And Sedimentation 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.

Signature Of Developer: *Donald R. Reuver* Date: 6/19/03

Printed Name Of Developer: Donald R. Reuver

ENGINEER'S CERTIFICATE

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.

Signature Of Engineer: *Charles J. Crovo, Sr., P.E., L.S.* Date: 6/19/03

Printed Name Of Engineer: Charles J. Crovo, Sr., P.E., L.S.

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Soil Erosion And Sediment Control.

Signature: *William J. ...* Date: 7/6/03

USDA-Natural Resources Conservation Service

These Plans For Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Signature: *...* Date: 7/3/03

Howard Soil Conservation District

Approved Department Of Public Works

Signature: *William J. ...* Date: 7-9-03

Chief, Bureau of Highways

Approved Department Of Planning And Zoning

Signature: *Cindy ...* Date: 7/25/03

Chief, Division of Land Development

Signature: *...* Date: 7/11/03

Chief, Development Engineering Division

HILLIS - GARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Rocky Glen SWM Location: Howard County, Maryland

ELEV.	SOIL DESCRIPTION	DEPTH	SCALE	CON.	SAMPLE	NO.	REC.	BORING & SAMPLING NOTES
111.0	Dark brown, moist, very soft to plastic, silty fine sand, trace mica and rock (SM)	0.0	1:1	D	3-7-8	1	2"	Topsoil
109.5	Gray to brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	1.5	1:1	D	6-6-7	2	14"	No groundwater encountered below string
108.0	Brown to gray, moist, medium dense, silty fine sand, trace mica and rock (SM)	3.0	1:1	D	5-6-5	3	18"	Caved in at 4.0' at Completion
106.5	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	4.5	1:1	D	5-6-8	4	18"	Caved in at 4.0' after 24 hrs
105.0	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	6.0	1:1	D	5-7-0	5	18"	
103.5	Bottom of Hole at 11.5'	11.5						

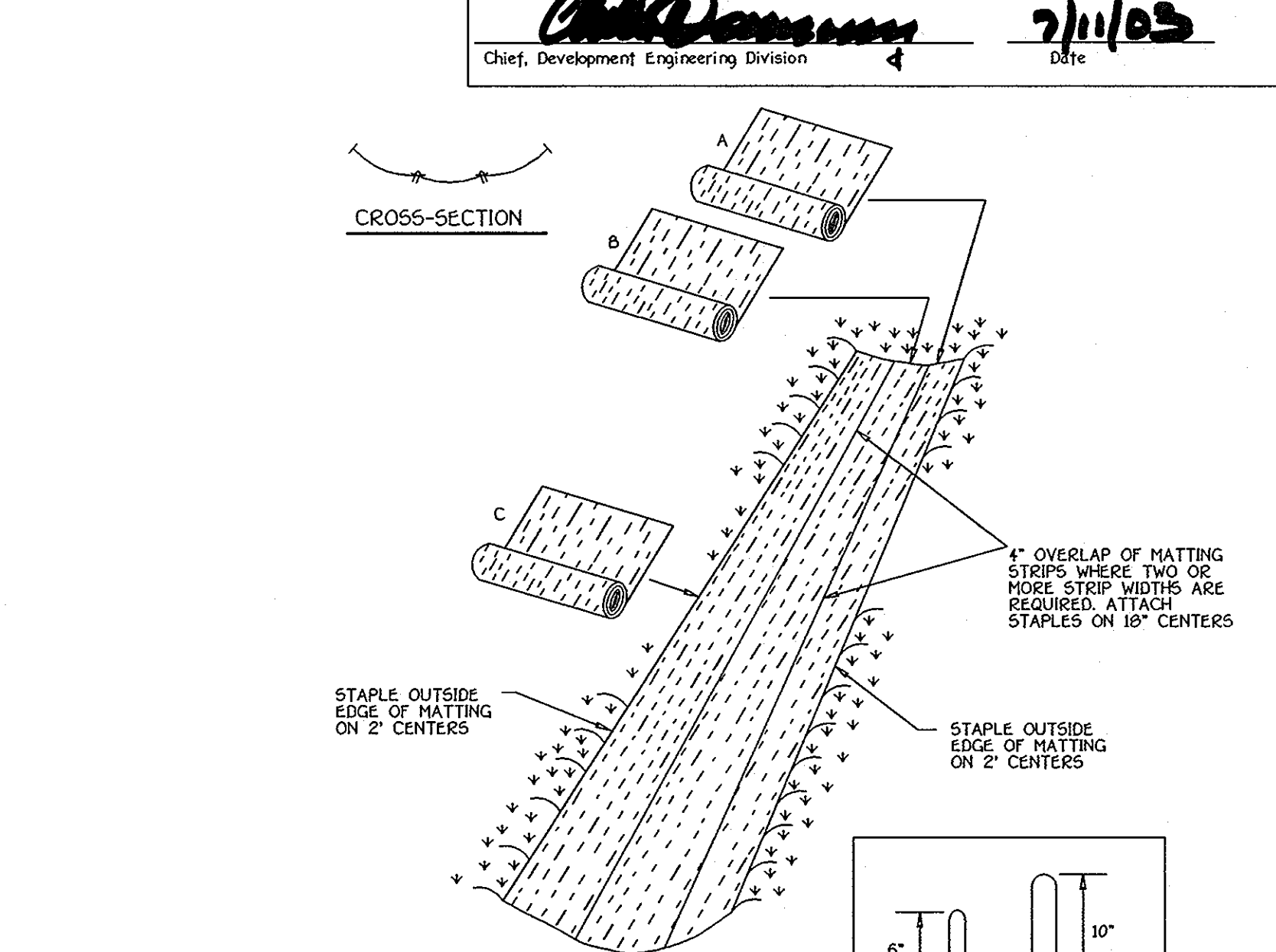
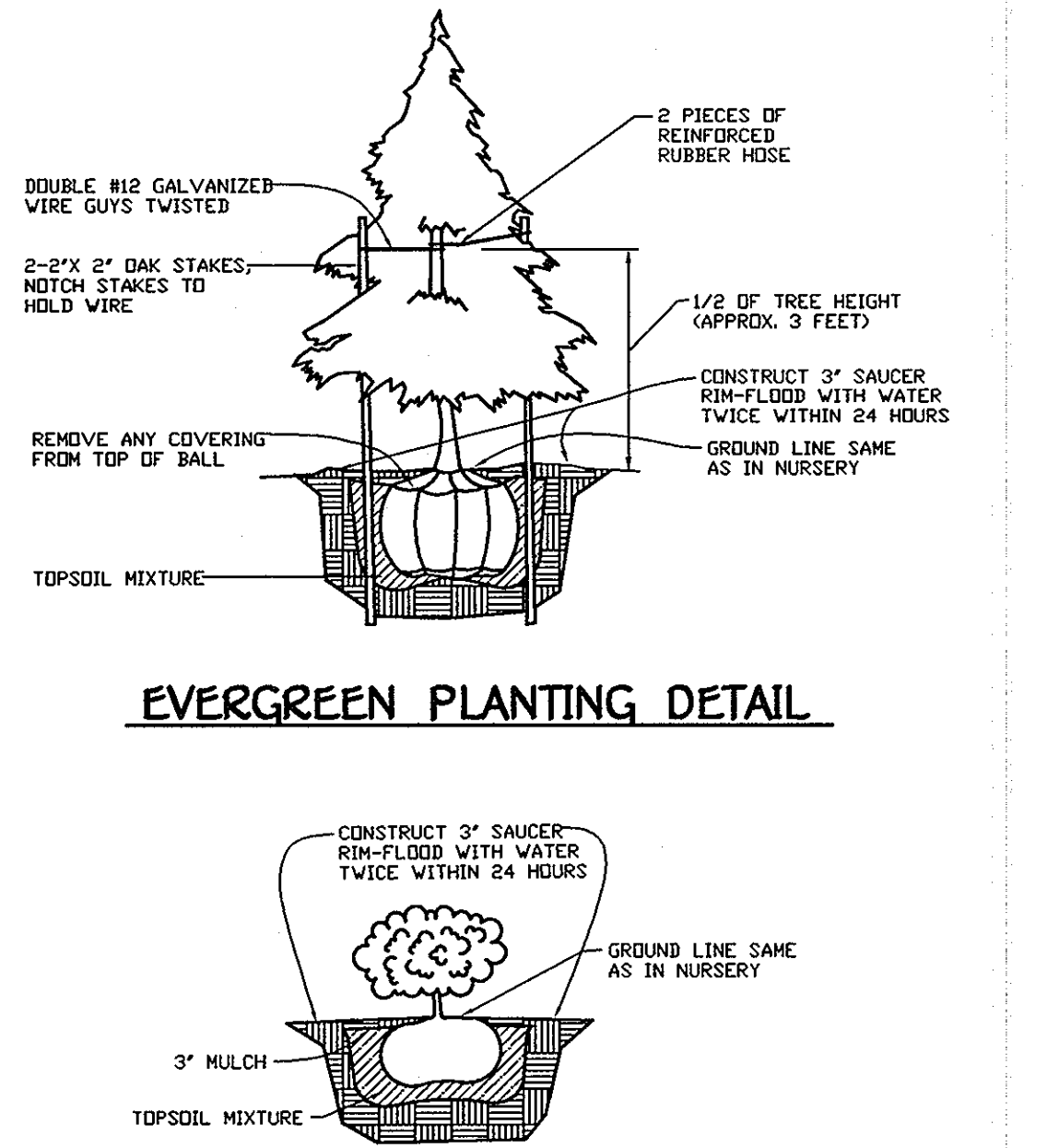
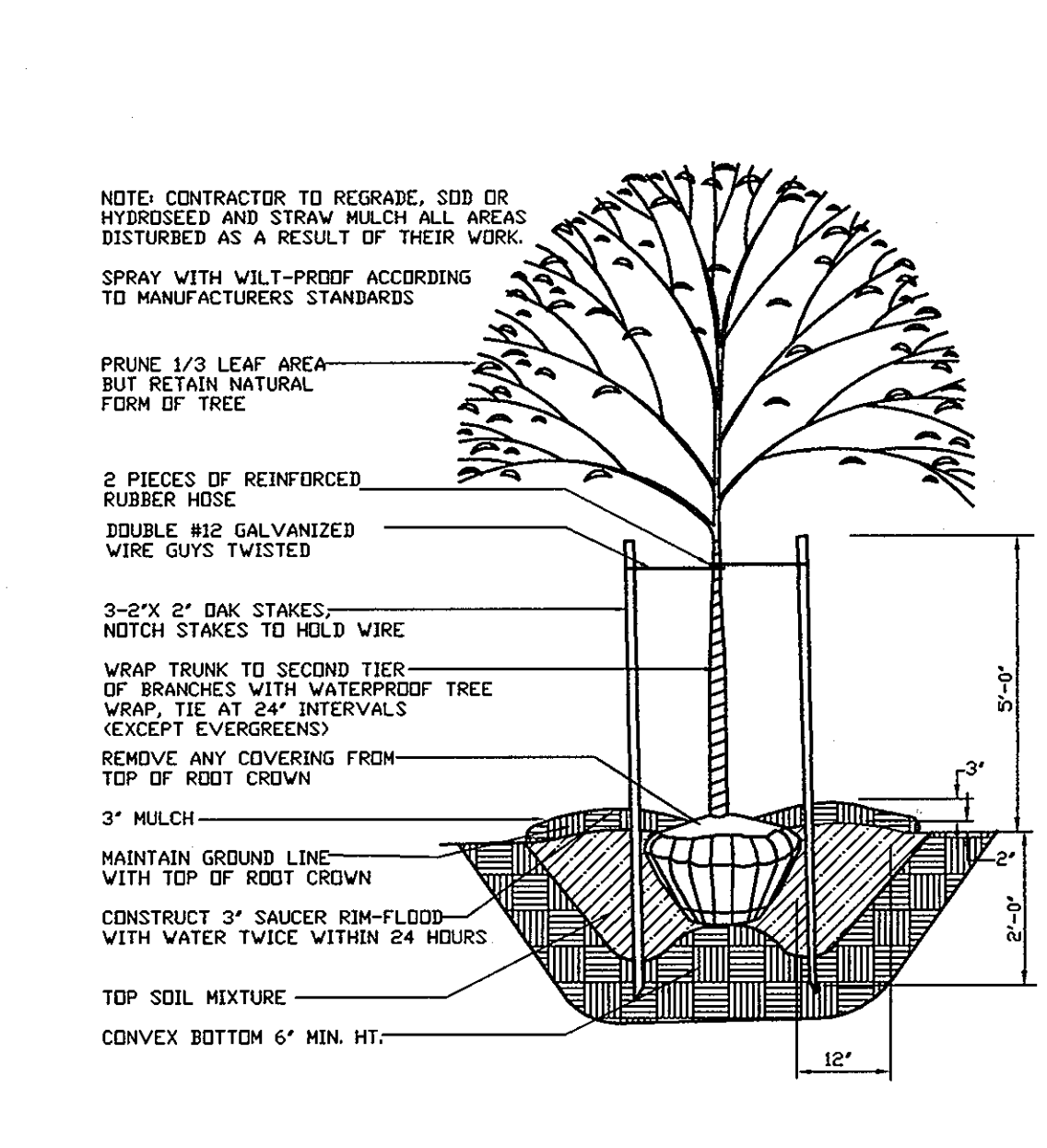
STANDARD PENETRATION TEST-OBTAINING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

HILLIS - GARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Rocky Glen SWM Location: Howard County, Maryland

ELEV.	SOIL DESCRIPTION	DEPTH	SCALE	CON.	SAMPLE	NO.	REC.	BORING & SAMPLING NOTES
111.0	Dark brown, moist, very soft to plastic, silty fine sand, trace mica and rock (SM)	0.0	1:1	D	2-7-7	1	2"	Topsoil
109.5	Gray to brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	1.5	1:1	D	4-5-4	2	18"	Groundwater encountered at 10.0', white string
108.0	Brown to gray, moist, medium dense, silty fine sand, trace mica and rock (SM)	3.0	1:1	D	5-6-5	3	12"	Caved in at 4.0' at Completion
106.5	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	4.5	1:1	D	5-5-4	4	18"	Caved in at 4.0' after 24 hrs
105.0	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	6.0	1:1	D	4-5-7	5	18"	
103.5	Bottom of Hole at 11.5'	11.5						

STANDARD PENETRATION TEST-OBTAINING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS



HILLIS - GARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Rocky Glen SWM Location: Howard County, Maryland

ELEV.	SOIL DESCRIPTION	DEPTH	SCALE	CON.	SAMPLE	NO.	REC.	BORING & SAMPLING NOTES
111.0	Dark brown, moist, very soft to plastic, silty fine sand, trace mica and rock (SM)	0.0	1:1	D	3-5-5	1	2"	Topsoil
109.5	Gray to brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	1.5	1:1	D	8-12-1	2	3"	No groundwater encountered below string
108.0	Brown to gray, moist, medium dense, silty fine sand, trace mica and rock (SM)	3.0	1:1	D	7-6-6	3	18"	Caved in at 4.0' at Completion
106.5	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	4.5	1:1	D	3-4-6	4	14"	Caved in at 4.2' after 24 hrs
105.0	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	6.0	1:1	D	5-6-5	5	18"	
103.5	Bottom of Hole at 11.5'	11.5						

STANDARD PENETRATION TEST-OBTAINING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

HILLIS - GARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Rocky Glen SWM Location: Howard County, Maryland

ELEV.	SOIL DESCRIPTION	DEPTH	SCALE	CON.	SAMPLE	NO.	REC.	BORING & SAMPLING NOTES
111.0	Dark brown, moist, very soft to plastic, silty fine sand, trace mica and rock (SM)	0.0	1:1	D	4-2-7	1	11"	Topsoil
109.5	Gray to brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	1.5	1:1	D	4-5-5	2	2"	No groundwater encountered below string
108.0	Brown to gray, moist, medium dense, silty fine sand, trace mica and rock (SM)	3.0	1:1	D	8-6-5	3	18"	Caved in at 4.2' at Completion
106.5	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	4.5	1:1	D	6-7-8	4	10"	Caved in at 4.1' after 24 hrs
105.0	Reddish brown, moist, medium dense, silty fine sand, trace mica and rock (SM)	6.0	1:1	D	5-6-7	5	18"	
103.5	Bottom of Hole at 11.5'	11.5						

STANDARD PENETRATION TEST-OBTAINING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

PLANTING SPECIFICATIONS

Plants, related material, and operations shall meet the detailed description as given on the plans and as described herein.

All plant material, unless otherwise specified, shall be nursery grown, uniformly branched, have a vigorous root system, and shall conform to the species, size, root and shape shown on the plant list and the American Association of Nurserymen (AANR) Standards. Plant material shall be healthy, vigorous, free from defects, decay, disfiguring roots, sun scald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will not be accepted. All plants shall be freshly dug; no heated-in plants from cold storage will be accepted.

Unless otherwise specified, all general conditions, planting operations, details and planting specification shall conform to "Landscape Specification Guidelines For Baltimore-Washington Metropolitan Area", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architect, latest edition, including all agenda.

Contractor shall be required to guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section of the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.

Contractor shall be responsible for notifying utility companies, utility contractors and "Miss Utility" a minimum of 48 hours prior to beginning any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.

Protection of existing vegetation to remain shall be accomplished by the temporary installation of 4 foot high snow fence or blaze orange safety fence at the drip line.

Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within the growing season of completion of site construction.

Bid shall be based on actual site conditions. No extra payment shall be made for work arising from site conditions differing from those indicated on drawings and specifications.

Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence.

All shrubs shall be planted in continuous trenches or prepared planting beds and mulched with composted hardwood mulch as details and specified except where noted on plans.

Positive drainage shall be maintained in planting beds 2 percent slope.

Planting mix shall be as follows: Deciduous Plants - Two parts topsoil, one part well-rotted cow or horse manure. Add 3 lbs. of standard fertilizer per cubic yard of planting mix. Evergreen Plants - two parts topsoil, one part humus or other approved organic matter. Add 3 lbs. of fertilizer (calcic) fertilizer per cubic yard of planting mix. Topsoil shall conform to the Landscape Guidelines.

Weed Control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. Caution: Be sure to carefully check the chemical used to assure its adaptability to the specific ground cover to be treated.

All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded and seeded. This plan is intended for landscape use only. See other plan sheets for more information on grading, sediment control, layout, etc.



EROSION CONTROL MATTING

NOT TO SCALE

Construction Specifications

- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
- Staple the 4" overlap in the channel center using an 18" spacing between staples.
- Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
- Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
- Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shingle fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
- The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

SOILS BORINGS AND DETAIL SHEET

ROCKY GLEN SUBDIVISION

(A RESUBDIVISION OF LOT 4, "PROPERTY OF ROCKY GLEN, L.L.C.", LOTS 3 AND 4, PLAT NO. 1565)

LOTS 5 THRU 15

ZONED: R-20

TAX MAP NO. 10 GRID NO. 13 PARCEL NO. 41

SECOND ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

DATE: JUNE 19, 2003

SHEET 11 OF 12

OWNER/DEVELOPER

ROCKY GLEN, L.L.C.

3075 PARK AVENUE

Elliott City, Md. 21043

FISHER, COLLINS & CARTER, INC.

CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL FREE

ELLICOTT CITY, MARYLAND 21042

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AS-BUILT 11-11-05

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