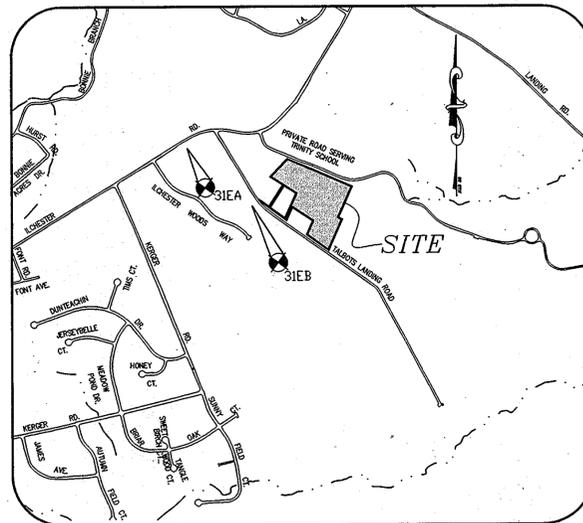


ROAD CONSTRUCTION PLANS TALBOTS WOODS I PROPERTY PHASE I

LOTS 1-9, OPEN SPACE LOTS 10-13 & NON-BUILDABLE BULK PARCELS A-C

FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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SWM SPECIFICATIONS AND SOIL BORINGS	9
LANDSCAPE AND FOREST CONSERVATION PLAN	10



VICINITY MAP
SCALE: 1"=1000'

DEVELOPER
ELlicott City Landholding, Inc.
5300 DORSEY HALL DRIVE #101
ELlicott City MD 21042
(443) 367-0422

OWNERS

Parcel 725-731:
ELlicott City Landholding, Inc.
DON REUMER & ROBERT FILA
5300 DORSEY HALL DRIVE #101
ELlicott City MD 21042

Parcel 733:
NICHOLS MALCOLM T
NICHOLS NANCY O
5117 TALBOTS LANDING
ELlicott City MD 21043-6830

Parcel 734:
PIEPRKE RANDOLPH
PIEPRKE MAUREEN
5129 TALBOTS LANDING
ELlicott City MD 21043-6830

PHASING CHART

	PHASE I SUBDIVISION OF PARCELS 725, 726, 727, 728, 729, 730, 731, 733 AND 734	PHASE II (RESUBDIVISION OF NON-BUILDABLE BULK PARCEL "C")	TOTAL
AREA OF PHASE	7,857 ± AC	3,146 ± AC	11,003 ± AC
NO. OF BUILDABLE LOTS	9	11	20
NO. OF EX. ALLOCATIONS	9	0	9
NO. UNIT ALLOCATIONS REQUIRED	0	11	11
AREA OF BUILDABLE LOTS	2,516 ± AC	3,146 AC	5,662 ± AC
AREA OF OPEN SPACE	4,402 ± AC	0.00 AC	4,402 ± AC
AREA OF PUBLIC ROAD	0.753 ± AC	0.00 AC	0.753 ± AC
AREA OF NON-BUILDABLE BULK PARCELS	3,332* ± AC	0.00 AC	3,332* ± AC

*CONSISTS OF BULK PARCELS "A", "B" AND "C"
NOTE: ALL ROAD AND INFRASTRUCTURE IMPROVEMENTS WILL BE PROVIDED UNDER PHASE I.

GENERAL NOTES:

- SITE DATA:
ZONING: R-20
TAX MAP 31 PARCEL 725, 726, 727, 728, 729, 730, 731, 733 AND 734 BLOCK 16
DEED REFERENCE: 4256/455 2911/1 2911/19 1189/262 1029/546
GROSS AREA: 11,003 ACRES± NET AREA: 11,003 ACRES±
MINIMUM LOT SIZE: 12,000 SQFT
NUMBER OF PROPOSED BUILDABLE LOTS: 9
NUMBER OF OPEN SPACE LOTS: 4
NUMBER OF NON-BUILDABLE BULK PARCELS: 3
OPEN SPACE REQUIRED (40% X 11,003±) = 4,401 ACRES±
OPEN SPACE PROVIDED = 4,402 ACRES±
CREDITED OPEN SPACE = 4,402 ACRES±
NON-CREDITED OPEN SPACE = 0.000 ACRES±
AREA OF REC. OPEN SPACE REQUIRED (250 sq.ft. X 9) = 2,250 sq.ft.
AREA OF REC. OPEN SPACE PROVIDED = 5,000 sq.ft.
AREA OF BUILDABLE LOTS = 2,516 ACRES±
AREA OF NON-BUILDABLE BULK PARCELS = 3,332 ACRES±
AREA OF PUBLIC ROAD DEDICATION = 0.753 ACRES±
PREVIOUS COUNTY FILE NUMBERS: S-04-08, P-05-012
- COORDINATES BASED ON NAD '83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 31EA & 31EB.
STA. No. 31EA N 569,641.124 E 1,374,815.936 ELEV. 469.604
STA. No. 31EB N 568,730.984 E 1,376,273.491 ELEV. 453.398
- OFF SITE TOPOGRAPHIC INFORMATION IS BASED ON HOWARD COUNTY 200 SCALE AERIAL MAPPING. VERTICAL DATUM IS NAD 83. ON SITE TOPOGRAPHIC INFORMATION IS BASED ON A FIELD RUN SURVEY BY MILDENBERG BOENDER AND ASSOC. ON OR ABOUT NOV. 2003.
- BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY PERFORMED BY MILDENBERG BOENDER & ASSOCIATES, INC. ON OR ABOUT NOV. 2003.
- BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE.
- SOILS DATA BASED ON HOWARD COUNTY SOIL SURVEY DATED 1988, SHEET 20.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED.
- WETLAND STUDY PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., IN DECEMBER 2003.
- ALL AREAS ARE MORE OR LESS.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12 FEET (14 FEET SERVING MORE THAN ONE RESIDENT).
 - SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
 - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FT RADIUS.
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
 - STRUCTURE CLEARANCES - MINIMUM 12 FEET
 - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- ALL STRUCTURES TO BE REMOVED EXCEPT THE EXISTING HOUSE ON PROPOSED LOT 1.
- NO STEEP SLOPES EXIST ON SITE AS CERTIFIED BY MILDENBERG BOENDER & ASSOCIATES, INC. IN AUGUST 2003.
- NO FLOODPLAINS EXIST ON SITE AS CERTIFIED BY MILDENBERG BOENDER & ASSOC. INC. IN AUGUST 2003.
- ADEQUATE FACILITIES ROAD TEST EVALUATION WAS PERFORMED BY MARS GROUP IN JULY 2003.
- NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON-SITE PER THE HOWARD COUNTY INVENTORY.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AS AMENDED IN OCTOBER, 2003.
- STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- VEHICULAR ACCESS SHALL BE PROVIDED TO ADJACENT PARCEL 720 AND BE SHOWN ON A SKETCH PLAN TO BE CALLED "TALBOTS WOODS I" THAT IS TO BE SUBMITTED TO THE DPZ. IF THE SKETCH PLAN (AND THE SUBSEQUENT REQUIRED PRELIMINARY AND FINAL SUBDIVISION PLANS) AT THIS TIME CALLED "TALBOTS WOODS I", THAT IS TO PROVIDE VEHICULAR ACCESS TO PARCEL 720 IS NOT SUBMITTED TO DPZ, OR IF IT IS SUBMITTED AND IS WITHDRAWN OR BECOMES DENIED OR VOID, THEN THIS SUBDIVISION, TALBOTS WOODS PROPERTY, UP TO THE TIME OF ITS PLAT RECORDING SHALL BE REVISED, WHICH MAY REQUIRE THE REDESIGN OF STORMWATER MANAGEMENT, UTILITIES, OPEN SPACE, ETC. AND THE LOSS OF ONE OR MORE BUILDABLE LOTS, TO PROVIDE PUBLIC ROAD ACCESS TO THE NORTHERN DEVELOPABLE AREA PARCEL 720 IN ACCORDANCE WITH SUBDIVISION SECTIONS 16.119(a)(8) AND 16.132(a)(1)(i).
- NON-BUILDABLE BULK PARCEL "C" WILL BE SUBDIVIDED AS PHASE II, LOTS 14-24, AS SHOWN ON SKETCH PLAN, S-04-08.
- SIGN POSTS: ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.120 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION SHALL BE FULFILLED BY PROVIDING AN ONSITE 1.65 ACRE AFFORESTATION FOREST CONSERVATION EASEMENT. FOREST CONSERVATION SURETY IN THE AMOUNT OF \$35,937.00 SHALL BE POSTED AS A PART OF THE DEVELOPER'S AGREEMENT FOR THE DPW DEVELOPERS AGREEMENT FOR THE 1.65 ACRE AFFORESTATION FOREST CONSERVATION EASEMENT.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, AND FOREST CONSERVATION EASEMENT AREAS, EXCEPT AS SHOWN ON APPROVED PLANS.
- THIS PLAN SHALL BE PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING SHALL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT FOR THE REQUIRED LANDSCAPE PLANTINGS.
- PERIMETER LANDSCAPING SHALL BE PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (110 SHADE TREES, 19 EVERGREENS) SHALL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$35,850.00.
- STORM WATER MANAGEMENT IS PRIVATELY OWNED AND MAINTAINED BY THE H.O.A AND WILL BE PROVIDED VIA: - MICRO-POOL EXTENDED DETENTION POND, STONE STORAGE TRENCH, RAIN GARDENS AND NATURAL CONSERVATION AREA. THE POND PROVIDES MANAGEMENT FOR THE W_q, 1, 2, 10, 25 AND 100 YEAR EVENTS. THE STONE TRENCH PROVIDES REV FOR THE ENTIRE PROJECT. RAIN GARDENS ARE PROVIDED FOR THE REAR OF LOTS 6-9.
- THERE IS AN EXISTING DWELLING/STRUCTURE(S) ON LOT 1, KNOWN AS 5161 TALBOTS LANDING, ELlicott CITY, MARYLAND 21043, TO REMAIN. NO NEW BUILDINGS, EXTENSIONS, OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS REQUIRE.
- ALL FILL AREAS IN THE RIGHT OF WAY AND EASEMENTS TO BE COMPACTED TO 98% PER AASHTO T-180.

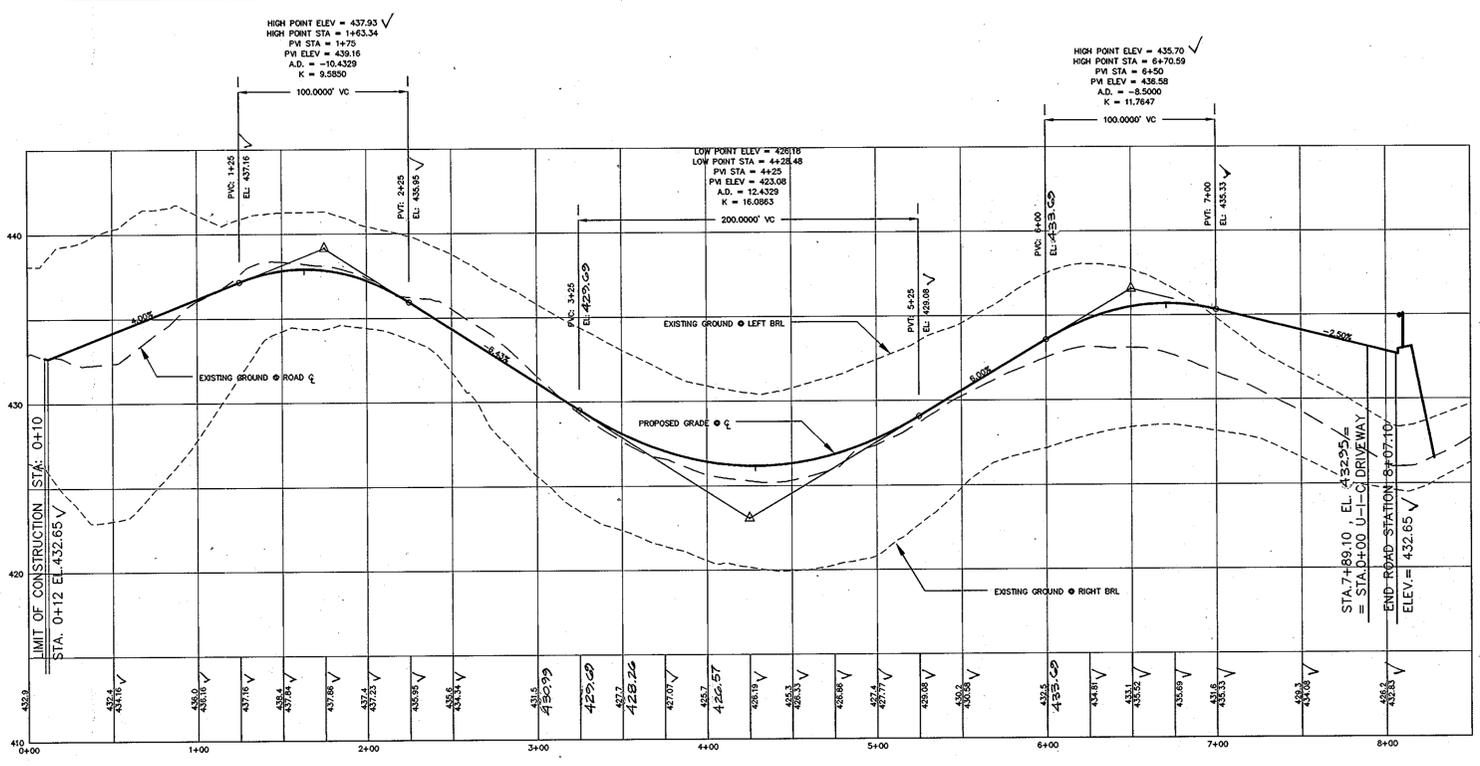
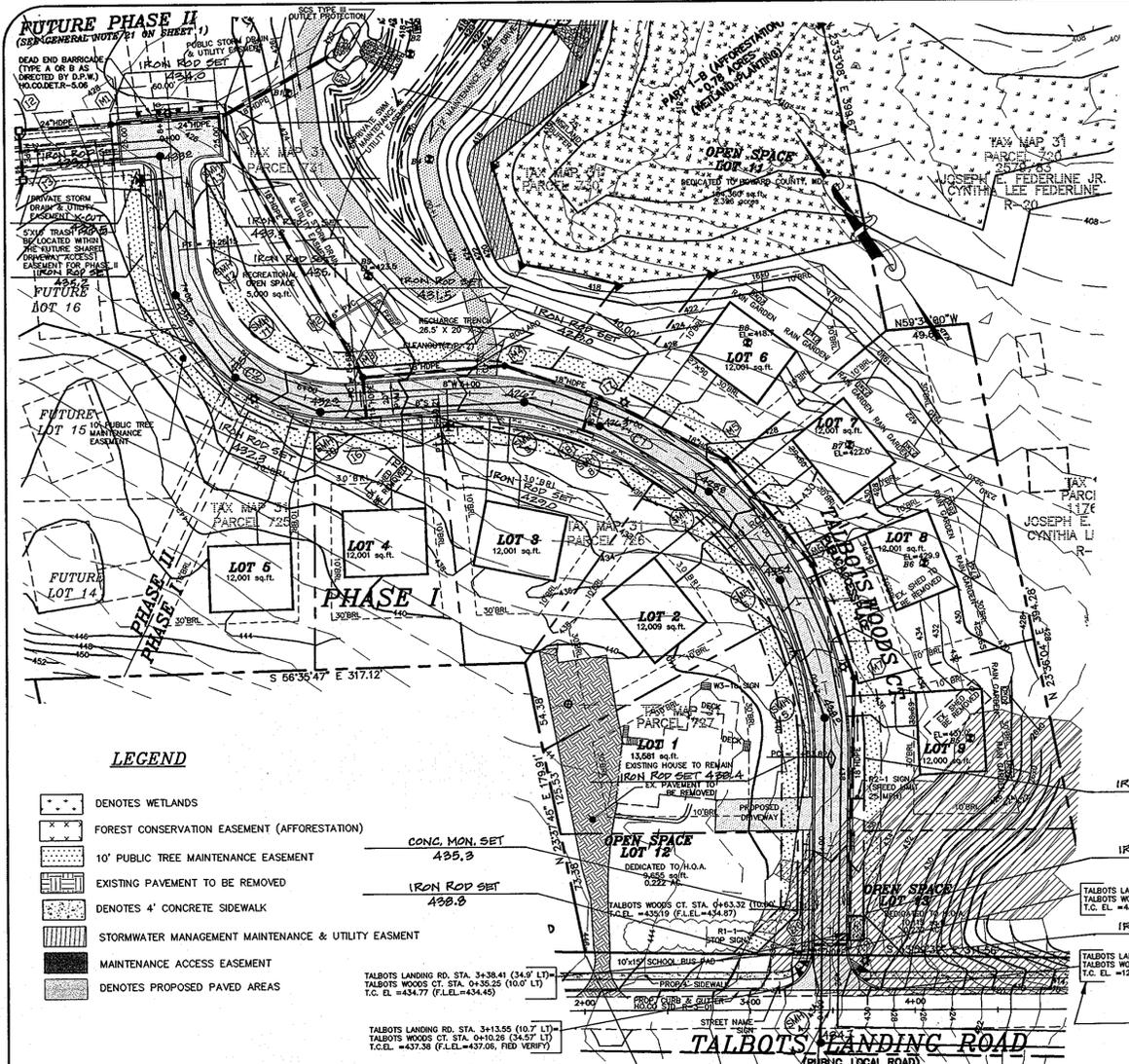


Project	08-073	date	AUGUST 06
Illustration	EGJ/MMM	scale	EGJ/MMM
scale	EGJ/MMM	NTS	approval

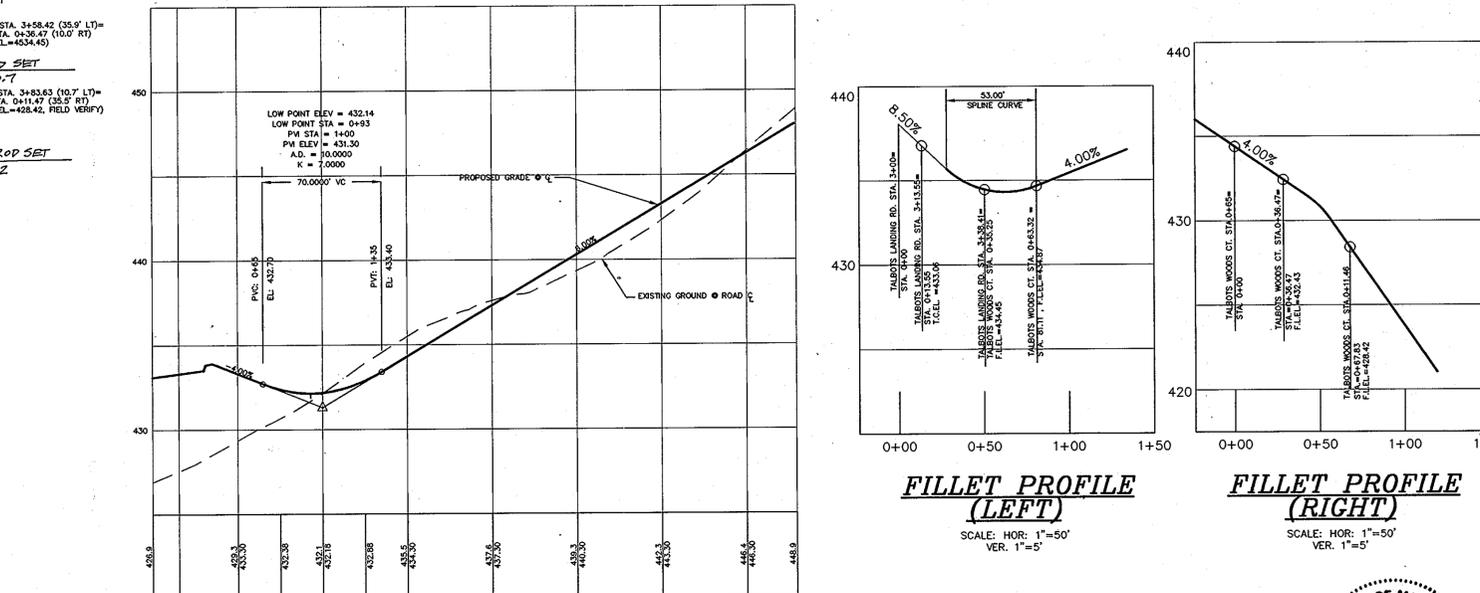
NO. AS-BUILT IN FC THIS SHEET	1	date	10/15/02
description		revisions	

TALBOTS WOODS I PROPERTY
PHASE I, LOTS 1-9, OPEN SPACE LOTS 10-13, & NON-BUILDABLE BULK PARCELS A-C
TAX MAP 31, PARCELS 725-731 & 733-734 BLOCK 16
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COVER SHEET

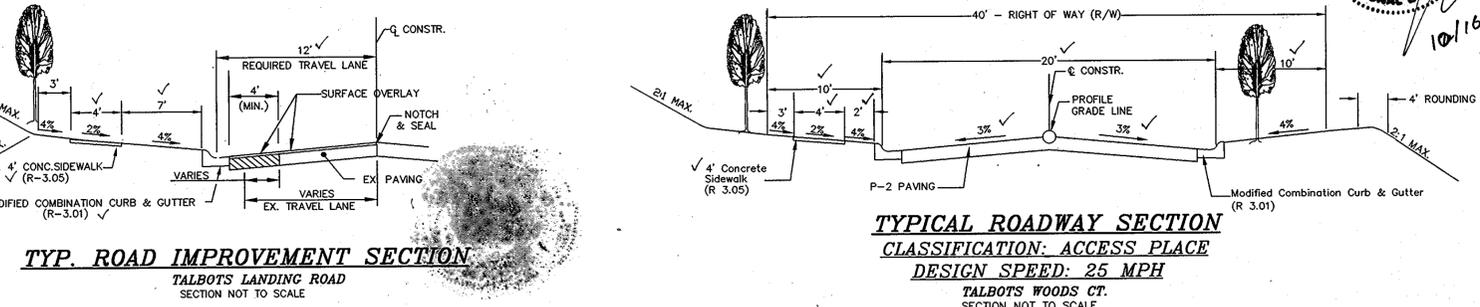
MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 987-0586 Fax: (301) 621-5521 Fax



TALBOTS WOODS CT. PROFILE
 SCALE: HOR: 1"=50'
 VER: 1"=5'
 CLASSIFICATION: ACCESS PLACE (PUBLIC)
 DESIGN SPEED: 25 MPH



USE-IN-COMMON DRIVEWAY PROFILE
 SCALE: HOR: 1"=50'
 VER: 1"=5'
 CLASSIFICATION: DRIVEWAY (PRIVATE)

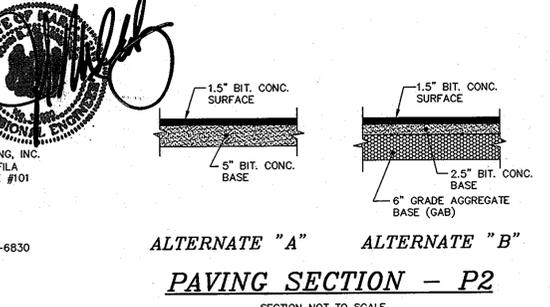


TYP. ROAD IMPROVEMENT SECTION
 TALBOTS LANDING ROAD
 SECTION NOT TO SCALE

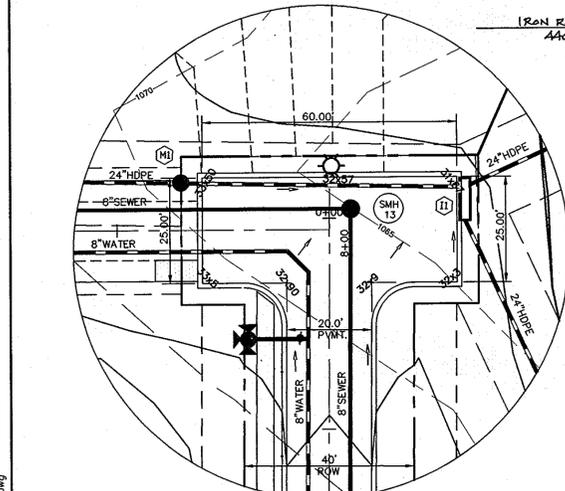
TALBOTS WOODS CT. PLAN VIEW
 PUBLIC ACCESS PLACE (40' ROW)
 DESIGN SPEED: 25 MPH
 SCALE: 1"=50'

CURVE TABLE					
CURVE	LENGTH	RADIUS	TANGENT	DELTA	CHORD BEARING & DISTANCE
C1	365.39	220.00	240.76	95°08'35"	N11°50'18"W 324.82
C2	157.64	100.00	100.56	90°19'17"	N141°52'27"W 141.82

STREET LIGHT SCHEDULE		
LIGHT TYPE	STATION	OFFSET
150 WATT HPS VAPOR PREMIERE	0+30	20' RT
100 WATT HPS VAPOR PREMIERE	2+06	13' RT
100 WATT HPS VAPOR PREMIERE	4+10	15' RT
100 WATT HPS VAPOR PREMIERE	6+27	12' LT
100 WATT HPS VAPOR PREMIERE	8+13	0



PAVING SECTION - P2
 SECTION NOT TO SCALE



TALBOTS WOODS CT. TURN AROUND DETAIL
 SCALE: 1"=20'

DEVELOPER
 ELLICOTT CITY LAND HOLDING, INC.
 5300 DORSEY HALL DRIVE #101
 ELLICOTT CITY MD 21042
 (443) 367-0422

OWNER
 Parcel 725-731:
 ELLICOTT CITY LAND HOLDING, INC.
 DON REUMER & ROBERT FLA
 5300 DORSEY HALL DRIVE #101
 ELLICOTT CITY MD 21042

Parcel 733:
 NICHOLS MALCOLM T
 NICHOLS NANCY O
 517 TALBOTS LANDING
 ELLICOTT CITY MD 21043-6830

Parcel 734:
 PUEPKER RANDOLPH
 PUEPKER MAUREEN
 5123 TALBOTS LANDING
 ELLICOTT CITY MD 21043-6830

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 12-15-06 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 1/3/07 DATE

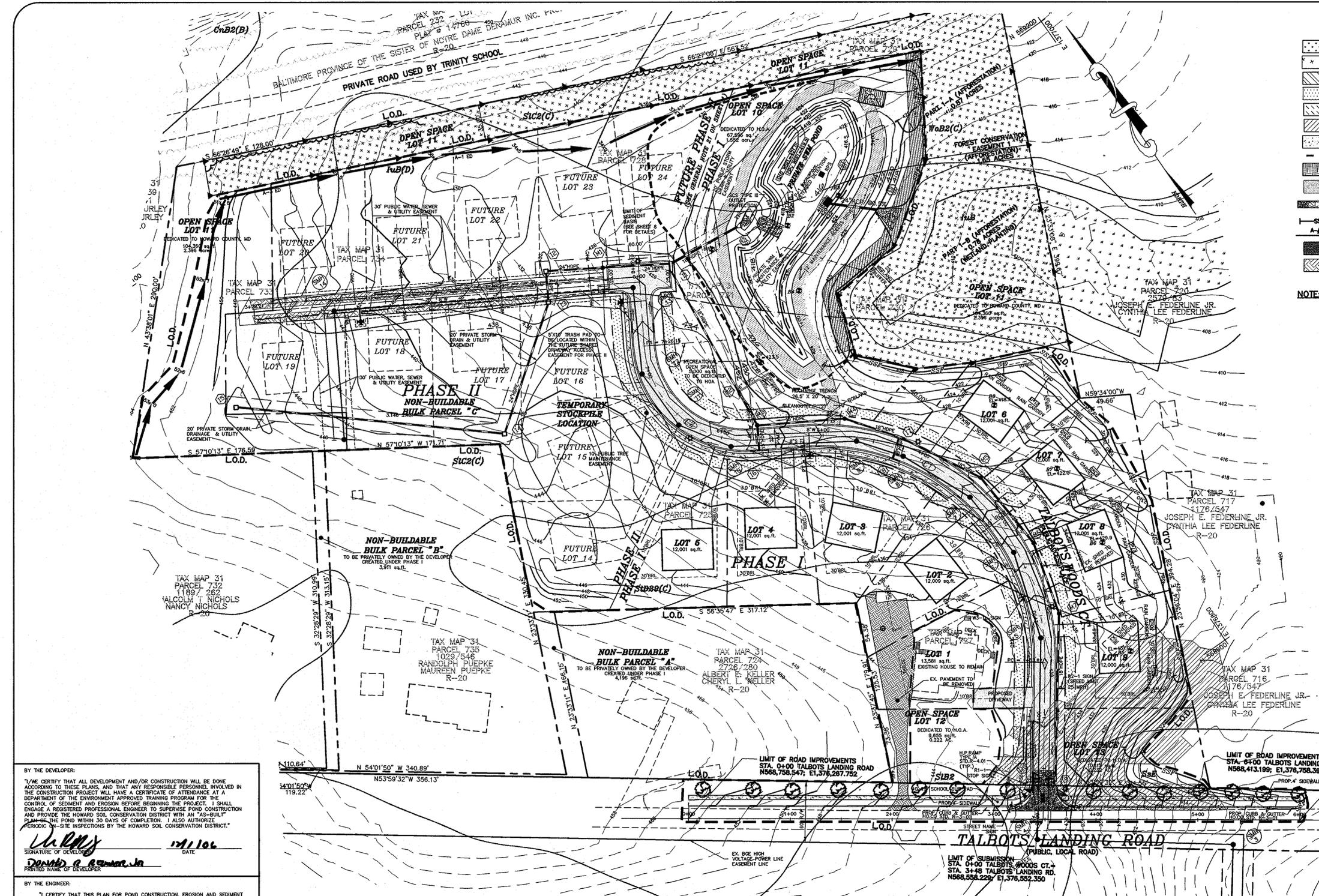
CHIEF, DEVELOPMENT ENGINEERING DIVISION

project 03-073
 illustration MAM
 scale MAM
 approval AS SHOWN
 date AUGUST 06

date 9/29/12
 description I AS-BUILT INFO ADDED
 revisions

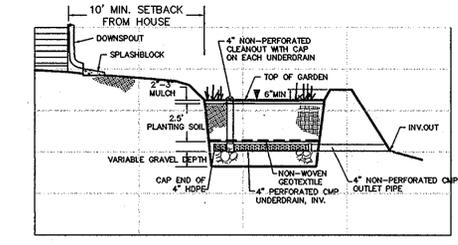
TALBOTS WOODS I PROPERTY
 PHASE I, LOTS 1-9, OPEN SPACE LOTS 10-13, & NON-BUILDABLE BULK PARCELS A-C
 TAX MAP 31, PARCELS 725-731 & 733-734 BLOCK 16
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 ROAD PLAN, PROFILES AND TYP. SECTIONS

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 367-0266 Fax (301) 621-5521 Wash. (410) 367-0266 Fax



- LEGEND**
- DENOTES WETLANDS
 - FOREST CONSERVATION EASEMENT (AFFORESTATION)
 - PRIVATE DRAINAGE & UTILITY EASEMENT
 - 10' PUBLIC TREE MAINTENANCE EASEMENT
 - PUBLIC SEWER, WATER, DRAINAGE & UTILITY EASEMENT
 - 25% SLOPES OR GREATER
 - DENOTES 4' CONCRETE SIDEWALK
 - DENOTES LIMITS OF DISTURBANCE
 - EXISTING PAVEMENT & CURB AND GUTTER TO BE REMOVED
 - DENOTES PROPOSED PAVED AREAS
 - STABILIZED CONSTRUCTION ENTRANCE
 - SUPER SILT FENCE
 - DENOTES EARTH DIKES
 - PRIVATE STORMWATER MANAGEMENT MAINTENANCE & UTILITY EASEMENT
 - EROSION CONTROL MATTING

NOTE: FINAL DESIGN, SECTIONS AND DETAILS FOR THE RAIN GARDENS SHALL BE PART OF THE SITE DEVELOPMENT PLAN FOR EACH LOT.

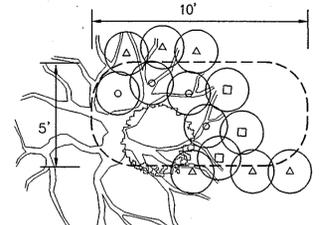


TYPICAL 5' x 10' RAIN GARDEN PROFILE
NTS

PLANT LIST

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
1		PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2-1/2" - 3" CAL.
1		ILEX GLABRA	INK BERRY	2 - 3' HT.
6		LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	1 GAL CONTAINER
4		ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL CONTAINER
3		ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL CONTAINER

TOTAL: 13 PERENNIALS, 1 SHRUB, 1 TREE (PER EACH RAIN GARDEN)



TYP. RAIN GARDEN DETAIL
SCALE: 1" = 10'

SOILS DESCRIPTION

SYMBOL	DESCRIPTION
ChB2	CHILLUM-FAIRFAX LOAMS, 1%-5% SLOPES, MODERATELY ERODED (B)
AgB2	AURA GRAVELLY LOAM, 1%-5% SLOPES, MODERATELY ERODED (B)
BeB2	BELTSVILLE SILT LOAM, 0%-1% SLOPES (C)
SIC2	SASSAFRAS LOAM, 5%-10% SLOPES, MODERATELY ERODED (C)
AgC2	AURA GRAVELLY LOAM, 5%-10% SLOPES, MODERATELY ERODED (B)
SIB2	SASSAFRAS LOAM, MODERATELY ERODED, 1%-5% SLOPES, (C)
luB	IUKA LOAM, LOCAL ALLUVIUM, 1%-15% SLOPES (C)
SID2	SASSAFRAS LOAM, MODERATELY ERODED, 10%-15% SLOPES, (C)
WoB2	WOODSTOWN SANDY LOAM, 1%-5% SLOPES, MODERATELY ERODED (C)

NOTE: STORM DRAIN SYSTEM FROM I-5 TO I-1 IS TO BE PRIVATELY OWNED AND MAINTAINED.

NOTE: ALL SF/SSF SHALL BE EXTENDED UP HILL 2' IN ELEVATION.

NOTE: ROAD IMPROVEMENT TO TALBOTS LANDING ROAD SHALL BE LIMITED TO THAT WHICH CAN BE COMPLETED AND STABILIZED WITHIN ONE WORKING DAY.

NOTE: ALL ROAD IMPROVEMENTS SHALL BE IN ACCORDANCE WITH DMV IV, STANDARD DETAIL R-10.01

- NOTES:
- REFER TO WATER & SEWER PLANS FOR OFF-SITE UTILITY EXTENSION.
 - SEE SHEET 2 OF 10 FOR TYPICAL SECTION OF TALBOTS LANDING ROAD IMPROVEMENT.



I hereby certify that the facility shown on this plan was constructed as shown on the 'As-Built' plans and meets with the approved plans and specifications.

OWNERS

Parcel 725-731:
ELLIOTT CITY LANDHOLDING, INC.
DON REIJNER & ROBERT FIL
5300 DORSEY HALL DRIVE #101
ELLIOTT CITY MD 21042

Parcel 733:
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PUEPKE MAUREEN
5129 TALBOTS LANDING
ELLIOTT CITY MD 21043-6830

DEVELOPER

ELLIOTT CITY LANDHOLDING, INC.
5300 DORSEY HALL DRIVE #101
ELLIOTT CITY MD 21042
(443) 367-0422

BY THE DEVELOPER:

I HEREBY 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.

David A. Roman Jr. 12/1/06
SIGNATURE OF DEVELOPER DATE
DAVID A. ROMAN JR.
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

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

James R. Boender 12/1/06
SIGNATURE OF ENGINEER DATE
JAMES R. BOENDER
PRINTED NAME OF ENGINEER

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

Jim Munn 12/1/06
USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

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

Chad A. All 12/1/06
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
William F. White Jr. 12-15-06
CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cindy Hammett 1/3/07
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/1/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE: JUNE 06
PROJECT: 03-073
ILLUSTRATION: EGI/MMM
SCALE: 1" = 60'
DATE: 7/28/12
DATE: 7/28/12
DATE: 7/28/12

TALBOTS WOODS I PROPERTY
LOTS 1-9, OPEN SPACE LOTS 10-13, & NON-BUILDABLE BULK PARCELS A-C
TAX MAP 31 PARCELS 725-731 & 733-734 1ST ELECTION DISTRICT
GRADING, EROSION AND SEDIMENT CONTROL PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
(410) 997-0296 Fax: (301) 621-5521 Wash. (410) 997-0298 Fax.

3 OF 10
F-06-074

HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-TERM VEGETATIVE COVER IS DESIRED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SOFT) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SOFT) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 50-0-0 LIQUORUM FERTILIZER (93 LBS/1000 SOFT).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SOFT) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (28 LBS/1000 SOFT) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 1.4 LBS/1000 SOFT) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.5 LBS/1000 SOFT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROJECT SITE BY: OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) - SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SOFT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GAL/1000 SOFT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SOFT) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SOFT).

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (32 LBS./1000 SOFT) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.7 LBS./1000 SOFT). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 28, PROJECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR SOON.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SOFT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GAL. PER ACRE (5 GAL/1000 SOFT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL. PER ACRE (8 GAL/1000 SOFT) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (103-1055)
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERMETER SLOPES AND ALL SLOPES GREATER THAN 3:1 ON ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PERMANENT SEEDING (SEC. 5), SOIL (SEC. 5A), TEMPORARY SEEDING (SEC. 5C) AND MULCHING (SEC. 5D). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE USED 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:	11,003 ACRES
AREA DISTURBED:	3.35 ACRES
AREA TO BE ROOFED OR PAVED:	1.17 ACRES
AREA TO BE NEGATIVELY STABILIZED:	1.37 ACRES
TOTAL CUT:	15,000 CU. YDS.
TOTAL FILL:	15,000 CU. YDS.
TOTAL WASTE/BORROW AREA LOCATION:	NOT REQUIRED
- THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.
- 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 CONTROL 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 PERMETER EROSION AND SEDIMENT CONTROL, BOTH ANY OTHER EARTH OR CONSTRUCTION OF ANY KIND, INCLUDING OTHER BUILDING OR GRADING INSPECTION 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 CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION
PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW pH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

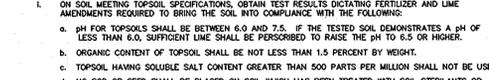
CONDITIONS WHERE PRACTICE APPLIES

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIME IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRING SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

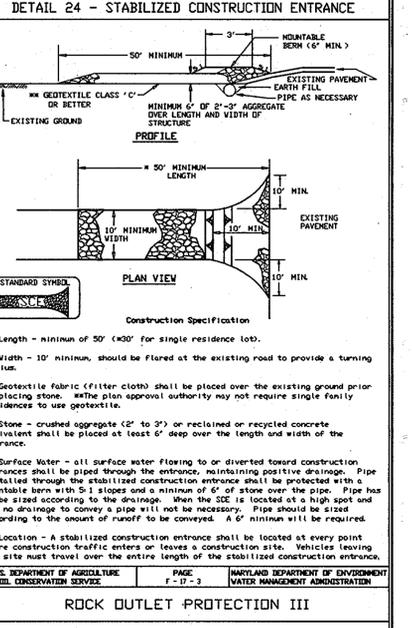
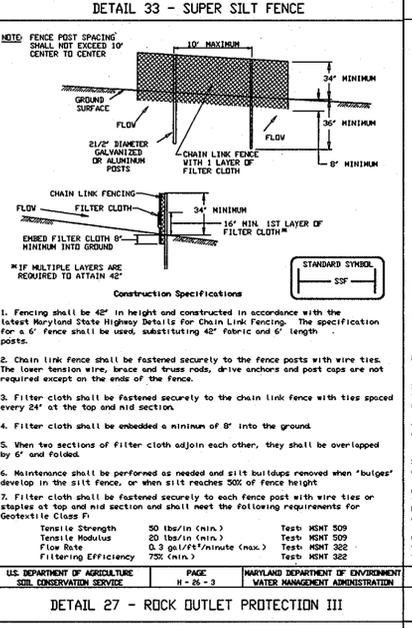
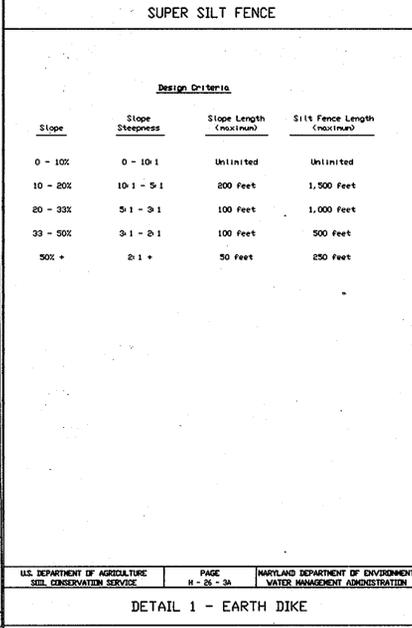
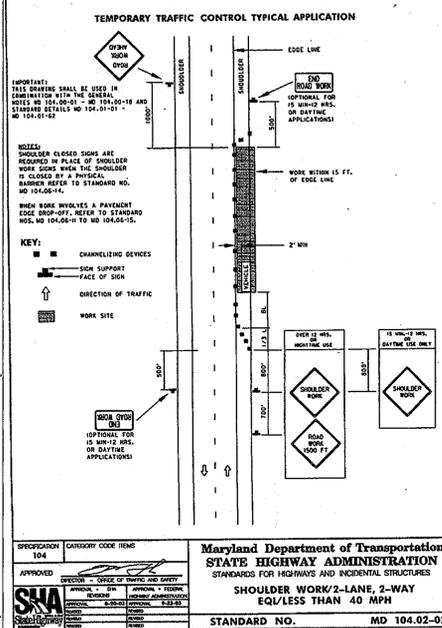
CONSTRUCTION AND MATERIAL SPECIFICATIONS

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - TOPSOIL SHALL BE A LOESS, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTAMINATED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
 - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONSON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4 TONS/ACRE (80 LBS./1000 SQ. FT.) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0.0. VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 - ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - pH FOR TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A pH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PERMITTED TO RAISE THE pH TO 6.5 OR HIGHER.
 - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 - TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 - NO SOIL OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PERMIT DISPERSION OF PHYTO-TOXIC MATERIALS.
 - NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0.0. VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
 - SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE TOPSOIL APPLICATION.
 - WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
 - GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
 - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 6" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SOILING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 - TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
 - ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW.
 - COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
 - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 28.04.06.
 - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
 - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1000 SQUARE FEET.
 - COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.



Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
SHOULDER WORK/2-LANE, 2-WAY
EQ/LESS THAN 40 MPH
STANDARD NO. MD 104.02-02



TEMPORARY DUST CONTROL MEASURES

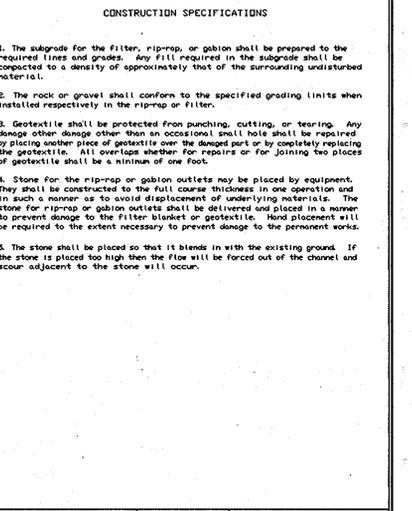
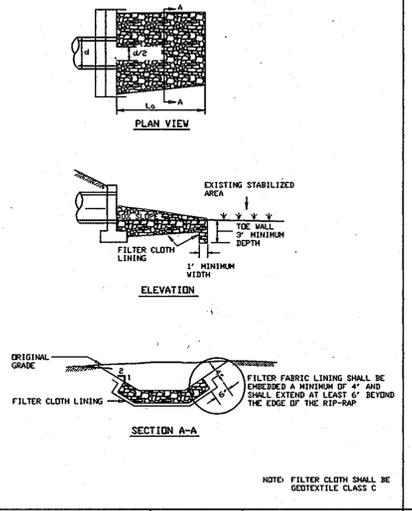
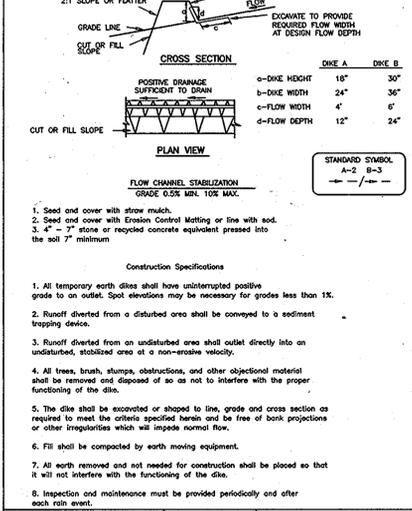
- MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE COMPACTED OR LAPPED TO PREVENT BLOWING.
- VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
- TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS APCED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
- BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND PREVENT BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS. INTERVAL OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
- CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOSTLY WET. MAY NEED RETREATMENT.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT. (1 DAY)
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT LOCATIONS INDICATED. (1 DAY)
- CONSTRUCT SUPER SILT FENCES, SEDIMENT BASIN, INCLUDING Dewatering STANDPIPE AND EARTH DIKES. (3 DAYS)
- WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR BRING SITE TO GRADE INDICATED.
- CONSTRUCT PAVEMENT, CURB AND GUTTER, WATER, SEWER, AND STORM DRAIN AS INDICATED (15 DAYS)
- WHEN ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED AND WITH APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, FLUSH STORM DRAIN SYSTEM (2 DAYS)
- WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES, MUCK OUT BASIN AND CONVERT TO POND, STABILIZE REMAINING DISTURBED AREAS. (10 DAYS)

NOTE:

- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - 7 CALENDAR DAYS FOR ALL PERMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 - 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS ON THE SITE.



BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION DURING THE PROJECT. I, SMALL ENFORCE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND MAINTENANCE 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: *[Signature]* DATE: 12/11/06

Signature: *[Signature]* DATE: 12/15/06

Signature: *[Signature]* DATE: 12/15/06

Signature: *[Signature]* DATE: 1/3/07

Signature: *[Signature]* DATE: 12/16/06

Signature: *[Signature]* DATE: 12/15/06

Signature: *[Signature]* DATE: 1/3/07

Signature: *[Signature]* DATE: 12/16/06

BY THE ENGINEER:

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

Signature: *[Signature]* DATE: 12/15/06

Signature: *[Signature]* DATE: 12/15/06

Signature: *[Signature]* DATE: 1/3/07

Signature: *[Signature]* DATE: 12/16/06

Signature: *[Signature]* DATE: 12/15/06

Signature: *[Signature]* DATE: 1/3/07

Signature: *[Signature]* DATE: 12/16/06

USDA - NATURAL RESOURCES CONSERVATION SERVICE

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

HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS

Signature: *[Signature]* DATE: 12-15-06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* DATE: 1/3/07

Signature: *[Signature]* DATE: 12/16/06

US. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PAGE
A-1-C

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

US. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PAGE
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MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

US. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PAGE
F-7-B-3A

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

OWNERS

Parcel 725-731:
ELICOTT CITY LANDHOLDING, INC.
DOM REUMER & ROBERT FILA
5300 DORSEY HALL DRIVE #101
ELICOTT CITY MD 21042

Parcel 733:
NICHOLS MALCOLM T
PIEPKE MAUREEN
5117 TALBOTS LANDING
ELICOTT CITY MD 21043-6830

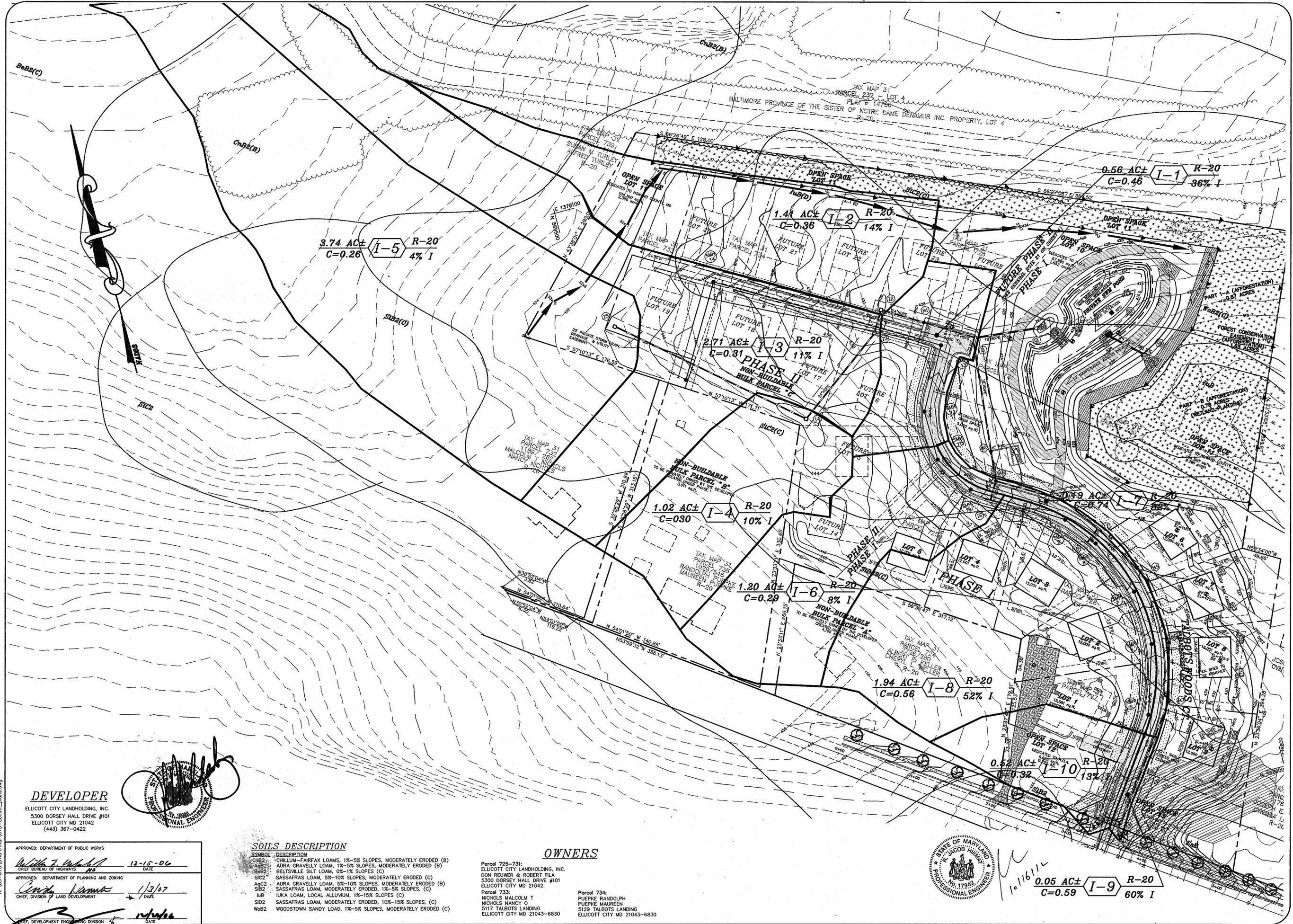
Parcel 734:
PIEPKE RANDOLPH
NICHOLS RANDY O
5129 TALBOTS LANDING
ELICOTT CITY MD 21043-6830

date: AUGUST 06
project: OS-073
illustration: EGM/MMM
scale: EGM/MMM
revision: NYS
date: 10/16/12
description: No AS-BUILT INFO THIS SHEET
revisions: 1

TALBOTS WOODS I PROPERTY
PHASE I, LOTS 1-9, OPEN SPACE LOTS 10-13, & NON-BUILDABLE BULK PARCELS A-C
TAX MAP 31, PARCELS 725-731 & 733-734
BLOCK 16
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SEDIMENT CONTROL NOTES AND DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
(410) 987-0286 Fax: (301) 662-5521 Wash. (410) 997-0288 Fax.

4 OF 10
F-06-074



Project	08-073	Illustration	MM	scale	1"=50'
Date	AUGUST 06	Engineering	MM	Approval	

No.	1	Description	NO AS-BUILT (INFO FROM SHEET 1)	Date	10/10/12
Revisions					

TALBOTS WOODS I PROPERTY
 PHASE I, LOTS 1-9, OPEN SPACE LOTS 10-13, & NON-BUILDABLE BULK PARCELS A-C
 TAX MAP 31, PARCELS 725-731 & 733-734 BLOCK 16
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 INLET DRAINAGE AREA MAP

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
 (410) 987-0286 Fax: (301) 521-5521 Wash. (410) 987-0288 Fax

DEVELOPER
 ELLICOTT CITY LANDHOLDING, INC.
 5300 DORSEY HALL DRIVE #101
 ELLICOTT CITY MD 21042
 (443) 367-0422



APPROVED: DEPARTMENT OF PUBLIC WORKS	12-15-06
<i>William J. Cundiff</i>	DATE
CHIEF BUREAU OF HIGHWAYS	
APPROVED: DEPARTMENT OF PLANNING AND ZONING	1/3/07
<i>Cindy Namitz</i>	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	
<i>[Signature]</i>	DATE

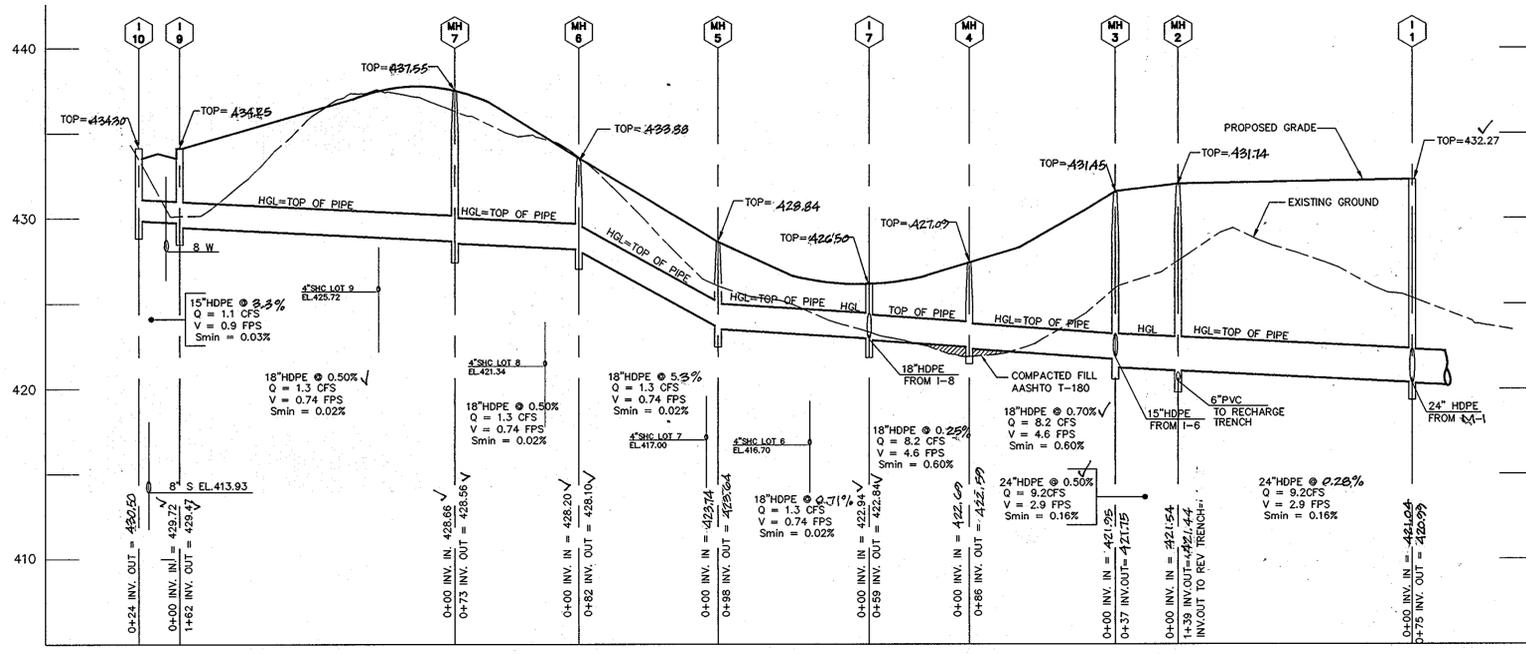
SOILS DESCRIPTION

SYMBOL	DESCRIPTION
ChB2	CHILLUM-FAIRFAX LOAMS, 1%-5% SLOPES, MODERATELY ERODED (B)
AgB2	AURA GRAVELLY LOAM, 1%-5% SLOPES, MODERATELY ERODED (B)
BsB2	BELTSVILLE SILT LOAM, 0%-1% SLOPES (C)
SIC2	SASSAFRAS LOAM, 5%-10% SLOPES, MODERATELY ERODED (C)
AgC2	AURA GRAVELLY LOAM, 5%-10% SLOPES, MODERATELY ERODED (B)
SIB2	SASSAFRAS LOAM, MODERATELY ERODED, 1%-5% SLOPES, (C)
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1%-15% SLOPES (C)
SID2	SASSAFRAS LOAM, MODERATELY ERODED, 10%-15% SLOPES, (C)
WbB2	WOODSTOWN SANDY LOAM, 1%-5% SLOPES, MODERATELY ERODED (C)

OWNERS

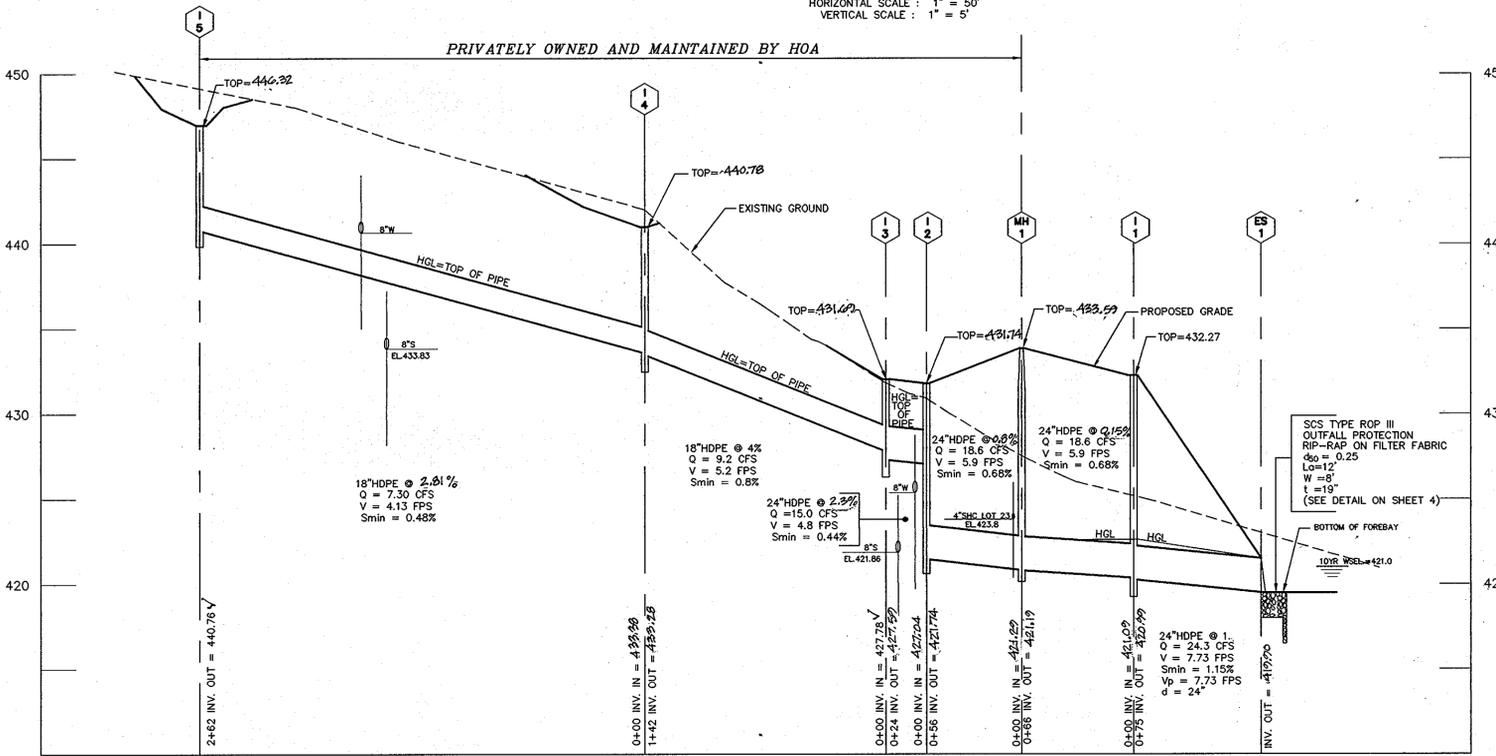
Parcel 725-731: ELLICOTT CITY LANDHOLDING, INC. DON REUMER & ROBERT FILA 5300 DORSEY HALL DRIVE #101 ELLICOTT CITY MD 21042	Parcel 733: NICHOLS MALCOLM T NICHOLS NANCY O 5117 TALBOTS LANDING ELLICOTT CITY MD 21043-6830	Parcel 734: PUERKE RANDOLPH PUERKE MAUREEN 5129 TALBOTS LANDING ELLICOTT CITY MD 21043-6830
---	--	---





STORM DRAIN PROFILE - I-10 TO I-1

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

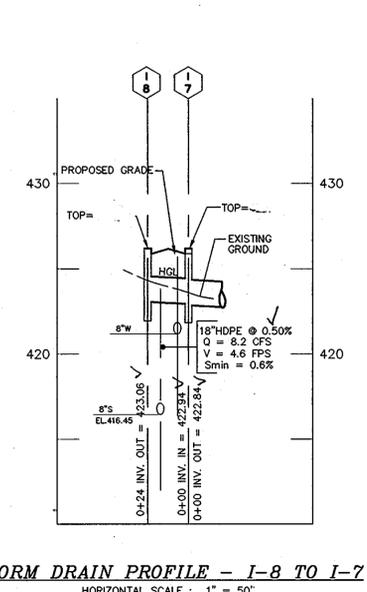


STORM DRAIN PROFILE - I-5 TO ES-01

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

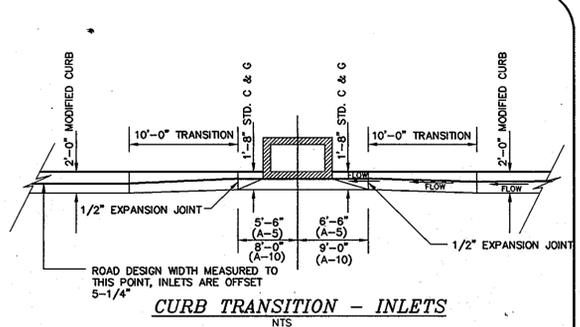
STRUCTURE SCHEDULE

NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS
ES-1	N 569206.3840 E 1376640.0008	---	---	419.90	24" HDPE END SECTION
I-1	TALBOTS WOODS CT. STA. 8+04 RIGHT 30.52	432.27	421.04	420.99	INLET TYPE A-10 (HO. CO. STD SD 4.41)
I-2	N 569278.5 E 1376461.4	431.74	428.04	424.74	YARD INLET (HO. CO. STD SD 4.14) PRIVATE
I-3	N 569252.5 E 1376446.1	431.69	427.78	423.59	YARD INLET (HO. CO. STD SD 4.14) PRIVATE
I-4	N 569171.5 E 1376336.2	440.76	433.38	428.28	YARD INLET (HO. CO. STD SD 4.14) PRIVATE
I-5	N 569344.9 E 1376135.9	440.32	---	440.76	INLET TYPE S (HO. CO. STD SD 4.22) PRIVATE
I-6	TALBOTS WOODS CT. STA. 5+64, OFFSET 10.52 LT.	431.29	---	424.59	INLET TYPE A-15 (HO. CO. STD SD 4.41)
I-7	TALBOTS WOODS CT. STA. 4+27, OFFSET 10.52 RT.	426.50	422.94	422.84	INLET TYPE A-10 (HO. CO. STD SD 4.41)
I-8	TALBOTS WOODS CT. STA. 4+27, OFFSET 10.52 LT.	424.43	---	423.06	INLET TYPE A-15 (HO. CO. STD SD 4.41)
I-9	TALBOTS WOODS CT. STA. 0+40, OFFSET 10.52 RT.	434.25	429.72	429.47	INLET TYPE A-5 (HO. CO. STD SD 4.40)
I-10	TALBOTS WOODS CT. STA. 0+40, OFFSET 10.52 LT.	434.30	---	430.50	INLET TYPE A-5 (HO. CO. STD SD 4.40)
M-1	N 569249.6 E 1376508.9	433.59	421.29	421.19	MH (HO. CO. STD G 5.01)
M-2	TALBOTS WOODS CT. STA. 5+89, OFFSET 46.0 RT.	431.74	421.54	421.54	PRE-CAST MH
M-3	TALBOTS WOODS CT. STA. 5+64, OFFSET 18.0 RT.	431.45	421.25	421.75	MH (HO. CO. STD G 5.01)
M-4	TALBOTS WOODS CT. STA. 4+81, OFFSET 18.0 RT.	427.09	422.69	422.59	MH (HO. CO. STD G 5.01)
M-5	TALBOTS WOODS CT. STA. 3+44, OFFSET 18.0 RT.	428.84	423.74	423.84	MH (HO. CO. STD G 5.01)
M-6	TALBOTS WOODS CT. STA. 2+67, OFFSET 18.0 RT.	433.38	428.20	428.10	MH (HO. CO. STD G 5.01)
M-7	TALBOTS WOODS CT. STA. 1+99, OFFSET 18.0 RT.	431.55	428.66	428.56	MH (HO. CO. STD G 5.01)

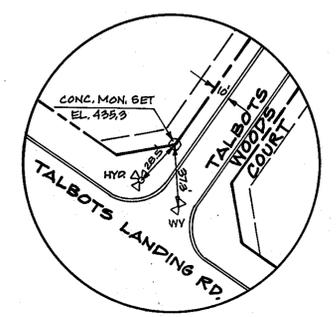


STORM DRAIN PROFILE - I-8 TO I-7

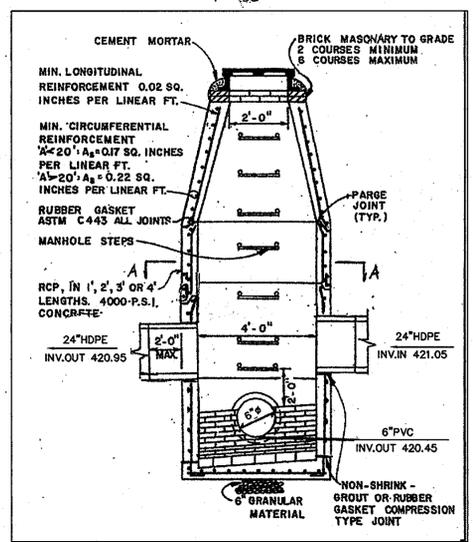
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



CURB TRANSITION - INLETS



CONC. MON. SKETCH



PRE-CAST MH # 2 DETAIL

STORM DRAIN PROFILE - I-6 TO M-1

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

- NOTES:
- STATIONS GIVEN TO CENTERLINE FACE OF INLET AT TOP OF CURB FOR INLETS LOCATED WITHIN THE ROAD RIGHT-OF-WAY. STATIONS FOR YARD INLETS TO CL OF INLET. LOCATION OF MANHOLES IS TO CL OF MANHOLE COVER. END SECTION GIVEN TO THE CENTERLINE OF PIPE AT THE CONNECTION OF THE STORM DRAIN PIPE TO THE END SECTION.
 - ELEVATIONS MEASURED TO CENTER OF ALL INLETS.
 - HGL = TOP OF PIPE UNLESS OTHERWISE NOTED.



I hereby certify that the facility shown on this plan was constructed as shown on the 'As-Built' plans and meets with the approved plans and specifications.

OWNERS

Parcel 725-731:
ELICOTT CITY LANDHOLDING, INC.
5300 DORSEY HALL DRIVE, #101
ELICOTT CITY MD 21042

Parcel 734:
NICHOLS MALCOLM T
NICHOLS NANCY O
PUERKE MAUREN
5129 TALBOTS LANDING
ELICOTT CITY MD 21043-6830

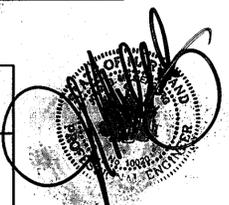
DEVELOPER

ELICOTT CITY LANDHOLDING, INC.
5300 DORSEY HALL DRIVE #101
ELICOTT CITY MD 21042
(443) 367-0422

PIPE SCHEDULE (PUBLIC) PIPE SCHEDULE (PRIVATE)

QUANTITY	PIPE SIZE	QUANTITY	PIPE SIZE
50'	15" HDPE	0	15" HDPE
584'	18" HDPE	404'	18" HDPE
317'	24" HDPE	80'	24" HDPE

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. ... 12-15-06
 CHIEF BUREAU OF HIGHWAYS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
Conroy ... 1/6/07
 CHIEF, DIVISION OF LAND DEVELOPMENT
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

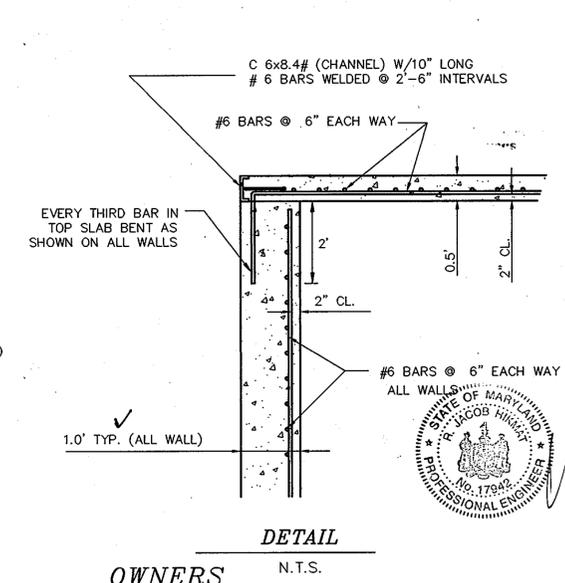
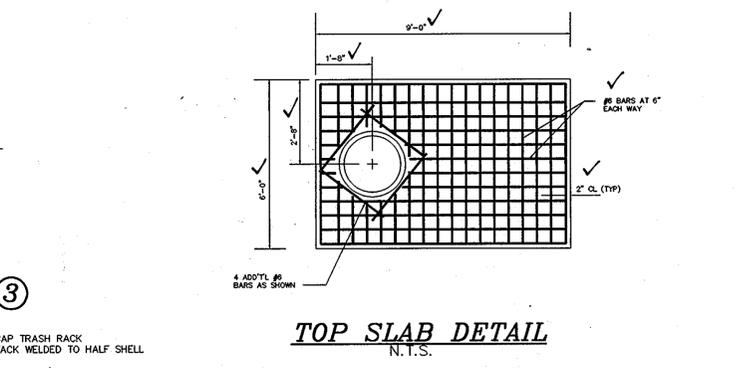
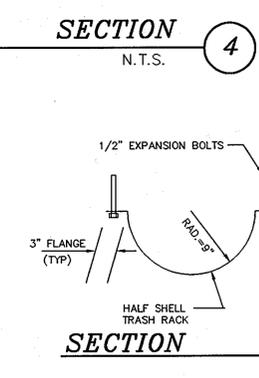
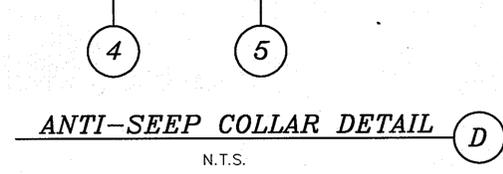
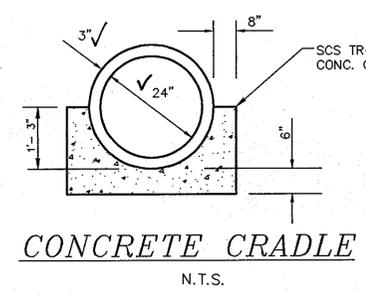
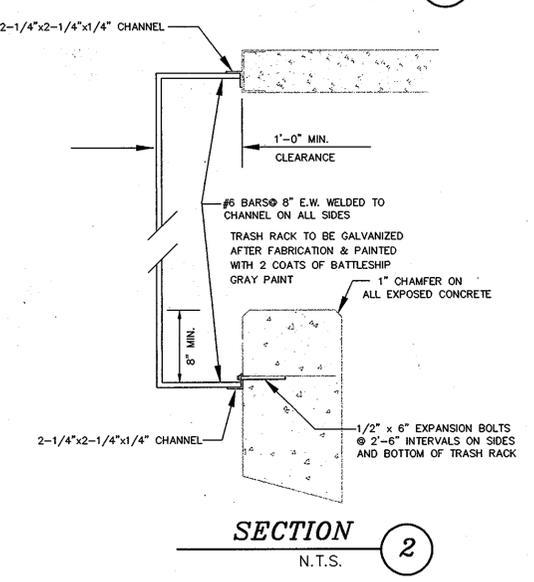
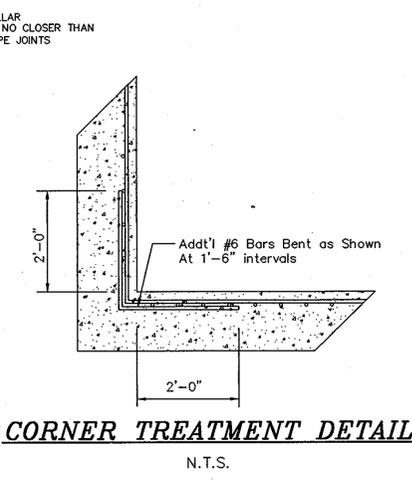
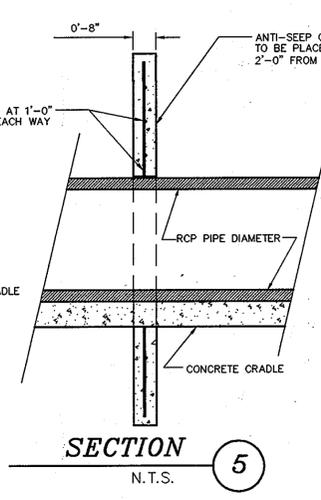
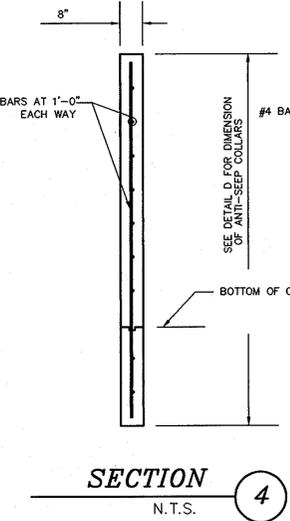
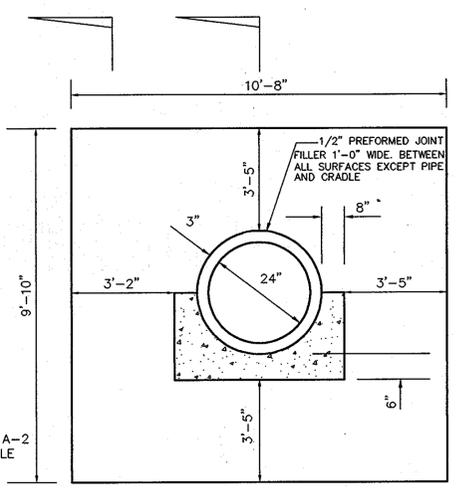
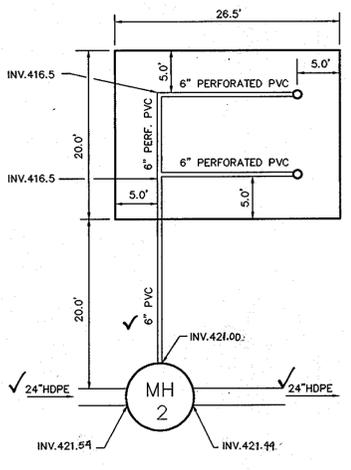
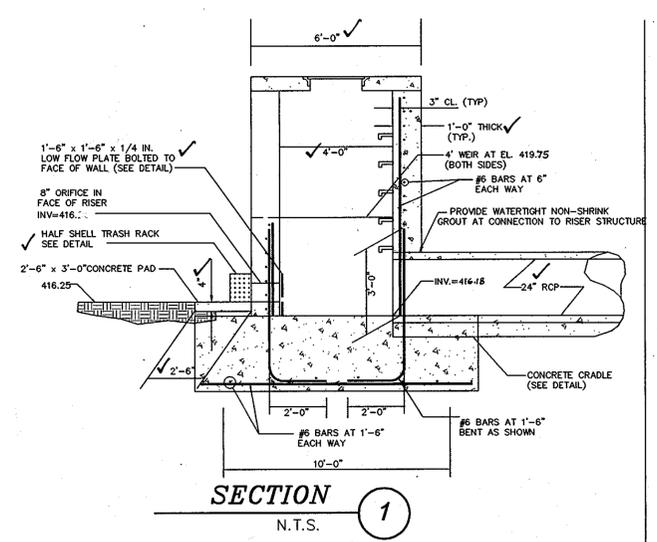
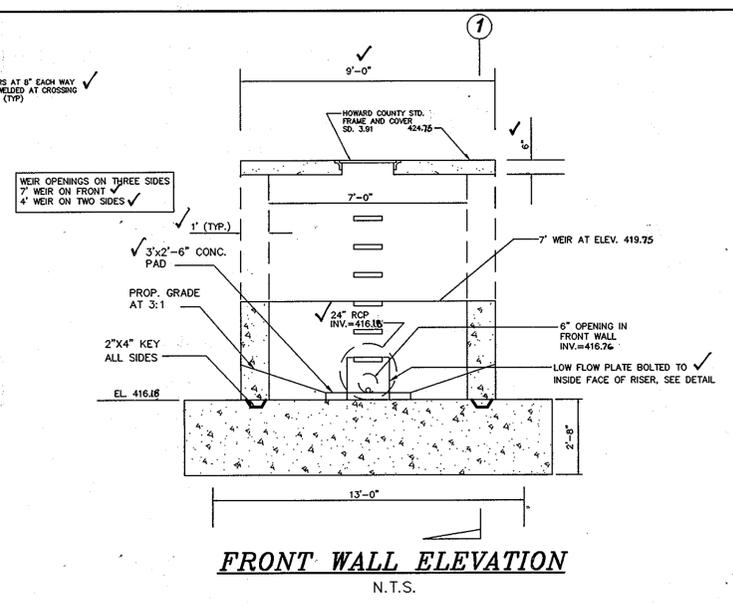
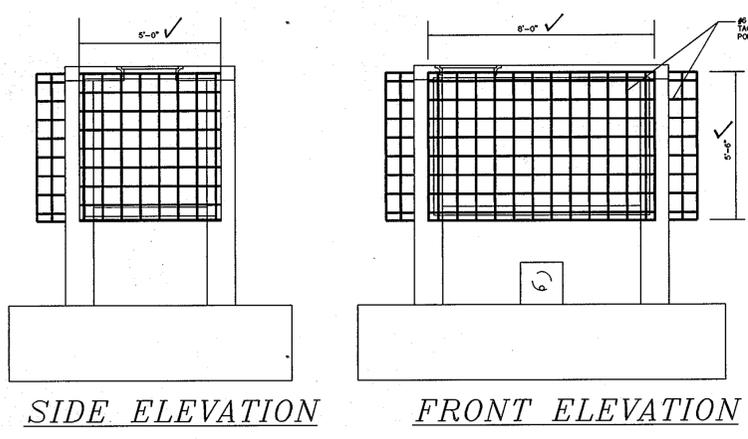
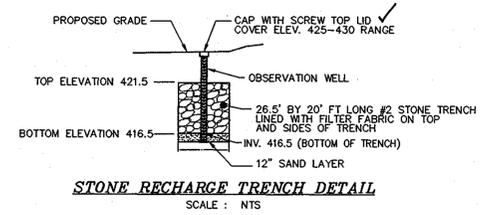


date	AUGUST 06
project	03-073
illustration	HSP/MMM
scale	HSP/MMM
approval	AS SHOWN

date	9/28/12
description	AS-BUILT INFO APPROPRIATE
revisions	

TALBOTS WOODS I PROPERTY
 PHASE I, LOTS 1-9, OPEN SPACE LOTS 10-13, & NON-BUILDABLE BULK PARCELS A-C
 TAX MAP 31, PARCELS 725-731 & 703-734 BLOCK 16
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 STORM DRAIN PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 6072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0286 Fax: (301) 621-5521 Wash. (410) 997-0238 Fax.



BY THE DEVELOPER:
"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT'S 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 FISHING ON SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."
Signature: [Signature]
Date: 12/1/06
Printed Name of Developer: [Name]

BY THE ENGINEER:
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."
Signature: [Signature]
Date: 12/1/06
Printed Name of Engineer: [Name]

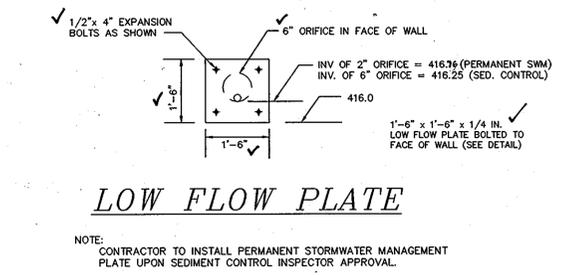
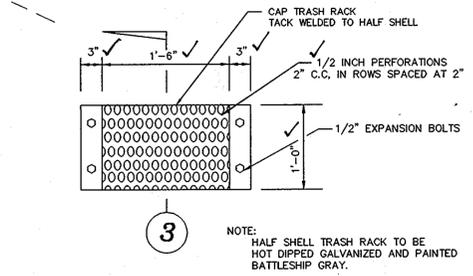
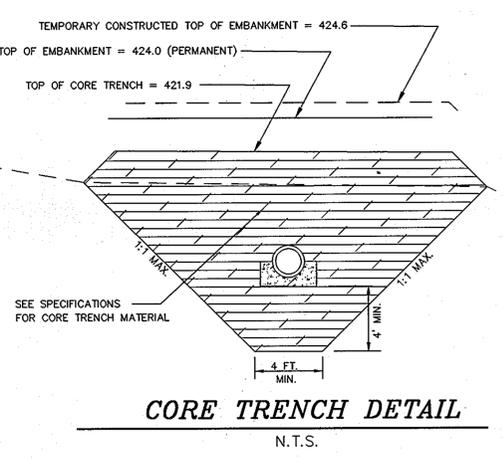
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
Signature: [Signature]
Date: 12/1/06
USDA - NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Signature: [Signature]
Date: 12/1/06
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS
Signature: [Signature]
Date: 12-15-06
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Signature: [Signature]
Date: 1/3/07
CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION
Signature: [Signature]
Date: 12/2/06



I hereby certify that the facility shown on this plan was constructed as shown on the "As-Built" plans and meets with the approved plans and specifications.
Signature: [Signature]
Date: 10/16/12
Professional Engineer Seal: [Seal]

APPROVED: DEPARTMENT OF PUBLIC WORKS
Signature: [Signature]
Date: 12-15-06
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Signature: [Signature]
Date: 1/3/07
CHIEF, DIVISION OF LAND DEVELOPMENT

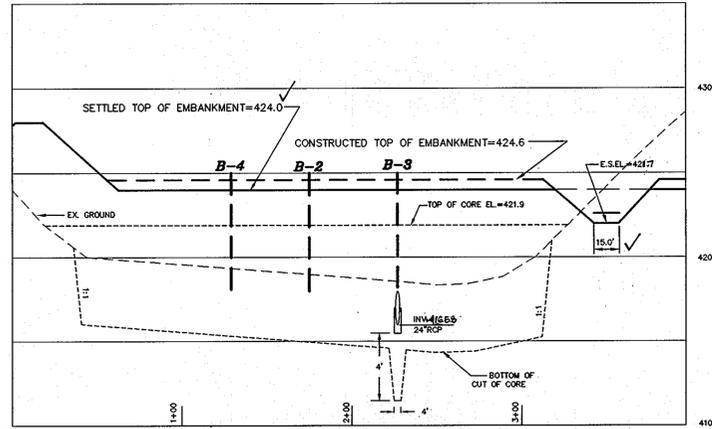
CHIEF, DEVELOPMENT ENGINEERING DIVISION
Signature: [Signature]
Date: 12/2/06

date	AUGUST 06
project	05-073
illustration	JBM
scale	JBM
AS SHOWN	approval

date	
description	
revisions	
no.	

TALBOTS WOODS I PROPERTY
PHASE I, LOTS 1-9, OPEN SPACE LOTS 10-13, & NON-BUILDABLE BULK PARCELS A-C
TAX MAP 31, PARCELS 725-731 & 733-734 BLOCK 16
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
STORMWATER MANAGEMENT DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0236 Fax: (410) 997-0238 Fax

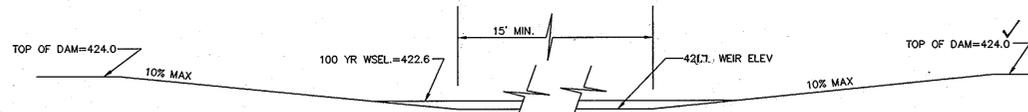


PROFILE THROUGH CENTERLINE OF EMBANKMENT & EMERGENCY SPILLWAY

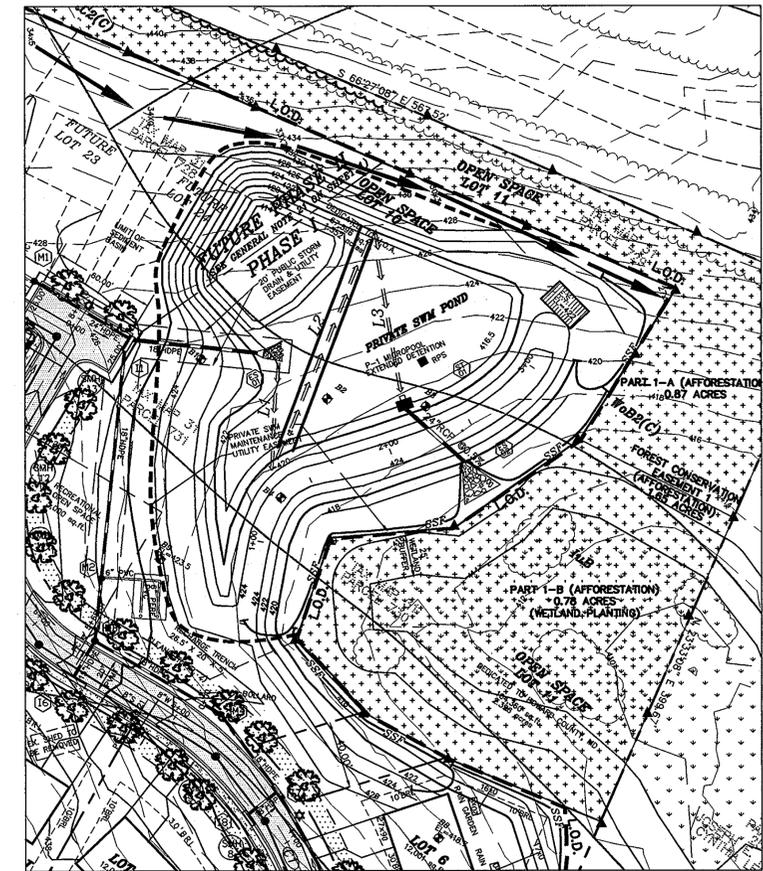
SCALE: HOR. 1"=50'
VER. 1"=5'

SUMMARY TABLE										
Wqv REQUIRED:	Wqv PROVIDED:	Wqv WSEL:	Rev REQUIRED:	Rev PROVIDED:	Cpv Q:	Cpv WSEL:	Qp 10:	Q 10 WSEL:	Qp 100:	Q 100 WSEL:
0.25 AC. FL.	0.25 AC. FL.	417.50	0.03 AC. FL.	0.03 AC. FL.	0.17	419.5	29.9	421.00	56.0	422.60

*RECHARGE IS PROVIDED BY THE STONE TRENCH ON OPEN SPACE LOT 10. CHANNEL PROTECTION IS PROVIDED BY EXTENDED DETENTION OF A ONE-YEAR STORM. WATER QUALITY IS PROVIDED WITHIN THE POND, RAIN GARDENS ON LOTS 6-9 AND NATURAL CONSERVATION AREA.



EMERGENCY SPILLWAY SECTION

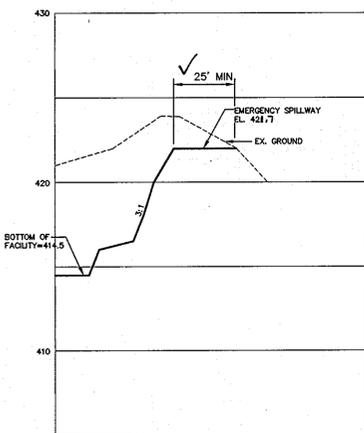


SEDIMENT BASIN PLAN

SCALE: 1"=50'

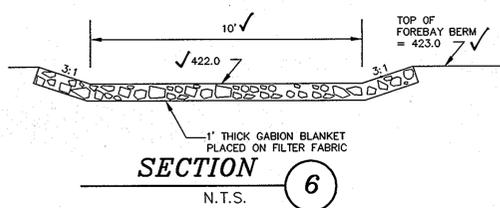
SEDIMENT BASIN

BOTTOM DIMENSIONS: 220'x170' (3:1 SIDE SLOPES)
 MAX. DRAINAGE AREA: 10.37 AC
 TOP OF EMBANKMENT: 424.00
 WEIR CREST EL: 419.5
 BOTTOM OF TRAP = 414.00
 WET STORAGE REQUIRED: 18,882 C.F.
 WET STORAGE PROVIDED: 19,227 C.F. (AT ELEV. 417.20)
 DRY STORAGE REQUIRED: 18,882 C.F.
 DRY STORAGE PROVIDED: 36,547 C.F. (AT ELEV. 419.50)
 Q1 PRE = 9.1 CFS
 Q1 DURING CONSTRUCTION = 1.5 CFS @ 419.3 = 1.5 CHS @ 419.3(SWMF); 5.7 CFS FROM SITE
 Q10 DURING CONSTRUCTION = 24.1 CFS @ 420.5
 E.S. ELEV. = 422.0
 E.S. WIDTH = 15.0'
 CLEANOUT ELEV. = 414.3
 RISER WEIR ELEV. = 419.5



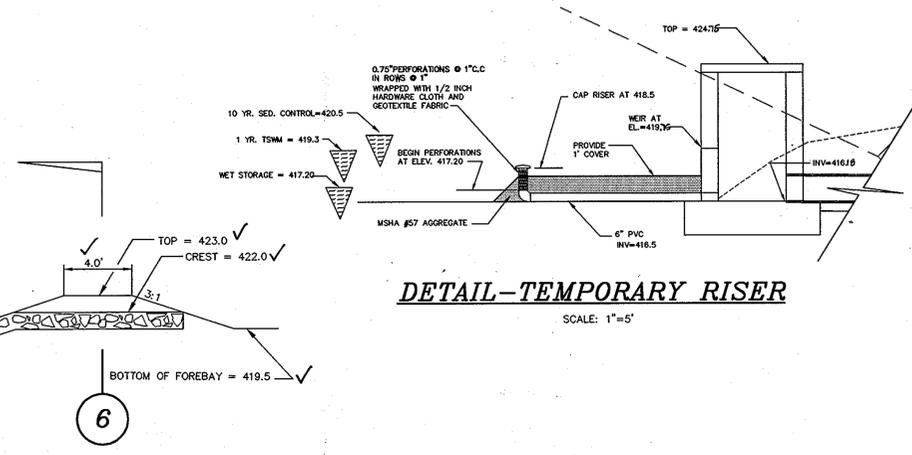
EMERGENCY SPILLWAY PROFILE

SCALE: HOR. 1"=50'
VER. 1"=5'



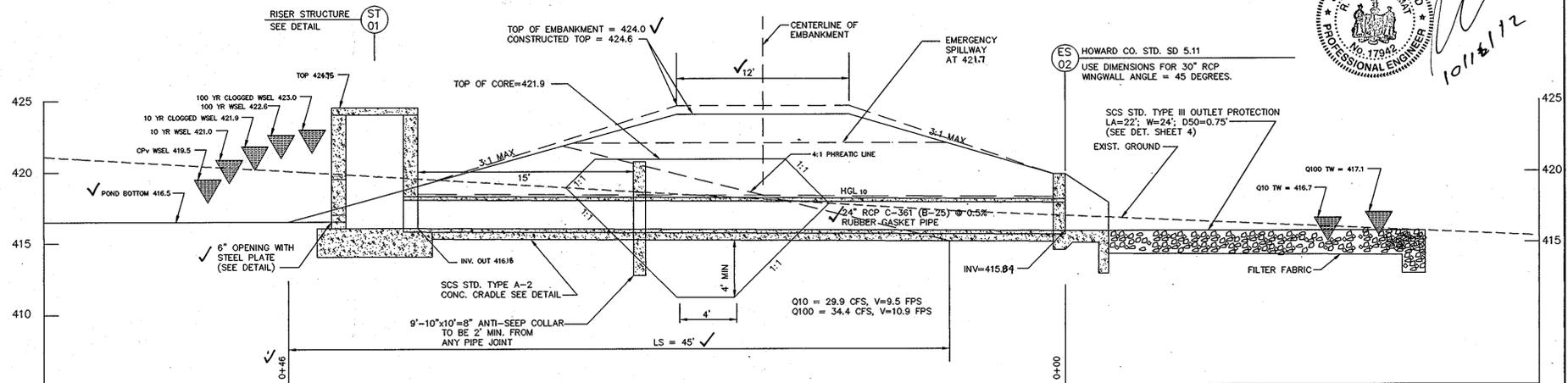
DETAIL OF FOREBAY WEIR

N.T.S.



DETAIL-TEMPORARY RISER

SCALE: 1"=5'



PROFILE THROUGH PRINCIPLE SPILLWAY

HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERFORMANCE-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

Signature of Developer: *Donald R. Edwards*
 PRINTED NAME OF DEVELOPER: Donald R. Edwards
 DATE: 12/1/06

BY THE ENGINEER:

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

Signature of Engineer: *William J. Edwards*
 PRINTED NAME OF ENGINEER: William J. Edwards
 DATE: 12/1/06

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

USDA - NATURAL RESOURCES CONSERVATION SERVICE
 DATE: 12/1/06

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

HOWARD SOIL CONSERVATION DISTRICT
 DATE: 12/1/06

APPROVED: DEPARTMENT OF PUBLIC WORKS
 DATE: 12-15-06

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DATE: 1/2/07

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 1/2/07

DEVELOPER

ELLICOTT CITY LANDHOLDING, INC.
 5300 DORSEY HALL DRIVE #101
 ELLICOTT CITY MD 21042
 (443) 367-0422

OWNERS

Parcel 725-731:
 ELLICOTT CITY LANDHOLDING, INC.
 DON REUWER & ROBERT FILA
 5300 DORSEY HALL DRIVE #101
 ELLICOTT CITY MD 21042

Parcel 733:
 NICHOLS MALCOLM T
 NICHOLS NANCY O
 5117 TALBOTS LANDING
 ELLICOTT CITY MD 21043-6830

Parcel 734:
 PUEPKER RANDOLPH
 PUEPKER MAUREEN
 5129 TALBOTS LANDING
 ELLICOTT CITY MD 21043-6830

I hereby certify that the facility shown on this plan was constructed as shown on the 'As-Built' plans and meets with the approved plans and specifications.



Project	03-073	date	AUGUST 06
Illustration	MMM	engineering	MMM
scale	MMM	approval	MMM
AS SHOWN			

description	AS-BUILT INFO	date	7/28/12
revisions			

TALBOTS WOODS I PROPERTY
 PHASE I, LOTS 1-9, OPEN SPACE LOTS 10-13, & NON-BUILDABLE BULK PARCELS A-C
 TAX MAP 31, PARCELS 725-731 & 733-734 BLOCK 16
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 STORMWATER MANAGEMENT AND SEDIMENT CONTROL DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, State 202, Ellicott City, Maryland 21042
 (410) 997-0286 Bldg. (301) 621-5521 Wash. (410) 997-0288 Fax.

MD-378 POND SPECIFICATIONS (JANUARY 2000)

CONSTRUCTION SPECIFICATIONS

THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD FOR PRACTICE MD-378. 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 TO TOPSOIL. TREES, SHRUBS, 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 STORM WATER 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 DRAIN 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 4" FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT AND CUT-OF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION CC, SC, CH, OR CL AND MUST HAVE AT LEAST 30% PASSING THE #200 SIEVE. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IF DESIGNED BY A GEOTECHNICAL ENGINEER. SUCH SPECIAL DESIGN 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 LAYERS 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 SHEEPSFOOT, RUBBER TRED OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION WILL BE OBTAINED WITH THE EQUIPMENT USED. THE FILL MATERIAL SHALL BE 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 2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY, AND IS TO BE CERTIFIED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. ALL COMPACTION IS TO BE DETERMINED BY 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, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY. IN ADDITION, THE CORE SHALL BE PLACED CONCURRENTLY WITH THE OUTER SHELL OF THE EMBANKMENT.

STRUCTURAL 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 6" IN THICKNESS. THE BACKFILLING OPERATION SHALL 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. 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 PI OF 0.0 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 ROOF CONNECTIONS. 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 OF 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 TAMPER 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 THAT SPECIFIED FOR THE CORE OF THE EMBANKMENT OR OTHER EMBANKMENT MATERIALS.

PIPE CONDUIT

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 (MIL) ON THE BOTTOM SURFACE OF THE PIPE. THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATIONS M-245 & M-246 WITH WATER TIGHT 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 WATER TIGHT COUPLING BANDS OR FLANGES. ALUMINUM COATED STEEL PIPE WHEN SOIL AND/OR WATER CONDITIONS WARRANT 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 COMPOUND. 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 OIL GALVANIZED BOLTS MAY BE USED FOR CONNECTIONS. THE PH OF THE SURROUNDING SOILS SHALL BE BETWEEN 4 AND 9.

MATERIALS - (ALUMINUM PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-196 OR M-21 L WITH WATER TIGHT 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 OIL 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 WATER TIGHT. 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 WATER TIGHT. DUMPLE BANDS ARE NOT CONSIDERED TO BE WATER TIGHT.

ALL CONNECTIONS SHALL USE A RUBBER OR NEOPRENE GASKET WHEN JOINING PIPE SECTIONS. THE END OF EACH PIPE SHALL BE REINFORCED AN ABSOLUTE NUMBER OF CORUGATIONS TO ACCOMMODATE THE BANDWIDTH. THE FOLLOWING TYPE CONNECTIONS ARE ACCEPTABLE FOR PIPES LESS THAN 24 INCHES IN DIAMETER: FLANGES ON BOTH ENDS OF THE PIPE WITH A CIRCULAR 3/8 INCH CLOSED CELL NEOPRENE GASKET, PRE-PUNCHED TO THE FLANGE BOLT CIRCLE, SANDWICHED BETWEEN ADJACENT FLANGES; A 12-INCH WIDE STANDARD LAP TYPE BAND WITH 12-INCH WIDE BY 3/8-INCH THICK CLOSED CELL CIRCULAR NEOPRENE GASKET; AND A 12-INCH WIDE HUGGER TYPE BAND WITH 0-RING GASKETS HAVING A MINIMUM DIAMETER OF 3/8 INCH GREATER THAN THE CORRUGATION. CORRUGATED BAND USING A MINIMUM OF 4 (FOUR) ROSS AND LUGS, 2 ON EACH CONNECTING PIPE END. A 12-INCH WIDE BY 3/8-INCH THICK CLOSED CELL CIRCULAR NEOPRENE GASKET WILL BE INSTALLED WITH 12 INCHES OF FILL ON EACH END OF THE FLANGED JOINTS WITH 3/8 INCH CLOSED CELL GASKETS THE FULL WIDTH OF THE FLANGE IS ALSO ACCEPTABLE.

HELICALLY CORRUGATED PIPE SHALL HAVE EITHER CONTINUOUSLY WELDED SEAMS OR HAVE LOCK SEARNS WITH INTERNAL CAULKING OR A NEOPRENE BEAD.

4. BEDDING - THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

5. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

6. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

REINFORCED CONCRETE PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR REINFORCED CONCRETE PIPE:

1. MATERIALS - REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM C-391.

2. BEDDING - REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAID IN A CONCRETE BEDDING/CRADE FOR THEIR ENTIRE LENGTH. THIS BEDDING/CRADE 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 BEDDING IS NOT PERMITTED 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 LENGTH, THE BEDDING SHALL BE PLACED SO THAT THE SPACES UNDER THE PIPE ARE FILLED. ANY EXCESSIVE CONCRETE SHALL BE EXPOSED TO PREVENT ANY DRAINAGE FROM THE ORIGINAL 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.

PLASTIC PIPE - THE FOLLOWING CRITERIA SHALL APPLY FOR PLASTIC PIPE:

1. MATERIALS - PVC PIPE SHALL BE PVC-1120 OR PVC-1220 CONFORMING TO ASTM D1785 OR ASTM D-2241 CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) PIPE, COUPLINGS AND FITTINGS SHALL CONFORM TO THE FOLLOWING: 4" - 10" INCH PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M252 TYPE S, AND 12" THROUGH 24" INCH SHALL MEET THE REQUIREMENTS OF AASHTO M294 TYPE S.

2. JOINTS AND CONNECTIONS TO ANTI-SEEP COLLARS SHALL BE COMPLETELY WATER TIGHT.

3. BEDDING - THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

4. BACKFILL SHALL CONFORM TO "STRUCTURE BACKFILL."

5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

DRAINAGE DIAPHRAGMS - WHEN A DRAINAGE DIAPHRAGM IS USED, A REGISTERED PROFESSIONAL ENGINEER WILL SUPERVISE THE DESIGN AND CONSTRUCTION INSPECTION.

CONCRETE

CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 414, MIX NO. 3.

ROCK RIPRAP

ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 311.

GEOTEXTILE SHALL BE PLACED UNDER ALL RIPRAP AND SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 921.09, CLASS C.

CARE OF WATER DURING CONSTRUCTION

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

STABILIZATION

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

EROSION AND SEDIMENT CONTROL

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

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USGA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND THE HEIRS SUCCESSORS OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATORS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

GEOTECHNICAL RECOMMENDATIONS:

THE AREA OF THE PROPOSED SWM FACILITY 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 EXPOSED SUBGRADE MATERIALS SHOULD BE PROTECTED WITH A LOADED DUMP TRUCK OR SIMILAR EQUIPMENT IN THE PRESENCE OF A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.

FOR AREAS THAT ARE NOT ACCESSIBLE TO A DUMP TRUCK, THE EXPOSED MATERIALS SHOULD BE OBSERVED AND TESTED BY A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE UTILIZING A DYNAMIC CONE PENETROMETER. ANY EXCESSIVELY SOFT OR LOOSE MATERIALS IDENTIFIED BY PROFFERLOGG 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-OF TRENCH. IN ACCORDANCE WITH NRCS-MD CODE NO. 378 POND STANDARDS/SPECIFICATIONS, SOILS CONSIDERED SUITABLE FOR CENTER OF EMBANKMENT AND CUT-OF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH OR CL AND MUSR HAVE AT LEAST 30% PASSING THE #200 SIEVE.

IT IS OUR PROFESSIONAL OPINION THAT IN ADDITION TO THE SOIL MATERIALS DESCRIBED ABOVE A FINE-GRAINED SOIL, INCLUDING SILT (ML) WITH A PLASTICITY INDEX OF 10 OR MORE CAN BE UTILIZED FOR THE CENTER OF THE EMBANKMENT AND CORE TRENCH. ALL FILL MATERIALS MUST BE PLACED AND COMPACTED IN ACCORDANCE WITH NRCS-MD CODE NO. 378 SPECIFICATIONS.

STORMWATER MANAGEMENT POND MAINTENANCE SCHEDULE PRIVATE FACILITY (SEE NOTE 27 ON SHEET 1)

PRIVATE ROUTINE MAINTENANCE

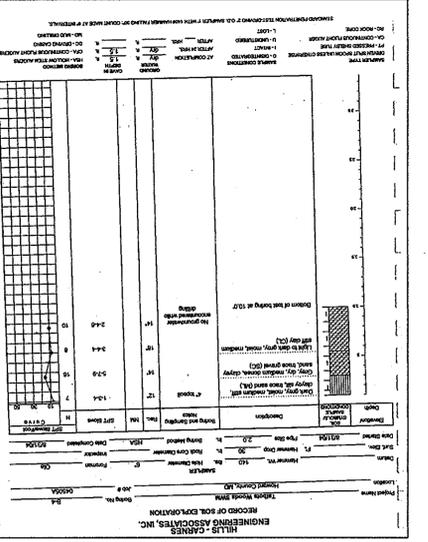
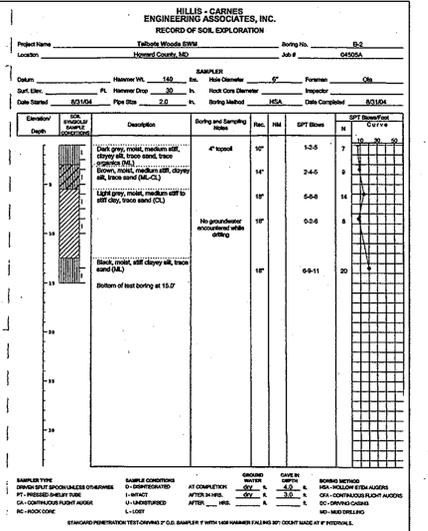
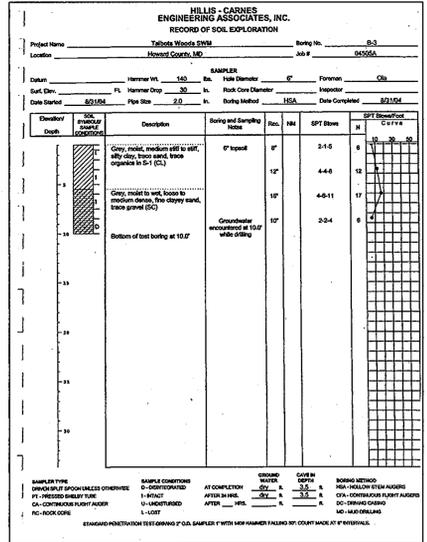
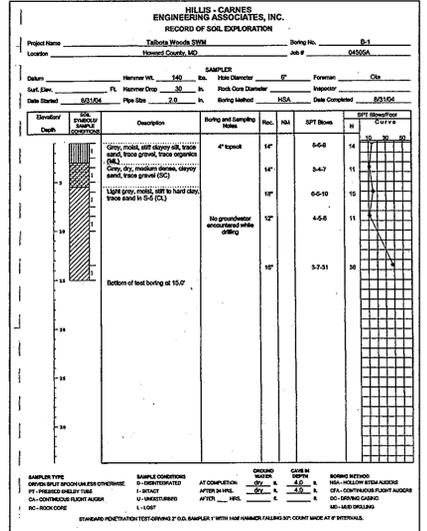
1. FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.
2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOVED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES, THE BOTTOM OF THE POND, AND MAINTENANCE ACCESS SHOULD BE MOVED AS NEEDED.
3. DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
4. VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS RIP-RAP OUTLET AREA SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

PRIVATE NON-ROUTINE MAINTENANCE

1. 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 MAINTENANCE OPERATIONS.
2. SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERES WITH THE FUNCTION OF THE RISER, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY HOWARD COUNTY'S DEPARTMENT OF PUBLIC WORKS.

OPERATION AND MAINTENANCE SCHEDULE FOR RAIN GARDENS

- A. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED
- B. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- C. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- D. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.



BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL BE 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 THE 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. PERIODIC SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER: *[Signature]* DATE: 12/11/06

PRINTED NAME OF DEVELOPER: David A. Moore Jr.

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT AND I HAVE ENGAGED 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: *[Signature]* DATE: 12/21/06

PRINTED NAME OF ENGINEER: John A. Miller

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

USDA - NATIONAL RESOURCES CONSERVATION SERVICE DATE: 12/11/06

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

HOWARD SOIL CONSERVATION DISTRICT DATE: 12/11/06

APPROVED: DEPARTMENT OF PUBLIC WORKS

William A. McNeil DATE: 12-15-06

CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chris Heath DATE: 1/3/07

CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 12/11/06

project date 03-07-03 AUGUST 06
 illustration engineering
 scale MMM
 AS SHOWN
 1 of 15 SHEET
 No. 5-5012 (N.F.S. THIS SHEET)
 description revisions

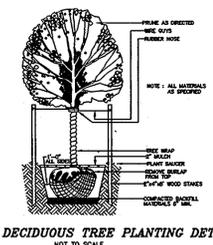
TALBOTS WOODS I PROPERTY
 PHASE I, LOTS 1-9, OPEN SPACE LOTS 10-13, & NON-BUILDABLE BULK PARCELS A-C
 TAX MAP 31, PARCELS 725-731 & 733-734 BLOCK 16
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 STORMWATER MANAGEMENT SPECIFICATIONS AND SOIL BORINGS

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0286 Fax: (301) 621-5522

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 F-06-074

NOTE: THIS PLAN IS TO BE USED FOR LANDSCAPE AND FOREST CONSERVATION PURPOSES ONLY.

- NOTES**
- PERMETER LANDSCAPING SHALL BE PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (110 SHADE TREES, 19 EVERGREENS) HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$35,850.00.
 - FOREST CONSERVATION EASEMENTS HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.120 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES SUCH AS THINNING AND PRUNING ARE ALLOWED.
 - FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.100 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION SHALL BE FULFILLED BY PROVIDING AN ONSITE 1.65 ACRE AFFORESTATION FOREST CONSERVATION EASEMENT. FOREST CONSERVATION SURETY IN THE AMOUNT OF \$35,937.00 SHALL BE POSTED AS A PART OF THE DEVELOPER'S AGREEMENT FOR THE DPW DEVELOPERS AGREEMENT FOR THE 1.65 ACRE AFFORESTATION FOREST CONSERVATION EASEMENT.



FOREST CONSERVATION WORKSHEET

- NET TRACT AREA:
- A. Total tract area.....=11.00
 - B. Area within 100 year floodplain.....=0.00
 - C. Area to remain in agricultural production or utility row.....=0.00
 - D. Net tract area.....=11.00
- LAND USE CATEGORY:
(from table 3.2.1, page 40, Manual)
Input the number "1" under the appropriate land use zoning, and limit to only one entry.
- ARA MDR IDA HMR MPD CIA
0 0 0 1 0 0
- E. Afforestation Threshold..... 15% x D = 1.65
F. Conservation Threshold..... 20% x D = 2.20
- EXISTING FOREST COVER:
G. Existing forest cover (excluding floodplain).....=0.00
H. Area of forest above afforestation threshold.....=0.00
I. Area of forest above conservation threshold.....=0.00
- BREAK EVEN POINT:
J. Forest retention above threshold with no mitigation.....=0.00
K. Clearing permitted without mitigation.....=0.00
- PROPOSED FOREST CLEARING:
L. Total area of forest to be cleared.....=0.00
M. Total area of forest to be retained.....=0.00
- PLANTING REQUIREMENTS:
N. Reafforestation for clearing above conservation threshold.....=0.00
P. Reafforestation for clearing below conservation threshold.....=0.00
Q. Credit for retention above conservation threshold.....=0.00
R. Total reafforestation required as indicated on plant lists.....=1.65
S. Total afforestation required.....=1.65
T. Total reafforestation and afforestation required.....=1.65

PLANTING SPECIFICATIONS AND NOTES

- PROTECTION FENCING IS TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS.
 - DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. PLANTING SHALL BE LIMITED TO THE PLANTING FIELD OF RADIUS = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER RECOMMENDED.
 - SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL, MATURE OR SUITABLE MANUFACTURED SOIL AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
 - SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE OR SUITABLE SOIL MANUFACTURED SOIL MIX AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
 - ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.
- PLANT STORAGE AND INSPECTION**
- FOR CONTAINER GROWN NURSERY STOCK PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
 - FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
 - PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
 - UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.
- PLANT INSTALLATION**
- THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER GENEROUSLY TO SETTLE SOIL BACKFILLED AROUND TREES.
 - PLANTING FIELD DAMAGES SHOULD BE REDUCED OR PLANTING FIELD MOVED. IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION, THEN EXISTING FOREST SHOULD BE TAKEN INTO ACCOUNT AS MUCH AS POSSIBLE TO MINIMIZE DAMAGE TO EXISTING TREES. IF ROOTS GREATER THAN 1/2" INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE DAMAGE TO EXISTING TREES. THEY WERE HERE FIRST.
 - CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. SHARPENED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
 - FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL, THEN PEEL BACK BURLAP TO EXPOSE ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
 - FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL EXERCISE DISCRETE JUDGMENT IN GROUPING OF TWO TO FIVE (5) SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE SPACING AS INDICATED ON PLANT LISTS AT PROPER SPACING INDICATED ON PLANT LIST.
 - AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO OBTAIN A MORE NATURAL APPEARANCE.
 - NEWLY PLANTED TREES MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR FOR THE FIRST GROWING SEASON, DUE TO THE VERY DEEP, WELL DRAINAGE OF THE NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.
- FERTILIZING**
- DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
 - NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
 - IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BRANDED ORGANIC AND BRANDED COMPOSTED PRODUCTS ARE AVAILABLE COMMERCIALY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FRESH SYSTEM AND WATER SUPPLY.
- MAINTENANCE SCHEDULE**
- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
 - ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
 - VOID/REPLACE SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THE EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
 - REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
 - REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
 - A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MAINTENANCE PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.
- SUPERVISION**
- ALL FOREST CONSERVATION ACTIVITIES SHALL BE DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

AFFORESTATION PLANT LIST (PART 1-A, 0.87 AC.)

QTY.	SPECIES	SHADE	MOIST.	WET.	MIN.O.C.	SIZE & SPACING	REMARKS
72	Acer rubrum	VT	D-W	FAC	15'	CONT/B & B	
15	Box Elder	VT	D-W	FAC	15'	CONT/B & B	
15	Liriodendron tulipifera	MT	D-M	FAC	15'	CONT/B & B	
15	Nyssa sylvatica	MT	M-W	FAC	15'	CONT/B & B	
24	Platanus occidentalis	MT	M-W	FAC	15'	CONT/B & B	
30	Salix nigra	VI	M-W	FAC	15'	CONT/B & B	
30	Black Willow	VI	M-W	FAC	15'	CONT/B & B	
TOTAL 194 TREES PROVIDED (174 TREES REQUIRED)							

ALTERNATIVE 2

QTY.	SPECIES	SHADE	MOIST.	WET.	MIN.O.C.	SIZE & SPACING	REMARKS
133	Acer rubrum	VT	D-W	FAC	11'	SEEDLING/W/HP	
21	Corya glabra	VT	D-M	FAC	11'	SEEDLING/W/HP	
30	Liriodendron tulipifera	MT	D-M	FAC	11'	SEEDLING/W/HP	
60	Liriodendron tulipifera	MT	D-M	FAC	11'	SEEDLING/W/HP	
70	Quercus alba	I	D-M	FACU	11'	SEEDLING/W/HP	
21	Prunus serotina	I	M	FACU	11'	SEEDLING/W/HP	
TOTAL 336 W/HP WITH TREE SHELTERS PROVIDED (305 TREES WITH SHELTERS REQUIRED)							

AFFORESTATION PLANT LIST (PART 1-B, 0.78 AC.)

QTY.	SPECIES	SHADE	MOIST.	WET.	MIN.O.C.	SIZE & SPACING	REMARKS
72	Acer negundo	T	M-W	FAC	15'	CONT/B & B	
15	Acer rubrum	VT	D-W	FAC	15'	CONT/B & B	
15	Liriodendron tulipifera	MT	D-M	FAC	15'	CONT/B & B	
15	Nyssa sylvatica	MT	M-W	FAC	15'	CONT/B & B	
24	Platanus occidentalis	MT	M-W	FAC	15'	CONT/B & B	
30	Salix nigra	VI	M-W	FAC	15'	CONT/B & B	
30	Black Willow	VI	M-W	FAC	15'	CONT/B & B	
TOTAL 303 TREES WITH SHELTERS PROVIDED (273 TREES REQUIRED)							

DEVELOPER
ELLCOTT CITY LANDHOLDING, INC.
5300 DORSEY HALL DRIVE #101
ELLCOTT CITY MD 21042
(443) 367-0422

OWNERS
Parcel 725-731:
ELLCOTT CITY LANDHOLDING, INC.
DON REIMER & ROBERT FLA
5300 DORSEY HALL DRIVE #101
ELLCOTT CITY MD 21042

Parcel 733:
NICHOLS MALCOLM T
NICHOLS NANCY O
5117 TALBOTS LANDING
ELLCOTT CITY MD 21043-6830

Parcel 734:
PUERKE RANDOLPH
PUERKE MAUREEN
5129 TALBOTS LANDING
ELLCOTT CITY MD 21043-6830

SCHEDULE A: PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES						TOTAL
	A (PERIMETER 1)	A (PERIMETER 2)	A (PERIMETER 3)	A (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)	
LANDSCAPE TYPE	A	A	A	A	A	A	
LINEAR FEET OF PERIMETER	179.91 LF	296.89 LF	168.09 LF	360.28 LF	290.00 LF	823.52 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	NO	NO	NO	NO	
LF REMAINING (NON-CREDITED)	N/A	N/A	N/A	N/A	N/A	823.52 LF	
NUMBER OF PLANTS REQUIRED	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	5 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	6 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	5 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	14 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	
NUMBER OF PLANTS PROVIDED	3 SHADE TREE 0 EVERGREEN TREES 0 SHRUBS	5 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	6 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	5 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	14 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	

STREET TREE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
44		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
9		PRUNUS SERRULATA 'KWANZAN'	KWANZAN CHERRY	1 1/2" - 2" CAL.
TOTAL 53				

PERIMETER LANDSCAPE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
54		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
4		PINUS STROBUS	EASTERN WHITE PINE	6' - 8' HT
TOTAL 58				

SCHEDULE D: STORMWATER MANAGEMENT AREA LANDSCAPING PERIMETER B

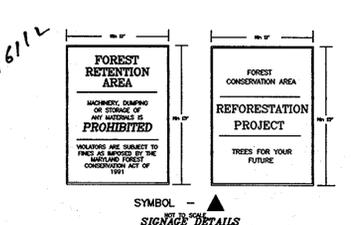
LINEAR FEET OF PERIMETER	210 LF (PERIMETER A)	150 LF (PERIMETER B)	258 LF (PERIMETER C)	755 LF (TOTAL)
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	N/A	N/A	YES, 258 LF FOR EXISTING WETLAND BUFFER	N/A
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	N/A	N/A	N/A	N/A
NUMBER OF TREES REQUIRED	5 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 4 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	8 SHADE TREES 10 EVERGREEN TREES 0 SHRUBS
NUMBER OF TREES PROVIDED	5 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 4 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	8 SHADE TREES 10 EVERGREEN TREES 0 SHRUBS

FOREST CONSERVATION EASEMENTS

	ALTERNATIVE 1	ALTERNATIVE 2
PART 1-A (0.87 AC)	174 TREES REQUIRED	305 TREES REQUIRED
PART 1-B (0.78 AC)	156 TREES REQUIRED	273 TREES REQUIRED
TOTAL 1.65 AC	330 TREES REQUIRED	578 TREES REQUIRED

STREET TREE CALCULATIONS

TALBOTS LANDING ROAD - 272 LF / 30' = 9 SMALL TREES
ROAD A - 1727 LF / 40' = 44 LARGE TREES
TOTAL TREES REQUIRED = 44 LARGE TREES, 9 SMALL TREES
TOTAL TREES PROVIDED = 44 LARGE TREES, 9 SMALL TREES



MD DNR QUALIFIED PROFESSIONAL
Mark J. Miller 12/18/06

date	AUGUST 06
project	08-073
illustration	engineering
scale	MM/M/MT
revision	1"
date	10/15/12
description	No AS-BUILT INFO THIS SHEET
no.	1

TALBOTS WOODS I PROPERTY
LOTS 1-9, OPEN SPACE LOTS 10-13, & NON-BUILDABLE BULK PARCELS A-C
HOWARD COUNTY TAX MAP 31 PARCELS 725-731 & 733-734 FIRST ELECTION DISTRICT
LANDSCAPE AND FOREST CONSERVATION PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 987-0286 Fax (301) 621-6521

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