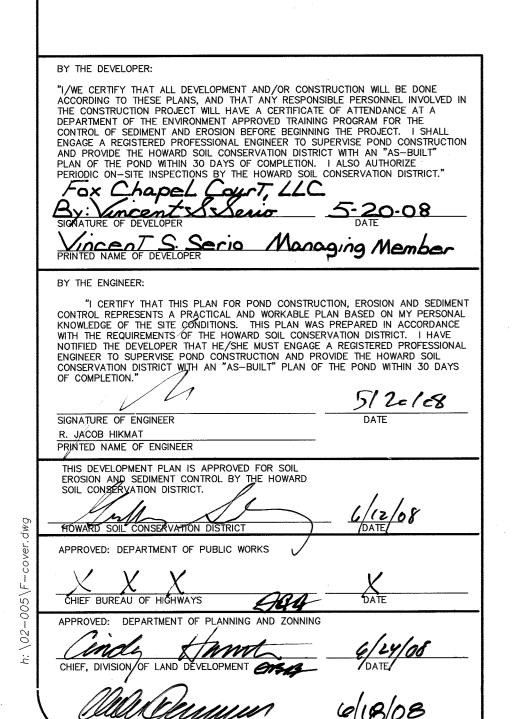
LOTS 1 - 8 AND OPEN SPACE LOTS 9 & 10

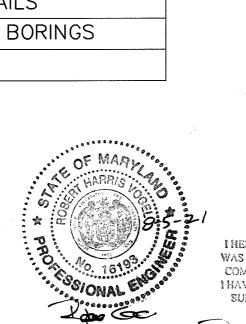
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

	SHEET INDEX
1	COVER SHEET
2	PRIVATE ACCESS PLACE PLAN, PROFILES AND DETAILS
3	GRADING AND SEDIMENT CONTROL PLAN
4	SEDIMENT CONTROL NOTES, DETAILS, & MISC. DETAILS
5	STORM DRAINAGE AREA MAP
6	STORM DRAIN AND CULVERT PROFILES
7	STORMWATER MANAGEMENT PLAN, PROFILES AND DETAILS
8	STORMWATER MANAGEMENT SPECIFICATIONS AND SOIL BORINGS
9	FOREST CONSERVATION AND LANDSCAPING PLAN

OWNER/DEVELOPER

FOX CHAPEL COURT, LLC. 2965 BROOKWOOD ROAD ELLICOTT CITY, MARYLAND 21042-2501 410-465-2512





AS-BUILT CERTIFICATION FOR PSWM HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN

WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY. 16193 8-5-21 P.E.#

NO AS-BUILT INFORMATION ON THIS SHEET

\underline{LEGEND}

DENOTES WETLANDS PUBLIC 100 YEAR FLOODPLAIN AND UTILITY EASEMENT EXISTING SPECIMEN TREES

FOREST CONSERVATION EASEMENT (RETENTION)

FOREST CONSERVATION SIGNAGE — TPF — TREE PROTECTIVE FENCING SHADE TREE EVERGREEN TREE

PROPOSED TREELINE EXISTING TREELINE EX. PUBLIC SEWER AND UTILITY EASEMENT NON-CREDITIED OPEN SPACE EXISTING PRIVATE USE-IN-COMMON ACCESS EASEMENT

PUBLIC WATER, SEWER, DRAINAGE AND UTILITY EASEMENT PRIVATE DRAINAGE AND UTILITY EASEMENT

PRIVATE ACCESS PLACE EASEMENT PRIVATE USE-IN-COMMON DRIVEWAY EASEMENT PRIVATE ACCESS EASEMENT FOR 10' NOISE WALL

PRIVATE 10' NOISE WALL MAINTENANCE EASEMENT

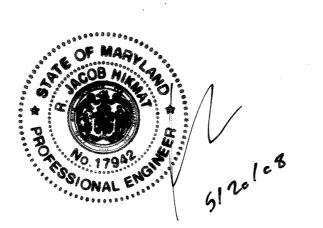
EXTERIOR LIGHT FIXTURE STABILIZED CONSTRUCTION ENTRANCE

EROSION CONTROL MATTING

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SCE

— SSF — SUPER SILT FENCE _____LIMIT OF DISTURBANCE



I hereby certify that these documents were prepared or approved by me and that I am a duly licensed professional engineer under the laws of the State of Maryland, **License No. 17942, Exp Date 9/3/08**

- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT TO THE PIPESTEM LOT DRIVEWAY.
- FOR DRIVEWAY INTERSECTION DETAIL USE HOWARD COUNTY STANDARD DETAILS R-6-.05 THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY GILES ENGINEERING ASSOCIATES ON OR AROUND MAY, 2002, AND WAS APPROVED ON JANUARY 17, 2003.

ADC MAP: MAP #12, F-5

TH	THE STREET LIGHT LOCATION AND TYPE OF LIGHT IS AS FOLLOWS:										
	STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE							
	FOX CHAPEL COURT	0+22	15' RT	100 watt HPS VAPOR COLONIAL POST—TOP MOUNTED ON A 14' FIBERGLASS POLE							

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 (2006) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (OCTOBER 2006)." THE OCTOBER 2006 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE. 27. MARYLAND DEPARTMENT OF THE ENVIRONMENT TRACKING NUMBER -03-NT-0047/200362099.

10-FOOT NOISE WALL MAINTENANCE IS RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION. PROVIDE AN ADDRESS SIGN AT THE INTERSECTION OF THE PRIVATE ACCESS PLACE AND THE STREET. THE SIGN SHALL CLEARLY IDRNTIFY ALL THE HOUSES ACCESSED FROM THE PRIVATE ACCESS PLACE. EACH NUMBER SHALL BE A MINIMUM OF 3" PLAIN BLOCK LETTERS (ADDRESS RANGE PERMITTED).

GENERAL NOTES:

 SITE DATA: ZONING : R-20 TAX MAP 18 PARCEL 59 BLOCK 19 DEED REFERENCE: 5899/492 DPZ FILE NUMBERS: SP-02-010; WP-03-062; 14-4442-D; MDE PERMIT TRACKING NUMBER: 03-NT-0047/200362099 GROSS AREA : 4.49 ACRES AREA OF WETLANDS: 0.33 ACRES MINIMUM LOT SIZE: 12,000 SQ. FT. NUMBER OF ALLOWED BUILDABLE LOTS: 8 NUMBER OF PROPOSED BUILDABLE LOTS: 8 NUMBER OF OPEN SPACE LOTS : 2 AREA OF OPEN SPACE REQUIRED (40% X 4.49) = 1.80 Ac. AREA OF OPEN SPACE PROVIDED = 0.14 AcAREA OF NON CREDITED OPEN SPACE

AREA OF CREDITED OPEN SPACE 2' TOPOGRAPHY FOR THE DEVELOPED AREAS IS BASED ON A FIELD RUN SURVEY BY MILDENBERG, BOENDER AND ASSOCIATES, INC. ON SEPTEMBER 2001.

BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE. SUBJECT PROPERTY ZONED R-20 PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND PER THE COMP LITE" ZONING REGULATION AMENDMENTS EFFECTIVE 7/28/06

PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED. WETLAND STUDY PREPARED BY WILDMAN ENVIRONMENTAL SERVICES, INC. IN JAN. 2002.

DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR

SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1.5" MIN.). GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT RADIUS.

D) STRUCTURES (CULVERT/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING). E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN

1 FOOT DEPTH OVER DRIVEWAY SURFACE. F) STRUCTURE CLEARANCES - MINIMUM 12 FEET G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.

9. NO STRUCTURES EXIST ON SITE THIS SUBDIVISION PLAN IS SUBJECT TO THE FIFTH EDITION OF THE HOWARD COUNTY SUBDIVISION

AND LAND DEVELOPMENT REGULATIONS. 11. NO STEEP SLOPES EXIST ON SITE.

12. STORMWATER MANAGEMENT IS PROVIDED BY NON-ROOFTOP DISCONNECTION CREDIT, SHEET FLOW TO BUFFER, RAIN GARDENS, NATURAL CONSERVATION AREA CREDIT AND A PRIVATELY OWNED AND

MAINTAINED SURFACE SAND FILTER. 13. THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE RÉFERENCE SYSTEM NAD '83/'91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 18G1 AND NO. 24C2

EL. 408.491 N 589984.951 E 1367750.255

24C2 N 588648.312 E 1366038.195 EL. 354.760 THE FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY MILDENBERG, BOENDER AND

ASSOCIATES, INC. ON JUNE 2002. AND WAS APPROVED ON JAN. 17, 2003. 15. THE TRAFFIC STUDY WAS PREPARED BY MARS GROUP ON JULY 2002 AND WAS APPROVED ON JAN. 17, 2003. 16. THE NOISE STUDY WAS PREPARED BY WILDMAN ENVIROMENTAL ON JULY 2002

AND WAS APPROVED ON JAN. 17, 2003. 17. THIS PLAN IS SUBJECT TO WP-03-062 APPROVED BY DIVISION OF LAND DEVELOPMENT 40' OF FRONTAGE ON A PUBLIC ROAD, LOTS OR PARCELS HAVING SUFFICIENT

ON JANUARY 17, 2003 WHICH WAIVES THE REQUIREMENT OF OPEN SPACE LOTS HAVE FRONTAGE ON A PUBLIC ROAD, PROHIBITS GRADING, REMOVAL OF VEGETATIVE COVER AND TREES, PAVING AND ALL NEW CONSTRUCTION WITHIN 25 FEET OF WETLANDS AND PROHIBITS GRADING, REMOVAL OF VEGETATIVE COVER AND TREES, PAVING AND ALL NEW CONSTRUCTION WITHIN 50 FEET OF AN INTERMITTENT STREAM. THIS PLAN IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. DEVELOPER SHALL MODIFY THE EXISTING 24 FOOT WIDE ACCESS EASEMENT TO ACCOMMODATE A PRIVATE ACCESS EASEMENT DESIGNED TO PROVIDE ACCESS TO THE 8 PROPOSED RESIDENTIAL LOTS AND THE TWO OPEN SPACE LOTS. BEYOND THE TERMINUS OF THIS PRIVATE ACCESS PLACE, A USE-IN-COMMON DRIVEWAY SHALL BE CONSTRUCTED WITHIN A 24 FOOT WIDE EASEMENT TO PROVIDE ACCESS TO LOTS 3 - 6. A DEVELOPER'S AGREEMENT FOR THE PRIVATE ACCESS PLACE AND MAINTENANCE AGREEMENTS FOR BOTH THE PRIVATE ACCESS PLACE AND USE-IN-COMMON DRIVEWAY WILL BE REQUIRED IN CONJUNCTION WITH THE FINAL PLAN.

2. DISTURBANCE TO THE WETLANDS, WETLAND BUFFERS AND STREAMBANK BUFFER NEEDED FOR THE INSTALLATION OF THE PRIVATE ACCESS PLACE SHALL BE MINIMIZED. ALL DISTURBED AREAS SHALL BE RE-ESTABLISHED. ANY REQUIRED PERMITS ASSOCIATED WITH THIS DISTURBANCE MUST BE OBTAINED FROM THE STATE / COE.

18. THIS PROJECT IS SUBJECT TO DESIGN MANUAL VOLUME III WAIVER TO TABLE 2.01 WHICH LIMITS THE NUMBER OF LOTS UTILIZING A USE-IN-COMMON DRIVEWAY TO 6 LOTS, APPROVED BY DEVELOPMENT ENGINEERING DIVISION ON NOVEMBER 6, 2006 SUBJECT TO THE FOLLOWING CONDITION.

1. SP-02-010 WAS SUBMITTED FOR REVIEW WITHIN THE REQUIRED WINDOW FOR GRANDFATHERING, THE PREVIOUSLY APPROVED PRIVATE ACCESS PLACE WITH A

MAXIMUM OF 8 USERS IS ACCEPTABLE. FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING. GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

20. FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAVE BEEN FULFILLED BY PROVIDING 1.05 ACRES OF RETENTION AND PAYMENT OF FEE-IN-LIEU FOR 0.59 ACRES OF REQUIRED REFORESTATION TO THE FOREST CONSERVATION FUND IN THE AMOUNT OF \$19,275.30. FINANCIAL SURETY FOR THE RETENTION OF 1.05 AC. OF FOREST (45,738 S.F.x0.2) IN THE AMOUNT OF \$9,147.60 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT

21. LANDSCAPING FOR LOTS 1-8 & OPEN SPACE LOTS 9 & 10 HAS BEEN PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (17 SHADE TREES, 7 EVERGREEN TREES AND 7 SHRUBS - \$6,360.00) HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT. 16 STREET TREES ARE REQUIRED AND PROVIDED.

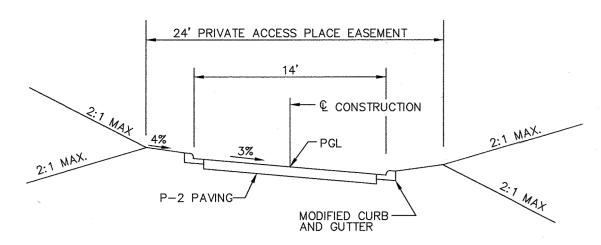
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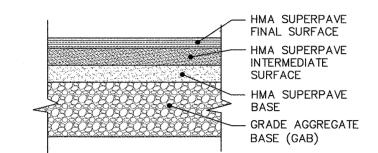
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1 of 9



TYPICAL PRIVATE ACCESS PLACE SECTION

DESIGN SPEED: 15 MPH



NOTE: FOR PAVEMENT MATERIAL WIDTH REFERENCE HOWARD COUNTY R-2.01

PAVING SECTION - P2 SECTION N.T.S.

TEMPO	PARTY TRAFFIC CONTROL TYPICAL APPLICATION	1
	OVSHY NBOM OVON	
IMPORTANT: THIS DRAWING SHALL COMBINATION WITH TO NOTES AT THE BEGIN STANDARDS NO. MD	L BE USED IN THE CENERAL NNING OF 104.00.	
KEY: CHANNELIZIN SKON SUPPO		
DIRECTION OF WORK SITE	2' MIN	
	SHOULDER TAPER 1/3 L SHOULDER WORK	
	NSO WOOR STANDARD STA	
SPECIFICATION CATEGORY CODE (TEMS) 10.4 SECTION 100 APPROVED OFFICER (WE'C OF THATE NO SAFETY FERRORS, 2 SM. APPROVED SECTION 100 FERRORS, 2 SM. APPROVED SE	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND NODENTAL STRUCTURES SHOULDER WORK/2-LANE, 2-WAY	
##700ML o SNA ##7 PONSOMS HERN JAPRIONE S-10-95 APPEN ROGED ROGED ROGED ROGED ROGED	EOL/LESS THAN 40 MPH/OVER 12 HRS. OR NIGHTTIME USE	

M.O.T. PLAN

CURVE TABLE		
RVE LENGTH RADIUS DELTA TANGENT BEARINGS CHORD		
1 132.94 169.00 45°04'15" 70.12 N39°38'42"W 169.00		
2 127.44 162.00 45°04'15" 67.22 N39°38'42"W 162.00		
3 121.93 155.00 45°04'15" 64.32 N39°38'42"W 155.00		
4 55.92 293.00 10°56′04" 28.04 S22°34′36"E 293.00		
5 57.25 300.00 10*56'04" 28.71 S22*34'36"E 300.00	C1—	
6 58.59 307.00 10*56'04" 29.38 S22*34'36"E 307.00	C5¬\	OS LOT 10
	C3¬\\ 14' MINIMUM7	\
ż	FOX CHAPEL COURS LOT 2 LOT 3	
50,5	2+,00 LOT 1 6 LOT 3	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	-2+00 PRIVATE ACCESS PLACE COURT DELOT 2	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	3+00	
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R 3(G) \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	4+00 5+42.87	LOT 4
510 AD \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
USE I	24' PRIVATE ACCESS PLACE EASEMENT	
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PRIVATE REFUSE PAO PRINTE PAR CHAPELO OF OR	LOT 8	
PRIL CHAPELEO		
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0x9 100 P P 29.5		LOT 5
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STREET LICHTIN RELIGION RELIGION LICENTIA CONTROL CONT		
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PROTEIN AUS' / C		LOT 6
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SEE SP PRIVATE PROPESS	PRIVATE ACCESS PLACE PLAN VIEW	
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SCALE: HOR. 1"=50"

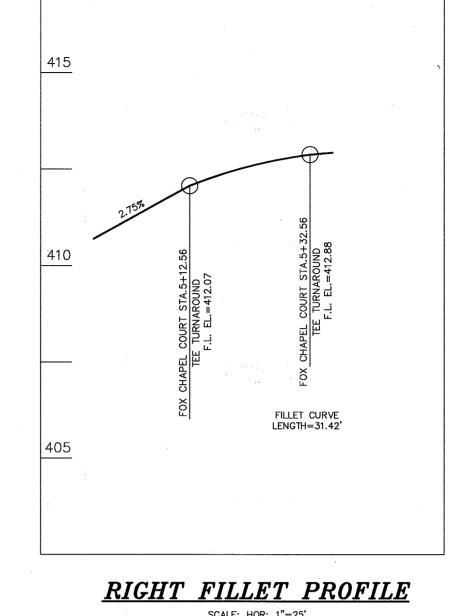
THE STREET LIGHT LOCATION AND TYPE OF LIGHT IS AS FOLLOWS

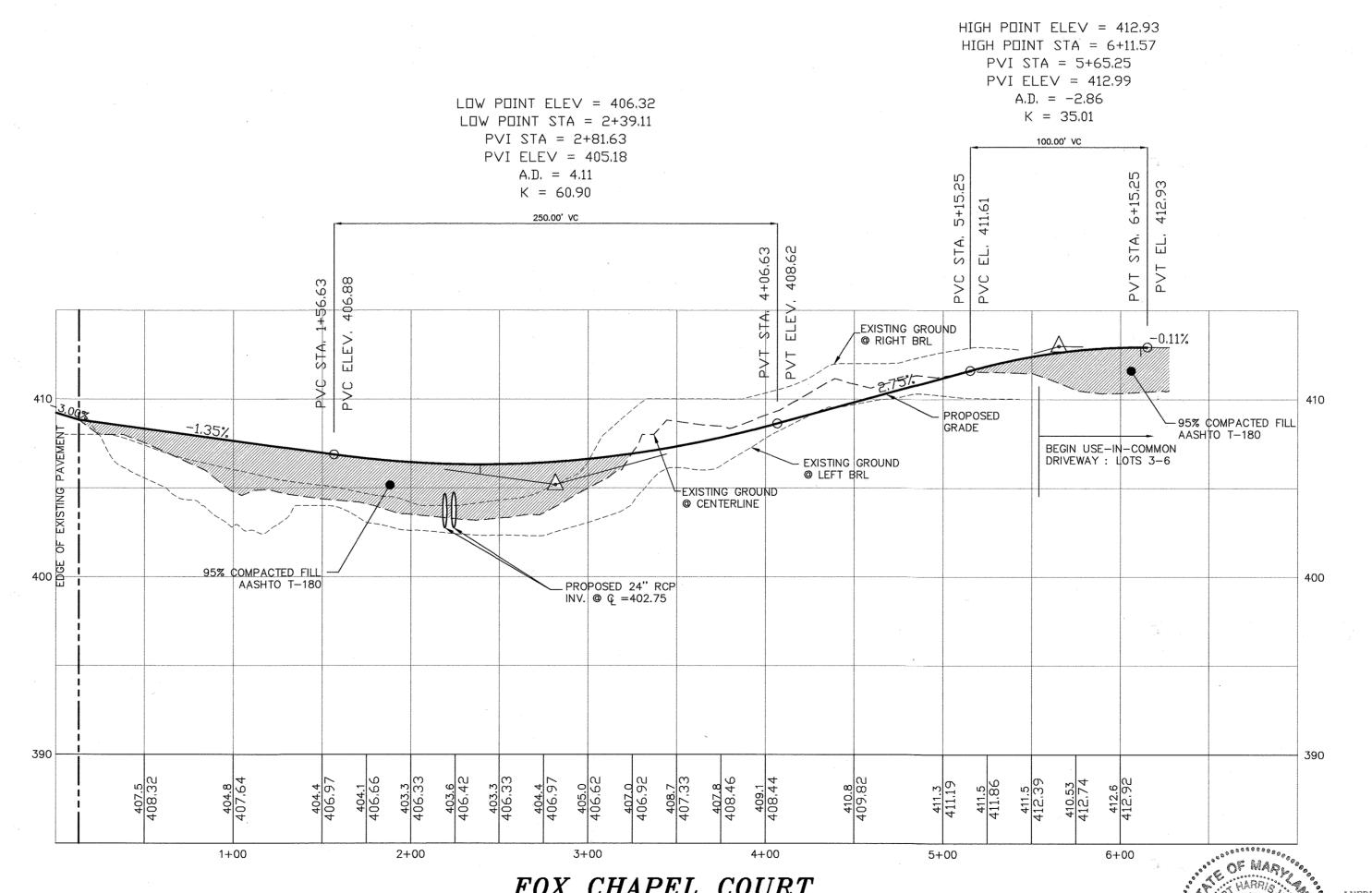
STATION OFFSET

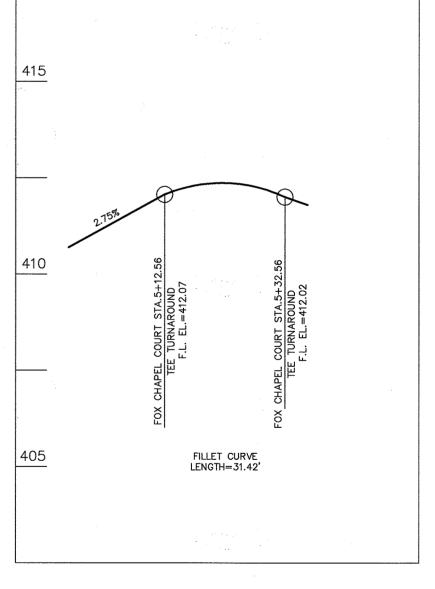
FOX CHAPEL COURT

FIXTURE/POLE TYPE

0+22 15' RT 100 watt HPS VAPOR COLONIAL POST—TOP MOUNTED ON A 14' FIBERGLASS POLE







LEFT FILLET PROFILE SCALE: HOR: 1"=50' VER. 1"=5'

APPROVED: DEPARTMENT OF PUBLIC WORKS

FOX CHAPEL COURT PRIVATE ACCESS PLACE PROFILE

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

AS-BUILT CERTIFICATION FOR PSWM

OWNER/DEVELOPER

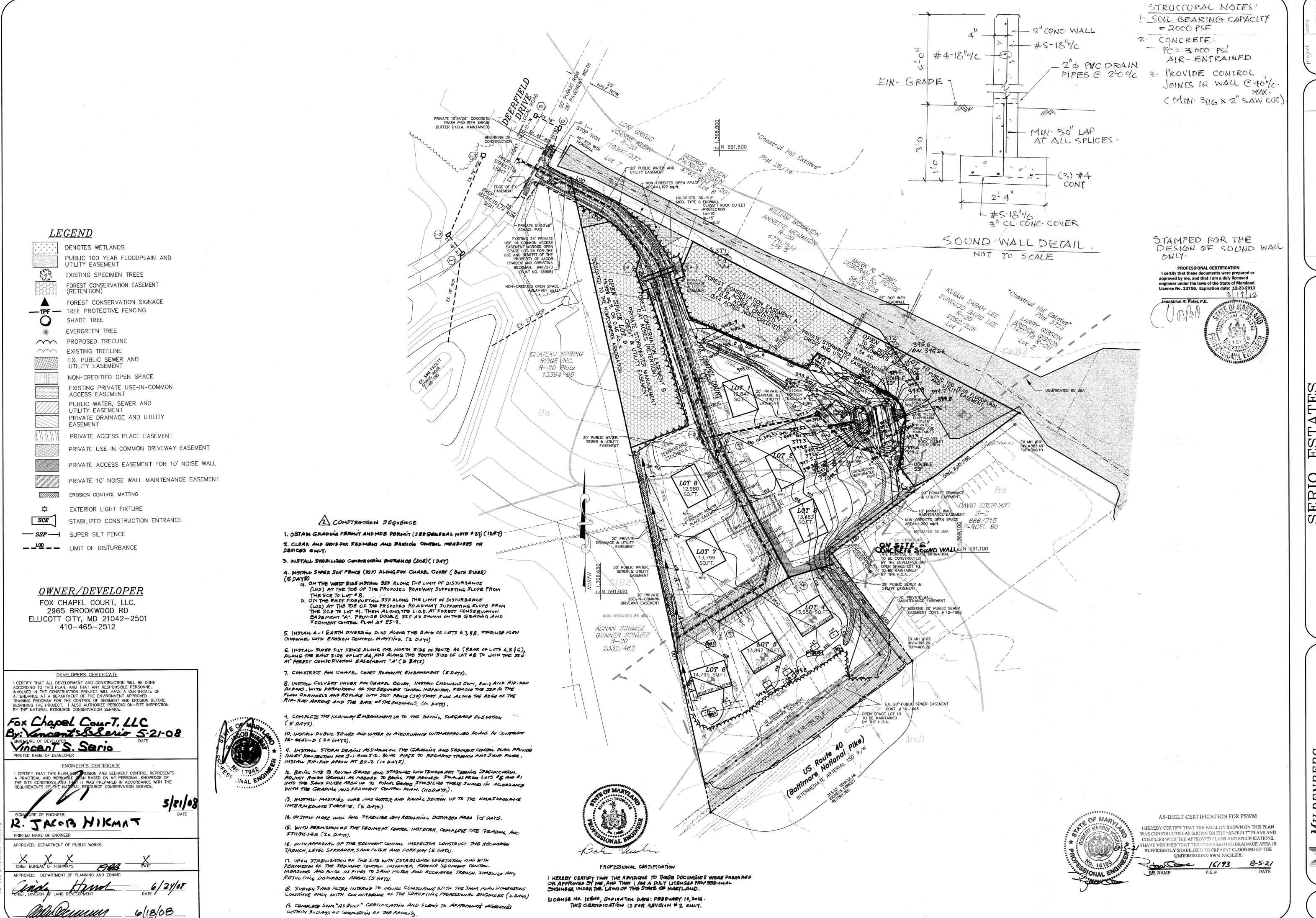
FOX CHAPEL COURT, LLC.

2965 BROOKWOOD RD

ELLICOTT CITY, MD 21042-2501

AS-BUILT DEC. 2020

F-07-075



3 OF 9

SSOC.

REVISION OF SOUND WALL FROM WOOD TO REINF-CONC

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AS-BUILT DEC. 2020F-07-075

HOWARD SOIL CONSERVATION DISTRICT PERMANENT SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, 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 ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY
 - 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.). ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR 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 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FÉSCUE PER ACRE AND 2 LOBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) - USE SOD. OPTION (3) -SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONE/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) 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, FOR NOT PREVIOUSLY LOOSENED.

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

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD. MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) 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

- 1) 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 NAY CONSTRUCTION, (313-1855)
- 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT
- 3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES. DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC.51), SOD (SEC 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 7) SITE ANALYSIS: TOTAL AREA OF SITE AREA DISTURBED: AREA TO BE ROOFED OR PAVED: ACRES AREA TO BE VEGITATIVELY STABILIZED: CU. YDS. TOTAL CUT: TOTAL FILL: TOTAL WASTE/BORROW AREA LOCATION:

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITIES MEASUREMENTS.

OWNER/DEVELOPER

FOX CHAPEL COURT, LLC. 2965 BROOKWOOD RD ELLICOTT CITY, MD 21042-2501 410-465-2512

DEVELOPERS CERTIFICATE

PROFESSIONAL CERTIFICATION ALL LUCLE

HERBBY CONTRY THAT THE REVISIONS TO THOSE DOCUMENTS WERE PREPARED OR APPROVED BYME , AND THAT I AM A DULY LICENSED PROPESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSEND. LOBOD EXPIRATION DATE: FEBRUARY 19 2016.
THIS CORTIFICATION IS FOR REVISION & ONLY

CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN. AND THAT ANY RESPONSIBLE PERSONNE 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 BEFOR BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC, ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE. Fox Chapel Court. LLC By: Vincent Sserie 5-21-08 **ENGINEER'S CERTIFICATE** CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWEDGE OF AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE APPROVED: DEPARTMENT OF PUBLIC WORKS



- 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- 9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- 11) 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

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

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT,

CONDITIONS WHERE PRACTICE APPLIES

LOW NUTRIENT LEVELS, LOW pH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE
 - a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE
- b. 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.
- c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING

FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE 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 SPECIFICATION. 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 SHALL BE A LOAM, 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 CON-TRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN
- TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON-SON 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 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) 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**
- III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 - i. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - a. 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 PERSCRIBED TO RAISE THE pH TO 6.5 OR HIGHER.
 - b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 - c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED. d. NO SOD 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 DISSIPATION 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
- ii. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS TOPSOIL APPLLICATION
- 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, ALBEIT 4"-8" HIGHER IN ELEVATION.
- TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT 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 CONFORM TO THE FOLLOWING REQUIREMENTS:
- a. 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 26.04.06.
- b. COMPOSTED SLUDGE SHALL CONTAIN AT LEASE 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOURUS, 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. c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
- iv. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILLIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD-VA, PUB. #1, COOPERATIVE

EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY VOLUME IV DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SEDIMENT
- CONTROL IN DEVELOPING AREAS.
- 2. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF BUSINESS. 3. ALL EXCAVATED MATERIALS SHALL BE STOCKPILED ON THE UPGRADE SIDE OF THE MAIN TRENCH.
- 4. EXCAVATION AND BACKFILL SHALL BE LIMITED TO THAT WHICH CAN BE STABILIZED WITHIN ONE WORKING DAY.
- 5. IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER TRENCH, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
- 6. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
- 7. ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

SEE SHEET 3 OF 9 FOR REVISED SEQUENCE OF CONSTRUCTION (2)

SEQUENCE OF CONSTRUCTION OBTAIN GRADING PERMIT (1 DAY) AND MDE PERMIT (SEE G.N. #27)

- 2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (1 DAY)
- 3. INSTALL SUPER SILT FENCE ALONG FOX CHAPEL COURT. CONSTRUCT 2 24" CULVERTS, ENDWALLS AND ROUGH GRADE DRIVEWAY FOR ACCESS TO
- SITE (5 DAYS)
- 3. CONSTRUCT A-1 EARTH DIKE ALONG WESTERN PROPERTY LINE. (2 DAYS) 4. INSTALL SILT FENCES AND SUPER SILT FENCES. BLOCK PIPE TO RECHARGE
- TRENCH AND SAND FILTER AND DELAY CONSTRUCTION OF RECHARGE
- TRENCH AND SAND FILTER (5 DAYS). 5. CONSTRUCT INLET PROTECTION FOR 1/1 & 1-2
- 6. BRING SITE TO ROUGH GRADE AND CONSTRUCT SITE (120 DAYS).
- 7. WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, COMPLETE CONSTRUCTION OF SITE TO GRADE INDICATED AND STABILIZE (20 DAYS)
- 8. WITH APPROYAL OF SEDIMENT CONTROL INSPECTOR, CONSTRUCT REGHARGE TRENCH AND SAND FILTER. (5 DAYS).
- WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DÉVICES HAVE BEEN STABILIZED, AND WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS.

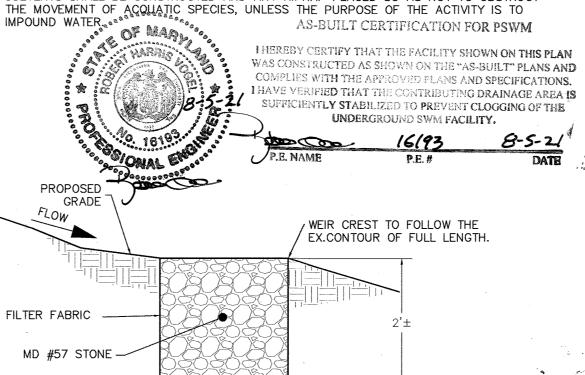
BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS

* BOTH SIDE

1. NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.

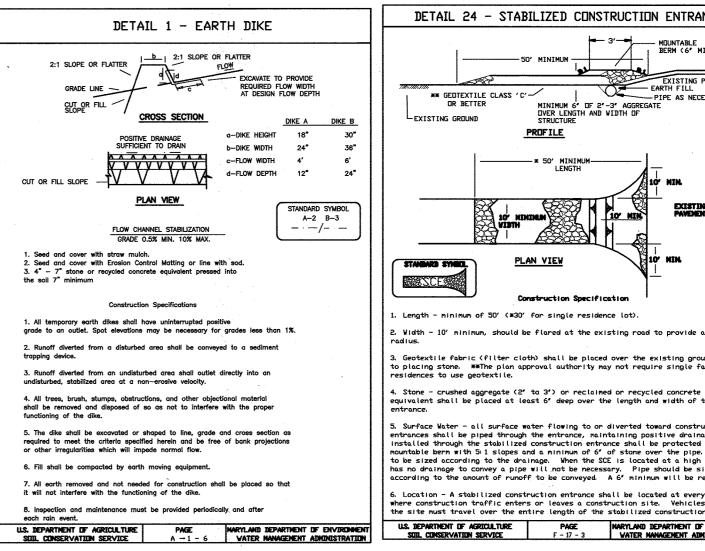
WATERWAYS, AND 100-YEAR FLOODPLAINS

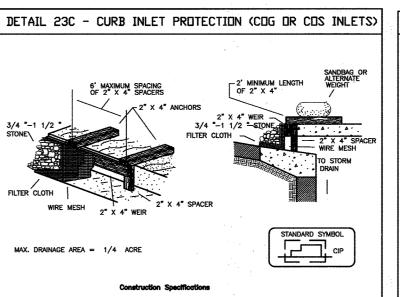
- 2. PLACE MATERIALS IN A LOCATION AND MANNER THAT DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NON-TIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
- 3. DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS. UNSIGHTLY DEBRIS. TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIAL FREE OF WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE 4. PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE
- 100-YEAR FLOODPLAIN. 5. REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS,
- OR PERMANENT MODIFICATION OF THE 100-YEAR FLOODPLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL 6. RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, OR 100-YEAR FLOODPLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
- 7. ALL STABILIZATION IN THE NONTIDAL WETLAND AND NONTIDAL WETLAND BUFFER SHALL CONSIST OF THE FOLLOWING SPECIES: ANNUAL RYEGRASS (LOLIUM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNIOLA SP.), AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE NONTIDAL WETLANDS & WATERWAYS DIVISION. KENTUCKY 31 FESCUE SHALL NOT BE UTILIZED IN WETLAND OR BUFFER AREAS. THE AREA SHOULD BE SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- 8. AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST-CONSTRUCTION GRADES AND ELEVATIONS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS
- 9. TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM: USE I WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY
- 10. STORMWATER MANAGEMENT RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY. 11. CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT



SPECIFICATIONS: THE TOP OF THE STONE ELEVATION FOR EACH DEVICE SHALL BE LEVEL FOR ITS ENTIRE LENGTH. THE LOW SIDE OF THE DEVICE SHALL TYPICALLY BE INSTALLED AT THE LIMITS OF THE LOD. IF THE DRAINAGE AREA ABOVE THE SPREADER IS NOT STABILIZED AND WITH THE PERMISSION OF THE INSPECTOR.

FILTER FABRIC MAY BE EXTENDED FROM THE IN FLOW SIDE AND LAID OVER THE TOP OF THE DEVICE UNTIL THE DRAINAGE AREA IS STABILIZED. ALL SURFACE ELEVATIONS ALONG THE LEVEL SPREADER SHALL BE THE SAME.



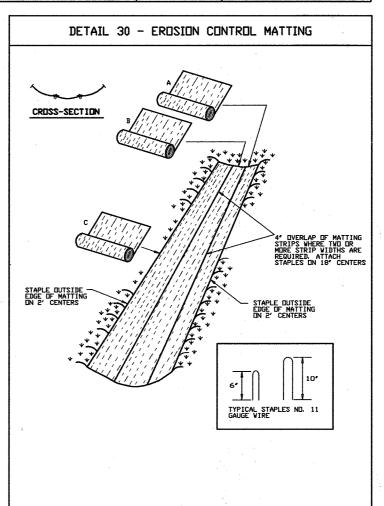


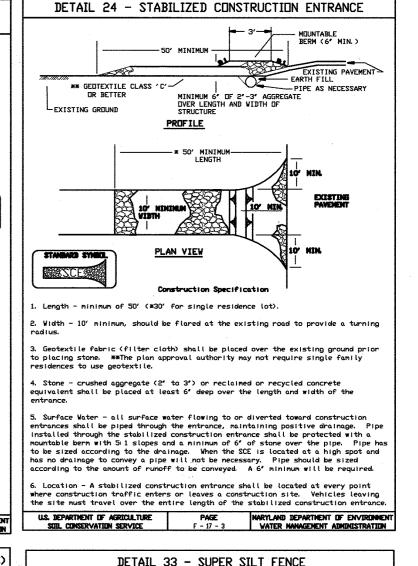
Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4') to the 2" \times 4" weir (measuring throat length plus 2') as shown on the standard 2. Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir. 3. Securely nail the 2" X 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4' apart) Place the assembly against the inlet throat and nail (minimum 2' lengths of

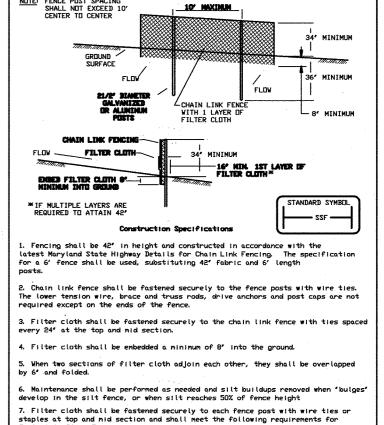
2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors sha extend across the inlet top and be held in place by sandbags or alternate weight 5. The assembly shall be placed so that the end spacers are a minimum 1' beyon against the face of the curb on both sides of the inlet. Place clean 3/4 " x 1 1/2

stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile. 7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment. 8. Assure that storm flow does not bypass the inlet by installing a temporary

U.S. DEPARTMENT OF AGRICULTURE PAGE WARYLAND DEPARTMENT OF ENVIRONMENT SUIL CONSERVATION SERVICE E - 16 - 5B VATER MANAGEMENT ADMINISTRATION



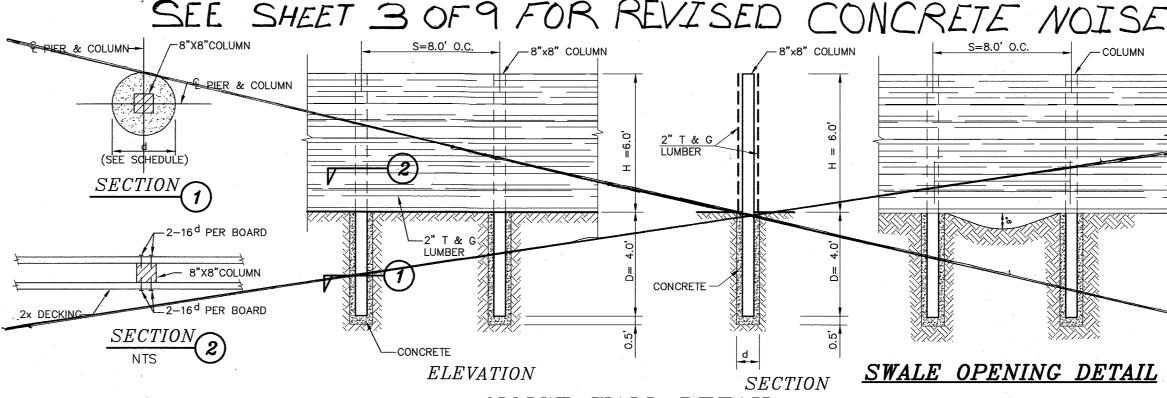




staples at top and mid section and shall meet the following requirements for Geotextile Class Fi Tensile Modulus 20 lbs/in (min.) Testi MSMT 509
Flow Rate 0.3 gal/ft*/minute (max.) Testi MSMT 322
Filtering Efficiency 75% (min.) Testi MSMT 322 U.S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMEN SUIL CONSERVATION SERVICE H - 26 - 3 VATER MANAGEMENT ADMINISTRATION

DETAIL 27 - ROCK DUTLET PROTECTION III

SEE SHEET 3 OF 9 FOR REVISED CONCRETE NOISE WALL



NOISE WALL DETAIL

NO AS-BUILT INFORMATION ON THIS SHEET

SCHEDULE H S D d POS 6 8' 4' 16" 8"x8"

IN CENTER OF SWALE.

BETWEEN POSTS.

AS-BUILT DEC. 2020 F-07-075

MEMBERS SHALL BE PRESSURE TREATED

SELECT STRUCTURAL SOUTHERN PINE.

4. PROVIDE 5'x0'-9" OPENING AT BOTTOM OF NOISE WALL

PRESSURE TREATMENT SHALL CONSIST OF CCA

IN ACCORDANCE WITH AWPB LP-22.

5. WHERE NOISE WALL IS LOCATED OVER SWALE PLACE POST SUCH THAT SWALE IS CENTERED

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4 of 9

 \underline{LEGEND} SOILS DESCRIPTIONS: EXISTING TREELINE \bigcirc BAILE SILT LOAM (TYPE D)
GLENELG LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED (TYPE B)
GLENVILLE SILT LOAM, 3 TO 8% SLOPES, MODERATELY (TYPE B)
KELLY SILT LOAM, 3 TO 8% SLOPES, MODERATELY ERODED (TYPE D) MADE LAND
MONTALTO AND RELAY SOILS, 15 TO 45 (TYPE C) TIME OF CONCENTRATION FLOW PATH Ba GIB2 GnB2 KeB2 PROPOSED DRAINAGE DIVIDE MONTALTO AND RELAY VERY STONY SILT LOAMS,3 TO 25% SLOPES (TYPE C) NESHAMINY SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED (TYPE B) EXISTING 24' PRIVATE
USE—IN—COMMON ACCESS
EASEMENT ACROSS OPEN
SPACE LOT 25 FOR THE
USE AND BENEFIT OF THE
PROPERTY OF JACOB
FRAIDEN AND CHRISTINA
BECKMAN. 948/273 /
(PLAT NO. 13395) CHATEAU SPRING RIDGE INC. R-20 Plais IMP=25% 10' PRIVATE WALL
MAINTENANCE EASEMENT
NON-CREDITED OPEN SPACE
AREA=4,290 sq.ft.

MITIGATED 65 dBA

MITIGATED 65 dBA

STRUCTURE
ON
TO BE CONSTRUCTED
BY THE DEVELOPER ON
OPEN SPACE LOT 10,
OPEN SPACE LOT 10,
OPEN SPACE LOT 10, 30' PRIVATE -USE IN-COMMON DRIVEWAY EASEMENT 0.95 AC/ C=0.53IMP=25% ADNAN SONMEZ GUNNER SONMEZ R-20 2332/462 NeBl OWNER/DEVELOPER FOX CHAPEL COURT, LLC.
2965 BROOKWOOD RD
ELLICOTT CITY, MD 21042-2501
410-465-2512 AS-BUILT CERTIFICATION FOR PSWM APPROVED: DEPARTMENT OF PUBLIC WORKS

SERIO ESTATES

LOTS 1-8 & OPEN SPACE LOTS 9 & 10

TAX MAP 18 PARCELS 59 BLOCK 19

N DISTRICT

HOWARD COUNTY, MARYLAND

STORM

ENDE'NBE'RG, $ENDER \ \& \ ASSOC., \ INC.$ gineers Planners Surveyors
Ul Drive, Suite 202, Ellicott City, Maryland 21042

5 of 9

AS-BUILT DEC. 2020 F-07-075

STORM DRAIN PROFILE - I-1 TO ES-1

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

STRUCTURE SCHEDULE

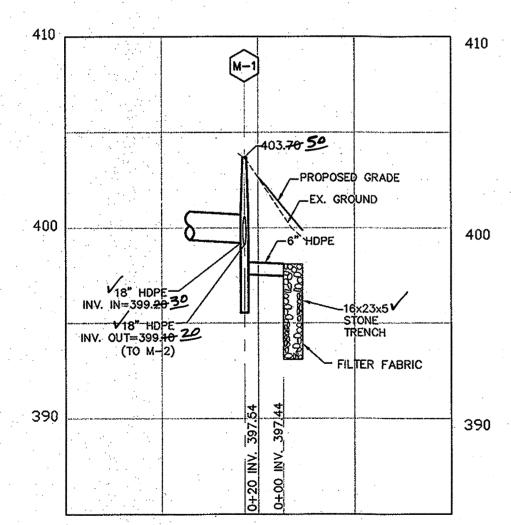
NO.	LOCATION	TOP	INV. IN	INV. OUT	COMMENTS
I-1	STA. 2+37.07 : 7.00' RIGHT	406.69		400.94	TYPE A-10, H.C.STD. SD-4.03
1-2	STA. 4+30.53 : 7.00' RIGHT	410.09	399.97	399.87	TYPE A-10, H.C.STD. SD-4.03
M-1	N 591,271.33 E 1,368,922.02	403.750	399. 20 39	399.10-20	H.C.STD. G-5.12 DETAIL SHEET 7
M-2	N 591,256.42 E 1,368,936.52	402.7 403 00	399.00397 G	2 398.40 3975P	H.C.STD. G-5.12 DETAIL SHEET 7
M-3	N 591,233.35 E 1,368,958.96	402.6	397.45	397.00	H.C.STD. G-5.12
ES-1	N 591,261.50 E 1,368,964.72		397.72	-	CMP END SECTION OR EQUIVALENT
ES-2	N 591,218.49 E 1,369,012.47	_	396.7		CMP END SECTION OR EQUIVALENT
EW-1	STA. 2+20.69 : 17.75' RIGHT		430.0	_	MOD. TYPE C ENDWALL; H.C. STD. SD-5.21
EW-2	STA. 2+20.69 : 17.75' LEFT	_	-	429.50	MOD. TYPE C ENDWALL; H.C. STD. SD-5.21
·			-		
			.:		

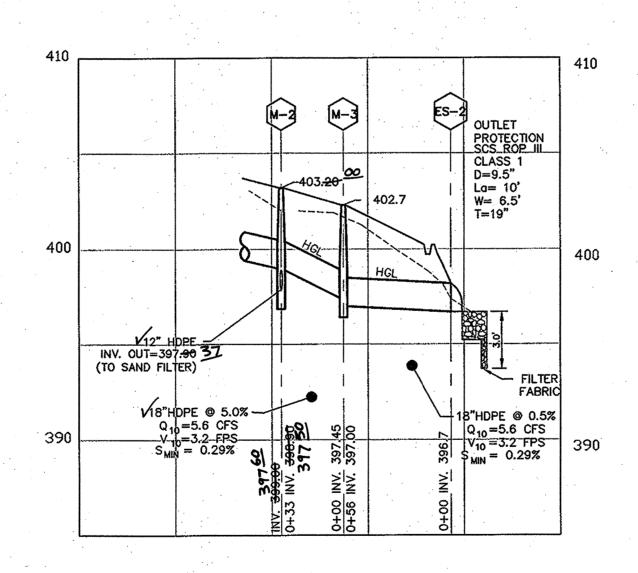
- * STATIONS GIVEN TO CENTERLINE FACE OF INLET AT TOP OF CURB FOR INLETS LOCATED WITHIN THE PRIVATE ACCESS PLACE.

 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
- ** ELEVATIONS MEASURED TO CENTER OF ALL INLETS.

PIPE SCHEDULE

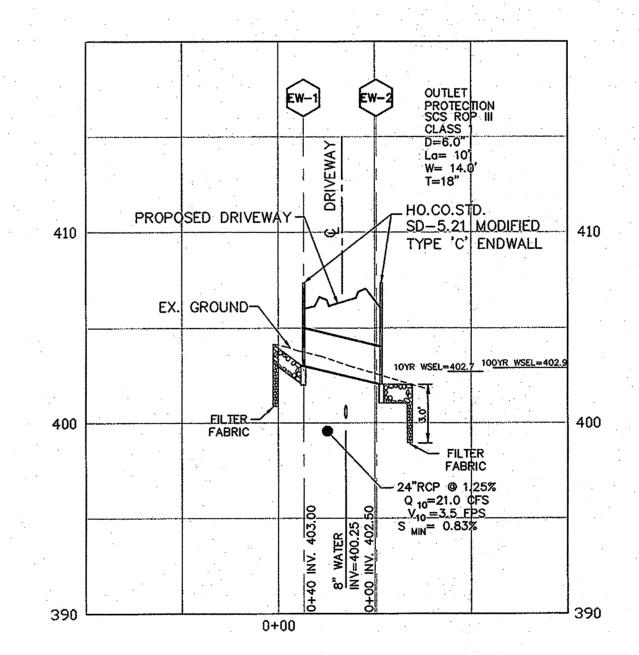
	QUANTITY	PIPE SIZE
	32'	12" HDPE
.:	412'	18" HDPE
,	40'	6" HDPE NON- PERFORATED
	50'	6" PERFORATED HDPE
	80'	24" RCP
•		





STORM DRAIN PROFILE - M-2 TO ES-4

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



2 - 24" CULVERT PROFILE

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

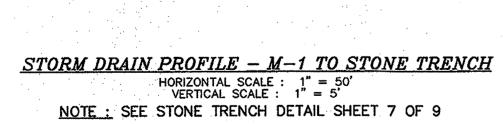


AS-BUILT CERTIFICATION FOR PSWM I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS.

HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOSGING OF THE UNDERGROUND SWM FACILITY.

OWNER/DEVELOPER

FOX CHAPEL COURT, LLC. 2965 BROOKWOOD RD ELLICOTT CITY, MD 21042-2501 410-465-2512

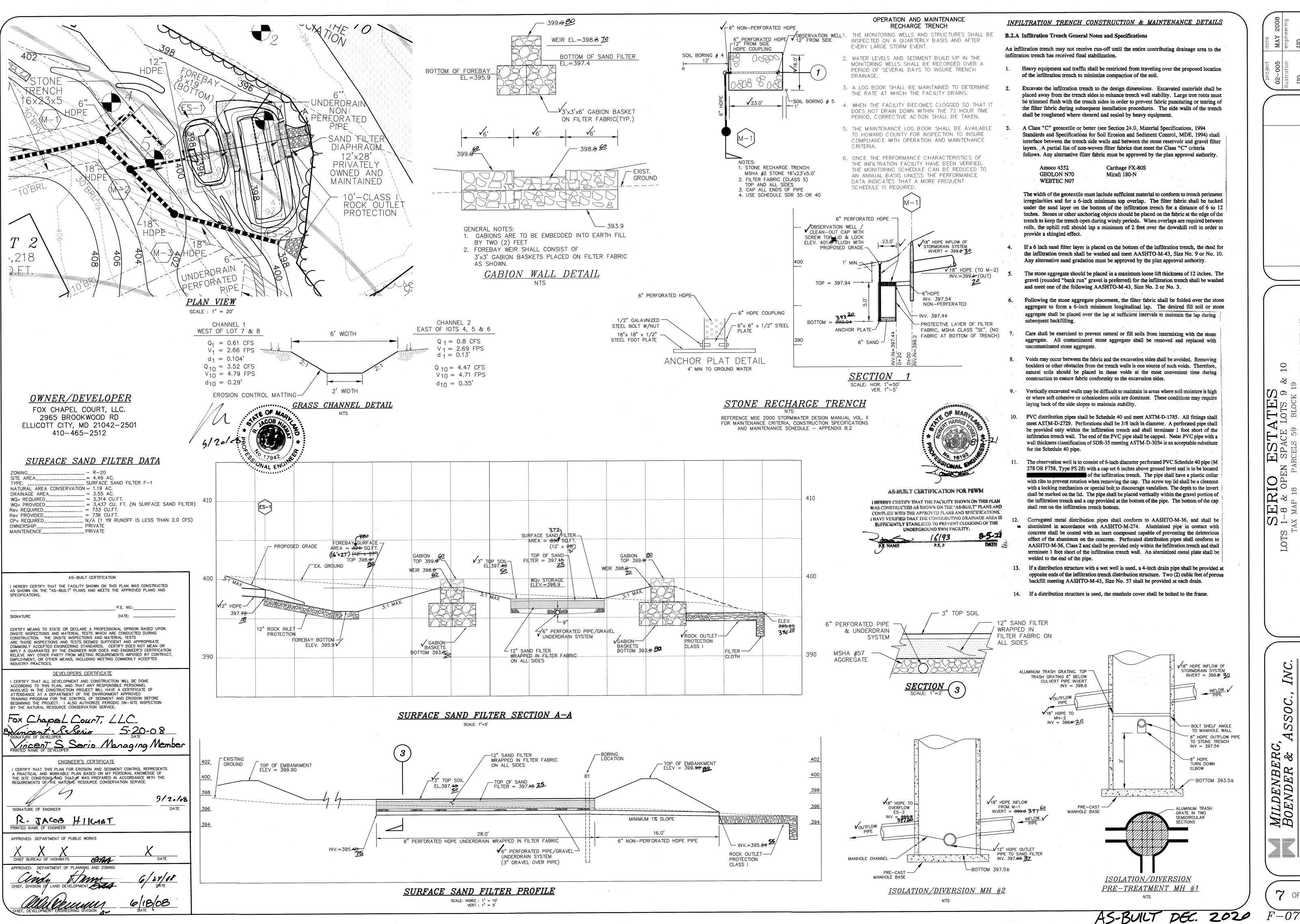


APPROVED: DEPARTMENT OF PUBLIC WORKS

FOR THE PRETREATMENT MANHOLE 1. THE PRETREATMENT MANHOLE SHALL BE INSPECTED TWICE A YEAR AND DEBRIS SHALL BE REMOVED UPON INSPECTION.
2. THE ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED A DEPTH OF 6 INCHES.

OPERATION AND MAINTENENCE SCHEDULE

6 OF 9



AS-BUILT DEC. 2020

7 OF 9

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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

SITE PREPARATION

AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. ALL TREES SHALL BE CLEARED AND GRUBBED WITHIN 15 FEET OF THE TOE OF THE

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

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.

MATERIAL - THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6", FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT AND CUT OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION 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 IN THE EMBANKMENT IF DESIGNED BY A GEOTECHNICAL ENGINEER. SUCH SPECIAL DESIGNS MUST HAVE CONSTRUCTION SUPERVISED BY A GEOTECHNICAL ENGINEER. MATERIALS USED IN THE OUTER SHELL OF THE EMBANKMENT MUST HAVE THE CAPABILITY TO SUPPORT VEGETATION OF THE QUALITY REQUIRED TO PREVENT EROSION OF THE EMBANKMENT

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

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

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 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 COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMEN BE DRIVEN OVER ANY PART OF A CONCRETE STRUCTURE OR PIPE, UNLESS THERE IS A COMPACTED FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE STRUCTURE BACKFILL MAY BE FLOWABLE FILL MEETING TH REOLIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 313 AS MODIFIED. THE MIXTURE SHALL HAVE A 100-200 PSI; 28 DAY UNCONFINED COMPRESSIVE STRENGTH. THE FLOWABLE FILL SHALL HAVE A MINIMUM PH OF 4.0 AND A MINIMUM RESISTIVITY OF 2,000 OHM-CM. MATERIAL SHALL BE PLACED SUCH THAT A MINIMUM OF 6" (MEASURED PERPENDICULAR TO THE OUTSIDE OF THE PIPE) OF FLOWABLE FILL SHALL BE UNDER (BEDDING). OVER AND, ON THE SIDES OF THE PIPE. IT ONLY NEEDS TO EXTEND UP TO THE SPRING LINE FOR RIGID CONDUITS. AVERAGE SLUMP OF THE FILL SHALL BE 7". TO ASSURE FLOWABILITY OF THE MATERIAL, ADEQUATE MEASURES SHALL BE TAKEN (SAND BAGS, ETC.). TO PREVENT FLOATING THE PIPE. WHEN USING FLOWABLE FILL, ALL METAL PIPE SHALL BE BITUMINOUS COATED. ANY ADJOINING SOIL FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPER OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. 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 BF 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.

OWNER/DEVELOPER

FOX CHAPEL COURT, LLC. 2965 BROOKWOOD RD ELLICOTT CITY, MD 21042-2501 410-465-2512

DEVELOPERS CERTIFICATE I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNE INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE. Chapel Court, LLC By: Vincent & Serio Vincent S Serio Managing Member ENGINEER'S CERTIFICATE I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE 9/7.108 SIGNATURE OF ENGINEER R. TACEB HIKMAT PRINTED NAME OF ENGINEER APPROVED: DEPARTMENT OF PUBLIC WORKS

PIPE CONDUIT

ALL PIPES SHALL BE CIRCULAR IN CROSS SECTION.

CORRUGATED METAL PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR CORRUGATED METAL PIPE:

I. MATERIALS - (POLYMER COATED STEEL PIPE) - STEEL PIPES WITH POLYMERIC COATINGS SHALL HAVE A MINIMUM COATING THICKNESS OF 0.01 INCH (10 MIL) ON BOTH SIDES OF THE PIPE. THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATIONS M-245 & M-246 WITH WATERTIGHT COUPLING BANDS OR FLANGES.

MATERIALS - (ALUMINUM COATED STEEL PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-274 WITH WATERTIGHT COUPLING BANDS OR FLANGES. ALUMINUM COATED STEEL PIPE, WHEN USED WITH FLOWABLE FILL OR WHEN SOIL AND/OR WATER CONDITIONS WARRANT THE NEED FOR INCREASED DURABILITY, SHALL BE FULLY BITUMINOUS COATED PER REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A. ANY ALUMINUM COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING 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.

MATERIALS - (ALLIMINUM PIPE) - THIS PIPE AND ITS APPLIETENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-196 OR M-21 L WITH WATERTIGHT COUPLING BANDS OR FLANGES. ALUMINUM PIPF, WHEN USED WITH FLOWABLE FILL OR WHEN SOIL AND/OR WATER CONDITIONS WARRANT FOR INCREASED DURABILITY, SHALL BE FULLY BITUMINOUS COATED PER REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A. ALUMINUM SURFACES THAT ARE TO BE IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH ONE COAT OF ZINC CHROMATE PRIMER OR TWO COATS OF ASPHALT. HOT DIP GALVANIZED BOLTS MAY BE USED FOR CONNECTIONS. THE PH OF THE SURROUNDING SOILS SHALL BE BETWEEN 4 AND 9.

2. COUPLING BANDS, ANTI-SEEP COLLARS, END SECTIONS, ETC., MUST BE COMPOSED OF THE SAME MATERIAL AND COATINGS AS THE PIPE. METALS MUST BE INSULATED FROM DISSIMILAR MATERIALS WITH USE OF RUBBER OR PLASTIC INSULATING MATERIALS AT LEAST 24 MILS IN THICKNESS.

3. CONNECTIONS — ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATERTIGHT. THE DRAIN PIPE OR BARREL CONNECTION TO THE RISER SHALL BE WELDED ALL AROUND WHEN THE PIPE AND RISER ARE METAL. ANTI—SEEP COLLARS SHALL BE CONNECTED TO THE PIPE IN SUCH A MANNER AS TO BE COMPLETELY WATERTIGHT. DIMPLE BANDS ARE NOT CONSIDERED TO BE WATERTIGHT

ALL CONNECTIONS SHALL USE A RUBBER OR NEOPRENE GASKET WHEN JOINING PIPE SECTIONS. THE END OF EACH PIPE SHALL BE RE-ROLLED AN ADEQUATE NUMBER OF CORRUGATIONS 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 1/2 INCH GREATER THAN THE CORRUGATION DEPTH. PIPES 24 INCHES IN DIAMETER AND LARGER SHALL BE CONNECTED BY A 24 INCH LONG ANNULAR CORRUGATED BAND USING A MINIMUM OF 4 (FOUR) RODS AND LUGS, 2 ON EACH CONNECTING PIPE END. A 24-INCH WIDE BY 3/8-INCH THICK CLOSED CELL CIRCULAR NEOPRENE GASKET WILL BE INSTALLED WITH 12 INCHES ON THE END OF EACH PIPE. FLANGED JOINTS WITH 3/8 INCH CLOSED CELL GASKETS THE FULL WIDTH OF THE

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-361.

2. BEDDING - REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAID IN A CONCRETE BEDDING/CRADLE FOR THEIR ENTIRE LENGTH. THIS BEDDING/CRADLE SHALL CONSIST OF HIGH SLUMP CONCRETE PLACED UNDER THE PIPE AND UP THE SIDES OF THE PIPE AT LEAST 50% OF ITS OUTSIDE DIAMETER WITH A MINIMUM THICKNESS OF 6 INCHES. WHERE A CONCRETE CRADLE IS NOT NEEDED FOR STRUCTURAL REASONS, FLOWABLE FILL MAY BE USED AS DESCRIBED IN THE "STRUCTURE BACKFILL" SECTION OF THIS STANDARD. GRAVEL BEDDING IS NOT PERMITTED.

3. LAYING PIPE - BELL AND SPIGOT PIPE SHALL BE PLACED WITH THE BELL END UPSTREAM. JOINTS SHALL BE MADE IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL. AFTER THE JOINTS ARE SEALED FOR THE ENTIRE LINE, THE BEDDING SHALL BE PLACED SO THAT ALL SPACES UNDER THE PIPE ARE FILLED. CARE SHALL BE EXERCISED TO PREVENT ANY DEVIATION FROM THE ORIGINAL LINE AND GRADE OF THE PIPE.

4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

FIRST JOINT MUST BE LOCATED WITHIN 4 FEET FROM THE RISER.

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 WATERTIGHT.

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

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

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 AS REQUIRED OR DIRECTED BY THE ENGINEER FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE, ALL TEMPORARY PROTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION IN ANY DEGREE WHATSOEVER OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS AND SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. STREAM DIVERSIONS SHALL BE MAINTAINED UNTIL THE FULL FLOW CAN BE PASSED THROUGH THE PERMANENT WORKS. THE REMOVAL OF WATER FROM THE REQUIRED EXCAVATION AND THE FOUNDATION SHALL BE ACCOMPLISHED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND BOTTOM REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF MATERIAL IN REQUIRED EXCAVATIONS. THE WATER LEVEL AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER SUMPS FROM WHICH THE WATER SHALL BE

STABILIZATION

ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SIGHTLY CONDITION ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SPOIL AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING 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 BY PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA. SCS "STAND ARDS 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 INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

OPERATION AND MAINTENENCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED SURFACE SAND FILTER

1. THE STORMWATER WETLAND FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS, INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.

THE TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF ONCE PER YEAR, WHEN VEGETATION REACHES 18" IN HEIGHT OR AS NEEDED. FILTERS THAT HAVE A GRASS COVER SHALL BE MOWED A MINIMUM OF THREE (3) TIMES

PER GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 12 INCHES. 4. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATION AND AS NEEDED.

5. VISIBLE SIGNS OF EROSION IN THE FACILITY SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

REMOVE SILT WHEN IT EXCEEDS FOUR (4) INCHES DEEP IN THE FOREBAY. WHEN WATER PONDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 72 HOURS. THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REPLACED WITH FRESH MATERIAL. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIAL AND LIQUID MUST BE FOLLOWED BY THE OWNER.

8. A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION

TO INSURE COMPLIANCE WITCH OPERATION AND MAINTENANCE CRITERIA. 10. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION SYSTEM HAVE BEEN VERIFIED. THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

GEOTECHNICAL RECOMENDATIONS: 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 PROOFROLLED 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 PROOFROLLING 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 MARYLAND SOIL CONSERVATION SPECIFICATIONS 378 SOILS CONSIDERED SUITABLE FOR CENTER OF EMBANKMENT AND CUT-OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH OR CL. IT IS OUR PROFESSIONAL OPINION THAT IN ADDITION TO THE SOIL MATERIALS DESCRIBED ABOVE A FINE-GRAINED SOIL, INCLUDING SILT (ML) WITH A PLASTICITY INDEX OF 10 OR MORE CAN BE

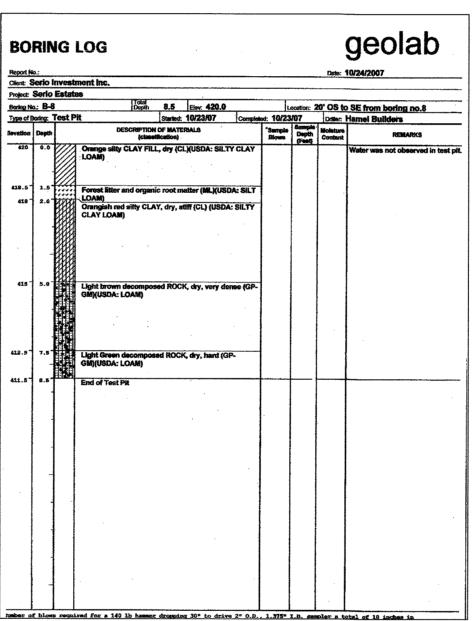
UTILIZED FOR THE CENTER OF THE EMBANKMENT AND CORE TRENCH. ALL FILL MATERIALS MUST BE

PLACED AND COMPACTED IN ACCORDANCE WITH MD SCS 178 SPECIFICATIONS.

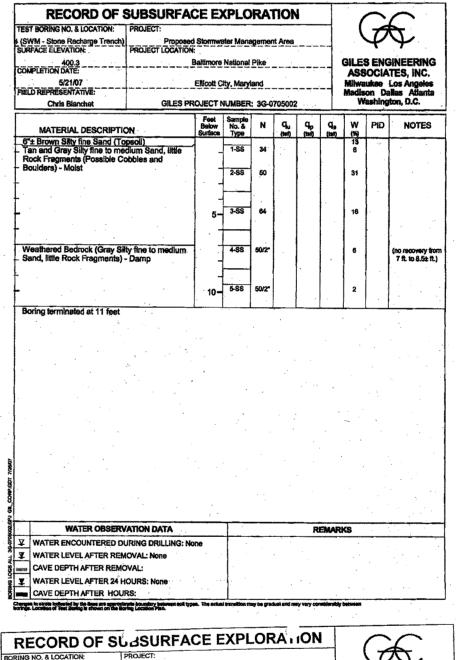
geolab geolab **BORING LOG BORING LOG** Project: Serio Estates Boring No.: B-8 Depth 8.5 Elev: 420.0 Location: 20' OS to SE from boring no.8 Total Depth 9 Elev: 400.7 Boring No.: B-5 Location: Infiltration Trench Started: 10/23/07 | Completed: 10/23/07 Started: 10/23/07 | Completed: 10/23/07 | Dollar: Hamel Suilder: Type of Boring: Test Pit *Sample Sample Dopth Content REMARKS

Blows (Feet) Water was not observed in test pit. Type of Boring: Test Pit "Sample Blows Depth (Feet) Moisture Content REMARKS range sitty CLAY FILL, dry (CL)(USDA: SILTY CLAY 400.7 8.8 orest litter and organic root matter (ML)(USDA: SILT Gray silty fine to medium SAND with some gravel and Forest litter and organic root matter (ML)(USDA: SILT COM)
Orangish red sitty CLAY, dry, stiff (CL) (USDA: SILTY CLAY LOAM) Thite and light green decomposed ROCK, dry, dense very dense (SM-GM) (USDA: LOAM) Light brown decomposed ROCK, dry, very dense (GI End of Test Pit humbar of blows required for a 140 lb hasmer dropping 30" to drive 2" O.D., 1.375" I.D. nameler a total of 18 inches in

BORING NO. & LOCATION



		IG I	LOG							geolab	
Report No									Date: 1	10/24/2007	
		Estate	nent Inc.								
Soring No			Total Dep	h 8	Elev: 415.3		1.		`antar a	Flat Na 7	
		Test P			10/23/07	Complete	ed: 10/23		Center of lot No. 7		
		T		TON OF MATE		Caupiae	*Sample	Sample			
	Dopth	<u> </u>		essification).			Blows	Depth (Feet)	Content	REMARKS	
415.3	0.0	:::::	Forest litter and on LOAM)	ganie root n	natter (ML)(USD	A: SILT				Water was not observed in test	
414.8	0.5		Light brown silty fit (SM)(USDA: LOAM)	ne SAND, di	ry, medium den	B 0					
			(wayanara zoras)			:					
413.3	2.0	\$2.3	Light to dark brown	silty CLAY	with some ora	rel and					
			cobbles, dry, stiff (
112.3	3.0		Light green to gray	decompos	ed ROCK, drv. v	erv	1				
l			dense (SM)(USDA:	LOAM)	,,					·	
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SURFACE ELEVATION: GILES ENGINEERING Baltimore National Pike Area MPLETION DATE: ASSOCIATES, INC. D REPRESENTATIVE GILES PROJECT NUMBER: 3G-0204004 Robert Kinsey MATERIAL DESCRIPTION Brown fine Sandy Silt, trace Gravel - Moist to Boring terminated at 5.5 feet due to auger WATER OBSERVATION DATA WATER ENCOUNTERED DURING DRILLING: None - Hand augers used to advance borings WATER LEVEL AFTER REMOVAL: None CAVE DEPTH AFTER REMOVAL: 4.0 WATER LEVEL AFTER 24 HOURS: 3.0 SURFACE EXPLORATION

RECORD OF SUSSURFACE EXPLORATION

RECORD OF SUASURFACE EXP					PLORATION				CC				RECORD OF SULSURF		
	3 NO. & LOCATION:	PROJECT:							(D	\mathcal{I}	В	ORING NO. & LOCATION:	PROJECT:	
	3	Propose	d Storm	water M	anage	ment				$\boldsymbol{\tau}$	T	1 1	2	Propo	
SURFA	CE ELEVATION:	PROJECT LOCATION:							11 EC	ENG	INEERING	31	URFACE ELEVATION:	PROJECT LOCATIO	
		Baltir	nore Na	ational P	ke Are	<u> </u>								Ba	
COMPL	OMPLETION DATE:							1	4550	JUIA	TES, INC.	10	OMPLETION DATE:	T	
	4/23/02	E	llicott C	ity, Mary	land_			-	Milwaukee Los An Madison Dallas A				4/23/02		
FIELD F	REPRESENTATIVE:	T				 -			Mauis W	ashina	ton, D.C.	1 1	IELD REPRESENTATIVE:		
	Robert Kinsey	GILES PRO	JECT I	NUMBER	R: 3G-	02040	04					4	Robert Kinsey	GILES P	
	MATERIAL DESCR	PIPTION	Feet Below	Sample No. &	N	q _u (tsf)	q _p (tsf)	q _s (tsf)	W (%)	PID	NOTES	۱F	MATERIAL DESCI	DIDTION	
			Surface	Type 1-SS		(121)	(121)	(131)	21	-		1 [
Brov	wn fine Sandy Silt, trace (Gravel - Moist to		1-00	1							1 [Brown fine Sandy Silt, trace	Gravel - Moist to	
- Wet	(Silt Loam)			2-88	1 _	1			26	1			Wet (Silt Loam)		
-			 _ '	1	-										
-			₹	3-55	4	1			27	١.		1 -			
-			⊽ 5-	3-55	_	<u> </u>		<u> </u>		L	<u> </u>	_ -	:		
Bori	ing terminated at 6 feet d	ue to auger refusal											Boring terminated at 5.5 fee	due to auger	
on c	cobbles, boulders or bedra	ock										ľ	refusal on cobbles, boulders	or pedrock	
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300	WATER OBSE	RVATION DATA						REMA	RKS			3602	WATER OBSE	RVATION DATA	
N Z	WATER ENCOUNTER	D DURING DRILLI	NG: 6.0	- Ha	nd auge	rs used t	o advano 51 inches	e boring	s .			S	☑ WATER ENCOUNTER		
	WATER LEVEL AFTER			- im	en attick) i	att - U.	71 HIGH	,,,,,,,,,,				8	 -		
2	CAVE DEPTH AFTER	DEMOVAL None										ž			
Wi same	LAVE DEP IN AFTER I	VENIONALL HORS		1								ш Ш	CAVE DEPTH AFTER	KEMOVAL: None	

WATER LEVEL AFTER 24 HOURS: 4.0

Baltimore National Pike Area ASSOCIATES, INC. Ellicott City, Maryland AS-BUILT CERTIFICATION FOR PSWM I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. IN HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THIS UNDERGROUND SWM FACILITY. DURING DRILLING: 5.5 - Hand augers used to a

ILES ENGINEERIN

NO AS-BUILT INFORMATION ON THIS SHEET

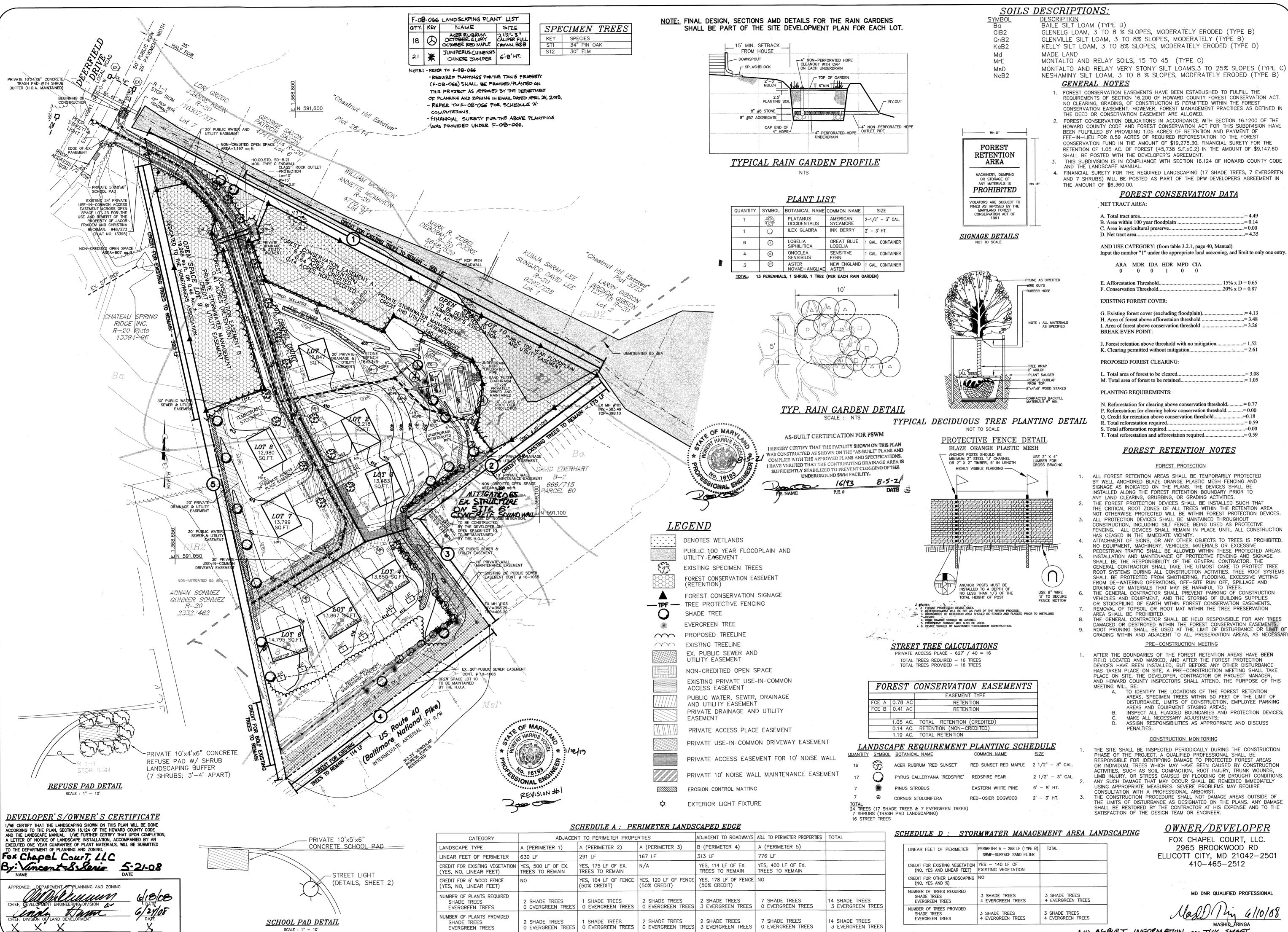
AS-BUILT DEC. 2020

▼ WATER LEVEL AFTER 24 HOURS: 4.5

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8 of 9



NO AS-BUILT INFORMATION ON THIS SHEET

AS-BUILT DEC. 2020

9 of 9

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