*NA - SWM NOT REQUIRED FOR THE EXISTING HOUSE THAT WILL REMAIN ON LOT 2.

△ OPERATION AND MAINTENANCE SCHEDULE FOR DRYWELLS (M-5)

a. The owner shall inspect the monitoring wells and structures on a quarterly basis and after every heavy storm event.

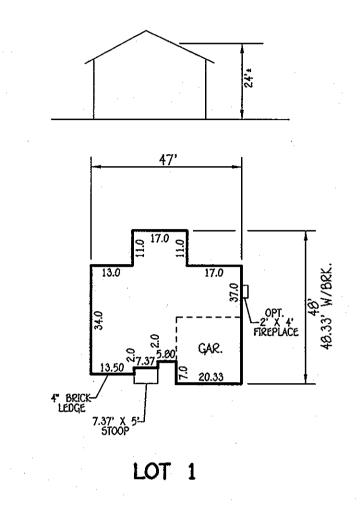
b. The owner shall record the water levels and sediment build up in the monitoring wells over a period of several days to insure trench drainage.

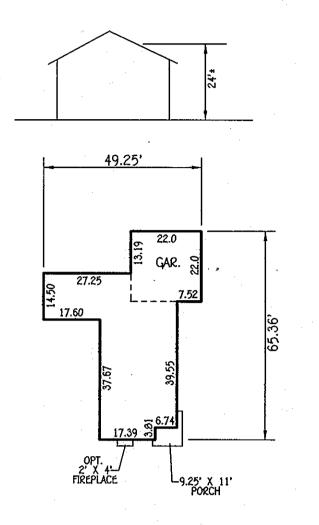
c. The owner shall maintain a log book to determine the rate at which the facility drains.

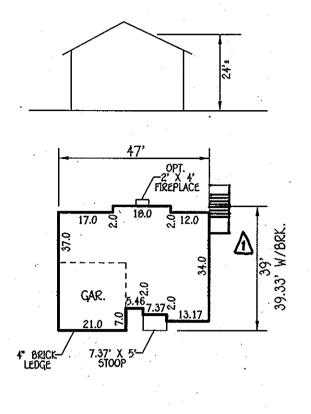
d. When the facility becomes clogged so that it does not drain down within a seventy two (72) hour time period, corrective action shall be taken.

e. The maintenance log book shall be available to Howard County for inspection to insure compliance with operation and maintenance criteria.

f. Once the performance characteristics of the infiltration facility have been verified, the monitoring schedule can be reduced to an annual basis unless the performance data indicates that a more







LOT 4
(SUN OK LEE RESIDENCE)

LOT 3 (KUESPERT RESIDENCE)

ADDRESS CHART						
LOT	NUMBER	STREET ADDRESS				
	1	3007 ST. JOHNS LANE				
	3	3015 ST. JOHNS LANE				
	4	3019 ST. JOHNS LANE				

MINIMUM LOT AREA TABLE						
LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM AREA			
1	20,409.1 SQ.FT.	0 5Q.FT.	20,409.1 5Q.FT.			
2	20,668.3 SQ.FT.	0 SQ.FT.	20,668.3 5Q.FT.			
: 3	24,770.9 5Q.FT.	3,391.7 5Q.FT.	21,379.2 5Q.FT.			
4	21,693.5 5Q.FT.	0 5Q.FT.	21,693.5 5Q.FT.			

1	INDEX CHART					
SHEET No.	DESCRIPTION					
SHEET 1	TITLE SHEET, NOTES, HOUSE TYPES AND TEMPLATES					
SHEET 2	SITE DEVELOPMENT PLAN, SWM DETAILS AND NOTES					
SHEET 3	LANDSCAPE PLAN, DETAILS AND NOTES					
SHEET 4	SEDIMENT/EROSION CONTROL PLAN					
SHEET 5	SEDIMENT/EROSION CONTROL DETAILS AND NOTES					
SHEET 6	SWM NOTES AND BORING LOG					

PROFESSIONAL CERTIFICATION

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. 9753, EXPIRATION DATE: 2/20/13.

EARL D. COLLINS

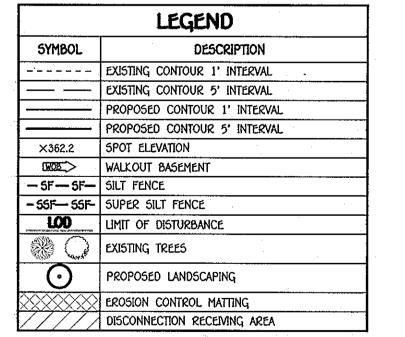
frequent schedule is required.

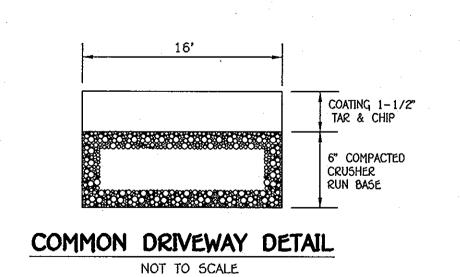
11.6.12

BUILDER/DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT THE REQUIRED LANDSCAPING WILL BE DONE ACCORDING TO THE PLAN AND LOCATED AS DETERMINED AND APPROVED BY THE ARCHITECTURAL COMMITTEE IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE ACCOMPANIED BY A COPY OF THE ARCHITECTURAL COMMITTEE APPROVED PLAN AND AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING FOR INSPECTION AND THE SUBSEDUENT RELEASE OF SURETY



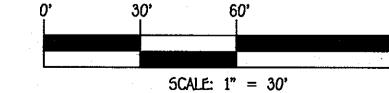




SITE ANALSIS DATA CHART

A. TOTAL PROJECT AREA: 1.535 ACRES OR 66,865 SQUARE FEET.
B. AREA OF SUBMISSION: 1.535 ACRES OR 66,865 SQUARE FEET.
C. LIMITS OF DISTURBANCE: 1.160 ACRES OR 50,530 SQUARE FEET.
D. PRESENT ZONING DESIGNATION: R-20.

E. PROPOSED USES FOR SITE: RESIDENTIAL
F. APPLICABLE DPZ FILE REFERENCES: F-06-010,
SEWER CONT. NO. 32-C, WATER CONT. 11-W.



AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 7/20/06. 2. TOTAL AREA OF SITE: 1.535 ACRES 3. TOTAL NUMBER OF LOTS SUBMITTED: 3 SFD 4. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410)313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK. 5. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 40 HOURS PRIOR TO ANY EXCAVATION WORK. 6. THIS SITE IS BASED ON A FIELD RUN SURVEY PERFORMED ON OR ABOUT NOVEMBER, 2004 AND FEBRUARY, 2005 BY CHRISTOPHER CONSULTANTS. 7. LOT AREA IS MORE OR LESS (+ OR -): 8. THIS SUBDIMISION IS SUBJECT TO SECTION 18.1228 OF THE HOWARD COUNTY CODE, PUBLIC WATER AND/OR SEWER SERVICE HAS BEEN GRANTED UNDER THE TERMS AND PROVISIONS. THE PUBLIC WATER AND SEWER IN ST. JOHNS LANE PROVIDED BY CONTRACT NO. 11-W, WATER AND 32-5, SEWER. THE PROPOSED WATER & SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT. 9. PREVIOUS DEPARTMENT OF PLANNING AND ZONING FILE NUMBERS: F-06-010 WATER CONT. NO. 11-W, SEWER CONT. NO. 32-5. 10. HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS. HOWARD COUNTY MONUMENT 17HA N 590619.8890 E 1360433.4375 HOWARD COUNTY MONUMENT 171A N 580603.6734 E 1361007.4340 11. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE. 12. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING. 13. SEWER HOUSE CONNECTION ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.

1. SUBJECT PROPERTY ZONED R-20 PER THE 2004 COMPREHENSIVE ZONING PLAN

VICINITY MAP

5CALE: 1" = 2000'
ADC MAP: HO. CO. 4015 H-4

BENCH MARKS

E. 1,360,433.4375

E. 1,361,007.4340

T.P. 17HA ELEV. 437.547 N. 590.619.8890

T.P. 17IA ELEV. 420.016 N. 500.003.6734

LOC. NEAR INTERSECTION OF ST. JOHN'S LA. & RAMBLEWOOD RD.

LOC. NEAR INTERSECTION OF ST. JOHN'S LA. & CHURCHGATE RD.

GENERAL NOTES

STANDARD DETAIL R.6.05.

ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:

A.) WIDTH — 12' (16') IF SERVING MORE THAN ONE RESIDENCE

B.) SURFACE — 6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING

15. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR

14. FOR DRIVEWAY ENTRANCE DETAILS REFER TO HOWARD COUNTY DESIGN MANUAL, VOLUME IV.

(1-1/2" MIN.)

C.) GEOMETRY MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45 FOOT TURNING RADIUS.

D.) STRUCTURES — (BRIDGES/CULVERTS) CAPABLE OF SUPPORTING 25 GROSS TONS

(H25-LOADING)

E.) DRAINAGE ELEMENTS CAPABLE OF SAFETY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEHAY SURFACE

MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.

F.) STRUCTURE CLEARANCES - MINIMUM 12 FEET

G.) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.

NO CEMETERIES EXIST ON THIS SITE BASED ON A VISUAL SITE VISIT AND ON AN EXAMINATION OF THE HOWARD COUNTY CEMETERY INVENTORY MAP.
 NO 100 YEAR FLOOD PLAIN EXISTS ON THIS SITE. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED

VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS.

19. THIS PLAN IS IN COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REQUILATIONS PER COUNCIL BILL NO. 45–2003 AND THE ZONING REGULATIONS AS

AMENDED BY COUNCIL BILL NO. 75-2003. DEVELOPMENT AND THE JULY 28, 2006 UPDATE OF THE HOWARD COUNTY ZONING REGULATIONS. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION, OR BUILDING/GRADING PERMIT.

19. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16' FEET IN WIDTH MAY PROJECT NOT MORE

CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16' FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACKS.

20. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES 1 AND 11. IT WAS DETERMINED THAT THE PROJECTHE CRITERIA OUTLINED THE MDE STORMWATER MANAGEMENT REGULATIONS FOR IMPLEMENT

20. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES 1 AND 11. IT WAS DETERMINED THAT THE PROJECT MET THE CRITERIA OUTLINED THE MDE STORMWATER MANAGEMENT REGULATIONS FOR IMPLEMENTATION FOR ACCEPTANCE OF THE 2000 DESIGN CRITERIA AND GRANTED A WAIVER. THIS PLAN RECEIVED FINAL PLAN APPROVAL (F-06-010) ON 2-9-2007. THIS PLAN IS ALSO SUBJECT TO THE EXPIRATION OF THIS WAIVER UNLESS ALL STORMWATER MANAGEMENT IS CONSTRUCTED BY MAY 4, 2017. THE STORMWATER MANAGEMENT PRACTICES WILL BE PRIVATELY OWNED AND MAINTAINED UNDER INDIVIDUAL DECLARATION OF COVENANTS AND HAS BEEN PROVIDED ON THE INDIVIDUAL LOTS AS FOLLOWS:

LOT 1 - ROOFTOP DISCONNECTION (N-1) AND A GRASS SWALE (M-0).
LOT 2 - EXEMPT FROM SWM.
LOT 3 - GRASS SWALE (M-0).

2-DRYWELLS (M-5)

21. FOREST CONSERVATION REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE
AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WAS APPROVED UNDER F-06-010 AN

LOT 4 - NON-ROOFTOP DISCONNECTION (N-2), GRASS SWALE (M-8) AND

AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WAS APPROVED UNDER F-06-010 AND WAS FULFILLED BY THE PAYMENT OF A FEE-IN-LIEU OF \$7,187.40.

22. THE USE-IN-COMMON DRIVEWAY MAINTENANCE AGREEMENTS FOR LOTS 2 THRU 4 HAVE BEEN RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, MARYLAND. IN LIBER 10531, FOLIO 733.

23. LANDSCAPING FOR THIS SITE WAS APPROVED UNDER F-06-010 AND WILL BE PROVIDED FOR LOTS 1. 3 AND 4 UNDER THIS SDP. IT IS TO BE NOTED THAT THE \$4,500.00 LANDSCAPING SURETY MUST BE POSTED WITH THE GRADING PERMIT. LOT 2 IS EXEMPT FROM LANDSCAPING BECAUSE IT CONTAINS AN EXISTING HOUSE THAT WILL REMAIN ON THE SITE.

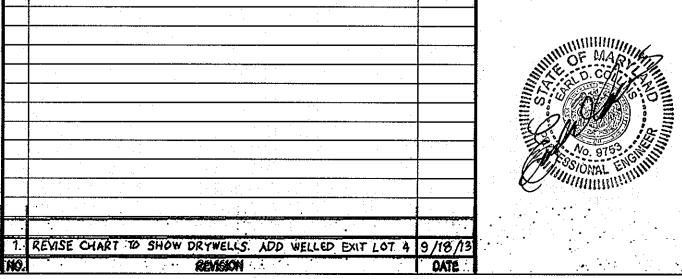
DECAUSE IT CONTAINS AN EXISTING HOUSE THAT WILL REMAIN ON THE SITE.

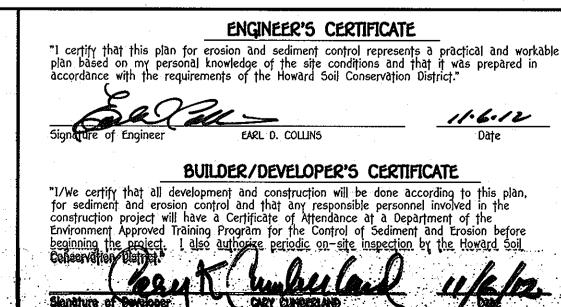
24. THE OWNER AND DEVELOPER SHALL BE ADVISED AS OF JANUARY 1, 2011, ALL NEW SINGLE FAMILY DWELLINGS ARE REQUIRED TO HAVE AN AUTOMATIC SPRINKLER SYSTEM.

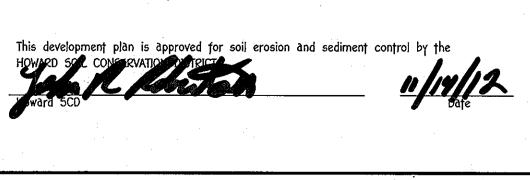
25. EXISTING DWELLING TO REMAIN ON LOT 2. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING STRUCTURE ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS ALLOW.

26. FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND RAOD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE ONLY AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.









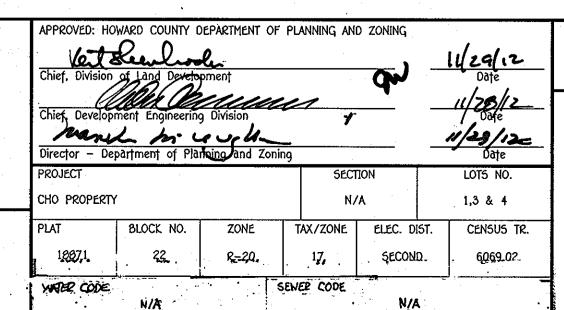
BUILDER/DEVELOPER

VICING EVETON HOMES

DEED OLD WASHINGTON ROAD

SWEENLIE HOERAND 21704

410-997-2188



TITLE SHEET, NOTES, HOUSE TYPES AND TEMPLATES

SINGLE FAMILY DETACHED

CHO PROPERTY

LOTS 1, 3 & 4

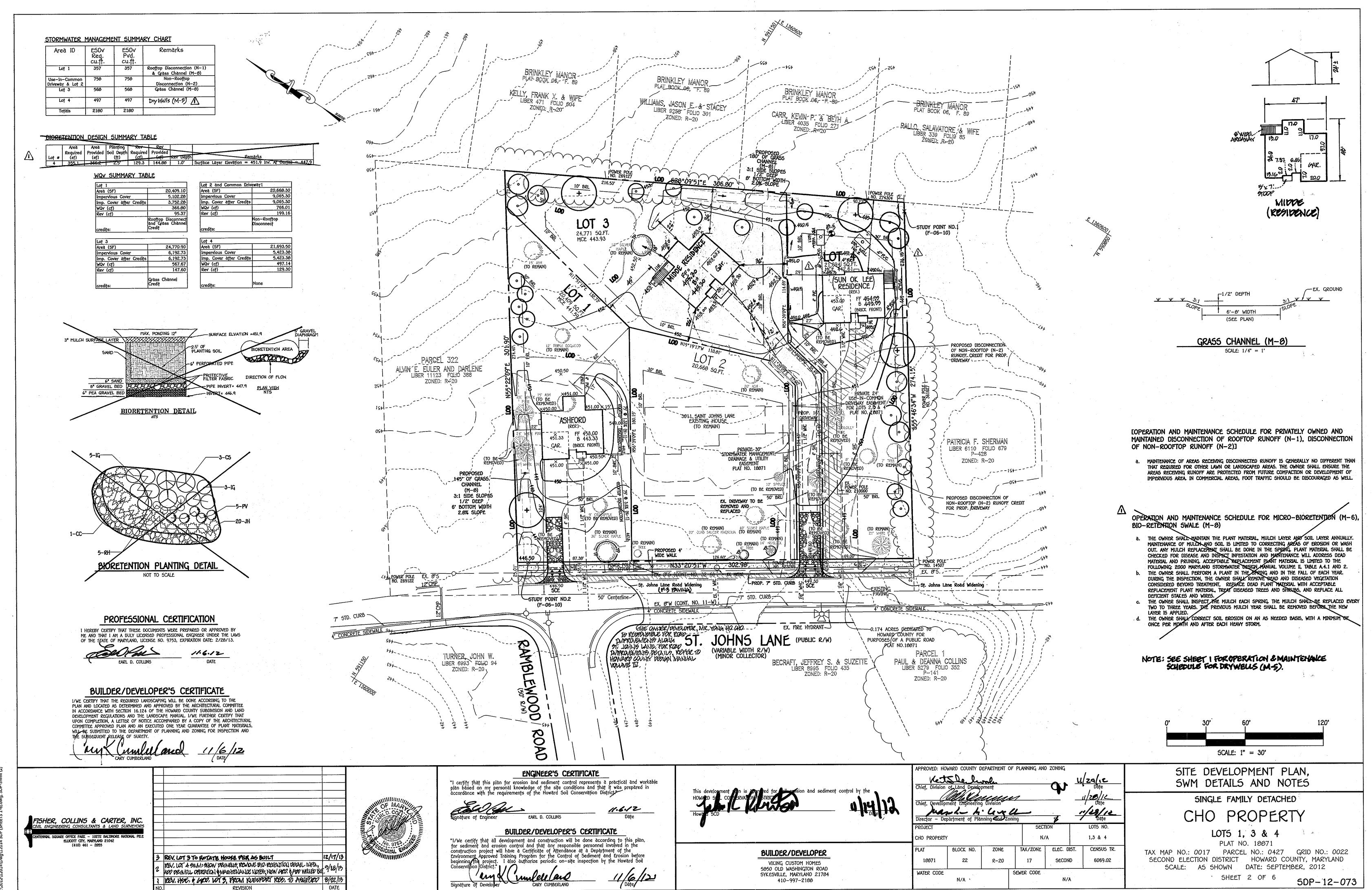
PLAT NO. 18871

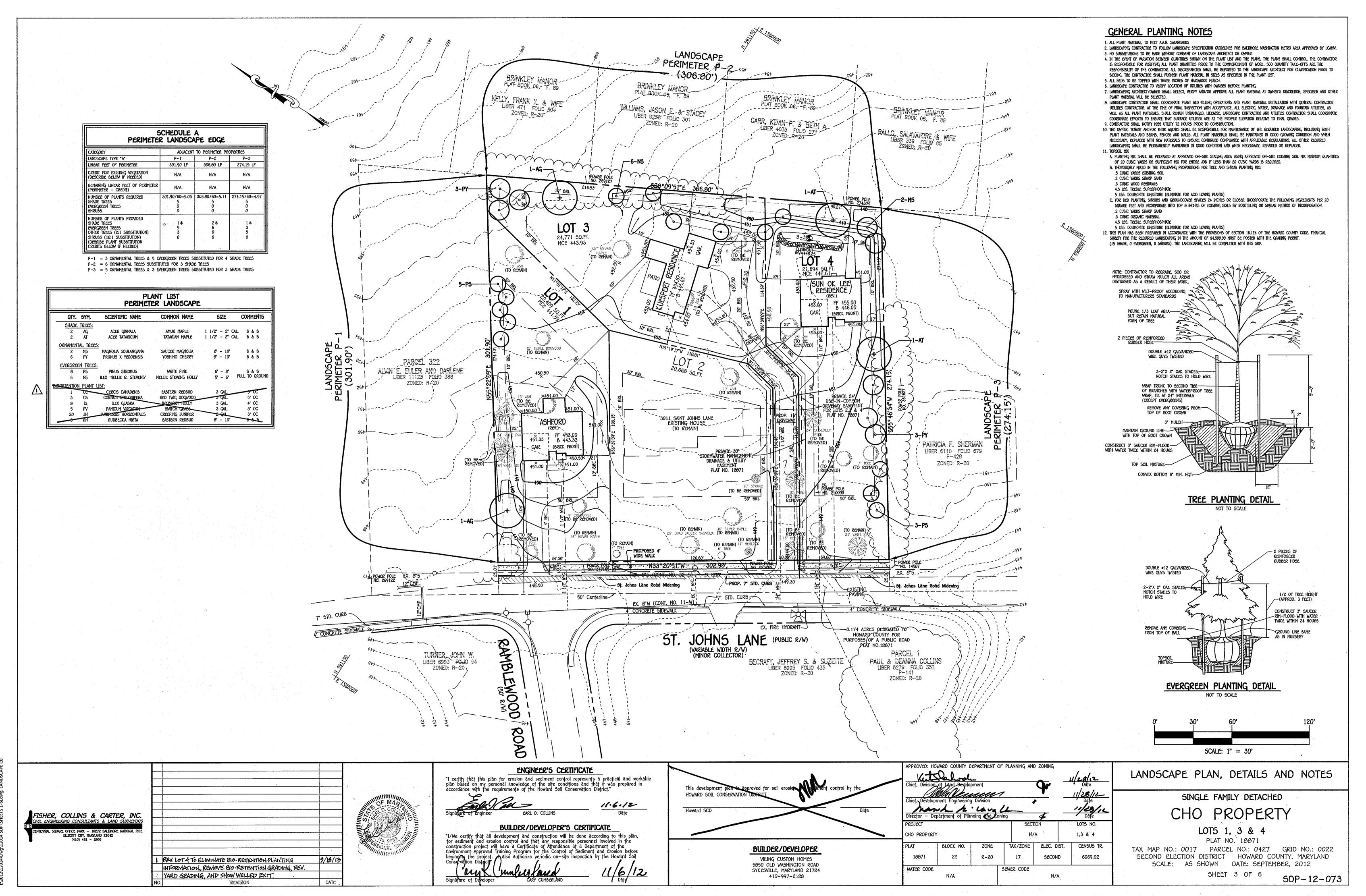
TAX MAP NO.: 0017 PARCEL NO.: 0427 GRID NO.: 0022

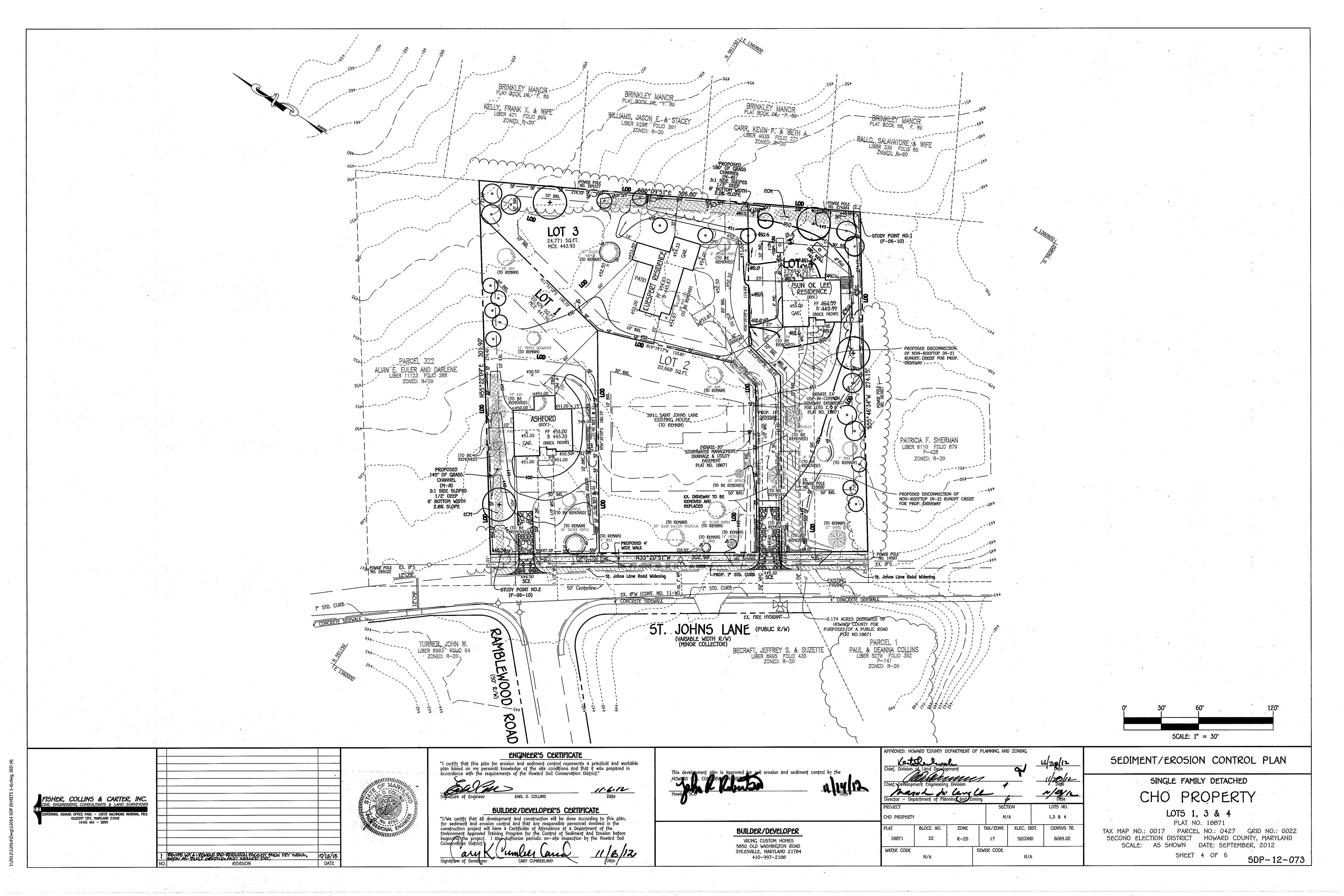
SECOND ELECTION DISTRICT. HOWARD COUNTY MARYLAND.

SCALE: AS SHOWN PATE: SEPTEMBER, 2012

SHEET 1. OF 6 SDP-12-073







20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION DEFINITION

USING VEGETATION AS COVER FOR BARREN SOIL TO PROTECT IT FROM FORCES THAT CAUSE EROSION.

PURPOSE

VEGETATIVE STABILIZATION SPECIFICATIONS ARE USED TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL. WHEN SOIL IS STABILIZED WITH VEGETATION, THE SOIL IS LESS LIKELY TO ERODE AND MORE LIKELY TO ALLOW INFILTRATION OF RAINFALL, THEREBY REDUCING SEDIMENT LOADS AND RUN-OFF TO DOWNSTREAM AREAS, AND IMPROVING WILDLIFE HABITAT AND VISUAL RESOURCES. CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE SHALL BE USED ON DENUDED AREAS AS SPECIFIED ON THE PLANS AND MAY BE USED ON HIGHLY ERODIBLE OR CRITICALLY ERODING AREAS. THIS SPECIFICATION IS DIVIDED INTO TEMPORARY SEEDING, TO QUICKLY ESTABLISH VEGETATIVE COVER FOR SHORT DURATION O(UP TO ONE YEAR), AND PERMANENT SEEDING, FOR LONG TERM VEGETATIVE COVER. EXAMPLES OF APPLICABLE AREAS FOR TEMPORARY SEEDING ARE TEMPORARY SOIL STOCKPILES, CLEARED AREAS BEING LEFT IDLE BETWEEN CONSTRUCTION PHASES. EARTH DIKES. ETC. AND FOR PERMANENT SEEDING ARE LAWNS, DAMS, CUT AND FILL SLOPES AND OTHER AREAS AT FINAL GRADE, FORMER STOCKPILE AND STAGING AREAS, ETC.

EFFECTS ON WATER QUALITY AND QUANTITY

PLANTING VEGETATION IN DISTURBED AREAS WILL HAVE AN EFFECT ON THE WATER BUDGET. ESPECIALLY ON VOLUMES AND RATES OF RUNOFF. INFILTRATION EVAPORATION, TRANSPIRATION, PERCOLATION, AND GROUNDWATER RECHARGE. VEGETATION, OVER TIME, WILL INCREASE ORGANIC MATTER CONTENT AND IMPROVE THE WATER HOLDING CAPACITY OF THE SOIL AND SUBSEQUENT PLANT GROWTH. VEGETATION WILL HELP REDUCE THE MOVEMENT OF SEDIMENT, NUTRIENTS, AND OTHER CHEMICALS CARRIED BY RUNOFF TO RECEIVING WATERS. PLANTS WILL ALSO HELP PROTECT GROUNDWATER SUPPLIES BY ASSIMILATING THOSE SUBSTANCES PRESENT WITHIN THE ROOT ZONE. SEDIMENT CONTROL DEVICES MUST REMAIN IN PLACE DURING GRADING, SEEDBED PREPARATION, SEEDING, MULCHING AND VEGETATIVE ESTABLISHMENT TO PREVENT LARGE QUANTITIES OF SEDIMENT AND ASSOCIATED CHEMICALS AND NUTRIENTS FROM WASHING INTO SURFACE WATERS.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- A. SITE PREPARATION INSTALL EROSION AND SEDIMENT CONTROL STRUCTURES (EITHER TEMPORARY OF PERMANENT) SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, WATERWAYS, OR SEDIMENT CONTROL BASINS.
- II. PERFORM ALL GRADING OPERATIONS AT RIGHT ANGLES TO THE SLOPE. FINAL GRADING AND SHAPING IS NOT USUALLY NECESSARY FOR TEMPORARY SEEDING.
- III. SCHEDULE REQUIRED SOIL TESTS TO DETERMINE SOIL AMENDMENT COMPOSITION AND APPLICATION RATES FOR SITES HAVING DISTURBED AREA OVER 5 ACRES. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
- SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OVER 5 ACRES. SOIL ANALYSIS MAY BE PERFORMED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
- II. FERTILIZERS SHALL BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROVED EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS SHALL ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE STATE FERTILIZER LAWS AND SHALL BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTEE OF THE PRODUCER.
- III. LIME MATERIALS SHALL BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED) WHICH CONTAINS AT LEAST 50% TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT AT LEAST 50% WILL PASS THROUGH A #100 MESH SIEVE AND 90-100% WILL PASS THROUGH A #20
- MESH SIEVE.

 IV. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3-5" OF SOIL BY DISKING OR OTHER SUITABLE MEANS. C. SEEDBED PREPARATION
- TEMPORARY SEEDING A. SEEDBED PREPARATION SHALL CONSIST OF LOOSENING SOIL TO A DEPTH OF 3" TO 5" BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED IT SHOULD NOT BE ROLLED OR DRACGED SMOOTH, BUT LEFT IN THE ROUGHENED CONDITION. SLOPED AREAS (GREATER) THAN 3:1) SHOULD BE TRACKED LEAVING THE SURFACE IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
- APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS. n corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means. II. PERMANENT SEEDING
- MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT:

 1. SOIL PH SHALL BE BETWEEN 6.0 AND 7.0.
 - SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM). THE SOIL SHALL CONTAIN LESS THAN 40% CLAY, BUT ENOUGH FINE GRAINED MATERIAL (>30% SHT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION IS IF LOVEGRASS OR SERECIA LESPEDEZAS IS TO BE PLANTED, THEN A SANDY SOIL (<30% SILT PLUS CLAY) WOULD BE ACCEPTABLE.
- 4. SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT. SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE. ADDING TOPSOIL IS REQUIRED
- IN ACCORDANCE WITH SECTION 21 STANDARD AND SPECIFICATION FOR TOPSOIL. AREAS PREVIOUSLY GRADED IN CONFORMANCE WITH THE DRAWINGS SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3-5" TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREA AND TO CREATE HORIZONTAL EROSION CHECK SLOTS TO PREVENT TOPSOIL TO THE SURFACE AREA AND TO CREATE HORIZONTAL EROSION CHECK SLOTS TO PREVENT TOPSOIL FROM
- SLIDING DOWN A SLOPE. APPLY SOIL AMENOMENTS AS PER SOIL TEST OR AS INCLUDED ON THE PLANS. MIX SOIL AMENDMENTS INTO THE TOP 3-5" OF TOPSOIL BY DISKING OR OTHER SUITABLE MEANS. LAWN AREAS SHOULD BE RAKED TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED AND APPLICATION. WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION, LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE. STEEP SLOPES (STEEPER THAN 3:1) SHOULD BE TRACKED BY A DOZER LEAVING e soil in an irregular condition with ridges running parallel to the contour of the slope. The TOP 1-3" OF SOIL SHOULD BE LOOSE AND FRIABLE. SEEDBED LOOSENING MAY NOT BE NECESSARY ON
- D. SEED SPECIFICATIONS ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED SHALL BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED SHALL HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THIS JOB.
- note: seed tags shall be made available to the inspector to verify type and rate of seed used. II. INOCULANT - THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES SHALL BE A PURE CULTURE OF NITROGEN-FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANT AS DIRECTED ON PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75°-80° F. CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
- E. METHODS OF SEEDING HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER), BROADCAST OR DROP SEEDED. OR A CULTIPACKER SEEDER. A. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES AMOUNTS WILL NOT exceed the following: Nitrogen; maximum of 100 lbs. Per acre total of soluble nitrogen;
 - P205 (PHO5PHOROUS): 200 LB5/AC: K20 (POTASSIUM): 200 LB5/AC. B. LIME - USE ONLY GROUND AGRICULTURAL LIMESTONE. (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE time. Do not use burnt or hydrated lime when hydroseeding
- SEED AND FERTILIZER SHALL BE MIXED ON SITE AND SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION II. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS SEED SPREAD DRY SHALL BE INCORPORATED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON THE
- TEMPORARY OR PERMANENT SEEDING SUMMARIES OR TABLES 265 OR 26. THE SEEDED AREA SHALL THEN BE ROLLED WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
- III. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
- B. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE)
- STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE OR OAT STRAW, REASONABLE BRIGHT IN COLOR, AND SHALL NOT BE MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY AND SHALL BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW.
- II. WOOD CELLULOSE FIBER MULCH (WCFM)

 A. WCFM SHALL CONSIST OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 - WCFM SHALL BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY WCFM, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS. WCFM MATERIALS SHALL BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE
 - WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED. FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY THE MULCH MATERIAL SHALL FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND SHALL COVER AND HOLD GRASS SEED
- IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS. WCFM MATERIAL SHALL CONTAIN NO ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTOL-TOXIC. F. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH TO APPROXIMATELY 10 MM., DIAMETER APPROXIMATELY 1 MM., PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6% MAXIMUM AND WATER HOLDING CAPACITY OF 90% MINIMUM.

 NOTE: ONLY STERILE STRAW MULCH SHOULD BE USED IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

- MULCHING SEEDED AREAS MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. IF GRADING IS COMPLETED OUTSIDE OF THE SEEDING SEASON, MULCH ALONG SHALL BE APPLIED AS PRESCRIBED IN THIS SECTION AND MAINTAINED UNTIL THE SEEDING SEASON RETURNS AND SEEDING CAN BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS.
- II. WHEN STRAW MULCH IS USED, IT SHALL BE SPREAD OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS/ACRE. MULCH SHALL BE APPLIED TO A UNIFORM LOOSE DEPTH OF BETWEEN 1" AND 2". MULCH APPLIED SHALL ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. IF A MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHOULD BE INCREASED TO 2.5 TONS/ACRE.
- III. WOOD CELLULOSE FIBER USED AS A MULCH SHALL BE APPLIED AT A NET DRY WEIGHT OF 1,500 LBS. PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS. OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- SECURING STRAW MULCH (MULCH ANCHORING): MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE). DEPENDING UPON SIZE OF AREA AND EROSION HAZARO:
- A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF TWO (2) INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING
- AND, THIS PRACTICE SHOULD BE USED ON THE CONTOUR IF POSSIBLE. II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT NET DRY WEIGHT OF 750 POUNDS/ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AN THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- III. APPLICATION OF LIQUID BINDERS SHOULD BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND CREST OF BANKS. THE REMAINDER OF AREA SHOULD BE APPEAR UNIFORM AFTER BINDER APPLICATION. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70 PETROSET, TERRA TAX I, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED AT RATES RECOMMENDED BY THE
- V. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOM-MENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4' TO 15' FEET WIDE AND 300 TO 3,000 FEET LONG. INCREMENTAL STABILIZATION - CUT SLOPES
- ALL CUTS SLOPES SHALL BE DRESSED, PREPARED, SEEDED AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 15'.
- II. CONSTRUCTION SEQUENCE (REFER TO FIGURE 3 BELOW): A. EXCAVATE AND STABILIZE ALL TEMPORARY SWALES, SIDE DITCHES, OR BERMS THAT WILL BE USED TO CONVEY RUNOFF FROM THE EXCAVATION.
- PERFORM PHASE 1 EXCAVATION, DRESS, AND STABILIZE. PERFORM PHASE 2 EXCAVATION, DRESS AND STABILIZE. OVERSEED PHASE 1 AREAS AS
- NECESSARY.

 D. PERFORM FINAL PHASE EXCAVATION, DRESS AND STABILIZE. OVERSEED PREVIOUSLY SEEDED
- AREAS AS NECESSARY. NOTE: ONCE EXCAVATION HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS INT HE OPERATION OF COMPLETING THE OPERATION
- OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION. INCREMENTAL STABILIZATION OF EMBANKMENTS - FILL SLOPES
- EMBANKMENTS SHALL BE CONSTRUCTED IN LIFTS AS PRESCRIBED ON THE PLANS. . SLOPES SHALL BE STABILIZED IMMEDIATELY WHEN THE VERTICAL HEIGHT OF THE MULTIPLE LIFTS REACHES 15°, OR WHEN THE GRADING OPERATION CEASES AS PRESCRIBED IN THE PLANS.
- III. AT THE END OF EACH DAY, TEMPORARY BERMS AND PIPE SLOPE DRAINS SHOULD BE CONSTRUCTED ALONG THE TOP EDGE OF THE EMBANKMENT TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER TO
- A SEDIMENT TRAPPING DEVICE.

 IV. CONSTRUCTION SEQUENCE: REFER TO FIGURE 4 (BELOW). EXCAVATE AND STABILIZE ALL TEMPORARY SWALES, SIDE DITCHES, OR BERMS THAT WILL BE USED TO DIVERT RUNOFF AROUND THE FILL. CONSTRUCT SLOPE SILT FENCE ON LOW SIDE OF FILL AS SHOWN
- IN FIGURE 5, UNLESS OTHER METHODS SHOWN ON THE PLANS ADDRESS THIS AREA. PLACE PHASE 1 EMBANKMENT, DRESS AND STABILIZE. PLACE PHASE 2 EMBANKMENT, DRESS AND STABILIZE.
- PLACE FINAL PHASE EMBANKMENT, DRESS AND STABILIZE. OVERSEED PREVIOUSLY SEEDED

MINIMUM 6" OF 2"-3" AGGREGATE

OVER LENGTH AND WIDTH OF

— 50' MINIMUM

STRUCTURE

LENGTH

CONSTRUCTION SPECIFICATION

2. WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.

MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS

TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND

ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.

WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING

THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE

3. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR

4. STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE

TO PLACING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY

5. SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION

ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE

INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A

HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED

LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

PROFILE

IO' MINIMUM

1. LENGTH - MINIMUM OF 50' (*30' FOR SINGLE RESIDENCE LOT).

RESIDENCES TO USE GEOTEXTILE.

PLAN VIEW

** GEOTEXTILE CLASS 'C'

OR BETTER

- EXISTING GROUND

ONCE THE PLACEMENT OF FILL HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF AND PLACEMENT OF TOPSOIL (IF REQUIRED) GRADING AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.

MOUNTABLE

- FARTH FILL

PAVEMEN

BERM (6" MIN.)

PIPE AS NECESSARY

FXISTING PAVEMENT

STANDARD SYMBOL

SEDIMENT CONTROL NOTES

- 1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855) 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 CONTROL AND REVISIONS THERETO. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES,
- DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. 4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1,
- 5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER

CHAPTER 12. OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE

- 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. TOTAL AREA OF SITE 1.54 ACRES 1.16 ACRES area disturbed AREA TO BE POOFED OR PAVED 0.28 ACRES AREA TO BE VEGETATIVELY STABILIZED 0.88 ACRES 980 CU.YD5. TOTAL FILL 1410 CU.YD5.
- OFFSITE WASTE/BORROW AREA LOCATION NOT PERMITTED ON SITE ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

34" MINIMUM

118118

36" MINIMUM

- 8" MINIMUM

- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER PROSION 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
- 11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

BY THE INSPECTION AGENCY IS MADE.

FLOW

— 16" MIN. 15T LAYER OF

FILTER CLOTH *

TEST: MSMT 509

TEST: MSMT 509

TEST: MSMT 322

(MAXIMUM)

UNLIMITED

1.500 FEET

1,000 FEET

500 FEET

250 FEET

- CHAIN LINK FENCE

WITH 1 LAYER OF

34" MINIMUM

FILTER CLOTH

TRETTE TIRE

CONSTRUCTION SPECIFICATIONS

1. FENCING SHALL BE 42" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE

4. FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.

DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT

50 LB5/IN (MIN.)

20 LBS/IN (MIN.)

75% (MIN.)

STEEPNESS

0 - 10:1

10:1 - 5:1

5:1 - 3:1

3:1 - 2:1

2:1 +

LATEST MARYLAND STATE HIGHWAY DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION

2. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES.

3. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED

5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED

7. FILTER CLOTH SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR

design criteria

(MAXIMUM)

UNLIMITED

200 FEET

100 FEET

100 FEET

50 FEET

SUPER SILT FENCE

NOT TO SCALE

STAPLES AT TOP AND MID SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR

0.3 GAL/FT /MINUTE (MAX.) TEST: M5MT 322

6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES"

THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT

FOR A 6' FENCE SHALL BE USED, SUBSTITUTING 42' FABRIC AND 6' LENGTH POSTS.

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, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY

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

- 1) PREFERRED APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 5Q.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS. PER 1000 SQ.FT.). 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS.
- PER 1000 5Q.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING: FOR THE PERIOD MARCH 1 THRU MAY 15 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS. PER 1000 SQ.FT.) 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 (0.05 LBS. PER 1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OCTOBER 16 THRU FEBRUARY 20, PROTECT SITE BY ONE OF THE FOLLOWING
- 1) 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON as possible in the spring.

10' MAXIMUM CENTER TO

FLOW

— Center ..

PERSPECTIVE VIEW

TOP VIEW

POSTS T

STAPLE

JOINING TWO ADJACENT SILT

FOR GEOTEXTILE CLASS F:

TENSILE STRENGTH

TENSILE MODULUS

FILTERING EFFICIENCY

SLOPE STEEPNESS

FLATTER THAN 50:1

2:1 AND STEEPER

50:1 TO 10:1

10:1 TO 5:1

5:1 TO 3:1

3:1 TO 2:1

FLOW RATE

FENCE SECTIONS

SECTION A

- 3) SEED WITH 60 LBS. PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELL ANCHORED STRAW.
- MULCHING: APPLY 1-1/2 TO 2 TON5 PER ACRE (70 TO 90 LB5, PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, & FT. OR HIGHER, USE 347 GAL. PER ACRE (& GAL. PER 1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE : INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS. REPLACEMENTS AND RESEEDINGS.

GROUND

MINIMUM FENCE

FLOW

EMBED GEOTEXTILE CLASS F

A MINIMUM OF 8" VERTICALLY

INTO THE GROUND

1. FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MINIMUM INTO THE

2. GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES

50 LB5/IN (MIN.)

20 LB5/IN (MIN.)

3. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED,

4. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN

(MAXIMUM

SLOPE LENGTH

UNLIMITED

125 FEET

100 FEET

60 FEET

40 FEET

20 FEET

SYSTEM, SOIL CLASS A) MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE

UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL

SILT FENCE NOT TO SCALE

NOTE: IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (USDA GENERAL CLASSIFICATION

75% (MIN.)

FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.

TISTISTISTISTISTISTISTISTIST

CONSTRUCTION SPECIFICATIONS

GROUND. WOOD POSTS SHALL BE 11/2" X 11/2" SQUARE (MINIMUM) CUT, OR 13/4" DIAMETER

(MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS WILL BE

STANDARD T OR U SECTION WEIGHTING NOT LESS THAN 1.00 POND PER LINEAR FOOT.

OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS

0.3 GAL FT²/ MINUTE (MAX.)

BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 50% OF THE FABRIC HEIGHT.

SILT FENCE DESIGN CRITERIA

FILTER

CLOTH -

POST LENGTH

- 36" MINIMUM LENGTH FENCE POST.

16" MINIMUM HEIGHT OF

FENCE POST SECTION

FENCE POST DRIVEN A

MINIMUM OF 16" INTO

STANDARD SYMBOL

----- 5F----

UNDISTURBED

GROUND

MINIMUM 20° ABOVE

GROUND

THE TREATMENT AND THE TIME

_ THE GROUND

GEOTEXTILE CLASS F

→ Ø' MINIMUM DEPTH IN

DRIVEN A MINIMUM OF 16" INTO

GROUND

CROSS SECTION

TEST: MSMT 509

TEST: MSMT 509

TEST: MSMT 322

TEST: MSMT 322

(MAXIMUM)

SILT FENCE LENGTH

UNLIMITED

750 FEET

500 FEET

250 FEET

125 FEET

1,000 FEET

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. DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 185. PER 1000 50.FT.).

SEEDING: FOR PERIODS MARCH 1 THRU MAY 15 AND FROM AUGUST 1 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS. PER 1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.07 LBS. PER 1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 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. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, Ø FT. OR HIGHER, USE 347 GAL PER ACRE (Ø GAL. PER 1000 5Q.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT 2. Install sediment and erosion control devices as shown on plan. 3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE AND MASS GRADE TO SUN-BASE. 4. INSTALL TEMPORARY SEEDING

1 DAY

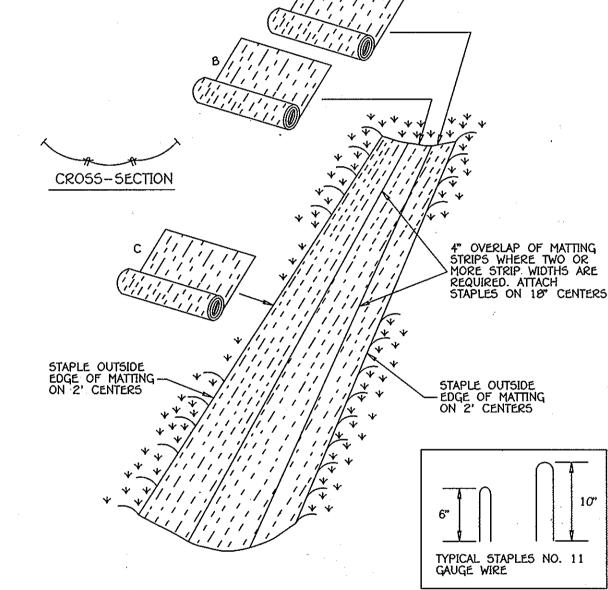
1 DAY

1 DAY

2 MONTHS

5. INSTALL DRIVEWAY CULVERT PIPE. 6. CONSTRUCT BUILDINGS.

7. CONSTRUCT DRY WELLS. 1 DAY 8. FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE. 1 DAY 9. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED and perhission is granted by e/s control inspector. 2 DAYS



CONSTRUCTION SPECIFICATIONS 1. KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A

- NARROW TRENCH, 6" IN DEPTH. BACKFILL THE TRENCH AND TAMP FIRMLY TO CONFORM TO THE CHANNEL CROSS-SECTION. SECURE WITH A ROW OF STAPLES ABOUT 4" DOWN SLOPE FROM THE TRENCH. SPACING BETWEEN STAPLES IS 6". 2. STAPLE THE 4" OVERLAP IN THE CHANNEL CENTER USING AN 10" SPACING
- BETWEEN STAPLES. 3. BEFORE STAPLING THE OUTER EDGES OF THE MATTING, MAKE SURE THE
- MATTING IS SMOOTH AND IN FIRM CONTACT WITH THE SOIL.
- 4. STAPLES SHALL BE PLACED 2' APART WITH 4 ROWS FOR EACH STRIP, 2 OUTER ROWS, AND 2 ALTERNATING ROWS DOWN THE CENTER. 5. WHERE ONE ROLL OF MATTING ENDS AND ANOTHER BEGINS, THE END OF
- THE TOP STRIP SHALL OVERLAP THE UPPER END OF THE LOWER STRIP BY 4", SHIPLAP FASHION. REINFORCE THE OVERLAP WITH A DOUBLE ROW OF STAPLES SPACED 6" APART IN A STAGGERED PATTERN ON EITHER SIDE.
- 6. THE DISCHARGE END OF THE MATTING LINER SHOULD BE SIMILARLY SECURED WITH 2 DOUBLE ROWS OF STAPLES.

NOTE: IF FLOW WILL ENTER FROM THE EDGE OF THE MATTING THEN THE AREA EFFECTED BY THE FLOW MUST BE KEYED-IN.

EROSION CONTROL MATTING

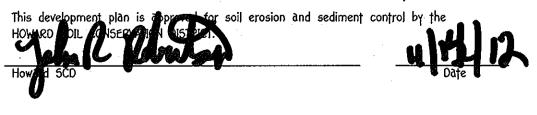
NOT TO SCALE

5CALE: 1" = 30"

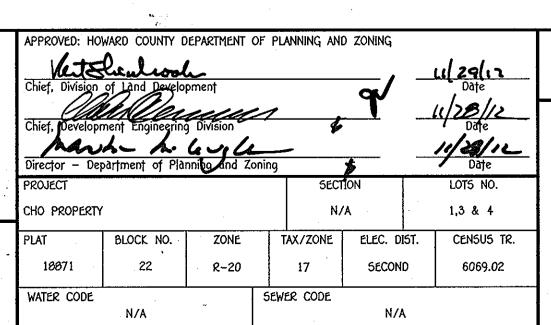
ENGINEER'S CERTIFICATE 'I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in

11.6.12 EARL D. COLLINS

BUILDER/DEVELOPER'S CERTIFICATE



BUILDER/DEVELOPER VIKING CUSTOM HOMES 5850 OLD WASHINGTON ROAD SYKESVILLE, MARYLAND 21784 410-997-2188



SEDIMENT/EROSION CONTROL DETAILS AND NOTES

SINGLE FAMILY DETACHED

LOTS 1, 3 & 4 PLAT NO. 18871

TAX MAP NO.: 0017 PARCEL NO.: 0427 GRID NO.: 0022 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: SEPTEMBER, 2012

FISHER. COLLINS & CARTER. INC. IVIL ENGINEERING CONSULTANTS & LAND SURVEYORS REVISE SEQUENCE OF CONSTRUCTION TO INDICATE 19/18/13

DATE

accordance with the requirements of the Howard Soil Conservation District.

DRYWELL INSTALLATION

PEVISION

I/We certify that all development and construction will be done according to this plan, for sediment and erosion control and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the invironment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

NOTE: FENCE POST SPACING

STANDARD SYMBOL

FLOW ----

TRITATION

SHALL NOT EXCEED 10'

TINTE TINTE

GROUND /

SURFACE

21/2" DIAMETER

OR ALUMINUM

GALVANIZED

CHAIN LINK FENCING

FILTER CLOTH

REQUIRED EXCEPT ON THE ENDS OF THE FENCE.

EVERY 24" AT THE TOP AND MID SECTION.

EMBED FILTER CLOTH 8" ---

MINIMUM INTO GROUND

* IF MULTIPLE LAYERS ARE

BY 6" AND FOLDED.

GEOTEXTILE CLASS F:

Tensile Strength

FILTERING EFFICIENCY

TENSILE MODULUS

FLOW RATE

0 ~ 10%

10 - 20%

20 - 33%

33 - 50%

50% +

REQUIRED TO ATTAIN 42"

CENTER TO CENTER

SHEET 5 OF 6 5DP-12-073 B.4.C Specifications for Micro-Bioretention, Rain Gardens, Landscape Infiltration & Infiltration Berms

1. Material Specifications

The allowable materials to be used in these practices are detailed in Table 8.4.1.

2. Filtering Media or Planting Soil

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretention practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

- * Soil Component Loamy Sand or Sandy Loam (USDA Soil Textural Classification) * Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam
- (30%), codrse sand (30%), and compost (40%). * Clay Content - Media shall have a clay content of less than 5%.
- * pH Range Should be between 5.5 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may
- be mixed into the soil to increase or decrease pH.

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was

It is very important to minimize compaction of both the base of bioretention practices and the required backfill. When possible, use excavation hoes to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

4. Plant Material

Recommended plant material for micro-bioretention practices can be found in Appendix A. Section A.2.3.

5. Plant Installation

Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2 to 3. Shredded or chipped hardwood mulch is the only pted mulch. Pine mulch and wood chips will float and move to the perimeter the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/0th of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2 by 2 stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover

ADD DRYWELL DETAIL AND SIZING INFORMATION

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. Underdrains

Underdrains should meet the following criteria:

* Pipe - Should be 4° to 6° diameter, slotted or perforated rigid plastic pipe (ASTMF 750, Type PS 20, or ASHTO-M-270) in a gravel layer. The preferred material is slotted, 4° rigid pipe (e.g., PVC or HDPE). * Perforations = If perforated pipe is used, perforations should by 3/8 diameter located

6" on center with a minimum of four holes per row. Pipe shall be wrapped with a 1/4" (No. 4 or 4x4) galvanized hardware cloth.

* Gravel — The gravel layer (No. 57 stone preferred) shall be at least 3"thick above and below the underdrain.

* The main collector pipe shall be at a minimum 0.5% slope.

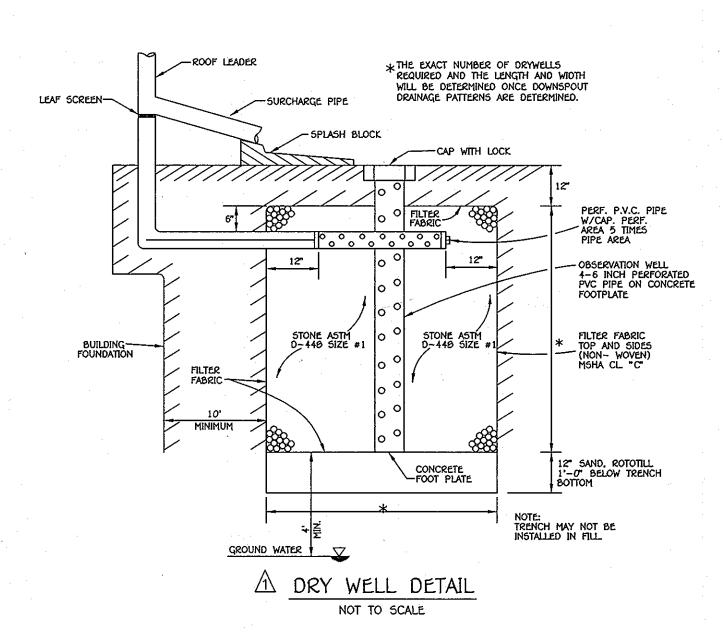
* A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter. * A 4 layer of pea gravel (1/6 to 3/8 stone) shall be located between the filter medial and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24.

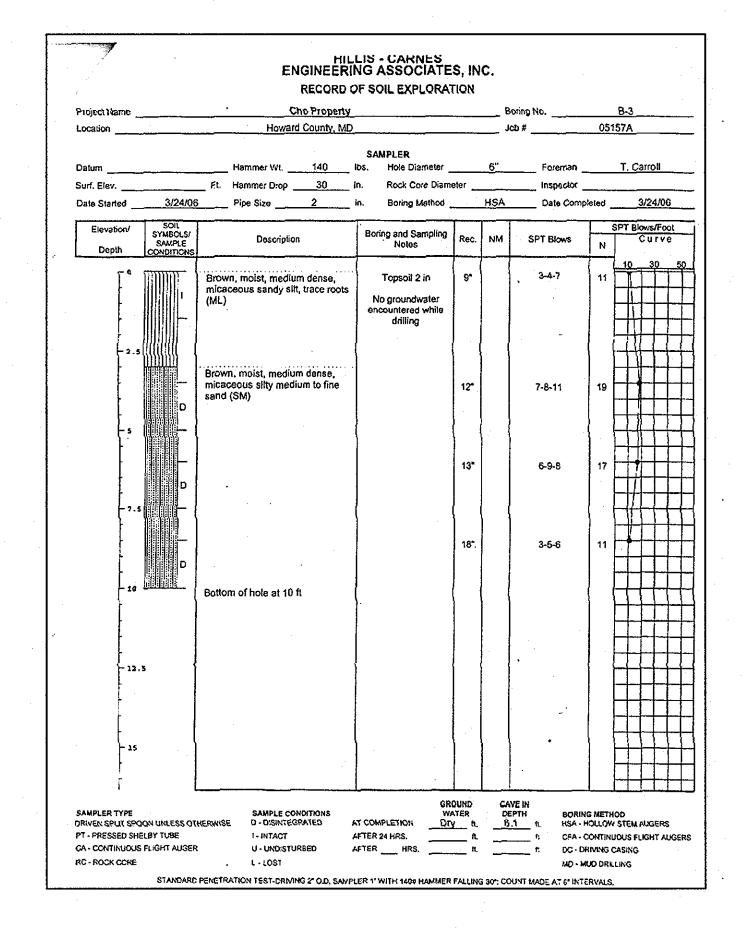
The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

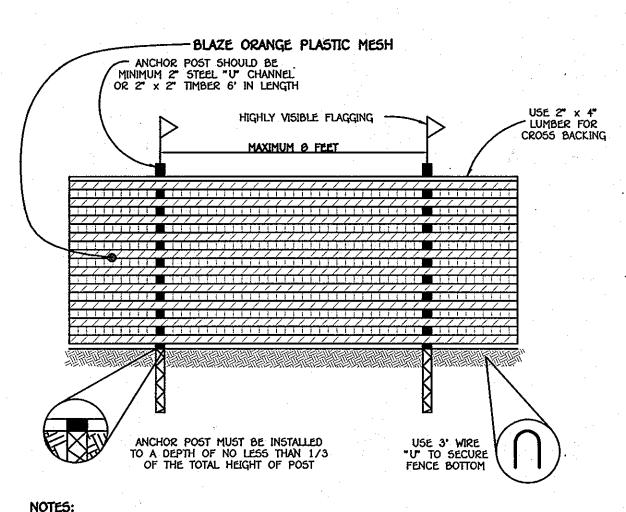
7. Miscellaneous

These practices may not be constructed until all contributing drainage area has been

Material	Specification	Size	Notes
Plantings	See Appendix A, Table A.4	n/a	Plantings are site-specific
Planting soil (2' to 4' deep)	loamy sand (60-65%) & compost (35-40%) or sandy loam (30%) coarse sand (30%) & compost (40%)	n/a	USDA soil types toamy sand or sandy loam; clay content <5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	Shredded hardwood		Aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	Pea gravel: ASTM-D-448	No. 8 or No. 9 (1/7" to 3/8")	
Curtain drain	Ornamental stone: washed cobbles	Stone: 2" to 5"	
Geotextile		N/a	PE Type I nonwovca
Gravel (underdrains and infiltration berms	AASHTO M-43	No. 57 or No. 6 AGGREGATE) (38" to '8")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schodule 40 PVC or SDR 35	Slotted or perfirmed pipe; 3/8" perf. (3) 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 4-inch galvanized hardware cloth
Penced in place concrete (if required)	MSHA Mir No. 3: £-35000 psi @ 28 days, normal weight, air-carrained; reinforcing to meet ASTM-615-60	N/a	On-site testing of poored-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) nat using previously approved State or local standards requires design drawings scaled and approved by a professional structural engineer licensed in the State of Maryland – design to include meeting ACI Code 350.R/89; vertical loading (H-10 or 11-20); allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diahase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

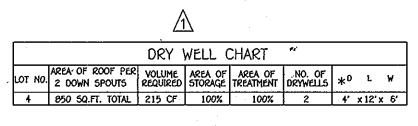






RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE. ROOT DAMAGE SHOULD BE AVOIDED. PROTECTIVE SIGNAGE MAY ALSO BE USED.
DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION DETAIL

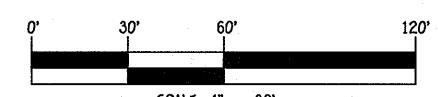


STORMWATER MANAGEMENT NOTES 1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE

- WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL 2. CREDITS ARE GIVEN FOR DISCONNECTION OF IMPERVIOUS
- 3. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE LESS THAN 500 SQ. FT. 4. DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE
- LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5%. THE

5. FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.

SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE FIGURE 5.2 OF THE MANUAL AND THE DETAIL SHOWN ON THIS SHEET.



5CALE: 1" = 30"PPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING ENGINEER'S CERTIFICATE 00te "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in This development plan accordance with the requirements of the Howard Soil Conservation District." HOWARD SOIL CONSERVATION DIS

Howard 5CD

FISHER, COLLINS & CARTER, INC. ELLICOTT CITY, MARYLAND 21042



DATE

BUILDER/DEVELOPER'S CERTIFICATE

EARL D. COLLINS

11.6.12

"I/We certify that all development and construction will be done according to this plan, for sediment and erosion control 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 also authorize periodic on-site inspection by the Howard Soil Conservation District. unter ares

BUILDER/DEVELOPER VIKING CUSTOM HOMES 5850 OLD WASHINGTON ROAD SYKESVILLE, MARYLAND 21784 410-997-2188

Director - Department of Planning and Zoning SECTION LOTS NO. N/A 1,3 & 4 CHO PROPERTY ELEC. DIST. BLOCK NO. ZONE TAX/ZONE census tr. 18871 22 R-20 SECOND 6069.02 WATER CODE SEWER CODE N/A

SWM NOTES AND BORING LOG

SINGLE FAMILY DETACHED

LOTS 1, 3 & 4

PLAT NO. 18871 TAX MAP NO.: 0017 PARCEL NO.: 0427 GRID NO.: 0022 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: SEPTEMBER, 2012

> SHEET 6 OF 6 50P-12-073