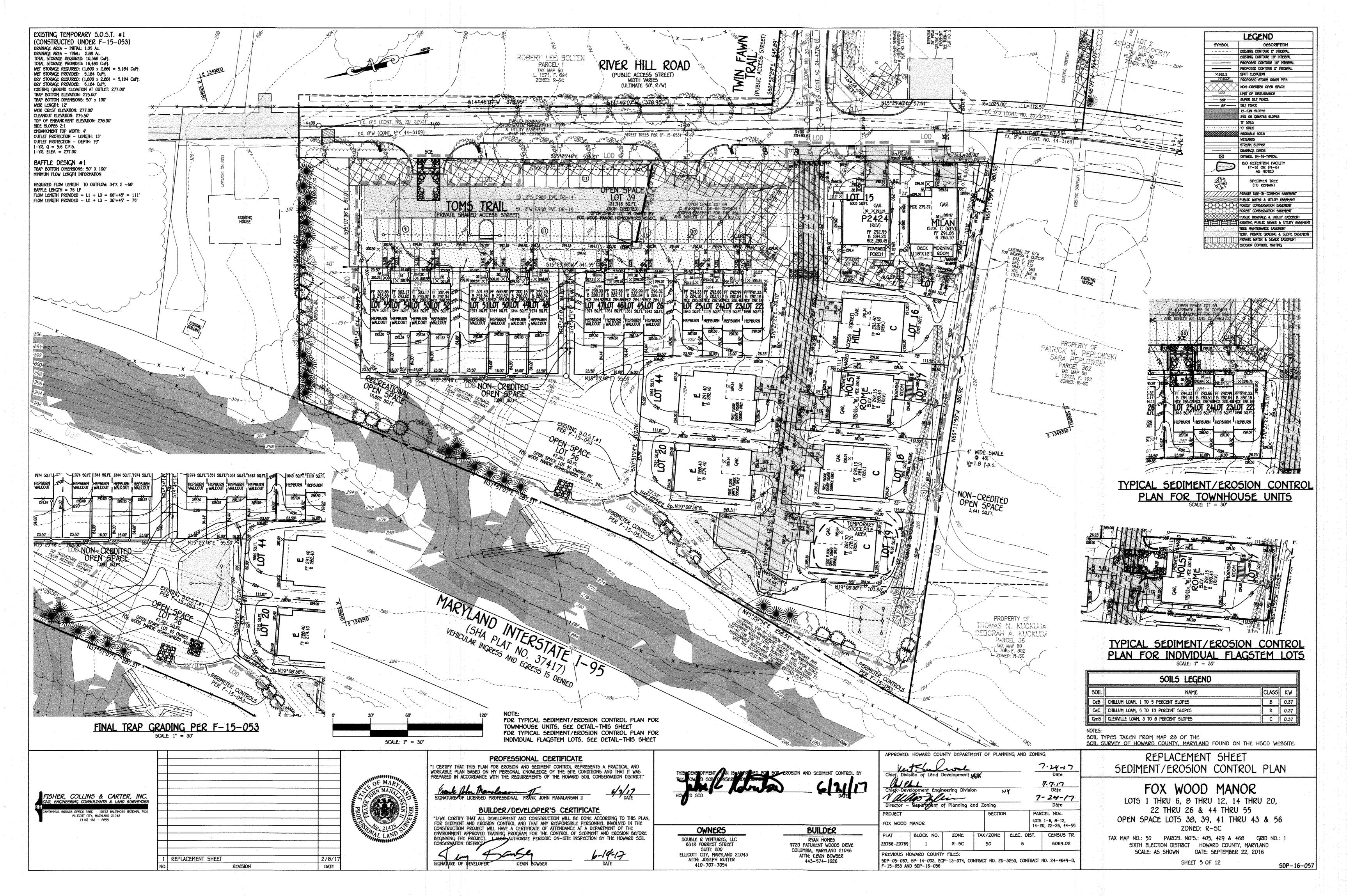


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50IL PREPARATION, TOP50ILING AND 50IL AMENDMENTS (B-4-2)

A. SOIL PREPARATION

TEMPORARY STABILIZATION A SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR REPPERS HOUNTED ON construction equipment, after the soil is loosened, it must not be rouled or dracced smooth but LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH ROOGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

B. APPLY FERTILIZER AND LINE AS PRESCRIBED ON THE PLANS. . Incorporate lane and pertilizer into the top 3 to 5 inches of soil by desking or other suitable means. PERMANENT STABILIZATION A. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE HUMBIUM SOIL CONDITIONS

PROLITIED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE L SOIL PH BETWEEN 6.0 AND 7.0. il soluble salts less than 500 parts per hillion (ppm).

IL SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE CRAINED NATERIAL (CREATER THAN 30 PERCENT SET PLUS CLAY! TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LONEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SLT PLUS CLAY) WOULD BE

IV. SOIL CONTAINS 1.5 PERCENT HIRITIAN ORGANIC MATTER BY WEIGHT. v. soil contains sufficient pore space to permit adequate root penetration.). APPLICATION OF AMENOMENTS OR TOPSOIL 15 REGISTED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS

. Graded areas hight be handaned in a true and even grade as specified on the approved plan, thei scarbined or otherwise loosened to a depth of 3 to 5 inches. D. APPLY SOIL AMENOMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST F. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DESCRIPE OR OTHER SUITABLE MEANS, RAKE LAWS areas to smooth the surface, remove large objects like stones and branches, and ready the area for beed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen th surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope leave the top 1 to 3 inches of soil loose and fribble. Seedbed loosening may be

B. TOPSOILING

. Topsol is placed over prepared subsol prior to establishment of permanent vegetation, the purpose is to provide a suitable soil hearing for vegetative growth. Soils of concern have low moisture content, TOPSOIL SILVAÇÃO FROM AN EXISTING SITE MAY BE USED PROMIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND In the Representative soil profile section in the soil survey published by Usda-NRCs.

). Topsolung 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 GROWTH. 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 HATERIAL TOXIC TO PLANT GROWTH.

O. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

L ARPAS HARRIC SLOPES STEEPER THAN 2:1 REPORTER SPECIAL CONSIDERATION AND DESIGN. , TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITIFIA A TOPSOIL HUST BE A LOAM, SANDY LOAM, CLAY LOAM, SET LOAM, SANDY CLAY LOAM, OR LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGROMOMEST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOL MIST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOLS AND MIST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, CONSSE FRACTIONS, GRAVEL, STICES, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DAMETER.

CRASS, HUT SEDGE, POISON MY, THISTLE, OR OTHERS AS SPECIFIED. : Topsoil substitutes or amenoments, as recommended by a qualified agronomest or soil scientist and APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED BY LIEU OF NATURAL TOPSOIL.

8. TOPSOIL MILST BE FREE OF MOXIDUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACX GRASS, JOHNSON

a erosion and sediment control practices must be manitained when applying topsol. 8. UNKFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. spreading is to be performed in such a number that sodding or seeding can proceed with a minimum of additional soil preparation and tillage, any bregalarities in the surface resulting from topsolling or other operations hust be corrected in order to prevent the formation of depressions or water pockets. . Topsoil hust not be placed if the topsoil or subsoil is in a prozen or muody conotion, when the subsoil is excessively wet or in a condition that hay otherwise be detrinental to proper grading and seedbed

: SOIL AMENDMENTS (FERTILIZER & LIME SPECIFICATIONS) I. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND PERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.

. FEXTLIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR approval from the appropriate approval authority. Febtilizers must all be delinered to the SITE FULLY LABELED ACCORDING TO THE APPLICABLE LIANS AND MUST BEAR THE NAME, TRADE NAME OR

trademark and warranty of the producer. 3. Lime materials must be ground limestone (Hydrated or Burnt Lime may be substituted except when hydroseedric) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such trineness that at least 50 percent will pass through a \$100 mesh sieve and 90 to 100 percent will pass through a \$20 pesh seve. 4. Lime and perteuzer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable hears. 5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the

RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL

STANDARD STABILIZATION NOTE

FOLLOWING INDIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PROPARENT OR TEMPORARY STABILIZATION HUST BE

THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERPICTER DIKES, SAMLES, DITCHES, PERPICTER SLOPES, and all slopes steeper than 3 hordontal to 1 vertical (3:1).

Seven (7) calendar days as to all other disturbed or graded areas on the project site not under

DUST CONTROL

DEFINITION CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS

TO PREVENT BLOWING AND HOWEVENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAPAGE, HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY.

CONDITIONS WHERE PRACTICE APPLIES THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE

WHICH MAY PRODUCE THE DESIRED EFFECT.

DANAGE IS LIKELY WITHOUT TREATMENT **SPECIFICATIONS**

TEMPORARY METHODS

1. MULCHES – SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING. . Vegetative cover – sel standards for temporary vegetative cover. l tillage – to roughen surface and bring glods to the surface. This is an embrgincy measure which SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON VINDWARD SIDE OF THE SITE, CHIEFE-TYPE PLOYS SPACED ABOUT 12" APACT, SPEING-TDOTHED HARROWS AND SINEAR PLOYS ARE EXAMPLES OF EQUIPMENT

. IRROGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT, SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT **RUNOFF BEGINS TO FLOW.** BARRIERS - SOLID BOARD FENCES SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALL DIKES AND

SIMBAR MATERIAL CAN BE USED TO CONTROL AIR CONTROLLING SOIL BLOWING, CURRENTS AND SOIL BLOWING. CURRENTS AND SOIL BLOWN'S GARRIERS PLACED AT RIGHT ANGLES TO PREVIALING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN . CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST, MAY NEED RETREATMEN

PERHAMENT METHODS PERMENENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATINE COVER AND PERMANENT STABLIZATION with 500. Existing trees or large shrubs hay afford valuable protection if left in place. Topsoling - Covering with less exceine soil materials. See Standards for topsoling . Stone - comer surface with ordshed stone or coarse gravel.

TEMPORARY SEEDING NOTES (B-4-4)

TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 HONTHS PURPOSE TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS. CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROWND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS.

FOR LONGER OURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

1. Select one or more of the species or seed matures listed in table 8.1 for the appropriate plant hardiness zone (from Figure 8.3), and enter them in the temporary seeding summary below along with application rates, seeding dates and seeding depths. IF 1745 SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE 8.1 PLUS FERTILIZER and line rates must be put on the plan.

2. FOR STIES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING, ACENCY, SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING. 3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION 8-4-JALLB AND MAINTAIN UNTIL THE NEXT SEEDING SEASON

	TEMP	orary seedi	ng Summ	IARY	
Hardiness Seed Moxiu	ZONE (FROM FIGURE RE (FROM TABLE 8.1	B.3): <u>6B</u>):	-	FERTILIZER RATE (10-20-20)	LIME RATE
SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS		
BARLEY	96		17	496 10 46	A TONG 140
OATS	72	3/1 - 5/15, 8/15 - 10/15	i"	436 LB/AC (10 LB/ 1000 5F)	2 TONS/AC (90 LB/ 1000 5F)
gyr.	112	1	f#	1000 37	1000 31)

PERMANENT SEEDING NOTES (8-4-5)

A. SEED MIXTURES

1. GENERAL USE A SELECT ONE OR MORE OF THE SPECIES OR MOCTURES LISTED IN TABLE 8.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE 8.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE 8.2. enter selected mixture(5), application rates, and seeding dates in the perhanent seeding summary. HE SUMMARY IS TO BE PLACED ON THE PLAN.

A AUSTRONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SPORFLINES STREAM RANKS or dunes or for special purposes such as wildlife or aesthetic treathent may be found in USDA-NRCS Technical field office guide, section 342 – catical area planting. C. FOR SITES HAVING DISTURBED AREA ONER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SO Testing agency, D. For areas excepting low munitemance, apply usea form fertilizer (46–0–0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to

THE SOIL MENOMENTS SHOWN IN THE PERMANENT SECURIC SUMMARY. 2. TURFGRASS MIXTURES a. Areas where tripigass hav be desired include lambs, parks, playgrounds, and comprecoal sites WHICH WILL RECEIVE A MEDIUM TO HIGH LEWEL OF MAINTENANCE.

8. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR

PURPOSE ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SECONG SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN. l Kentucky Bluegrags: full sun hixture: for use in areas that receive intensive havagement. roagation required in the areas of central magnano and eastern shore. Recommended certified kentucky bluegrass cultimaes seeding rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three kentucky bluegrass cultimaes with each ranging from 10 to 35 PERCENT OF THE TOTAL MEXTURE BY WEIGHT.

l kontucky bluegrass/perdinial Rye full sun Moture for use in full sun areas where rapid establesiment is necessary and when ture will receive medium to intensive management. Certified Perennal Ryegrass Cultinaes/Certified Kentucky Bluegrass Seeding Rate: 2 Pounds Hixture per 1000 square feet, Choose a Hinnum of three Kentucky Bluegrass Cultinaes With EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT. L TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MOXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR for areas recenning low to medium management in full sun to medium shade, recommended mature includes; certified tall fescue cultivars 95 to 100 percent, certified kentucky bluegrass cultivars 0 to 5 percent. Seeding rate: 5 to 8 pounds per 1000 square feet.

ONE OR MORE CULTIVARS MAY BE BLENDED.

M. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MOTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWAS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MOTURE INCLUDES; zertified Kentucky Bluegrass Cultimaes 30 to 40 percent and certified fine fescue and 60 o 70 percent. Secong rate: 1 1/2 to 3 pounds per 1000 square feet

splect turfgrass varieties from those listed in the most current university of maximal Publication, agronomy nemo #77, "Turtgrass cultivar recommendations for marmand" Choose Certified Material. Certified material is the best guarantee of cultivar purity. The certification program of the maryland department of agriculture, ture and seed section provides a reliable means of consumer protection and assures a pure genetic line C DIAL TIMES OF SEEDING FOR TUST GRASS MOJURES WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO actober 1 (Hardeness zones: 58, 64) central hd. Harch 1 to hay 15, august 15 to october 15 Hardeness zone: 68) southern hd. Eastern Shore: March 1 to hay 15, august 15 to october 1

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRES OVER 1 1/2 INCHES IN DIAMETER THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE HOWING OF GRASSES WILL POSE NO DIFFICULTY.

e if soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry OR HOT SEASONS, OR ON ADVERSE SITES.

DECMANENT SEEDING SHIMMAOV

		PEKMANENI	SCEDING	JUITINK	. 1		
DINESS ZONE (FROM FIGURE B.3): 68 D MIXTURE (FROM TABLE B.3): 9				FERTILIZER RATE (10-20-20)			lime rate
SPECIES	application rate (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P205	K ₂ 0	
 TALL FESCUE	100	MAR. 1-MAY 15 AUG. 15-OCT. 15	1/4-1/2 N.	45 186. PER ACRE (1.0 18/ 1000 SF)	90 LB/AC (2 LB/ 1000 SF)	90 LB/AC (2 LB/ 1000 SF)	2 TONS/AC (90 LB/ 1000 SF)

B. 50D: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

1. GENERAL SPECIFICATIONS

A CLASS OF TURFGRASS SOO MUST BE HARMAND STATE CERTIFIED. SOO LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR B. SOO MUST BE MACHINE CUT AT A UNBFORM SOIL THEXINESS TO 3/4 INCH. PLUS OR MINUS 1/4 INCH. AT THE TIME OF CUITING, MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH, BROKEN PAGE AND TORM OR

C. STANDARD SIZE SECTIONS OF SOO MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION. 0. 500 HUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOBILIZE CONTENT (EXCESSIVELY DRY OF VET) HAY ADVERSELY AFFECT ITS SURVIVAL E. SOO MUST BE HARVESTED, DELINERED, AND INSTALLED WITHIN A PERSOO OF 36 HOURS. SOO NOT TRANSPLANTED

WITHIN THIS PERSON HUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION. 2. SOD INSTALLATION A DURING PERSONS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY RESIGNE THE SUBSOIL PREDIATELY PRIOR TO LAYING THE 500. 8. LAY THE FREST ROW OF SOO IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY

HEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ensure that 500 is not stretched or overlapped and that all jobits are butted tight in order to PREVIOUS WHICH WOULD CAUSE AR DRYING OF THE ROOTS. C. WHEREVER POSSIBLE, LAY 500 WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. roll and tamp, peg or otherwise secure the soo to prevent suppage on slopes. Ensure solid contact exists between 500 roots and the underlying soil surface.

D. WATER THE 500 IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW 500 PAD AND SOIL SUBFACE BELOW THE SOO ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING, AND RREGUING FOR ANY PELLE OF 500 WITHIN EIGHT HOURS. 3. SOO MAINTENANCE

A IN THE ABSENCE OF ADEQUATE PAINFALL, WATER DALLY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY as necessary to maintain hoist soil to a depth of 4 inches. Water sod during the heat of the day to PREVENT WEITNG

8. AFTER THE FIRST WEEK, SOO WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE HOISTURE CONTENT. C. DO NOT MON UNTIL THE 500 IS FROMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUITING OR SUBSEQUENT CUITINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

1. A PRZ-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PURUX MORKS, CONSTRUCTION INSPECTION DIMENON (CID), 410-313-1855 AFTER THE FUTURE LOD AND protected areas are narked clearly in the field. A natural of 48 hour notice to CD must

8. Upon completion of the installation of perimeter erosion and sediment controls, but DEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. c. Prior to the start of another phase of construction or opening of another grading

UNIT, D. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES other building or grading inspection approvals may not be authorized until this intial APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.

2. All vegetative and structural practices are to be installed according to the provisions OF THES PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND i. Following initial soil disturbance or re-disturbance, pernanent or temporary

STABILIZATION IS PROJECTO WITHIN THEFF (3) CALFINDAY DAYS AS TO THE SUPPLY OF ALL PROMETRY

controls, dices, swales, ditores, perpheter slopes, and all slopes steeper than 3 horizontal

TO I VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING. 4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EXCISION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROWN IS FROZEN noremental stabilization (sec. b-4-1) specifications shall be enforced in areas with >15' of cut and/or fill stockfiles (sec. 8-4-8) in excess of 20 ft. Must be benched with stable outlet, all concentrated flow, steep slope, and highly exobble areas shall receive soil

5. ALL SEDMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN operative condition until peoplesion for their removal has been obtained from the Cid.

6. SITE ANALYSES: TOTAL AREA OF SITE: AREA DISTURBED: AREA TO BE ROOFED OR PAVED: 6 50 ACRES 5.01 ACRES 1.88 ACRES AREA TO BE VEGETATIVELY STABILIZED: 3.13 ACRES

STABILIZATION MATTING (SEC. 6-4-6).

7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

B. ADDITIONAL SEDIMENT CONTROL MIST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE and all controls shall be inspected by the contractor weekly; and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:

* inspection type (routine, pre-story event, during rain event) * NAME AND TITLE OF INSPECTOR * WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED * BREEF DESCRIPTION OF PROJECTS STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES * PVDFNOT OF SEDMENT DISCHARGES

* Identification of Plan Deficiences DENTIFICATION OF SEDMENT CONTROLS THAT REQUIRE HAINTENANCE IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS K COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS * PHOTOGRAPHS * HONTORING/SAMPLING k Hantenance and/or corrective action performed

other inspection items as regulard by the general permit for stormalter associated with 9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABBLIZED BY THE UND OF EACH MORKDAY, WHICHEVER IS

10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION HUST BE REVIEWED AND APPROVED BY THE H5CD PRIOR TO PROCEEDING WITH CONSTRUCTION, MENOR REVISIONS HAY ALLOWED BY THE COD PER THE LIST OF HISCO-APPROVED FIELD CHANGES.

II. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE LO.D. A PROJECT IS TO BE SECUENCED SO TH GRADING ACTIMITIES BEGIN ON ONE GRADING UNIT (HAZDRUM ACREAGE OF 20 AC PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST SO PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY

12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES HUST BE reated in a sediment basin or other approved vashout structure. 13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.

14. ALL SET PENCE AND SUPER SET FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMPRICATED

AT 25' MINIMUM INTERVALS, WITH LOWER ENGS CURLED UPHBLL BY 2" IN ELEVATION 15. STREAM CHANNELS MUST NOT BE DISTURBED OURDING THE FOLLOWING RESTRICTED THE PERIODS

* USE I AND IP MARCH 1 - JUNE 15 * USE IV MARCH 1 - MAY 31

16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION and sediment control, and associated pernits shall be on-site and available when the site

PLANT SPECS

COOL-SEASON GRASSES

ANNUAL RYEGRASS (LOLIUM PERENNE SSP. MUTIFLORUM)

BARLEY (HORDEUM VULGARE)

WHEAT (TRITICUM AESTIVUM)

CEREAL RYE (SECALE CEREALE)

WARM-SEASON GRASSES

FOXTAIL MILLET (SETARIA ITALICA)

PEARL MILLET (PENNISETUM GLAUCUM)

OATS (AVENA SATIVA)

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

DEFINITION A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES. <u>PURPOSE</u>

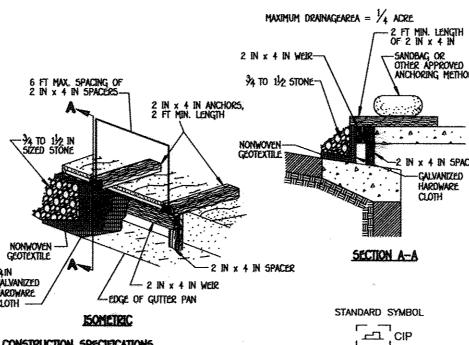
TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR erosion. Sedimentation and changes to drainage patterns CONDITIONS WHERE PRACTICE APPLIES STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.

CRITERIA 1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN. 2. THE POOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND based on a side slope ratio no steeper than 2:1 benching must be provided in accordance with

3. SUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE 4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE. 5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED

6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL practice must be used to intercept the discharge. 7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD 8-4-1 INCREMENTAL STABILIZATION AND STANDARD 8-4-4 TEMPORARY STABILIZATION. 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAININATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.

MAINTENANCE THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION 8-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF BROSION, IF THE VERTICAL HEIGHT OF A STOCKPILE PXCFFDS 20 FEET FOR 2:1 SLOPES, OR 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION 8-3 LAND GRADING.



CONSTRUCTION SPECIFICATIONS

SEEDING

DEPTH 2

(INCHES)

1.0

1.0

0.5

0.5

3. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

9/88/16

FLOW IN A NON-EXOSIVE MANNER.

1. USE NOMINAL 2 INCH x 4 INCH LUMBER 2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.

3. NAIL THE 2x4 WER TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).

4. ATTACH A CONTINUOUS PIECE OF \$4 INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE.

5. Place a continuous piece of nonmoven geotextile of the same dimensions as the hardware cloth over the hardware cloth and securely attach to the 2x4 weir.

6. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINDIUM 2 FEET LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED 7. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING

FORM THE HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN TO SPAN THE INLET OPENING, COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN TO 12 INCH STONE OR EQUIVALENT RECYCLED CONCRETE.

9. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS. 10. STOOM DOAIN INLET PROTECTION RECUIRES EPECUENT MAINTENANCE. DEMONE ACCUMULATED SEDIMENT

AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOCGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOCGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

CURB INLET PROTECTION NOT TO SCALE

TABLE B.1 TEMPORARY SEEDING FOR SITE STABILIZATION

56 AND 6a

JUNE 1 TO JULY 31

JUNE 1 TO JULY 31

1. SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED.

SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, WHEN PLANTED ALONE, WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS AND WHEAT. FOR SMALLER-SEEDED GRASSES (ANNUAL RYEGRASS, PEARL MILLET, FOXTAIL MILLET). DO NOT EXCEED MORE THAN 5% (BY WEIGHT) OF THE OVERALL PERMANENT SEEDING MIX, CEREAL RYE

GENERALLY SHOULD NOT BE USED AS A NURSE CROP, UNLESS PLANTING WILL OCCUR IN VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES

TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING,

A. SEEDING 1. SPECIFICATIONS

A ALL SEED MUST NEET THE REGUREMENT OF THE NARYLAND STATE SEED LAW, ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTH'S IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT, REFER TO TABLE B.1 RECARDING THE QUALITY OF SEED. SEED TAGS HUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE. 3. MUICH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS

PROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE CROWND THANS. C. Inoculants: The noculant for treating legime seed in the seed matures must be a pure culture OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCIAANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER, ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSELDING, NOTE IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOK AS POSSIBLE UNTIL USED. TEMPLEATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE

d. 500 or seed must not be placed on soil which has been treated with soil sterilants or chemicals USED FOR WEEDCONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF

EACH DREECTION.

A DOY SPECIAL. THIS DESTROYS LIKE OF CONDUNTABLE DOOD OD ROOMCLET SPORAGES l incorporate seed into the subsoil at the rates prescribed on temporary seeding table b.i. PERMANENT SEEDING TABLE B.J. OR SITE-SPECIFIC SEEDING SUPPLIESS. IL APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DESECTION, ROLL THE SEEDED AREA WITH WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL

B. DRILL OR CULTIPACIER SEEDING, MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL. L. CULTIPACAING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 DICH OF SCIL CONSIDING, SEEDBED HILST BE FROM AFTER PLANTING. IL APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER APPLY HALF THE SEEDING RATE IN

C. HYDROSEEDING, APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).

I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION PATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P 0 (PHOSPHORUS), 200 POLNOS PER ACRE: K. O. (POTASSKIM), 200 POLNOS PER ACRE. II. LINE: USE ONLY CROWN ACRECULTURAL LINESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY

HYDROSEEDING). HORNALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE time. Do not use burnt or hydrated line when hydroseeding, ii. Hix seed and pertilizer on site and seed immediately and without interruption. IV. WHEN IMPROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING . MULCH MATERIALS (IN ORDER OF PREFERENCE)

A STRAY CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OUT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT HUSTY, HOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERBLE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED. B. WOOD CELLULOSE HIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO

UNIFORM FIBROUS PHYSICAL STATE. . WOTH 15 TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOT TO FACILITATE VISUAL INSPECTION OF THE UNITORMLY SPREAD SLURRY. IL WORM, INCLUDING DYE, MUST CONTAIN NO GEOMINATION OR GROWTH INFIBITING FACTORS.

IL WOTH MATERIALS ARE TO BE NANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE YOOD CELLILOSE FIBER MULCH VILL REMAIN IN UNFORM SUSPENSION IN WATER UNDER ACTIVITION AND VILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH HATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING HOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MOST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INTENTING THE GROWTH OF THE GRASS SEEDLINGS.

N. WITH NATERIAL HUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEMELS THAT WILL BY PHYTO-TOXIC V. NOTH HUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DAMETER APPROXIMATELY 1 MILLIMETER, PH RANCE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT HINDRUM.

A APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. B. WHEN STRAW MULCH IS USED, SPREAD IT OWER ALL SCEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS

C. WOOD CELLULOSE FREE USED AS HOLDH MUST BE APPLIED TO A NET DRY WHIGHT OF 1500 POUNDS PER ACCE. HIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A HIXTURE WITH A HAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

A PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIBEZE LOSS BY WIND OR water. This may be done by one of the following methods (listed by preference), depending upon the size of THE AREA AND EROSION HAZARD:

SURFACE A MINIMUM OF 2 INCHES, THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER slopes where examplent can operate safely. If used on sloping land, this practice should follow the contour. IL WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW, APPLY THE FIBER BRIDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. HIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE PIBER PER 100 CALLONS OF WATER. IL SYNTHETIC BRIDGES SUCH AS ACRYLIC OLR (ACRO-TACK), OCA-70, PETROSET, TERRA TAX II, TERRA

econppendations, netting is usually avalable in 2011s 4-15 feet wide and 300 to 3,000 feet long.

TACK AR OR OTHER APPROVED FOUND HAV BE USED, FOLLOW APPLICATION RATES AS SPECIFIED BY THE HANGFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVER AT THE EDGES WHERE WHO CATOLES MULCH, SUCH AS IN VALLEYS AND ON ORESTS OF BANKS, USE OF ASPHALT BINDERS IS IV. LIGHTWEIGHT PLASTIC HETTING MAY BE STAPLED ONER THE MULCH ACCORDING TO MANUFACTURER

7a AND 7b

MAY 1 TO AUGUST 14

MAY 1 TO AUGUST 14

OVERLAP OR ABUT— EDGES (TYP.) 5 IN MIN overlap at roll ISOMETRIC VIEW

CONSTRUCTION SPECIFICATIONS

OF UNFORM THECKNESS AND DISTRIBUTION THEOLOGICAL CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GENERATION AND NON-TOXIC TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2/2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGTUDINAL AXIS OF THE NATERIAL. TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL. 3. Secure matting using steel staples or wood stakes, staples hust be "u" or "t" shaped steel wire having a a minimum gauge of no. 11 and no. 8 respectively, "u" shaped staples hust average 1 to 1 1/2 inches wide and be a minimum of 6 inches long, "t" shaped staples must have a minimum 8 inch main leg, a minimum 1 inch secondary leg, and minimum 4 inch head, wood stakes must be rough-samh hardwood, 12 to 24 inches in length, 1x3 inch in 0x055 section, and vedge shape at the bottom.

1. Use matting that has a design value for shear stress equal to or higher than the shear stress designated

4. PESTORN FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE NATITING WITHIN 46 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CONTROL OF WATER FLOW, CENTERING SHOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. ANDE STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES

(MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.

7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DICCING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE NAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT end in the Ket.

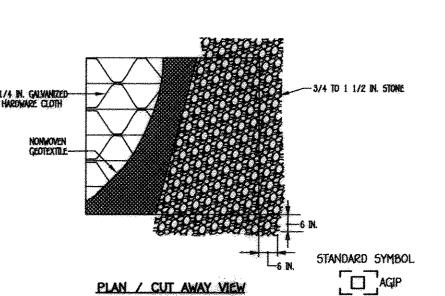
8. Staple/stake Mat in a staggered pattern on 4 foot (maximum) centers throughout and 2 foot (maximum) centers along seams, joints, and roll ends.

9. If specified by the designer or manifacturer and depending on the type of mat being installed, once the matting is keyed and stapled in place, fill the mat voids with top soil or granular material and lightly compact or roll to maximize soil/mat contact without coushing mat.

). Establish and martain vegetation so that regulirements for adequate vegetative establishment are continuously met in accordance with section 8–4 vegetative stabilization.

PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION

NOT TO SCALE



MAXIMUM DRAINAGE AREA = 1 ACRE -1/4 IN. HARDWARE CLOTH 1 1/2 IN STONE NET COME

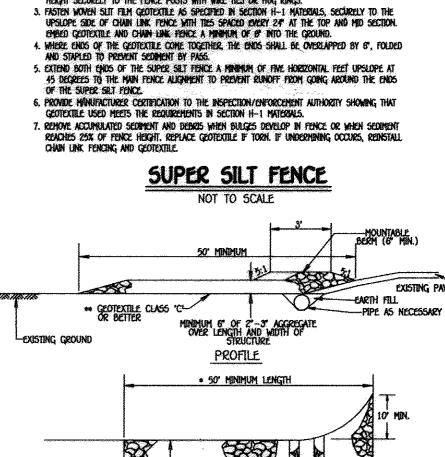
CROSS SECTION

CONSTRUCTION SPECIFICATIONS 1. USE NORMOVEN GEOTECTILE AS SPECIFED IN SECTION H-1 MATERIALS. 2. LIFT GRATE AND WARP WITH HOMMONEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WARE TIES AND SET GRATE BACK IN PLACE. 3. PLACE CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUINALENT RECYCLED CONCRETE 6 INCHES THEX ON THE GRATE. 4. STORM DRAIN DILET PROTECTION REQUIRES FREQUENT MANTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING, IF INLET PROTECTION DOES

ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE AT-GRADE INLET PROTECTION

NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM BYENT, IT IS CLOQUED. WHEN THIS OCCURS, REMOVE

NOT TO SCALE



10 FT MAX.

ELEVATION

CROSS SECTION

CONSTRUCTION SPECIFICATIONS

Install 2 3/8' diameter galvanized steel posts of 0.895 inch wall thickness and 50x foot length spaced no further than 10 feet apart, drive the posts a hindhum of 35' into the ground.
 Fasten 9 gauge or heaver galvanized chain link fence (2 3/8' maximum opening) 42' in height securely to the fence posts with wire ties or hug rings.

WOVEN SLIT FILM GEOTEXTILE-

WARRAN TOW -

&__tc_

STANDARD SYMBOL

----55F-----

HAHAHAHA

CONSTRUCTION SPECIFICATION PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN.
VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. LISE MINIMUM LENGTH OF
50 FRET (*30 FRET FOR SINGLE RESIDENCE LOT). USE HINMUM MIDTH OF 10 FRET. FLARE
SCE 10 FRET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RAPIUS. 2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE

STANDARD SYMBOL

Ser Ser A

ENTRANCE, MANTANING POSITIVE DRANAGE PROTECT PRE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERN WITH 5:1 SCOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE PROMOSE PIPE AS SPECIFIED ON APPROVED PLAN, WHEN THE SCE IS i. Prepare subgrade and place nonmoven geotextee, as specified in section H-1

NATERIALS.

4. PLACE CRUSHED ACCREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (MITHOUT RESAR) AT LEAST 6 INCHES DEEP OWER THE LENGTH AND WIDTH OF THE SCE.

5. MAINTAIN ENTRANCE IN A CONDITION THAT MAINTZES TRACKING OF SEDIMENT ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DENAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFED ORIENSIONS, IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCORPING AND/OR SWEEPING. WASHING ROADWAY TO REMOVE HUD TRACKED ONTO PAVENENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

STABILIZED CONSTRUCTION ENTRANCE

SEQUENCE OF CONSTRUCTION

OBTAIN A GRADING PERINT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR (2 VEEKS) NOTIFY "MISS UTILITY" AT LEAST 40 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777, NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/ INSPECTION

AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK. (7 DAYS) 3. VERTY THAT THE EXISTING PERIMETER CONTROLS AND THE TEMPORARY STONE OUTLET SEDIMENT TRAP AS DESIGNED PER F-15-053 ARE IN GOOD WORKING ORDER OR REPAIR AS NECESSARY, (2 DAYS)

4. ROUGH GRADE AROUND HOUSE SITES AND INSTALL TEMPORARY SEEDING, WHERE required. (3 days) 5. COMMENCE BUILDING CONSTRUCTION ON SINGLE FAMILY DETACHED HOUSES AND ASSOCIATED DRYNCLLS. (6 MONTHS)

6. CONSTRUCT INLET 1—16 AND STORM DRAIN PIPE LOCATED IN TOMS THAT. PROVIDE INLET

PROTECTION FOR 1-15. (2 WEEKS) CONSTRUCT CURB AND GUTTER AS WELL AS BASE COURSE FOR PROPOSED PRINATE ROAD (TONS TRAIL) AND USE-BY-CORPYON DRIVES. (1 MONTH)

9. STABILIZE ALL DISTURBED AREAS TO THE WEST OF RIVER HILL ROAD WITH TEMPORARY

SECONG. (2 DAYS)
10. WITH INSPECTOR'S PERMISSION REMOVE OF TEMPORARY STONE OUTLET SEDIMENT TRAP IN ACCORDANCE WITH F-15-053. 11. INSTALL SUPER SET PENCE ALONG THE REAR OF LOTS 20-29, AS SHOWN ON SHEET 5

DETAIL (1 WEEK). 12. COMMENCE CONSTRUCTION OF TOWNHOUSES, (6 MONTHS) 13. COMMENCE INSTALLATION OF FINAL SURFACE COURSE, SIDEMALLS AND STREETING, 12 14. REHOVE INLET PROTECTION (1 DAY) . 15. COMMENCE INSTALLATION OF SAM FACILITIES. (1 MONTH)

5. Stabilize all areas of disturbance with permanent seeding (1 week.) 7. Obtain Permission of Sediment Control Dispector, prior to remaining sediment CONTROL DEVICE (1 DAY)

RAINFALL AND ON A DAILY BASIS.

16. REPOWE ANY REMAINING SERVENT DEMCES. (3 DAYS)
19. STABILIZE ANY DISTURBED AREAS WITH PERMANENT SEEDING, (1 WEEK.) NOTE: CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY HAINTENANCE AFTER EACH

SCALE: 1" = 30"

REVISION

PROFESSIONAL CERTIFICATE

ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SPASON GRASSES

OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.

2. FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.

that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above

SEEDING RATE 1/

LB./AC. | LB./1000 FT.

2.2

1.7

2.8

2.8

0.7

0.5

96

72

120

112

30

SIGNATURE OF LICENSED PROFESSIONAL FRANK JOHN MANALANSAN II

BUILDER/DEVELOPER'S CERTIFICATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY

RECOMMENDED SEEDING DATES BY PLANT HARDINESS ZONE 3/

MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30 | MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15 | FEB. 15 TO APR. 30; AUG. 15 TO NOV.

MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30 | MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15 | FEB. 15 TO APR. 30; AUG. 15 TO NOV. 3

MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30 MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15 FEB. 15 TO APR. 30; AUG. 15 TO NOV.

MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30 | MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15 | FEB. 15 TO APR. 30; AUG. 15 TO NOV. 3

MAR. 15 TO MAY 31; AUG. 31 TO OCT. 31 MAR. 1 TO MAY 15; AUG. 1 TO NOV. 15 FEB. 15 TO APR. 30; AUG. 15 TO DEC.

MAY 16 TO JULY 31

MAY 16 TO JULY 31

OWNERS BUILDER

16.14.16 Director - Department of Planning and Zoning 10.21-16 Date PROJECT PARCEL NOs. LOTS 1-6, 8-12, FOX WOOD MANOR 14-20, 22-16 \$44-55 PLAT BLOCK NO ZONE TAX/ZONE | ELEC. DIST. CENSUS TR. 23766-23769 R-50 6069.02 PREVIOUS HOWARD COUNTY FILES: 5DP-05-067, 5P-14-003, ECP-13-074, CONTRACT NO. 20-3253, CONTRACT NO. 24-4849-D, F-15-053 AND 50P-16-056

ISEDIMENT/EROSION CONTROL DETAILS & NOTES

22 THRU 26 \$ 44 THRU 55 OPEN SPACE LOTS 30, 39, 41 THELL 43 \$ 56

TAX MAP NO.: 50 PARCEL NO'S.: 405, 429 & 460 GRID NO.: 1 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND DATE: SEPTEMBER 22, 2016 SCALE: AS SHOWN

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 accordance with the requirements of the Howard soil conservation district:

KEVIN BOWSER

"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. LOO AUTHORITE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL

DOUBLE R VENTURES. LLC 8318 FORREST STREET **SUITE 200** ELLICOTT CITY, MARYLAND 21043 ATTN: JOSEPH RUTTER 410-707-7054

RYAN HOMES 9720 PATUXENT WOODS DRIVE COLUMBIA, MARYLAND 21046 ATTN: KEVIN BOWSER 443-574-1026

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Centstedund

ivision of Land Development 🊜 🥻

FOX WOOD MANOR LOTS 1 THRU 6, 8 THOU 12, 14 THRU 20,

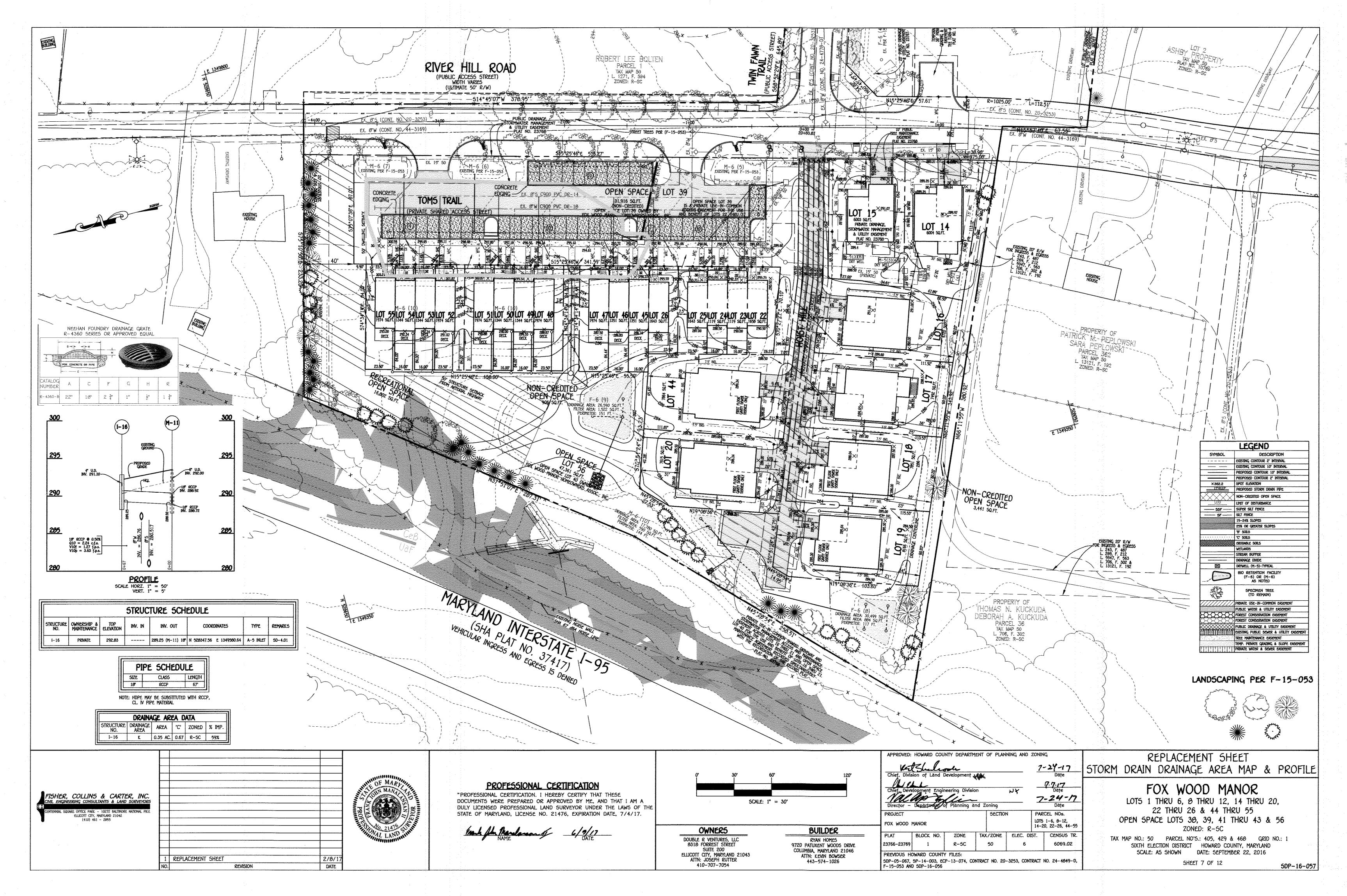
ZONED: R-5C

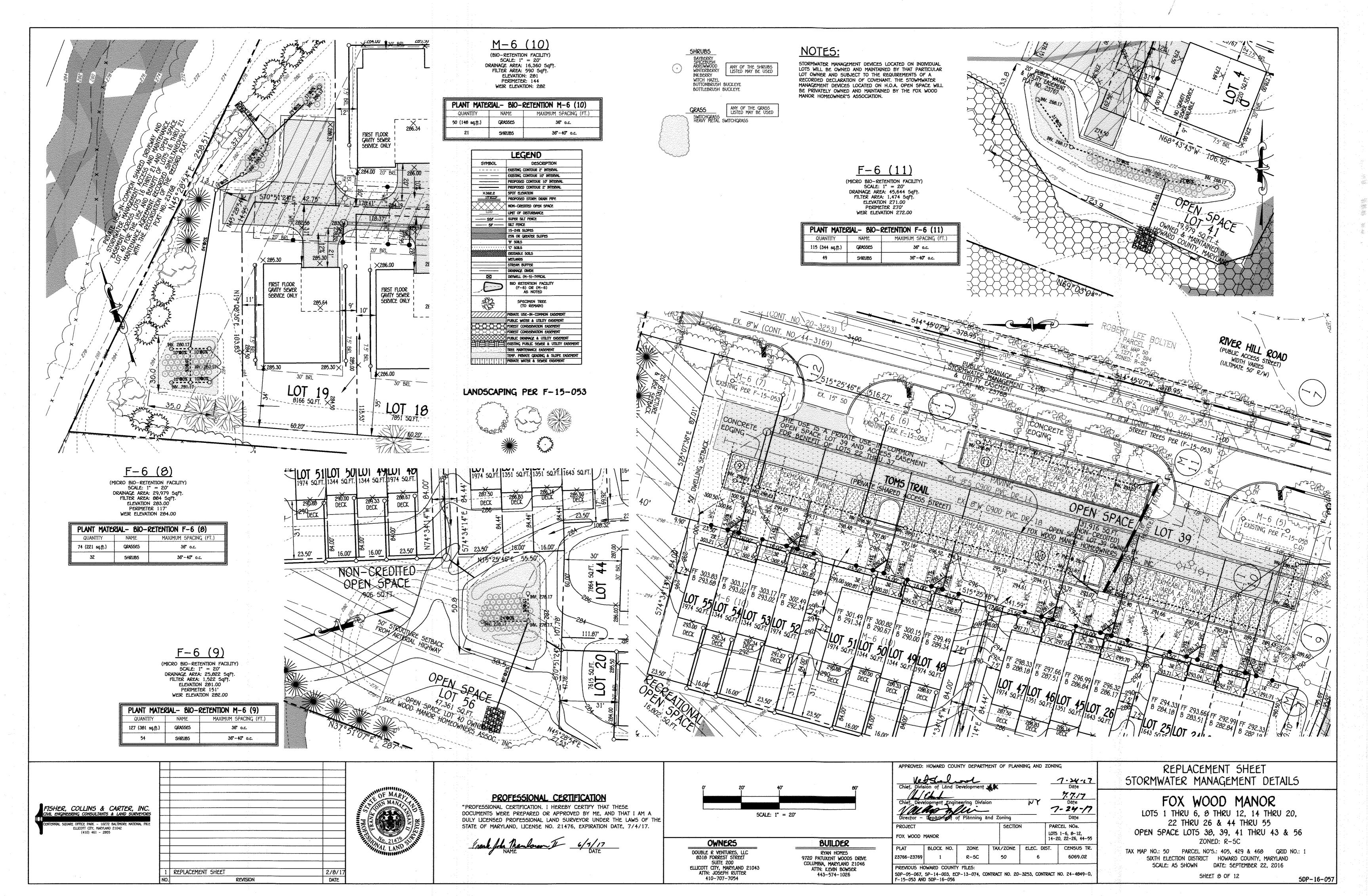
SHEET 6 OF 12

50P-16-057

FISHER, COLLINS & CARTER, INC. VIL ENGINEERING CONSULTANTS & LAND SURVEYOR

KEN TITLE BLOCK





INFILTRATION & FILTER SYSTEM OPERATION & MAINTENANCE SCHEDULE OPERATION & MAINTENANCE SCHEDULE FOR BIO-RETENTION AREAS (M-6) & (F-6) CONSTRUCTION SPECIFICATIONS FOR PRIVATELY OWNED AND MAINTAINED -ROOF LEADER *THE EXACT NUMBER OF DRYWELLS REQUIRED AND THE LENGTH AND WIDTH WILL BE DETERMINED ONCE DOWNSPOUT DRAINAGE PATTERNS ARE DETERMINED. INFILTRATION AND FILTER SYSTEMS EITHER TAKE ADVANTAGE OF EXISTING PERMEABLE SOILS OR CREATE A DRY WELLS (M-5) 1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS LEAF SCREEN-PERMEABLE MEDIUM SUCH AS SAND FOR WC), AND RE V. IN SOME INSTANCES WHERE PERMEABILITY IS REQUIRED, MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS great, these facilities may be used for QP as well. The most common systems include -SURCHARGE PIPE a. The owner shall inspect the monitoring wells and structures on a quarterly basis OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE INFILTRATION TRENCHES, INFILTRATION BASINS, SAND FILTERS, AND ORGANIC FILTERS. AND AFTER EVERY HEAVY STORM EVENT. SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT B. THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING -SPLASH BLOCK INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. WHEN PROPERLY PLANTED, VEGETATION WILL THRIVE AND ENHANCE THE FUNCTIONING OF THESE SYSTEMS. WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE 2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL -CAP WITH LOCK FOR EXAMPLE, PRE-TREATMENT BUFFERS WILL TRAP SEDIMENTS THAT OFTEN ARE BOUND WITH PHOSPHOROUS THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION . THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS. AND METALS. VEGETATION PLANTED IN THE FACILITY WILL AID IN NUTRIENT UPTAKE AND WATER STORAGE. D. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO SOIL COMPACTION. CONSIDER BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND ADDITIONALLY, PLANT ROOTS WILL PROVIDE ARTERIES FOR STORMWATER TO PERMEATE SOIL FOR GROUNDWATER SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES. (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN. RECHARGE FINALLY SUCCESSFUL PLANTINGS PROVIDE AFSTHETIC VALUE AND WILDLIFE HABITAT MAKING THESE 3. MULCH SHALL BE INSPECTED EACH SPRING, REMOVE PREVIOUS MULCH LAYER E. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE facilities more desirable to the public. BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS. COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA. 4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS. WITH A MINIMUM **DESIGN CONSTRAINTS:** OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS. > PLANTING BUFFER STRIPS OF AT LEAST 20 FEET WILL CAUSE SEDIMENTS TO SETTLE OUT BEFORE STORMWATER MANAGEMENT NOTES REACHING THE FACILITY. THEREBY REDUCING THE POSSIBILITY OF CLOGGING. > determine areas that will be saturated with water and water table depth 50 that FACILITY NO. A 1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH В APPROPRIATE PLANTS MAY BE SELECTED (HYDROLOGY WILL BE SIMILAR TO BIORETENTION WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 283.00 280.17 FACILITIES, SEE FIGURE A.5 AND TABLE A.4 FOR PLANTING MATERIAL GUIDANCE). MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL. M-6 (9) 281,00 278.17 > PLANTS KNOWN TO SEND DOWN DEEP TAPROOTS SHOULD BE AVOIDED IN SYSTEMS WHERE EFFECTIVE MAY 4, 2010. FILTER FABRIC IS USED AS PART OF FACILITY DESIGN. M-6 (10) 281.00 278.17 2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT > TEST SOIL CONDITIONS TO DETERMINE IF SOIL AMENDMENTS ARE NECESSARY. F-6 (11) 271.00 269.17 SHALL BE 1,000 SQ. FT. OR LESS. > PLANTS SHALL BE LOCATED SO THAT ACCESS IS POSSIBLE FOR STRUCTURE MAINTENANCE 3. DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH STABILIZE HEAVY FLOW AREAS WITH EROSION CONTROL MATS OR 500. OF DISCONNECTION IS LESS THAN 75' AT 5%. THE SIZE AND TEMPORARILY DIVERT FLOWS FROM SEEDED AREAS UNTIL VEGETATION IS ESTABLISHED. CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH > SEE TABLE A.5 FOR ADDITIONAL DESIGN CONSIDERATIONS. THE DETAIL SHOWN ON THIS SHEET. WIDTH VARIES 4. FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN. BIO-RETENTION SOIL BED CHARACTERISTICS 12" SAND, ROTOTILL 1"-0" BELOW TRENCH THE CHARACTERISTICS OF THE SOIL FOR THE BIORETENTION FACILITY ARE PERHAPS AS IMPORTANT AS THE FACILITY LOCATION, SIZE, AND TREATMENT VOLUME. THE SOIL MUST BE PERMEABLE ENOUGH TO ALLOW RUNOFF TO FILTER THROUGH THE MEDIA, WHILE HAVING CHARACTERISTICS SUITABLE TO PROMOTE AND NOTE: TRENCH MAY NOT BE INSTALLED IN FILL SUSTAIN A ROBUST VEGETATIVE COVER CROP. IN ADDITION, MUCH OF THE NUTRIENT POLLUTANT UPTAKE (NITROGEN AND PHOSPHORUS) IS ACCOMPLISHED THROUGH ABSORPTION AND MICROBIAL ACTIVITY WITHIN THE PROVIDE GEOTEXTILE GROUND WATER | ablaSOIL PROFILE. THEREFORE, SOILS MUST BALANCE THEIR CHEMICAL AND PHYSICAL PROPERTIES TO SUPPORT 2' PLANTING-ON ALL SIDES BIOTIC COMMUNITIES ABOVE AND BELOW GROUND. (NOTE: NO GEOTEXTILE WILL BE PROVIDED UNDER THE STONE. DRY WELL DETAIL THE PLANTING SOIL SHOULD BE A SANDY LOAM, LOAMY SAND, LOAM (USDA), OR A LOAM/SAND MIX (SHOULD CONTAIN A MINIMUM 35 TO 60% SAND, BY VOLUME). THE CLAY CONTENT FOR THESE SOILS SHOULD BE PROVIDE 1/4" MESH NOT TO SCALE LESS THAN 5% BY VOLUME TENTRONMENTAL QUALITY RESOURCES (EQR.). 1996: ENGINEERING TECHNOLOGY (4x4) OR SMALLER -GALVANIZED HARDWARE CLOTH INC. AND BIOHABITATS, INC. (ETAB), 1993]. SOILS SHOULD FALL WITHIN THE SM, ML, SC CLASSIFICATIONS OR THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS). A PERMEABILITY OF AT LEAST 1.0 FEET PER DAY APROVIDE (PVC SCHEDULE (0.5" /HR) IS REQUIRED (A CONSERVATIVE VALUE OF 0.5 FEET PER DAY IS USED FOR DESIGN). THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. BRUSH OR NV. = 'B' 24" PLANTING SURCHARGE PIPE SEEDS FROM NOXIOUS WEEDS (E.G., JOHNSON GRASS, MUGWORT, NUTSEDGE, AND CANADA THISTLE OR OTHER **ત્યા 50**IL ના NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.00.01.05.) SHOULD NOT BE PRESENT IN THE SOILS. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN 12 TO 18 LIFTS THAT ARE LOOSELY COMPACTED (TAMPED - SPLASH BLOCK LIGHTLY WITH A BACKHOE BUCKET OR TRAVERSED BY DOZER TRACKS). THE SPECIFIC CHARACTERISTICS ARE PRESENTED IN TABLE A.3. PERFORATED PIPE/GRAVEL TABLE A.3 PLANTING SOIL CHARACTERISTICS NOTE: THE BOTTOM OF EACH BIO-RETENTION FACILITY (M-6) SHALL BE ROTOTILLED PRIOR TO STONE INSTALLATION. VALUE PH RANGE 5.2 TO 7.00 TYPICAL SECTION -to stormwater ORGANIC MATTER 1.5 TO 4.0% (BY WEIGHT) MANAGEMENT FACILITY BIO-RETENTION FACILITY (F-6) 35 LBS. PER ACRE, MINIMUN MAGNESIUM (PERMEABLE PAVING OR BIO-RETENTION) PVC PIPE PHOSPHORUS (PHOSPHATE - P205) 75 LBS. PER ACRE, MINIMUL NOT TO SCALE POTASSIUM (POTASH - 1(K20) 85 LBS. PER ACRE, MINIMUN SOLUBLE SALTS 500 PPM 0 TO 5 % TYPICAL CLEAN-OUT DETAIL ROOF DOWN SPOUT DETAIL 30 TO 55 % 35 TO 60% NO SCALE NOT TO SCALE MULCH LAYER The mulch layer plays an important role in the performance of the bioretention system. The mulch layer helps maintain soil moisture and avoids surface sealing, which reduces permeability. Mulch helps prevent erosion, and provides a microenvironment suitable for soil biota at the SAND CUSHIONmulch/soil interface. It also serves as a pretreatment layer, trapping the finer sediments, which remain suspended after the primary pretreatment. HOLE SIZE: 3/8" CENTER TO CENTER: 3 The mulch layer should be standard landscape style, single or double shredded hardwood mulch ROWS OF HOLES: 2 @ 90° 2 @ 160° (+/-3°) or chips. The mulch layer should be well aged (stockpiled or stored for at least 12 months). uniform in color, and free of other materials, such as weed seeds, soil, roots, etc. The mulch should be applied to a maximum depth of three inches. Grass clippings should not be used as i mulch mäteriäl 5CH40 PVC PERFORATED AASHTO \$\$ #57 AGGREGATE PLANTING GUIDANCE UNDERDRAIN PIPE DETAIL Plant material selection should be based on the goal of simulating a terrestrial forested -6" PVC RISER FOR HORIZONTAL DRAIN PIPE community of native species. Bioretention simulates an upland-species ecosystem. The community should be dominated by trees, but have a distinct community of understory trees, NOT TO SCALE shrubs and herbaceous materials. By creating a diverse, dense plant cover, a bioretention GUTTER DRAIN FILTER DETAIL facility will be able to treat stormwater runoff and withstand urban stresses from insects, disease, drought, temperature, wind, and exposure. NOT TO SCALE The proper selection and installation of plant materials is key to a successful system. There are essentially three zones within a bioretention facility (Figure A.5). The lowest elevation LAMPHOLE FRAME & COVER supports plant species adapted to standing and fluctuating water levels. The middle elevation - PERMEABLE PAVING, SEE PLAN supports plants that like drier soil conditions, but can still tolerate occasional inundation by MATERIAL SHALL BE GRAY IRON CASTING. CASTINGS MUST BE MACHINED ON is the highest elevation and generally supports plants adapted to dryer conditions. A sample of appropriate plant materials for bioretention facilities are included in Table A.4. The layout of BEARING SURFACES. -MIX 1 CONCRETE plant material should be flexible, but should follow the general principals described in Table A.5. The objective is to have a system, which resembles a random, and natural plant layout, while CLEANOUT/WATER QUALITY maintaining optimal conditions for plant establishment and growth. For a more extensive bioretention plan, consult ETAB, 1993 or Claytor and Schueler, 1997. SAMPLING PORT DETAIL NOT TO SCALE PERMEABLE PAVING CHART PERM. PAV. AREA NO. DEPTH 2.37 A-2(1)CONCRETE EDGING 2.42' A-2(2)A-2(3)2.35' M-5 (2) M-6 (11) F-6 (9) M-6 (8) M-6 (10) BORING #5 BORING #6 BORING #13 BORING #14 BORING #15 A-2(4)1.24' EXISTING ELEV. ____ 282.00 ____ EXISTING ELEV. _____ 291.00 — EXISTING ELEV. ____ 279.00 — EXISTING ELEV. ____ 286.00 — EXISTING ELEV. ____ 291.00 — PRIVATE STORMWATER MANAGEMENT SIZING CHART MICRO-BIO. TOP _____ 290.00 — MICRO-BIO. TOP --- 283.00 --MICRO-810. TOP - 289.00 -AREA ID 6" PVC PIPE 6" PVC PIPE PERFORATED AREA PAVING TOTAL DEPTH BIO 6" PVC PIPE PERFORATED BIO 6" PVC PIPE PERFORATED MICRO-BIO. BOTTOM ---- 279.00 ----MICRO-BIO. BOTTOM ---- 205.00 ----MICRO-BIO. BOTTOM —— 277.00 — MICRO-BIO. BOTTOM — 206.67 — MICRO-BIO. BOTTOM - 275.00 -

CONSTRUCTION CRITERIA:

THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING CONSTRUCTION OF PROJECTS WITH DRY WELLS:

EROSION AND SEDIMENT CONTROL:

FINAL GRADING FOR PROPOSED DRY WELLS SHOULD NOT TAKE PLACE UNTIL THE SURROUNDING SITE IS COMPLETELY STABILIZED. IF THIS CANNOT BE ACCOMPLISHED, RUNOFF FROM DISTURBED AREAS SHALL BE DIVERTED.

EXCAVATION SHOULD BE CONDUCTED IN DRY CONDITIONS WITH EQUIPMENT LOCATED OUTSIDE OF THE PRACTICE TO MINIMIZE BOTTOM AND SIDEWALL COMPACTION. CONSTRUCTION OF A DRY WELL SHALL BE PERFORMED WITH LIGHTWEIGHT, WIDE-TRACKED EQUIPMENT TO MINIMIZE DISTURBANCE AND COMPACTION. EXCAVATED MATERIALS SHALL BE PLACED IN A CONTAINED AREA.

UNDERGROUND CHAMBER: A SUBSURFACE PREFABRICATED CHAMBER MAY BE USED.

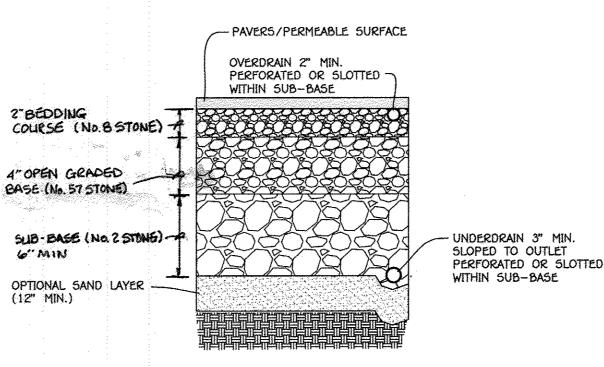
DRY WELL BOTTOM:

THE BOTTOM SHALL BE AS LEVEL AS POSSIBLE TO MINIMIZE POOLED WATER IN SMALL AREAS THAT MAY REDUCE OVERALL INFILTRATION AND LONGEVITY.

FILTER CLOTH: FILTER CLOTH SHALL NOT BE INSTALLED ON THE BOTTOM OF THE WELL NON-WOVEN FILTER CLOTH SHOULD BE USED TO LINE THE TOP AND SIDES OF THE DRY WELL TO PREVENT THE PORE SPACE BETWEEN THE STONES FROM BEING BLOCKED BY THE SURROUNDING NATIVE MATERIAL

GRAVEL MEDIA:

THE AGGREGATE SHALL BE COMPOSED OF AN 10 TO 40-INCH LAYER OF CLEAN WASHED, OPEN GRADED MATERIAL WITH 40% POROSITY (E.G., ASTM 0448 4, 5, OR 6 STONE OR EQUAL).



TYPICAL SECTION - PERMEABLE PAVEMENT w/ OVERDRAIN & UNDERDRAIN

NO SCALE

DRY WELL CHART AREA OF ROOF VOLUME VOLUME AREA OF AREA OF NO. OF DIMENSIONS NO. OF DRYWELL DOWNSPOUTS PER DOWNSPOUT REQUIRED PROVIDED STORAGE TREATMENT DRYWELLS OF DRYWELLS NUMBER 140 CU.FT. 140 CU.FT. 100% 979 1 10° X 7' X 5' 140 CU.FT. 140 CU.FT. 100% 979 1 10° X 7' X 5' 490 SQ.FT. 490 SQ.FT. 128 CU.FT. 140 CU.FT. 100% 893 1 10° X 7° X 5° 120 CU.FT. 120 CU.FT. 100% 842 1 10° X 6° X 5° 14 M-5 (2) A 14 M-5 (2) B 430 5Q.FT. 123 CU.FT. 126 CU.FT. 100% 860 1 9' X 7' X 5' 430 5Q.FT. 123 CU.FT. 128 CU.FT. 100% 860 1 16' X 4' X 5'

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED PERMEABLE PAVEMENT (A-2)

a. The owner shall periodically sweep (or vacuum porous concrete pavement) the pavement surfaces to reduce sediment accumulation and insure continued surface porosity. Sweeping should be performed at least twice annually with a commercial cleaning unit. Washing or compressed air units should not be used to perform surface cleaning.

b. The owner shall periodically clean drainage pipes, inlets, stone edge drains and other structures within or draining to the subbase.

c. The owner shall use deicers in moderation. Deicers should be non-toxic and be applied either as calcium magnesium acetate or as pretreated salt.

d. The owner shall ensure snow plowing is performed carefully with blades set one inch above the surface. Plowed snow piles and snowmelt should not be directed to permeable pavement.

Construction Specifications for Environmental Site Design Practices

B.4.8 Specifications for Permeable Pavements & Reinforced Turf

These specifications include information on acceptable materials for typical applications and are not exclusive or limiting. The designer is responsible for developing detailed specifications for individual projects and specific

1. Pervious Concrete Specifications

Design Thickness - Pervious concrete applications shall be designed so that the thickness of the concrete slab shall support the traffic and vehicle types that will be carried. Applications may be designed using either standard pavement procedures (e.g., AASHTO, ACI 325.9R, ACI 330R) or using structural values derived from flexible pavement design procedures.

Mix & Installation -- Traditional Portland cements (ASTM C 150, C 1157) may be used in pervious concrete applications. Phosphorus admixtures may also be used. Materials should be tested (e.g., trial batching) prior to construction so that critical properties (e.g., settling time, rate of strength development, porosity, permeability) can be determined.

Aggregate — Pervious concrete contains a limited fine aggregate content. Commonly used gradations include ASTM C 33 No. 67 (3% in. to No. 4), No. 8 (18 in. to No. 16) and No. 89 (3/s in. to No. 50) sieves. Single—sized aggregate (up to 1 inch) may also be used.

chemical admixtures. Water quality should meet ACI 30a. As a general rule, potable water should be used although recycled concrete production water meeting ASTM C 94 or AASHTO M 157 may also be used. Admixtures -- Chemical admixtures (e.g., retarders or hydration-stabilizers) are used to obtain special properties in

Water Content -- Water-to-cement ratios between 0.27 and 0.30 are used routinely with proper inclusion of

pervious concrete. Use of admixtures should meet ASTM C 494 (chemical admixtures) and ASTM C 260 (air entraining admixtures) and closely follow manufacturer's recommendations.

Base Course — The base course shall be AASHTO No. 3 or 4 course aggregate with an assumed open pore space of 30% (n = 0.30).

2. Permeable Interlocking Concrete Pavements (PICP)

Payer Blocks - Blocks should be either 3 1/8 in. or 4 in. thick, and meet ASTM C 936 or CSA A23 1.2 requirements. Applications should have 20% or more (40% preferred) of the surface area open. Installation should follow manufacturer's instructions, except that infill and base course materials and dimensions specified in this Appendix shall be followed.

Infill Materials and Leveling Course -- Openings shall be filled with ASTM C-33 graded sand or sandy loam. PICP blocks shall be placed on a one-inch thick leveling course of ASTM C-33 sand.

Base Course - The base course shall be AASHTO No. 3 or 4 course aggregate with an assumed open pore space of 30% (n = 0.30).

Underdrains - Underdrains should meet the following criteria:

- . Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) 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 be 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 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 1,0000 square feet) to provide a clean-out port and monitor performance of the filter section.
- . A 4" layer of sand shall be located between the filter media and underdrain to prevent migration of fines into the underdrain.

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

BORING BOTTOM _____ 280.00 ____ BORING BOTTOM _____ 271.00 -BORING BOTTOM - 273.00 -BORING BOTTOM - 278.00 -FISHER, COLLINS & CARTER, INC. AL ENGINEERING CONSULTANTS & LAND SURVEYORS ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855 1 REV. TITUE BLOCK

REVISION

- 201.00 ----

DATE

PROFESSIONAL CERTIFICATION

A-2 (4)

BORING BOTTOM _____ 267.00 -

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE, 7/4/17.

Prank John Mandamenty 9/22/16

OWNERS DOUBLE R VENTURES, LLC 8318 FORREST STREET ELLICOTT CITY, MARYLAND 21043 ATTN: JOSEPH RUTTER 410-707-7054

BUILDER RYAN HOMES 9720 PATUXENT WOODS DRIVE COLUMBIA, MARYLAND 21046 ATTN: KEVIN BOWSER 443-574-1026

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING Chief, Division of Land Development 10-20-16 Charle 10.14.16 Chief, Development Engineering Division N

National Director - Department of Planning and Zoning NY 60-21-16 PROJECT SECTION PARCEL NOS. LOTS 1-6, 8-12, FOX WOOD MANOR 14-20.22-26 \$ 44-5 CENSUS TR. PLAT BLOCK NO. ZONE TAX/ZONE | ELEC. DIST. 23766-23769 R-5C 6069.02 PREVIOUS HOWARD COUNTY FILES: 5DP-05-067, 5P-14-003, ECP-13-074, CONTRACT NO. 20-3253, CONTRACT NO. 24-4049-D,

F-15-053 AND 5DP-16-056

STORMWATER MANAGEMENT DETAILS & NOTES

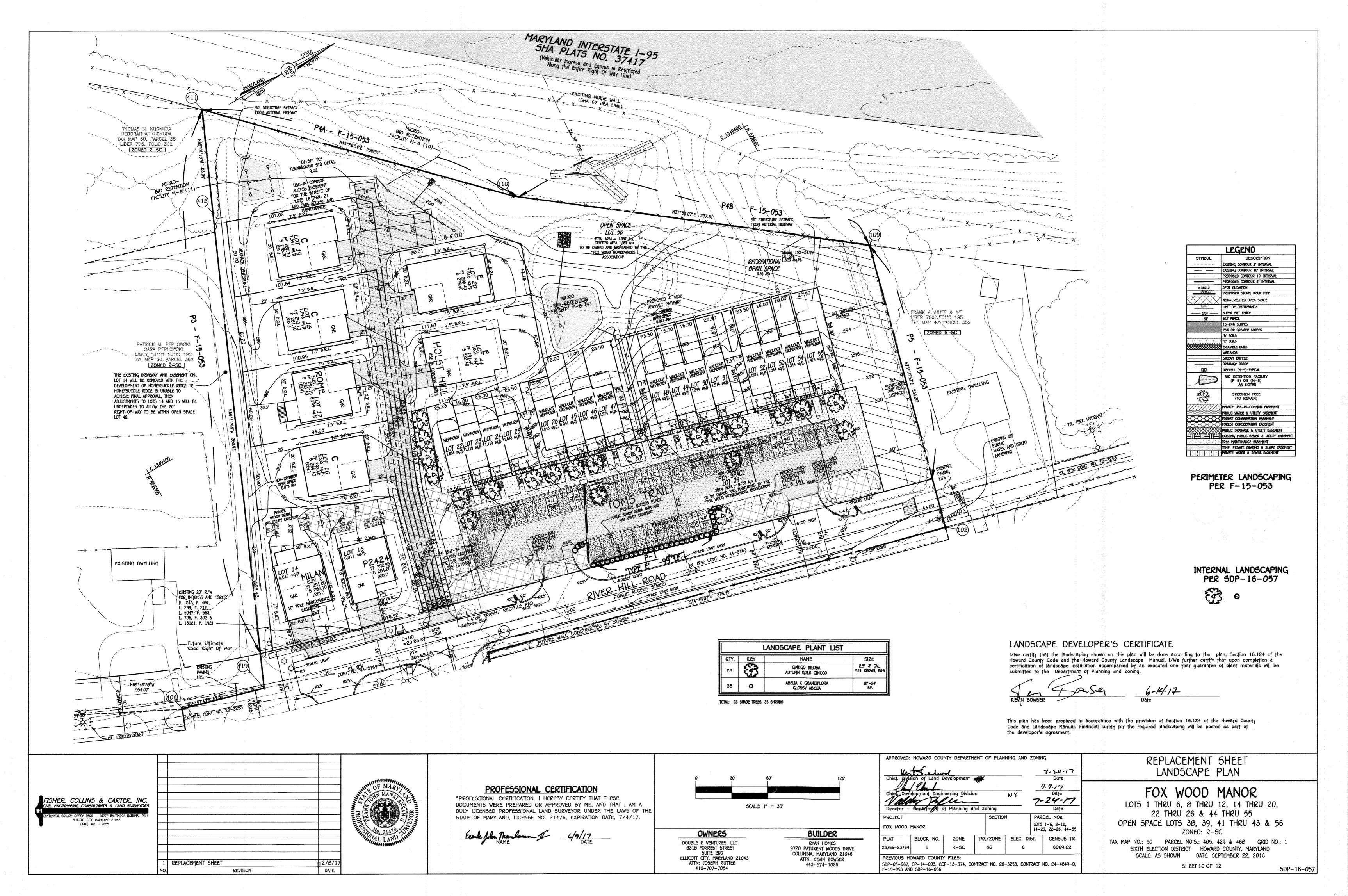
FOX WOOD MANOR LOTS 1 THRU 6, 8 THRU 12, 14 THRU 20, 22 THRU 26 \$ 44 THRU 55 OPEN SPACE LOTS 38, 39, 41 THRU 43 \$ 56

ZONED: R-5C

TAX MAP NO.: 50 PARCEL NO'S.: 405, 429 & 468 GRID NO.: 1 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: SEPTEMBER 22, 2016

SHEET 9 OF 12

50P-16-057



- 1. LANDSCAPE OBLIGATION IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL, A LANDSCAPE SURETY IN THE AMOUNT OF \$7,950.00 BASED ON (23) SHADE TREES @ \$300/SHADE TREE, AND (35) SHRUBS @ \$30/SHRUB SHALL BE BONDED AS PART OF THE DPW DEVELOPERS AGREEMENT.
- 2. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE. SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING, ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- 3. THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

LANDSCAPE DEVELOPER'S CERTIFICATE

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a certification of landscape installation a companied by an executed one year guarantee of plant materials will be submitted to the Department of mining and Zoning.

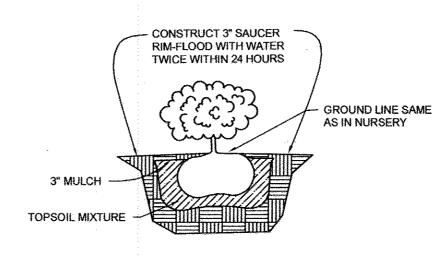
This plan has been prepared in accordance with the provision of Section 16.124 of the Howard County Code and Landscape Manual. Financial surety for the required landscaping will be posted as part of the developor's agreement.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING				
	SINGLE FAMILY ATTACHED			
NUMBER OF PARKING SPACES	42			
NUMBER OF TREES REQUIRED (1:10)	5			
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTE)	5			

SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING				
	SINGLE FAMILY ATTACHED			
HUMBER OF DWELLING UNITS	16			
NUMBER OF TREES REQUIRED (1:00 5FA)	16			
NUMBER OF TREES PROVIDED				
SHADE TREES OTHER TREES (2:1 SUBSTITUTE)	18			

5CHEDULE A - PERIME	TER LANDSCAPI	EDGE
PERIMETER	PI	TOTAL
CATEGORY	BUFFER - PARKING ADJACENT TO ROADWAY	
LANDSCAPE TYPE	Ē	·
UNEAR FEET OF PERIMETER	99 LF.	
CREDIT FOR EXISTING VEGETATION LINEAR FEET (LF) OF CREDIT REMAINING PERIMETER (LF)	99 LF REMAINING	
NUMBER OF PLANTS REQUIRED SHADE TREES (1: 40LF) EVERGREEN TREES - SHRUBS (1: 4LF)	(99'/40' = 2.5 OR 3) (99'/4' = 24.0 OR 25)	3* 25
CREDIT FOR EXISTING VEGETATION SHADE TREES SMALL/MEDIUM DECIDUOUS OR EVERGREEN TREES (2:1 SUBSTITUTION)	0 0	0
NUMBER OF PLANTS PROVIDED SHADE TREES SMALL/MEDIUM DECIDUOUS OR EVERGREEN TREES (2:1 SUBSTITUTION)	2	2
SHRUBS (10:1 SUBSTITUTION)	35	35

•10 SHRUBS SUBSTITUTION FOR 1 SHADE TREE)



SHRUB PLANTING DETAIL

PLANTING SPECIFICATIONS

PLANTS, RELATED MATERIAL, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.

ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED, HAVE A VIGOROUS ROOT SYSTEM, AND SHALL CONFORM TO THE SPECIES, SIZE, ROOT AND SHAPE SHOWN ON THE PLANT LIST AND THE AMERICAN ASSOCIATION OF NURSERYMEN (AMI) STANDARDS. PLANT HATERIAL SHALL BE HEALTHY, VIGOROUS, FREE FROM DEFECTS, DECAY, DISTIBLIER, SOUTS, SUN SCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BORRES AND ALL FORMS OF INSECT INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS. PLANT HATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. ALL PLANTS SHALL BE FRESHLY DUG, NO HEALED-IN PLANTS FROM COLD STORAGE WILL BE ACCEPTED.

Unless otherwise specified, all general conditions, planting operations, details and planting specification shall conform to "landscape specification glidelines for Baltimore-Washington Metropolitan areas", (Hereinafter "landscape guidelines") approved by the landscape contractors association of metropolitan washington and the potomac chapter of the american society of landscape architect, latest edition, including all agenda.

CONTRACTOR SHALL BE REQUIRED TO GLARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THE LANDSCAPE GUIDELINES. CONTRACTOR'S ATTENTION IS DIRECTED TO THE MAINTENANCE REQUIREMENTS FOUND WITHIN THE ONE YEAR SPECIFICATIONS INCLUDING WATERING, AND REPLACEMENT OF SPECIFICAL PLANT MATERIAL.

CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES, UTILITY CONTRACTORS AND "MISS UTILITY" A MINIMUM OF 40 HOURS PRIOR TO BEGINNING ANY WORK.
CONTRACTOR MAY MAKE MINOR ADJUSTMENTS IN SPACING AND LOCATION OF PLANT NATIONAL TO AVOID CONFLICTS WITH UTILITIES. DAMAGE TO EXISTING STRUCTURE AND UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

PROTECTION OF EXISTING VEGETATION TO REMAIN SHALL BE ACCOMPLISHED BY THE TEMPORARY INSTALLATION OF 4 FOOT HIGH SNOW FENCE OR BLAZE ORANGE SAFETY FENCE AT THE DRIP LINE. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL MATERIAL IN THE PROPER PLANTING SEASON FOR EACH PLANT TYPE. ALL PLANTING IS TO BE COMPLETED WITHIN THE GROWING SEASON OF COMPLETION OF SITE CONSTRUCTION.

BID SHALL BE BASE ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARSING FROM SITE CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS

PLANT QUANTITIES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN TAKE PRECEDENCE.

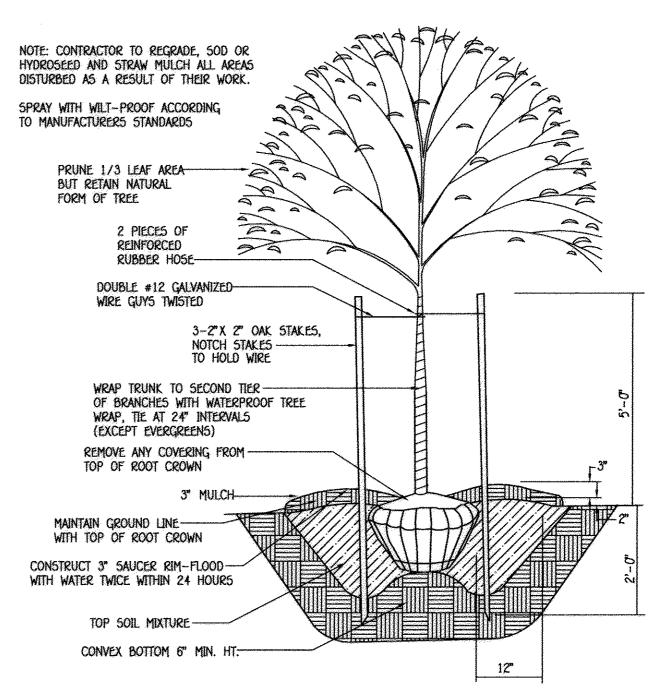
ALL SHRUBS SHALL BE PLANTED IN CONTINUOUS TRENCHES OR PREPARED PLANTING BEDS AND MULCHED WITH COMPOSTED HARDWOOD MULCH AS DETAILS AND SPECIFIED EXCEPT WHERE NOTED ON PLANS.

Positive dranage sivil be hantained in planting beds 2 percent slope). PLANTING MIX SHALL BE AS FOLLOWS: DECIDIOUS PLANTS — TWO PARTS TOPSOIL, ONE PART WELL—ROTTED COW OR HORSE MANURE. ADD 3 LBS. OF STANDARD PERTILIZER PER CUBIC YARD OF PLANTING MIX. EVERGREEN PLANTS — TWO PARTS TOPSOIL, ONE PART HUMUS OR OTHER APPROVED ORGANIC MATERIAL. ADD 3 LBS. OF EVERGREEN (ACIDIC) FERTILIZER PER CUBIC YARD OF PLANTING MIX. TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.

WEED CONTROL: INCORPORATE A PRE-EMERGENT HERBICIDE INTO THE PLANTING BED FOLLOWING RECOMMENDED RATES ON THE LABEL. CAUTION: BE SURE TO CAREFULLY CHECK THE CHEMICAL USED TO ASSURE 115 ADAPTABILITY TO THE SPECIFIC GROUND COVER TO BE TREATED.

ALL AREAS WITHIN CONTRACT LIBITS DISTURBED DURING OR PRIOR TO CONSTRUCTION NOT DESIGNATED TO RECEIVE PLANTS AND HULCH SHALL BE FINE GRADED AND SEEDED.

THIS PLAN IS INTENDED FOR LANDSCAPE USE ONLY. SEE OTHER PLAN SHEETS FOR MORE INFORMATION ON GRADING, SEDIMENT CONTROL, LAYOUT, ETC.

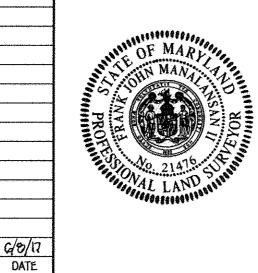


TREE PLANTING DETAIL NOT TO SCALE



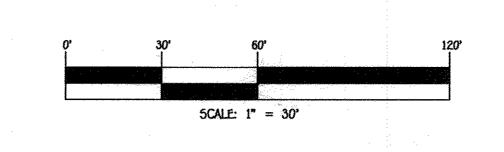
1 PEV. TITLE BLOCK

REVISION



PROFESSIONAL CERTIFICATION

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE, 7/4/17.



OWNER5	
DOUBLE R VENTURES, LLC	•
0310 FORREST STREET	
SUITE 200	
ELLICOTT CITY, MARYLAND 21043	
ATTN: JOSEPH RUTTER	
410-707-7054	

BUILDER RYAN HOMES 9720 PATUXENT WOODS DRIVE COLUMBIA, MARYLAND 21046 ATTN: KEVIN BOWSER 443-574-1026

- Ke-	25helwo	الــــــــــــــــــــــــــــــــــــ					10-20-16	
Chief, Division of Land Development							10-20-16 Dațe	
Chief Deve	Planment Fnoir	eerino Divisio	n.		NY	******	18.14.16 Date	
Chief. Development Engineering Division						10	0-21-16	
Director -	Department o	of Planning a	nd Zo	ning			Date	
PROJECT				SECTION	· · · · · · · · · · · · · · · · · · ·	PAR	CEL NOs.	
FOX WOOD	MANOR		***************************************				5 1-6, 8-12, 9 , U-U {14 -55	
PLAT	BLOCK NO.	ZONE	TAX	ZONE	ELEC. C	NST.	CENSUS TR.	
1		R-5C		50	6		6069.02	

F-15-053 AND 5DP-16-056

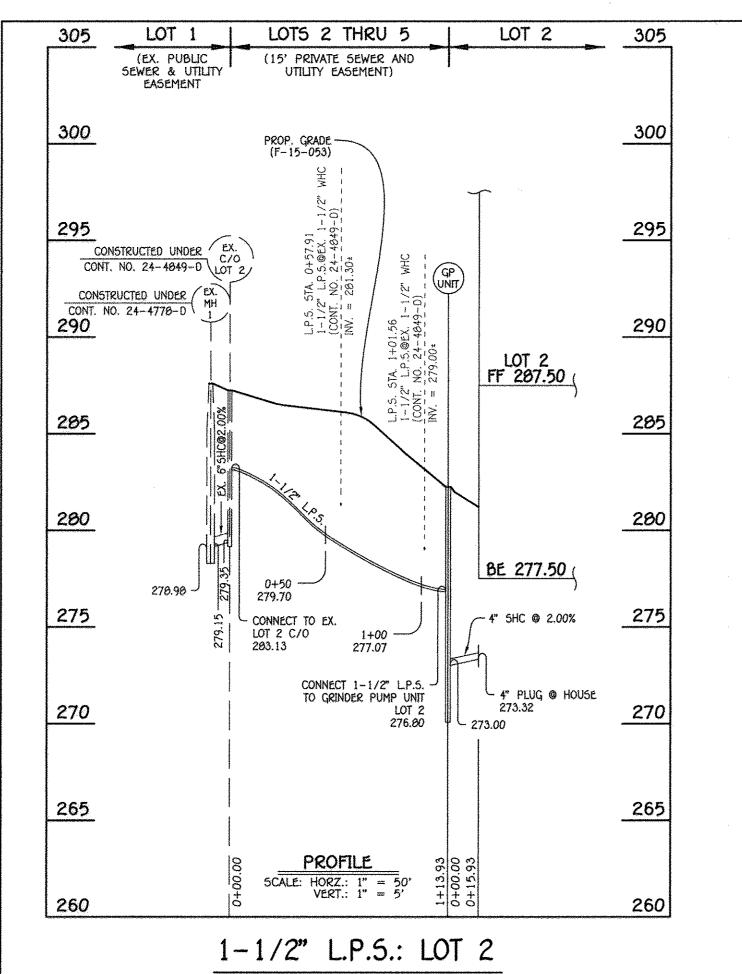
LANDSCAPE NOTES AND DETAILS

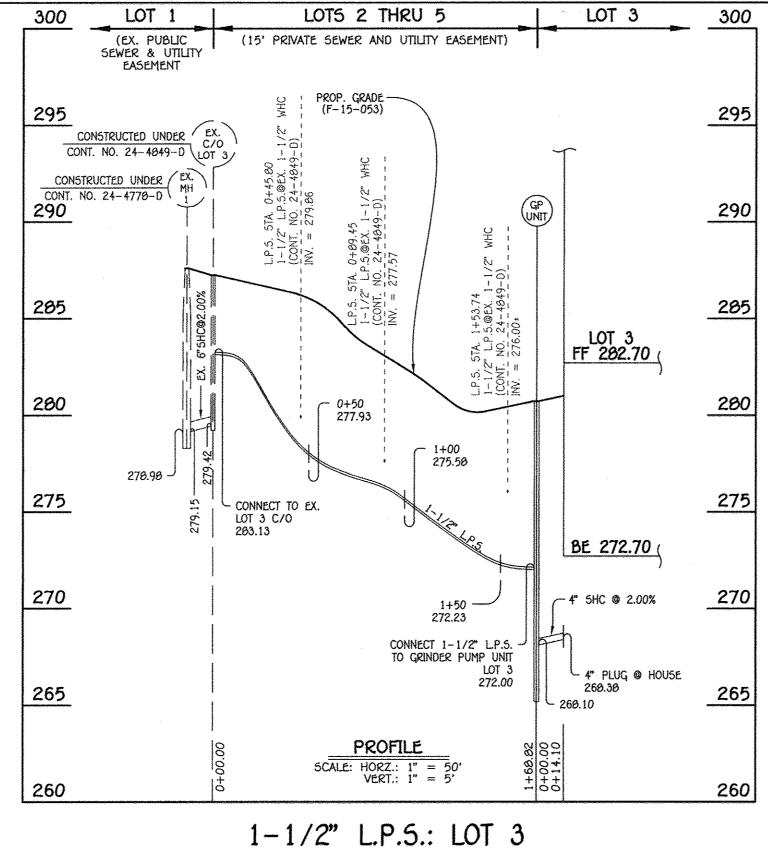
FOX WOOD MANOR LOTS 1 THRU 6, 8 THRU 12, 14 THRU 20, 22 THRU 26 & 44 THRU 55 OPEN SPACE LOTS 38, 39, 41 THEU 43 & 56

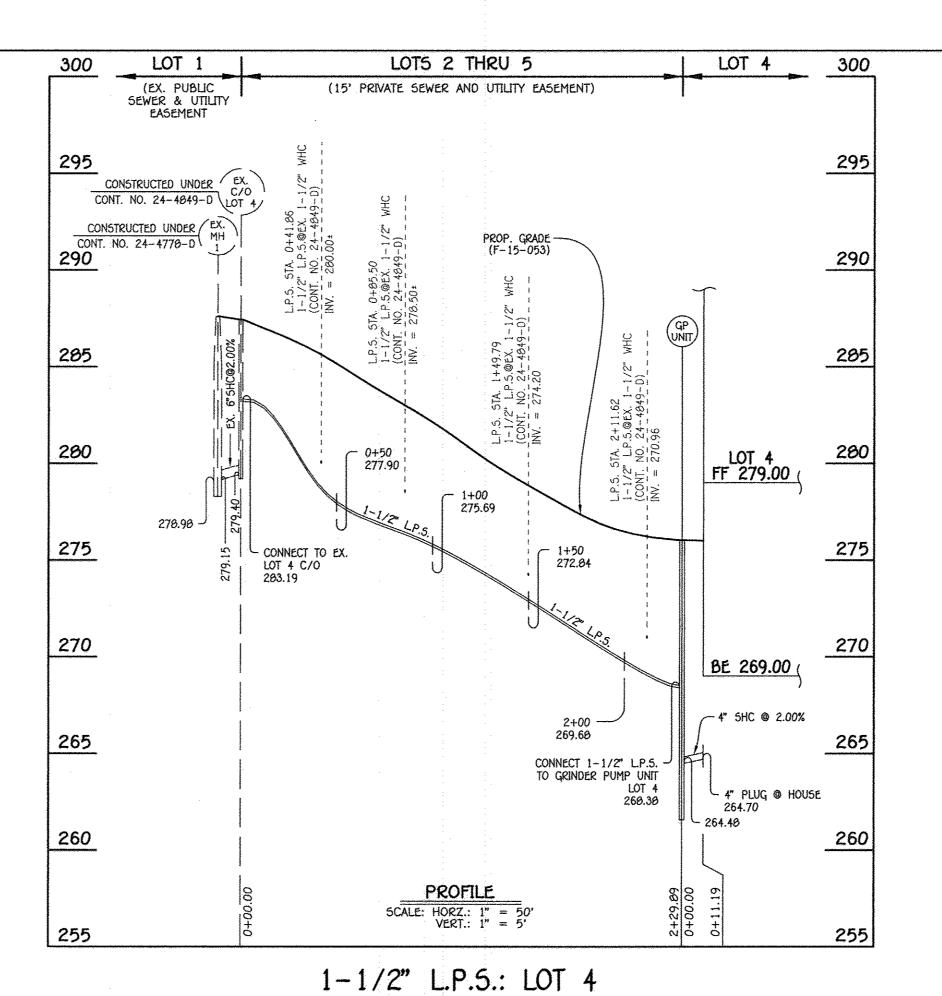
ZONED: R-5C TAX MAP NO.: 50 PARCEL NO'5.: 405, 429 & 468 GRID NO.: 1 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: SEPTEMBER 22, 2016

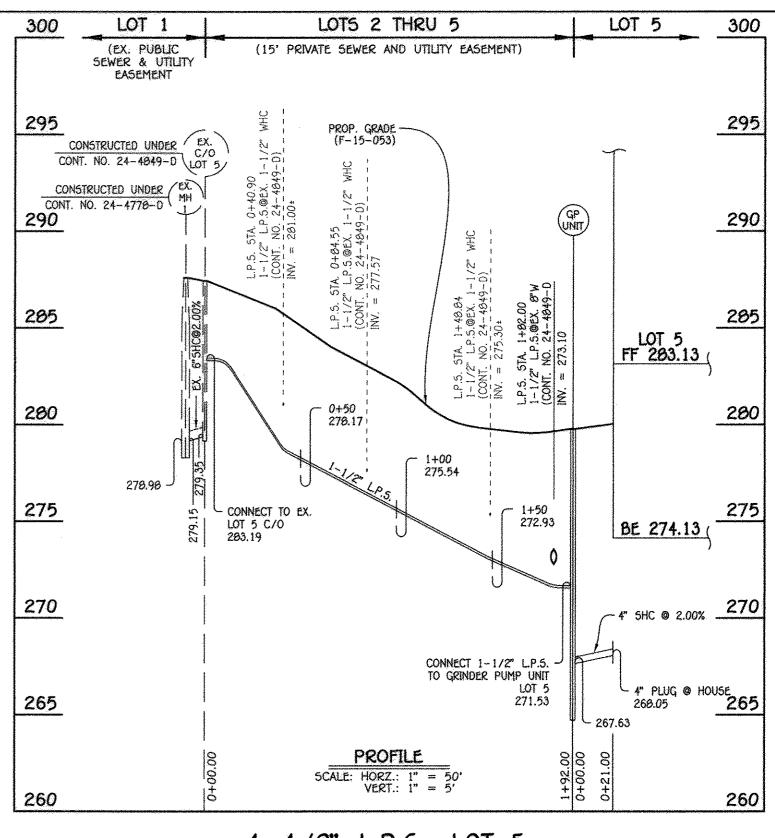
5HEET 11 OF 12

50P-16-057









1-1/2" L.P.S.: LOT 5

1-1/	2" L.P.S. MAIN	TABULATION	CHART
L.P.S. STA.	APPURTENANCE	NORTHING	EASTING
	1-1/2" L.P.5. M	AIN: LOT 2	
0+00.00	@ C/O	527943.24	1350305.32
0+03.00	PC CRIMP RADIUS 5°	527942.16	1350308.16
0+06.14	PT CRIMP RADIUS 5°	527939.57	1350309.26
0+19.13	PC CRIMP RADIUS 5°	527927.46	1350304.57
0+23.57	PT CRIMP RADIUS 5°	527924.51	1350301.45
0+44.06	PC CRIMP RADIUS 5°	527918.19	1350201.96
0+40.49	PT CRIMP RADIUS 5°	527915.25	1350278.85
1+09.79	PC CRIMP RADIUS 2°	527050.12	1350256.61
1+12.93	PT CRIMP RADIUS 2°	527055.53	1350257.74
1+13.93	@ 5IMPLEX GRINDER PUMP UNIT	527855.17	1350258.68

1 REV. TITLE BLOCK

REVISION

1-1/	2" L.P.S. MAIN	TABULATION	CHART
L.P.5. STA.	APPURTENANCE	NORTHING	EASTING
	1-1/2" L.P.5. M	AIN: LOT 3	
0+00.00	@ C/O	527936.72	1350302.78
0+08.20	PC CRIMP RADIUS 5°	527929.07	1350299.02
0+12.64	PT CRIMP RADIUS 5°	527926.12	1350296.70
0+30.53	PC CRIMP RADIUS 5°	527920.60	1350279.69
0+34.96	PT CRIMP RADIUS 5°	527917.66	1350276.57
1+61.60	PC CRIMP RADIUS 2°	527799.57	1350230.59
1+64.03	PT CRIMP RADIUS 2°	527796.98	1350231.73
1+60.02	@ SIMPLEX GRINDER PUMP UNIT	527795.53	1350235.45

1-1	/2" L.P.S. MAIN	TABULATION	CHART
L.P.S. STA.	APPURTENANCE	NORTHING	EASTING
	1-1/2" L.P.5. MA	IN: LOT 4	
0+00.00	@ C/0	527935.75	1350297.03
0+05.43	PC CRIMP RADIUS 5°	527930.69	1350295.08
0+09.87	PT CRIMP RADIUS 5°	527927.73	1350291.95
0+25.16	PC CRIMP RADIUS 5°	527923.02	1350277.41
0+29.59	PT CRIMP RADIUS 5°	527920.08	1350274.29
2+19.75	PC CRIMP RADIUS 2°	527742.07	1350205.30
2+22.89	PT CRIMP RADIUS 2°	527740.28	1350206.44
2+29.89	@ SIMPLEX GRINDER PUMP UNIT	527737.74	1350212.96

			<u></u>
1-1/2	L.P.S. MAIN	TABULATION	CHART
LP.5. STA.	APPURTENANCE	NORTHING	EASTING
	1-1/2" L.P.5. M	AIN: LOT 5	
0+00.00	@ C/O	527937.55	1350292.37
0+05.62	PC CRIMP RADIUS 5°	527932.31	1350290.34
0+10.06	PT CRIMP RADIUS 5°	527929.35	1350287.22
0+22.78	PC CRIMP RADIUS 5°	527925.43	1350275.13
0+27.21	PT CRIMP RADIUS 5°	527922.49	1350272.49
1+67.87	PC CRIMP RADIUS 2°	527791.42	1350220.98
1+71.00	PT CRIMP RADIUS 2°	527790.28	1350218.39
1+92.00 @	SIMPLEX GRINDER PUMP UNIT	527797.90	1350198.82

F15HER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
8 8
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2055



PROFESSIONAL CERTIFICATION

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Paul W. RRIEBEL

09/23/16 DATE

410-707-7054

Chief, Division of Land Development

Chief, Development Engineering Division

Director - Department of Planning and

PROJECT

FOX WOOD MANOR

BUILDER

DOUBLE R VENTURES, LLC

8318 FORREST STREET

5UITE 200

ELLICOTT CITY, MARYLAND 21043

ATTN: JOSEPH RUTTER

ATTN: JOSEPH RUTTER

COLUMBIA, MARYLAND 21046

ATTN: KEVIN BOWSER

443-574-1026

COLUMBIA, MARYLAND 21046

SDP-05-067, SP-14-003, ECP-13-074, CONTR

F-15-053 AND 50P-16-056

LOW PRESSURE SEWER SYSTEM EXTENSIONS PROFILES & CHARTS

FOX WOOD MANOR
LOTS 1 THRU 6, 8 THRU 12, 14 THRU 20,
22 THRU 26 \$ 44 THRU 55
OPEN SPACE LOTS 38, 39, 41 THRU 43 \$ 56

ZONFD: R-SC

TAX MAP NO.: 50 PARCEL NO'S.: 405, 429 & 468 GRID NO.: 1
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: SEPTEMBER 22, 2016
SHEET 12 OF 12

5DP-16-057