

	50IL5 LEGEND		
50IL	NAME	CLA55	'K'VALUE
Gh8	Glenelg—Urban land complex, 0 to 8 percent slopes	В	0.43
LoB	Legore-Montalto Urban land complex, 0 to 8 percent slopes	В	0.64
принципанти до принципанти до до до принципанти до	HOWARD COUNTY	50IL5 MA	P PAGE 14

MICRO-	BIORETENT	ION5 PLAN	T MATERIAL	
QUAI	YTTY	NAME	MAXIMUM	
. MB1 -	MB2	NAME	SPACING (FT.)	
10	70	MIXED PERENNIALS	1.5 TO 3.0 FT.	
Prosth	2	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION	

LEGENO

SU	PPI	り別公		AL	AN
				OP	

L MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION

LOTS 1 & 2

CONTROL STATION

#17IE

HOWARD COUNTY

ELEVATION: 360.32

5CALE: 1" = 2,000"

GEODETIC SURVEY CONTROL NO. 171E

N 591,269.4891 E 1,366,174.599

ZONING: R-20 (RESIDENTIAL: SINGLE DISTRICT) TAX MAP No. 18 GRID No. 13 PARCEL No. 047

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND



R.O.W. = 1.285

A. TOTAL AREA OF THIS SUBMISSION = $\underline{56.295}$ 54.Ft. (1.29 AC.±.) LOT 1 = 31,895 LOT 2 = 23,115

LIMIT OF DISTURBED AREA = 0.99 Ac. ± PRESENT ZONING DESIGNATION = R-20: PROPOSED USE: SINGLE FAMILY DETACHED HOUSING

E. DENSITY ALLOWED: 2 UNIT5/ACRE X 1.3 = 2 UNIT5 F. OPEN SPACE: FEE-IN-LIEU REQUIRED

. TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0 5q.Ft.

G. BUILDING COVERAGE OF SITE: 5,280 Sq.Ft. OR 9% I. PREVIOUS HOWARD COUNTY FILE Nos.: ECP-19-036, WP-19-080. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE O AC.

(0 5q.Ft. 25% OR GREATER) K. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) LOCATED ON SITE = 0 AC.*

TOTAL FOREST = 0 Ac. M. TOTAL GREEN OPEN AREA = 1.01 Ac.±

I. TOTAL IMPERVIOUS AREA = 0.28 Ac. ± O. AREA OF ERODIBLE SOILS = 1.29 Ac.

OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II. TABLE A.4.1 AND 2.

THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL,

TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND WIRES. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER

THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS

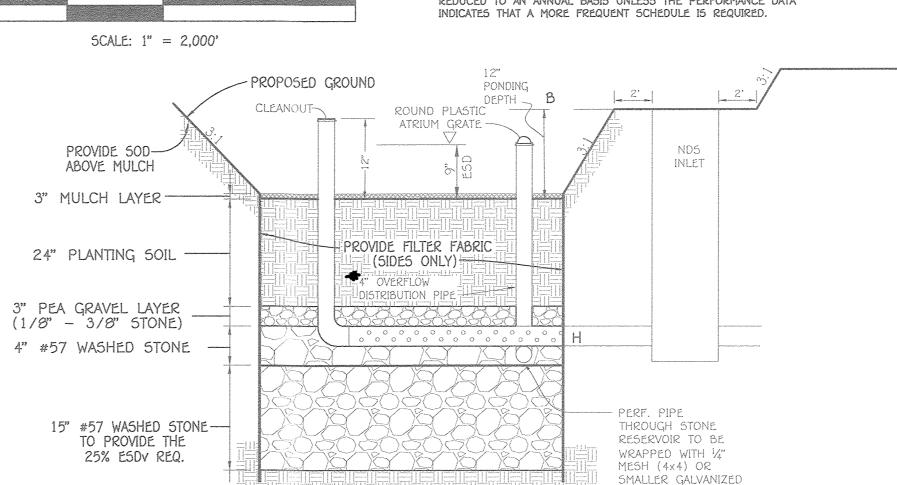
A. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT. B. THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO

FNSURF TRENCH DRAINAGE THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE A WHICH THE FACILITY DRAINS.

D. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN REFER TO HOWARD CO. ADC MAP 21-58 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 FREQUENT SCHEDULE IS REQUIRED.



MICRO BIO-RETENTION SECTION WITH 4" OVERFLOW DISTRIBUTION PIPI

OVERFLOW PIPE IS NOT CONNECTED TO LUCERDRAIN

M.I.H.U. Note: Please Note That Lots 1 And 2 In This Subdivision Are Subject To Section 13.402(c)(e) Of The Howard County Subdivision And Land Development Regulations For The Moderate Income Housing Unit (M.I.H.U.) Fee-In-Lieu Payment Is To Be Calculated And Paid To The Department Of Inspections, Licenses And Permits

* SEE PLANT MATERIAL CHARTS FOR QUANTITIES AND SPACING AT LEAST 50% OF THE SURFACE AREA OF THE MICRO-BIORETENTION

<u>PERENNIALS</u>

CUT-LEAF CONEFLOWER (1.5' 5P.)

BEEBALM (1.5' SP.)

JOE-PYE-WEED (3' SP.)

SILKY DOGWOOD

HARDWARE CLOTH

COLUMBIA BUILDERS P.O. BOX 999

OWNER/DEVELOPER

COLUMBIA, MD 21044 JIM GREENFIELD 443-324-4732

8438 HIGH RIDGE ROAD ELLICOTT CITY, MD 21043

ZONED R-20 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET 1 OF 4

	STORMWATER MANAGEMENT PRACTICES								
LOT NO.	ADDRE55	PERMEABLE CONCRETE (A-2) Y/N, NUMBER	DISCONNECTION OF ROOFTOP RUNOFF (N-1) Y/N, NUMBER	DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2) Y/N	INFILTRATION BERMS (M-4) Y/N, NUMBER	DRY WELLS (M-5) Y/N, NUMBER	MICRO-BIORETENTION (M-6) Y/N, NUMBER		
1	8438 HIGH RIDGE ROAD	NO	NO	NO	NO	YES, THREE (3)	YES, ONE (1)		
2	BAAD HICH DIDCE DOAD	NO	NO	NO	NO	VES THOFF (3)	YES ONE (1)		

,	1	,,	1711, 1101,000	(11 6) 1/11	1 1711, 110,10010	1 17 113 1101
596	8438 HIGH RIDGE ROAD	NO	NO	NO	NO	YES, THRE
_	8440 HIGH RIDGE ROAD	NO	NO	NO	NO	YES, THRE
100	STORM	WATER MAI	NAGEMENT 5UM	MARY		
-	REA ID. REQUIRED	E5DV PROVIDED	REMAR	K5	The state of the s	

CU.FT. | CU.FT. 5IX (6) DRYWELL5 (M-5) & SITE 1,294 Cu.FT. | 2,037 Cu.Ft TWO (2) MICRO-BIORETENTION (M-6) GRO55 AREA = 1.29 ACRES

 $LOD = 0.99 ACRE5 \pm$ TARGET Pe = 1.4 '

TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION COMBINATION WITH THE GENERAL NOTES MD 104.00-01 - MD 104.00-18 AND STANDARD DETAILS MD 104.01-01 NOTE: FLAGGER SHALL NEVER BE THE ENGINEER SHOULD CONSIDER ADDITIONAL, ADJACENT LANE CLOSURES WHEN THE POSSIBILITY OF UNPLANNED TRAVELWAY ENCROACHMENTS EXISTS. KEY: CHANNELIZING DEVICES -----SIGN SUPPORT FACE OF SIGN DIRECTION OF TRAFFIC WORK SITE (OPTIONAL FOR 15 MIN-12 HRS. FLAGGER OR DAYTIME APPLICATIONS) GOVD MOKK (OPTIONAL FOR 15 MIN-12 HRS. OR DAYTIME APPLICATIONS) ROAD

ROAD 1500 FT

WORK

PLAN 1"=20'

SEE PLANT MATERIAL CHARTS FOR QUANTITIES AND SPACING

9. 16.19

Approved: Department Of Planning And Zoning

SYMBOL DESCRIPTION EXISTING CONTOUR 2' INTERVAL **EXISTING CONTOUR 10' INTERVAL** -----PROPOSED CONTOUR 10' INTERVAL PROPOSED CONTOUR 2' INTERVAL SPOT ELEVATION X 448.5 EXISTING STORM DRAIN PROPOSED STORM DRAIN PIPE 1) KUUP EXISTING WATER LINE $-\frac{g''5}{2}$ EXISTING SEWER LINE PROPOSED SEWER _____ 6″₩ \$\display= PROPOSED WATER EXISTING CABLE LINE EXISTING GAS LINE EXISTING OVERHEAD WIRE BUILDING AND DRIVES TO BE REMOVED EXISTING PAVING PROPOSED SIDEWALKS/PATHS LIMIT OF DISTURBANCE ---- 55F --- | SUPER SILT FENCE ---- SF ---- | SILT FENCE EXISTING TREE LINE PROPOSED TREE LINE DRAINAGE DIVIDE DRYWELL (M-5)-TYPICAL **50IL LINES AND TYPES** BIO RETENTION FACILITY (F-6) OR (M-6)AS NOTED PROPOSED ROOF LEADER DENOTES EXISTING TREES TO REMAIN -CRITICAL ROOT ZONE

JFOREST CONSERVATION EASEMENT (RETENTION) DENOTES EXISTING TREES TO BE REMOVED

FOREST CONSERVATION EASEMENT (REFORESTATION)

*THE EXACT NUMBER OF DRYWELLS REQUIRED AND THE LENGTH AND WIDTH WILL BE DETERMINED ONCE DOWNSPOUT DRAINAGE PATTERNS ARE DETERMINED. -CAP WITH LOCK 4-6 INCH PERFORATE PVC PIPE ON CONCRETE FOOTPLATE BUILDING STONE ASTM STONE ASTM FOUNDATION-)-448 SIZE # 12" SAND, ROTOTILL 1'-0" BELOW TRENCH DRYWELL TRENCH MAY NOT BE INSTALLED IN FILL. GROUND WATER DRY WELL DETAIL (M-5)

HIGH SCHOOL

HOWARD COUNTY

ELEVATION: 439.29

GEODETIC SURVEY CONTROL NO. 18GB

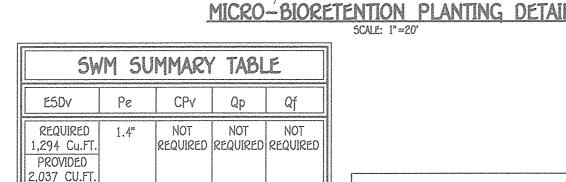
N 591,921.311 E 1,367,395.975

1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH WITH CHAPTER 5, "ENVIRONMENTAL SITE

At The Time Of Building Issuance By The Permit Applicant.

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. 38386, EXPIRATION



FISHER, COLLINS & CARTER, INC. ENGINEERING CONSULTANTS & LAND SURVEYORS NIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE (410) 461 - 2055

STORMWATER MANAGEMENT NOTES

DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010. 2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 500 SQ. FT. OR LESS.

42. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY 43. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT. 44. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT OF WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST 45. A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S / OWNER'S EXPENSE FOR ALL THE USE-IN-COMMON DRIVEWAYS IN THE DEVELOPMENT. CONTACT HOWARD COUNT TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST DRY WELL CHART

THE SUBJECT PROPERTY IS ZONED R-20 (PER 10/06/13 COMPREHENSIVE ZONING PLAN.)

STATIONS NO. 18GB AND NO. 17IE:

DRIVEWAY SURFACE

Nos.: FCP-19-036, WP-19-080

14. SITE IS NOT ADJACENT TO A SCENIC ROAD.

PUBLIC ROAD = 1,285 SF (0.029 AC.±)

2019 FOR CELLAR TO NOT BE SEWERED FOR LOT 1

DEPARTMENT OF HOUSING FOR EACH REQUIRED UNIT.

MODERATE INCOME HOUSING UNIT (M.I.H.U.) TABULATION:

MANUAL, VOLUME III, ROADS, BRIDGES, SECTION 5.2.F.2.

PART OF THE SITE DEVELOPMENT PLAN.

MANUAL EXHIBIT G-15 ROOT PRUNING.

LIMIT ON ADJOINING DRIVEWAY ENTRANCES.

COUNTY PLUS M5HA STANDARDS AND SPECIFICATIONS.

FURTHER SUBDIVISION POTENTIAL

15 SUBJECT TO THE FOLLOWING CONDITIONS:

ASSESSMENT OF HOWARD COUNTY.

COMMUNITY MEETING.

REGULATIONS

26. A SPEED STUDY DATED JANUARY, 2019 WAS PREPARED BY MARS GROUP.

HOWARD COUNTY CODE

HOWARD COUNTY MONUMENT NO. 18GB N 591,921.311

HOWARD COUNTY MONUMENT NO. 17IE N 591,269.4891

WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE)

MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE. 11. PROPERTY IS SUBJECT TO PRIOR DEPARTMENT OF PLANNING AND ZONING FILE

17. ROAD DEDICATION - LAND DEDICATED TO HOWARD COUNTY FOR PURPOSES OF A

13. THERE IS NO FLOOPLAIN, STEEP SLOPES, OR FOREST ON THIS SITE.

THIS PROPERTY IS SUBJECT TO THE REQUIREMENTS OF SECTION 16.127 RESIDENTIAL INFILL DEVELOPMENT

BOUNDARY IS BASED ON A FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS & CARTER ON OR ABOUT

CONTOURS ARE BASED ON A TOPOGRAPHIC FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS AND CARTER, ON

EXISTING UTILITIES ARE BASED ON FIELD RUN SURVEY AND SUPPLEMENTED BY AVAILABLE COUNTY INFORMATION

COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC

DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND NOT REDUCED TO NAD '83 GRID MEASUREMENTS

SURFACE - 6" OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1 1/2" MIN)

12. A LETTER OF FINDINGS DATED FEBRUARY 27, 2019, PREPARED BY ECO SCIENCE PROFESSIONALS, INC. STATES THERE ARE NO WETLANDS, STREAMS OR THEIR BUFFERS LOCATED WITHIN THE LIMITS OF THIS PROPERTY.

15. NO CEMETERIES EXIST ON SITE BASED ON VISUAL OBSERVATION OR LISTED AVAILABLE HOWARD COUNTY CEMETERY 16. FLAG AND PIPESTEM LOTS - REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE

JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT

18. THIS PROJECT IS LOCATED IN THE METROPOLITAN DISTRICT AND WILL BE SERVED BY PUBLIC WATER AND SEWER.

20. PUBLIC WATER AND SEWERAGE ALLOCATION WILL BE GRANTED AT TIME OF ISSUANCE OF BUILDING PERMIT IF

CAPACITY IS AVAILABLE AT THAT TIME.

21. THERE IS AN EXISTING DWELLING AND THREE SHEDS LOCATED ON THIS LOT WHICH ARE TO BE REMOVED.

23. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT

28. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.

SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT.

4.7.8.5 OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME III, ROADS AND BRIDGES.

19. WATER AND SEWER SERVICE TO THESE LOTS WILL GRANTED UNDER THE PROVISIONS OF SECTION 10.122.8 OF THE

22. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II,

REVISED 2009, THIS PLAN PROPOSES THE USE OF ONE (1) M-6 MICRO-BIORETENTION FACILITIES AND SIX (6)

REGULATIONS AND THE 10/06/13 COMPREHENSIVE ZONING PLAN. DEVELOPMENT OR CONSTRUCTION ON THESE

24 EXISTING WELL ON LOT 2 WILL PROPERLY ABANDONED IN ACCORDANCE WITH HOWARD COUNTY HEALTH DEPARTMEN

27. PROPERTY IS A MINOR SUBDIVISION AND IS EXEMPT FROM APFO TRAFFIC REPORT IN ACCORDANCE WITH SECTION

29. THE DEVELOPER INTENDS TO PAY A FEE IN LIEU OF OPEN SPACE IN THE AMOUNT OF \$1,500.00
30. THE LOTS CREATED BY THIS SUBDIVISION ARE SUBJECT TO A FEE OR AN ASSESSMENT TO COVER OR DEFRAY ALL

OR PART OF THE DEVELOPERS COST OF THE INSTALLATION OF THE WATER AND SEWER FACILITIES. PURSUANT TO

OBLIGATION BETWEEN THE DEVELOPER AND EACH OWNER OF THIS PROPERTY AND IS NOT IN ANY WAY A FEE OR

COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRE PERIMETER LANDSCAPING WILL

COMPATIBILITY WITH EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERMS,

DWELLING UNITS SHALL BE MODERATE INCOME HOUSING UNITS (M.I.H.U.) OR AN ALTERNATIVE COMPLIANCE WILL BE

PROVIDED.THE DEVELOPER SHALL EXECUTE A M.I.H.U. AGREEMENT WITH THE DEPARTMENT OF HOUSING TO INDICATE

M.I.H.U. PROPOSED = DEVELOPER WILL PURSUE ALTERNATIVE COMPLIANCE BY PAYING A

b. AN EXECUTED M.I.H.U. AGREEMENT WITH THE HOWARD COUNTY HOUSING DEPARTMENT HAS BEEN

FEE-IN-LIEU TO THE HOWARD COUNTY HOUSING DEPARTMENT FOR THE UNITS REQUIRED BY THE

HOW THE M.I.H.U. REQUIREMENT WILL BE MET. THE M.I.H.U. AGREEMENT AND COVENANTS WILL BE RECORDED

35. THE VARIABLE WIDTH PRIVATE USE-IN-COMMON DRIVEWAY EASEMENT AND MAINTENANCE AGREEMENT FOR THE USE

36. NO NOISE STUDY IS REQUIRED BECAUSE THE PROJECT DOES NOT FALL WITHIN THE GUIDELINES OF DESIGN

16.1202(B)(1)(VIII) BECAUSE THIS IS A MINOR SUBDIVISION THAT CREATES ONE (1) NEW LOT AND HAS NO

39. THIS PLAN IS SUBJECT TO ALTERNATIVE COMPLIANCE (WP-19-000) WHICH ON APRIL 10, 2019 THE PLANNING

DIRECTOR APPROVED A REQUEST FOR AN ALTERNATIVE COMPLIANCE OF SECTION 16.1205(A)(7), FOREST RETENTION

TREES 30 INCH IN DIAMETER OR LARGER FOR THE REMOVAL OF SPECIMEN TREES #1, #3, #4 AND #8. APPROVAL

THE ALTERNATIVE COMPLIANCE APPROVAL IS LIMITED TO THE REMOVAL OF SPECIMEN TREES

#1, #3, #4 AND #8 AS DEPICTED ON THE EXHIBIT. ANY PROPOSAL TO REMOVE ANY OTHER

2. A MINIMUM OF EIGHT (B), NATIVE 2.5"-3" CALIPER, SHADE TREES SHALL BE PROVIDED AS MITIGATION

3. IT IS RECOMMENDED THAT THE APPLICANT TRY TO SAVE SPECIMEN TREE #3 BY HAVING AN ARBORIST

THE PLANNING DIRECTOR DENIED A REQUEST FOR AN ALTERNATIVE COMPLIANCE TO SECTION 16.127(C)(4)(I),

40. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD

41. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/ BUREAU OF ENGINEERING/ CONSTRUCTION

INSPECTION DIVISION AT (410)313-1000 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.

EXPLORE METHODS TO PRESERVE THE TREE WITH ROOT PRUNING PER THE FOREST CONSERVATION

FOR THE REMOVAL OF THE FOUR (4) SPECIMEN TREES FROM THE PROPERTY. LANDSCAPING SURETY, IN

THE AMOUNT OF \$300.00 PER TREE SHALL BE PROVIDED WITH THE APPLICANT'S GRADING PERMIT AS

PRIORITIES: STATE CHAMPION TREES, TREES 75 PERCENT OF THE DIAMETER OF STATE CHAMPION TREES, AND

SIMULTANFOLISLY WITH THIS PLAT IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND, THIS

DEVELOPMENT WILL MEET M.I.H.U. ALTERNATIVE COMPLIANCE BY A PAYMENT OF A FEE-IN-LIEU TO THE

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS ON SECTION 16.124 OF THE HOWARD

BE POSTED AS PART OF THE DEVELOPERS AGREEMENT FOR THIS FINAL PLAN IN THE AMOUNT OF \$3,300.00

BASED ON 11 SHADE TREES @ \$300.00 EACH, SIX (6) BEING FOR MITIGATION FOR SPECIMEN TREE REMOVAL

32. SITE DEVELOPMENT PLAN APPROVAL BY THE DEPARTMENT OF PLANNING AND ZONING IS REQUIRED PRIOR TO

DEVELOPMENT OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS THE DEVELOPER SHALL CREATE

FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSE. THE

ENHANCED LANDSCAPE BUFFER HAS BEEN PROVIDED ON LOTS 1 AND 2 TO MITIGATE VIEWS AND TO ADDRESS

PRIVACY AND COMPATIBILITY CONCERNS EXPRESSED BY THE ADJACENT LOT OWNERS AT THE PRE-SUBMISSION

34. A COMMUNITY MEETING WAS CONDUCTED JANUARY 29, 2019 FOR THE PURPOSE OF THE DEVELOPER TO PROVIDE INFORMATION TO THE COMMUNITY REGARDING THE PROPOSED RESIDENTIAL DEVELOPMENT AND TO ALLOW THE

COMMUNITY TO ASK QUESTIONS AND TO MAKE COMMENTS, PER SECTION 100.0.E OF THE SUBDIVISION

35. SUBDIVISION IS SUBJECT TO SECTION 104.0.F. OF THE ZONING REGULATIONS. AT LEAST 10% OF THE

COMPLETED AND RECORDED SIMULTANEOUSLY WITH THE PLAT.

38. PLAN IS EXEMPT FROM PROVIDING FOREST CONSERVATION OBLIGATION IN ACCORDANCE WITH SECTION

SPECIMEN TREE WILL REQUIRE A NEW ALTERNATIVE COMPLIANCE REQUEST.

a. M.I.H.U. REQUIRED = (2 LOT5 X 10%) = 0.2 M.I.H.U.

AND BENEFIT OF LOTS 1 AND 2 IS RECORDED SIMULTANEOUSLY WITH THE PLAT.

37. NO HISTORIC STRUCTURES EXIST WITHIN THE LIMITS OF THIS PLAT SUBMISSION

BUILDING PERMITS BEING ISSUED FOR THE CONSTRUCTION OF RESIDENTIAL DWELLINGS ON THESE LOTS.

THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 - RESIDENTIAL INFILL

THE HOWARD CODE SECTION 18.112 THIS FEE OR ASSESSMENT, WHICH RUNS WITH THE LAND, IS A CONTRACTUAL

25. FIRST FLOOR GRAVITY SEWER PROVIDED TO LOT 1. DESIGN MANUAL WAIVER HAS BEEN APPROVED ON MAY 21,

LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE

GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS

DRIVEWAY SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:

DRAINAGE ELEMENTS - SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER

E 1,367,395.975 ELEV. 439.29

E 1,366,174.599 ELEV. 360.32

DRYWELL AREA OF ROOF VOLUME VOLUME AREA OF No. PER DRYWELL REQUIRED PROVIDED TREATMENT 1A 626 5Q.FT. 92 CU.FT. 120 CU.FT. 100% 10' x 6' x 5' 18 700 5Q.FT. 78 CU.FT. 96 CU.FT. 100% 8' x 6' x 5' 1C | 1,020 5Q.FT. | 114 CU.FT. | 140 CU.FT. | 100% | 10' x 7' x 5' LOT 2 2A 700 SQ.FT. 70 CU.FT. 96 CU.FT. 100% 8' x 6' x 5' LOT 2 28 020 SQ.FT. 92 CU.FT. 120 CU.FT. 100% 10' x 6' x 5' LOT 2 | 2C | 1,020 5Q.FT. | 114 CU.FT. | 140 CU.FT. | 100% | 10' x 7' x 5'

TITLE SHEET

TAX MAP NO.: 18 GRID: 13 PARCEL NO:47

GROVE PROPERTY

SCALE: AS SHOWN DATE: JUNE. 2019

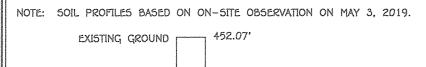
F-19-080

	50ILS LEGEND		
50IL	NAME	CLA55	'K'VALUE
GhB	Glenelg—Urban land complex, 0 to 0 percent slopes	В	0.43
LoB	Legore—Montàlto Urbàn lànd complex, 0 to 8 percent slopes	В	0.64
	HOWARD COUNTY	50IL5 MA	P PAGE 14

LEGEND					
SYMBOL	DESCRIPTION				
	EXISTING CONTOUR 2' INTERVAL				
	EXISTING CONTOUR 10' INTERVAL				
0	EXISTING FENCE				
<u>18"_50</u>	EXISTING STORM DRAIN				
<u> </u>	EXISTING WELL				
[菜] EX. F.H.	EXISTING WATER LINE				
<u>− 8"5</u> − 0	EXISTING SEWER LINE				
OHW	EXISTING OVERHEAD WIRE				
	BUILDING AND DRIVES TO BE REMOVED				
	EXISTING PAVING				
	EXISTING TREE LINE				
GgB GgC	50IL LINES AND TYPES				
Ø *	DENOTES EXISTING TREES TO BE REMOVED				
	DENOTES EXISTING TREES TO REMAIN				
	SPECIMEN TREE				
	CRITICAL ROOT ZONE				
	SLOPE5 15%- 24.9%				
	SLOPES 25% & ~				

	SPECIMEN TREE LIST								
KEY (#)	SPECIES	SIZE (in. dbh)	CRZ (feet radius)	COMMENTS					
1	WHITE ASH	34	51	GOOD	TO BE REMOVED				
2	TULIP POPLAR	39	58.5	FAIR CONDITION, SOME DIEBACK	to remain				
*3	RED MAPLE	30.5	45.75	FAIR CONDITION, SOME DIEBACK	TO BE REMOVED				
4	RED MAPLE	32	48	POOR CONDITION, MAJOR TRUNK ROT	TO BE REMOVED				
5	TULIP POPLAR	31.5	47.25	TWIN STEMS BELOW BH	to remain				
6	TULIP POPLAR	31	46.5	TRIPLE STEMS BELOW BH	to remain				
7	WHITE ASH	48	72	MULTI-STEMMED ABOVE BH; LIKELY OFFISTE; POOR CONDITIONS, EVIDENCE OF ASH BORER	TO REMAIN				
8	WHITE ASH	32	48	FAIR CONDITION, SOME DIEBACK	TO BE REMOVED				

* ATTEMPT SHALL BE MADE TO SAVE SPECIMEN TREE 3 DURING CONSTRUCTION



BOTTOM OF EXCAVATION B-1

B-1 NOTE: WATER WAS ENCOUNTERED AT THE BOTTOM.

BOTTOM OF EXCAVATION XXXX

EXISTING GROUND [---- 449.82"

NOTE: NO ROCK OR WATER WAS ENCOUNTERED DURING PXCAVATION.

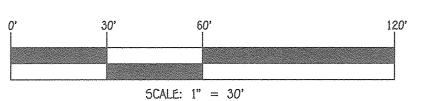
EXCAVATION.

EXISTING GROUND 446.49'

BOTTOM OF EXCAVATION 13.3'

B-3

NOTE: NO ROCK OR WATER WAS ENCOUNTERED DURING



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE

ELLICOTT CITY, MARYLAND 21042

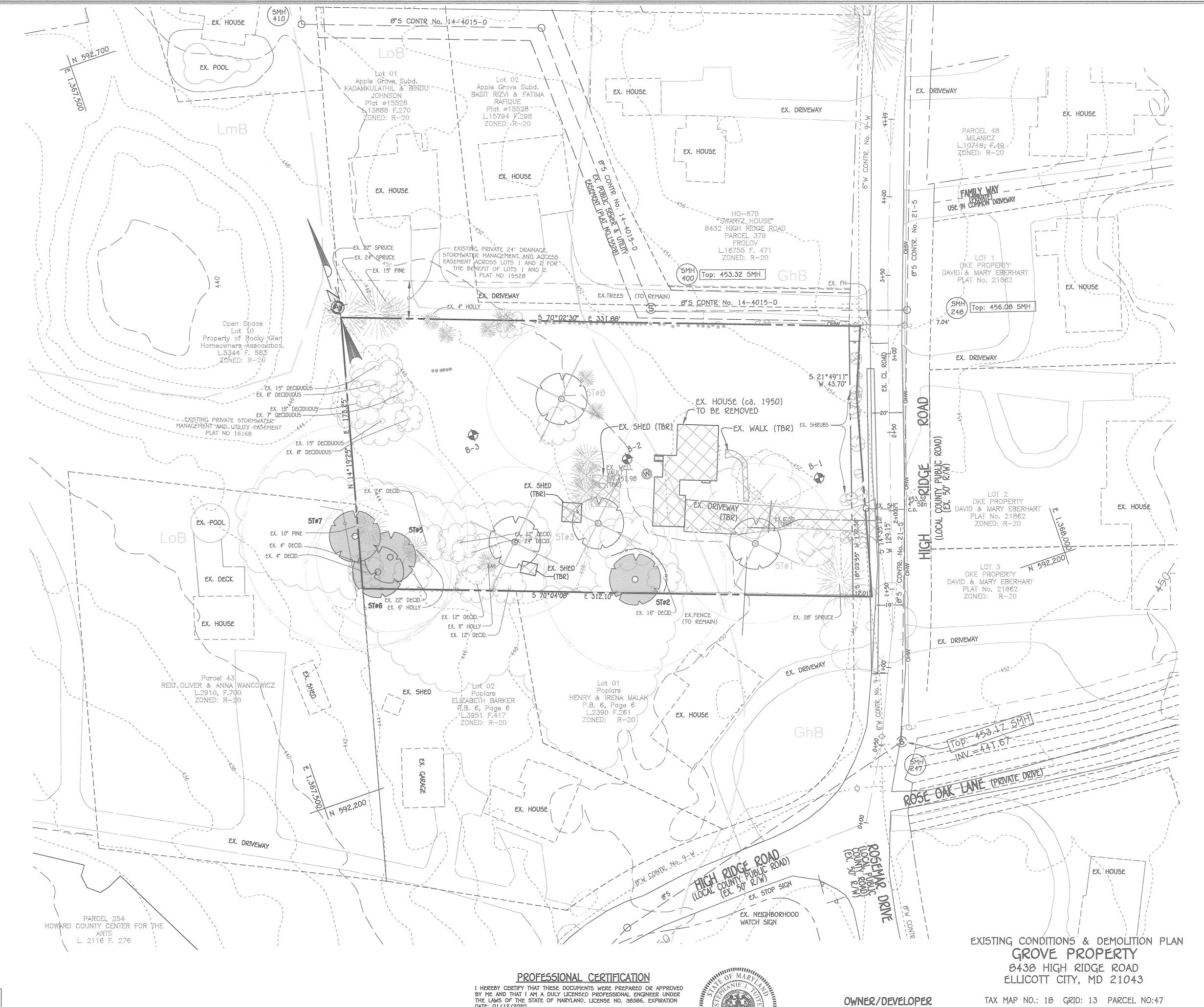
(410) 461 - 2855

Chief, Development Engineering Division

Approved: Department Of Planning And Zoning

9.16.19
Date

9-17-19
Date



ZONED R-20

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: JUNE, 2019

SHEET 2 OF 4

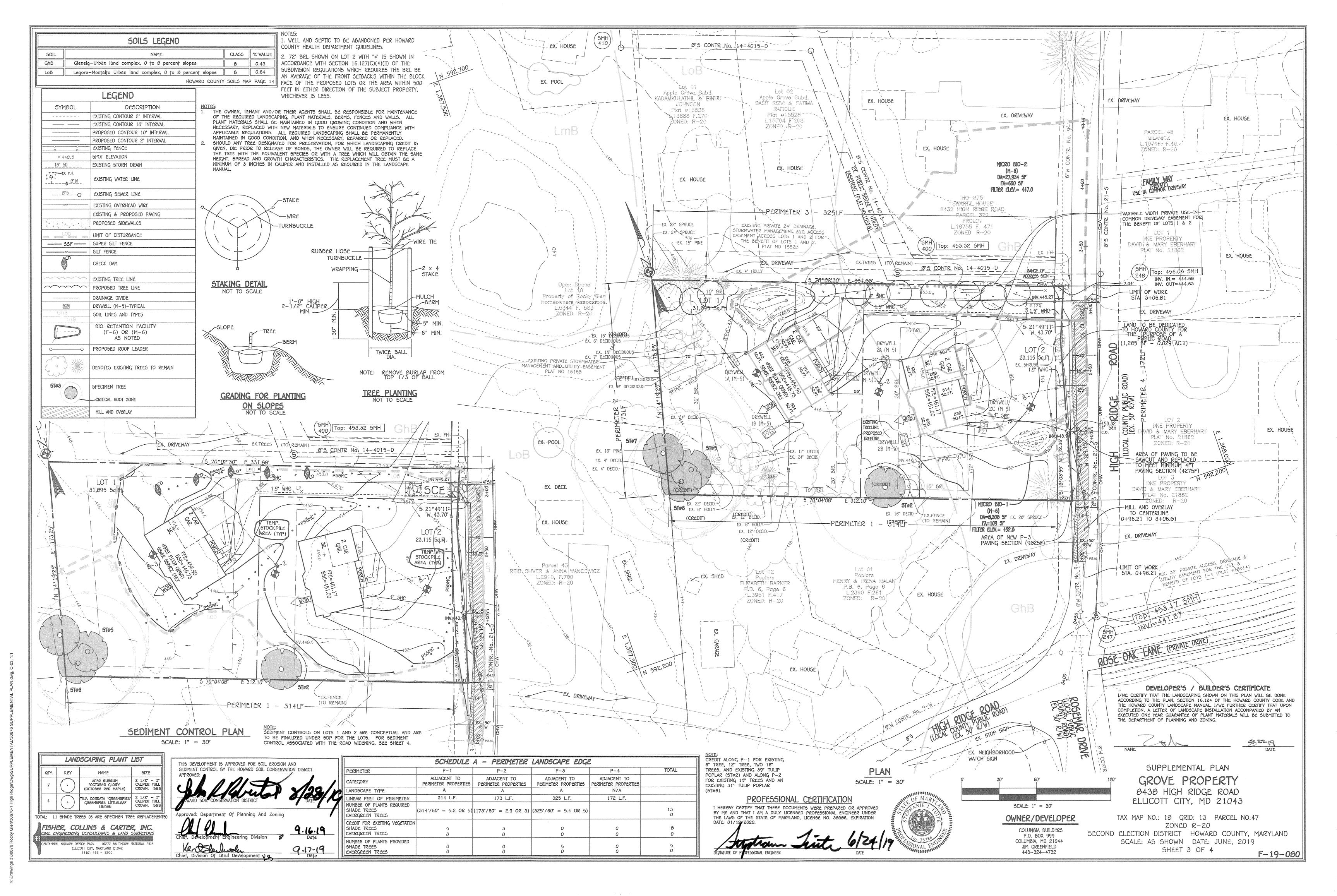
F-19-080

COLUMBIA BUILDERS P.O. BOX 999

COLUMBIA, MD 21044 JIM GREENFIELD

443-324-4732

s 3\30676 Rocky Glen\30676-1 High Ridge\Dwg\SUPPLEMENTAL\30676 SUPPLEMENTAL PLAN.dwg, C-02_Exis



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 rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope. b. Apply fertilizer and lime as prescribed on the plans.

c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means. 2. Permanent Stabilization a. A soil jest is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment

are: i. Soil pH between 6.0 and 7.0. ii. Soluble salts less than 500 parts per million (ppm). iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.

iv. Soil contains 1.5 percent minimum organic matter by weight. v. Soil contains sufficient pore space to permit adequate root penetration.

b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions. c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test. e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the 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 friable. Seedbed loosening may be unnecessary on newly disturbed areas.

8. Topsoiling 1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for venerative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation 2. Topsoil salvaged from an existing site may be used provided 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 USOA-NRCS 3. Topsoiling 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 turnish continuing supplies of moisture and plant

nutrients.

c. The original soil to be vegetated contains material toxic to plant growth. d. The soil is so acidic that treatment with limestone is not feasible.

4. Areas having slopes steeper than 2:1 require special consideration and design 5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:

a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2

b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil. Fraction and sediment control practices must be maintained when applying topsoil.

Uniformly 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 manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)

1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer 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 2. Fertilizers 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. Fertilizers must all be delivered to the site fully labeled according to the applicable laws 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 hydroseeding) which contains at least 50 percent

total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve. 4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means. 5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 0 tons/acre (200-400 pounds per 1.000 square feet) prior to the placement of topsoil.

8-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

The application of seed and mulch to establish vegetative cover.

Conditions Where Practice Applies To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

To protect disturbed soils from erosion during and at the end of construction.

. Specifications

a. All seed must meet the requirement of the Maryland 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 months immediately preceding the date of sowing such material on any protect. Refer to Table 8.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate. b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.

c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants 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 hydroseeding. Note: It is very important to keep inoculant as cook as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective. d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders. . Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with weighted roller to provide good seed to soil contact. ized 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

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer). total of soluble nitrogen; P O (phosphorus), 200 pounds per acre: K O (potassium), 200 pounds per acre.

i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre ii. 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. iii. Mix seed and fertilizer on site and seed immediately and without interruption. iv. When hydroseeding do not incorporate seed into the soil.

Mulch Materials (in order of preference)

a. Straw consisting of thoroughly threshed wheat, rye, oat, 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 musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired. b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into uniform fibrous physical state. i. WCFM is to 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, must contain no germination or growth inhibiting factors. iii. WCFM materials are to 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 must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. iv. WCFM material must not contain elements or compounds at concentration levels that will by phyto-toxic. v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1

a. Apply mulch to all seeded areas immediately after seeding. b. When straw mulch is used, spread it over all seeded 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 per acre. c. Wood cellulose fiber used as mulch must be applied to a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with

millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. a. Perform mulch anchoring immediately following application of mulch to minimize 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: i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. It used on sloping land, this practice should follow the contour. ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the

wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited. iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in

rolls 4-15 feet wide and 300 to 3,000 feet long. TEMPORARY SEEDING NOTES (8-4-4)

Definition
To stabilize disturbed soils with vegetation for up to 6 months.

To use fast growing vegetation that provides cover on disturbed soils. Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required. 1. Select one or more of the species or seed mixtures listed in Table B.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 this Summary is not put on the plan and completed, then Table 8.1 plus fertilizer and lime rates must be put on the plan. 2. For sites having soil tests performed, use and show the recommended rates by tl testing agency. 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 8-4-3.A.1.b and maintain until the next seeding season. Temporary Seeding Summary

ı			remporary became	y Jannina		
		ne (from Figure B. (from Table B.1):	Fertilizer Rate (10-20-20)	Lime Rațe		
unable or increase and in the	Species	Application Rate (lb/ac)	Seeding Dațes	Seeding Depths		
-	BARLEY	96	3/1 - 5/15,	1"	436 lb/ac	2 †ons/ac
-	OAT5	72	8/15 - 10/15	1"	(10 lb/ 1000 sf)	(90 lb/ 1000 sf)
draftment in	RYE	112		1"	1000 5)	2000 5)

FISHER, COLLINS & CARTER, INC. ENGINEERING CONSULTANTS & LAND SURVEYORS

(410) 461 - 2855

Approved: Department Of Planning And Zoning

zul—de—5acs: Residential

ROAD AND STREE

CLASSIFICATION

SECTION

NUMBER

P-2

SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISRIC

3 TO <5 5 TO <7 _>7 3 TO <5 5 TO <7

2.0 3.5

2.0 3.5

MIN HMA WITH GAB

2.0

4.0

HOWARD SOIL CONSERVATION DISTRICT (HSCD)

STANDARD SEDIMENT CONTROL NOTES A pre-construction meeting must occur with the Howard County Department of Public Works, Construction General Use Select one or more of the species or mixtures listed in Table 8.3 for the appropriate Plant Hardiness Zone (from Inspection Division (CID), 410-313-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages: a. Prior to the start of earth disturbance.

b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading, Prior to the start of another phase of construction or opening of another grading unit, . Prior to the removal or modification of sediment control practices. Other building or grading inspection approvals may not be authorized until this initial 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. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within

three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes and all slopes steeper than 3 horizontal to 1 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. All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION 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

ground is frozen. Incremental stabilization (Sec. B-4-1) specifications shall be enforced in areas with >15 of but and/or fill. Stockpiles (Sec. B-4-0) in excess of 20 ft. must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. 8-4-6) 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 CID.

Site Analysis: Total Area of Site: ACTES (ROAD WIDENING ONLY) Area Disturbed: 0.12 0.09 Area to be roofed or paved: Acres 0.03 Area to be vegetatively stabilized: Acres Cu. Yds. Offsite waste/borrow area location: N/A

repaired on the same day of disturbance. Additional sediment control must 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 date

Any sediment control practice which is disturbed by grading activity for placement of utilities must be

* Inspection type (routine, pre-storm event, during rain event)

* Name and title of inspector * Weather information (current conditions as well as time and amount of last recorded precipitation) * Brief description of project's status (e.g., percent complete) and/or current activities * Evidence of sediment discharges

* Identification of sediment controls that require maintenance * Identification of missing or improperly installed sediment controls Compliance status regarding the sequence of construction and stabilization

 Photographs * Monitoring/sampling Maintenance and/or corrective action performed

Use IV March 1 - May 31

* Identification of plan deficiencies

* Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, MDE) Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be back-filled and stabilized by the end of each workday, whichever is shorter.

Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by the HSCD prior to proceeding with construction. Minor revisions may allowed by the CID per the list of HSCD-approved field changes. Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the HSCD. Unless otherwise specified and approved by the HSCD, no more

than 30 acres cumulatively may be disturbed at a given time. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure. Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade. All Silt Fence and Super Silt Fence shall be placed on-the-contour, and be imbricated at 25 minimum

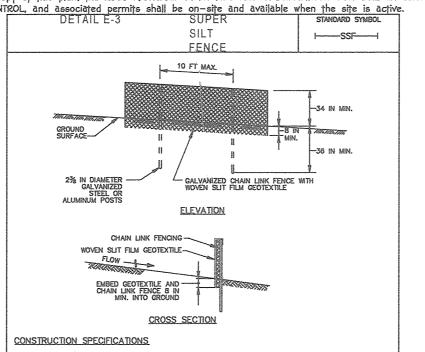
intervals, with lower ends curled uphill by 2 in elevation Stream channels must not be disturbed during the following restricted time periods (inclusive): Use I and IP March 1 - June 15 Use III and IIIP October 1 - April 30

16. A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and associated permits shall be on-site and available when the site is active.

DETAIL E-3

SUPER

STANDARD SYMBOL



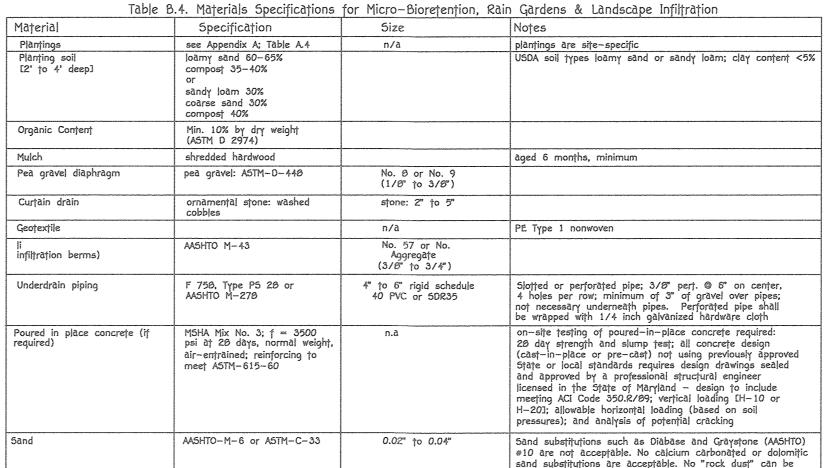
INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SI FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.

FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.

WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE A 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE END OF THE SUPER SILT FENCE.

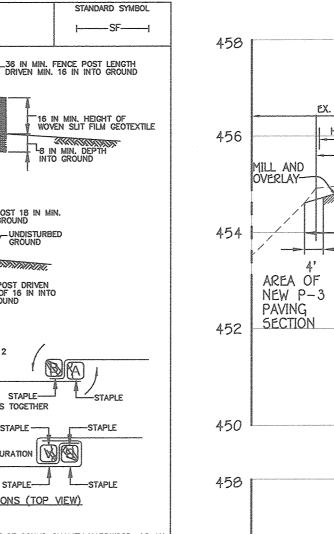
PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL 2011



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. 38386, EXPIRATION

used for sand.



EX. 50' RIGHT-OF-WAY

HIGH RIDGE ROAD

EX. PAVING

2+50

EX. 50' RIGHT-OF-WAY

HIGH RIDGE ROAD

EX. PAVING

114' | FX. GRADE

2+00

EX. 50' RIGHT-OF-WAY

HIGH RIDGE ROAD

EX. PAVING

EX. GRADE-

1+50

EX. 50' RIGHT-OF-WAY

DRIVEWAY (TBR)

OVERLAY-

AREA OF

PAVING

OVERLAY-

AREA OF

NEW P+3

PAVING

SECTION

454

SECTION

NEW P-3 3

GRADE-

452

_ RANGE_OF_

MAGCE

√5 21°49'11

23,115 |5q.Ft.

EX. SHRUBS -

W. 43.70°

1.5" \WHC +

ADDRESS SIGN-

JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW) CONSTRUCTION SPECIFICATIONS

USE WOOD POSTS $1\frac{1}{3}$ X $1\frac{1}{3}$ \pm $\frac{1}{3}$ e inch (Minimum) square cut of sound quality hardwood. As an alternative to wooden post use standard "t" or "u" section steel posts weighing not less THAN 1 POUND PER LINEAR FOOT USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.

TWIST POSTS TOGETHER

STAPLE ---

STAPLE-

SILT FENCE

ELEVATION V

CROSS SECTION

6 FT MAX. CENTER TO CENTER

DETAIL E-1

MIN. OF 8 IN VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF GEOTEXTILE.

STEP 1

STEP 3

STAPLE-

PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.

REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

STABILIZED CONSTRUCTION SCE ENTRANCE - EXISTING PAVEMENT }___ -EARTH FILL -PIPE (SEE NOTE 6) PROFILE 50 FT MIN LENGTH 4 PLAN_VIEW

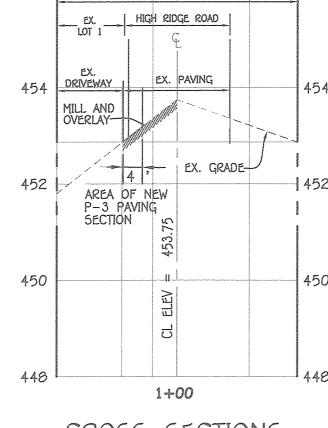
CONSTRUCTION SPECIFICATIONS PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5.1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.

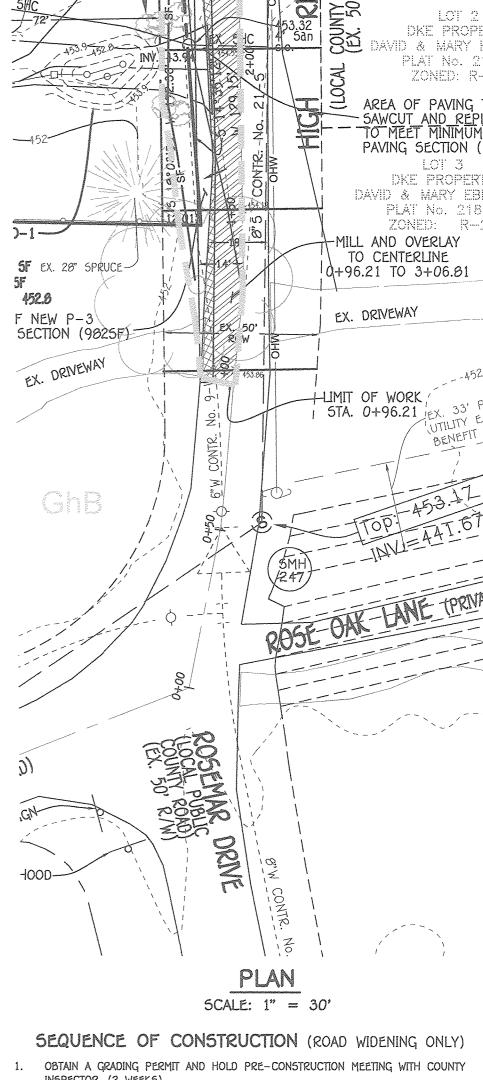
PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.

MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL



CROSS SECTIONS HIGH RIDGE ROAD HO.CO. 5TD. DTL R-1.03 5CALE: HOR. 1"=20" VERT. 1"=2"



DKE PROPERIN

-PLAT No. 21861

Top: 456.08

INV. IN.= 44

INV. OUT=444

DAVIDÍ& MARY EBER

(248)

-LIMIT OF WORK

5TA. 3+06.81

HE PURPOSE OF A PUBLIC ROAD (1,285 SF - 0,029 AC. ±

EX. DRIVEWAY

INSPECTOR, (2 WEEKS) NOTIFY "MISS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY DEPT OF PUBLIC WORKS.

CONSTRUCTION INSPECTION DIVISION AT 410-313-1855 AT LEAST 48 HOURS BEFORE STARTING WORK. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SILT FENCE (1 DAY) 5AW CUT PAVEMENT AND REMOVE PAVEMENT AS SHOWN. (2 DAYS) ROUGH GRADE AND REPLACE AND WIDEN EXISTING PAVING. (1 MONTH) ADJUST DRIVEWAY ENTRANCE (PER DETAIL R-6.06) TO 8444 HIGH RIDGE ROAD, IF

NECESSARY, BASED ON ADJUSTMENTS TO HIGH RIDGE ROAD PAVING. (1 DAY) MILL REMAINING EXISTING PAVEMENT TO CENTERLINE AND TOP COAT FROM CENTERLINE TO NEW EDGE OF PAVEMENT. (1 WEEK) ALL FINAL GRADES AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS. WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE REMOVED. (2 DAYS)

THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS. HOUSES SHALL NOT BE CONSTRUCTED USING THESE PLANS.

DETAILS AND SECTIONS GROVE PROPERTY 8438 HIGH RIDGE ROAD ELLICOTT CITY. MD 21043

OWNER/DEVELOPER

COLUMBIA BUILDERS

P.O. BOX 999 COLUMBIA, MD 21044

JIM GREENFIELD

443-324-4732

TAX MAP NO.: 18 GRID: 13 PARCEL NO:47 ZONED R-20

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: JUNE, 2019 SHEET 4 OF 4

NIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIK ELLICOTT CITY, MARYLAND 21042

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND

PERMANENT SEEDING NOTES (8-4-5)

Guide, Section 342 - Critical Area Planting.

receive a medium to high level of maintenance

summary is to be placed on the plan.

pounds per 1000 square feet.

(Hardiness Zones: 7a, 7b)

Seed Mixture (from Table 8.3):

Hardiness Zone (from Figure B.3): <u>6b</u>

(lb/ac)

100

foreman and inspector.

affect its survival.

specified.

control plan.

slope ratio no

temporary swale or

used to intercept

arking bays: Residential and non-residential

LOCAL ROADS: ACCESS PLACE, ACCESS STREET

THAN 2 HEAVY TRUCKS PER DAY

PARKING DRIVE AISLES:
RESIDENTIAL AND NON-RESIDENTIAL WITH NO

MORE THAN 10 HEAVY TRUCKS PER DAY

ARKING DRIVE AISLES:
RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE

the discharge.

Incremental Stabilization

uneven ends will not be acceptable

immediately prior to laying the sod.

would cause air drying of the roots.

any piece of sod within eight hours

between sod roots and the underlying soil surface.

sedimentation, and changes to drainage patterns.

4. Access the stockpile area from the upgrade side.

and Standard B-4-4 Temporary Stabilization.

in the Permanent Seeding Summary.

2. Turfordss Mixtures

Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application

rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office

b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for

c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing

agency. d. For areas receiving low maintenance, apply urea 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 amendments shown

a. Areas where turforass may be desired include lawns, parks, playgrounds, and commercial sites which will

b. 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 Seeding Summary. The

required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass

Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky

establishment is necessary and when turf will receive medium to intensive management. Certified Perennial

Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the

iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas

Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding

iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For

establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass

Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3

Select turfgrass varieties from those listed in the most current University of Maryland

Choose certified material. Certified material is the best quarantee of cultivar purity. The

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 debris over 1 1/2 inches in diameter

e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch

seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when

Depths

a. Class of turforass sod must be Maryland State Certified. Sod labels must be made available to the job

b. Sod must be machine cut at a uniform soil thickness to % inch, plus or minus 1/4 inch, at the time of

cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or

c. Standard size sections of sod must be strong enough to support their own weight and retain their size

e, Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within

a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil

b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged

against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that

sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which

and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists

d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil

a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as

necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to

After the first week, sod watering is required as necessary to maintain adequate moisture content.

c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the

initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise

8-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

steeper than 2:1. Benching must be provided in accordance with Section 8-3 Land Grading.

cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

To provide a designated location for the temporary storage of soil that controls the potential for erosion,

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment

5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike

7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1

8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section

B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept

free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for

diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner

2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side

6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be

CALIFORNIA BEARING RATIO (CBR)

HMA SUPERPAVE FINAL SURFACE

9.5 MM, PG 64-22, LEVEL 1

HMA SUPERPAVE BASE 19.0 MM.

PG 64-22, LEVEL 1 (ESAL)

GRADED AGGREGATE BASE (GAB)

HMA SUPERPAVE FINAL SURFACE

HMA SUPERPAVE INTERMEDIATE SURFACE

9.5 MM. PG 64-22: LEVEL 1 (E5AL)HMA SUPERPAVE BASE 19.0 MM. PG 64-22, LEVEL 1 (E5AL)

GRADED AGGREGATE BASE (GAB)

9.5 MM, PG 64-22, LEVEL

14 SUPERNAVE INTERMEDIATE SURFACE N/A

<u>Definition</u>
A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Conditions Where Practice Applies

3. Runoff from the stockpile area must drain to a suitable sediment control practice.

<u>Maintenance</u>

4:1 slopes, benching must be provided in accordance with Section 8–3 Land Grading.

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

surface below the sod are thoroughly wet. Complete the operations of laying, tamping, and irrigating for

c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll

and shape when suspended vertically with a firm grasp on the upper 10 percent of the section. d. Sod must not be harvested or transplanted when moisture content (excessively dry of wet) may adversely

this period must be approved by an agronomist or soil scientist prior to its installation.

Fertilizer Rate (10-20-20) Lime Rate

90 lb/ac | 90 lb/ac | 2 tons/ac

(2 lb/ | (2 lb/ | (90 lb/

1000 sf) | 1000 sf) | 1000 sf)

P205

The resulting seedbed must be in such condition that future moving of grasses will pose no difficulty.

Permanent Seeding Summary

Mar. 1-May 15 1/4-1/2 45 lbs. Aug. 15-Oct. 15 in. per acre

Dates

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

certification program of the Maryland Department of Agriculture. Turf and Seed Section. provides

Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

c. Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to

(Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

October 1 (Hardiness Zones: 5b, 6a) Central MD: March 1 to May 15, August 15 to October 15

a reliable means of consumer protection and assures a pure genetic line

receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified

Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet.

i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation

bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.

ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid

A. Seed Mixtures

"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A

ENGINEER'S CERTIFICATI

HMA WITH CONSTANT GAS

3.0. 2.5

1.0

2.0 2.0