## REVISED SUPPLEMENTAL, LANDSCAPE & FOREST CONSERVATION PLAN MYERS PROPERTY

# LOTS 1 THRU 4

TAX MAP No. 10 GRID No. 18 PARCEL NO. 32 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

### 50ILS LEGEND CLASS K FACTOR в 0.28 BeB Benevola silt loam, 3 to 8 percent slopes В 0.28 BeC Benevola silt loam, 8 to 15 percent slopes Gladstone loam, 3 to 8 percent slopes в 0.20 Gladstone loam, 8 to 15 percent slopes Glenville silt loam, 0 to 3 percent slopes C 0.37 GmC | Glenville silt loam, 8 to 15 percent slopes C 0.37 MaD Manor loam, 15 to 25 percent slopes В 0.24 | Manor-Bannertown sandy loams, 15 to 25 percent slopes, rocky | B | 0.24 WhB Wiltshire silt loam, 3 to 8 percent slopes C 0.24

### DESIGN NARRATIVE

Introduction:

This report will demonstrate how the criteria set forth in the Maryland Stormwater Design Manual, Volumes I and II (effective October 2000, revised May 2009) will be satisfied on this project. The goal of creating hydrology similar to that of "Woods in Good Condition" will be accomplished through the use of the practices contained within Chapter 5 of said manual. The achievement of this goal will remove the requirement of providing Channel Protection Volume.

General Site Conditions: Myers Property is zoned RC-DEO and is located on Tax Map 10, Grid 22, Parcel No. 32 of the Howard County, Maryland Tax Map Database System. The property consists of four proposed buildable lots that combine to create a site of approximately 16.29 acres. Proposed lots will be served by private well and septic systems. The property is located in the Marriottsville area of Howard County in the watersheds of North & South Branches of the Patapsco River (02130906 & 02130908). This property is rectangular in shape and has ridge in the upper third of the property with the site sloping mostly to the west to Marriottsville Road then to the South Branch of the Patapsco River and the remainder of the property sloping to the east toward adjacent properties then to an unnamed tributary of the North Branch of the Patapsco River. The main existing house and several accessory structures (some of which are to be removed), located on the ridge of the property, are accessed by an existing driveway that enters directly onto Marriottsville Road. There is also an abandoned house and shed that are to be removed. Thirty (30) specimen trees exist on-site, which are spread throughout the four lots, of which twenty six (26) are proposed to be retained. Also, according to a field inspection conducted by Eco-Science Professionals (ESP) dated October 31, 2013, no wetlands are present on-site. The Web Soil Survey shows soils on the site consist of Benevola silt loam (BeB), Gladstone loam (GbB, GbC), Manor loam (MaD), and Manor-Bannertown sandy loams (MgD) Type "B" soils. The portion of the property that slopes to the west drains to an existing ditch along the east side of Marriottsville Road, which is where a portion of site runoff will be directed. The remainder will drain onto existing grade and then eventually to a stream.

Natural Resource Protection: Environmentally sensitive areas (steep slopes) exist on-site, To ensure the protection of natural resources located on this site, all boundaries of buffers will be honored by locating improvements awary from these areas which will be located within forest conservation easements.

II. Maintenance of Natural Flow Patterns: It is the intent of the proposed design to discharge runoff similar to the characteristics and direction of this site prior to any of the proposed

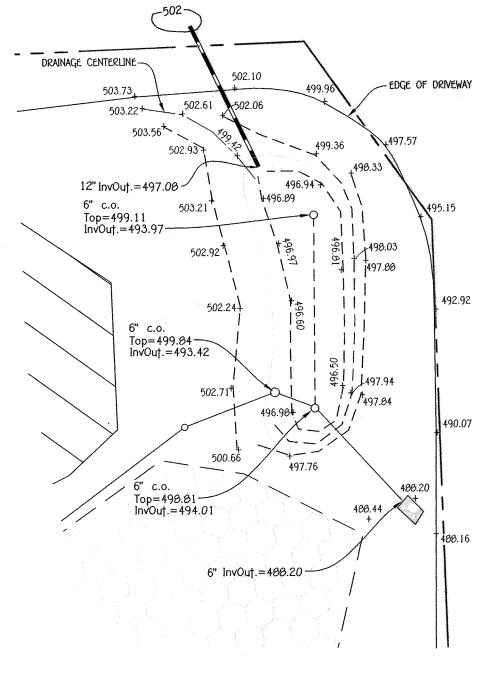
III. Reduction of impervious areas through better site design, alternative

surfaces and Nonstructural Practices The design of this project utilizes an use—in—common driveway, allowing a reduction in the necessary paving needed to access to the proposed buildings. Non-Structural practices as permitted in Chapter 5, four (4) Micro-Bioretention Areas (M-6) will be used to address ESD to the MEP requirements. Due to drainage area in excess of 0.5 acre. one (1) Bioretention Area (F-6) has been proposed as well.

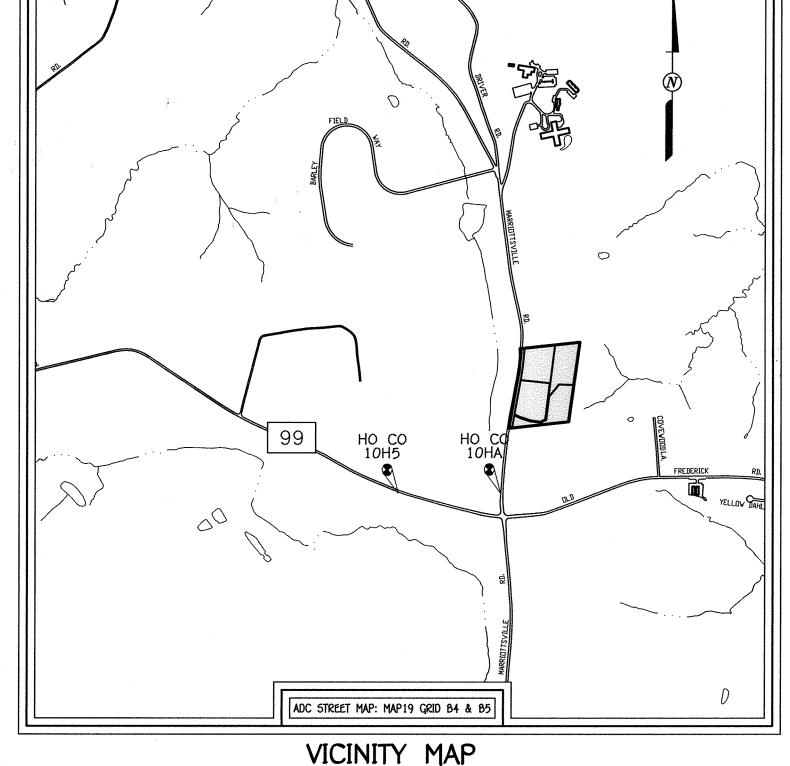
IV. Integration of Erosion and Sediment Controls into Stormwater Strategy: Since mostly small drainage areas are proposed under this plan, silt fence, super silt fence, and erosion control matting will be utilized for erosion & sediment control. There is no direct discharge of runoff to a stream. All site runoff will discharge to existing ground prior to entering the existing off-site stream channel and eventually to the Patapsco River. No drainage easements will be required. It is anticipated that all cut will be utilized on-site for construction at time of Grading Plan.

V. Implementation of ESD Planning Techniques and practices to the Maximum Extent Practicable (MEP)
The full required ESD volume is being provided.

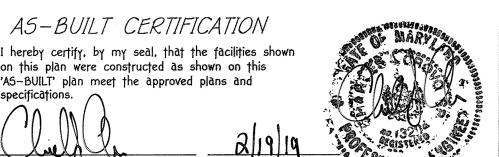
VI. Request for a Design Manual Waiver: No Waivers related to stormwater management are being requested in this



Micro Bio #2 (M-6) A5-BUILT SCALE: 1"=30"



VICINITY MAP



BENCHMARK INFORMATION

ELEVATION = 483.88 - VERTICAL - (NAVD '88)

3.M.#1 - HOWARD COUNTY CONTROL STATION #10HA - HORIZONTAL - NAD '83) (LOCATED MARRIOTTSVILLE ROAD, JUST NORTH OF RT-99)

- HOWARD COUNTY CONTROL STATION #10H5 - HORIZONTAL - (NAD '83) (LOCATED RT-99 1/4 MILE WEST OF MARRIOTTSVILLE ROAD N 601 201 8639 ELEVATION = 522.62 - VERTICAL - (NAVD '88)

THE PURPOSE OF THIS REVISED SUPPLEMENTAL LANDSCAPE & FOREST CONSERVATION PLAN IS TO SHOW CONSTRUCTION OF THE USE IN COMMON DRIVEWAY AND ASSOCIATED SWM FACILITIES, SEDIMENT CONTROL AND SEDIMENT CONTROL NOTES AND DETAILS.

### SITE ANALYSIS DATA CHART

TOTAL AREA OF THIS SUBMISSION = 16.206 AC. ±. LIMIT OF DISTURBED AREA = 3.17 Ac. ± PRESENT ZONING DESIGNATION = RC-DEO (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)

Charles J. Crovo, Sr. P.E. #13204

AS-BUILT CERTIFICATION

on this plan were constructed as shown on this

'AS-BUILT' plan meet the approved plans and

specifications.

PROPOSED USE: RESIDENTIAL

PREVIOUS HOWARD COUNTY FILES: ECP-14-032; WP-14-035; WP-15-030. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE = 0.00 AC±

TOTAL AREA OF SLOPES IN EXCESS OF 15% = 4.00 AC\* (3.60 AC\* 15% TO 25%, 1.12 AC\* 25% OR GREATER) TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC. ±

TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0.00 AC. ±

TOTAL AREA OF EXISTING FOREST = 7.70 AC± TOTAL AREA OF FOREST TO BE RETAINED = 4.01 AC+

TOTAL AREA OF LOTS = 15.11 AC±

TOTAL AREA OF ROAD RIGHT OF WAY DEDICATION = 1.17 AC±

TOTAL GREEN OPEN AREA = 15.06 AC± (TOTAL AREA LESS IMPERVIOUS AREA & ROW DEDICATION)

TOTAL IMPERVIOUS AREA = 1.20 AC± (INCLUDING EXISTING STRUCTURES) TOTAL AREA OF ERODIBLE SOILS = 0.00 AC.±

46. ON SEPTEMBER 18, 2014 THE PLANNING DIRECTOR APPROVED A WAIVER (WP-15-030) TO SECTION 16.120(B)(4)(i) AND TO

Top = 472.79 -

InvOut.=469.15/

Top = 472.96

72.28\ \_ -472--

467.54

MARRIOTTSVILLE ROAD

Micro Bio #1 (M-6)

AS-BUILT

SCALE: 1"=30"

A) SECTION 16.120(B)(4)(i) WHICH STATES THAT RESIDENTIAL LOTS SHALL BE USABLE IN TERMS OF REGULAR, 3) SECTION 16.120(B)(4)(iii) WHICH PROHIBITS FOREST CONSERVATION EASEMENTS ON LOTS LESS THAN 10 ACRES IN

APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS: 1) FOREST CONSERVATION SIGNS MUST BE POSTED ALONG THE PERIMTER OF THE FOREST CONSERVATION EASEMENT

WITHIN THIRTY (30) DAYS AFTER RECORDATION DATE OF THE FINAL PLAT, F-14-086. 2) A FOREST CONSERVATION EASEMENT EDUCATION DOCUMENT AND COPY OF THE RECORDED SUBDIVISION PLAT MUST

BE PRESENTED TO THE POTENTIAL BUYERS PRIOR TO THEIR PURCHASING LOT 3 OR LOT 4 EXPLAINING THE PROTECTION AND USE PROHIBITIONS FOR FOREST CONSERVATION EASEMENTS.

COMPLIANCE WITH ALL SUBDIVISION REVIEW COMMITTEE COMMENTS FOR F-14-086. 4) ON THE SUBDIVISION PLANS, PROVIDE A BRIEF DESCRIPTION OF WAIVER PETITION, WP-15-030, AS A GENERAL NOTE O INCLUDE REQUESTS, SECTIONS OF THE REGULATIONS, ACTION, AND DATE.

THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF A MINIMUM OF 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED EASEMENT SHALL NOT

THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.

THE SUBJECT PROPERTY IS ZONED 'RC-DEO' PER THE 10/06/13 COMPREHENSIVE ZONING PLAN. COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 10HA AND NO. 10H5, ADJUSTMENT OF JANUARY, 2012. STA. 10HA N 601206.633 E 1340912.313

STA. 10H5 N 601201.861 E 1339637.650

THIS PLAT IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT OCTOBER, 2013 BY FISHER, COLLINS AND CARTER, INC. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED NOVEMBER, 2013 AND SUPPLEMENTED WITH HOWARD COUNTY GIS TOPOGRAPHY AT 5' CONTOUR INTERVAL INTERPOLATED FOR 2' CONTOUR INTERVAL.

B.R.L. DENOTES BUILDING RESTRICTION LINE 8. • DENOTES IRON PIN SET CAPPED "F.C.C. 106".

9. 💉 DENOTES IRON PIPE OR IRON BAR FOUND. DENOTES ANGULAR CHANGE IN BEARING OF BOUNDARY OR RIGHTS-OF-WAY. 1. DENOTES CONCRETE MONUMENT SET WITH ALUMINUM PLATE "F.C.C. 106".

DENOTES CONCRETE MONUMENT OR STONE FOUND.
FOR FLAG OR PIPESTEM LOTS, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM(S), AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:

A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE); B) SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING. (1 -1/2"

C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS; D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING); E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT

DEPTH OVER SURFACE: F) STRUCTURE CLEARANCES - MINIMUM 12 FEET;

G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE. 15. ALL LOT AREAS ARE MORE OR LESS (±). 16. THE FOREST STAND AND WETLAND DELINEATION REPORT DATED OCTOBER 31, 2013 FOR THIS PROJECT WAS PREPARED BY

ECO-SCIENCE PROFESSIONALS, INC. THE TRAFFIC STUDY DATED OCTOBER 23, 2013 FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP.

STORMWATER MANAGEMENT WILL BE IN ACCORDANCE WITH MDE STORM DRAIN DESIGN MANUAL, VOLUMES I & II, REVISED 2009. USE OF FOUR (4) M-6 MICRO BIO-RETENTION, ONE (1) F-6 BIO-RETENTION AND N-2 DISCONNECTION OF NON-ROOFTOP

19. PLAN IS SUBJECT TO PRIOR DEPARTMENT OF PLANNING AND ZONING FILE NOS. ECP-14-032; WP-14-035; WP-15-030. 20. THIS SUBDIVISION IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS OR PARCELS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF A BUILDING OR GRADING PERMIT APPLICATION.

PRIVATE WELL AND SEPTIC SHALL BE UTILIZED WITHIN THIS DEVELOPMENT.

THIS PROPERTY IS LOCATED OUTSIDE OF THE METROPOLITAN DISTRICT.

SITE HAS FRONTAGE ON MARRIOTTSVILLE ROAD, A MINOR ARTERIAL, SCENIC ROAD.

NO CEMETERIES ARE LOCATED ON THIS PROPERTY.

NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE

LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS. 26. DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND NOT REDUCED TO NAD '83 GRID.

27. NO 100 YEAR FLOODPLAIN, WETLANDS, STREAMS AND/OR THEIR BUFFERS EXIST ON-SITE.

THERE IS AN EXISTING DWELLING AND SHED ON LOT 2 TO REMAIN AND AN EXISTING BARN ON LOT 1 TO REMAIN. EXISTING STRUCTURES ON LOT 3 AND LOT 4 ARE TO BE REMOVED PRIOR TO FINAL PLAT SIGNATURE. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING/STRUCTURES ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATION REQUIREMENTS. A DEMOLITION PERMIT FOR ALL STRUCTURES TO BE REMOVED MUST BE SUBMITTED WITH THE ORIGINAL FINAL PLAT FOR RECORDATION AND A REMOVAL DATE FOR THE EXISTING STRUCTURES WILL BE NOTED ON THE PLAT. 29. NOISE STUDY DATED NOVEMBER, 2013 WAS PREPARED BY MARS GROUP. THE UNMITIGATED 65DBA NOISE CONTOUR LINE DRAWN ON THIS PLAT IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65DBA NOISE EXPOSURE. THE UNMITIGATED 65DBA NOISE CONTOUR LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND

30. THE PRIVATE USE-IN-COMMON, ACCESS AND STORMWATER MANAGEMENT EASEMENT FOR THE USE AND BENEFIT OF LOTS 1

31. A PRE-SUBMISSION COMMUNITY MEETING WAS HELD FOR THIS PROJECT ON AUGUST 7, 2013.
32. ALL WELLS SHALL BE DRILLED PRIOR TO FINAL PLAT RECORDATION. IT IS THE DEVELOPERS RESPONSIBILITY TO SCHEDULE THE WELL DRILLING PRIOR TO FINAL PLAT SUBMISSION. IT WILL NOT BE CONSIDERED "GOVERNMENT DELAY" IF THE WELL DRILLING HOLDS UP HEALTH DEPARTMENT SIGNATURE OF THE RECORD PLAT.

THE FOREST CONSERVATION EASEMENT AREAS WITHIN THIS SUBDIVISION HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION ARE ALLOWED. THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION WILL BE FULFILLED BY ON-SITE RETENTION OF 4.01 ACRES OF FOREST AND USE OF A FOREST BANK FOR THE 1.03 ACRE REMAINING

OBLIGATION. SURETY IS NOT REQUIRED FOR RETENTION OF RESOURCES. PROPERTY SUBJECT TO ADVISORY COMMENTS DATED OCTOBER 3, 2013 FROM THE HISTORIC DISTRICT COMMISSION MEETING ON SEPTEMBER 12, 2013 FOR #1805 MARRIOTTSVILLE ROAD, HO-191.
THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL A LANDSCAPE SURETY FOR 10 SHADE TREES, 21 EVERGREENS, AND 4 SHRUBS IN THE AMOUNT OF (\$6,270.00) WILL

LOT 1 SURETY: (4) SHADE TREES @ 300/SHADE TREE & (18) EVERGREENS @ 150/EVERGREEN =\$3.900.00 LOT 3 SURETY: (3) SHADE TREES @ 300/SHADE TREE & (2) EVERGREENS @ 150/EVERGREEN =\$1,200.00 LOT 4 SURETY: (3) SHADE TREES @ 300/SHADE TREE & (1) EVERGREENS @ 150/EVERGREEN &

(4) SHRUBS @ 30/SHRUB 36. THERE ARE 1.12 ACRES OF SLOPES OF 25 PERCENT OR GREATER LOCATED IN LOTS 3 AND 4. 37. ON JANUARY 15, 2014 THE PLANNING DIRECTOR APPROVED A WAIVER (WP-14-035) TO SECTION 16.1205(A)(7) AND TO

SECTION 16.144(B): A) SECTION 16.1205(A)(7) WHICH OUTLINES THE FOREST RETENTION PRIORITIES WHEN ADHERING TO THE FOREST CONSERVATION ACT WHICH INCLUDES STATE CHAMPION TREES OR TREES 30" DIAMETER OR LARGER CANNOT BE DISTURBED WITHOUT A WAIVER. THE PROPOSED DEVELOPMENT WILL REQUIRE

REMOVAL OF 5 OF THE 30 SPECIMEN TREES.

B) SECTION 16.144(B) WHICH REQUIRES THE SUBMISSION OF A PRELIMINARY EQUIVALENT SKETCH PLAN TO BEGIN THE SUBDIVISION PROCESS. SUBJECT TO THE FOLLOWING CONDITIONS:

1) COMPLIANCE WITH ALL SUBDIVISION REVIEW COMMITTEE COMMENTS.

2) ON THE SUBDIVISION PLANS, PROVIDE A BRIEF DESCRIPTION OF WAIVER PETITION, WP-14-035, AS A GENERAL NOTE TO INCLUDE REQUESTS, SECTIONS OF THE REGULATIONS, ACTION AND DATE.

3) THE REMAINING 25 SPECIMEN TREES MUST BE SAVED AND PROTECTED DURING CONSTRUCTION ACTIVITY. TREE PROTECTION DEVICES MUST BE PROVIDED FOR THE 25 SPECIMEN TREES TO REMAIN. 4) THE APPLICANT SHALL MITIGATE THE 5 SPECIMEN TREES TO BE REMOVED AT A 1 TO 1 RATIO

REPLACEMENT WITH LARGER 3-1/2" CALIPER NATIVE SPECIES TO BE PLANTED WITHIN OR NEAR THE FOREST CONSERVATION EASEMENT.

38. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK. 39. THE CONTRACTOR SHALL NOTIFY (MISS UTILITY) AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK

40. SOIL BORINGS ARE REQUIRED FOR THIS PROJECT. EXCAVATIONS TO VERIFY THE DEPTH TO ROCK AND/OR GROUNDWATER WERE CONDUCTED ON OCTOBER 17, 2013. 41. A PRIVATE RANGE OF ADDRESS SIGN SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE

DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430 FOR DETAILS AND COST 42. SUBDIVISION IS SUBJECT TO SECTION 104.0.F. OF THE ZONING REGULATIONS. AT LEAST 10% OF THE 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 HOW THE M.I.H.U. REQUIREMENT WILL BE MET. THE M.I.H.U. AGREEMENT AND COVENANTS WILL BE RECORDED SIMULTANEOUSLY 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 DEPARTMENT OF HOUSING FOR EACH REQUIRED UNIT. MODERATE INCOME HOUSING UNIT (M.I.H.U.) TABULATION:

a. M.I.H.U. REQUIRED =  $(3 \text{ LOTS } \times 10\%) = 0.3 \text{ M.I.H.U.}$ b. M.I.H.U. PROPOSED = DEVELOPER WILL PURSUE ALTERNATIVE COMPLIANCE BY PAYING A FEE-IN-LIEU TO THE HOWARD COUNTY HOUSING DEPARTMENT FOR THE UNITS REQUIRED BY THE DEVELOPMENT. c. AN EXECUTED M.I.H.U. AGREEMENT WITH THE HOWARD COUNTY HOUSING DEPARTMENT HAS BEEN COMPLETED.

43. THE SUBJECT PROPERTY IS LOCATED IN THE GROWTH TIER AREA III AND IS CONSIDERED GRANDFATHERED TO 58-236 BECAUSE THE APPLICANT SUBMITTED A PERCOLATION TEST APPLICATION PRIOR TO JULY 1, 2012. THIS PLAN IS GRANDFATHERED TO

58-236 AND PLANNING BOARD REQUIREMENTS. TOO. 44. A FEE-IN-LIEU OF OPEN SPACE IN THE AMOUNT OF \$4,500 (3 LOTS AT \$1,500 EACH) WILL BE REQUIRED SINCE THIS IS A NON-CLUSTER SUBDIVISION. 45. MARYLAND DEPARTMENT OF THE ENVIRONMENT HAS ACCEPTED OUR RECOMMENDATION TO APPROVE THE FOLLOWING VARIANCE

REQUEST UNDER THE CODE OF MARYLAND REGULATIONS 26.04.02.05(C) TO ALLOW: THE PROPOSED SEWAGE DISPOSAL SYSTEM SERVING LOTS 1 AND 2 ON THE MYERS PROPERTY (1905 MARRIOTTSVILLE ROAD) TO BE LOCATED AT LEAST 200' UPGRADIENT FROM THE EXISTING PRIVATE WATER WELLS LOCATED AT 1041 MARRIOTTSVILLE ROAD AND 1001 MARRIOTTSVILLE ROAD. DUE TO THE LANDSCAPE POSITION OF THE SEWAGE AREAS AND WELLS, THE REQUEST WAS APPROVED SUBJECT TO THE FOLLOWING (1) AN ADVANCED PRETREATMENT SYSTEM WHICH UTILIZES BEST AVAILABLE TECHNOLOGY TO PERFORM NITROGEN REDUCTION MUST BE INSTALLED

ON THE SEWAGE DISPOSAL SYSTEM ON LOT 1 (PREVIOUS LOT 1/2 DOES NOT EXIST). IN ADDITION, ONGOING MAINTENANCE IS REQUIRED. AN AGREEMENT ACKNOWLEDGING THE NEED FOR MAINTAINING A SERVICE CONTRACT WITH AN AUTHORIZED SERVICE PROVIDER MUST BE RECORDED IN THE HOWARD COUNTY LAND RECORDS FOR EACH OF THESE LOTS WITHIN 30 DAYS AFTER PLAT RECORDATION. BUILDING PERMIT APPLICATIONS FOR THE RESPECTIVE LOTS WILL NOT BE APPROVED UNTIL SUCH AN AGREEMENT IS RECORDED. BEFORE A SEPTIC SYSTEM INSTALLATION PERMIT IS RELEASED FOR THE ADVANCED PRE-TREATMENT SYSTEM, A SITE PLAN MUST BE SUBMITTED WITH ALL NECESSARY

INSTALLATION PERMIT IS RELEASED FOR THE ADVANCED FRETIKATION STOLET, A SITE FEAT MOST BE GOSTILLE WITH ALL THE REPORT OF THE SYSTEM.

(2) THE WELL ON LOT 1 (PREVIOUS LOTS 1/2 DOES NOT EXIST) MUST BE CONSTRUCTED USING A STEEL WELL CASING, WHICH MUST BE INSTALLED TO A MINIMUM DEPTH OF 50 FEET BELOW GROUND SURFACE OR 10 FEET INTO THE COMPETENT BEDROCK, WHICHEVER IS DEEPER.

(3) A LOW PRESSURE DOSING SYSTEM WILL BE REQUIRED FOR THE SEWAGE DISPOSAL SYSTEM ON LOT 1 (PREVIOUS LOT 1/2 DOES NOT EXIST).

(4) THE EXISTING WATER VAULT MUST BE ABANDONED

12-18-14

11 · 13 - 14

PARCEL NO.

CENSUS TR.

6030.00

SECTION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING FISHER, COLLINS & CARTER, INC. hief, Development Engineering Division IVIL ENGINEERING CONSULTANTS & LAND SURVEYORS PROFESSIONAL CERTIFICATION ELLICOTT CITY, MARYLAND 21042 MYERS PROPERTY, LOTS 1 THRU 4 HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED OWNERS / DEVELOPER BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386. EXPIRATION TRIPLE R VENTURES, LLC C/O LAND DESIGN & DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE ELLICOTT CITY, MARYLAND 21042 BLOCK NO TAX/ZONE ELEC. DIST. 1009/ CONTACT: JOSEPH RUTTER 443-367-1422 REVISE SHEET NUMBER AND SHEET INDEX CHAR 22 RC-DEO DATE

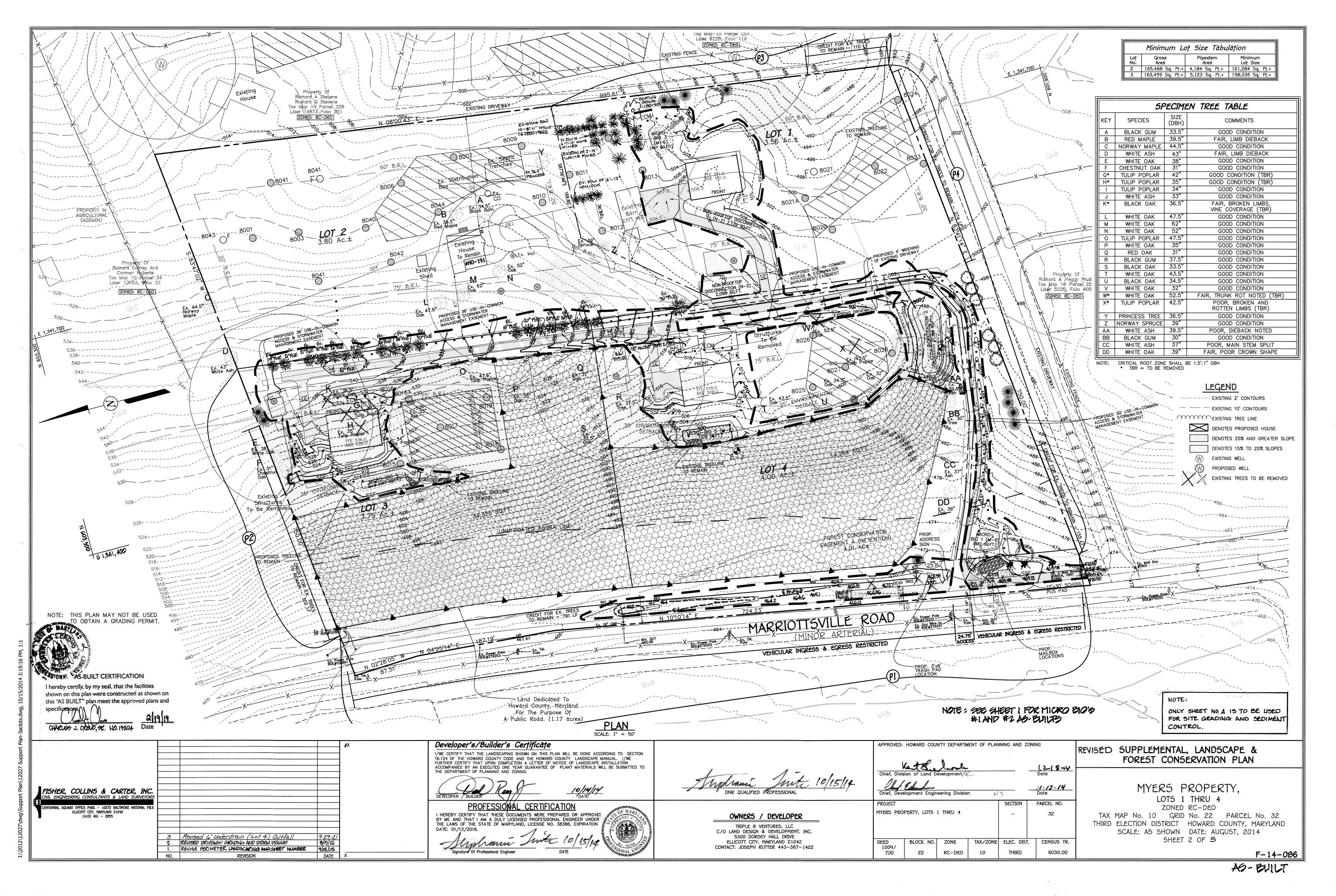
TITLE SHEET

MYERS PROPERTY,

LOTS 1 THRU 4

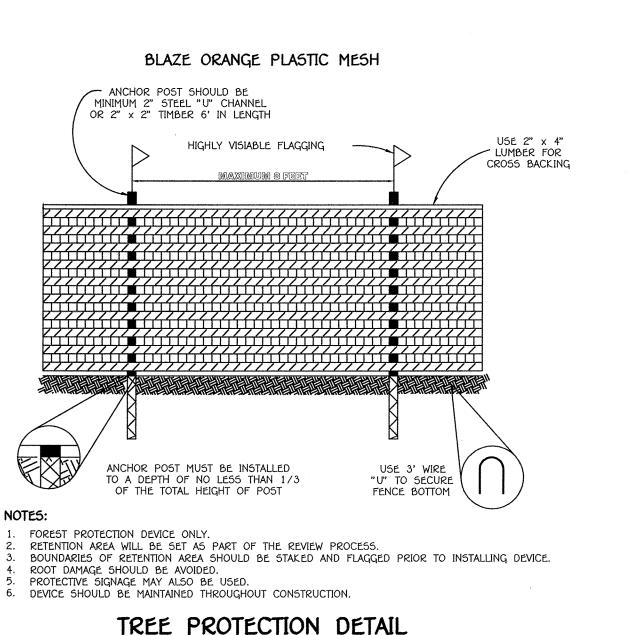
ZONED RC-DEO TAX MAP No. 10 GRID No. 22 PARCEL No. 32 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: AUGUST, 2014

SHEET 1 OF 5



### Manufacturer's Specifications. Specifications\* Specifications For This Project. With This Project. MULTIFLORA ROSE CONTROL NOTE: PRIOR TO PLANTING ALL MULTIFLORA ROSE WITHIN PLANTING AREAS SHALL BE REMOVED. Removal Of The Multiflora Rose May Be Performed With Mowing And Herbicide Treatments. Physical Removal Of All Top Growth Followed By A Periodic Herbicide Treatment Of Stump Sprouts Is Recommended. Native Tree And Shrub Species Occurring Within The Rose Thickets Should Be Retained Wherever Possible. Herbicide Treatments Shall Occur On Two (2) Month Intervals During The First Growing Seaseon And Once In The Spring And Once In the Fall For Subsequent Years. Herbicide Used Shall Be Made Specifically To Address Woody Plant Material And Shall Be Applied As Per Manufacturers Specifications. Care Should Be Taken Not To Spray Planted Trees Or Naturally Occurring Native Tree And Shrub Seedlings. It Is Recommended That Initiation Of Rose Removal Begin At Least Six Months Prior To Planting So That New Growth OF Roses is Able To Be More Successfully Managed. FOREST PROTECTION GENERAL NOTES ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING, AS NECESSARY, AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION. BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES. THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE MITHIN FOREST PROTECTION DEVICES, UNLESS ROOT PRUNING IS PROPOSED. ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY. ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS. RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS. REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS. AS NECESSARY, PRE-CONSTRUCTION MEETING AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS A. TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS B. INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES; C. MAKE ALL NECESSARY ADJUSTMENTS; D. ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES. CONSTRUCTION MONITORING THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT, A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR

### SCHEDULE A - PERIMETER LANDSCAPE EDGE PLANTING / SOIL SPECIFICATIONS FOREST CONSERVATION WORKSHEET Planting Of Nursery Stock Shall Take Place Between March 15th And April SPECIMEN TREES TRASH PAD PERIMETER VERSION 1.0 ADJACENT TO ADJACENT TO ADJACENT TO ADJACENT TO ADJACENT TO CATEGORY ROADWAY PERIMETER PROPERTIES ROADWAY ERIMETER PROPERTIES PERIMETER PROPERTIES . A Twelve (12) Inch Layer Of Topsoil Shall Be Spread Over All Reforestation BASIC SITE DATA: Areas Impacted By Site Grading To Assure A Suitable Planting Area. If LANDSCAPE TYPE A. TOTAL TRACT AREA. Applicable. Disturbed Areas Shall Be Seeded And Stabilized In Accordance 12 L.F. 156 LF 708 LF LINEAR FEET OF PERIMETER 837 IF 449 LF B. AREA WITHIN 100 YEAR FLOODPLAIN ..... With The Sediment & Erosion Control Plan For This Project. Planting CREDIT FOR EXISTING VEGETATION Areas Not Impacted By Site Grading Shall Have No Additional Topsoi C. NET TRACT AREA.. LINEAR FEET (LF) OF CREDIT REMAINING PERIMETER (LF) 55 LF OF EX. TREES 791 LF OF EX. TREES 302 LF OF EX. TREES 110 LF OF EX. TREES 429 LF OF EX. TREES LAND USE CATEGORY: (from table 3.2.1, page40, Manual) 101 LF REMAINING | 46 LF REMAINING | 82 LF REMAINING | 339 LF REMAINING | 279 LF REMAINING ARA MDR IDA HDR MPD CIA All Bare Rood Planting Stock Shall Have Their Root System Dipped Into An NUMBER OF PLANTS REQUIRED Anti-Desiccant Gel Prior To Planting. 46'/50 = 0.9 OR 182'/60 = 1.4 OR 1 | 339'/60 = 5.7 OR 6 | 279'/60 = 4.7 OR 5INFORMATION FOR CALCULATIONS: Plants Shall Be Installed So That The Top Of The Root Mass is Level With D. AFFORESTATION THRESHOLD... $0.20\% \times D =$ CREDIT FOR EXISTING VEGETATION The Top Of Existing Grade. BackFill In The Planting Pits Shall Consist of 4.07 3 Parts Existing Soil to 1 Part Pine Fines Or Equivalent. E. FOREST CONSERVATION THRESHOLD..... $0.25\% \times D =$ EVERGREENS AND 2:1 SUBSTITUTIONS EXISTING FOREST COVER: . Fertilizer Shall Consist Of Agriform 22-8-2, Or Equivalent, Applied As Per F. EXISTING FOREST COVER WITHIN NET TRACT AREA ... NUMBER OF PLANTS PROVIDED G. AREA OF FOREST ABOVE CONSERVATION THRESHOLD: ..... SHADE TREES 6. A Two (2) Inch Layer Of Hardwood Mulch Shall Be Placed Over The Root EVERGREENS AND 2:1 SUBSTITUTIONS Area Of All Plantings. See Planting Detail. SHRUBS BREAK EVEN POINT: H. FOREST RETENTION ABOVE THRESHOLD WITH NO MITIGATION...... Plant Material Shall Be Transported To The Site In A Tarped Or Covered NOTE: 1. SPECIMEN TREES TO BE REMOVED ARE TO BE REPLACED ON LOTS 3 AND 4 NEAR THE FOREST CONSERVATION EASEMENT. SEE GENERAL Truck. Plants Shall Be Kept Moist Prior To Planting. I. CLEARING PERMITTED WITHOUT MITIGATION... NOTE #42 REGARDING APPROVAL OF WP-14-035. 3. All Non-Organic Debris Associated With The Planting Operation Shall Be PROPOSED FOREST CLEARING: J. TOTAL AREA OF FOREST TO BE CLEARED .. 4.01 K. TOTAL AREA OF FOREST TO BE RETAINED... PLANTING REQUIREMENTS: SEQUENCE OF CONSTRUCTION LANDSCAPING PLANT LIST RETENTION L. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD... Sediment Controls And Tree Protective Devices Shall Be Installed In \_\_1.5\* BIT.CONC.SURFACE M. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD... AREA Accordance With Sediment & Erosion Control Plans For This Site, It N. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD. KEY SIZE NAME Applicable. Site Shall Be Graded In Accordance With The Plans. 2.5" BIT.CONC.BASE P TOTAL REFORESTATION REQUIRED. MACHINERY, DUMPING ACER RUBRUM 2.5"-3" CAL. 2. Proposed Reforestation Areas Impacted By The Site Grading Shall Be Q. TOTAL AFORESTION REQUIRED... OR STORAGE OF Topsoiled And Stabilized As Per Note 2 Of The "Planting / Soil 'RED SUNSET' FULL CROWN, R. TOTAL REFORESTATION AND AFFORESTATION REQUIRED.. ANY MATERIALS IS B&B S. EXCESS FOREST CREDIT ... (RED SUNSET RED MAPLE) PROHIBITED TILIA CORDATA 'GREENSPIRE 2.5"-3" CAL. 3. Plants Shall Be Installed And Maintained As Per Notes And VIOLATORS SUBJECT TO THE (GREENSPIRE LITTLELEAF | FULL CROWN, P-7 ACCELERATION/DECELERATION P-1 DRIVEWAY PAVING FINES AS IMPOSED BY THE B&B IINDFN) Upon Completion Of The Plantings, Signage Shall Be Installed As Per LANE PAVING SECTION CONSERVATION ACT OF THUJA PLICATA **SECTION** 5'-6' HT. (GIANT ARBORVITAE NOT TO SCALE NOT TO SCALE . Plantings Shall Be Guaranteed and Maintained In Accordance With The B&B 'GREEN GIANT') BLAZE ORANGE PLASTIC MESH "Guarantee Requirements" And "Maintenance Of Plantings" Associated 11" MINIMUM 5'-6' HT. ILEX 'NELLIE R. STEVENS' - ANCHOR POST SHOULD BE B&B (NELLIE STEVENS HOLLY) NOTE: THE PROTECTIVE SIGNAGE SHALL BE IN PLACE FOR PERPETUITY.



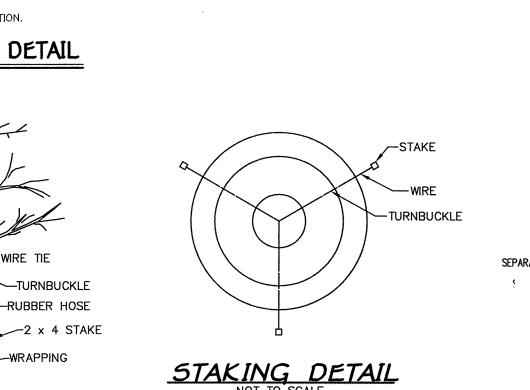
TWICE BALL

NOTE: REMOVE BURLAP FROM

TOP 1/3 OF BALL

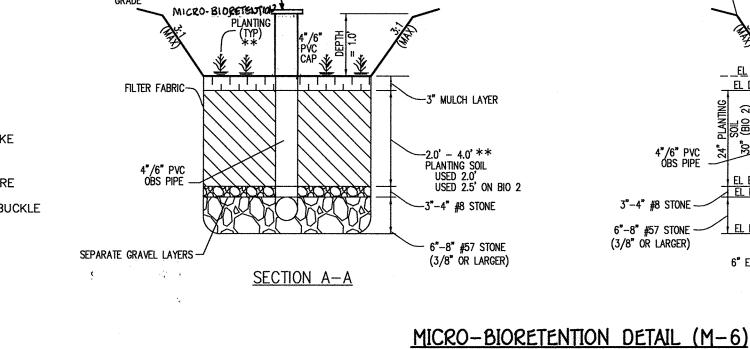
TREE PLANTING

DATE



GRADING FOR PLANTING

ON SLOPES



AS-BUILT CERTIFICATION

MICRO-BIORETENTION

472.00 472.00 471.50 471.25 469.25 469.00 468.67 468.45 468.50

498.00 498.00 497.00 496.75 494.25 493.92 493.42 480.00 493.25

503.50 503.50 502.50 502.25 500.25 500.00 499.67 499.50 499.50

511.50 | 511.50 | 510.50 | 510.25 | 508.25 | 508.00 | 507.67 | 507.50 | 507.50

497.50 497.50 496.50 496.25 494.25 493.92 493.42 492.40 493.25

Note: There is no "AS BUILT" information

CHARLES J. CROVO, 9R. NO. 13204

3.5" CAL.

FULL CROWN,

B&B

2.5'-3' HT.

CONT.

FOREST CONSERVATION

SIGN DETAIL

NOT TO SCALE

<u> MICRO-BIORETENTION PLANTING DETAIL</u>

QUERCUS RUBRA

(RED OAK)

TAXUS MEDIA 'HICKSII'

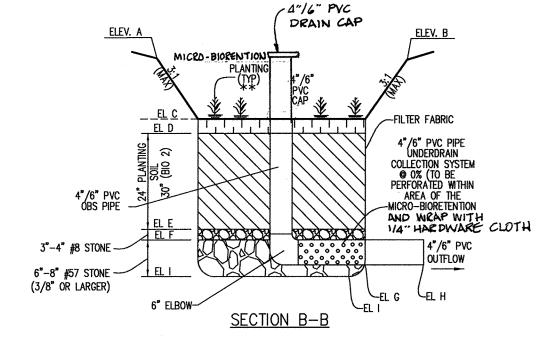
(HICKS YEW)

<u>PERENNIALS</u> CUT-LEAF CONEFLOWER (1.5' SP.) BEEBALM (1.5' SP.) JOE-PYE-WEED (3' SP.)

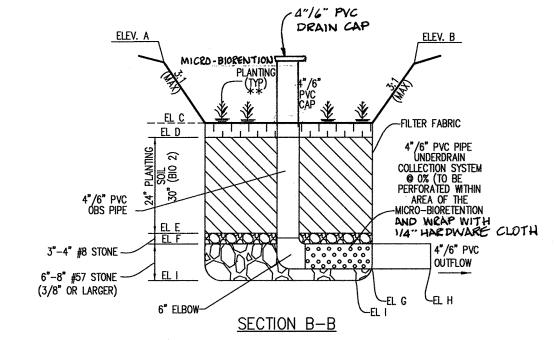
SILKY DOGWOOD

TOTAL: 10 SHADE TREES, 21 EVERGREENS, 4 SHRUBS

0



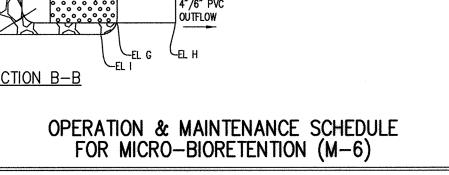
AND AFTER EACH HEAVY STORM.



6" PVC PIPE

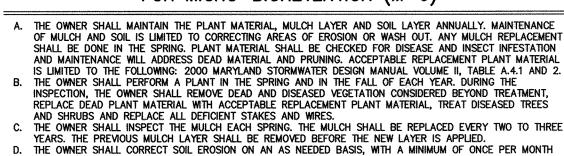
UNDERDRAIN COLLECTION

SYSTEM @ 0.5% MIN



SURFACE TREATMENT

PVC OBSERVATION PIPE W/CAP



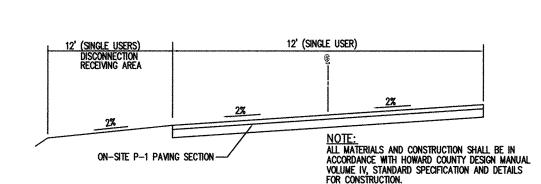
	MICR	O-BIORETEN	ITION & BIO	DRETENTION	PLANT MAT	TERIAL
MICRO-BIO 1 QUANTITY	BIO 2 QUANTITY	MICRO-BIO 3 QUANTITY	MICRO-BIO 4 QUANTITY	MICRO-BIO 5 QUANTITY	NAME	MAXIMUM SPACING (FT.)
35	200	25	22	20	MIXED PERENNIALS	1.5 TO 3.0 FT.
1	3	1	1	1	SILKY Dogwood	PLANT AWAY FROM INFLOW LOCATION

<u>PLAN</u>

ACRE REMAINING OBLIGATION. SURFTY IS NOT REQUIRED FOR RETENTION. 2. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL A LANDSCAPE SURETY FOR 10 SHADE TREES, 21 EVERGREENS, AND 4 SHRUBS IN THE AMOUNT OF (\$6,270.00) WILL BE PROVIDED WITH THE GRADING PERMIT. LOT 1 SURETY: (4) SHADE TREES @ 300/SHADE TREE & (18) EVERGREENS @ 150/EVERGREEN = \$3,900.00 LOT 3 SURETY: (3) SHADE TREES @ 300/SHADE TREE & (2) EVERGREENS @ 150/EVERGREEN = \$1,200.00 LOT 4 SURETY: (3) SHADE TREES @ 300/SHADE TREE & (1) EVERGREENS @ 150/EVERGREEN (4) SHRUBS @ 30/SHRUB 3. 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. 4. 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. 5. THE FOREST CONSERVATION EASEMENTS SHOWN ON THIS PLAN HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED. 6. SHOULD DISTURBANCE OCCUR IN THE FOREST CONSERVATION EASEMENT AREAS DURING OR AFTER CONSTRUCTION, CIVIL PENALTIES OR MITIGATION MAY BE IMPOSED. r-1.75" CHIP SEAL DOUBLE 7. SEE THE RECORD PLAT FOR THE BEARING AND DISTANCE DESCRIPTIONS OF THE FOREST CONSERVATION EASEMENTS. ~10' OF EXISTING DRIVEWAY PAVEMENT , ~6' OF NEW PAVING ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION. 2. SWALES ARE FOR CONVEYANCE OF RUNOFF AND NOT UTILIZED FOR TREATMENT CREDIT. LOWER SECTION OF 16' USE-IN-COMMON DRIVEWAY CROSS SLOPE SECTION (PORTION CONTAINING EXISTING PAVED DRIVEWAY) NOT TO SCALE 16' USE-IN-COMMON DRIVEWAY ON-SITE P-1 PAVING SECTION— ENTRANCE 1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION. SWALES ARE FOR CONVEYANCE OF RUNOFF AND NOT UTILIZED FOR TREATMENT CREDIT. UPPER SECTION OF 16' USE-IN-COMMON DRIVEWAY CROSS SLOPE SECTION (PORTION CONTAINING NO EXISTING PAVED DRIVEWAY) NOT TO SCALE

1. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST

CONSERVATION BY THE ON-SITE RETENTION OF 4.01 ACRES OF FOREST AND USE OF A FOREST BANK FOR THE 1.03



TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION <u>WITH NON-ROOFTOP DISCONNECTION</u> NOT TO SCALE

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED, DISCONNECTION OF ROOFTOP RUNOFF (N-1) & DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)

. MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

				#X
				l "
TERRIED COLUMNS & CLOTED INC				
FISHER, COLLINS & CARTER, INC.				
SS				
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE				*
ELLICOTT CITY, MARYLAND 21042				
(410) 461 - 2855				
		CONCE CUEET WINDERS & ON DETENTION DETENT	10115 115	
	1,	REVISE SHEET NUMBERS & BIO RETENTION DETAILS	9/15/15	

1'-0" HIGH

2-1/2" CALIPER-

Developer's/Builder's Certificate I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF NOTICE OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING. 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 DATE: 01/12/2016.

CONTACT: JOSEPH RUTTER 443-367-1422

DNR QUALIFIED PROFESSIONAL PROJECT OWNERS / DEVELOPER TRIPLE R VENTURES, LLC C/O LAND DESIGN & DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE

ELLICOTT CITY, MARYLAND 21042

62-68-64 Chief, Development Engineering Division NY PARCEL NO. SECTION MYERS PROPERTY, LOTS 1 THRU 4 32 CENSUS TR DEED TAX/ZONE ELEC. DIST. ZONE 1009/ 700 22 6030.00 RC-DEO

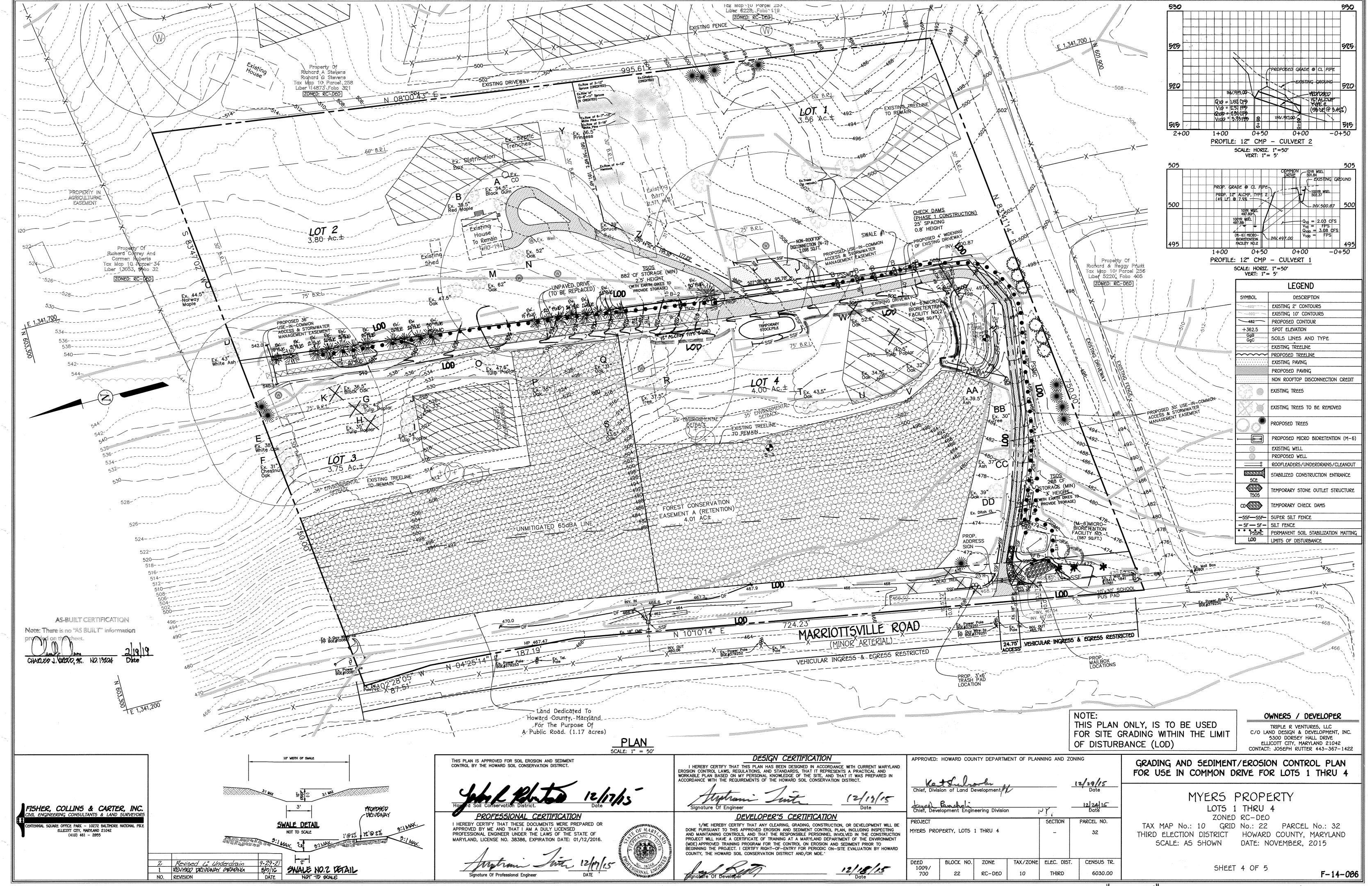
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

MYERS PROPERTY,

STORMWATER MANAGEMENT DETAILS & NOTES

LOTS 1 THRU 4 ZONED RC-DEO TAX MAP No. 10 GRID No. 22 PARCEL No. 32 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: NOT TO SCALE DATE: AUGUST, 2014 SHEET 3 OF 5

F-14-086



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

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

v. Soil contains sufficient pore space to permit adequate root penetration

a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required

for permanent vegetative establishment are: Soil pH between 6.0 and 7.0.

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. Soil contains 1.5 percent minimum organic matter by weight.

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.

B. Topsoiling

1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

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 USDA-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 furnish continuing supplies of moisture and plant nutrients. c. The original soil to be vegetated contains material toxic to plant growth

d. The soil is so acidic that treatment with limestone is not feasible

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. Erosion and sediment control practices must be maintained when applying topsoil

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

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 as specified.

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.

6. Topsoil Application

b. 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

c. 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 fertilize 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

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 must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 90 to 100

4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by

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. TEMPORARY SEEDING NOTES (B-4-4)

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

To use fast growing vegetation that provides cover on disturbed soils.

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 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. I 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 the

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

Hardiness Zone (from Figure 8.3): 6b Fertilizer Rate Lime Rate Seed Mixture (from Table 8.1): (10-20-20) Seeding Dates (lb/ac) 3/1 - 5/15, BARLEY 96 8/15 - 10/15 3/1 - 5/15. (10 lb/ OATS 72 1000 sf) 112

AS-BUILT CERTIFICATION

DATE

CHARUED J. CROVO, SR. NO. 13204

Note: There is no "AS BUILT" information



NO.

PERMANENT SEEDING NOTES (B-4-5)

A. Seed Mixtures

a. Select one or more of the species or mixtures listed in Table 8.3 for the appropriate Plant Hardines Zone (from 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

o. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.

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 turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

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 summary is to be placed on the plan. i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation 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 Kentuck

bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennic Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. 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 receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified 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 Publication, Agronomy Memo #77, "Turforass Cultivar Recommendations for Maryland" certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides

c. Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

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

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. The resulting seedbed must be in such condition that future mowing 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

		Androvino Cotal Continuity N 1 2 0 1 K 0		T 1/2					
No.	Species	Application Rate (lb/ac)		5eeding Dațes	Seeding Depths	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> 0	
8	TALL FESCUE	100	Mar. Aug.	1-May 15 1-Oct. 15	1/4-1/2 in.	per acre	90 lb/ac (2 lb/	(2 lb/	2 tons/ac (90 lb/
						(1.0 lb/ 1000 sf)	1000 sf)	1000 sf)	1000 sf)

STANDARD STABILIZATION NOTE FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: a.) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES. SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND

b.) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED

AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

sedimentation, and changes to drainage patterns.

B-4-8 STANDARDS AND SPECIFICATIONS STOCKPILE AREA

A mound or pile of soil protected by appropriately designed erosion and sediment control measures. To provide a designated location for the temporary storage of soil that controls the potential for erosion.

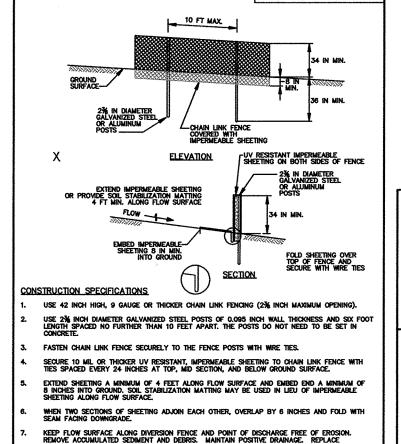
Conditions Where Practice Applies Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan. 2. The footprint 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 Section B-3 Land Grading. 3. Runoff 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 flow in a non-erosive manner. 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

tandard B-4-1 incremental Stabilization and Standard B-4-4 Temporary Stabilization. 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to fācilitāte cleānup. Stockpiles contāining contāmināted māteriāl must be covered with impermeāble 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 4:1 slopes, benching must be provided in accordance with Section B-3 DETAIL C-9 DIVERSION FENCE ├── DF ─── | IAXIMUM DRAINAGE AREA - 2 AC



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE 2011 WATER MANAGEMENT ADMINISTRATION

STANDARDS AND SPECIFICATIONS SEEDING AND MULCHING (B-4-3)**Definition** 

The application of seed and mulch to establish vegetative cove

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. 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 project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector

Criteria

o verify type of seed and seeding rate. 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.

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 keetp 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 weedcontrol until sufficient time has elapsed (14 days min.) to permit dissipation of

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 seeding summaries. 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

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in

Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).

i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P 0 (phosphorus), 200 pounds per acre; K O (potassium), 200 pounds per acre. 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.

ii. Mix seed and fertilizer on site and seed immediately and without interruption

iv. When hydroseeding do not incorporate seed into the soil.

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. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into uniform fibrous physical state. WCFM is to be dyed green or contain a green dye in the package that will provide an

appropriate colot to facilitate visual inspection of the uniformly spread slurry. WCFM, including dye, must contain no germination or growth inhibiting factors. 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 gaitation 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. WCFM material must not contain elements or compounds at concentration levels that will by

WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of Apply mulch to all seeded areas immediately after seeding.

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. 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 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

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 sloping land, this practice should follow the contour. 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. 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 ecommendations. Netting is usually available in rolls 4-15 feet wide and 300 to 3,000

> HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

1) A MINIMUM OF 40 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855). PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND

3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 3 CALENDAR DAYS FOR ALL PERIMETER EDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, b) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4) 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 PERMANENT SEEDING (SEC. 8-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES. 5) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN

OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. TOTAL AREA OF SITE AREA TO BE ROOFED OR PAVED AREA TO BE VEGETATIVELY STABILIZED ... 1,100 C

OFFSITE WASTE/BORROW AREA LOCATION N/A
7) ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE. 8) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 9) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER

EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. 10) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER. 11) ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH

12) A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 ACRE 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 PROCEEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT

APPROVED BY ME AND THAT I AM A DULY LICENSED

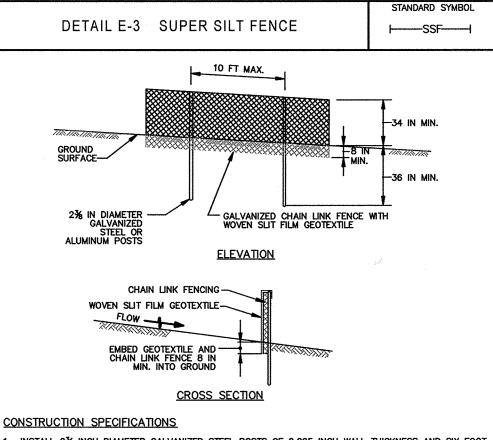
PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR

PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF

MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2016.

CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.



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

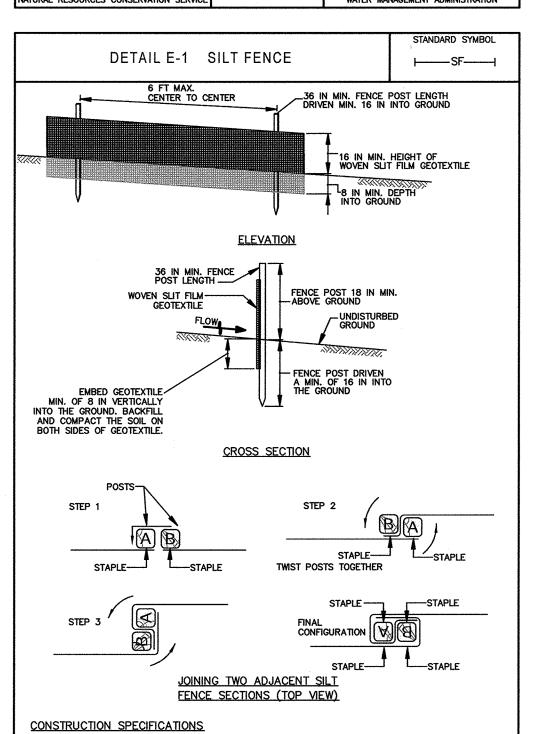
FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. SECURELY TO THE

UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES,

. EXTEND BOTH ENDS OF THE SUPER 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 SUPER SILT FENCE. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT

GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL

CHAIN LINK FENCING AND GEOTEXTILE. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL



USE WOOD POSTS 1 $\frac{1}{4}$  X 1 $\frac{1}{4}$   $\pm$   $\frac{1}{16}$  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. 2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.

S. 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 . 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

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

ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. DEVELOPER'S CERTIFICATION

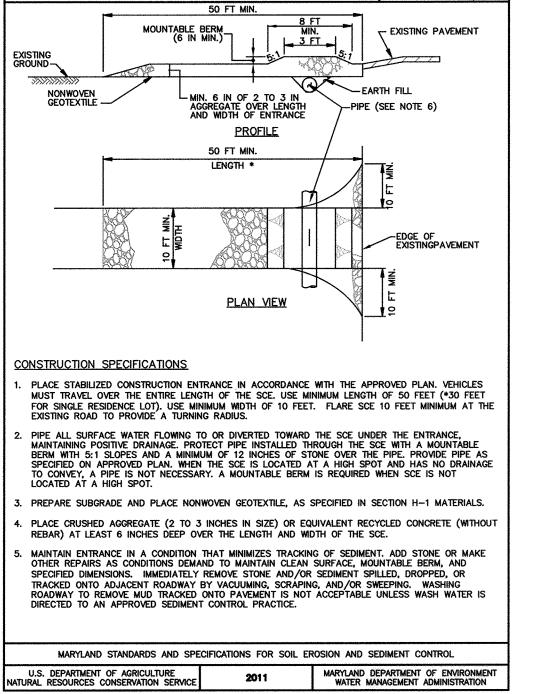
EROSION CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND

WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN

DESIGN CERTIFICATION

HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND

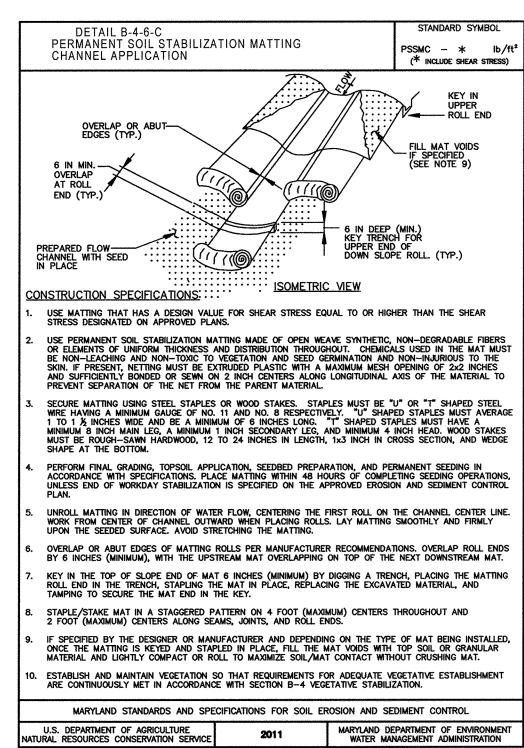
1/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN. INCLUDING INSPECTING AND MAINTAINING CONTROLS. AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT—OF—ENTRY FOR PERIODIC ON—SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."



SCE

DETAIL B-1 STABILIZED

CONSTRUCTION ENTRANCE



SEQUENCE OF CONSTRUCTION FOR USE IN COMMON DRIVEWAY (SHEET 4)

OBTAIN GRADING PERMITS. (2 WEEKS) NOTIFY "MISS UTILITY" AT LEAST 40 HOURS BEFORE BEGINNING ANY WORK AT NOTIFY HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION DIVISION AT 410-313-1870 AT LEAST 24 HOURS BEFORE STARTING ANY WORK. IN ADDITION, NOTIFY AT&T PRIOR TO ANY ACTIVITY WITHIN THEIR EASEMENT. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE & SUPER-SILT FENCE WHERE SHOWN ON THE PLANS. CLEAR AND GRUB WHERE NECESSARY FOR DRIVEWAY CONSTRUCTION. (1 WEEK) STABILIZE ALL DISTURBED AREAS WITH TEMPORARY SEEDING. CONTACT THE COUNTY SEDIMENT EROSION CONTROL INSPECTOR BEFORE PROCEEDING. (2 DAYS) INSTALL PROPOSED PHASE 1 CULVERT AS SHOWN ON SHEET 4 INCLUDING CHECK DAMS (PHASE 1). DELAY GRADING OF SWALE UPHILL OF 520 CONTOUR & CULVERT PIPE UNDER LOT 2 DRIVEWAY UNTIL AREAS ASSOCIATED WITH PHASE 1 CULVERT INSTALLATION IS STABILIZED. (1 WEEK) UPON PHASE 1 COMPLETION, INSTALL CULVERT UNDER LOT 2 DRIVEWAY, INSTALL TSOS & 55F AROUND UPPER END OF LOT 2 CULVERT PIPE (PHASE 2). GRADE SWALE ALONG EAST SIDE OF COMMON DRIVEWAY ON LOT 2. (3 DAYS) INSTALL TEMPORARY STONE OUTLET STRUCTURE ON SOUTH SIDE OF DRIVEWAY NEAR MARRIOTTSVILLE ROAD (PHASE 2). (1 DAY) INSTALL BASE COURSE OF PAVING FOR DRIVEWAY AND ACCELERATION/DECELEERATION LANE PER DETAILS SHEET 3. (1 WEEK)

 STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEEDING. (2 DAYS) 1. INSTALL BIORETENTION AND MICRO-BIORETENTION FACILITIES AS SHOWN ON THE PLANS. (1 WEEK) 2. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR START REMOVING THE SEDIMENT CONTROL FEATURES AND STABILIZE THE AREAS WITH PERMANENT SEEDING (1 WEEK)

12/29/15

SECTION

ELEC. DIST.

TAX/ZONE

10

PARCEL NO

CENSUS

6030.00

NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CONTROL STRUCTURES SHOWN HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS.

ZONE

RC-DEO

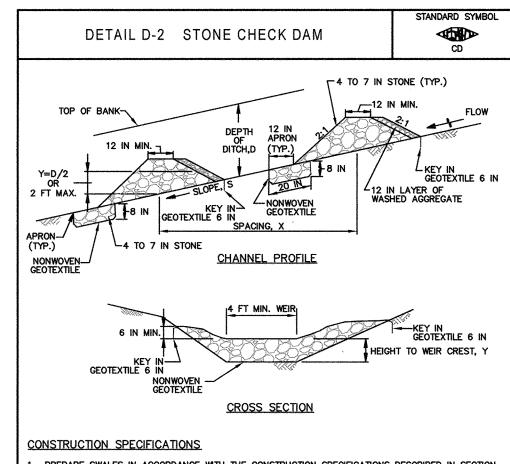
Chief, Development Engineering Division

IYERS PROPERTY, LOTS 1 THRU 4

1009/

BLOCK NO.

22



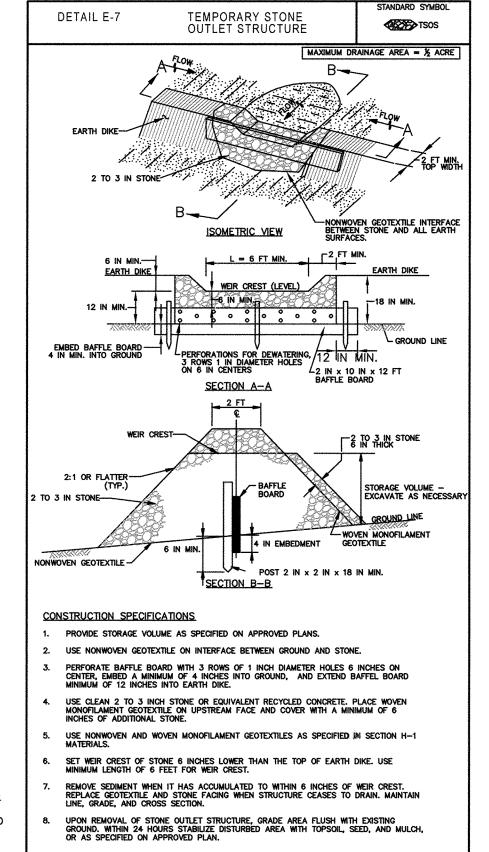
PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND SIDES OF THE DAM PRIOR TO PLACEMENT OF STONE. CONSTRUCT THE CHECK DAM WITH WASHED 4 T 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) WITH SIDE SLOPES OF 2:1 OR

COVERS THE WIDTH OF THE CHANNEL AND CHANNEL BANKS. FORM THE WEIR SO THAT TOP OF THE OUTLET CREST IS APPROXIMATELY 6 INCHES LOWER THAN THE OUTER EDGES. LINE THE UPSTREAM

FACE OF THE DAM WITH A 1 FOOT THICK LAYER OF WASHED AGGREGATE (3/4 TO 1/5 INCH). SET THE HEIGHT FOR THE WEIR CREST EQUAL TO ONE—HALF THE DEPTH OF THE CHANNEL OR DITCH. TO AVOID SCOUR THE MAXIMUM HEIGHT OF THE WEIR CREST MUST NOT EXCEED 2.0 FEET.

REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE-HALF OF THE HEIGHT OF THE WEIR CREST. MAINTAIN LINE, GRADE, AND CROSS SECTION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMEN
WATER MANAGEMENT ADMINISTRATION



OWNERS / DEVELOPER

1 & 2 OF

TRIPLE R VENTURES, LLC C/O LAND DESIGN & DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE ELLICOTT CITY, MARYLAND 21042 CONTACT: JOSEPH RUTTER 443-367-1422

SEDIMENT/EROSION CONTROL DETAILS & NOTES FOR USE IN COMMON DRIVE FOR LOTS 1 THRU 4

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

MYERS PROPERTY LOTS 1 THRU 4

ZONED RC-DEO TAX MAP No. 10 GRID No. 22 PARCEL No. 32 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: NOVEMBER, 2015

SHEET 5 OF 5