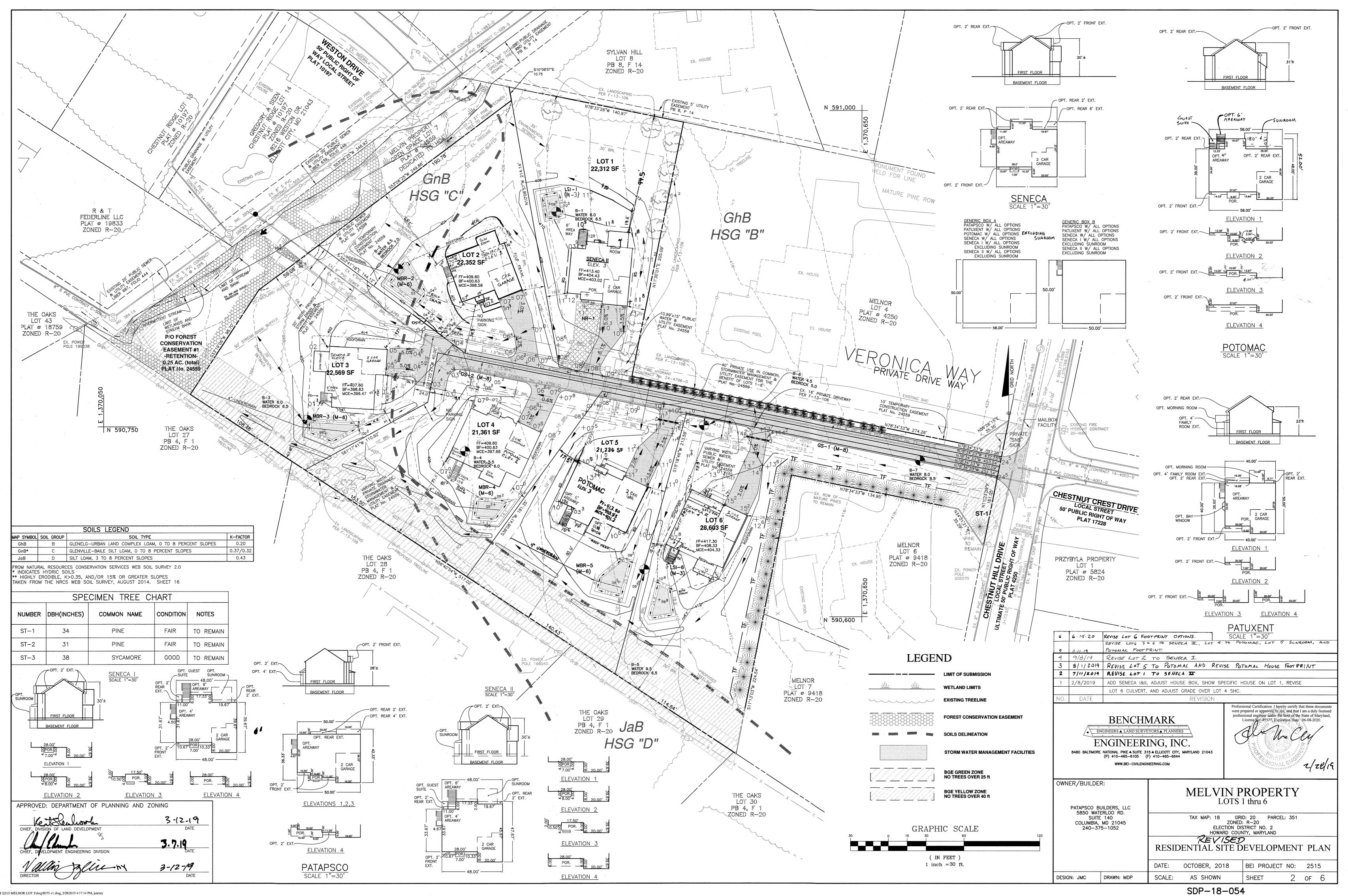
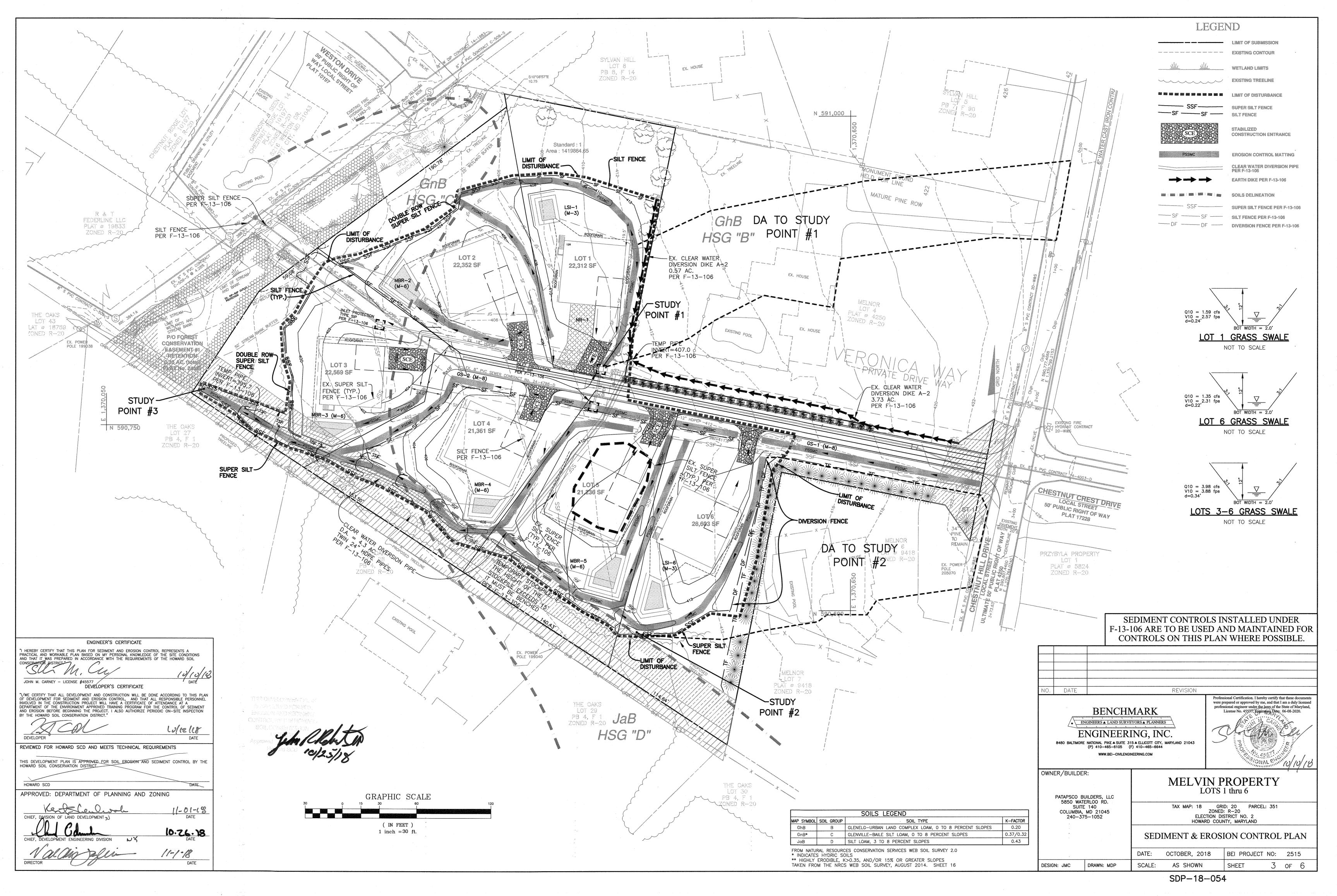
## GENERAL NOTES BENCHMARKS NAD'83 HORIZONTAL THE SUBJECT PROPERTY IS ZONED R-20 PER THE 10-6-13 COMPREHENSIVE ZONING PLAN. RESIDENTIAL SITE DEVELOPMENT PLAN THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. STAMPED DISK SET ON TOP OF CONCRETE BASE. EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY PREPARED BY BENCHMARK, ENGINEERING, INC. DATED AUGUST 2015 AND HOWARD COUNTY 2008 GIS AND ARE 2' INTERVALS. N 591872.0034' E 1370380.4297' MELVIN PROPERTY ELEVATION: 445.769' IN ACCORDANCE WITH SECTION 128.0 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES, OR DECKS, OPEN OR ENCLOSED MAY PORJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK. STAMPED DISK SET ON TOP OF NO GRADING, REMOVAL OR VEGETATIVE COVER AND TREES, AND PAVING ARE NOT PERMITTED IN WETLANDS, STREAMS, FLOODPLAIN, FOREST CONSERVATION EASEMENT AREAS AND WETLAND AND STREAM BUFFERS EXCEPT AS APPROVED BY THE DEPARTMENT ON PLANNING CONCRETE BASE AND ZONING. THE EXTENSION OF SEWER LINES AND THE DRAINAGE OUTFALL WITHIN THE ENVIRONMENTAL AREAS ARE PERMITTED AS 589985.0097 E 1367750.2346 LOTS 1 THRU 6 ELEVATION: 407.734' . THERE ARE NO ONSITE STEEP SLOPES GREATER THAN 25%. 7. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE. HOWARD COUNTY, MARYLAND LEGEND . THIS SITE IS LOCATED WITHIN THE METROPOLITAN DISTRICT. THE DRAINAGE AREA IS THE PATAPSCO. 9. WATER WILL BE FROM PUBLIC WATER MAIN CONTRACT NUMBER 24-4796-D. LIMIT OF SUBMISSION \_\_\_\_ LOT LINES 10. SEWER WILL BE FROM PUBLIC SEWER MAIN CONTRACT 24-4796-D. WETLAND LIMITS . DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS: ADJACENT PROPERTY LINES a) WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE). b) SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.) c) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM 45' TURNING RADIUS. d) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING). e) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY f) STRUCTURE CLEARANCES - MINIMUM 12 FEET. g) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE 2. FLAG AND PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL, AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND RIGHT-OF-WAY AND NOT ONTO THE PIPESTEM LOT DRIVEWAY. . LANDSCAPING WAS PREVIOUSLY PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE ADC MAP 21 GRID C6 AND LANDSCAPE MANUAL AS SHOWN ON THE CONSTRUCTION PLANS F-13-106. SURETY WAS POSTED WITH THE DEVELOPERS AGREEMENT FOR THE FINAL CONSTRUCTION PLANS F-13-106. VICINITY MAP 4. THE FOREST CONSERVATION EASEMENTS HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. ON-SITE RETENTION OF 0.25 ACRES AND 0.54 ACRES OF OFF-SITE PLANTING ON THE CATTAIL CREEK FOREST MITIGATION BANK WAS APPROVED UNDER F-13-106. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED N\_591,100 N 591,100 WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST SHEET INDEX 5. PREVIOUS FILE COUNTY FILES NUMBERS: F-13-106, ECP-13-067, PLAT 4250, F-79-120, PLAT 24559-60. TITLE 16. THE FIELD RUN BOUNDARY SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC., ON ABOUT NOVEMBER, 2012. COVER SHEET 7. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE RESIDENTIAL SITE DEVELOPMENT PLAN 18. BRL INDICATES BUILDING RESTRICTION LINE. SEDIMENT AND EROSION CONTROL PLAN 19. THE MODERATE INCOME HOUSING UNIT REQUIREMENTS, COUNCIL BILL 35-2013, FOR THIS SUBDIVISION WILL BE FULFILLED BY PAYMENT S78'33'26"E 140.97' SEDIMENT & EROSION CONTROL DETAILS OF FEE-IN-LIEU OF CONSTRUCTION PER AGREEMENT RECORDED AT LIBER 18045, FOLIO 307 AMONG THE LAND RECORDS OF HOWARD N10.08'57"W DRAINAGE AREA MAP O. STORMWATER MANAGEMENT FOR THESE LOTS IS PROVIDED IN ACCORDANCE WITH THE STORMWATER MANAGEMENT ACT OF 2007. ENVIRONMENTAL SITE DESIGN (ESD) HAS BEEN IMPLEMENTED TO THE MAXIMUM EXTENT PRACTICAL (MEP) BY THE USE OF (M-6) STORMWATER MANAGEMENT DETAILS MICRO-BIORETENTION, (M-8) GRASS SWALE, AND (M-3) LANDSCAPING INFILTRATION PRACTICES LOCATED ON THE INDIVIDUAL LOT IN WHICH IT SERVES. THE USE-IN-COMMON DRIVEWAY IS TREATED BY (M-8) GRASS SWALE AND (M-6) MICRO-BIORETENTION. ALL ESD 1. THE WETLANDS DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE AND DATED MARCH 27, 2013. 22. THERE IS NO 100-YR. FLOODPLAIN ON THIS SITE. 23. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS TRAFFIC, DATED APRIL, 2013, AND WAS APPROVED ON OCTOBER 14, MINIMUM LOT SIZE CHART LOT 1 24. NO NOISE STUDY IS REQUIRED FOR THIS PROJECT. GROSS AREA PIPESTEM AREA MIN. LOT SIZE LOT 2 25. THE REQUIRED OPEN SPACE ASSOCIATED WITH THIS SUBDIVISION WAS DEDICATED TO THE HOMEOWNERS ASSOCIATION, IT SHALL BE 22,312 S.F. 1,510 S.F. 20,802 S.F. PRIVATELY OWNED AND MAINTAINED BY THE HOME OWNERS ASSOCIATION. FOR LOTS THAT ARE 20,000 SQUARE FEET OR GREATER, A 6% OPEN SPACE AREA IS REQUIRED AND THIS SUBDIVISION PROVIDED 0.37 ACRES. 22,352 S.F. 1,429 S.F 22,569 S.F. 1,920 S.F. 26. THE ARTICLES OF INCORPORATION FOR THE HOMEOWNERS ASSOCIATION WERE ACCEPTED BY THE STATE DEPARTMENT OF ASSESSMENTS 21,361 S.F. 1,280 S.F. 20,081 S.F. AND TAXATION ON 10/10/2017, DEPARTMENT ID D18328104. THE PROTECTIVE COVENANTS WERE RECORDED IN LIBER 18045 AT FOLIO 21,236 S.F. 1,005 S.F. 27. THE COMMUNITY MEETING FOR THIS SUBDIVISION WAS HELD ON FEBRUARY 20, 2013. 28. THERE ARE EXISTING WETLANDS, WETLANDS BUFFERS, STREAMS AND STREAM BUFFER ON-SITE. 29. ALL ASPECTS OF THIS PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN INTERMITTENT 30. THE PRIVATE MAINTENANCE ACCESS AGREEMENT FOR LOTS 1-6 WAS RECORDED SIMULTANEOUSLY WITH THE PLAT (F-13-106). STREAM SITE ANALYSIS DATA/TABULATION 1. THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 — RESIDENTIAL INFILL DEVELOPMENT — OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPER OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERMS, FENCES, SIMILAR HOUSING UNIT TYPES A) TOTAL PROJECT AREA..... AND DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES. B) AREA OF WETLANDS AND BUFFER .. THIS SUBDIVISION IS SUBJECT TO SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND SEWERAGE ALLOCATIONS WILI BE GRANTED AT TIME OF BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME. .. 0.00 AC. C) AREA OF 100-YR. FLOODPLAIN....... 33. THE GEOTECHNICAL REPORT WAS PREPARED BY GEOLABS IN JULY, 2013. D) AREA OF FOREST ... . 0.00 AC. 34. THERE IS NO RECREATIONAL OPEN SPACE REQUIREMENT FOR THIS PROJECT SINCE THERE ARE LESS THAN 10 LOTS. LOT 4 CHESTNUT CREST DRIVE E) AREA OF STEEP SLOPES 25% OF GREATER... 0.00 AC. 35. HOWARD COUNTY STANDARD DETAIL R-6.03 SHALL BE UTILIZED FOR DRIVEWAY APRONS. F) AREA OF DEDICATION...... LOCAL STREET 36. A PRIVATE DRIVEWAY SIGN SHALL BE FRABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S 50' PUBLIC RIGHT OF WAY G) HIGHLY ERODIBLE SOILS (K > 0.35) .......... 0.00 AC. 37. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING PLAT 17228 H) NUMBER OF UNITS ALLOWED . LOT 5 I) NUMBER OF RESIDENTIAL UNITS PROPOSED... 6 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. LOT 6 J) AREA OF PLAN SUBMISSION .. . 3.18± AC. N34.01.21.W -39. TRAFFIC CONTROL AND SIGNAGE NOTES: .. 1.4± AC. K) LIMIT OF DISTURBED AREA .... a) THE R1-1 ("STOP") SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE PRZYBYLA PROPERT b) THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD L) PRESENT ZONING DESIGNATION..... N 590,650 COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES. M) PROPOSED USE: SINGLE FAMILY DETACHED DWELLINGS c) ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MDMUTCD). N) IMPERVIOUS COVER...... .0.68± AC. d) ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH"), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) — 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST. e) A PRIVATE ROAD STREET NAME SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S/OWNER'S EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430 FOR DETAILS AND COST 40. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 18GA AND 18G1 WERE USED FOR THIS PROJECT 41. EXISTING UTILITIES ARE BASED ON CONTRACT DRAWINGS AND CONTRACT NUMBERS SHOWN ON PLAN. 42. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE 43. SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE OR EASEMENT LINE. O. DATE REVISION 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 **BENCHMARK** License No. 45577, Expiration Date: 06-08-2020. ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS GRAPHIC SCALE ENGINEERING, INC. (P) 410-465-6105 (F) 410-465-6644 ( IN FEET ) WWW.BEI-CIVILENGINEERING.COM **ESD PRACTICE SUMMARY TABLE** 1 inch = 50 ft. Pe= 1.4 inches Qe= 0.35 inches ESDv= 3951 cf for site OWNER/BUILDER: **Practice** Lot Ref. Address **MELVIN PROPERTY** Area Volume Required Provided 2% DA? Req. for DA Provided ESDv Req.? practice PLEASE NOTE THAT ALL LOTS/RESIDENTIAL UNITS IN THIS SUBDIVISION ARE SUBJECT TO THE MIHU FEE-IN-LIEU REQUIREMENT THAT IS TO BE CALCULATED LOTS 1 thru 6 Veronica W AND PAID TO THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT ISSUANCE BY THE PERMIT APPLICANT. **ADDRESS CHART** 1-6 GS 1 M-8 #1 1248 APPROVED: DEPARTMENT OF PLANNING AND ZONING Veronica Wa PATAPSCO BUILDERS, LLC (M-8) Grass Swale M-8 #2 4 GS 2 2,323 478 PASS 6,840 5850 WATERLOO RD. Veronica Wa CHIEF, DEVELOPMENT ENGINEERING DIVISION TAX MAP: 18 GRID: 20 PARCEL: 351 ZONED: R-20 (M-3) Landscape Infiltration M-3 #1 2,500 176 PASS 439 4,119 LOT | STREET ADDRESS 10.26.18 COLUMBIA, MD 21045 (M-6) Micro-Bioretention M-6 #2 2 MBR 2 PERMIT INFORMATION CHART 3,726 359 PASS Veronica Way 7,138 143 ELECTION DISTRICT NO. 2 240-375-1052 (M-6) Micro-Bioretention M-6 #3 3 MBR PASS 489 8107 VERONICA WAY HOWARD COUNTY, MARYLAND Veronica Way 7,229 4,251 145 282 SUBDIVISION NAME: LOT/PARCEL# SECTION/AREA: (M-6) Micro-Bioretention M-6 #4 4 MBR 4 PASS 3,833 211 Veronica Wa RESIDENTIAL SITE DEVELOPMENT PLAN 8111 VERONICA WAY MELVIN PROPERTY LOTS 1-6 (M-6) Micro-Bioretention PASS M-6 125 331 N/A 8116 VERONICA WAY **COVER SHEET** 117 236 PASS 581 (M-3) Landscape Infiltration M-3 #6 3,453 Veronica Way 0.021 1210 30169 TOTAL = 8112 VERONICA WAY GRID No. ZONE TAX MAP BEI PROJECT NO: 2515 OCTOBER, 2018 DISTRICT 8108 VERONICA WAY Percent of Requirement = 14% 18 602900 24559-60 20 R-20 2nd AS SHOWN DESIGN: JMC DRAWN: MDP of 6 8104 VERONICA WAY Rev requirement met?







square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments

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

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

Centucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose

minimum of three Kentucky Bluegrass Cultivars with each ranging from 10 to 35 percent of the

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

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

Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds

mixture per 1000 square feet. Choose a minimum of three Kentucky Bluegrass Cultivars with

Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or

Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70

certified material. Certified material is the best guarantee of

of the Maryland Department of Agriculture

consumer protection and

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

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

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

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

lawns. For establishment in high quality, intensively managed turf area, Mixture includes

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

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

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level, and rake

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

e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch

every 3 to 4 days depending on soil texture) until they are firmly established. This is not

shape when suspended vertically with a firm grasp on the upper 10 percent of the section.

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

the areas to prepare a proper seedbed. Remove stones and debris over 1 ½ inches in diameter. The

especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, Or

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

b. Sod must be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 3/4 inch, at the time of cutting

Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will

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

d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely

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

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

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

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

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

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

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

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

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 specified.

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

wilting.

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

(Hardiness Zones: 7a, 7b)

shown in the Permanent Seeding Summary.

Seeding Summary. The summary is to be placed on the plan.

percent. Seeding Rate: 1 ½ to 3 pounds per 1000 square feet.

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

urforass Mixtures

total mixture by weight.

more cultivars may be blended.

cultivar purity. The certification program

on adverse sites.

not be acceptable.

affect its survival.

air drying of the roots.

immediately prior to laying the sod.

piece of sod within eight hours.

sod roots and the underlying soil surface.

CHIEF, DIVISION OF LAND DEVELOPMENT

Sod Installation

assures a pure genetic line.

Turf and Seed Section, provides a reliable means of

c. Ideal Times of Seeding for Turf Grass Mixtures

## at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABLIZATION

Criteria

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.

Criteria

1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.

with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and 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 B-4-3.A.1.b and maintain until the next seeding season. H-5 STANDARDS AND SPECIFICATIONS

FOR DUST CONTROL

<u>Definition</u> Controlling the suspension of dust particles from construction activities

To prevent blowing and movement of dust from exposed soil surfaces to reduce on and off-site damage including Conditions Where Practice Applies

Areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Specifications

Mulches: See Section B-4-2 Soil Preparation, Topsoiling, and Soil Amendments, Section B-4-3 Seeding and Mulching, and Section B-4-4 Temporary Stabilization. Mulch must be anchored to Vegetative Cover: See Section B-4-4 Temporary Stabilization.

Tillage: Till to roughen surface and bring stade to the Fill to roughen surface and bring clods to the surface. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.

Irrigation: Sprinkle site with water until the surface is moist. Repeat as needed. The site must

not be irrigated to the point that runoff occurs.

5. Barriers: Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing.

6. Chemical Treatment: Use of chemical treatment requires approval by the appropriate plan review authority.

**B-4-8 STANDARDS AND SPECIFICATIONS** FOR 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,

sedimentation, and changes to drainage patterns.

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

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan. 2. The 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. Runoff from the stockpile area must drain to a suitable sediment control practice 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 6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment

control practice must be used to intercept the discharge.

7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard 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 facilitate cleanup. Stockpiles containing contaminated material must be covered with

Maintenance
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

HOWARD SOIL CONSERVATION DISTRICT.

JOHN M. CARNEY - LICENSE #4557

11-01-18

10.26.18

## CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF

DÉVELOPER'S CERTIFICATE I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO HIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONN NVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT / DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC DN-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

ENGINEER'S CERTIFICATE

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

DETAIL B-4-6-C PERMANENT SOIL STABILIZA FROM MATTING CHANNEL APPLICATION a. All seed must meet the requirements 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 ISOMETRIC VIEW b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is CONSTRUCTION SPECIFICATIONS 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 USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS. 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 USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-HOWING TO VEGETATION AND SEED GERMINATION AND NON-HOWING US THE SMIT, IF PESSENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 22 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AISO OF THE MATERIAL. TO PREVENT SEPARATION OF THE METER FROM THE PARENT MATERIAL directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperate Secure matting using steel staples or wood stakes. Staples must be "u" or "t" shaped steel wire having a above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less INTO 1 / INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T'SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LE A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STARES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1:3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITS-SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Tab B.1, Permanent Seeding Table B.3, or site-specific seeding summaries. ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good

B-4-3 STANDARDS AND SPECIFICATIONS

SEEDING AND MULCHING

Definition

Conditions Where Practice Applies

any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be

available upon request to the inspector to verify type of seed and seeding rate

d. Sod or seed must not be placed on soil which has been treated with soil sterilants or

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil

ii. Apply seed in two directions, perpendicular to each other. Apply half the

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

i. 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

i. If fertilizer is being applied at the time of seeding, the application rates should

ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be

not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P2O5 (phosphorous), 200 pounds per acre; K2O (potassium),

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

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

bright in color. Straw is to be free of noxious weed seeds as specified in the

b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose

processed into a uniform fibrous physical state.

the growth of the grass seedlings.

a. Apply mulch to all seeded areas immediately after seeding.

of wood cellulose fiber per 100 gallons of water.

upon the size of the area and erosion hazard:

3,000 feet long.

1.) OBTAIN GRADING PERMIT.

STABILIZE DISTURBED AREAS.

ANY REMAINING DISTURBED AREAS.

\* - INDICATES SINGLE HOUSE CONSTRUCTION.

application rate to 2.5 tons per acre.

Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dust

Note: Use only sterile straw mulch in areas where one species of grass is desired

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

manner that the wood cellulose fiber mulch will remain in uniform

ertilizer and other additives to form a homogeneous slurry. The

mulch material must form a blotter-like ground cover, on application

cover and hold grass seed in contact with the soil without inhibiting

of approximately 10 millimeters, diameter approximately 1 millimeter

pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and

having moisture absorption and percolation properties and must

suspension in water under agitation and will blend with seed,

v. WCFM must conform to the following physical requirements: fiber length

ii. WCFM, including dye, must contain no germination or growth inhibiting

iii. WCFM materials are to be manufactured and processed in such a

iv. WCFM material must not contain elements or compounds at

concentration levels that will be phyto-toxic.

water holding capacity of 90 percent minimum.

b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a

c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per

a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind

If 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

Use of asphalt binders is strictly prohibited.

uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth

acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds

or water. This may be done by one of the following methods (listed by preference), depending

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.

dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a

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 a

the edges where wind catches mulch, such as in valleys and on crests of banks

recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to

SEQUENCE OF CONSTRUCTION

NOTIFY SEDIMENT CONTROL DIVISION 48 HOUR

PRIOR TO START OF CONSTRUCTION

2.) VERIFY REMAINING SEDIMENT CONTROLS FOR F-13-106 AND/OR

3.) EXCAVATE FOR FOUNDATION, ROUGH GRADE AND STABILIZE IN

ACCORDANCE WITH TEMPORARY SEEDBED NOTES.

4.) CONSTRUCT HOUSE, BACKFILL AND CONSTRUCT DRIVEWAY.

INSTALL SEDIMENT CONTROLS THAT ARE INCLUDED UNDER THIS SDP.

NOTES. CONSTRUCT ON LOT STORMWATER MANAGEMENT FACILITIES AND

6.) WITH THE APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE

EROSION CONTROL MATTING SHALL BE PLACED IN ALL SWALES

Plant Species

Annual Ryegrass (Lolium per

Cereal Rye (Secale cereale)

xtail Millet (Serataria italica)

arl Millet (Pennisetum glaucum

Warm-Season Grasses

Barley (Hordeum vulgare

UNTIL VEGETATION IS ESTABLISHED OR SOLID SOD SHOULD

5.) FINAL GRADE AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDBED DAY 81-86

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,

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer

so that the soil surface is not exposed. When using a mulch anchoring tool, increase the

a. Straw consisting of thoroughly threshed wheat rive pat or harley and reasonable

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

chemicals used for weed control until sufficient time has elapsed (14 days min.) to

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

The application of seed and mulch to establish vegetative cover

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

permit dissipation of phyto-toxic materials.

seeding rate in each direction.

seed to soil contact.

200 pounds per acre.

1. Mulch Materials (in order of preference)

DETAIL C-9

DIVERSION

FENCE

10 FT MAX

ENCE SECTIONS (TOP VIEW

UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE Staple/stake mat in a staggered pattern on 4 foot (maximum) centers throughout and 2 foot (maximum) centers along seams, joints, and roll ends. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOLL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOLUMANT CONTACT WITHOUT CRUSHING MAT. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL 2011

DAY 1

DAY 2-6

DAY 7-10\*

DAY 11-80\*

DAY 87-90

Table B.1: Temporary Seeding for Site Stabilization

Recommended Seeding Dates by Plant Hardiness Zone 3/

Mar 1 to May 15: Aug 1 to Oct 3

Mar 1 to May 15: Aug 1 to Oct 31

Mar 1 to May 15; Aug 1 to Oct 31

Mar 1 to May 15; Aug 1 to Oct 3

Mar 1 to May 15; Aug 1 to Nov 15

May 16 to Jul 31

May 16 to Jul 31

7a and 7b

Fertilizer Rate

(10-20-20)

P205

(2 lb/

1000 sf)

(1.0 lb/

100 sf)

K20

2 lb/

1000 sf) 1000 sf)

(90lb/

per acre 90 lb/ac 90 lb/ac 2 tons/ac

Seeding Rate 1/ Seeding Depth 2/

40 1.0 0.5

96 2.2 1.0

112 2.8 1.0

30 0.7 0.5

20 0.5

Rate (lb/ac.)

60

40

tested. Adjustments are usually not needed for the cool-season grasses.

Oats are the recommended nurse crop for warm-season grasses

2/ For sandy soils, plant seeds at twice the depth listed above.

Hardiness Zone (from Figure B.3):

Seed Misture (from Table B.3):

Fescue, Tall

Bluegrass, Kentucky

lb/ac lb/1000 ft2 (inches) 5b and 6a

0.5

The planting dates listed are averages for each Zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone.

Seeding rates for the warm season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, a

for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permanent

seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur very late fall beyond the seeding dates for other temporary seedings.

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

Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above

Tall Fescue/Kentucky Bluegrass

Dates

Mar 1 to May 15

Aug 1 to Oct 15

Mar 1 to May 15

Aug 1 to Oct 15

Permanent Seeding Summary

Depths

1/4 - 1/2 in

1/4 - 1/2 in

1/4 - 1/2 in

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANGE ├── DF ------ PIPE (SEE NOTE 6) **PROFILE** 50 FT MIN. 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). US 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.

> DNSTRUCTION SPECIFICATIONS USE WOVEN SLIT FILM GEDTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVE 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN, STRETCH ½ INCH GALVANIZED HARDWARE CLOTH TIGHTLY ARDWAD THE FRAME AN FASTEN SECURELY TO THE HARDWARE CLOTH WITH THE SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE VEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE

DETAIL E-3

SUPER SILT

FENCE

10 FT MAX.

-----SSF---------

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE 2011 WARYLAND DEPARTMENT OF ENVIRONMEN
WATER MANAGEMENT ADMINISTRATION ANCHOR POSTS SHOULD BE ---- HIGHLY VISIBLE FLAGGING OR 2"x2" TIMBER, 6"IN. LG. USE 2"x4" LUMBER FOR CROSS BRACIN 8' FT. MAXIMUM -THE THE PARTY OF T TO THE PARTY OF TH ANCHOR POSTS MUST BE INSTALLED TO A DEPTH OF THE TOTAL HEIGHT OF THE POST. \*\* BLAZE ORANGE PLASTIC MESH \*\* FOREST PROTECTION DEVICE ONLY.

disturbed area in the preceding grading unit has been stabilized and approved by the CID. Unless otherwise specified and approved by the HSCD, no more than 30 acres cumulatively

SCALE: NTS

**BENCHMARK**  ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS ENGINEERING, INC 8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043 WWW.BEI-CIVILENGINEERING.COM

DATE

DESIGN: JMC

Professional Certification, I hereby certify that these document 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. 455777, Expiration Date: 06-08-2020.

SUITE 140

TAX MAP: 18 GRID: 20 PARCEL: 351 ZONED: R-20 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

AS SHOWN

GROUND SURFACE ---ELEVATION ELEVATION CHAIN LINK FENCING WOVEN SLIT FILM GEOTEXTILE FLOW \_\_\_ CROSS SECTION CONSTRUCTION SPECIFICATIONS SECTION 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. STRUCTION SPECIFICATIONS 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. USE 42 INCH HIGH, 9 GAUGE OR THICKER CHAIN LINK FENCING (2% INCH MAXIMUM OPENING). USE 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. THE POSTS DO NOT NEED TO BE FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS. 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. SECURE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 14. INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE. 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 MUDI TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 4S DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTIL USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING 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. KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF EROSION. REMOVE ACCUMULATION SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTRO MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL 2011 2011 2011 PIPE STANDARD INLET DETAIL E-9-1 STANDARD INLET DFTAIL F-9-1 SLOPE PROTECTION PROTECTION DESIGNATION PSD-12 REFERS TO PIPE SLOPE DRAIN. DRAIN \_\_\_ FLOW STANDARD FLA END SECTION \_2 IN x 4 IN FRAMING -16 IN MIN. NOTCH ELEVATION GEOTEXTILE -NAILING DISCHARGE INTO A

STABILIZED CHANNEL,
SEDIMENT TRAPPING
DEVICE, OR INTO A
STABLE AREA AT A
STABLE OCCUPY L WOVEN SLIT FILM GEOTEXTILE TYPE A TYPE B ISOMETRIC VIEW ISOMETRIC VIEW EDGE OF ROADWAY OR-TOP OF EARTH DIKE HT = PIPE DIAMETER X 2 (MAX. 4 FT) MINIMUM LENGTH AT LESS THAN 1% SLOPE NONWOVEN GEOTEXTILE SECTION FOR TYPE A AND B MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL 2011 STANDARD SYMBO SILT FENCE \_\_\_\_\_SF\_\_\_\_ **DETAIL E-1** SILT FENCE 6 FT MAX. CENTER TO CENTER 36 IN MIN. FENCE POST LENGTH DRIVEN MIN. 16 IN INTO GROUND CONSTRUCTION SPECIFICATIONS 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 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. ELEVATION EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC. WOVEN SLIT FILM GEOTEXTILE 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. FENCE POST DRIVEN A MIN. OF 16 IN INTO THE GROUND 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. CROSS SECTION RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICES. AVOID ROOT DAMAGE WHEN PLACING ANCHOR POSTS. DEVICE SHOULD BE PROPERLY MAINTAINED DURING CONSTRUCTION 6. PROTECTIVE SIGNAGE IS ALSO REQUIRED. TEMPORARY TREE PROTECTION FENCE

2011

NOTE: THE AREAS OF ESD IMPLEMENTATION SHALL HAVE LIMITED ACCESS FROM HEAVY CONSTRUCTION EQUIPMENT TO AVOID UNNECESSARY COMPACTION WHEN PRACTICAL

NOTE: TEMPORARY OR PERMANENT SEEDING AND STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE TIME FRAME REQUESTED BY THE 2011 MARYLAND STANDARDS & SPECIFICATIONS, SOIL EROSION AND SEDIMENT CONTROL WHICH EVER IS

HOWARD SCD APPROVAL

NOTE: ALL SUPER SILT FENCES TO BE CHECKED DAILY TO ENSURE COMPLIANCE AND REPAIRED IMMEDIATELY AS REQUIRED

MORE STRINGENT.

NOTE: NO CHANGES ARE ALLOWED TO THE SEQUENCE OF CONSTRUCTION WITHOUT PRIOR

DRAWN: MDP

**MELVIN PROPERTY** LOTS 1 thru 6

SEDIMENT & EROSION CONTROL NOTES AND DETAILS BEI PROJECT NO: 2515 OCTOBER, 2018

4 of 6

SDP-18-054

SHEET

SCALE:

REVISION

c. Prior to the start of another phase of construction or opening of another grading

b. Upon completion of the installation of perimeter erosion and sediment controls. but

HOWARD SOIL CONSERVATION DISTRICT (HSCD)

STANDARD SEDIMENT CONTROL NOTES

1. A pre-construction meeting must occur with the Howard County Department of Public

Works, Construction Inspection Division (CID), 410-3133-1855 after the future LOD and

be given at the following stages:

Total Area of Site:

Area to be roofed or paved:

Area to be vegetatively stabilized

utilities must be repaired on the same day of disturbance

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

• Identification of sediment controls that require maintenance

Maintenance and/or corrective action performed

Identification of missing or improperly installed sediment controls

Area Disturbed:

Inspection date

Monitoring/sampling

Name and title of inspector

Evidence of sediment discharges

Identification of plan deficiencies

Construction Activities (NPDES, MDE).

may be disturbed at a given time.

• Use I and IP March 1 - June 15

• Use IV March 1 - May 31

when the site is active.

• Use III and IIIP October 1 - April 30

. Prior to the start of earth disturbance,

protected areas are marked clearly in the field. A minimum of 48 hours notice to CID must

d. Prior to the removal or modification of sediment control practices 2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the <u>2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL</u>, and revisions thereto.

before proceeding with any other earth disturbance or grading,

3. 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 aradina.

4. All disturbed greas 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 glone 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 cut and/or fill. Stockpiles (Sec. B-4-8) in excess of 20 feet must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).

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 CID

7. Any sediment control practice which is disturbed by grading activity for placement of

8. Additional sediment control must be provided, if deemed necessary by the CID. The site

rain event. A written report by the contractor, made available upon request, is part of every

and all controls shall be inspected by the contractor weekly; and the next day after each

• Weather information (current conditions as well as time and an=mount of last recorded

• Compliance status regarding the sequence of construction and stabilization requirements

• Other inspection items as required by the General Permit for Stormwater Associated with

9. Trenches for the construction of utilities is limited to three pipe lengths or that which

reviewed and approved by the HSCD prior to proceeding with construction. Minor revisions

11. 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

12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be

14. All silt fence and super silt fence shall be placed on-the-contour, and be imbricated at

13. Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade.

15. Stream channels must not be disturbed during the following restricted time periods

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

can and shall be back filled and stabilized by the end of each work day, whichever is

10. Any major changes or revisions to the plan or sequence of construction must be

may be allowed by the CID per the list of HSCD-approved field changes.

treated in a sediment basin or other approved washout structure.

25' minimum intervals, with lower ends curled uphill by 2' in elevation.

Brief description of project's status (e.g. percent complete) and/or current activities

3.18

\_\_\_\_\_ Acres

\_\_\_\_\_ Acres

\_\_\_\_\_ Acres

\_\_\_\_\_ Acres

1,812 Cu Yds

N/A Cu Yds

