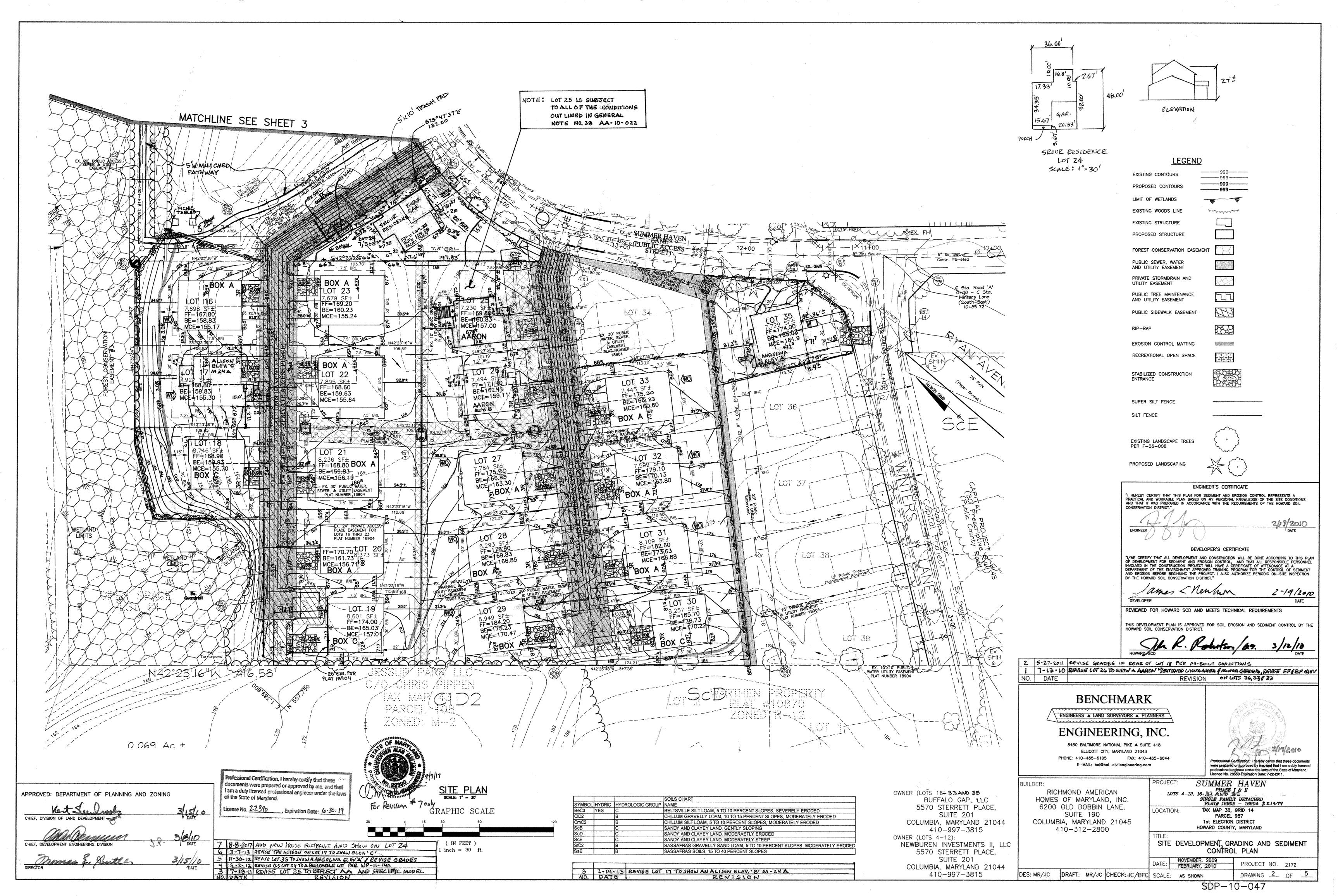
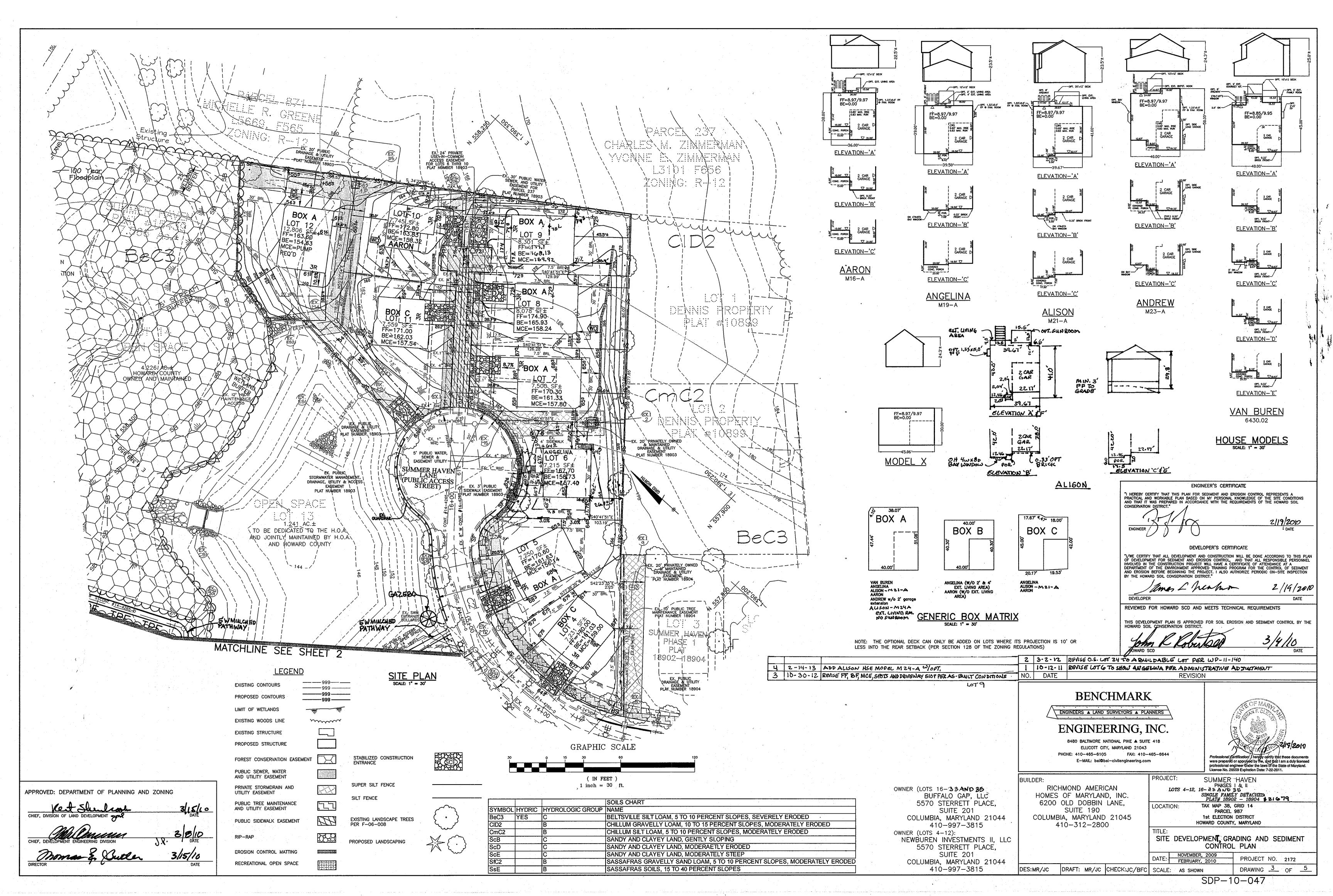
GENERAL NOTES BENCH MARKS NAD'83 SITE DEVELOPMENT PLAN SUBJECT PROPERTY ZONED R-12 PER THE 2-2-04 COMPREHENSIVE ZONING PLAN AND WAIVER PETITION WP-11-140 WAS APPROVED BY A LETTER DATED MARCH 23, 2011 TO WAIVE ARTICLE THE COMP-LITE ZONING AMENDMENTS DATED JULY 28, 2006. ELEV. 193,726 HO. CO. #38D5 THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY PREPARED BY WINGS AERIAL II, SECTION 16.121 (a) (4) (ii) REQUIRING OPEN SPACE LOTS TO BE REGULAR IN SHAPE; ARTICLE IL, SECTION 16.12160)(4)(11) REQUIRING RECREATIONAL OPEN SPACE NOT INCLUDE: SWM CREDITS; ARTICLE IL, SECTION 16.121(a)(4)(V) REQUIRING 20'OF ROAD FRONT AGE; AND ARTICLE IL, SECTION 16.121(a)(4)(VI) MAPPING CO., INC. IN 1993. AND THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN STAMPED(BRASS OR ALUMINUM) DISC SURVEY WITH MINIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY FSH ASSOCIATES SET ON TOP OF A CONCRETE COLUMN DATED OCTOBER, 2005. SUMMER HAVEN 1" OR 2" BELOW GRADE THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC N 558378.575° E 1386524.158* CONTROL WHICH IS BASED UPON THE MARYLAND STATE COORDINATE SYSTEM, HOWARD COUNTY MONUMENT NOS. 38D5 AND 38D6 WERE USED FOR THIS PROJECT. requiring 2005F of Recreational open space per HO. CO. #38D6 ELEV. 175,228 WATER AND SEWER ARE PUBLIC AND EXISTING UTILITIES ARE BASED ON CONTRACT ot, subject per the following conditions: STAMPED(BRASS OR ALUMINUM) DISC SUBMITAPLAT OF REVISION (FII-098 # 21679) SET ON TOP OF A CONCRETE COLUMN STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH F-06-008, USING A " OR 2" BELOW GRADE TO CONVERT OPEN SPACE LOT BY INTO A BUILDABLE LOTS 4-12, 16-33 AND 35 MICROPOOL EXTENDED DETENTION POND HAZARD CLASS 'A'. STORMWATER MANAGEMENT TAND THAT THIS WILL REQUIRE THE ONE HOUSING N 557155.459' E 1384992,262' FACILITY SHALL BE OWNED BY THE HOMEOWNERS ASSOCIATION AND JOINTLY MAINTAINED ALLOCATION ABOVE THOSE GRANTED UNDER F-06-008 TO TAKE APPOTESTING 2) ONCE THE REVISION PLAT IS RECORDED. A EXISTING UTILITIES SHOWN WERE LOCATED BY RECORD DRAWINGS AND FIELD LOCATIONS REPLINE REVISION TO THE APPROVED ROAD CONSTRUCTION LANS FOR F-06-000 AND APPROVED SITE DEVELOPMENT AND PER F-06-008. IF NECESSARY, CONTRACTOR SHALL ADJUST STRUCTURE TOPS TO LEGEND PLANS SDP-10-047 MAY BE PROCESSED TO REFLECT 100 YEAR FLOODPLAIN STUDY PREPARED BY FSH ASSOCIATES AND APPROVED UNDER THE CONVERSION OF OPEN SPACE LOT 24TO A. BUILDABLE LOT AND SHOW THE RECREATIONAL PATHWAY AND AMMENITIES. A NOTE SHALL BE ADDED TO ALL DEVELOPMENT PLANS REGARDING THE WAIVER PETITION FILE NUMBER, ACTION TAKEN AND DATE. P-05-09 DATED JUNE 30, 2005. WETLAND DELINEATION REPORT AND FOREST STAND DELINEATION REPORT PREPARED BY EXPLORATION RESEARCH, INC. AND APPROVED UNDER SP-03-14 DATED JUNE 12, 2003 - 999 -----1st ELECTION DISTRICT NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES PETITION FILE NUMBER, ACTION TAKEN AND DATE. 3) THE DEVELOPER' SHALL PROVIDE ALL THE RECREATIONAL AMMENITIES (GAZEBO, PICNIC TABLES, BENCH, AND 5"W MULCHED PATHWAY) AS SHOWN ON AND APPROVED UNDER THE WANER PETITION LOCATED ON H.O.A. OPEN SPACE LOT 13 AND COUNTY OWNED OPEN SPACE LOT 14. THE 5"W MULCHED PATHWAY SHALL BE CONSTRUCTED OF MATERIALS THAT ARE DESIREABLE AND RESISTANT TO STORM DRAINAGE RUN-OFF. SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS. FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN. 10. A TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE MARS GROUP DATED MAY 2, 2003 AND WAS APPROVED UNDER S-03-14. HOWARD COUNTY, MARYLAND 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION EXISTING WOODS LINE 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. 2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WAS POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT UNDER F-06-008, EXCEPTION OF LOT 34. IOT 34 LANDSCAPING EXISTING STRUCTURE WAS PROVIDED IN THE AMOUNT OF \$1,050.00 FOR 2 SHADE TREES AND 3 EVERGREEN 4) THE S'W MULCHED PATHWAY LOCATED ACROSS TREES, PER SDP-08-027. PROPOSED STRUCTURE OPEN SPACE LOTS 13 AND 14 SHALL BE MAINTAINED BY THE HOME OWNER'S ASSOCIATION FOR THE SUMMER VICINITY MAP STREET SIDE LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL SHALL BE PROVIDED AS SHOWN ON THIS SITE HAVEN SUBDIVISION. A NOTE SHALL BE ADDED TO THE SCALE : 1'=2000' PLAN FOR LOT 35 SURETY IN THE AMOUNT OF \$1,050 FOR 2 SHADE TREES AND 3 PLAT OF REVISION AND ALL OTHER ASSOCIATED FOREST CONSERVATION EASEMENT DEVELOPMENT PLANS THAT HOWARD COUNTY WILL NOT BE RESPONSIBLE FOR THE UPKEEP AND MAINTENANCE OF THE 5'W MULCHED RECREATIONAL OPEN SPACE PATHWAY ADC MAP 17, GRID G9 EVERGREENS SHALL BE PROVIDED WITH THE GRADING PERMIT . THIS PROJECT COMPLIED WITH THE REQUIREMENTS OF SECTION 16,1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY PAYMENT OF A FEE-IN-LIEU OF AND UTILITY EASEMENT AND THE OTHER RECREATIONAL AMMENITIES AS APPROVED UNDER WAIVER PETITION WP-11-140. \$62,944.30 FOR THE TOTAL FOREST CONSERVATION OBLIGATION AMOUNT OF 2.43 AC. ACRES. THIS FEE WAS PAID WITH F-06-008. REQUESTED FEE-IN-LIEU FOR 0.12 AC PRIVATE STORMDRAIN AND REMAINING OBLIGATION IS \$2,613.50. UTILITY EASEMENT 14. UNLESS NOTED AS "PRIVATE", ALL EASEMENTS ARE PUBLIC. 15. BRL INDICATES ZONING BUILDING RESTRICTION LINE, OTHER RESTRICTIONS MAY APPLY. 42. WP-17-131, A REQUEST FOR AN ACTERMATIVE COMPLIANCE TO 16. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS; BAY PUBLIC TREE MAINTENANCE SECTION 16.156(0)(1)(1) AND SECTION 16,156(6)(1)(1) OF AND UTILITY EASEMENT 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 THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WAS ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD PUBLIC SIDEWALK EASEMENT APPROVED ON JULY 24, 2017 SUBJECT TO THE FOLLOWING CONDITIONS: 17. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE BUILDERS I) THE DEADLINE TO APPLY FOR A BUILDING PERMIT FOR 18. NO NOISE STUDY IS REQUIRED FOR THIS PROJECT. LOT 24 SMALL BE EXTENDED TO I YEAR FROM THE DATE OF APPROVAL OF THIS ALTERNATE COMPLIANCE 19. THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES ON-SITE. 20. FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD OF APPROVAL OF THIS ALTERNATE COMPLIANCE EROSION CONTROL MATTING MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPE STEM AND ROAD RIGHT OF WAY LINE ONLY AND NOT ONTO THE FLAG OF PIPE STEM LOT DRIVEWAY. (JULY 24, 2018). DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT RECREATIONAL OPEN SPACE FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS: a) WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE) STABILIZED CONSTRUCTION b) SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2"MIN.)c) GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM N 558,200 45' TURNING RADIUS. d) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS SUPER SILT FENCE e) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY. SILT FENCE STRUCTURE CLEARANCES - MINIMUM 12 FEET g) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE 22. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SUMMER HAVEN LANE SPECIFICATIONS OF HOWARD COUNTY. EXISTING LANDSCAPE TREES 23. ALL WATER METERS SHALL BE SET INSIDE. ADDRESS CHART PER F-06-008 24. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF LAT NUMBER 21679 STREET ADDRESS ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK 6219 SUMMER HAVEN LANE 25. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE. 6223 SUMMER HAVEN LANE 26. FOR DRIVEWAY ENTRANCE DETAIL SEE HOWARD COUNTY STANDARD DETAILS R-6.03 & 6227 SUMMER HAVEN LANE 27. SHC ELEVATIONS SHOWN ARE AT THE PROPERTY LINE OR EASEMENT LINE. 6231 SUMMER HAVEN LANE 28. THE PRIVATE USE-IN-COMMON MAINTENANCE AGREEMENTS FOR LOTS 7-11 (L. 10561, F 16-23 (L. 10561, F. 686) AND 25-33 (L. 10561, F. 681) HAVE BEEN RECORDED 6235 SUMMER HAVEN LANE IN THE LAND RECORDS OF HOWARD COUNTY, MARYLAND. LOT 4 MINIMUM LOT SIZE CHAR 6239 SUMMER HAVEN LANE 29. THE STAKING OF FOUNDATIONS PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH REGULATORY BUILDING RESTRICTION LINES IS RECOMMENDED. GROSS AREA(af) PIPESTEM AREA(af) MINIMUM LOT SIZE(af) 6240 SUMMER HAVEN LANE DRIVEWAY SLOPES SHOWN ARE AVERAGE. THE SLOPE AT THE OUTSIDE EDGES COULD BE 7,832 FLATTER OR STEEPER DEPENDING ON GRADE OF ROADWAY. 6236 SUMMER HAVEN LANE 31. THIS PLAN CONFORMS WITH THE AMENDED 5th EDITION OF THE HOWARD COUNTY 532 7,769 6232 SUMMER HAVEN LANE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE BUILDER SHALL APPLY FOR 1.0 7,745 471 BUILDING PERMITS FOR ALL LOTS AS SHOWN ON THIS SITE DEVELOPMENT PLAN WITHIN 7,274 6210 AUTUMN HAVEN COURT FIVE YEARS OF SIGNATURE APPROVAL OF THIS PLAN. 12 12,806 2,281 10,525 32. ADDITIONAL OPEN SPACE WAS PROVIDED WITH THE PROVISION OF REDUCED MINIMUM LOT 6214 AUTUMN HAVEN COURT 16 7,698 484 7,214 SIZE AS APPROVED ON F-06-008. 6218 AUTUMN HAVEN COURT 33. PREVIOUS HOWARD COUNTY FILE NUMBERS: S-03-014, F-06-008, SDP-08-027, 7,927 677 7,250 F-02-163, F-93-83, P-05-09, WP-06-02, F-11-048, WP-11-140 34. ALL EXISTING WELLS AND SEPTIC SYSTEMS HAVE BEEN ABANDONED UNDER F-06-008. 6227 AUTUMN HAVEN COURT 18 8,746 865 7,881 35. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA 19 8,601 7,357 6223 AUTUMN HAVEN COURT AS REQUIRED BY THE MARYLAND STATE DEPARMENT OF THE ENVIRONMENT. 38. AA-10-19 FOR LOT & APPROVED ON 1-11-2011 REQUESTED A 20% REDUCTION TO THE REAR SET BACK FROM 30 TO 24: 20 8,373 1.044 7,329 6219 AUTUMN HAVEN COURT 36. AN EXISTING 5'X20' CONCRETE REFUSE AND RECYLING COLLECTION PAD IS TO BE UTILIZED BY RESIDENTS LIVING ON MARY THERESA COURT AND AUTUMN HAVEN COURT. 21 8,236 838 7,398 AA-10-23 FOR LOT 10 APPROVED ON 1-11-2011 REQUESTED A 20% REDUCTION TO THE REAR SETBACK FROM 30 TO 24'. 22 6215 AUTUMN HAVEN COURT MAINTENANCE OBLIGATIONS ARE SET IN THE PRIVATE ACCESS PLACE MAINTENANCE 7,895 630 7,265 AGREEMENT RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY. 6211 AUTUMN HAVEN COURT AA-10-22 FOR LOT 25 APPROVED ON 1-11-2011 REQUESTE A 20% REDUCTION TO THE REAR SET BACK FROM 30' TO 24'. 23 7,679 416 7,263 37. A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED AT 6302 MARY THERESA COURT EVERY FLAG LOT DRIVEWAY BY HOWARD COPUNTY BUREAU OF HIGHWAYS AT THE 25 7,230 7,202 AA-10-21 FOR LOT 35 APPROVED ON 1-11-2011 REQUESTED A 20% REDUCTION TO THE SET BACK FROM A PUBLIC STREET FROM 20 TO 16. DEVELOPERS/OWNERS EXPENCE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 26 6306 MARY THERESA COURT 26 7,494 190 7.304 410-313-5752 FOR DETAILS AND COST ESTIMATES. THE CONDITIONS OF THE ABOVE AA'S ARE: 7,784 6310 MARY THERESA COURT 7,433 SITE ANALYSIS DATA CHART A) THE PEITTIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL STATE AND CITY LAWS AND REGULATIONS. 28 8,293 499 7,794 6314 MARY THERESA COURT LOT 30 29 8,949 643 8,306 A.) TOTAL PROJECT AREA___ B) APERMIT FOR SFD SHALL BE OBTAINED WITHIN ZYRS AND SUBSTANTIAL CONSTRUCTION WITHIN ZYES. 6318 MARY THERESA COURT 30 8,257 676 7,581 6319 MARY THERESA COURT C.) THE AA SHALL APPLY SOLELY TO THE PROSPOSED SFD DEPICTED ON THE AA PLAN AND NOT TO ANY OTHER STRUCTURE, ADDITION, BUILDING OR USE. 31 8,109 523 7,586 6315 MARY THERESA COURT C.) APPROXIMATE LIMIT OF DISTURBANCE ___ 32 7,599 374 7,225 6307 MARY THERESA COURT D) THE D&O SHALL BE MAINTAINED IN THE OWNER'S PROPERTY RECORDS AND SHALL BE TRANSFERRED TO ANY SUCCEEDING OWNER OF THE PROPERTY. 7,445 223 7,222 RESIDENTIAL 33 6303 MARY THERESA COURT SINGLE FAMILY DETACHED UNITS 35 6238 WINTERS LANE 39. THE 5'MULCH PATHWAY ACROSCOPEN SPACE LOTS 13 & 14 SHALL BE MAINTAINED BY THE HOA FOR THE SUMMER HAVEN SUBDIVISION. HOWARD COUNTY WILL NOT BE RESPONSIBLE FOR THE UPKEEP AND MAINTENANCE OF THE 5' MUICHED RECREATIONAL OPEN SPACE PATHWAY AND OTHER AMMENITIES AS APPROVED UNDER WAIVER PETMON WP-11-140. 3 8-8-2017 ADD GENETAL NOTE 42. F.) FLOOR SPACE PER LOT _ 2 3/1/2012 REVISE O.S. LOT 24 TO A BUILDABLE PER WP-11-140 G.) TOTAL NUMBER OF UNITS ALLOWED N 557,400 AS SHOWN ON FINAL PLAT(S)_ 1 7-19-11 ADD 'AA' NOTE TO PLAN Professional Certification, I hereby certify that these H.) TOTAL NUMBER OF UNITS PROPOSED___ documents were prepared or approved by me, and that NO. DATE 40. A DESIGN MANUAL WAIVER WAS APPROVED BY LETTER DATED 11-3-11 TO D.M.V.II. SEC. 5.485 TO ALLOW A PERMANENT STRUCTURE WITHIN 10'OFA RUE. PER THE FOLLOWING: D. RELOCATE UTILITY CONNECTIONS TO THE REAR OF LOT 24 TO AND ID UNDER CUT OF FOUNDATION. 2) ADD THE FOILOWING NOTE "NO IMPROVEMENTS SHALL BE PERMITTED TO BE CONSTRUCTED OR PLACED WITH IN THE PUBLIC WATER, SEWER \$ UTILITY EASEMENTS THAT WILL IMPEDE OR HINDER ACCESS TO THE PUBLIC WATER AND SEWER MAINS. I'M PROVEMENTS SUCH AS AIR I am a duly licensed professional engineer under the laws I.) MAXIMUM NUMBER OF EMPLOYEES PER USE_____ N/A of the State of Maryland. J.) NUMBER OF PARKING SPACES REQUIRED BY **BENCHMARK** HO. CO. ZONING REGULATIONS _____ License No. 22390 Expiration Date: 6.30.1 K.) NUMBER OF PARKING SPACES PROVIDED _____ N/A CONDITIONING UNITS, DECKS, FENCING, POUNDATION PLANTINGS AND TREES SHALL NOT BE PLACED WITHIN THE EASEMENTS! L.) OPEN SPACE ON-SITE ENGINEERS A LAND SURVEYORS A PLANNERS PERCENTAGE OF GROSS AREA_ SEWER HOUSE CONNECTION ELEVATION DATA M.) AREA OF RECREATIONAL OPEN SPACE REQUIRED_____6,600 SI OWNER (LOTS 16, 33 AND 35 ENGINEERING, INC AREA OF RECREATIONAL OPEN SPACE PROVIDED___ O (WP-11-140) BUFFALO GAP, LLC LOT NO. MIN. CELLAR N.) BUILDING COVERAGE OF SITE_ 5570 STERRETT PLACE 8480 BALTIMORE NATIONAL PIKE ▲ SUITE 418 2/17/2010 SUITE 201 ELLICOTT CITY, MARYLAND 21043 O.) APPLICABLE DPZ FILE REFERENCES: __ SDP-08-027, F-06-008, F-02-163, F-93-83, 157.80 152.49 156.50 PHONE: 410-465-6105 FAX: 410-465-6644 COLUMBIA, MARYLAND 21044 156.80 153.00 CONTRACT# 14-4265-D, F-11-098 (PLAT#21671) 157.80 153,75 E-MAIL: bei@bei-civilengineering.com GRAPHIC SCALE 410-997-3815 vere prepared or approved by me, and that I am a duly licensed P.) PROPOSED WATER AND SEWER SYSTEMS: X PUBLIC __ PRIVATE WP-11-140 156.80 professional engineer under the laws of the State of Maryland License No. 28559 Expiration Date: 7-22-2011. 152.41 157.10 153.09 OWNER (LOTS 4-12): 161.80 157.39 159.11 154.94 NEWBUREN INVESTMENTS II, LLC SUMMER HAVEN 163.80 159.35 160.30 156.06 5570 STERRETT PLACE. APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING PHASES I & JI RICHMOND AMERICAN 10 159.80 155.37 166.85 162,45 16-33, AND 35 SUITE 201 HOMES OF MARYLAND, INC (IN FEET 157.80 153.66 170.31 165.80 COLUMBIA. MARYLAND 21044 1 inch = 100 ft6200 OLD DOBBIN LANE. 155.20 . 12 148.11 172.80 168.42 410-997-3815 TAX MAP 38, GRID 14 SUITE 190 153.19 × 16 149.10 167.12 162.82 PARCEL 987 COLUMBIA. MARYLAND 21045 153.42 SHEET INDEX PERMIT INFORMATION CHART 17 1st ELECTION DISTRICT 149,37 168.80 159.54 HOWARD COUNTY, MARYLAND 410-312-2800 153.67 149.70 160.16 155.89 SUBDIVISION NAME: SECTION/AREA: LOT/PARCEL TITLE: 159.80 155.55 PARCEL 987 161.19 157.14 SECTIONS | AND || LOTS 4-12, 16-TITLE SHEET SUMMER HAVEN SITE DEVELOPMENT, GRADING AND SEDIMENT CONTROL PLAN 157.80 153.67 SITE DEVELOPMENT, GRADING AND SEDIMENT CONTROL PLAN 154.88 150.3 4 LANDSCAPING AND SEDIMENT AND EROSION CONTROL NOTES AND DETAILS GRID No. ZONE TAX MAP | ELECTION 21679 TRACT DATE: PROJECT NO. 2172 18902-18904 DRAFT: AAM | CHECK: BFC SCALE: AS SHOWN DRAWING $\frac{1}{}$ OF $\frac{5}{}$ SDP-10-047





TOPSOIL SPECIFICATIONS

I. Topsoil salvaged from the existing site may be used provided that it meets that 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—SCS in cooperation with Maryland Agricultural Experimental Station.

II. Topsoil Specifications — Soil to be used as topsoil must meet the following:

Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientis and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting texture subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1-1/2" in diameter.

Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations

III. For sites having disturbed areas under 5 acres:

V. Topsoil Application

Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization — Section 1 — Vegetative Stabilization Methods and

IV. For sites having disturbed areas over 5 acres:

 On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following: a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.

b. Organic content or topsoil shall be not less than 1.5 percent by weight.

Topsoil having soluble salt content greater than 500 parts per million shall

d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

Note: 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

ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization — Section I — Vegetative Stabilization Methods and

When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope silt fence and sediment

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" — 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" — 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall 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 shall be corrected in order to prevent the formation of depressions or

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise

VI. Alternative for Permanent Seeding — Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified

Composted Sludge Material for use as a soil conditioner for sites having distributed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

 a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.

Composted sludge shall be applied at a rate of 1 ton/1,000 square feet. iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes,

PERMANENT SEEDBED PREPARATIONS

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED. SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ON OF THE FOLLOWING

> PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000) SQ FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING, HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0- UREAFORM FERTILIZER (9 LBS/1000 SQ FT).

> ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SO FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 15. SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ FT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GÁLLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING

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

SEDIMENT CONTROL NOTES

A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION, (313-1850).

ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD

ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING

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.

5.19 __ ACRES TOTAL AREA OF SITE (THIS SUBMISSION) _____5.19____ ACRES AREA DISTURBED 1.73 ACRES AREA TO BE ROOFED OR PAVED 3.46 ACRES AREA TO BE VEGETATIVELY STABILIZED <u> N/A</u> 4548 *

OFFSITE WASTE/BORROW AREA LOCATION *IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY THE SPOIL/BORROW SITE AND NOTIFY AND GAIN APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR OF THE SITE AND ITS GRADING PERMIT NUMBER AT THE TIME OD CONSTRUCTION.

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

ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER 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.

11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY,

TEMPORARY SEEDBED PREPARATIONS

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT). SEEDING: FOR PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING, ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 348

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

DETAIL 33 - SUPER SILT FENCE SHALL NOT EXCEED 10' LAYER OF FILTER CLOTH OVER CENTER TO CENTER SURFACE PERSPECTIVE VIEW __2~1"/'2~" Dio. GALVANIZED OR ALUMINUM FENCE POST **CHAIN LINK FENCE** 2~1'/'2~" Dio. GALVANIZED OR aluminum fence post 16" MIN. 1st LAYER FILTER CLOTH FLOW

EMBED FILTER CLOTH

MIN. 8° INTO GROUND

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

CONSTRUCTION SPECIFICATIONS Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts. lower tension wire, brace and truss rods, drive anchors and post caps are not 5. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section. . Filter cloth shall be embedded a minimum of 8" into the ground. 5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded

SUPER SILT FENCE

Filter cloth shall be fastened securely to each fence post with wire ties or staples of

Maintenance shall be performed as needed and silt buildups removed when "bulges develop in the silt fence, or when silt reaches 50% of fence height

SUPER SILT FENCE DESIGN CRITERIA

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE **GEOTEXTILE CLASS "C"
OR BETTER > EXISTING GROUND PROFILE +50' MINIMUM LENGTH PLAN VIEW SCE SCE 1. Length - minimum of 50' (*30' for single residence lot).

2. Width- 10' minimum, should be flared at the existing road to provide a turning 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior residence to use geotextile.

4. Stone — crushed aggregate (2" to 3") or reclaimed or recycled concrete

equivolent shall be placed at least 6" deep over the length and width of the entrance.

entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mounted berm with 5:1 slopes and a minimum of 6° of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and according to the amount of runoff to be conveyed. A 6" minimum will be required. 6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance

MORE STRIP WIDTHS ARE REQUIRED. ATTACH STAPLES ON 18 INCH TYP. STAPLES NO.1 CONSTRUCTION SPECIFICATIONS

DETAIL 30 - EROSION CONTROL MATTING

1. KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH. 6" IN DEPTH. BACKFILL THE TRENCH AND TAMP FIRMLY TO CONFORM TO THE CHANNEL CROSS-SECTION. SECURE WITH A ROW OF STAPLES ABOUT 4" DOWN SLOPE FROM THE TRENCH. SPACING BETWEEN STAPLES IS 6".

2. STAPLE THE 4" OVERLAP IN THE CHANNEL CENTER USING AN 18" SPACING BETWEEN STAPLES. 3. BEFORE STAPLING THE OUTER EDGES OF THE MATTING, MAKE SURE THE MATTING IS SMOOTH AND IN FIRM CONTACT WITH THE SOIL.

5. WHERE ONE ROLL OF MATTING ENDS AND ANOTHER BEGINS, THE END OF THE TOP STRIP SHALL OVERLAP THE UPPER END OF THE LOWER STRIP BY 4", SHIPLAP FASHION. REINFORCE THE OVERLAP WITH A DOUBLE ROW OF STAPLES SPACED 6" APART IN A STAGGERED PATTERN ON EITHER SIDE.

6. THE DISCHARGE END OF THE MATTING LINER SHOULD BE SIMILARLY SECURED WITH WITH 2 DOUBLE ROWS OF STAPLES.

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

PAGE
E - 26 - 3A

WATER MANAGEMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PAGE
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WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DETAIL 23A - STANDARD INLET PROTECTION -TOP ELEVATION STANDARD SYMBOL GEOTEXTILE CLASS E Construction Specification

PAGE MARYLAND DEPARTMENT OF ENVIRONMENT
H - 26 - 3 WATER MANAGEMENT ADMINISTRATION

Excavate completely around the Inlet to a depth of 18' below the 2. Drive the $2^\prime \times 4^\prime$ construction grade lumber posts 1^\prime 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 $2^\prime \times 4^\prime$ frame using the overlap joint shown on Detail 23A. The top of the frame (weir) nust be 6^\prime below adjacent roadways where flooding and safety issues may arise. 3. Stretch the $1/2^{\prime} \times 1/2^{\prime}$ wire mesh tightly around the frame and fasten securely. The ends must neet and overlap at a

4. Stretch the Geotextile Class E tightly over the wire mesh with the geotextile extending from the top of the frame to 18' below the inlet notch elevation. Fasten the geotextile firmly to the frame. he ends of the geotextile must neet at a post, be overlapped and . Backfill around the inlet in compacted 6' layers until the layer of earth is level with the notch elevation on the ends and 6. If the inlet is not in a sump, construct a compacted earth dike

across the ditch line directly below it. The top of the earth dike should be at least 6' higher than the top of the frame. 7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes cloaged IS. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMENT SDIL CONSERVATION SERVICE E - 16 - 5 WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE

CATEGORY

CREDIT FOR EXISTING VEGETATION

CREDIT FOR WALL, FENCE OR BERM

SHADE TREES **EVERGREEN TREES**

SHADE TREES **EVERGREEN TREES**

LANDSCAPE BUFFER TYPE

LINEAR FEET OF ROADWAY

(YES, NO, LINEAR FEET)

(YES, NO, LINEAR FEET)

SYMBOL

(DESCRIBE BELOW IF NÉEDED)

(DESCRIBE BELOW IF NÉEDED) NUMBER OF PLANTS REQUIRED

NUMBER OF PLANTS PROVIDED

FRONTAGE/PERIMETER

SCHEDULE A
PERIMETER LANDSCAPE EDGE

LANDSCAPE PLANTING LIST

CUERCUS COCCINEA

SCARLET OAK

PINUS THUNBERGIANA

(JAPANESE BLACK PINE)

ADJACENT 1

ROADWAYS

ī⟩ B-LOT 3

83'

2 1/2" MIN. CAL.

FULL HEAD

6'-8' ht.

UNSHEARED

LANDSCAPE NOTES:

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

- 1. TREES SHOULD BE PLANTED A MINIMUM OF 6 FEET FROM THE EDGE OF PAVING AND MUST BE A MINIMUM OF 5 FEET FROM
- 2. TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM AN OPEN SPACE ACCESS STRIP AND 10 FEET FROM A DRIVEWAY.
- 3. SEE TREE PLANTING DETAIL THIS SHEET.
- 4. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.

5. AT THE TIME OF INSTALLATION, 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 LANDSCAPE 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 RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.

6. THE OWNER, TENANTS 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 PERMANENETLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

7. PERIMETER AND STORM WATER MANAGEMENT LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL WAS PROVIDE AS SHOWN ON THE LANDSCAPE PLAN SHEETS OF THE ROAD CONSTRUCTION DRAWINGS FOR THIS PROJECT (F-08-045). FOR MORE INFORMATION, SEE GENERAL NOTE 10 ON SHEET 1 OF THIS PLAN. 8. STREET SIDE LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL SHALL BE PROVIDED AS SHOWN ON THIS SITE PLAN FOR LOT 35 SURETY IN THE AMOUNT OF \$1,050 FOR 2 SHADE TREES AND 3 EVERGREENS SHALL BE PROVIDED WITH THE GRADING PERMIT.

SEQUENCE OF CONSTRUCTION NOTIFY SEDIMENT CONTROL DIVISION 48 HOUR PRIOR TO START OF CONSTRUCTION

1.) OBTAIN GRADING PERMIT.

 INSTALL SEDIMENT CONTROLS THAT ARE NOTED TO BE INSTALLED UNDER THIS SDP. THE EXISTING CONTROLS THAT WERE INSTALLED UNDER F-06-008 THAT ARE TO REMAIN SHALL BE INSPECTED AND/OR MODIFIED AS SHOWN ON THESE PLANS TO ENSURE THEY MEET COMPLIANCE WITH SPECIFICATIONS. ANY REMAINING CONTROLS INSTALLED UNDER F-06-008 THAT WILL NOT BE UTILIZED UNDER THIS SDP SHALL BE REMOVED BY THE DEVELOPER. INLETS 2, 6, 7, 8 AND 10 WILL REQUIRE ADDITIONAL SUPER SILT FENCE

DAY 9-12
3.) EXCAVATE FOR FOUNDATIONS, ROUGH GRADE AND STABILIZE IN ACCORDANCE WITH TEMPORARY SEEDBED NOTES.

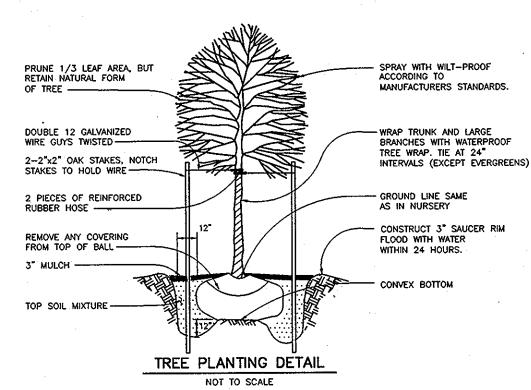
DAY 13-60 4.) CONSTRUCT HOUSES, BACKFILL AND CONSTRUCT DRIVEWAYS.

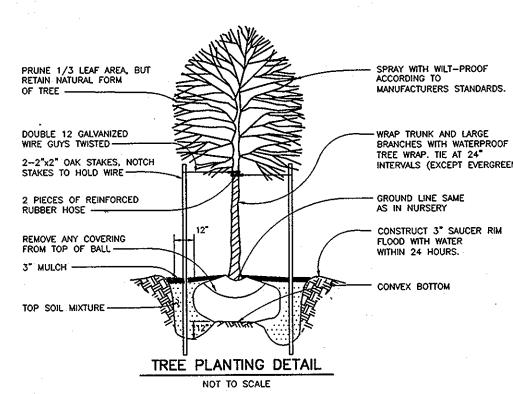
DAY 61-64 5.) FINAL GRADE AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDBED NOTES AND

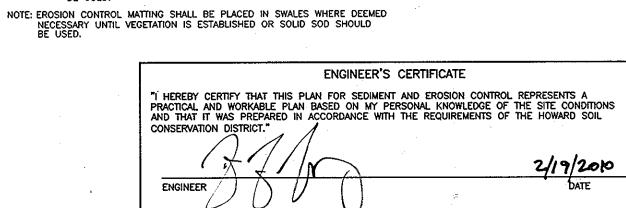
DAY 65-68 6.) WITH THE APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE ANY REMAINING DITURBED AREAS.

NOTE: 1. SEDIMENT CONTROL LOCATION AND IMPLEMENTATION SHOWN ON THESE PLANS IS SUBJECT TO REVISION IN THE FIELD AT THE DISCRETION OF THE 2. EROSION CONTROL MATTING SHALL BE PLACED IN SWALES WHERE DEEMED

NECESSARY UNTIL VEGETATION IS ESTABLISHED OR SOLID SOD SHOULD BE USED.







DEVELOPER'S CERTIFICATE

WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL. AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON—SITE INSPECTION y the howard soil conservation district."

2/19/2010 REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

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

HOWARD SOIL CONSERVATION DISTRIC

1 3-2-12 REVISE O.S.LOT 24 TO A BUILDABLE LOT PER WP-11-140 NO. DATE

BENCHMARK ENGINEERS A LAND SURVEYORS A PLANNERS

ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE A SUITE 418

ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644

E-MAIL: bei@bei-civilengineering.com

DRAFT: MR/JC CHECK: JC/BFC SCALE: AS SHOWN

Professional Certification: Viverely certify that these documents were prepared or approved by me, and that I am a duly license professional engineer under the laws of the State of Maryland License No. 28559 Expiration Date: 7-22-2011.

DRAWING $\frac{4}{}$ OF $\frac{5}{}$

BUILDER: RICHMOND AMERICAN HOMES OF MARYLAND, INC. 6200 OLD DOBBIN LANE, SUITE 190 COLUMBIA, MARYLAND 21045

410-312-2800

PROJECT: SUMMER HAVEN PHASES | & II Single Family Detached Plat# 18902 – 18904 \$ 21679 LOCATION: PARCEL 987

TAX- MAP 38, GRID 14 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

LANDSCAPE AND SEDIMENT AND EROSION CONTROL NOTES AND DETAILS PROJECT NO. 2172

SDP-10-047

OWNER (LOTS 16-33AND 35

410-997-3815 OWNER (LOTS 4-12): 5570 STERRETT PLACE, SUITE 201

410-997-3815

BUFFALO GAP, LLC 5570 STERRETT PLACE, SUITE 201 COLUMBIA, MARYLAND 21044 NEWBUREN INVESTMENTS II, LLC

COLUMBIA, MARYLAND 21044

APPROVED: DEPARTMENT OF PLANNING AND ZONING

VEGETATIVE ESTABLISHMENT ETAILS AND SPECIFICATIONS FOR PROJECTS WITHIN

MILES OF THE BWI AIRPORT

July 1, 2004
References to ITEM #s noted below are found in Maryland Aviation Administration's manual entitled Specifications for Performing Landscaping

- Activities for the Maryland Aviation Administration dated May 2001 Following initial soil disturbances or re-disturbance, permanent or temporary stabilization shall be completed
- within seven calendar days for the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 yertical (3:1) and fourteen days for all other disturbed or araded areas on the project site.
- 2. Occurrence of acid sulfate soils (grayish black color) will require covering with a minimum of 12 inches of clean soil with 6 inches minimum capping of top soil. No stockpiling of material is allowed. If needed, soil tests should be done before and after a 6-week incubation period to allow oxidation of sulfates.
- a. Soil pH shall be between 6.0 and 7.0. b. Soluble salts shall be less than 500 parts per million (ppm)
- c. The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity
- o hold a moderate amount of moisture. b. Soil shall contain 1.5% minimum organic matter by weight.

3. The minimum soil conditions required for permanent vegetative establishment are:

- c. Soil must contain sufficient nore space to permit adequate root penetration
- d. If these conditions cannot be met by soils on site, adding topsoil is required in accordance ITEM 901 or amendments made as recommended by a certified agronomist.

ITEM 903 SEEDING DESCRIPTION

903-1.1 GENERAL. This item provides specifications for seeding of areas as designated on plans or as directed by the MAA Engineer. The species, mixtures, and methods of application provided in this item have been designed to reduce the attractiveness of airport grounds to wildlife. Only MAA-approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. All activities associated with seeding including soil preparation, seed application, fertilization, and maintenance shall also conform to these approved standards.

MATERIALS

903-2.1 SEED. All seed shall comply with the Maryland Seed Law (Agricultural Article of the Annotated Code of Maryland). Only MAA-approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. Seed will be sampled and tested by an inspector from the Turf and Seed Section, Maryland Department of Agriculture (MDA), Annapolis, Maryland. All lawn and turf seed and mixtures shall be free from the following state-listed restricted noxious weeds:

- corn cockle (Agrostemma githago), bentarass (Agrostis spp.)
- redtop (Agrostis gigantea) wild onion (Allium canadense)
- wild aarlic (Allium vineale). bindweed (Calstegia spp.)
- dodder (Cuscuta spp.), Bermuda grass (Cynodon dactylon) orchardarass (Dactylis glomerata)
- tall fescue (Festuca arundinacea) meadow fescue (Festuca pratensis) yelyetarass (Holcus lanatus),
- annual bluegrass (Poa annua) rough bluegrass (Poa trivialis) timothy (Phleum pratense), and Johnson grass (Sorgum halepense)

Restricted noxious-weed seed may not exceed 0.5 percent by weight of any seed mixture. In addition, all seeds sold in Maryland shall be free from the following listed prohibited noxious weeds: balloonvine (Cardiospermum halicacabum), quackgrass (Elytrigia repens), sicklepod (Senna obtusifolia), sorghum (Sorghum spp.), Canada thistle (Cirsium arvense), plumeless thistle (Carduus spp.-includes musk thistle and curled thistle), and serrated 903-2.1.1 APPROVED SPECIES. The following table contains species that are approved by MAA for use in seed

mixtures. Purity requirements and germination requirements are also provided. 1. These species may be included as a labeled component of a mixture when each is present in excess of five percent of the mixture by weight.

APPROVED PLANT SPECIES MAA SEED MIXTURES				
	Purity* Not Less than %	Minimum % Germination ^b	Pure Live Seed Factor	
Certified Turf-Type Tall Fescue (Festuca arundinacea)	98	90	1.13	
Certified Kentucky Bluegrass (Poa pratensis)	90	80	1.39	
Hard Fescue (Festuca longifolia)	98	90	1.13	
Chewings Red Fescue (Festuca rubra commutata)	98	90	1.13	
Annual Rycgrass (Lolium multiflorum)	95	85	1.24	
Perennial Ryegrass (Lolium perenne)	90	80	1.39	
Fowl Meadow Grass (Poa palustris)	90	80	1.39	
Little Bluestem (Andropogon scoparius)	62	94	1.71	

If the time required to complete any of the operations necessary under this item, within the specified planting season or any authorized extensions thereof. extends beyond the Contract period, then such time will be charged against the Contract time, and liquidated damages will be enforced with respect to this 903-2.2 LIME. Lime shall consist of ground limestone and contain at least 85 percent total carbonates. Lime shall be ground to a fineness so that at least 90 percent will pass through a No. 20 mesh sieve and 50 percent will pass through a No. 100 mesh sieve. Dolomitic lime or a high magnesium lime shall contain at least 10 percent magnesium oxide. Lime shall be applied by approved methods detailed in Section 903-3.3 of this item. The rate of application will be based on results of soil tests. 903-2.3 FERTILIZER. Fertilizer shall be standard commercial fertilizer (supplied separately or in mixtures) and meet the requirements of applicable state and

Seeding seasons are based on typical years and can be subject to variation, which may be modified by the MAA Engineer based on seasonal trends.

federal laws (O-F-241) as well as standards of the Association of Official Agricultural Chemists. Nitrogen-Phosphorus-Potassium (N-P-K) concentrations shall be determined from analysis of soil samples. (Approved fertilizer rate: 21 pounds of 10-10-10 per 1,000 square feet.) Methods of fertilizer application shall conform to standards described in Section 903-3.3 of this item. Fertilizer shall be furnished in standard containers that are clearly labeled with name, weight, and guaranteed analysis of the contents (percentage of total nitrogen, available phosphoric acid, and water-soluble potash). Mixed fertilizers shall not contain any hydrated lime or cyanamide compounds. Fertilizers failing to meet the specified analysis may be approved by the MAA Engineer, providing sufficient materials are applied to conform with the specified nutrients per unit of measure without additional cost to MAA. The fertilizers may be supplied in the following forms:

- a. A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;
- b. A finely ground fertilizer soluble in water, suitable for application by power sprayers; or

c. A granular or pellet form suitable for application by blower equipment. The rate of application will be based on results of soil tests performed by the University of Maryland Soil Testing Laboratory. By law, persons applying fertilizer to State-owned land shall follow the recommendations of the University of Maryland as set forth in the "Plant Nutrient Recommendations Based on Soil Tests for Turf Maintenance" and the "Plant Nutrient Recommendations Based on Soil Tests for Sod Production" (see Appendix B). Application of the fertilizer shall be in a manner that is consistent with the recommendations of the University of Maryland Cooperative Extension.

CONSTRUCTION METHODS AND EQUIPMENT 903-3.1 GENERAL. This section provides approved methods for the application of and includes standards for seedbed preparation, methods of application, and equipment to be used during the process. Lime and fertilizer shall be applied to seeded areas before the seed is spread. The mixture of seed will be determined for sites based on environmental conditions as described in Paragraph 903-2.1.3.

903-3.2 ADVANCE PREPARATION. Areas designated for seeding shall be properly prepared in advance of seed application. The area shall be tilled and graded prior to application of lime and fertilizer, and the surface area shall be cleared of any stones larger than I inch in diameter, sticks, stumps, and other debris that might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered greas. Damage caused by erosion or other forces that occur after the completion of grading shall be repaired prior to the application of fertilizer and lime. The Contractor will repair such damage. which may include filling gullies, smoothing irregularities, and repairing other incidental damage before beginning the application of fertilizer and ground

If an area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, all grass and weeds shall first be cut or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches (125 mm). Clods shall be broken and the top 3 inches (75 mm) of soil shall be worked into a satisfactory condition by discing or by use of cultipackers, rollers, drags, harrows, or other appropriate

An area to be seeded shall be considered a satisfactory seedbed (without requiring additional treatment) if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches; the top 3 inches of soil is loose, friable, and is reasonably free from large clods, rocks, large roots, or other undesirable matter; appropriate amounts of fertilizer and lime have been added; and, if it has been shaped to the required grade immediately prior to seeding. For slope areas steeper than 3:1 (three horizontal to one vertical), the subsoil shall be loose to a depth of 1 inch. After completion of tilling and grading, lime and fertilizer shall be applied within 48 hours according to the specified rate (Paragraphs 903-2.2 and 2.3) and methods (Paragraphs 903-3.3.1 and 903-3.3.2) approved by MAA. The seeding mixture shall be applied within 48 hours after application of lime and fertilizer. To firm the seeded areas, cultipacking shall occur immediately after seeding. 903-3.3 METHODS OF APPLICATION. Lime, fertilizer, and seed mixes shall be applied by either the dry or wet application methods that have been approved by

903-3.3.1 DRY APPLICATION METHOD a. Liming. If soil test results indicate that lime is needed, the following procedures will be used: following advance preparation of the seedbed, lime shall be applied prior to the application of any fertilizer or seed and only on seedbeds that have been prepared as described in paragraph 903-3.2. The lime shall be uniformly spread and worked into the top 2 inches of soil, after which the seedbed shall be properly graded again. b. Fertilizing. Following advance preparations (and liming if necessary), fertilizer shall be spread uniformly at the specified rate to provide no less than the minimum quantity stated in Paragraph 903-2.3.

c. Seeding, Seed mixtures shall be sown immediately after fertilization of the seedbed. The fertilizer and seed shall be lightly raked to a depth of 1 inch for newly graded and disturbed areas. d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted using a cultipacker or an approved lawnroller

903-3.3.2 WET APPLICATION METHOD/HYDROSEEDING a. General. The Contractor may elect to apply seed and fertilizer as per Paragraphs c and d of this section in the form of an aqueous mixture by spraying over the previously prepared seedbed using methods and equipment approved by MAA. The rates of application shall be as specified in Paragraphs 903-2.1 through 903-2.3.

b. Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge capable of reading increments of 50 gallons or less over the entire range of the tank capacity. The liquid level gauge shall be mounted so as to be visible to the nozzle operator at all times. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The spraying equipment shall also include a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square inch. The pressure pump assemblage shall be configured to allow the mixture to flow through the tank when not being sprayed from the nozzle. All pump passages and pipelines shall be capable of providing clearance for 5/8-inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. A pressure gauge shall be connected to and mounted immediately behind the nozzle. The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture to be supplied so that mixtures may be properly sprayed over a distance varying from 20 feet to 100 feet. One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For ease of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of auick-release couplings. In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.

c. Mixtures. Lime shall be applied separately in the quantity specified, prior to the fertilizing and seeding operations. Lime should be added to and mixed with water at a concentration not to exceed 220 pounds of lime for every 100 gallons of water. After lime has been applied, the tank should be emptied and rinsed with fresh water. Seed and fertilizer shall be mixed together in the relative proportions specified, but the resulting concentration should not exceed 220 pounds of mixture per 100 gallons of water and should be applied within 30 minutes to prevent fertilizer burn of the seeds. All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Brackish water shall not be used at any time. The Contractor shall identify all sources of water to the MAA Engineer at least two weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 30 minutes from the time they were mixed or they shall be wasted and disposed of at a location acceptable to the Engineer. d. Spraying. Lime shall be sprayed upon previously prepared seedbeds on which the lime, if required, shall have been worked in already. The mixtures shall be applied using a high-pressure spray which shall always be directed upward into the air so that the mixtures will fall to the ground in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner that might produce erosion or runoff. Particular care shall be exercised to ensure that the application is made uniformly, at the prescribed rate, and to guard against misses and overlapped areas. Predetermined quantities of the mixture shall be used in accordance with specifications to cover specified sections of known areas. To checks the rate and uniformity of application, the applicator will observe the degree of wetting of the ground or distribute test sheets of paper or pans over the area at intervals and observe the quantity of material deposited thereon. On surfaces that are to be mulched as indicated by the plans or designated by the MAA Engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after

the soil has dried. 903-3.4 MAINTENANCE OF SEEDED AREAS. The contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surfaces guilled or otherwise damaged following seeding shall be repaired by regrading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work. When either the dry or wet application method outlined above is used for work performed out of season, the Contractor will be required to establish a good stand of grass of uniform color and density to the satisfaction of the Engineer. If at the time when the contract has been otherwise completed it is not possible to make an adequate determination of the color, density, and uniformity of such stand of grass, payment for the unaccepted portions of the areas

seeded out of season will be withheld until such time as these requirements have been met. Mulch shall be applied to all seeded areas immediately after seeding. During the time periods when seeding is not permitted, mulch shall be applied immediately after grading.

Mulch shall be applied as per ITEM 905. TEMPORARY SEEDING

Lime: 100 pounds of dolomitic limestone per 1,000 square feet. Fertilizer: 15 pounds of 10-10-10 per 1,000 square feet.

Seed: Per ITEM 903 Mulch: Mulch shall be applied as per ITEM 905.

Sediment Control.

MAA and are detailed below.

No fills may be placed on frozen ground. All fill to be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. All fill in roadways and parking areas is to be classified Type 2 as per Anne Arundel County Code - Article 21, Section 2-308, and compacted to 90% density; compaction to be determined by ASTM D-1557-66T (Modified Proctor). Any fill within the building area is to be compacted to a minimum of 95% density as determined by

methods previously mentioned. Fills for pond embankments shall be compacted as per MD-378 Construction Specifications. All other fills shall be compacted sufficiently so as to be stable and prevent erosion and slippage.

Installation of sod should follow permanent seeding dates. Seedbed preparation for sod shall be as noted above. Lime and fertilizer per permanent seeding specifications and lightly irrigate soil prior to laying sod. Sod is to be laid on the contour with all ends tightly abutting. Joints are to be staggered between rows. Water and roll or tamp sod to insure positive root contact with the soil. All slopes steeper than 3:1, as shown, are to be permanently sodded or protected with an approved erosion control nettina. Additional waterina for establishment may be required. Sod is not to be installed on frozen ground. Sod shall not be transplanted when moisture content (dry or wet) and/or extreme temperature may adversely affect its survival. In the absence of adequate rainfall, irrigation should be performed to ensure establishment of sod. Install sod as per ITEM 904

Sediment control plans for mining operations must include the following seeding dates and mixtures: For seeding dates of: February ! through April 30 and August 15 through October 31, use seed mixture of tall fescue at the rate of 2 pounds per 1,000 square feet and red top at the minimum rate of 0.5 pounds per 1,000 square feet. NOTE: Use of this information does not preclude meeting all of the requirements of the current Maryland Standards and Specifications for Soil Erosion and

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CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	3/8/10
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Momen & Suttle	DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

903-2.1.2 PURITY. All seed shall be free of all state-designated noxious weeds listed in Paragraph 2.1.1 and conform to MAA specifications. To ensure compliance, MAA requires sampling and testing of seed by the Turf and Seed Section, Maryland Department of Agriculture (MDA). The Contractor shall furnish the MAA Engineer with duplicate signed copies of a statement by the Turf and Seed Section certifying that each lot of seed has been laboratory tested within six months of date of delivery. This statement shall include the following information:

• name and address of laboratory,

Supplemental Seed

- date of test. lot number,
- the results of tests as to name, percentages of purity and of germination, · percentage of weed content for the seed furnished,
- and, in the case of a mixture, the proportions of each kind of seed Seed shall be furnished in standard containers with the seed name, lot number, net weight, percentages of purity, germination rate and hard seed, and percentage of maximum weed seed content clearly marked. All seed containers shall be tagged with a MDA supervised mix program seed tag.

903-2.1.3 MIXTURES AND APPLICATION RATES. Only seed mixtures and application rates described in this item may be used unless otherwise approved by the MAA Engineer. Seed mixtures shall meet criteria detailed in Paragraph 903-2.1.2. Seed mixtures have been formulated to minimize the attractiveness of areas to wildlife of common landscape scenarios. The appropriate seed mixture for application will be designated based on environmental conditions and may vary from site to site. All planting rates listed are in pounds of Pure Live Seed (PLS) per acre.

Seed mixtures, application scenarios, and rates for permanent cool-season grasses are as follows: a. Seed Mixture No. 1 - relatively flat areas (arade less than 4:1) subject to normal

conditions and regular mowing (Application rate = 234 lbs PLS/acre); a. Seed Mixture No. 2 - sloped areas (grade greater than 4:1) not subject to regular

mowing (Application rate = 115 lbs PLS/acre); and a Seed Mixture No. 3 - wetlands and their associated buffer zones (Application rate:

131 lbs PLS/acre). Seed Mixture No. 1: Relatively flat areas regularly mowed and exposed to normal conditions (Application rate = 234 lbs PLS/acre)

Rate of Application (Ibs of LS/acre) 85% Certified Turf-Type Tall Fescue 10% Certified Kentucky Bluegrass 5% Perennial Ryegrass Supplemental Seed Annual Rycarass Seed Mixture No. 2: Sloped areas not subject to regular mowing (Application rate = 115 lbs PLS/acre) Application (1bs of PLS/acre) 75% Hard Fescue 20% Chewings Fescue 5% Kentucky Bluegrass Supplemental Seed Seed Mixture No. 3 - Wetland areas and their associated buffer zones (Application rate = 131 lbs PLS/acre) Application (lbs of PLS/acre) 60% Fowl Meadow Grass 30% Chewings Fescue 10% Perennial Ryegrass

903-2.1.4 SEEDING SEASONS. Application of seed and seed mixtures shall occur within a specified seeding season unless otherwise approved by the MAA Engineer. No seed or seed mixtures are to be applied on frozen ground or when the temperature is at or below 35 degrees Fahrenheit (7.2 degrees Centigrade). Under these conditions, a layer of mulch should be applied in accordance with Item 905, Mulching, to stabilize the site, and permanent seeding should occur in the subsequent seeding season. Seed application may occur during the seeding season dates listed below. Seeding performed after October 20 should be a temporary cover of annual ryegrass and followed by over seeding of the appropriate seed mixture during the spring seeding season.

SEEDING SEASONS			
Permanent Cool-Season Græsses	March 1 to April 20 and August 1 to October 20, inclusive		
Temporary Cover of Annual Rye/Redtop	March 1 to April 30 and August 1 to November 30, inclusive		
Temporary Cover of Warm-Season Grasses (Little Bluestem only)	May 1 to July 31, inclusive. Rate of application should be 13.6 lbs. PLS per acre.		

ENGINEER'S CERTIFICATE PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. 2/19/2010 DEVELOPER'S CERTIFICATE WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON—SITE INSPECTION

BY THE HOWARD SOIL CONSERVATION DISTRICT.

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

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

1 3-2-12 REVISE O.S. LOT 24 TO A BUILDABLE LOT PER WP-11-140

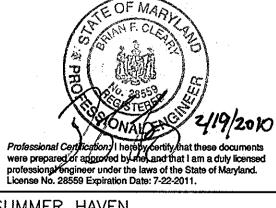
NO. DATE **BENCHMARK**

ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE A SUITE 418 ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644 E-MAIL: bei@bei-civilengineering.com

DES: MR/JC DRAFT: MR/JC CHECK: JC/BFC SCALE: AS SHOWN



2/19/2010

OWNER (LOTS 16-33 AND 35 BUFFALO GAP, LLC 5570 STERRETT PLACE. SUITE 201 COLUMBIA, MARYLAND 21044 410-997-3815

OWNER (LOTS 4-12): NEWBUREN INVESTMENTS II, LLC 5570 STERRETT PLACE,

SUITE 201 COLUMBIA, MARYLAND 21044 410-997-3815

RICHMOND AMERICAN HOMES OF MARYLAND, INC. 6200 OLD DOBBIN LANE. SUITE 190 COLUMBIA. MARYLAND 21045 410-312-2800

BUILDER:

PROJECT: SUMMER HAVEN 16-33 AND 35 SINGLE FAMILY DETACHED PLAT# 18902 - 18904 \$ 21679 TAX MAP 38, GRID 14 LOCATION: PARCEL 987 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

HCSCD/MAA SEDIMENT AND EROSION CONTROL NOTES AND DETAILS DATE: FEBRUARY, 2010 PROJECT NO. 2172

DRAWING $\frac{5}{}$ OF $\frac{5}{}$

SDP-10-047