6 | EROSION AND SEDIMENT CONTROL NOTES & DETAILS

5 EROSION AND SEDIMENT CONTROL PLAN

8 LANDSCAPE NOTES AND DETAILS

SITE DEVELOPMENT PLAN

JASON SUBDIVISION, LOT 2, 4815 COUNTRY COURT, ELLICOTT CITY, MARYLAND

2nd ELECTION DISTRICT

GENERAL NOTES

7 LANDSCAPE PLAN

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" AND MSHA STANDARDS AND SPECIFICATIONS.

2. 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, THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF HIGHWAYS AT (410) 313-2450 AT LEAST FIVE (5) WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER AND SEWER MAINS OR HOUSE CONNECTIONS. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE CONTRACTOR/DEVELOPER'S

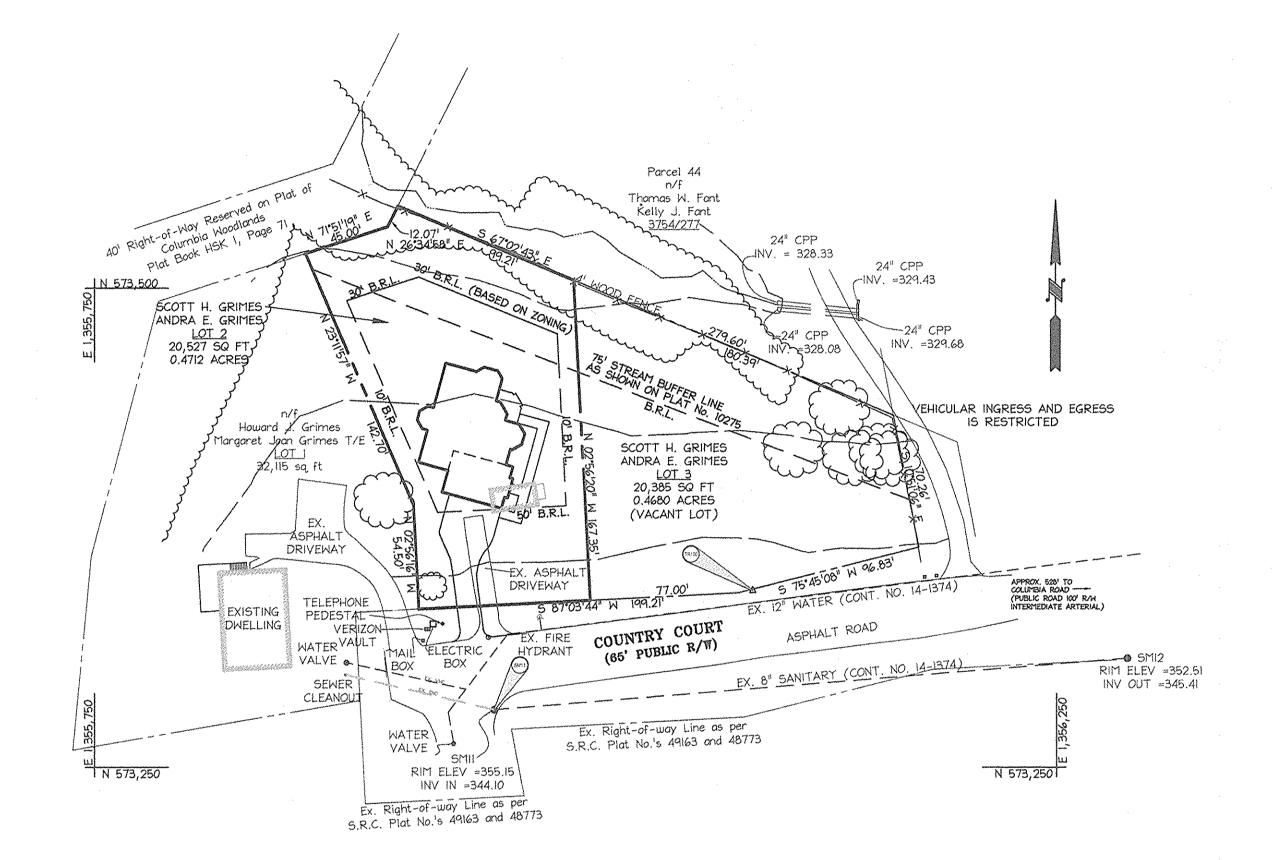
- 3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE. CONTRACTOR SHALL TEST PIT FOR EXACT LOCATIONS OF THE UTILITIES.
- 4. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- 5. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE PER HOWARD COUNTY RECORDS.

6. PUBLIC WATER AND SEWER IN COUNTRY COURT PROVIDED BY CONTRACT #14-1374 (WATER) AND #14-1374 (SEWER). PROPOSED WATER AND SEWER TO THE LOTS WILL BE PROVIDED IN ACCORDANCE WITH SECTION 18,122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.

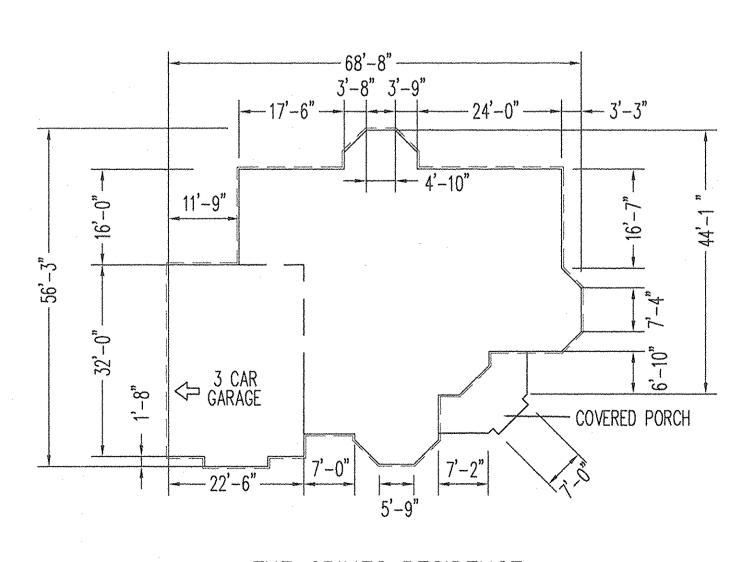
- 7. THIS SITE IS LOCATED IN THE LITTLE PATUXENT WATERSHED.
- 8. ALL FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED AND VERIFIED IN ACCORDANCE WITH AASHTO T-180--STANDARD.
- 9, CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROL DEVICES WITHIN THE LIMITS OF THE SITE DURING CONSTRUCTION OF THE SITE IMPROVEMENTS CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AS MAY BE NECESSARY DURING CONSTRUCTION AND/OR BY
- 10. PER FEMA MAP# 2400440028C DATED APRIL 2, 1997, THIS SITE IS LOCATED WITHIN THE 100 YR FLOODPLAIN. PER THE HOWARD COUNTY BUREAU OF ENVIRONMENTAL SERVICES, THIS SITE IS LOCATED IN THE 100-YR FLOODPLAIN.
- II. PER A FIELD INSPECTION PERFORMED BY christopher consultant's ON OCTOBER 3, 2006, THERE ARE NO STREAMS, WETLANDS OR OTHER ENVIRONMENTAL. FEATURES, HOWEVER, THE SITE IS IMPACTED BY A 75-FOOT STREAM BUFFER.
- 12. THERE ARE STEEP SLOPES AND/OR HIGHLY ERODIBLE SOILS ON THIS SITE. THE SLOPES AVERAGE BETWEEN 15% 24.9% CVER 10 VERTICAL FEET, BUT NO 25% OR GREATER SLOPES ARE PRESENT. THE TOPOGRAPHY IS BASED ON A FIELD RUN SURVEY COMPLETED BY christopher consultants IN AUGUST 2006.
- 13. THERE ARE NO KNOWN CEMETERIES OR BURIAL GROUNDS ON THIS SITE. HOWEVER, UPON DISCOVERY OF ANY EVIDENCE OF BURIAL OR GRAVES, THE DEVELOPER WILL BE SUBJECT TO SECTION 16.1305 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES LOCATED ONSITE.
- 14. ALL ADJACENT PROPERTIES ARE RESIDENTIAL USES.
- 15. THIS PROPERTY IS ZONED R-20 PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND THE "COMP. LITE" ZONING AMENDMENTS EFFECTIVE 7/28/06.
- 16. THE TOPOGRAPHY AND SITE BOUNDARY WERE PREPARED BY christopher consultants IN AUGUST 2006.
- 17. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM, MONUMENT NUMBERS 30DB AND 30BA WERE USED FOR THIS PROJECT (NAD 83/91.)
- 18. CONTRACTOR SHALL VERIFY SIZE AND LOCATIONS OF ALL UNDERGROUND UTILITIES AND TEST PIT ALL UTILITIES, INCLUDING PROPOSED TIE IN LOCATIONS, AT LEAST 5 DAYS PRIOR TO STARTING ANY WORK ON THESE DRAWINGS. DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IN ADVANCE OF
- 19. THE CONTRACTOR SHALL INSURE THAT CURRENT AS BUILT RECORDS ARE MAINTAINED DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION, CERTIFIED (i.e. P.E. STAMPED) AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE OWNER.
- 20. WATER QUALITY FOR THIS SITE HAS BEEN PROVIDED ON A LOT BY LOT BASIS AND WILL BE ACHIEVED THROUGH THE USE OF NON ROOFTOP DISCONNECTION, BIORETENTION DEVICES, AND VARIOUS COMBINATIONS OF THESE DEVICES. ALL DEVICES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2000 MDE STORMWATER DESIGN MANUAL. THE BIORETENTION FACILITY ON LOT 2 SHALL BE OWNED AND MAINTAINED BY THE OWNER OF LOT 2.
- 21. THE LANDSCAPE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE, AND THE LANDSCAPE MANUAL
- 22, CONTRACTOR TO PROVIDE SIGNAGE AND TRAFFIC CONTROL DEVICES FOR COUNTRY COURT AS NECESSARY TO PREVENT PUBLIC ACCESS TO ROAD DURING

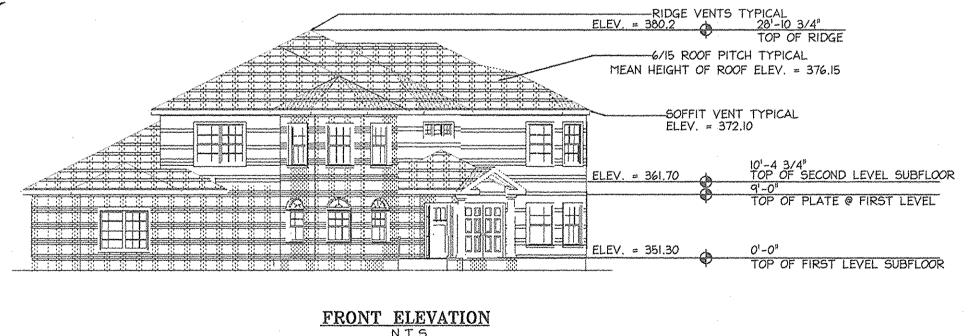
23. DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, ALL EASEMENTS SHOWN ON THIS PLAN FOR WATER, SEWER, STORM DRAINAGE, AND OTHER PUBLIC UTILITIES LOCATED IN, ON, OVER AND THROUGH LOTS/PARCELS, ANY CONVEYANCES OF THE AFORESAID LOTS/ PARCELS SHALL BE SUBJECT TO THE EASEMENTS HEREIN RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOT(S) / PARCELS. DEVELOPER SHALL EXECUTE AND DELIVER DEEDS FOR THE EASEMENTS HEREIN RESERVED TO HOWARD COUNTY WITH A METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION AREA. UPON COMPLETION OF THE PUBLIC UTILITIES AND THEIR ACCEPTANCE BY HOWARD COUNTY, AND IN THE CASE OF THE FOREST CONSERVATION EASEMENT(S), UPON COMPLETION OF THE DEVELOPER OBLIGATIONS UNDER THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT EXECUTED BY THE DEVELOPER AND THE COUNTY, AND THE RELEASE OF DEVELOPER'S SURETY POSTED WITH SAID AGREEMENT. THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED(S) OF EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.

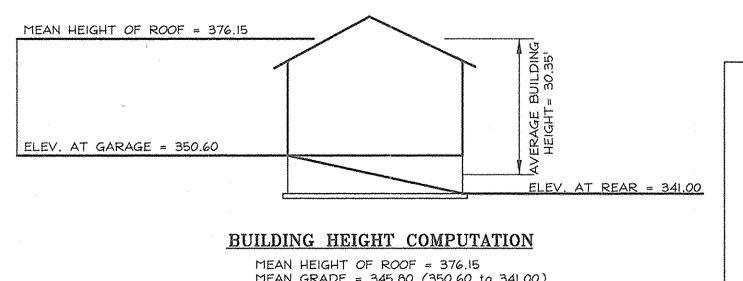
- 24. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- 25. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ON THESE PLANS:
- -MISS UTILITY 1-800-257-7777 -HOWARD COUNTY DPWT, BUREAU OF UTILITIES (410) 313-4900
- -BALTIMORE GAS AND ELECTRIC COMPANY CONTRACTOR SERVICES (410)850-4620 -BALTIMORE GAS AND ELECTRIC COMPANY UNDERGROUND DAMAGE CONTROL (410)787-9068
- -VERIZON 1-800-446-5266
- 26. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS AS NECESSARY TO GRADE THE SITE AND COMPLETE ANY REQUIRED EXCAVATIONS.
- 27, IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16' IN WIDTH MAY PROJECT NOT MORE THAN 4' INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT MORE THAN 10' INTO THE FRONT OR REAR YARD SETBACKS.
- 28. THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1202(b) OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE IT IS A DEVELOPMENT ACTIVITY ON SINGLE LOTS SMALLER THAN 40,000 SQUARE FEET AND THE CLEARING DOES NOT INCLUDE ANY AREA ALREADY SUBJECT TO PREVIOUSLY APPROVED FOREST CONSERVATION RESTRICTIONS.
- 29. DRIVEWAY (5) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
- A) WIDTH-12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE). B) SURFACE-6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND SHIP COATING.
- C) GEOMETRY-MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF
- 45-FOOT TURNING RADIUS. D) STRUCTURES (CULVERT/BRIDGES)-CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
- E) DRAINAGE ELEMENTS-CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN I FOOT DEPTH OVER DRIVEWAY SURFACE.
- MAINTENANCE-SUFFICIENT TO INSURE ALL WEATHER USE. G) REFER TO HOWARD COUNTY STANDARD DETAIL R6.06 FOR DRIVEWAY ENTRANCE DETAILS.
- 30. THIS IS A RESIDENTIAL INFILL DEVELOPMENT CREATING IO OR FEWER LOTS. PER SECTION 16,121 (a) OPEN SPACE IS NOT REQUIRED.
- 31. "THIS SITE DEVELOPMENT PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10-02-03 AND THE 2004 ZONING REGULATIONS EFFECTIVE 4-13-04, DEVELOPMENT OF CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION, OR BUILDING PERMIT APPLICATION." 32. FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SHOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR
- PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
- 33. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
- 34, FINANCIAL SURETY FOR THE REQUIRED NINE (9) SHADE TREES IN THE AMOUNT OF \$2,700.00 IS PART OF THE DEPARTMENT OF PUBLIC WORKS (DPW) DEVELOPER'S AGREEMENT FOR LOT 2.
- 35. A LETTER OF PREMISSION, DATED NOVEMBER 15, 2006, WAS GRANTED BY THE OWNERS OF LOT 1 AND 3 FOR THE PROPOSED OFFSITE GRADING.



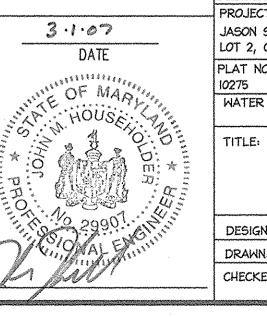
OVERALL PLAN VIEW SCALE: 1"=50"

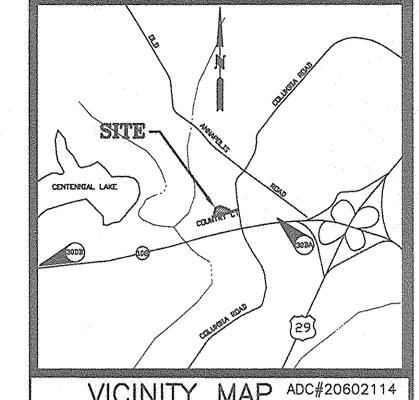






MEAN GRADE = 345.80 (350.60 to 341.00) AVERAGE BUILDING HEIGHT = 30.351





VICINITY MAP ADC#20602114 SCALE 1"=2000'

HOWARD COUNTY, MAP 15, GRID J-1 HOWARD COUNTY CONTROL STATIONS: SURVEY BENCH MARK= 30DB N 174436.818, E 412395.770L, ELEV.= 124.746 SURVEY GEODETIC CONTROL= 30BA 174696.178, E 4136393789, ELEV.= 121.067

BM# NORTHING EASTING ELEVATION DESCRIPTION TR100 573342.233 1356092.104 353.26 60 penny nail set SM11 573279.986 1355957.780 355.15 Rim of Sewer Manhole No.1

SITE ANALYSIS DATA CHART

- I. GENERAL SITE DATA
- a. PRESENT ZONING: R-20 PER THE JULY 28, 2006 COMP. LITE REZONING b. APPLICABLE DPZ FILE REFERENCES: F-92-05
- c. PROPOSED USE OF SITE OR STRUCTURE(S): ONE (I) SINGLE FAMILY
- DETACHED RESIDENTIAL HOUSE. d. PROPOSED WATER AND SEWER SYSTEMS: PUBLIC WATER & SEWER
- e. PROPOSED NUMBER OF UNITS: ONE (1) 2. AREA TABULATION - LOT 2
- a. TOTAL PROJECT AREA: 0.4712 AC.
- b. AREA OF THIS PLAN SUBMISSION: 0.4712 AC c. LIMIT OF DISTURBED AREA: 0.494 AC.
- d. MINIMUM LOT SIZE 20,000 S.F. e MINIMUM LOT WIDTH AT BRL: 60'
- . MINIMUM OPEN SPACE 0% GROSS TRACT g. MAXIMUM BUILDING HEIGHT: 34' FOR PRIMARY STRUCTURE,
- 3. SETBACKS
- FRONT: SETBACK FROM PUBLIC STREET R.O.W.: 50'

15' FOR ACCESSORY STRUCTURE REQUIRED.

ADJACENT LOT: 10' REAR: ADJACENT LOT: 30'

Date No.

DDRESS CHAR

APPROVED: DEPARTMENT OF PLANNING AND ZONING Chief, Division of Land Development manh presell Director, Department of Planning and Zoning

JASON SUBDIVISION. LOT 2, COUNTRY COURT SINGLE FAMILY HOME CONSTRUCTION

OWNER / DEVELOPER 4825 COUNRTY COURT ANDRA GRIMES ELLICOTT CITY, MARYLAND 21042

Revision Description

CONTACT: ANDRA GRIMES TEL. (410) 992-3883 FAX (915) 990-3883



christopher consultants, ltd. 7172 columbia gateway drive (suite 100) - columbia, rnd. 21046-2990 410.872.8690 · metro 301.881.0148 · fax 410.872.8693

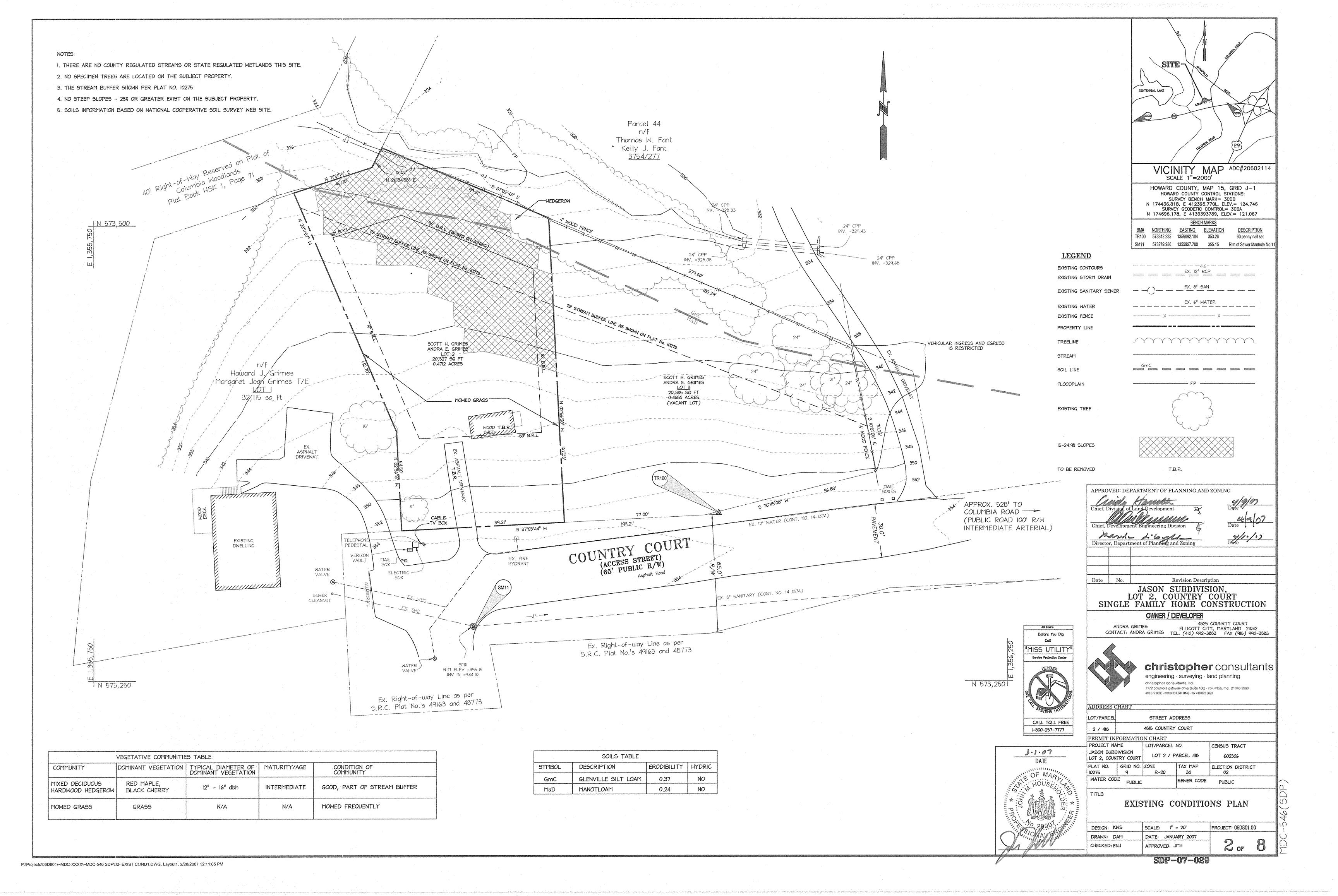
LOT/PARCEL STREET ADDRESS 4815 COUNTRY COURT 2 / 418 PERMIT INFORMATION CHART LOT/PARCEL NO. PROJECT NAME CENSUS TRACT

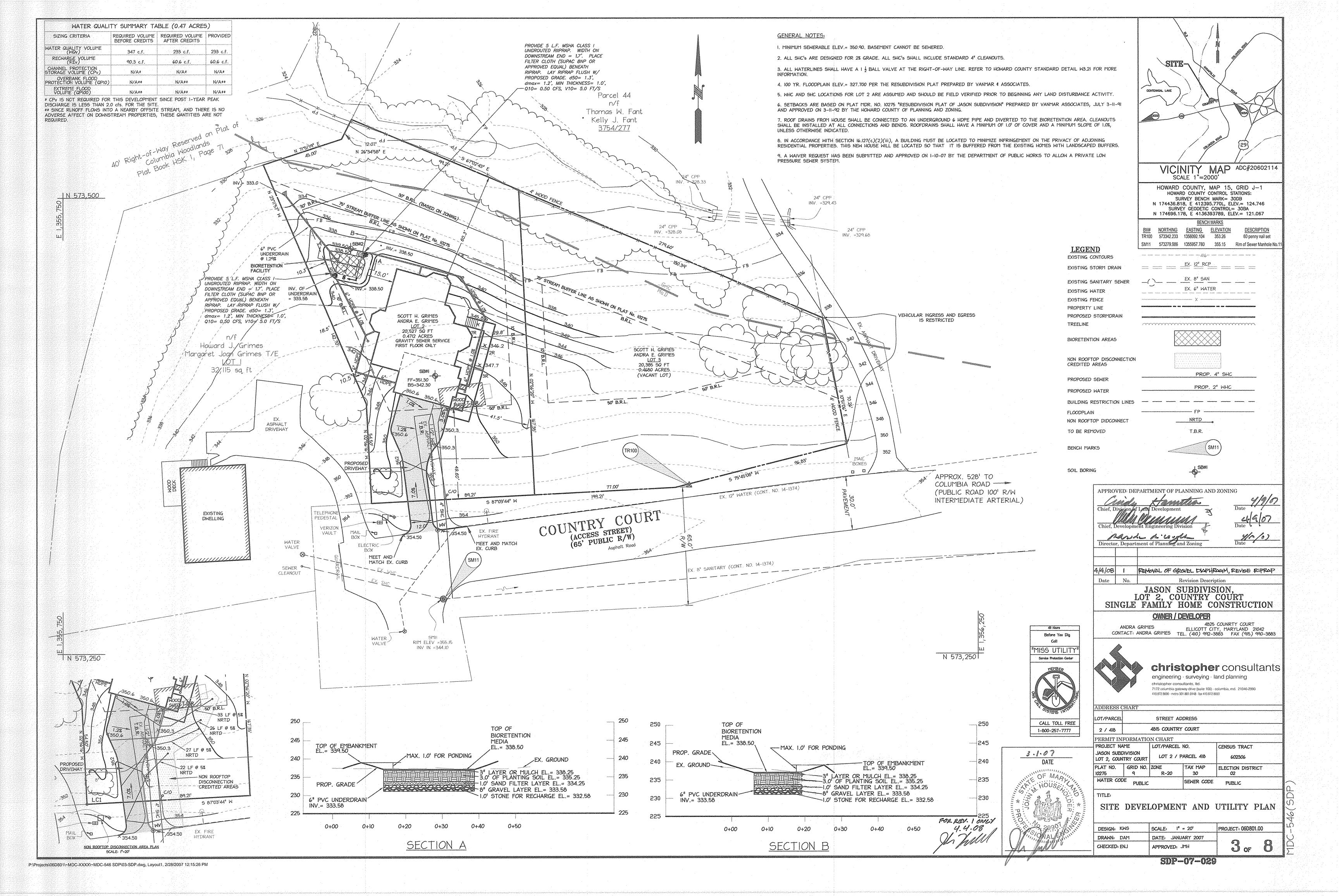
JASON SUBDIVISION LOT 2 / PARCEL 418 602306 LOT 2, COUNTRY COURT PLAT NO. | GRID NO. | ZONE ELECTION DISTRICT TAX MAP 9 R-20 WATER CODE SEWER CODE PUBLIC

COVER SHEET

DESIGN: KWS SCALE: I" = 50' PROJECT: 06D801.00 DRAWN: DAM DATE: JANUARY 2007 CHECKED: ENJ APPROVED: JMH ⊥ of

SDP-07-029





PLANTING SPECIFICATIONS FOR BIORETENTION

I. GENERAL NOTES

- A. SCOPE: THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES OF PLANT MATERIAL SHOWN ON THE PLAN IN THE PLANT LIST, AND SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE ALL LANDSCAPE WORK AS SHOWN ON THE PLANS AND SPECIFICATIONS.
- B. UTILITIES: THE LANDSCAPE CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-257-7777) TO VERIFY THE LOCATION OF ALL MAIN UTILITIES AND SHALL ASK THE GENERAL CONTRACTOR TO LOCATE LIGHTING AND OTHER ON-SITE UTILITIES IN THE FIELD BEFORE PROCEEDING WITH THE INSTALLATION OF ANY PLANTING. IF CONDITIONS ARISE IN THE FIELD WHICH NECESSITATE THE SHIFTING OF A PLANT LOCATION MORE THAN 15', THE LANDSCAPE
- C. SUBSTITUTIONS: ANY CHANGE IN THE TYPE, SIZE AND QUANTITY OF PLANT MATERIAL BY THE LANDSCAPE CONTRACTOR MUST BE APPROVED BY THE ENVIRONMENTAL CONSULTANT PRIOR TO INSTALLATION.
- D. PLANT STANDARDS: PLANTS SUPPLIED SHALL CONFORM IN ALL RESPECTS TO THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1). THEY SHALL BE FIRST CLASS REPRESENTATIVES OF THEIR SPECIES AND VARIETIES, NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE AND GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. PLANT NAMES SHALL BE THOSE GIVEN IN THE LATEST EDITION OF STANDARD PLANT NAMES, AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE.
 - PLANTS SHALL BE SOUND, VIGOROUS AND HEALTHY, WELL BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE AND INSECT PESTS AND SHALL HAVE HEALTHY, WELL DEVELOPED ROOT SUBSTANCE. TRUNKS AND BRANCHES SHALL BE FREE OF CUTS AND ABRASIONS OVER ONE INCH (I") IN AND DIMENSION. PLANTS IN LEAF SHALL BE SPRAYED WITH ANTI-DESICCANT IMMEDIATELY BEFORE DIGGING TO FILM THE LEAVES, BRANCHES, AND TWIGS,
 - SHADE TREES WITH BROKEN, DAMAGED OR MULTIPLE LEADERS WILL BE REJECTED.
 - BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH A FIRM NATURAL ROOT BALL. PLANTS WITH SOFT, BROKEN OR DAMAGED LIMBS WILL BE
 - PLANTS SHALL BE TAGGED WITH LABELS IDENTIFYING THE BOTANICAL AND COMMON NAMES OF THE PLANTS. NO CHANGE IN THE KIND, QUANTITY, QUALITY, OR SIZE OF PLANTS SPECIFIED SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE APPROVING AGENCY.
 - ALL PLANTS SHALL BE CERTIFIED PEST-FREE BY THE DEPARTMENT OF AGRICULTURE OF THEIR STATE OF ORIGIN.
 - MAJOR SHADE TREES SHALL BE 2-1/2" CALIPER OR LARGER (EXCEPT WHEN WITHIN 2 YEAR WSEL, THEN 1-1/4" 1-1/2" CAL. WILL BE PERMITTED); ORNAMENTAL TREES SHALL HAVE A MINIMUM CALIPER OF 1-1/4", EVERGREEN TREES SHALL HAVE A MINIMUM HEIGHT OF 6' AND SHALL BE FULL TO THE GROUND AND HEAVILY BRANCHED. SHRUBS SHALL HAVE A SPREAD OF AT LEAST 18". NO BARE ROOT TREES OR SHRUBS WILL BE ACCEPTED WITHOUT WRITTEN APPROVAL OF THE APPROVING AGENCY.
- E. PLANTING MATERIALS: TOPSOIL SHALL BE FERTILE, FRIABLE AND TYPICAL OF THE PROJECT SITE BEFORE DISTURBANCE. IT SHALL HAVE A MINIMUM ORGANIC CONTENT OF 2.5 % BY VOLUME AND SHALL BE FREE OF STONES, LUMPS, ROOTS, STICKS, AND DEBRIS LARGER THAN 2" IN ANY DIMENSION. IT SHALL NOT BE LOADED, DELIVERED, SPREAD OR OTHERWISE HANDLED IN A MUDDY OR FROZEN CONDITION. (SEE BIORETENTION SPECS.)
 - PLANTING (BACKFILL) MIX SHALL BE COMPOSED OF THREE PARTS OF THE SOIL IMMEDIATELY ADJACENT TO THE PLANT PIT OR BED TO ONE PART APPROVED ORGANIC MATTER.
 - TREE STAKING MATERIALS SHALL BE ROUGH-SAWN HARDWOOD 2" BY 2" STOCK OF A LENGTH TO CONFORM TO THE REQUIREMENTS OF THE TREE PLANTING DETAIL SHOWN ON THE PLANTING PLAN.
 - STAKING TIES SHALL BE DOUBLE STRANDS OF 12 OR 14 GAUGE GALVANIZED STEEL WIRE, TWISTED, FURNISHED WITH PROTECTIVE SECTIONS OF CORDED 3/4" DIAMETER RUBBER HOSE OR NYLON WEBBING AT LEAST 1-1/2" WIDE OR POLYPROPYLENE CHAINLOCK STRAPPING MANUFACTURED FOR THE PURPOSE OR OTHER MATERIALS APPROVED BY THE APPROVING AGENCY.
- ALL DIG PLANT MATERIAL SHALL HAVE BEEN DUG BEFORE BUD BREAK OR AFTER LEAF MATURATION. ANY PLANT MATERIAL EXHIBITING DROOPING NEW GROWTH WITHIN TWO (2) WEEKS OF BEING PLANTED WILL BE REJECTED AND MUST BE REMOVED FROM THE JOB.
- F. POOR DRAINAGE: NO PLANT SHALL BE PLANTED IN SITUATIONS THAT SHOW OBVIOUS POOR DRAINAGE. SUCH SITUATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENVIRONMENTAL CONSULTANT AND OWNER, AND IF THEY DEEM NECESSARY, THE PLANTS SHALL BE RELOCATED OR THE CONTRACTOR SHALL BE ADJUSTED TO ALLOW FOR DRAINAGE CORRECTION AT A NEGOTIATED COST.
- G. SITE PREPARATION: IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO PRESENT "CLEAN" SOIL CONDITIONS TO THE LANDSCAPE CONTRACTOR PRIOR TO ANY LANDSCAPE INSTALLATION. "CLEAN" SOIL MAY INCLUDE ON-SITE SOIL MUST BE FREE OF PAVEMENT MATERIALS, MUCK, ROOT SYSTEMS, PETROLEUM OR OTHER CHEMICAL SUBSTANCES, BLUE STONE, CONSTRUCTION DEBRIS AND OTHER MATERIALS LARGER THAN 2" IN DIAMETER. THE "CLEAN" SOIL SHALL EXTEND TO THE FOLLOWING MINIMUM DEPTHS: 18" WHERE TREES ARE PROPOSED, 12" WHERE SHRUBS ARE PROPOSED AND 4" WHERE LAWN IS PROPOSED. IF THE LANDSCAPE CONTRACTOR ENCOUNTERS ANY AREA TO BE DEFICIENT REGARDING THESE "CLEAN" SOIL SPECIFICATIONS, HE SHALL REPORT THIS CONDITION TO THE ENVIRONMENTAL CONSULTANT AND OWNER PRIOR TO PLANTING IN THOSE
- H. WORKMANSHIP: DURING PLANTING, ALL AREAS SHALL BE KEPT NEAT AND CLEAN, AND ALL REASONABLE PRECAUTIONS SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING PLANTS, TURF AND STRUCTURES. UPON COMPLETION, ALL DEBRIS AND WASTE MATERIAL RESULTING FROM PLANTING OPERATIONS SHALL BE REMOVED FROM THE PROJECT AND THE AREA CLEANED UP. ANY DAMAGED AREAS SHALL BE RESTORED TO THEIR ORIGINAL
- WATER: IF AVAILABLE ON-SITE, THE OWNER SHALL SUPPLY WATER AT NO EXTRA COST. IT WILL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO SUPPLY WATER IF THERE IS NONE ON THE SITE.

II. PLANTING METHODS:

- A. PLANTING BEDS: STAKE-OUT OUTLINES OF PLANTING BEDS AND CENTERS OF INDIVIDUAL PLANTING PITS. THESE LOCATIONS ARE TO BE APPROVED IN THE FIELD BY THE APPROVING AGENCY BEFORE PLANTING OPERATIONS BEGIN.
- EXCAVATE STAKE OUT AREAS AND PREPARE PLANTING MIX (SEC. EI & 2). ONLY PLANTING MIX SHALL BE USED TO BACKFILL THE PLANTING PITS AND
- TREE/SHRUB PIT: SET PLANTS SO THAT THE ROOTBALL REST ON FIRM GROUND AND THE ROOT CROWN IS 3"-4" HIGHER THEN THE SURROUNDING GRADE. BACKFILL WITH PLANTING MIX AND TAMP LIGHTLY IN EIGHT INCH (8") INCREMENTS. WATER THOROUGHLY TO ELIMINATE AIR POCKETS IN THE BACKFILL. REMOVE ALL MATERIALS OTHER THAN UNTREATED BURLAP, JUTE TWINE AND WIRE BASKET FROM THE TOP 1/3 OF THE BALL. COMPLETE BACKFILLING WITH PLANTING MIX TO BRING SOIL LEVEL TO SURROUNDING GRADE.
- PROTECT PLANTS AT ALL TIMES FROM SUN AND DRYING WINDS. PLANTS THAT CANNOT BE PLANTED IMMEDIATELY SHALL BE KEPT IN THE SHADE WELL PROTECTED WITH TOPSOIL, PEAT MOSS OR OTHER ACCEPTABLE MATERIAL AND SHALL BE KEPT WELL WATERED. PLANTS SHALL NOT REMAIN UNPLANTED FOR MORE THEN THREE (3) CALENDAR DAYS.
- PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANYTIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES AND TWIGS. PLANTS SHALL BE LIFTED FROM THE BOTTOM OF THE BALL ONLY.
- MULCH ALL BEDS AND PLANTING PITS WITH A THREE INCH (3") LAYER OF MULCH IMMEDIATELY AFTER PLANTING.
- ALL PLANTS ARE TO BE WATERED THOROUGHLY ON THE DAY OF PLANTING, EVEN IF IT IS RAINING.
- C. TREE BRACING: STAKE PLANTS IMMEDIATELY AFTER PLANTING, TAKING CARE THAT THEY STAND PLUMB AFTER STAKING. STAKED AND STAKING MATERIALS SHALL BE REMOVED AT THE END OF THE GUARANTEE PERIOD AND DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- TREE WRAP: WRAP DECIDUOUS TREE TRUNKS STARTING AT THE BASE OF THE TREE UP TO THE SECOND BRANCH. REMOVE WRAPPING AT THE END OF THE GUARANTEE PERIOD.
- E. PRUNING: PRUNE PLANT AT THE TIME OF PLANTING AS DIRECTED BY THE APPROVING AGENCY, TAKING CARE TO RETAIN THE NATURAL FORM AND CHARACTER OF THE PLANT
- F. MISC.: ANY ITEMS NOT ADDRESSED IN THIS SECTION SHALL BE IN CONFORMANCE WITH THE APPLICABLE REQUIREMENTS OF THE LANDSCAPE
- SPECIFICATION GUIDELINES OF THE LANDSCAPE CONTRACTORS ASSOCIATION, MD-DC-VA.
- G. WETLAND PLANTING NOTES: CONTRACTOR SHALL PROVIDE A MINIMUM SOIL DEPTH OF 4" AT THE COMPLETION OF FINAL GRADING. ANY LARGE STONES, DEBRIS OR CONSTRUCTION MATERIALS SHALL BE REMOVED AT THIS TIME. COMPACTED SOILS SHALL BE DISKED TO A DEPTH NO LESS THAN 6" PRIOR TO BASIN PLANTING AND FLOODING.
- A SPRING OR EARLY SUMMER PLANTING SHALL BE REQUIRED. PLANTING MATERIALS SHALL NOT BE STORED ON-SITE LONGER THAN 48 HOURS. PLANT ROOTS SHALL BE KEPT MOIST AT ALL TIMES. PLANTS SHALL BE STORED OUT OF DIRECT SUNLIGHT.
- FOR PLANTING POTTED PLANTS, MAKE A HOLE IN THE SUBSTRATE WIDE ENOUGH TO TAKE THE POTTED PLANT, AND DEEP ENOUGH THAT THE WETLAND SUBSTRATE IS AT THE SAME DEPTH (OR A LITTLE DEEPER) THAT THE SOIL LEVEL IN THE POT. THE POT SHALL BE REMOVED RIGHT BEFORE PLANTING TO FACILITATE THE ROOT SPREADING. THE OVERALL DEPTH SHOULD BE APPROXIMATELY 4"-6". PRESS THE SUBSTRATE FIRMLY AROUND
- EACH PLANT IS TO BE SIDE DRESSED AT THE TIME OF PLANTING WITH 30 GRAMS OSMOCOTE 18-6-12 SLOW RELEASE FERTILIZER OR AN EQUIVALENT. SOURCE OF AQUATIC PLANTS: RUPPERT ENVIRONMENTAL, ASHTON, MARYLAND (301)774-0400 AND ENVIRONMENTAL CONCERN, INC., ST. MICHAELS, MARYLAND (410)745-9620

III. SEEDING AND SODDING

ALL DISTURBED AREAS NOT COVERED BY BUILDINGS, PAVEMENTS AND PLANTING BEDS ARE TO BE ESTABLISHED IN A LAWN OF KENTUCKY-31 TALL FESCUE EITHER BY SEEDING OR SOD, OR COMBINATION, DEPENDING ON THE TIME OF YEAR, AVAILABILITY OF MATERIALS AND OWNER'S PREFERENCE. THE STABILIZATION SHALL BE IN CONFORMANCE TO STANDARDS AND SPECIFICATIONS FOR SOIL AND SEDIMENT CONTROL, PUBLISHED BY THE STATE OF MARYLAND.

IV. GUARANTEE

ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN HEALTHY AND VIGOROUS CONDITION AT THE BEGINNING OF THE SECOND GROWING SEASON FOLLOWING ACCEPTANCE BY THE APPROVING AGENCY. PLANTS WITH GREATER THAN 33 1/2 1/2 DIEBACK, OR HAVE NOT GROWN SO AS TO EMERGE FROM THE WATER SURFACE, SHALL BE REPLACED AT THE NEXT PLANTING SEASON.

V. MAINTENANCE

REMOVE LITTER AND DEBRIS AS REQUIRED DURING THE FIRST GROWING SEASON AND AT THE BEGINNING OF THE SECOND GROWING SEASON.

REPLACE UNSUCCESSFUL TRANSPLANTS MONTHLY FOR 6 MONTHS AND AT THE BEGINNING OF THE SECOND GROWING SEASON.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORM WATER FACILITIES

ROUTINE MAINTENAMCE:

I. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING, PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.

2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SCHRUBS AND REPLACEMENT OF ALL

4, SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

BIORETENTION SOIL & MATERIAL REQUIREMENTS

SOIL TEXTURE AND STRUCTURE:

TOPSOIL FOR BIORETENTION SHALL HAVE A SANDY LOAM, LOAMY TEXTURE PER USDA TEXTURAL TRIANGLE. MAXIMUM CLAY CONTENT IS 5%, SOIL MIXTURE SHALL BE 50-60 % SAND; 20-30 % LEAF MULCH; 20-30 % TOPSOIL. THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIORETENTION THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, MUGWORT, NUTSEDGE, POISON IVY, CANADIAN THISTLE, TEARTHUB, OR OTHER NOXIOUS WEEDS.

SOIL TESTING:

PLANTING SOIL FOR BIORETENTION AREAS MUST BE TESTED PRIOR TO INSTALLATION FOR PH AND ORGANIC MATTER. THE SOIL SHOULD MEET THE FOLLOWING CRITERIA (LANDSCAPE CONTRACTORS ASSOCIATION, 1986).

PH RANGE: 5.5-6.5 ORGANIC MATTER 1,5-3.0 %

- IT IS REQUIRED THAT A SEIVE ANALYSIS, PH, AND ORGANIC MATTER TEST BE PREFORMED PER EACH BIORETENTION AREA.
- SOIL PLACEMENT:
- PLACEMENT OF THE PLANTING SOIL IN THE BIORETENTION AREA SHOULD BE IN LIFTS OF 12 TO 18 INCHES AND LIGHTLY COMPACTED. MINIMAL COMPACTION EFFORT CAN BE APPLIED TO THE SOIL BY TAMPING WITH A BUCKET FROM A DOZER OR BACKHOE. REFER ALSO TO

MULCH SPECIFICATIONS:

INDIVIDUAL PLANTING SHALL BE MULCHED (REFER TO LANDSCAPING DETAILS). ACCEPTABLE MULCH SHALL BE SHREDDED HARDWOOD ONLY. MULCH MUST BE WELL AGED, UNIFORM IN COLOR, AND FREE OF FOREIGN MATERIAL INCLUDING PLANT MATERIAL. WELL AGED MULCH IS DEFINED AS MULCH THAT HAS BEEN STOCKPILED FOR STORED FOR AT LEAST TWELVE (12) MONTHS.

SAND SPECIFICATIONS:

PROVIDE CLEAN SAND, FREE OF DELETERIOUS MATERIALS. SAND SHALL MEET AASHTO M-6 OR ASTM C-33 WITH GRAIN SIZE OF 0.02"-0.04". GEOTEXTILE SPECIFICATIONS:

GEOTEXTILE FABRIC SHALL MEET ASTM D-751 (PUNCTURE STRENGTH - 125 LB)

ASTM D-1682 (TENSILE STRENGTH - 300 LB) FABRIC SHALL HAVE 0.08" THICK E.O.S. OF #80 SLEVE, AND MAINTAIN 125 GPM PER SQ. FT. FLOW RATE.

GRAVEL FILTER SPECIFICATIONS:

ASTM D-III7 (MULLEN BURST STRENGTH - 400 PSI)

UNDERDRAIN GRAVEL BLANKET SHALL BE DOUBLE WASHED, #57 STONE, I-I/2" IN SIZE. PEA GRAVEL SHALL BE WASHED, RIVER-RUN, ROUND DIAMETER 1/4" -1/2" IN SIZE.

INSPECTION REQUIREMENTS:

- THE CONTRACTOR SHALL ARRANGE A "PRECONSTRUCTION MEETING" WITH THE OWNER AND LANDSCAPE ARCHITECT/ENGINEER PRIOR TO BEGINNING WORK IN THE BIORETENTION FACILITY
- AT THE COMPLETION OF EXCAVATION TO INSPECT SUB GRADE PREPARATION.
- DURING UNDERDRAIN AND FILTER INSTALLATION
- BACK FILL OF SOIL INTO THE BIORETENTION AREAS. SOIL CERTIFICATIONS FOR BACK FILL ARE
- THE FINAL TOPSOIL LAYERS SHOULD BE THOROUGHLY WETTED TO ACHIEVE SETTLEMENT OF THE SOIL/SAND BACKFILL MIX
- THE WORK SHALL BE INSPECTED BY THE OWNER/LANDSCAPE ARCHITECT PRIOR TO FINAL STABILIZATION AND
- SEDIMENT AND EROSION CONTROL PRACTICES MAY BE REMOVED UPON APPROVAL BY THE COUNTY INSPECTOR.

CONSTRUCTION SPECIFICATIONS FOR BIORETENTION

BIORETENTION AREA PLANT SPECIFICATIONS

GENERAL PLANTING SPECIFICATIONS

ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT FROM THE SOURCE TO THE JOB SITE AND UNTIL PLANTED. WALLS OF PLANTING PITS SHALL BE DUG SO THAT THEY ARE VERTICAL.

THE DIAMETER OF THE PLANTING PIT MUST BE A MINIMUM OF SIX INCHES (6") LARGER THEN THE DIAMETER OF THE BALL OF THE TREE.

THE PLANTING PITS SHALL BE DEEP ENOUGH TO ALLOW 1/4" OF THE BALL TO BE ABOVE THE EXISTING GRADE. LOOSE SOIL AT THE BOTTOM OF THE PIT SHALL BE

TAMPED BY HAND THE APPROPRIATE AMOUNT OF FERTILIZER IS TO BE PLACED IN THE PLANTING PIT BY LIFTING AND CARRYING THE PLANT BY ITS' BALL (NEVER LIFT BY BRANCHES

SET THE PLANT STRAIGHT AND IN THE CENTER OF THE PIT SO THAT THE TOP OF THE BALL IS APPROXIMATELY 1/4" ABOVE THE FINAL GRADE. BACKFILL PLANTING PIT WITH EXISTING SOIL.

MAKE SURE PLANT REMAINS STRAIGHT DURING BACKFILLING PROCEDURE.

NEVER COVER THE TOP OF THE BALL WITH SOIL. MOUND SOIL AROUND THE EXPOSED BALL (1/4").

TREES SHALL BE BRACED BY USING 2" BY 2" WHITE OAK STAKES. STAKES SHALL BE PLACED PARALLEL TO WALKWAYS AND BUILDINGS. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL, UTILIZING HOSE AND WIRE SO THE TREE IS BRACED TO THE STAKES.

GRASSES AND LEGUME SEED SHALL BE TILLED INTO THE SOIL TO A DEPTH OF AT LEAST 2 INCHES BY WITHER HARROWING OR DISCING. FERTILIZER SHALL BE APPLIED AT THE SAME RATE AND UTILIZING THE SAME PROCESS FOR NON-GRASS GROUND COVER.

GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING TECHNIQUES.

FERTILIZER

ALL GROUND COVERS SHALL BE FERTILIZED WITH A 10-6-4 ANALYSIS FERTILIZER AS A WET APPLICATION AT THE RATE OF 3 LBS. PER 100 SQUARE FEET OF THE BIORETENTION AREA PRIOR TO PLANTING NON-GRASS GROUND COVER AS PART OF THE GRASS SEED GROUND COVER.

TREE AND SHRUB FERTILIZER SHALL BE 21 GM. TIGHTLY COMPRESSED, LONG LASTING, SLOW RELEASE (2 YEAR) FERTILIZER TABLET WITH A MINIMUM GUARANTEED ANALYSIS OF 20-10-5:

WATER SOLUBLE ORGANIC NITROGEN 7 % WATER INSOLUBLE ORGANIC NITROGEN 15 % AVAILABLE PHOSPHORIC ACID (P203) 10 %

TOTAL NITROGEN (N) 20%

SOLUBLE POTASH (K20) 5%

FOR CONTAINERIZED TREES AND SHRUBS, PLACE THE SPECIFIC FERTILIZER TABLET(S) IN THE BOTTOM OF THE PLANTING PIT ACCORDING TO THE FOLLOWING

- I GAL. CONTAINER I EA. 21 GM. TABLETS 3 GAL. CONTAINER 2 EA. 21 GM. TABLETS
- 5 GAL. CONTAINER 3 EA. 21 GM. TABLETS
- 7 GAL, CONTAINER 5 EA. 21 GM. TABLETS

PLANTING NON-GRASS GROUND COVER

THE GROUND COVER PLANTING HOLES SHALL BE DUG THROUGH THE MULCH WITH ONE OF THE FOLLOWING: HAND TROWEL, SHOVEL, BULB PLANTER, OR HOE (THIS DOES NOT APPLY TO GRASSES OR LEGUMES). SPACING SHALL BE 2' ON CENTER.

BEFORE PLANTING, BIODEGRADABLE POTS SHALL BE SPLIT, AND NON-BIODEGRADABLE POTS SHALL BE REMOVED. ROOT SYSTEMS OF ALL POTTED PLANTS SHALL BE SPLIT OR CRUMBLED.

THE GROUND COVER SHALL BE PLANTED SO THAT THE ROOTS ARE SURROUNDED BY THE SOIL BELOW THE MULCH, POTTED PLANTS SHALL BE SET SO THAT THE TOP OF THE POT IS EVEN WITH THE EXISTING GRADE. THE ROOT OF BARE ROOT PLANTS SHALL BE COVERED TO THE CROWN. SPRAY THE MULCHED AND PLANTED GROUND COVER BED WITH A PRE-EMERGENT HERBICIDE.

THE ENTIRE GROUND COVER BED SHALL BE THOROUGHLY WATERED.

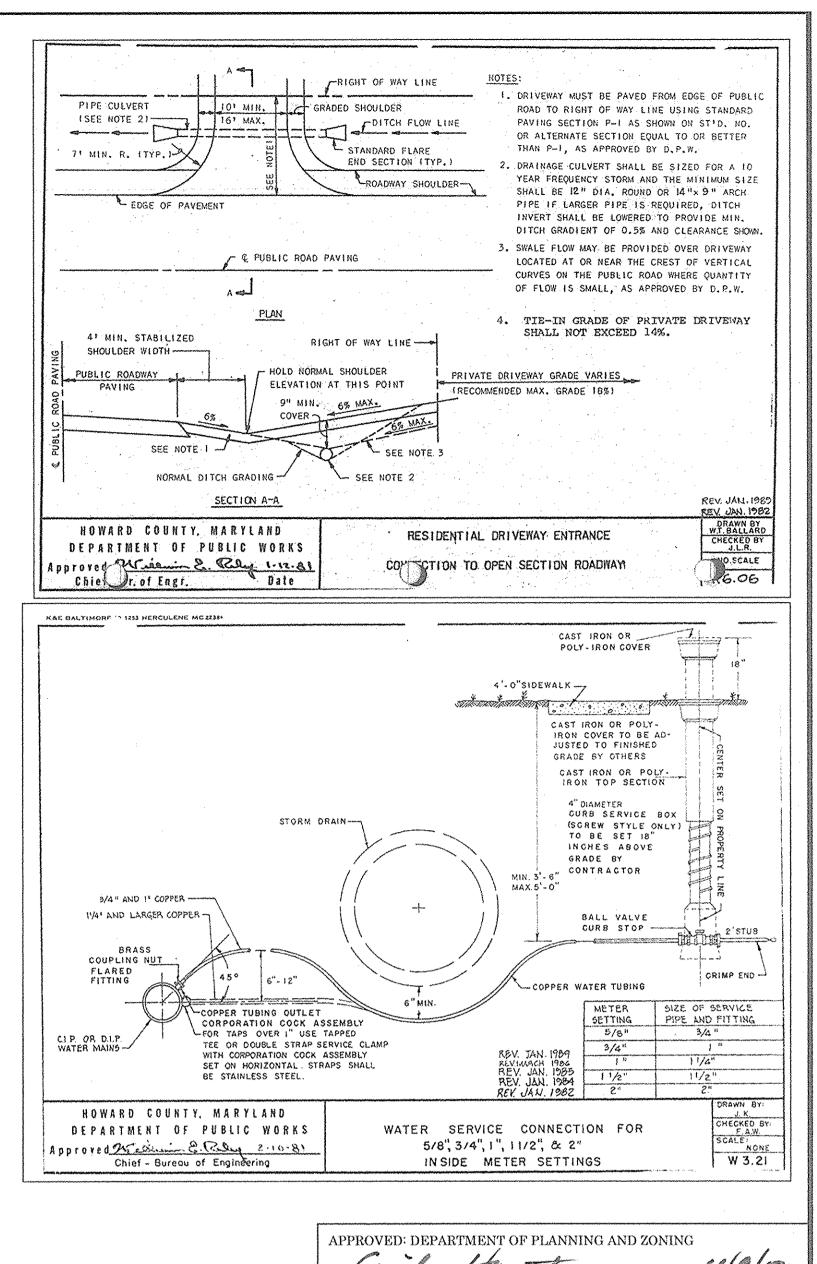
- DEFICIENT STAKES AND WIRES.
- 3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.

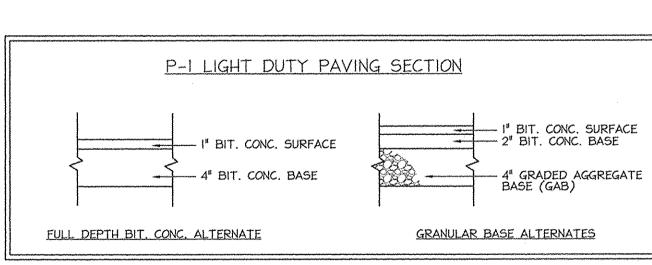
NON-ROUTINE MAINTENAMCE:

I. STRUCTURAL COMPONENTS OF THE FACILITY SUCH AS THE INLET AND THE PIPES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHALL BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS. 2. SEDIMENT SHALL BE REMOVED FROM THE FACILITY, NO LATER THAN WHEN THE CAPACITY OF THE FACILITY, IS HALF FULL OF SEDIMENT, OR WHEN DEEMED NECESSARY FOR AESTHETIC REASON, UPON APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS.

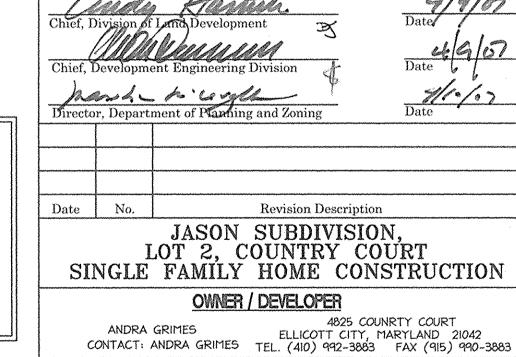
OPERATION, MAINTENANCE AND INSPECTION

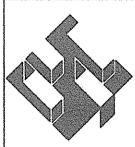
INSPECTION OF THE FACILITY SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY. THE FACILITY OWNER(5) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE FACILITY AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF.





PAVING SECTIONS SHOWN RELATES TO A CBR VALUE OF 7. ACTUAL CBR TEST RESULTS MAY CAUSE MODIFICATION OF THESE PAVING SECTIONS.



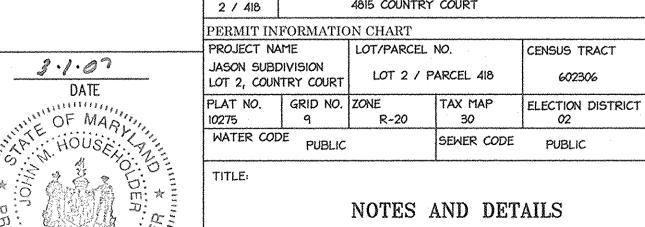


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7172 columbia gateway drive (suite 100) - columbia, md. 21046-2990

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410.872.8690 · metro 301.881.0148 · fax 410.872.8693



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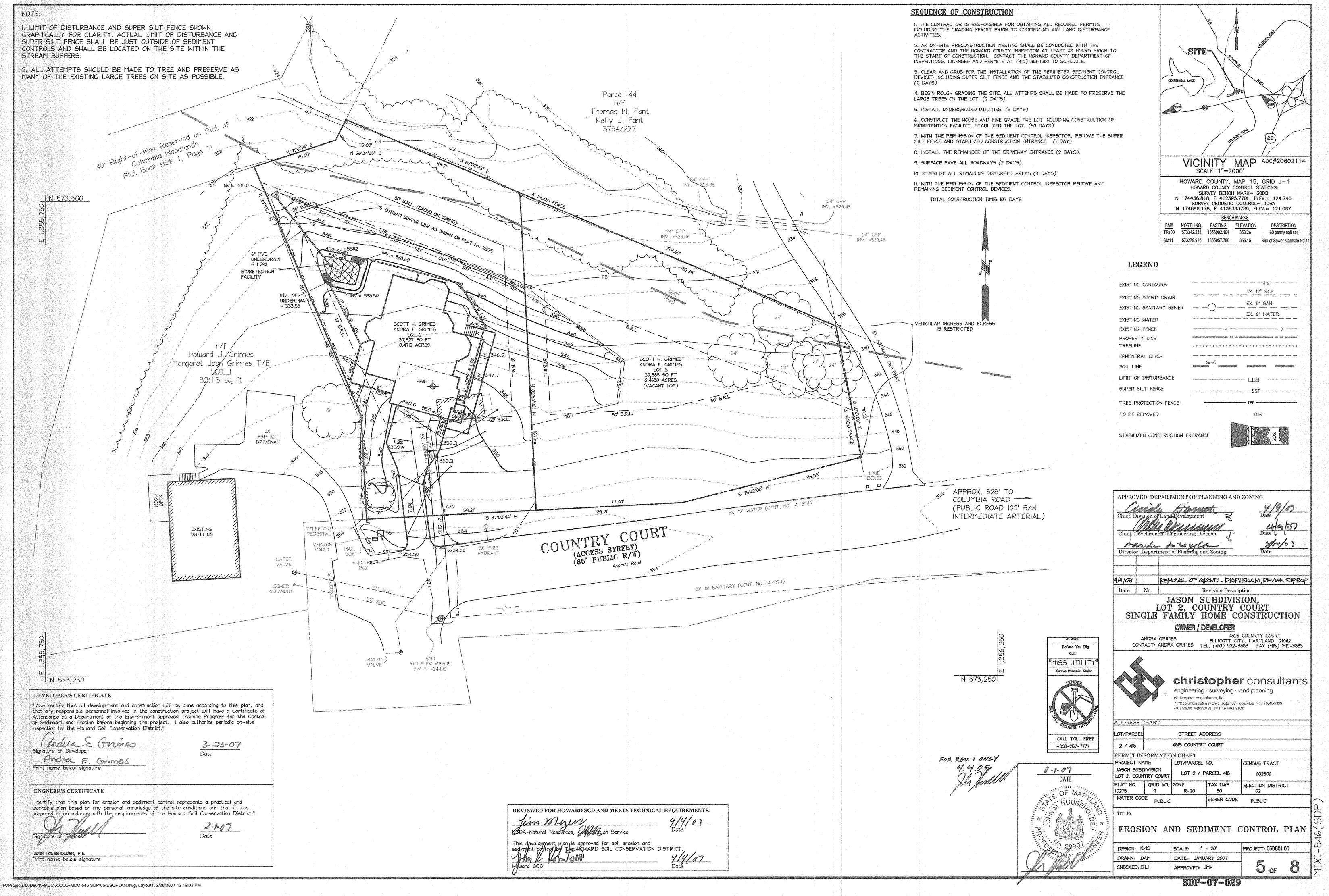
SCALE: AS SHOWN PROJECT: 06D801.00 DESIGN: KWS DRAWN: DAM DATE: JANUARY 2007

TOF

SDP-07-029

APPROVED: JMH

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19.0 Standards and Specifications For Land Grading

Definitions

Reshaping of the existing land surface in accordance with a plan as determined by engineering survey and layout,

<u>Purpose</u>

The purpose of a land grading specification is to provide for erosion control and vegetative establishment on those areas where the existing land surface is to be reshaped by grading according to plan.

<u>Design Criteria</u>

The grading plan should be based upon the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surrounding to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, effect on adjacent properties and drainage patterns, measured for drainage and water removal and vegetative treatment, etc.

Many countries have regulations and design procedures already established for land arading and cut and fill slopes. Where these requirements exist, they should be followed. The plan must show existing and proposed contours of the area(s) to be graded. The plan shall also include practices for erosion control, slope stabilization, safe disposal of runoff water and drainage, such as waterways, lined ditches, reverse slope benches (including grade and cross-section), grade stabilization structures, retaining walls, and surface and subsurface drains. The plan shall also include phasing of these practices. The following shall be incorporated into the plan:

1. Provisions shall be made to safety conduct surface runoff to storm drains, protected outlets or to stable water courses to insure that surface runoff will not damage slopes or other graded areas.

2. Cut and fill slopes that are to be stabilized with grasses shall not be steeper then 2:1. (Where the slope id to be mowed the slope should be no steeper then 3:1: 4:1 is preferred because of safety factors related to mowing steep slopes.

3. Reverse benches shall be provided whenever the vertical interval (height) of any 2:Islopes exceeds 20 feet; for 3:I slopes it shall be increased to 30 feet and for 4:I to 40 feet. Benches shall be located to divide the slopes face as equally as possible and shall convey the water to a stable outlet. Soils, seeps, rock outcrops, etc., shall also be taken into consideration when designing benches.

- a. Benches shall be a minimum of six-feet wide to provide ease of maintenance.
- b. Benches shall be designed with a reverse slope of 6:1 of flatter to the toe of the upper slope and with a minimum of one foot in depth. Bench gradient to the outlet shall be between 2 percent and 3 percent, unless accompanied by appropriate design and
- c. The flow length within a bench shall not exceed 800" unless accompanied by appropriate design and computations. For flow channel stabilization see temporary swales.

4. Surface water shall be diverted from the face of all cut and/or fill slopes by the use of earth dikes, ditches and swales or conveyed downslope by the use of a designated structure, except where:

- a. The face of the slope is or shall be stabilized and the face of all graded slopes shall be protected for surface runoff until they are stabilized
- b. The face of the slope shall not be subjected to any concentrated slows of surface water such as from natural drainways, graded swales, downspouts, etc.
- c. The face of the slope will be protected by special erosion control materials, to include, but not limited to: approved vegetative stabilization practices (see section G), rip-rap or other approved stabilization methods.

5. Cut stopes occurring in ripable rock shall be serrated as shown on the following diagram. These serrations shall be made with conventional equipment as the excavation is made. Each step or serration shall be constructed on the contour and will have steps cut as nominal two-foot intervals with nominal three-foot horizontal shelves. These steps will vary depending on the slope ratio or the cut slope. The nominal slope line is 1:1. These steps will weather and act to hold moisture, lime, fertilizer and seed thus producing a much quicker and longer lived vegetative cover and better slope stabilization. Over land flow shall be diverted from the top of all serrated cut slopes and carried to a suitable outlet.

6. Surface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.

7. Slopes shall not be created to close to property lines as the endanger adjoining properties without adequately protecting such properties against sediment, erosion, slippage, settlement, subsidence or other related damages.

8. Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris, and other objectionable material. It should be free of stones over two (2) inches in diameter where compacted by hand or mechanical tempers over eight (8) inches in diameter where compacted by rollers or other equipment. Frozen material shall not be placed in the fill nor shall the fill material be placed on a frozen foundation.

9. Stockpiles, borrow areas and spoil shall be shown on the plans and shall be subjected to the provisions of the Standard and Specifications.

All disturbed areas shall be stabilized structurally or vegetatively in compliance with 20.0 Standards and Specifications for Vegetative Stabilization.

21.0 Standard and Specifications For Topsoil

<u>Definitions</u>

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose

To provide a suitable soil medium for vegetative growth. Soild of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

and plant nutrients.

This practice is limited to areas having 2:1 or flatter slopes where:

- a. The texture of the exposed subsoil/parent material in not
- adequate to produce vegetative growth. b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture
- c. The original soil to be vegetated contains materials toxic to plant
- d. The soil is so acidic that treatment with limestone is not feasible.

For the purpose of these Standards and Specification, areas having slopes steeper that 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper that 2:1 shall have the appropriate stabilization shown on the

Construction and Material Specifications

Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

- Topsoil Specifications Soil to be used as topsoil must meet the following:
- i. 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 scientist and approved by the appropriate approval authority. Regardless, topsoil shall bot be a mixture of contrastinf textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials large than 1? " in diameter.
- ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or other as specified.
- iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread to the rate of 4-8 tons/acre (200-400 pounds per 1,000square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked in to the soil in conjunction with tillage operations as described in the following procedures.

For sites having disturbed areas under 5 acres:

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

For sites having disturbed areas over 5 acres:

phyto-toxic materials.

Topsoil Application

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 tested soil demonstrates a pH of less the 6.0, sufficient lime shall be prescribed to raise pH to 6.5 or higher.
- b. Organic content of topsoil shall be not less then 1.5 percent by weight.
- c. Topsoil having soluble salt content grater then 500 parts per million shall not be used.
- 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 day min.) to permit dissipation of

Note: Topsoil substitutes or amendments as recommended be a qualified agronomist or soil scientist approved by the appropriate approval authority, may be used in lieu of natural topsoil.

Place topsoil (if required) and apply soil amendments as specified on 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

When topsoiling, maintain needed erosion and sediment control practiced such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fences and Sediment Traps and Basins.

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

Topsoil shall be uniformy distributed in a 4^{H} - 8^{H} 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 water pockets.

Topsoil shall not be place while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil id excessively wet in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

Alternative for Permanent Seeding - Instead of applying the full amounts of like and commercial fertilizer, composted sludge and amendments mat be applied as specified

Composted Sludge Materials for use as a soil conditioner for sites having disturbed 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 originated 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.
- b. Composted sludge shall contain as 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.
- c. Composted sludge shall be applied at a rate of 1 ton/1,000 sauare feet

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.

References: Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub #1, Cooperative Extention Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

30.0 Dust Control

<u>Definition</u>

Controlling dust blowing and movement on construction sites and roads.

To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies

This practice is applicable to areas subject to dust blowing and movement when in and off-site damage is likely without treatment.

<u>Specifications</u>

Temporary Methods

1. Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.

2. Vegetative Cover - See standards for temporary vegetative cover.

3. Tillage – To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12" apart, spring-toothed harrows, and similar plows are examples of equipment whicj may produce the desired

4. Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.

5. Barriers - Soild board fences, silt fences, snow fences, burlap fences, staw bales, and similar materials can be used to control air currents and soil blowing. Barriers placed at right angles to [revailing currents at intervals of about 10 times their height are effective in controlling soil blowing. 6. Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

Permanent Methods

1. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.]

2. Topsoil - Covering with less erosive materials. See Standards for topsoilding.

3. Stone - Cover surface with crushed stone or coarse gravel.

References

1. Aariculture Handbook 346. Wind Erosion Forces in the United State and Their Use in Predicting Soil Loss.

2. Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA - ARS.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: In lieu of soil test recommendations, use one of the following

1. Preferred--Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600

lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq, ft.) before seeding. Harrow or disk into upper three inches of soil At time of seeding apply 400 lbs/acre 30-0-0 urea form fertilizer (9 lbs/1000 sq. 2. Acceptable -- Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 1bs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding -- For the periods March I -- April 30, and August I -- October 15, seed with 60 lbs/acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May I -- July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq, ft.) of weeping lovegrass. During the period of October 16 --February 28, protect site by:

Option I - Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring Option 2 - Use sod. Option 3 -- Seer: with 60 lbs/acre Kentucky 30 Tall Fescue and mulch with 2 tons/acre 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 slope 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance -- Inspect all seeding areas and make needed repairs, replacements and

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Seedbed preparation: -- Loosen upper three inches of soil by raking, disking or other

acceptable means before seeding, if not previously loosened. Soil Amendments: -- Apply 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sa. ft.).

Seeding: -- For periods March I -- April 30 and from August 15 -- October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 -- August 14, seed with 3 lbs/acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 -- February 28 protect the site by applying 2 tons/acre

of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: -- Apply 1-1/2 to 2 tons/acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 ft. or higher, use 348 gal. per acre

(8 gal/1000 sq. ft.) for anchoring. Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

DEVELOPER'S CERTIFICATE

11/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment approved Training Program for the Control of Sediment and Erosion before beginning the project. also authorize periodic on-site inspection by the Howard Soil Conservation District."

LOSSE - (mores Signature of Developer

3-23-07 Date

3.1.07

Date

ENGNEER'S CERTIFICATE

Print name below signature

certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation

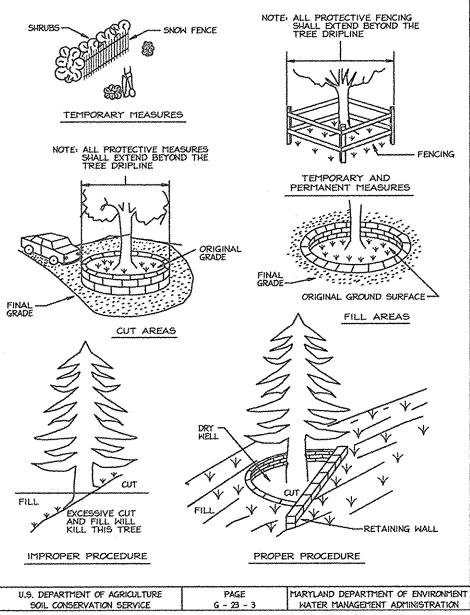
District "

JOHN HOUSEHOLDER, P.E. Print name below signature

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

USDA-Natural Resources, Mindervation Service

is approved for soil erosion and control by the BOWARD SOIL CONSERVATION DISTRICT Date



DETAIL 33 - SUPER SILT FENCE

10' MAXIMUM

WITH 1 LAYER OF FILTER CLOTH

Construction Specifications

Fencing shall be 42° in height and constructed in accordance with the

for a 6' fence shall be used, substituting 42' fabric and 6' length

4. Filter cloth shall be embedded a minimum of 8' into the ground.

develop in the silt fence, or when silt reaches 50% of fence height

latest Maryland State Highway Details for Chain Link Fencing. The specification

2. Chain link fence shall be fastened securely to the fence posts with wire ties.

The lower tension wire, brace and truss rods, drive anchors and post caps are not

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced

5. When two sections of filter cloth adjoin each other, they shall be overlapped

6. Maintenance shall be performed as needed and silt buildups removed when 'builges'

7. Filter cloth shall be fastened securely to each fence post with wire ties or

staples at top and mid section and shall meet the following requirements for

50 lbs/in (min.)

20 lbs/in (min.)

DETAIL 31 - TREE PROTECTION

0,3 gal/ft²/minute (nax.) Test: MSMT 322

FLOV

16' MIN. 1ST LAYER OF FILTER CLOTH*

34" MINIMUM

5° MINIMUM

STANDARD SYMBOL

Testi MSMT 509

Testi MSMT 509

Test MSMT 322

NOTE FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER

THE THE TRETTE &

GROUND / SURFACE

CHAIN LINK FENCING-

every 24° at the top and mid section.

Tensile Strength

Tensile Modulus

U.S. DEPARTMENT OF AGRICULTURE

Filtering Efficiency 75% (min.)

FLOW ____ FILTER CLOTH-

* IF MULTIPLE LAYERS ARE REQUIRED TO ATTAIN 42'

21/2" DIAMETER

GALVANIZED OR ALUMINUM

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS. USDA-Natural Resources, Conservation Service This development plan is approved for soil erosion and sediment control by The HOWARD SOIL CONSERVATION DISTRICT. Howard SCD Date

3.1.07

DATE

HOUSE

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

PROFILE

PLAN VIEW

Length - minimum of 50' (*30' for single residence lot).

50' MINIMUM-

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

to placing stone. **The plan approval authority may not require single family

5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe

installed through the stabilized construction entrance shall be protected with a

has no drainage to convey a pipe will not be necessary. Pipe should be sized

mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe ha

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

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

equivalent shall be placed at least 6" deep over the length and width of the

MINIMUM 6 OF 2'-3' AGGREGATE

** GEOTEXTILE CLASS 'CL

EXISTING GROUND

STANDARD SYTEM

MASCEM!

residences to use acotextile

SOIL CONSERVATION SERVICE

FXISTING PAVEMENT

PIPE AS NECESSARY

HOWARD COUNTY SOIL CONSERVATION DISTRICT

STANDARD SEDIMENT CONTROL NOTES 1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).

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 most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.

3. Following initial soil disturbance or re-disturbance, 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 COUNTY DESIGN MANUAL, Storm Drainage.

5. All disturbed areas must be stabilized within the time period specific above in accordance with the 1995 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Section 52). Temporary stabilization with mulch along can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained by the Howard County Sediment Control Inspector.

7. Site Analysis: Total Area of Site __0.47_ Area to be roofed or paved 0.10 Acres Area to be vegetatively stabilized 0.35 Acres (includes off site) Total Cut 100 Cu. Yds.
Total Fill 100 Cu. Yds. ___Cu. Yds.

Offsite waste/borrow area location: ___

approval by the inspection agency is made.

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

10. On all site with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of instillation of perimeter erosion and sediment controls, but before proceeding with any other earth

9. Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control

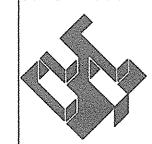
11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized any construction as shown on these plans by the end of each work day, whichever is shorter.

disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial

APPROVED: DEPARTMENT OF PLANNING AND ZONING Chief, Division of Land Development <u>///0/0)</u> Director, Department of Planning and Zoning No. Revision Description JASON SUBDIVISION. LOT 2, COUNTRY COURT SINGLE FAMILY HOME CONSTRUCTION

OWER / DEVELOPER 4825 COUNRTY COURT ANDRA GRIMES

CONTACT: ANDRA GRIMES TEL. (410) 992-3883 FAX (915) 990-3883



christopher consultants engineering - surveying - land planning christopher consultants, ltd.

7172 columbia gateway drive (suite 100) - columbia, md. 21046-2990

ELLICOTT CITY, MARYLAND 21042

ADDRESS CHA LOT/PARCEL STREET ADDRESS 4815 COUNTRY COURT 2 / 48 PERMIT INFORMATION CHART PROJECT NAME LOT/PARCEL NO. CENSUS TRACT JASON SUBDIVISION LOT 2 / PARCEL 418 602306 LOT 2, COUNTRY COURT PLAT NO. GRID NO. ZONE TAX MAP ELECTION DISTRICT 9 R-20 02 WATER CODE SEWER CODE

410.872.8690 - motro 301.881.0148 - fax 410.872.8693

EROSION AND SEDIMENT CONTROL

NOTES & DETAILS SCALE: AS SHOWN PROJECT: 06D801.00 DESIGN: KWS DRAWN: DAM DATE: JANUARY 2007 8 CHECKED: ENJ APPROVED: JMH O of

SDP-07-029

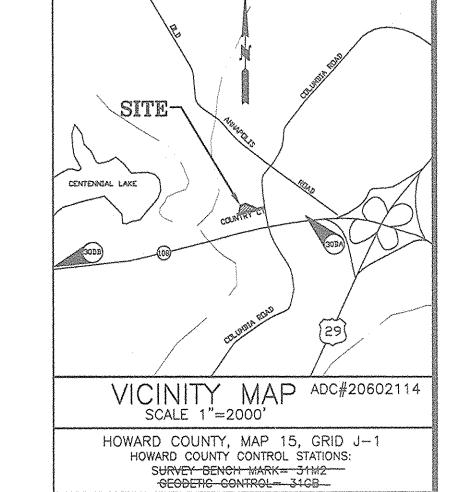
P/iProjects\06D801\-MDC-XXXX\-MDC-546 SDP\06-ESCNOTES.dwg, Layout1, 2/28/2007 12:20:26 PM

PLANT_LIST							
QTY.	SYMBOL :	SCIENTIFIC NAME	COMMON NAME	SIZE SI	PACING/COMMENTS		
<u>SHAD</u> 2 3	E TREES PA AP	PLATANUS x ACERIFOLIA ACER PLATANOIDES	'BLOODGOOD' LONDON PLANETREE 'CRIMSON KING' NORWAY MAPLE	2 1/2" - 3" CAL. 2 1/2" - 3" CAL.	B\$B B\$B		
<u>EVER</u> 3	EVERGREEN TREES 3 NS PICEA ABIES NORWAY SPRUCE 6' - 8' HT. B#B						
<u>ORNA</u> 3 2	MENTAL TRI PY CK	EES PRUNUS YEODENSIS CORNUS KOUSA	YOSHINO CHERRY KOUSA DOGWOOD	8' - 10' HT. 8' - 10' HT.	B\$B B\$B		



CATEGORY	ADJACENT TO PERIMETER PROPERTIES			
PERIMETER	PI	P 2	Р 3	
LANDSCAPE TYPE "A" L.F. OF PER.	197 LF.	156 LF.	167 LF.	
CREDIT FOR EX. VEG. BELOW IF NEEDED	. N/A	N/A	NA	
PERM. L.F. OF PERIMETER (PERIMETER- CREDIT)	N/A	N/A	N/A	ericary internativación que esta constitución de está constitución de está constitución de está constitución d
NO. OF PLANTS REQ. SHADE TREES EVG. TREES SHRUBS	3 0 0	3 0 0	3 0 0	TOTAL 9 0 0
NO. OF PLANTS PROV. SHADE TREES EVG. TREES OTHER TREES SHURBS	3 0 0	1* 2 2 0	1* 1 3 0	5 3 5 0

* NOTE;
P2 - 2 ORNAMENTAL TREES AND 2 EVERGREEN TREES SUBSTITUTED FOR 2 SHADE TREES FOR 2 SHADE TREES



BENCH MARKS
 BM#
 NORTHING
 EASTING
 ELEVATION
 DESCRIPTION

 TR100
 573342.233
 1358092.104
 353.26
 60 penny nail set
 60 penny nail set

SM11 573279.986 1355957.780 355.15 Rim of Sewer Manhole No.11 <u>LEGEND</u> territoria mariatza mariania mangan Rife a antari EXISTING CONTOURS EXISTING STORM DRAIN EX. 6° SAN EXISTING SANITARY SEWER EX. 6" WATER EXISTING WATER EXISTING FENCE PROPERTY LINE PROPOSED STORMDRAIN

TREELINE BIORETENTION AREAS

PROPOSED SEWER PROPOSED WATER BUILDING RESTRICTION LINES ----

PROPOSED ORNAMENTAL TREE

PROPOSED SHADE TREE

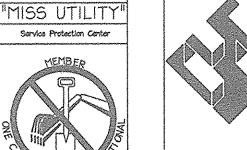
PROPOSED EVERGREEN TREE

APPROVED: DEPARTMENT OF PLANNING AND ZONING 7/60/07 Date Director, Department of Planning and Zoning

Revision Description Date No. JASON SUBDIVISION,
LOT 2, COUNTRY COURT
SINGLE FAMILY HOME CONSTRUCTION

OWER / DEVELOPER

ANDRA GRIMES ELLICOTT CITY, MARYLAND 21042
CONTACT: ANDRA GRIMES TEL. (410) 992-3883 FAX (915) 990-3883



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ADDRESS CHART LOT/PARCEL STREET ADDRESS 4815 COUNTRY COURT 2 / 418

	I I demonstrate () o
w o	JASON SUB LOT 2, COU
Control of the contro	PLAT NO. 10275 WATER CO TITLE:

~ / TIV					
ERMIT INI	FORMATIC	N CHART			
ROJECT NA	ME	LOT/PARCEL NO.		CENSUS TRACT	
ASON SUBDIVISION OT 2, COUNTRY COURT		LOT 2 / PARCEL 418		602306	
AT NO. 275	GRID NO. 9	ZONE R-20	TAX MAP 30	ELECTION DISTRICT 02	
NATER CODE PUBLIC			SEMER CODE PUBLIC		
TTLE:					
LANDSCAPE PLAN					

LANDSCAPE PLAN

DESIGN: LNG SCALE: I" = 30' PROJECT: 06D801.00 DATE: FEBRUARY 2007 CHECKED: BKC APPROVED:

2.28.07

43 Houre Before You Dig Call

CALL TOLL FREE

1-800-257-7777

	P2 - 2 ORNAMENTAL TREES AND 2 EVERGREEN TREES SUBSTITUTED FOR P3 - 3 ORNAMENTAL TREES AND I EVERGREEN TREE SUBSTITUTED FOR
Porcet 44 Thomas W. Font Kelly S. Font 3754/277 A) Right of Way Reserved on Page 71 N 203504 E Page 1 Page 71 N 203504 E Page 7 Page 7 N 20	
2-CK 2-AP 1-PA	- SAT SOME - SAT
Howard J., Grimes Margaret Joan Grimes T/E JOST 32/15 sq.ft ASSAUT ASSAUT Development ASSAUT Development	VEHICULAR INGRESS AND EGRESS IS RESTRICTED
I-PA STATES	NOT SELVE SERVICES
SERVEY CLEANING EX. Right-of-way Line as per S.R.C. Plat No.'s 49863 and 48773 EX. Right-of-way Line as per S.R.C. Plat No.'s 49863 and 48773 EX. Right-of-way Line as per S.R.C. Plat No.'s 49863 and 48773	0 SC 7 SE CON TRANSPORTE DE LA CONTRACTION DEL CONTRACTION DE LA C

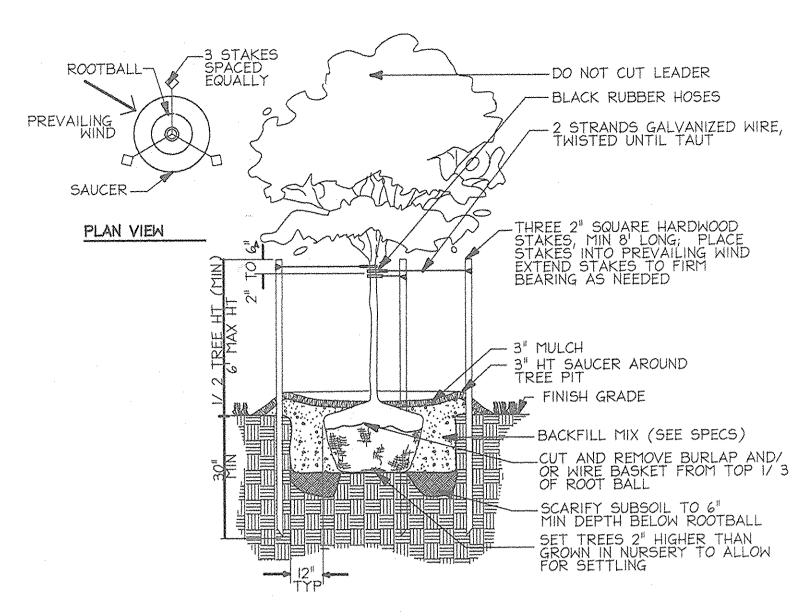
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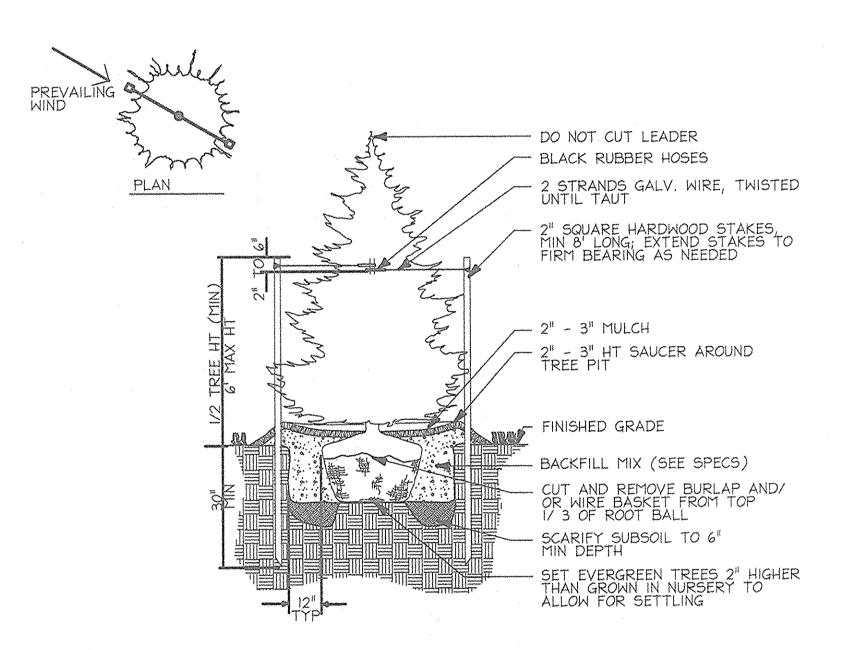
GENERAL PLANTING NOTES

- I. ALL PLANT MATERIAL TO MEET A.A.N. STANDARDS
- 2. LANDSCAPING CONTRACTOR TO FOLLOW LANDSCAPE SPECIFICATION GUIDELINES FOR
- BALTIMORE- WASHINGTON METRO AREA APPROVED BY LCAMW. 3. NO SUBSTITUTIONS TO BE MADE WITHOUT CONSENT OF LANDSCAPE ARCHITECT OR OWNER.
- 4. IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO THE COMMENCEMENT OF WORK, SOD QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO BIDDING. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN SIZES AS SPECIFIED IN THE PLANT LIST.
- 5, ALL BEDS TO BE TOPPED WITH THREE INCHES OF HARDWOOD MULCH.
- 6. LANDSCAPE CONTRACTOR TO VERIFY LOCATION OF UTILITIES WITH OWNERS BEFORE PLANTING. 7. LANDSCAPE ARCHITECT/OWNER SHALL SELECT, VERIFY AND/OR APPROVE ALL PLANT MATERIAL.
- AT OWNER'S DISCRETION, SPECIMEN AND OTHER PLANT MATERIAL WILL BE SELECTED. 8. LANDSCAPE CONTRACTOR SHALL COORDINATE PLANT BED FILLING OPERATIONS AND PLANT
- MATERIAL INSTALLATION WITH WITH GENERAL CONTRACTOR AND UTILITIES CONTRACTOR. AT THE TIME OF FINAL INSPECTION WITH ACCEPTANCE, ALL ELECTRIC, WATER, DRAINAGE, AND FOUNTAIN UTILITIES, AS WELL AS ALL PLANT MATERIALS, SHALL REMAIN UNDAMAGED. LIKEWISE, LANDSCAPE CONTRACTOR AND UTILITIES CONTRACTOR SHALL COORDINATE EFFORTS TO ENSURE THAT SURFACE UTILITIES ARE AT THE PROPER ELEVATION RELATIVE TO FINAL GRADES.
- 9. CONTRACTOR SHALL NOTIFY MISS UTILITY 72 HOURS PRIOR TO CONSTRUCTION.
- 10. THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENTANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- II. TOPSOIL MIX
- a. Planting mix shall be prepared at approved on-site staging area using approved on-site existing soil. Mix minimum quantities of 20 cubic yards or sufficient mix for entire job if less than 20 cubic
- b. Thoroughly mixed in the following proportions for tree and shrub planting mix:
- .5 cy existing soil
- .2 cy sharp sand
- .3 cy wood residuals
- 4.5 lbs treble superphosphate 5 lbs dolmonite limestone (eliminate for acid loving plants)
- c. For bed planting, shrubs and groundcover spaces 24 inches or closer, incorporate the following ingredients per 20 sf and incorporate into top 8 inches of existing soils by rotatilling or
- similar method of incorporation.
- .2 cy sharp sand .3 cy organic material
- 4.5 lbs treble superphosphate
- 5 lbs dolmonite limestone (eliminate for acid loving plants)
- 12. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HO.CO. CODE. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$2,700.00 MUST BE POSTED AS PART OF THE DEPARTMENT OF PUBLIC WORKS DEVELOPER'S AGREEMENT. (9 SHADE TREES).
- 13. DEVELOPER'S BUILDER'S CERTIFICATE I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPING MANUAL. I/WE FURTHER CERTIFY THAT UPON TREES COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

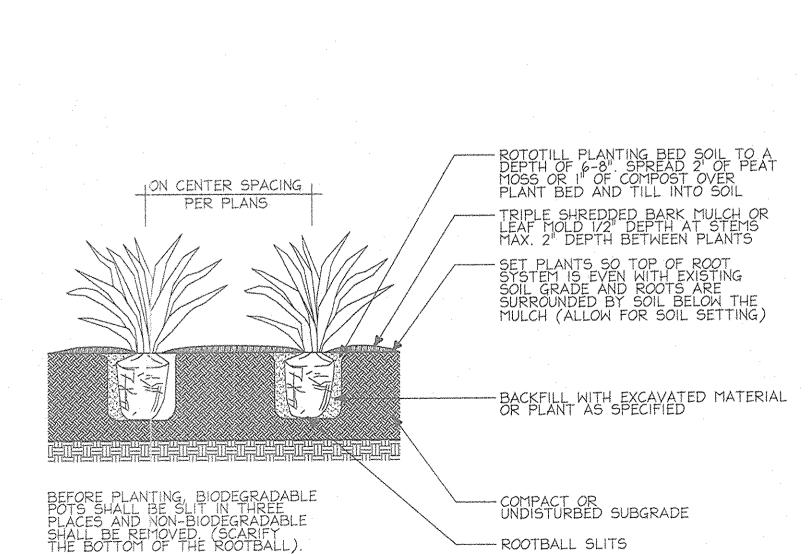
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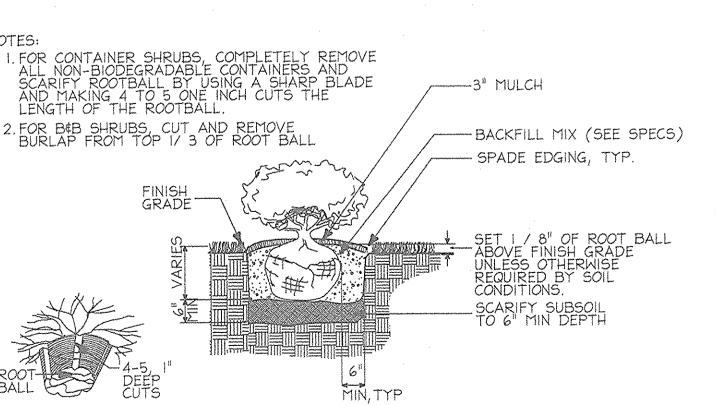
Tree Planting Detail







Perennial Planting Detail Not To Scale

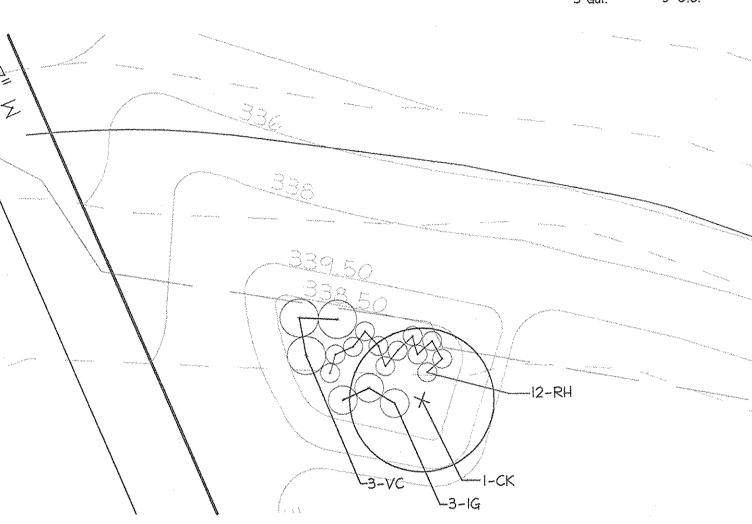


Shrub Bed Planting Detail Not To Scale

BIORETENTION #1 PLANT LIST:

Scale: 1" = 10'

SYMBOL	LATIN NAME	COMMON NAME	QUANTITY	SIZE	REMARKS
CK	Cornus Kousa	Kousa Dogwood	100	10'-12' HT.	B & B
IG	llex Glabra	Inkberry Holly	3	3 Gal.	4' O,C.
VC	Viburnum Carlessii	Koreanspice Viburnum	3	3 Gal.	31 O.C.
RH	Rudbeckia Hirta	Black Eyed Susan	12	I Gal.	2' O.C.
				1 Gal.	21 O.C.
				3 Gal.	51 O.C.



Bioretention #1 Planting Detail

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director, Department of Planning and Zoning

Date No. Revision Description JASON SUBDIVISION,
LOT 2, COUNTRY COURT
SINGLE FAMILY HOME CONSTRUCTION

OWNER / DEVELOPER

ANDRA GRIMES ELLICOTT CITY, MARYLAND 21042
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2.28.07

DATE

christopher consultants engineering · surveying · land planning christopher consultants, ltd.

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OT/PARCEL STREET ADDRESS

4815 COUNTRY COURT 2 / 418 PERMIT INFORMATION CHART PROJECT NAME

CENSUS TRACT JASON SUBDIVISION 602306 LOT 2, COUNTRY COURT PLAT NO. | GRID NO. | ZONE ELECTION DISTRICT 9 30 WATER CODE SEWER CODE PUBLIC

LANDSCAPE DETAIL SHEET

PROJECT: 06D801.00 SCALE: |" = 30" DATE: FEBRUARY 2007 8 of 8CHECKED: JMH APPROVED:

SDP-07-029

