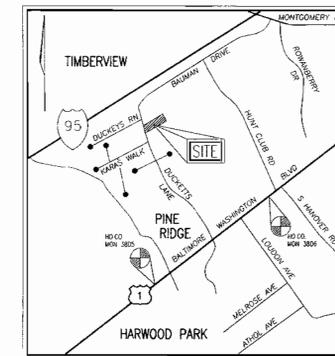


GENERAL NOTES

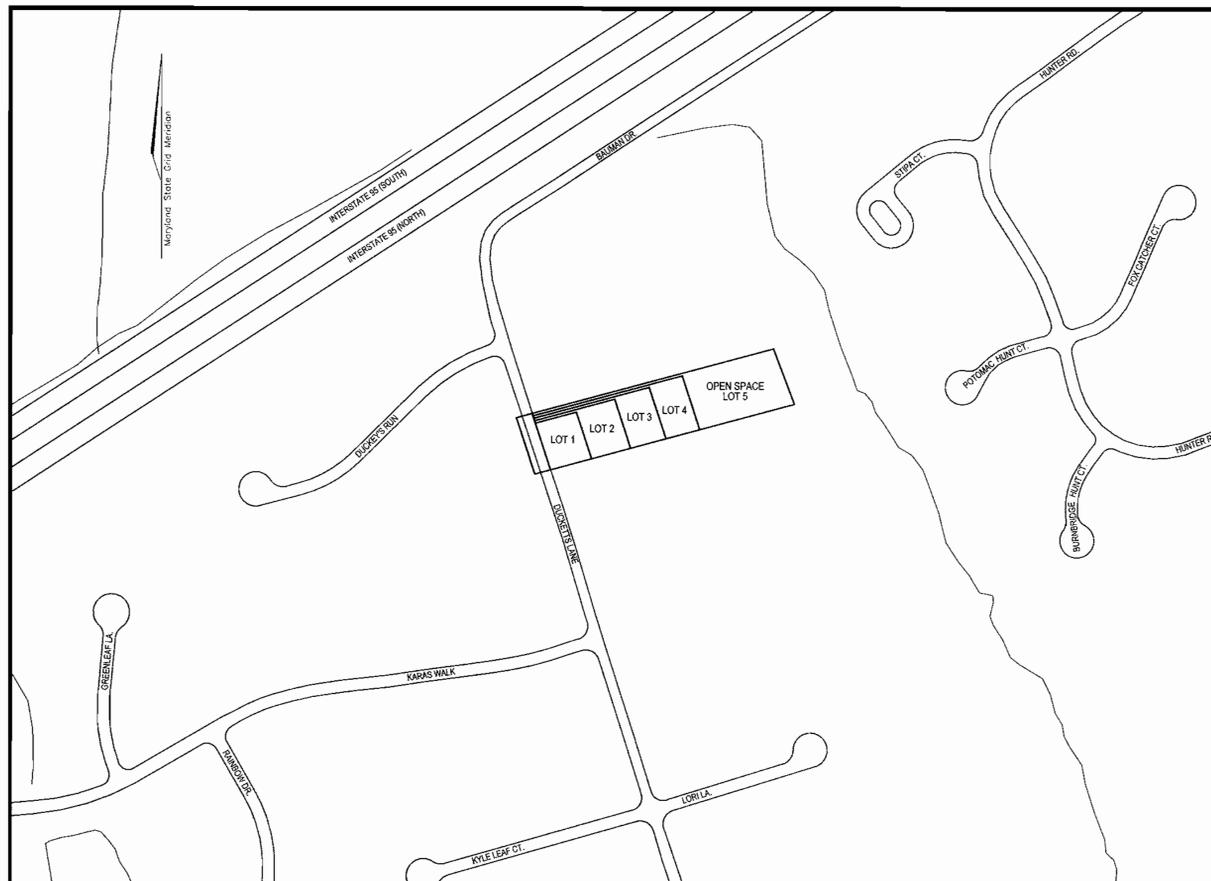
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 MISS UTILITY 1-800-257-7777
 BELL ATLANTIC TELEPHONE CO. 725-9376
 HOWARD COUNTY BUREAU OF UTILITIES: 313-2366
 AT&T CABLE LOCATION DIVISION: 393-3553
 B.G.&E. CO. CONTRACTOR SERVICES: 850-4620
 B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 787-4620
 STATE HIGHWAY ADMINISTRATION: 531-5533
- THE SUBJECT PROPERTY IS ZONED R-12 AS PER THE 10/18/93 COMPREHENSIVE ZONING PLAN.
- SITE ANALYSIS:
 AREA OF SITE: 86,678 SF (1.99 AC.)
 AREA OF PLAN SUBMISSION: 86,678 SF (1.99 AC.)
 TOTAL NUMBER OF BUILDABLE LOTS: 4
 TOTAL NUMBER OF CREDITED OPEN SPACE LOTS: 1 (OPEN SPACE LOT 5)
 TOTAL NUMBER OF NON-CREDITED OPEN SPACE LOTS: 0
 AREA OF OPEN SPACE REQUIRED: 1.99 AC. x 0.10 = 0.199 AC OR 8668 SF
 AREA OF OPEN SPACE PROVIDED: 0.7694 AC. OR 33,513 SF (36%)
 PRESENT ZONING: R-12
 LIMIT OF DISTURBANCE: 46,680 SF±
 PROPOSED USE OF SITE: SINGLE FAMILY DWELLING
 TOTAL UNITS ALLOWED: 4
 TOTAL UNITS PROPOSED: 4
- PROJECT BACKGROUND:
 LOCATION: TAX MAP: 37 PARCEL: 533 BLOCK: 12
 ZONING: R-12
 WHITEHEAD PROPERTY
 DEED REFERENCE: LIBER 6067 FOLIO 58
 DPZ REFERENCES: F-02-071, WP-02-105 (APP. 6/11/02)
- 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 START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE.
- 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.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOILS TEST.
- COORDINATES AND ELEVATIONS ARE BASED ON HOWARD COUNTY MONUMENT NO'S. 38D5 AND 38D6.
- EXISTING TOPOGRAPHY IS BASED ON A FIELD SURVEY PREPARED BY FREDERICK WARD ASSOCIATES, INC., DATED APRIL 2001.
- THE PROPERTY OUTLINE IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED BY FREDERICK WARD ASSOCIATES, INC., DATED APRIL 2001.
- PUBLIC WATER SERVICE FOR LOTS 1 AND 2 WILL BE GRANTED UNDER CONTRACT NO. 510-W. PUBLIC WATER SERVICE FOR LOTS 3 AND 4 WILL BE GRANTED UNDER CONTRACT NO. 14-3268-D. PUBLIC SEWER SERVICE FOR LOT 1 WILL BE GRANTED UNDER CONTRACT NO. 10-1241. PUBLIC SEWER SERVICE FOR LOTS 2-4 WILL BE GRANTED UNDER CONTRACT NO. 14-4057-D.
- THERE ARE NO STEEP SLOPES LOCATED ON THIS PROPERTY.
- NO BURIAL GROUNDS OR CEMETERIES ARE LOCATED ON THIS PROPERTY.
- NO STREAMS OR WETLANDS EXIST ON SITE PER A FIELD INSPECTION AND CERTIFICATION PROVIDED BY FREDERICK WARD ASSOCIATES, INC., DATED MAY 2001.
- THERE IS NO 100-YR FLOODPLAIN ON SITE.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENT OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 A) WIDTH - 12 FEET (14 FEET IF SERVING MORE THAN ONE RESIDENCE)
 B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING
 C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS
 D) STRUCTURES (CULVERTS/BRIDGES) - MUST SUPPORT 25 GROSS TON LOADING (H25 LOADING)
 E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
 F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
 G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE
- ALL DRIVEWAY APRONS TO BE PER HOWARD COUNTY STANDARD DETAIL NO.'S R-6.05 & R-6.01 UNLESS OTHERWISE NOTED.
- THE FOREST CONSERVATION EASEMENT SHOWN HEREON HAS BEEN ESTABLISHED UNDER F-02-71 TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT. ANY UNAUTHORIZED ACTIVITIES THAT RESULT IN ADDITIONAL CLEARING, OR THAT AFFECT PROPOSED PLANTING/RETENTION AREAS SHOWN ON THE FOREST CONSERVATION PLAN MAY RESULT IN A REQUEST FOR A RECALCULATION OF FOREST CONSERVATION REQUIREMENTS AND DESIGNATION OF ADDITIONAL PLANTING/RETENTION AREAS IF NEEDED TO MEET THE OBLIGATIONS OF THE FOREST CONSERVATION PROGRAM. ANY FUTURE RESUBDIVISION, DEVELOPMENT, OR CHANGE IN LAND USE MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.
- THE FOREST CONSERVATION OBLIGATIONS FOR THIS DEVELOPMENT HAVE BEEN FULFILLED UNDER F-02-071 IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION ACT BY PROVIDING 0.5737 ACRES OF ON-SITE AFFORESTATION AND BY PAYMENT OF A FEE-IN-LIEU FOR THE REMAINING 0.0663 ACRES OF OBLIGATION. FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED AND ARE CONTAINED WITHIN OPEN SPACE LOT 5 AS SHOWN ON RECORD PLAT F-02-071. FINANCIAL SURETY FOR THE ON-SITE AFFORESTATION IN THE AMOUNT OF \$12,495.00 HAS BEEN POSTED AS PART OF DEVELOPERS AGREEMENT AND PAYMENT OF THE FEE-IN-LIEU IN THE AMOUNT \$1,444.02 HAS BEEN PAID PRIOR TO THE RECORDATION OF FINAL PLAT F-02-071.
- LANDSCAPING FOR LOTS 1-4 IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED SHADE TREES AND 360 LF OF NOISE WALL IN THE AMOUNT OF \$12,300.00 HAS BEEN POSTED AS PART OF DEVELOPER AGREEMENT NO. F-02-071
- THE NOISE BARRIER WALL WILL BE CONSTRUCTED OF PRESSURE TREATED WOOD AND WILL BE A MAXIMUM HEIGHT OF 7 FEET. THE NOISE WALL WILL BE LOCATED WITHIN OPEN SPACE LOT 5 AND WILL BE CONSTRUCTED FAR ENOUGH AWAY FROM COMMON LOT LINE WITH ADJACENT PACEL 389 TO ALLOW FOR MAINTENANCE WITHOUT ENCROACHMENTS ONTO THE ADJACENT PARCEL. MAINTENANCE OF THE NOISE WALL WILL BE THE RESPONSIBILITY OF THE HOMEOWNERS ASSOCIATION AS DESCRIBED IN THE DECLARATION OF MAINTENANCE OBLIGATION RECORDED SIMULTANEOUSLY WITH PLAT F-02-071 AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND.

SITE DEVELOPMENT PLAN WHITEHEAD PROPERTY LOTS 1-4 AND OPEN SPACE LOT 5 HOWARD COUNTY, MARYLAND

BENCHMARKS			
NO.	NORTHING	EASTING	ELEVATION
3805	558,378.575	1,386,524.157	193.726
3806	557,155.459	1,384,992.261	175.228



VICINITY MAP
SCALE: 1"=200'



LOCATION MAP
SCALE: 1"=200'

MINIMUM LOT SIZE CHART			
LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
2	12,001 SF	601 SF	11,401 SF
3	12,009 SF	1,171 SF	10,838 SF
4	12,515 SF	1,688 SF	10,827 SF

ADDRESS CHART		
LOT #	STREET ADDRESS	
1	6005 DUCKETTS LANE	
2	6003 DUCKETTS LANE	
3	6001 DUCKETTS LANE	
4	6050 DUCKETTS LANE	

PERMIT INFORMATION CHART					
PROJECT NAME	SECTION/AREA	PARCEL NUMBER			
WHITEHEAD PROPERTY	N/A	533			
PLAT REF. 15743	BLOCK NO. 12	ZONE R-12	TAX MAP 37	ELECT. DIST. 1ST	CENSUS TR. 6012.02
WATER CODE: D-07		SEWER CODE: 2152700			

SHEET INDEX	
DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 3
SITE DEVELOPMENT PLAN	2 OF 3
SEDIMENT AND EROSION CONTROL DETAILS	3 OF 3

NO.	REVISION	DATE

- STORMWATER MANAGEMENT FACILITIES ARE REQUIRED AND WERE APPROVED UNDER F-02-71 IN ACCORDANCE WITH THE DESIGN MANUALS. Cpv (QUALITY CONTROL): EXEMPT; THE Q IS LESS THAN 2 CFS. Rev AND WQv PROVIDED BY ROOFTOP DRYWELLS ON LOTS 1-4 AND DRY SWALE ON OPEN SPACE LOT 5.
- THIS PLAN IS SUBJECT TO THE 5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- WP-02-105 APPROVED JUNE 11, 2002 TO WAIVE SECTION 16.121.(e),(1) TO REDUCE THE REQUIRED MINIMUM 40-FOOT ROAD FRONTAGE FOR A REQUIRED OPEN SPACE LOT OR AREA AND TO WAIVE SECTION 16.120.(b),(4),(v) WHICH REQUIRES THAT RESIDENTIAL LOTS BE DESIGNED TO BE USABLE IN TERMS OF NOT BEING ENCUMBERED BY ACCESS EASEMENTS FOR STORMWATER MANAGEMENT FACILITIES OR OPEN SPACE SUBJECT TO THE FOLLOWING CONDITIONS:
 A) INCREASE BY 10' THE 7.5' SIDE BUILDING RESTRICTION LINE ON ADJACENT LOT 4 TO BE 17.5'
 B) COMPLIANCE WITH SRC COMMENTS FOR F-02-071
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL, AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE FLAG OR PIPESTEM LOT DRIVEWAY.
- OPEN SPACE OF 33,513 SF (0.7694 AC), MAINTAINED AND OWNED BY HOA, HAS BEEN PROVIDED FOR THIS DEVELOPMENT UNDER F-02-71.
- DECLARATION OF MAINTENANCE OBLIGATION FOR PRIVATE USE-IN-COMMON ACCESS EASEMENT SERVING LOTS 1-5 AND THE NOISE BARRIER WALL HAS BEEN RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 6752, FOLIO 573 SIMULTANEOUSLY WITH PLAT F-02-71.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION MWD DATE 2/6/03

 CHIEF, DIVISION OF LAND DEVELOPMENT DATE 2/6/03

 DIRECTOR DATE 2/5/03

ENGINEERS CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

 SIGNATURE OF ENGINEER ROBERT H. VOGEL DATE 1/29/03

DEVELOPER'S CERTIFICATE
 I, WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN 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.

 SIGNATURE OF DEVELOPER DATE 1-15-03

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

 USA-NATURAL RESOURCES CONSERVATION SERVICE DATE 1/29/03
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

 HOWARD SCD DATE 1/29/03

OWNERS/DEVELOPERS
 CATAL DEVELOPMENT, LLC
 5054 DORSEY HALL DRIVE
 ELLICOTT CITY, MARYLAND 21042
 (410) 465-7200

COVER SHEET
WHITEHEAD PROPERTY
LOTS 1-4 AND OPEN SPACE LOT 5
 TAX MAP 37 BLOCK 12 PARCEL "533"
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 REF.: F-02-071, WP-02-105 (APP. 6/11/02)

FREDERICK WARD ASSOCIATES, INC.
 ENGINEERS: 7125 Riverwood Drive Columbia, Maryland 21046-2354
 ARCHITECTS: Phone: 410-290-9550 Fax: 410-720-6226
 SURVEYORS: Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

DESIGN BY: RHW
 DRAWN BY: CMH, ELW
 CHECKED BY: RHW
 DATE: DECEMBER 2002
 SCALE: AS SHOWN
 W.O. NO.: 2014024.0

1 SHEET OF 3
 ROBERT H. VOGEL, PE No. 16193

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

DEFINITION
 PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE
 TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES
 I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS
 I. 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.
 II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 A. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILTY LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED 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 AND 1/2" IN DIAMETER.
 B. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 C. 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 AS DESCRIBED IN THE FOLLOWING PROCEDURES.
 D. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 1. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

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 AS DESCRIBED IN THE FOLLOWING PROCEDURES.
 D. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 1. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
- 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.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 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 SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. C). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 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.
- SITE ANALYSIS:

TOTAL AREA	88,678 SF
AREA DISTURBED	45,881 SF
AREA TO BE ROOFED OR PAVED	14,633 SF
AREA TO BE VEGETATIVELY STABILIZED	31,848 SF
TOTAL CUT	2,000 CY
TOTAL FILL	2,000 CY

 OFFSITE WASTE/BORROW AREA LOCATION
- 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 CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 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.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDING 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 ONE OF THE FOLLOWING SCHEDULES:
 1) PREFERRED-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/100 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 THE TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREA-FORM FERTILIZER (8 LBS./1000 SQ.FT.)
 2) ACCEPTABLE-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/100 SQ.FT.) AND APPLY 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 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.5 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS DURING THE PERIOD OF OCTOBER 15 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE WELLS ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELLS 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 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

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

TEMPORARY SEEDING NOTES

SEEDING 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 PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.7 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELLS ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

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 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

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

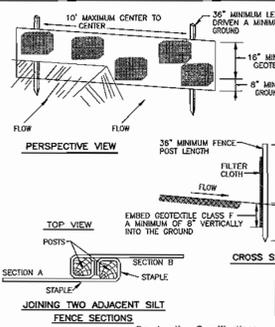
SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410.313.1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES. (1 DAY)
- INSTALL SILT FENCE. (2 DAYS)
- AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED, ROUGH GRADE SITE. (4 DAYS)
- CONSTRUCT HOUSE. (4 MONTHS)
- FINAL LOT GRADE TO BE IN SUBSTANTIAL CONFORMANCE WITH SITE DEVELOPMENT PLAN. (2 DAYS)
- DURING GRADING AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE THE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN HEREON.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL.
 B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS, STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES, SLOPES AND ALL SLOPES GREATER THAN 3:1.
- UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES.



GENERIC BOX 'A'
 ALL HOUSE TYPES, WITHOUT OPTIONS
 *OPTIONS NOT SHOWN AS PART OF GENERIC BOX
 SEE MINIMUM HOUSE TYPES FOR OPTION AVAILABILITY

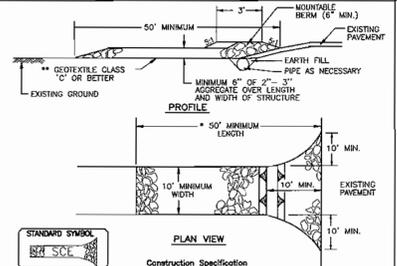
DETAIL 22 - SILT FENCE



- Construction Specifications
- Fence posts shall be a minimum of 2" diameter 1/2" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 1/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot.
 - Geotextile 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 Geotextile Class F:
 Tensile Strength: 50 lbs/in (min.) Test: MSMT 509
 Tensile Modulus: 20 lbs/in (min.) Test: MSMT 508
 Flow Rate: 0.3 gal/ft²/minute (max.) Test: MSMT 322
 Filtering Efficiency: 75% (min.) Test: MSMT 322
 - Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
 - Silt Fence shall be inspected after each rainfall event and maintained when rills occur or when sediment accumulation reaches 50% of the fabric's height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 5 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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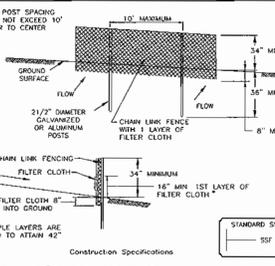
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



- Construction Specifications
- Length - minimum of 50' (± 30' for a single residence lot).
 - Width - 10' minimum, should be flared at the existing road to provide a turning radius.
 - Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. ** The plan approval authority may not require single family residences to use geotextile.
 - Stone - crushed aggregate (3/4" to 3/8") or retained or recycled aggregate equivalent shall be placed at least 6" deep over the length and width of the entrance.
 - Surface Water - all surface water flowing to or diverted toward construction entrance shall pass through the entrance, maintaining positive drainage away from the stabilized construction entrance. The entrance shall be protected with a mounded berm with 3:1 slopes and a minimum of 6" of stone. A pipe shall be placed through the entrance to the grade. Where the pipe is located at a high spot and has no drainage to convey, a pipe will not be necessary. Pipe should be sized according to the requirements for the site. A 6" minimum will be required.
 - Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site, regardless of the site must travel over the entire length of the stabilized construction entrance.

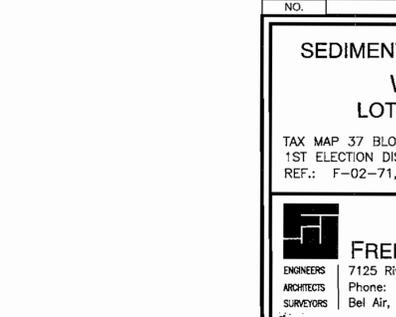
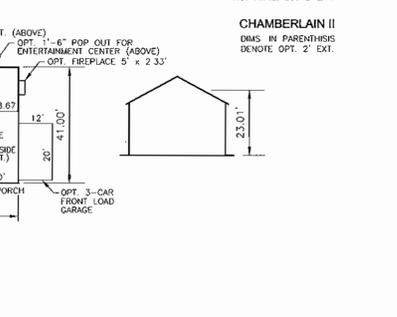
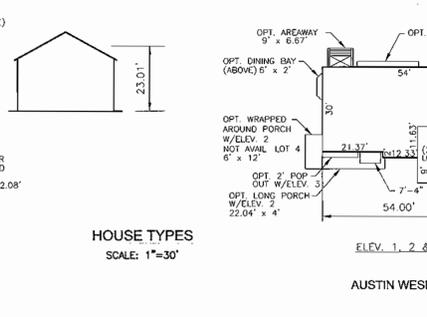
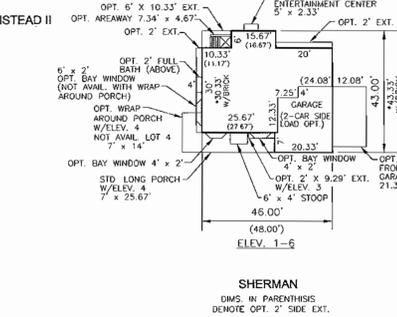
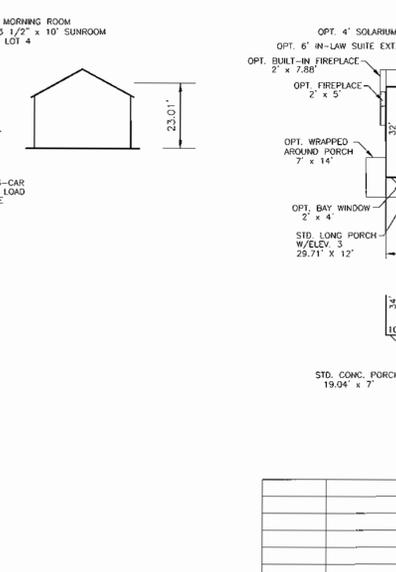
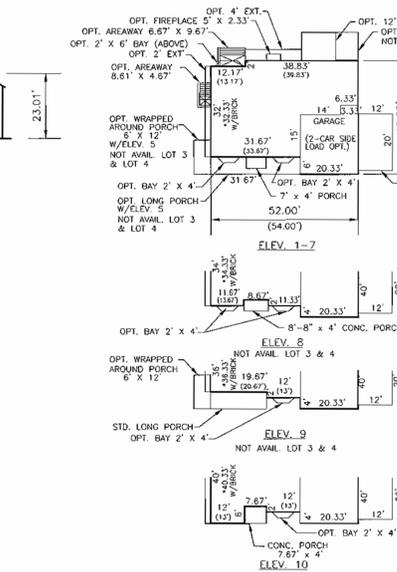
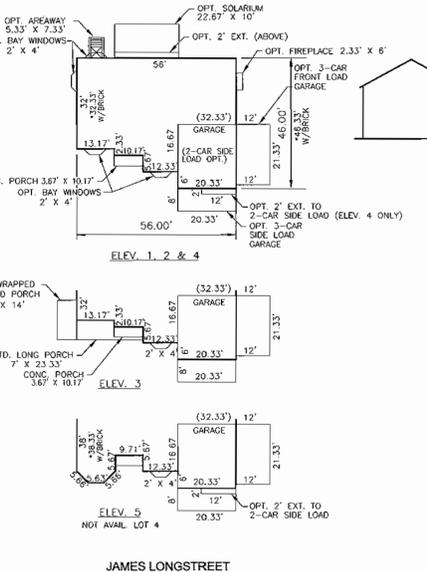
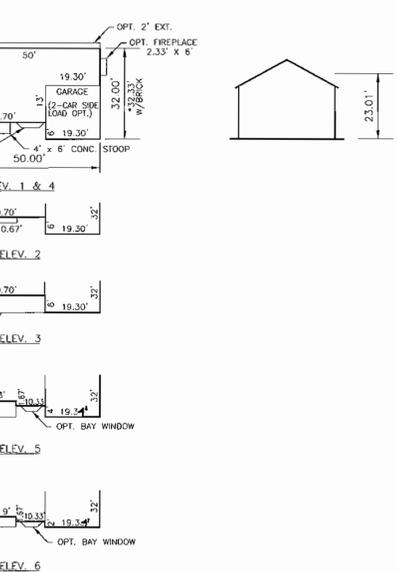
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 11 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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DETAIL 33 - SUPER SILT FENCE



- Construction Specifications
- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Design for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6" length posts.
 - 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 required except on the ends of the fence.
 - 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.
 - When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and fastened.
 - Maintenance shall be performed as needed and silt buildings removed when "bumps" develop in the silt fence, or when silt reaches 50% of fence height.
 - Filter cloth shall be fastened securely to the chain link fence with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:
 Tensile Strength: 50 lbs/in (min.) Test: MSMT 509
 Tensile Modulus: 20 lbs/in (min.) Test: MSMT 508
 Flow Rate: 0.3 gal/ft²/minute (max.) Test: MSMT 322
 Filtering Efficiency: 75% (min.) Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G - 28 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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ENGINEERS CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: Robert H. Vogel
 DATE: 1/14/03

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN 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.
 SIGNATURE OF DEVELOPER: Robert H. Vogel
 DATE: 1-15-03

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
 SIGNATURE OF REVIEWER: John R. Robertson
 DATE: 1/29/03

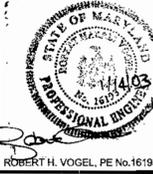
NO. REVISION DATE

SEDIMENT AND EROSION CONTROL DETAILS
 WHITEHEAD PROPERTY
 LOTS 1-4 AND OPEN SPACE LOT 5

TAX MAP 37 BLOCK 12 PARCEL '533'
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 REF.: F-02-71, WP-02-105 (APP. 6/11/2002)

FREDERICK WARD ASSOCIATES, INC.
 ENGINEERS: 7125 Riverwood Drive Columbia, Maryland 21046-2354
 ARCHITECTS: Phone: 410-290-9550 Fax: 410-720-6226
 SURVEYORS: Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

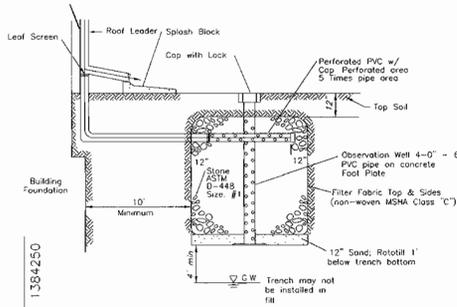
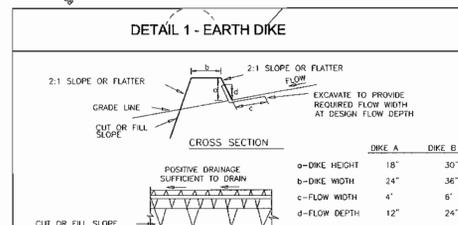
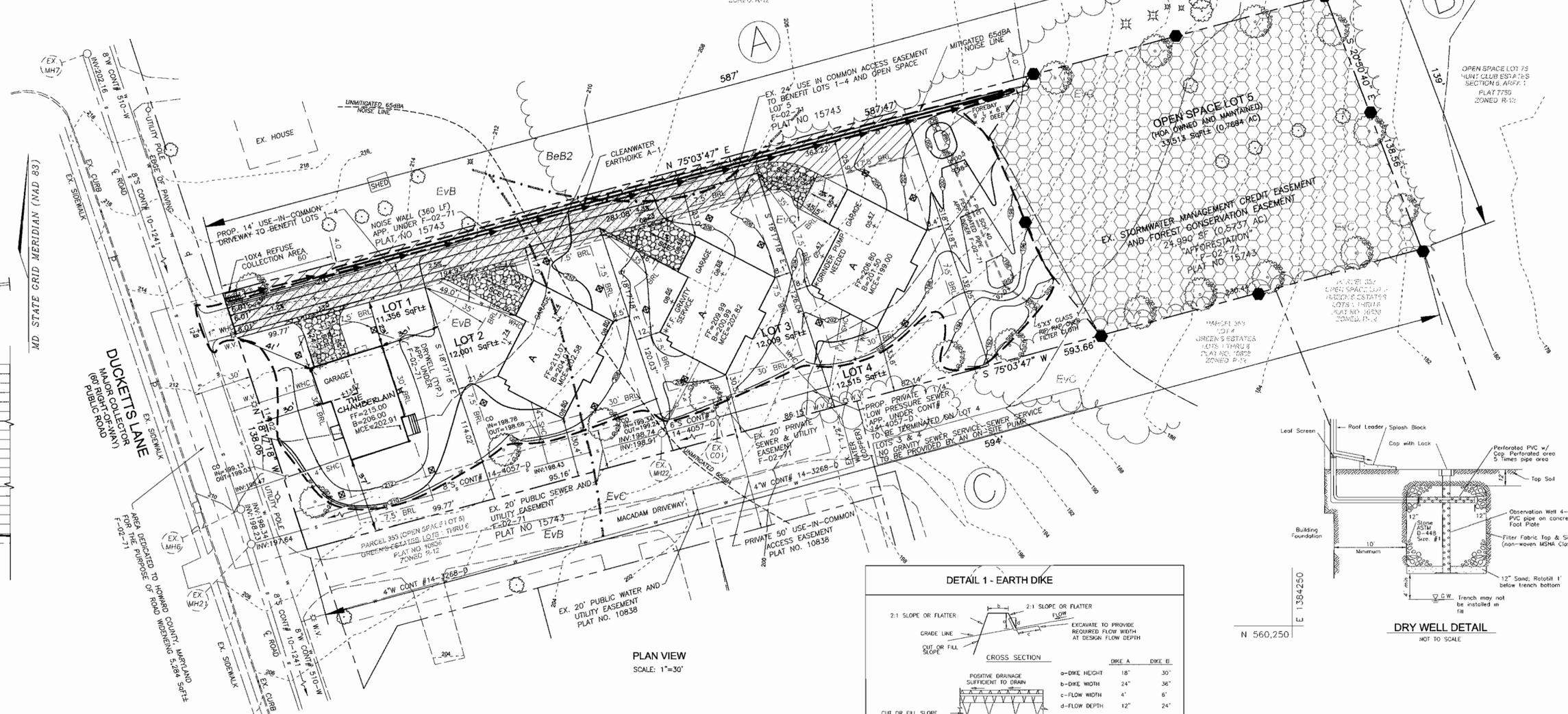
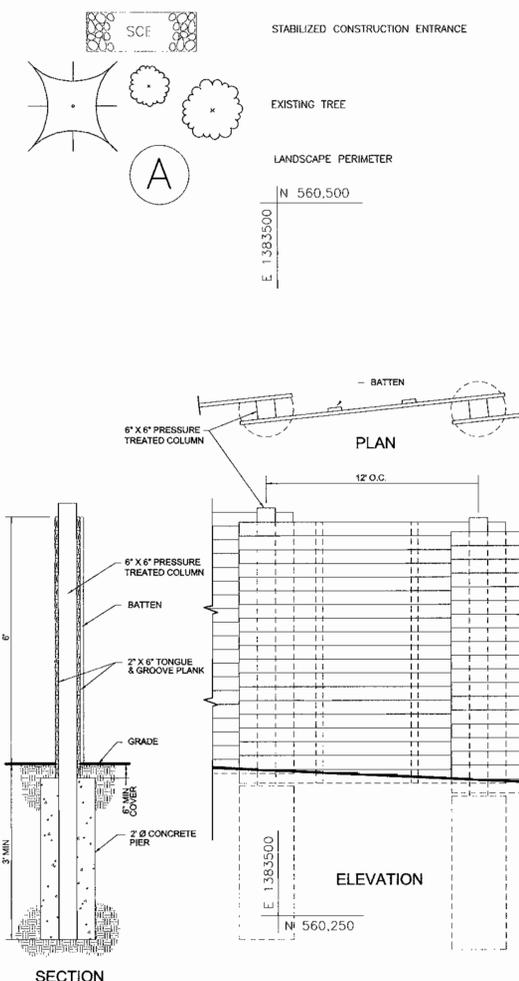
DESIGN BY: RHW
 DRAWN BY: CMH, ELW
 CHECKED BY: RHW
 DATE: DECEMBER, 2002
 SCALE: AS SHOWN
 W.O. NO.: 2014024.0
 3 SHEET OF 3



LEGEND

---	336	EXISTING 2 FT CONTOUR
---	380	EXISTING 10 FT CONTOUR
---		SOIL TYPE DIVISION LINE
---	LOD	PROPOSED CONTOUR
---	SF	LIMIT OF DISTURBANCE
---	SF	SILT FENCE
---	SSF	SUPER SILT FENCE
---		EROSION CONTROL MATTING

- "RED MAPLE" PERIMETER LANDSCAPING AS PER F-02-71
- DRY WELL
- REFORESTATION SIGN
- EARTHDIKE A-1



DRY WELL CHART

LOT No	DRY WELL STONE VOLUME REQ	DRY WELL STONE VOLUME PROV	No. WELLS	WELL SIZE
1	95 cf	95 cf	4	5'X5'X 3.8' deep
2	95 cf	95 cf	4	5'X5'X 3.8' deep
3	95 cf	95 cf	4	5'X5'X 3.8' deep
4	95 cf	95 cf	4	5'X5'X 3.8' deep

*NOTE: LOTS 1-3 MUST PROVIDE A MINIMUM 15' OF 5% OR LESS SLOPE @ DOWNSPOUT DISCHARGE

SCHEDULE A PERIMETER LANDSCAPE EDGE (AS PER F-02-71)

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	NONE REQUIRED	TYPE 'A'	TYPE 'A'	TYPE 'A'
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	0	587' (A)	139' (B)	584' (C)
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	NO	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	YES 360' (227')	NO	NO
NUMBER OF PLANTS REQUIRED				
SHADE TREES	NA	4	0	10
EVERGREEN TREES	NA	0	0	0
SHRUBS (10:1 SUBSTITUTION)	NA	0	0	0
NUMBER OF PLANTS PROVIDED				
SHADE TREES	NA	4	3	10
EVERGREEN TREES	NA	0	0	0
OTHER TREES (2:1 SUBSTITUTION)	NA	0	0	0
SHRUBS (10:1 SUBSTITUTION)	NA	0	0	0

PLANT LIST

QTY	BOTANICAL NAME/COMMON NAME	SIZE	ROOT
17	ACER RUBRUM / OCTOBER GLORY RED MAPLE	3" CAL	B & B

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	TYPE
BeB2	BELTSVILLE SILT LOAM, 1 TO 5 PERCENT, MODERATELY ERODED	C
EvB	EVESBORO LOAMY SAND, 1 TO 5 PERCENT SLOPES	A
EVC	EVESBORO LOAMY SAND, 5 TO 15 PERCENT SLOPES	A

NOTE: HOWARD SOIL SURVEY, MAP NUMBER 26

* CREDIT FOR NOISE WALL ALONG NORTHERN PROPERTY LINE
CALCULATION FOR DETERMINING LANDSCAPE SURETY: 360 LF NOISE WALL @ \$20.00/LF=\$7,200.00
17 SHADE TREES @ \$300.00 EA=\$5,100.00; TOTAL SURETY=\$12,300.00
(SEE GENERAL NOTE 26, SHEET 1)

CONSTRUCTION SPECIFICATIONS

- All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
- Rainoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
- Rainoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
- All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
- The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
- Fill shall be compacted by earth moving equipment.
- All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
- Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 4 - 1 - 6 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NO.	REVISE HOUSE MODEL LOT 1	DATE
1	REVISE HOUSE MODEL LOT 1	3.13.03

SITE DEVELOPMENT PLAN
WHITEHEAD PROPERTY
LOTS 1-4 AND OPEN SPACE LOT 5

TAX MAP 37 BLOCK 12 PARCEL "533"
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
REF.: F-02-71, WP-02-105 (APP. 6/11/2002)

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS: 7125 Riverwood Drive Columbia, Maryland 21046-2334
ARCHITECTS: Phone: 410-290-9550 Fax: 410-720-8226
SURVEYORS: Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Dammann 2/3/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Cinda Hamble 2/6/03
CHIEF, DIVISION OF LAND DEVELOPMENT

Paul J. Boyle 2/7/03
DIRECTOR

ENGINEERS CERTIFICATE

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

Robert H. Vogel 1/3/03
SIGNATURE OF ENGINEER
ROBERT H. VOGEL

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN 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.

John R. Roberts 1-15-03
SIGNATURE OF DEVELOPER

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

Jim Myers 1/29/03
U.S. NATURAL RESOURCES CONSERVATION SERVICE

John R. Roberts 1/29/03
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DESIGN BY: RHW
DRAWN BY: CMH, ELW
CHECKED BY: RHW
DATE: DECEMBER, 2002
SCALE: 1"=30'
W.C. NO.: 2014024.0

2 SHEET OF 3

ROBERT H. VOGEL, PE No.161893

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

DEFINITION
 PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE
 TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES
 I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. 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.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 1. 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 A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, CONCRETE FRAGMENTS, CORNELL STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1" AND 1/2" IN DIAMETER.

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 AS DESCRIBED IN THE FOLLOWING PROCEDURES.

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 BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

SEEDING CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
- 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.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 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 SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. C). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 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.
- SITE ANALYSIS:**
 TOTAL AREA 85,678 SF
 AREA DISTURBED 46,581 SF
 AREA TO BE ROOFED OR PAVED 14,833 SF
 AREA TO BE VEGETATIVELY STABILIZED 31,848 SF
 TOTAL CUT 2000 CY
 TOTAL FILL 2000 CY
 OFFSITE WASTE/BORROW AREA LOCATION *
- 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 CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 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.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE 2/3/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] DATE 2/9/03
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] DATE 2/3/03
 DIRECTOR

III. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 1. 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 OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 C. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 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 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 THE ABOVE.

II. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION-SECTION I-VEGETATIVE STABILIZATION METHODS AND MATERIALS.

PERMANENT SEEDING NOTES

I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADES, STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

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 SEEDING 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.

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 BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ. FT.) OF UNMULCHED SMALL GRASS 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 GALLONS PER ACRE (8 GAL./1000 SQ.FT.) FOR ANCHORING.

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 PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER 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 PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNMULCHED SMALL GRASS 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 GALLONS PER ACRE (8 GAL./1000 SQ.FT.) FOR ANCHORING.

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

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410.313.1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES. (1 DAY)
- INSTALL SILT FENCE. (2 DAYS)
- AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED, ROUGH GRADE SITE. (4 DAYS)
- CONSTRUCT HOUSE. (4 MONTHS)
- FINAL LOT GRADE TO BE IN SUBSTANTIAL CONFORMANCE WITH SITE DEVELOPMENT PLAN. (2 DAYS)
- DURING GRADING AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE THE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN HEREIN.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITH:
 A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL.
 B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS, STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
- UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES.

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. 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 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OPTION (2) USE SOD, OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 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 UNMULCHED SMALL GRASS 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 GALLONS PER ACRE (8 GAL./1000 SQ.FT.) FOR ANCHORING.

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

TEMPORARY SEEDING NOTES

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 PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER 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 PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNMULCHED SMALL GRASS 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 GALLONS PER ACRE (8 GAL./1000 SQ.FT.) FOR ANCHORING.

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

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, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
 1) PREFERRED-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./100 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 THE TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.)
 2) ACCEPTABLE-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND APPLY 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 PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. 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 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OPTION (2) USE SOD, OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.
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- MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

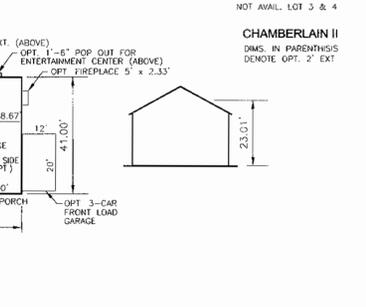
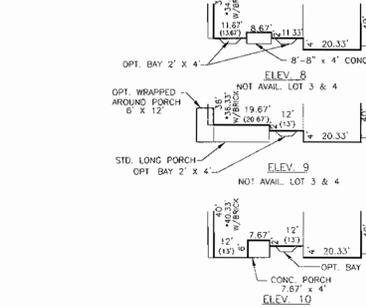
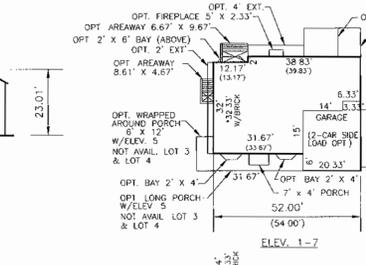
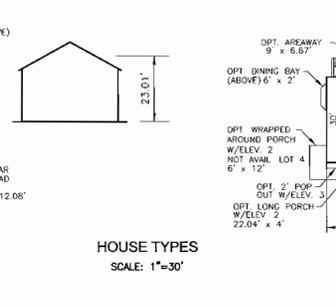
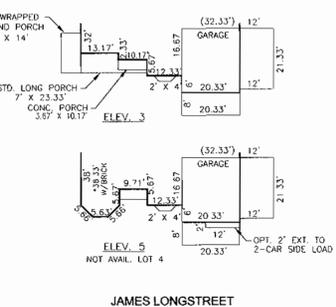
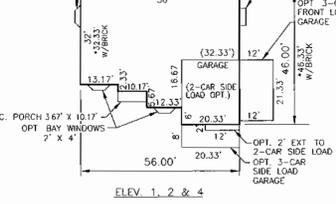
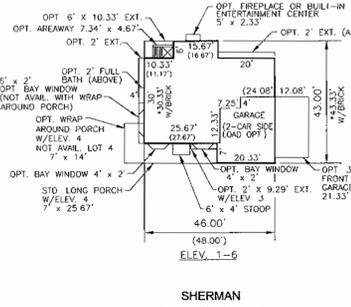
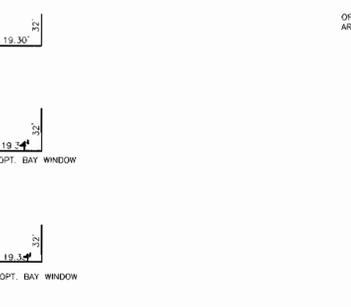
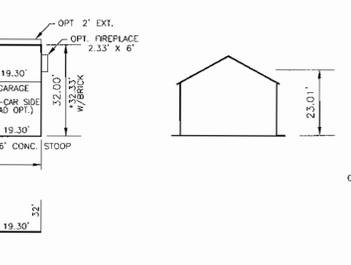
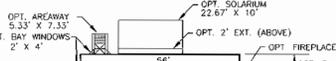
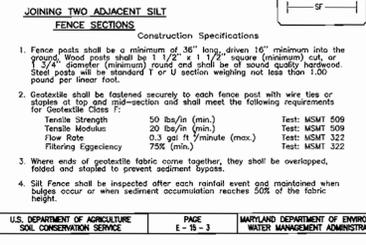
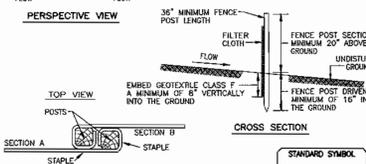
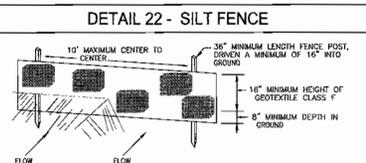
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NO.	REVISION	DATE
1	REVISE CHAMBERLAIN II HOUSE MODEL	5.15.03

SEDIMENT AND EROSION CONTROL DETAILS
WHITEHEAD PROPERTY
LOTS 1-4 AND OPEN SPACE LOT 5
 TAX MAP 37 BLOCK 12 PARCEL '533'
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 REF.: F-02-71, WP-02-105 (APP. 6/11/2002)

FREDERICK WARD ASSOCIATES, INC.
 ENGINEERS ARCHITECTS SURVEYORS
 7125 Riverwood Drive Columbia, Maryland 21046-2354
 Phone: 410-290-9550 Fax: 410-720-6226
 Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

DESIGN BY: RHV
 DRAWN BY: CMH, ELW
 CHECKED BY: RHV
 DATE: DECEMBER 2002
 SCALE: AS SHOWN
 W.O. NO.: 2014024.0
 3 SHEET OF 3