

**GENERAL NOTES**

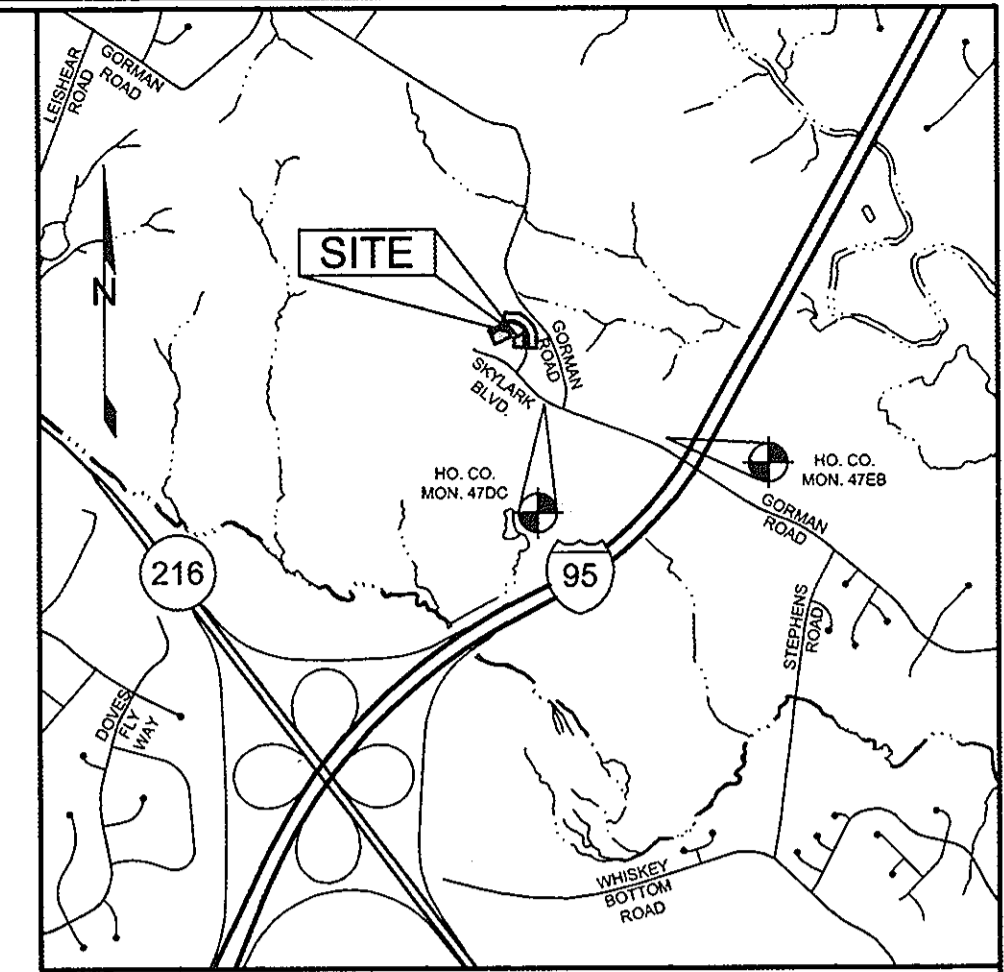
- THIS PROPERTY IS ZONED R-SC PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 07/28/06.
- GROSS AREA OF PROPERTY = 1.883 AC.±
- THIS PROPERTY IS IN THE METROPOLITAN DISTRICT.
- PUBLIC WATER AND PUBLIC SEWER WILL BE USED WITHIN THIS SITE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS: STATE HIGHWAY ADMINISTRATION (BGE/CONTRACTOR SERVICES) 410.531.5533; 410.850.4620; BGE(UNDERGROUND DAMAGE CONTROL) 410.787.9098; MISS UTILITY 800.257.7777; COLONIAL PIPELINE COMPANY 410.795.1590; HOWARD COUNTY, DEPT. OF PUBLIC WORKS, BUREAU OF UTILITIES 410.313.2940; HOWARD COUNTY HEALTH DEPARTMENT 800.252.1133; AT&T 800.743.0033/410.224.5210; VERIZON
- PREVIOUS HOWARD COUNTY FILE NUMBERS: SP-05-023; WP-07-057; WP-08-045; F-08-137; F-09-030; CONTRACT #24-4337
- THE BOUNDARY SHOWN HEREON WAS PREPARED BY DEMARIO DESIGN CONSULTANTS, INC. IN MARCH, 2006, AND TAKEN FROM F-08-137.
- THE TOPOGRAPHY SHOWN HEREON IS TAKEN FROM ROAD CONSTRUCTION PLANS F-08-137.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- 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 LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE PROJECT IS IN CONFORMANCE WITH THE CURRENT HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ALL HDPE PIPE SPECIFICATION AND INSTALLATION SHALL MEET ASHTO M-252 TYPE S, M-294 TYPE S AND ASTM D2321, RESPECTIVELY.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. DRIVEWAY PAVING TO BE HOWARD COUNTY STANDARD DETAIL R-6.05 FOR LOTS 1 THRU 13 (SEE SHEET 2).
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING NECESSARY FEES.
- ALL TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS 47EB AND 47DC WERE USED FOR THIS PROJECT.
- 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(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS:
  - WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE);
  - SURFACE - SIX (6) INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MINIMUM);
  - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
  - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (#25-LOADING);
  - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE;
  - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
- DRIVEWAY ENTRANCES TO BE PER HOWARD COUNTY STANDARD DETAIL R-6.03 FOR LOTS 11, 12 AND 20 THRU 22 AND HOWARD COUNTY STANDARD DETAIL R-6.05 FOR LOTS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 18, 19, 21, 22.
- SEWER HOUSE CONNECTION (SH) TO BE AT 2.0% UNLESS OTHERWISE NOTED. CLEANOUTS ARE TO BE PROVIDED AT ALL BENDS.
- THERE ARE NO WETLANDS, FLOODPLAINS, HISTORIC RESOURCES OR CEMETERIES WITHIN THE PROJECT BOUNDARY. OFF-SITE PROTECTION OF VEGETATIVE COVER OR TREES, PAVING AND CONSTRUCTION IN THESE AREAS IS PROHIBITED UNLESS APPLICABLE WAIVERS HAVE BEEN APPROVED.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- PERMITS FOR LANDSCAPING HAS BEEN PROVIDED UNDER F-08-137.
- THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT HAS BEEN PROVIDED FOR UNDER F-08-137.
- THE STORMWATER MANAGEMENT REQUIREMENTS FOR THIS PROJECT HAVE BEEN PROVIDED FOR UNDER F-08-137.
- OPEN SPACE REQUIREMENTS HAVE BEEN PROVIDED FOR UNDER F-08-137.
- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH THE 2006 MD MANUAL. IT WAS DETERMINED THAT THIS PROJECT MET THE CRITERIA FOR IMPLEMENTATION OF THE 2000 DESIGN CRITERIA AND GRANTED A WAIVER. PRELIMINARY PLAN (SP-06-023) WAS APPROVED ON APRIL 11, 2007, AND FINAL PLAN (F-08-137) WAS APPROVED ON OCTOBER 17, 2008. THIS PLAN IS SUBJECT TO THE EXPIRATION OF THIS WAIVER UNLESS ALL STORMWATER MANAGEMENT IS CONSTRUCTED BY MAY 4, 2011.

**SEWER CONNECTION CHART**

LOT	INV. AT R/W	INV. AT HOUSE
1	341.54	341.84
2	342.04	342.61
3	341.56	341.87
4	340.58	340.90
5	340.02	340.37
6	339.38	339.68
7	339.10	339.45
11	342.08	342.40
12	341.54	341.81
20	343.28	343.89
21	339.87	340.25
22	340.64	341.00

**LEGEND**

- EXISTING CONTOUR
- PROPOSED CONTOUR
- SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREES TO REMAIN
- EXISTING STREET LIGHT (PER F-08-137)
- PROPOSED 4" SEWER HOUSE CONNECTION
- PROPOSED 1" WATER HOUSE CONNECTION
- EXISTING LANDSCAPING (PER F-08-137)
- EXISTING STREET TREES (PER F-08-137)
- EXISTING FOREST CONSERVATION EASEMENT
- EXISTING EASEMENTS
- WALK OUT BASEMENT



**BENCHMARKS**

NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
47EB	536,212.7456	1,354,833.6403	354.296	23' SOUTH EAST OF GAE POLE #6492
47DC	536,615.0157	1,353,679.1226	343.249	59.3' SOUTH WEST OF GAE POLE #6492#7
				200' WEST OF THE INTER. AT GORMAN AND SHYLAIRK

**SITE ANALYSIS DATA CHART**

TOTAL PROJECT AREA	AREA OF SUBMISSION	DISTURBED AREA	PRESENT ZONING
1.883 AC±	1.883 AC±	1.851 AC±	R-SC
PROPOSED USE	FLOOR SPACE PER USE	TOTAL UNITS ALLOWED	TOTAL UNITS PROPOSED
SFD	N/A	12	12
MAX. # EMPLOYEES	PARKING SPACES REQ.	PARKING SPACES PROV.	HC SPACES PROVIDED
N/A	24	24	N/A
OPEN SPACE REQUIRED	OPEN SPACE PROVIDED	REC. O.S. REQUIRED	REC. O.S. PROVIDED
N/A	N/A	N/A	N/A
BUILDING COVERAGE	FLOOR AREA RATIO	DPZ FILE REFERENCES	SEE GENERAL NOTE #6
N/A	N/A		

**PERMIT INFORMATION CHART**

SUBMISSION NAME	SECTION / AREA	PARCEL #
THE GROVE AT EMERSON	N/A	
PLAT 2: 21302 & 21303	GRID # 8	ZONING R-SC
PHASE 2: 21365 & 21366	TAX MAP # 47	ELECT. DIS. 6TH
		CENSUS TRACT 6066.02

**ADDRESS CHART**

LOT	STREET ADDRESS
1	9816 SHADED DAY
2	9822 SHADED DAY
3	9828 SHADED DAY
4	9830 SHADED DAY
5	9834 SHADED DAY
6	9838 SHADED DAY
7	9842 SHADED DAY
11	9823 SHADED DAY
12	9819 SHADED DAY
20	9857 SHADED DAY
21	9853 SHADED DAY
22	9849 SHADED DAY

**SHEET INDEX**

SHEET NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	SEDIMENT AND EROSION CONTROL PLAN AND DETAILS
3	SEDIMENT AND EROSION CONTROL NOTES AND HOUSE MODEL TEMPLATES

**OWNER**  
HOWARD RESEARCH & DEVELOPMENT CORP.  
& EMERSON LAND BUSINESS TRUST  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044  
410.992.6000

**DEVELOPER**  
WILLIAMSBURG GROUP, LLC  
C/O ROBERT CORBEIT  
5485 HARRERS FARM ROAD, SUITE 200  
COLUMBIA, MD 21044  
410.997.8800

**SITE DEVELOPMENT PLAN**  
**THE GROVE AT EMERSON**  
LOTS 1 THRU 7, 11 & 12 PHASE 1 AND LOTS 20 THRU 22 PHASE 2  
SINGLE FAMILY DETACHED HOMES

TAX MAP 47 GRID 8  
6TH ELECTION DISTRICT

PARCEL 5  
HOWARD COUNTY, MARYLAND

**Sill · Adcock & Associates · LLC**  
Engineers · Surveyors · Planners  
3300 North Ridge Road, Suite 160  
Ellicott City, Maryland 21043  
Phone: 443.325.7682 Fax: 443.325.7685  
Email: info@saand.com

DESIGN BY: PS  
DRAWN BY: PS  
CHECKED BY: PS  
SCALE: AS SHOWN  
DATE: NOVEMBER 30, 2010  
PROJECT #: 10-054  
SHEET #: 1 of 3

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33025, EXPIRATION DATE: JUNE 30, 2011

**PAVING SECTIONS**

SEC. NO.	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR) 3 TO 45 TO 67	27	3 TO 45 TO 67	27	
P-1	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVEABLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE (NA)	N/A	N/A	N/A	N/A
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22 LEVEL 1 (ESAL)	2.0	2.0	2.0	2.5
		GRADED AGGREGATE BASE (GAB)	8.5	7.0	5.0	4.0

NOTES:  
1. HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.  
2. HMA SUPERPAVE LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM SURFACE (2.0" MIN TO 4.0" MAX), 12.5 MM SURFACE (1.5" MIN TO 3.0" MAX), AND 9.5 MM SURFACE (1.0" MIN TO 2.0" MAX).  
3. GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 4" MAX COMPACTED THICKNESS LAYERS.  
4. THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.  
5. IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYER FOR COMMERCIAL/INDUSTRIAL ENTRANCE AREAS WITHIN THE COUNTY RIGHT-OF-WAY WHERE AUXILIARY LANES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.  
6. THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

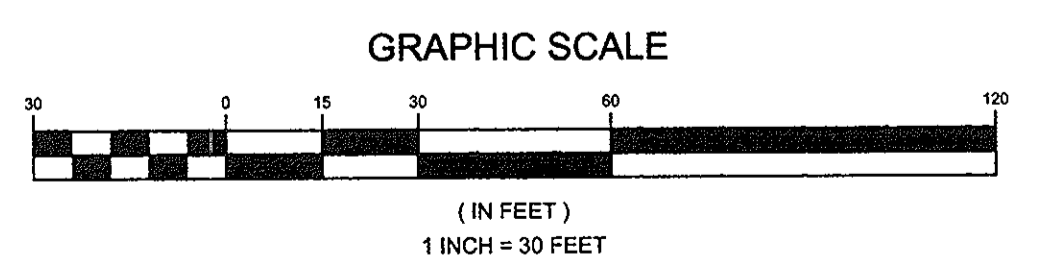
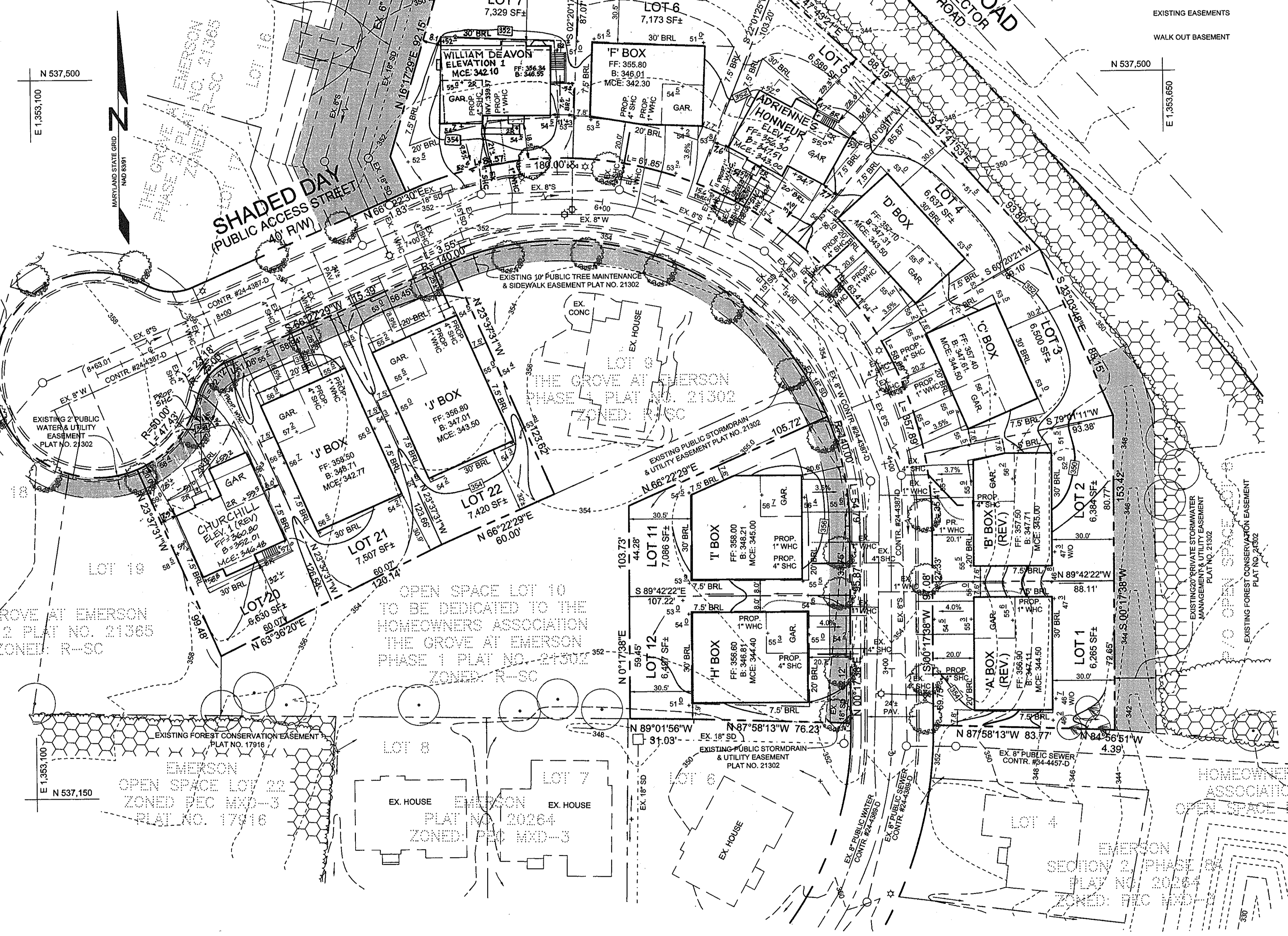
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

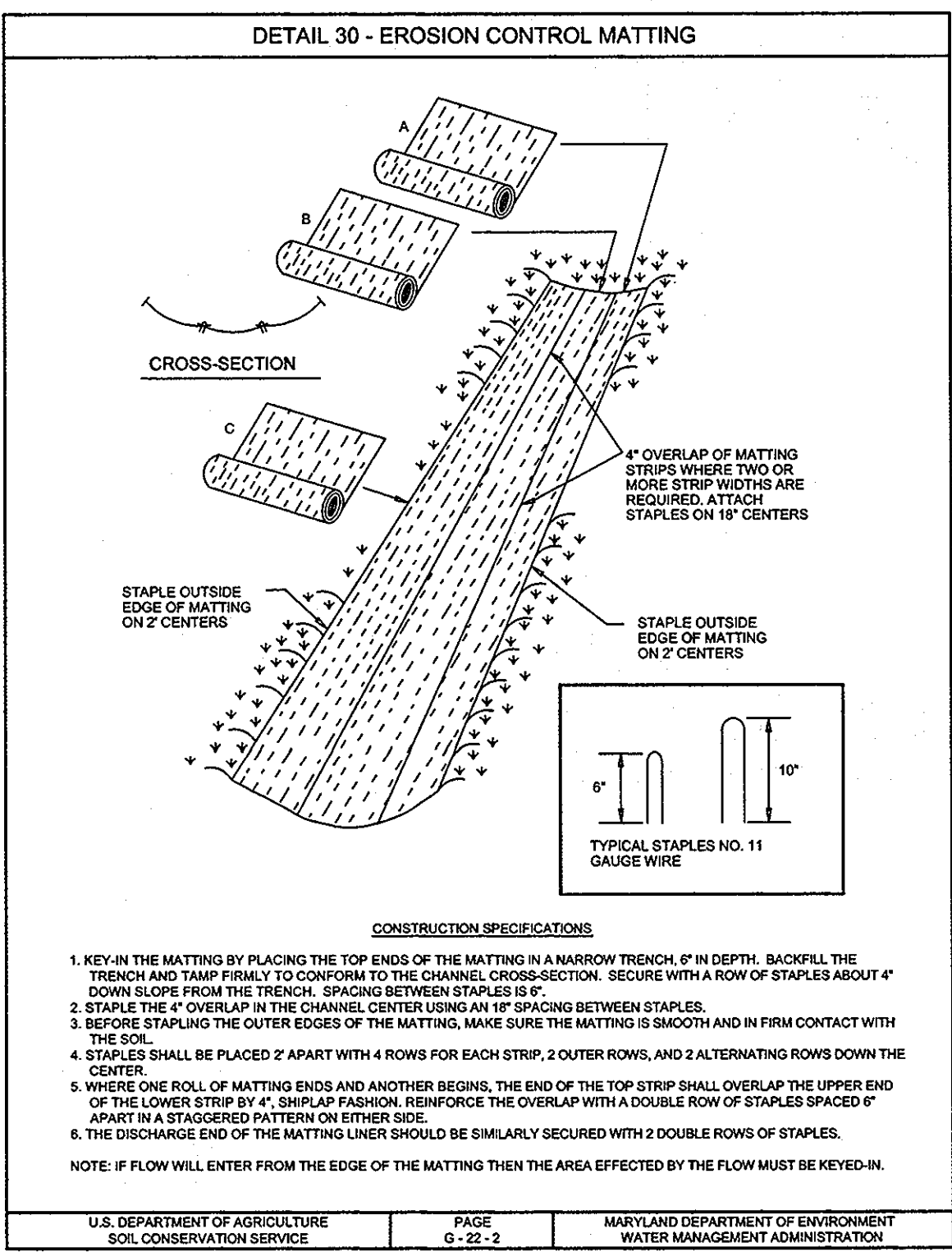
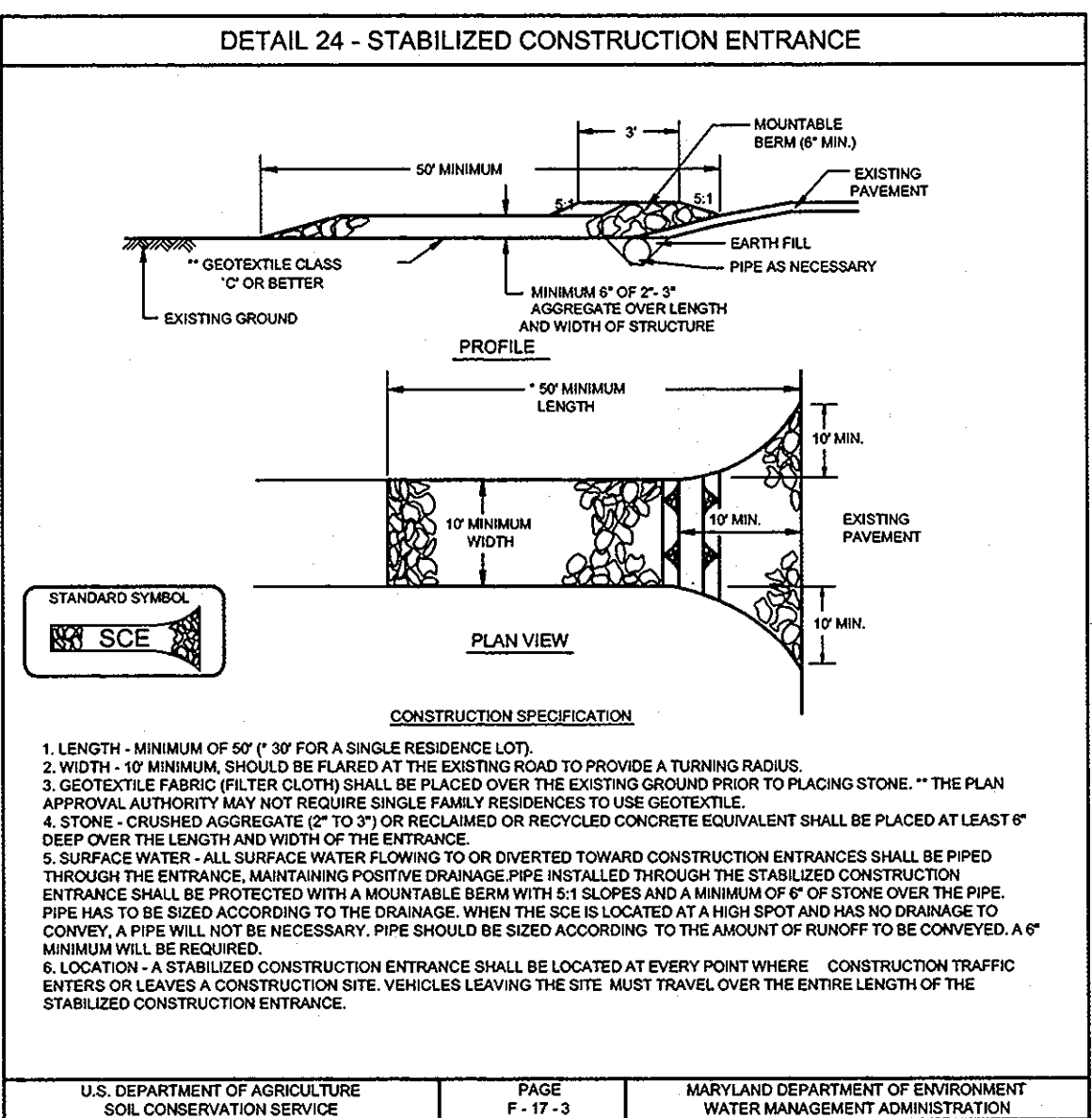
CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 12/9/10

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 12/09/10

DIRECTOR: *[Signature]* DATE: 12/9/10

NO.	DESCRIPTION	DATE
3	REVISED LOT 7 TO WILLIAM DEAVOR EL. 1	NOV. 29, 2012
2	REVISED LOT 5 TO ADRIENNE'S HONNEUR ELA	FEB. 22, 2012
1	REVISED LOT 20 TO CHURCHILL ELEV. 1	FEB. 1, 2012





### SEQUENCE OF CONSTRUCTION

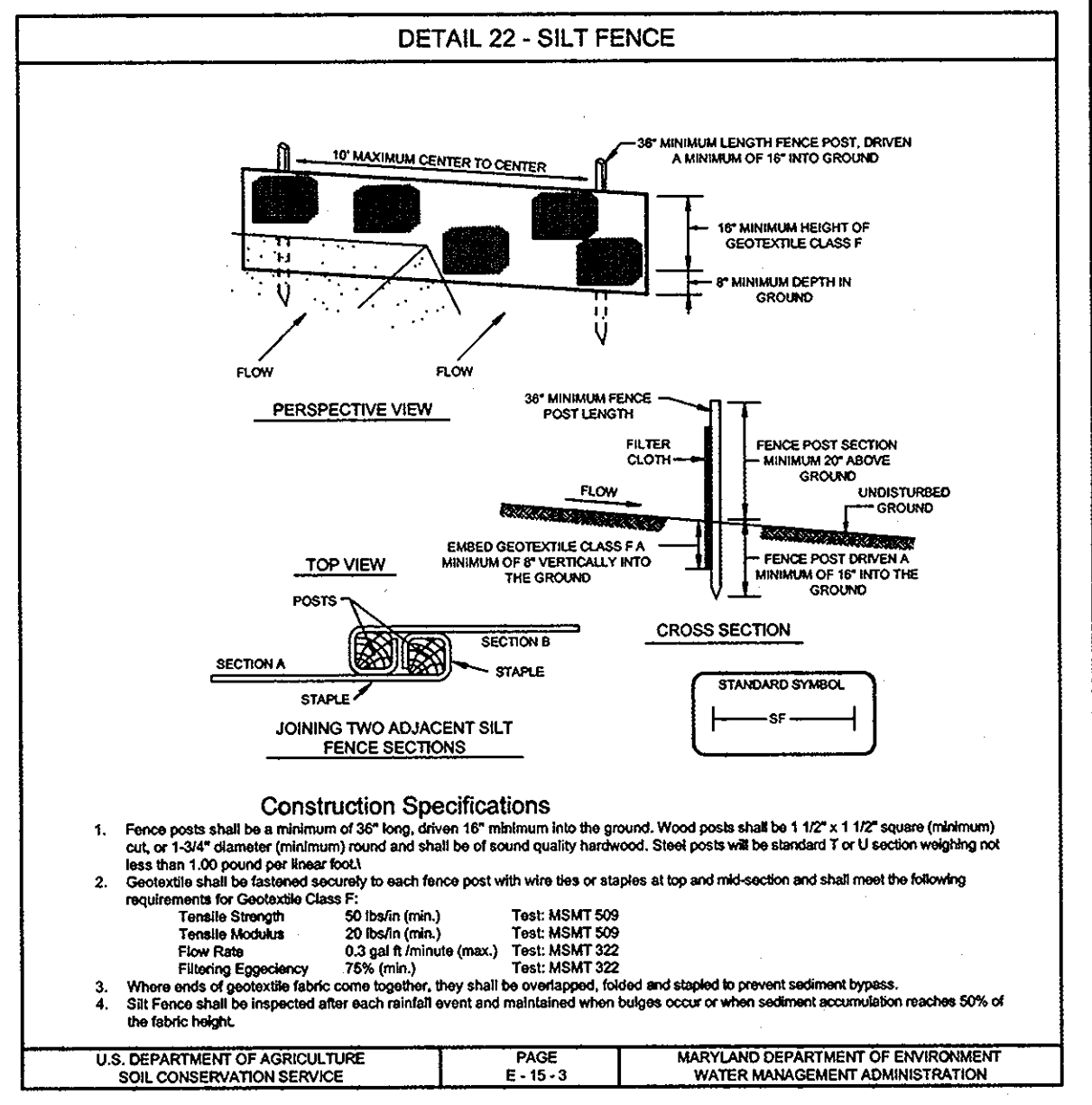
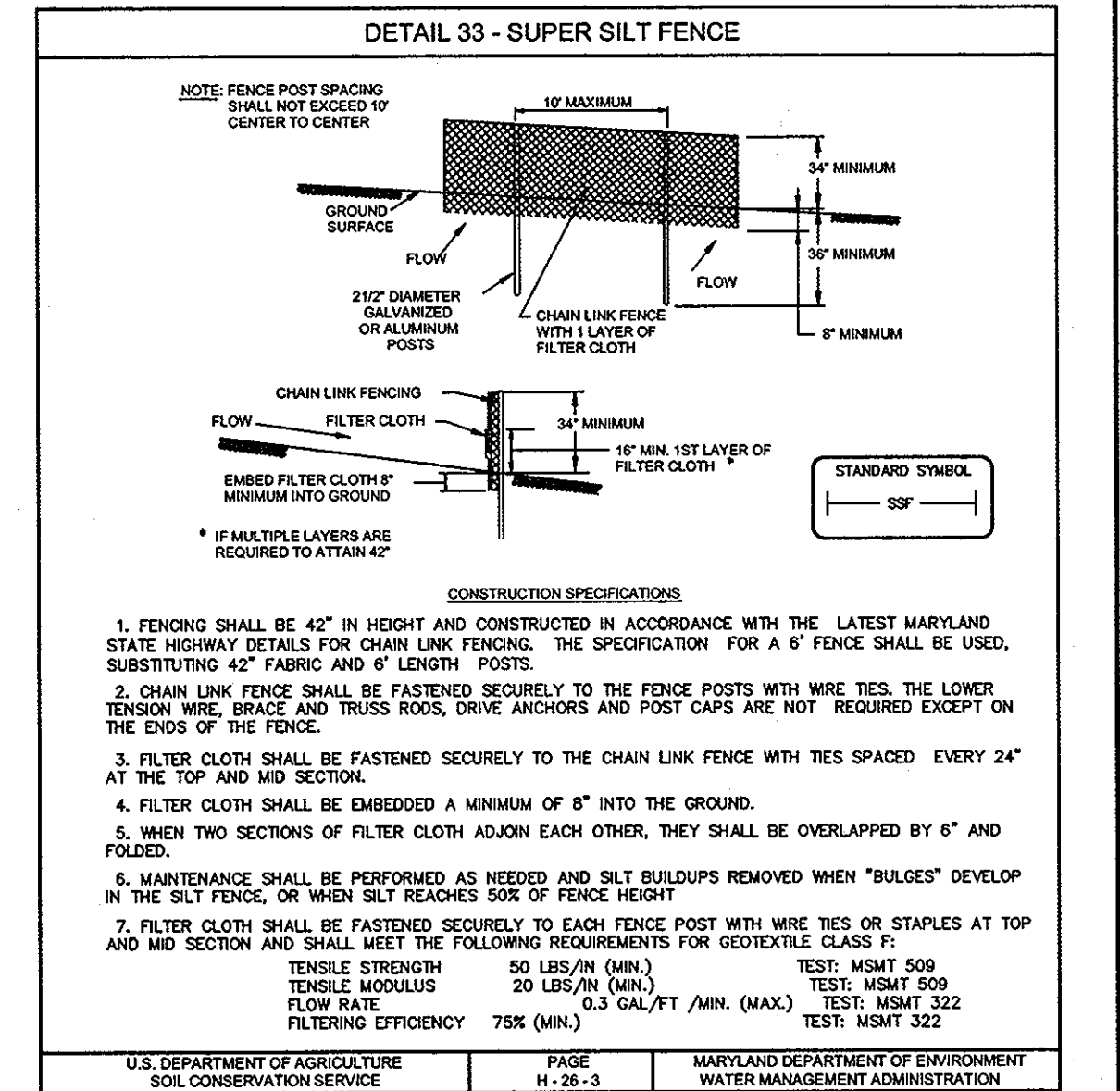
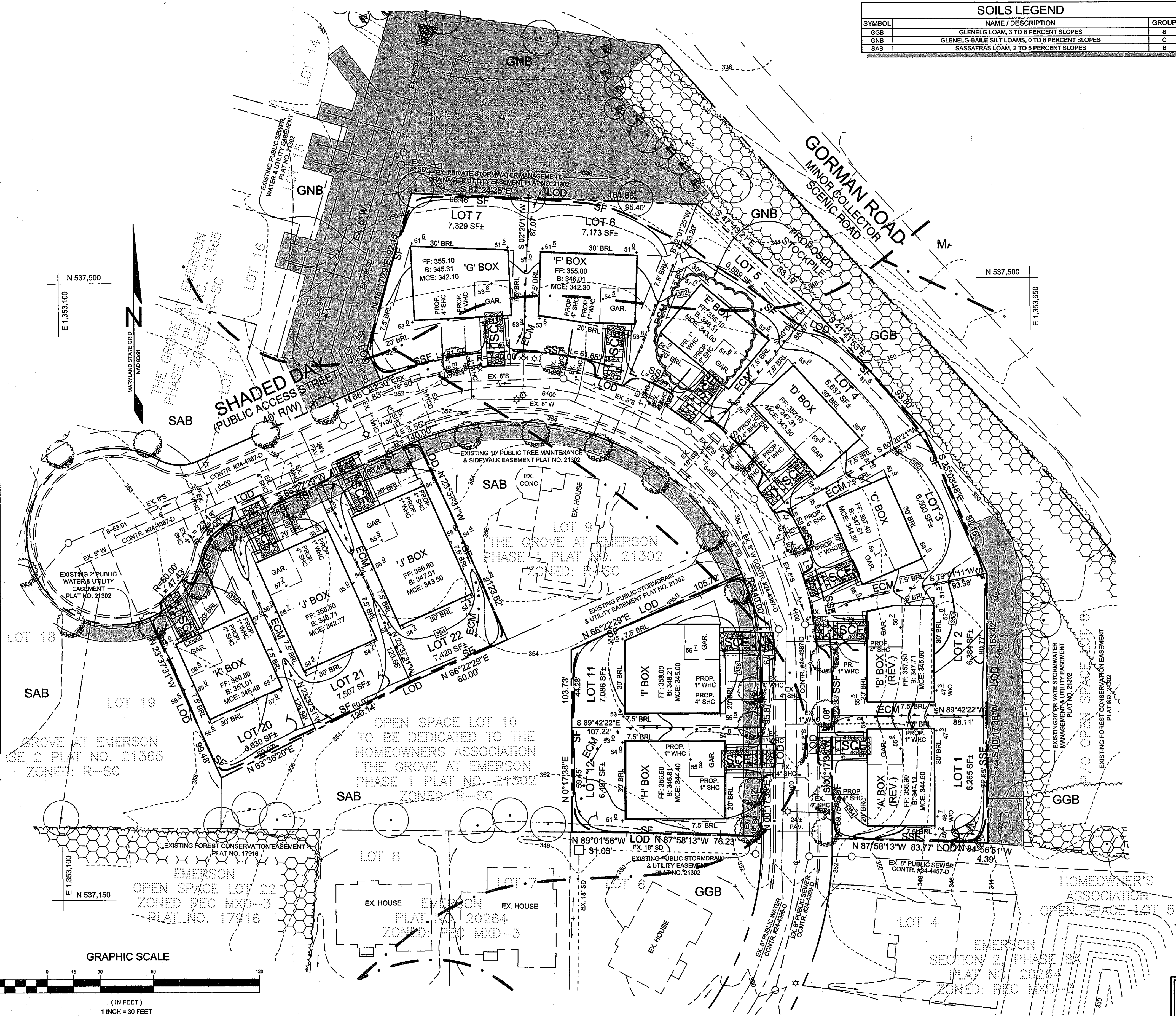
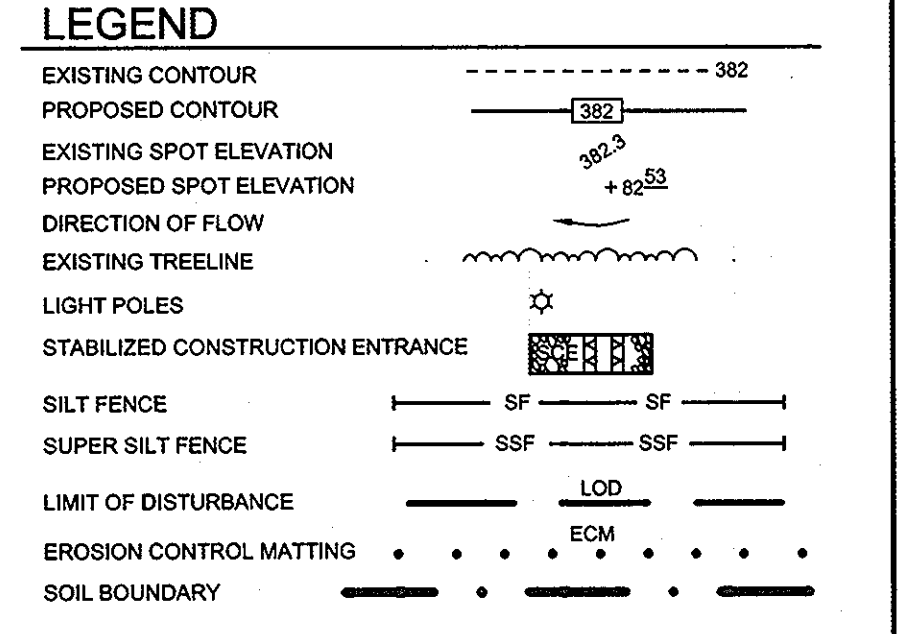
- OBTAIN GRADING PERMIT.
- NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSE AND PERMITS, SEDIMENT CONTROL DIVISION, (410) 313-1855, AT LEAST 48 HOURS BEFORE STARTING ANY WORK.
- INSTALL STABILIZED CONSTRUCTION ENTRANCES, SILT FENCE AND SUPER SILT FENCE, (1 WEEK)
- ROUGH GRADE SITE AND BEGIN BUILDING CONSTRUCTION, (1 WEEK)
- FINISH BUILDING CONSTRUCTION AND PAVE DRIVEWAYS, (4 MONTHS)
- FINISH GRADE SITE AND INSTALL EROSION CONTROL MATTING, (2 WEEKS)
- UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE ANY REMAINING DISTURBED AREA, (1 WEEK)

NOTE: -FOLLOWING INITIAL SOIL DISTURBANCE OR ANY REDISTURBANCES, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:  
 A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES AND ALL SLOPES GREATER THAN 3:1.  
 B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.  
 -DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN.



### SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
GGB	GLENELO LOAM, 3 TO 8 PERCENT SLOPES	B
GGB	GLENELO-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C
SAB	SASSAFRAS LOAM, 2 TO 5 PERCENT SLOPES	B



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 10275 LITTLE PATUXENT PARKWAY  
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**DEVELOPER**  
 WILLIAMSBURG GROUP, LLC  
 C/O EMERSON CORP. IT  
 5485 HARPERS FARM ROAD, SUITE 200  
 COLUMBIA, MD 21044  
 410.997.8800

### SEDIMENT AND EROSION CONTROL PLAN AND DETAILS

#### THE GROVE AT EMERSON

LOTS 1 THRU 7, 11 & 12 PHASE 1 AND LOTS 20 THRU 22 PHASE 2  
 SINGLE FAMILY DETACHED HOMES

TAX MAP 47 GRID 8 PARCEL 5  
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**Sill · Adcock & Associates · LLC**  
 Engineers · Surveyors · Planners  
 1300 North Ridge Road, Suite 160  
 Ellicott City, Maryland 21043  
 Phone: 443.325.7682 Fax: 443.325.7685  
 Email: info@silladcock.com

DESIGN BY: PS  
 DRAWN BY: PS  
 CHECKED BY: PS  
 SCALE: 1"=30'  
 DATE: NOVEMBER 30, 2010  
 PROJECT #: 10-054  
 SHEET #: 2 of 3

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2011

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 Date: 12/5/10

Chief, Division of Land Development  
 Date: 12/09/10

Director  
 Date: 12/11/10

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

Signature: John R. Robertson  
 Date: 12/11/10

**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.

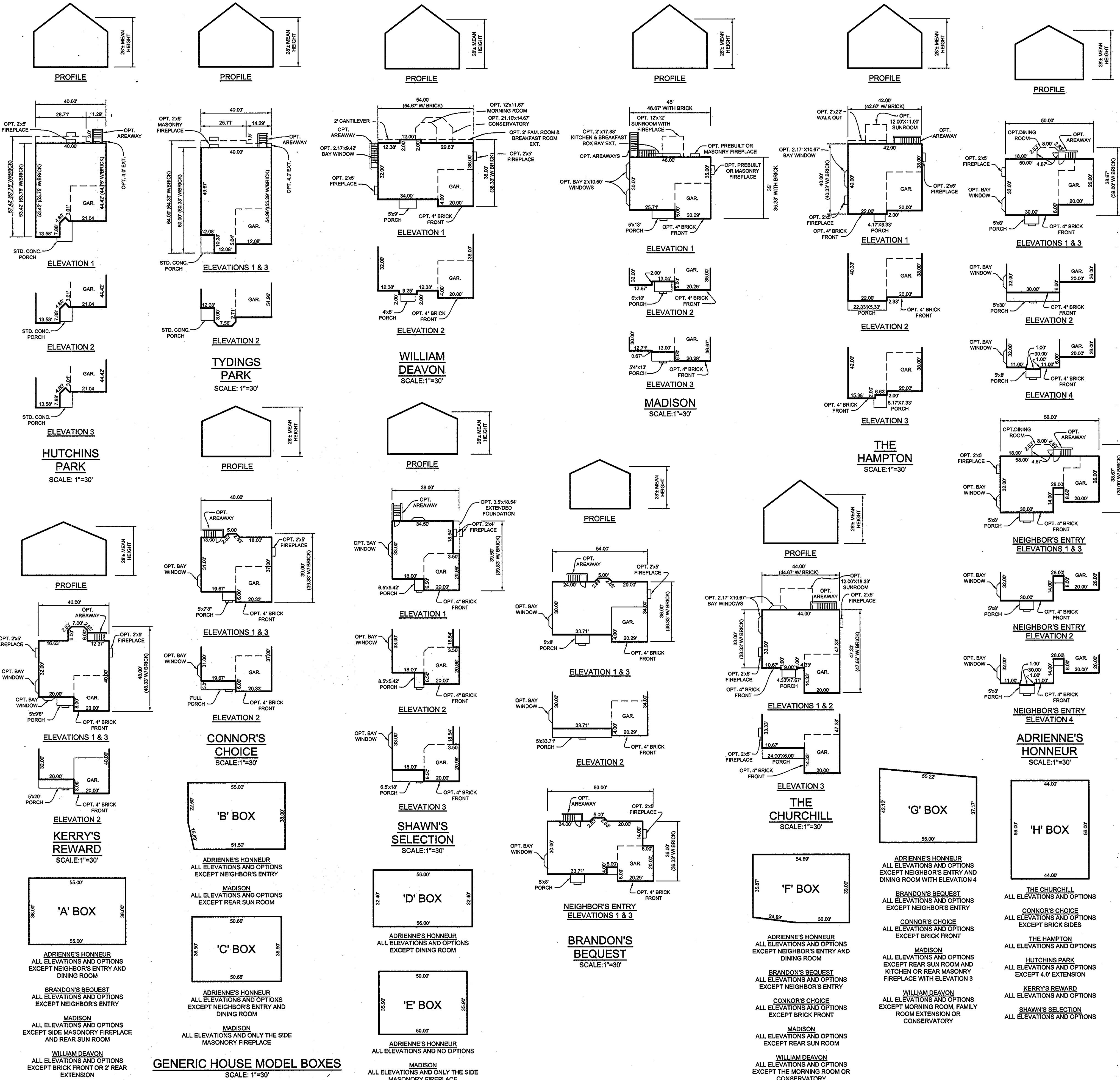
Signature: Paul M. Sill, P.E.  
 Date: 12/10

**DEVELOPER'S CERTIFICATE**

I HEREBY 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 ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PROFESSIONAL INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: [Signature]  
 Date: 12-1-10

NO.	DESCRIPTION	DATE



**21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOILS**

**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 AND AGRICULTURAL EXPERIMENTAL STATION.  
 II. 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 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 GINGERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIAL LARGER THAN 1" AND 1/2" IN DIAMETER.  
 II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.  
 III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.  
 I. WHEN TOPSOILING, MAINTAIN NEAR EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SILT FENCE AND SEDIMENT TRAPS AND BASINS.  
 II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4"-8" HIGHER IN ELEVATION.  
 III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR 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.

**SEDIMENT CONTROL NOTES**

1. 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 (410-315-1885).

2. ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.

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

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

6. TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

7. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7. SITE ANALYSIS:  
 TOTAL AREA: 1.88 ACRES  
 AREA TO BE DISTURBED: 1.85 ACRES  
 AREA TO BE ROOFED OR PAVED: 0.55 ACRES  
 AREA TO BE VEGETATIVELY STABILIZED: 1.30 ACRES  
 TOTAL CUT: 2,254 CY  
 TOTAL FILL: 1,899 CY  
 OFFSITE WASTE/BORROW AREA LOCATION:

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

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

10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

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

\*\* EARTHWORK QUANTITIES ARE SOLELY FOR THE PURPOSE OF CALCULATING FEES. CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO THE START OF CONSTRUCTION.  
 \*\* 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.

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 (0.05 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) 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 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 6 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

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

**TEMPORARY SEEDING NOTES**

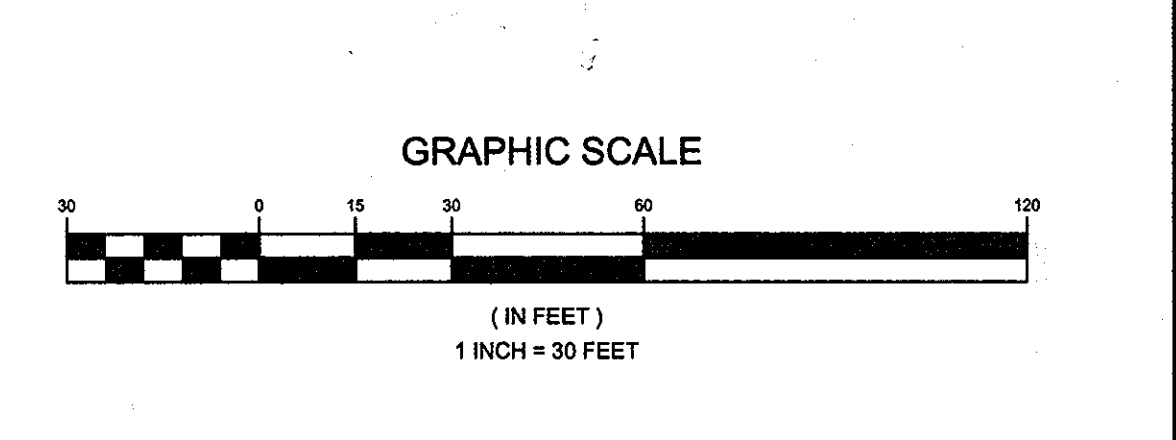
SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

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 12 BUSHEL PER ACRE OF ANNUAL RYE GRASS. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (0.07 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 SOIL.

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 6 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



**OWNER**  
 HOWARD RESEARCH & DEVELOPMENT CORP. & EMERSON FARM AND BUSINESS TRUST  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044  
 410.992.6000

**DEVELOPER**  
 WILLIAMSBOURG GROUP, LLC  
 C/O ROBERT CORBETT  
 5485 HARPERS FARM ROAD, SUITE 200  
 COLUMBIA, MD 21044  
 410.997.8800

**SEDIMENT AND EROSION CONTROL NOTES AND HOUSE MODEL TEMPLATES THE GROVE AT EMERSON**

LOTS 1 THRU 7, 11 & 12 PHASE 1 AND LOTS 20 THRU 22 PHASE 2 SINGLE FAMILY DETACHED HOMES

TAX MAP 47 GRID 8 PARCEL 5  
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**Sill · Adcock & Associates · LLC**  
 Engineers · Surveyors · Planners  
 3300 North Ridge Road, Suite 160  
 Ellicott City, Maryland 21043  
 Phone: 443.325.7682 Fax: 443.325.7685  
 Email: info@saadland.com

DESIGN BY: PS  
 DRAWN BY: PS  
 CHECKED BY: PS  
 SCALE: 1"=30'  
 DATE: NOVEMBER 30, 2010  
 PROJECT #: 10-054  
 SHEET #: 3 of 3

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 CHIEF DEVELOPMENT ENGINEERING DIVISION 6  
 DATE: 12/9/10  
 CHIEF DIVISION OF LAND DEVELOPMENT  
 DATE: 12/20/10  
 DIRECTOR  
 DATE: 12/19/10

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
 DATE: 12/16/10

**ENGINEER'S CERTIFICATE**  
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON THE 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: PAUL M. SILL, P.E.  
 DATE: 1/20/10

**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 PERMITS ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 SIGNATURE OF DEVELOPER  
 DATE: 12-1-10

NO.	DESCRIPTION	DATE