

#### HOWARD 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

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 greas 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, of the 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 (Section G) for permanent seeding, sod, temporary seeding, and mulching. Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of arasses.

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 from the Howard County Sediment Control Inspector.

Site Analysis: Total Area of Site Acres or 20,000 sf 0.343 Area Disturbed Acres or 14,950 sf Area to be roofed or paved 0.116 Acres Area to be vegetatively stabilized 0.227 Acres Total Cut 500 Cu. Yds. 500 Total Fill Cu. Yds. \*

\* Contractor shall complete their own earthwork analysis Offsite waste/borrow area location N/A

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

Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector. 10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made. II. Trenches for the construction of utilities is limited to three pipe lengths or that which can be back filled and stabilized within one working day, whichever is shorter.

#### HOWARD SOIL CONSERVATION DISTRICT 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

SOIL AMENDMENTS:

MULCHING

In lieu of soil test recommendations, use one of the following schedules: 1) PREFERRED Apply 2 tons per acres dolomitic limestone (92 lbs/1000sq,ft.) and 600 lbs per 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 per acre 30-0-0 ureaform fertilizer (9 lbs/1000sq,ft.) 2) ACCEPTABLE Apply 2 tons per acres dolomitic limestone (92 lbs/1000sq,ft.) and 1000 lbs per

acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000sq, ft.) of Kentucky 31 Tall Fescue. For the period May I thru July 31, seed with 60 lbs per acre (1.4 lbs/1000sa, ft.) of Kentucky 31, Tall Fescue and 2 lbs. per acre (.051bs/1000sq, ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) - 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) - Use sod. Option (3) - Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch 2 tons / acre well anchored straw.

MULCHING Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000sq, 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/1000sq, ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000sq, ft.) for anchoring.

MAINTENANCE Inspect all seeding areas and make needed repairs, replacements and reseedings.

#### HOWARD SOIL CONSERVATION DISTRICT TEMPORARY SEEDING NOTES

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

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding, if not

SOIL AMENDMENTS: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000sq, ft.)

SEEDING For periods March I thru April 30, and from August 15 thru October 15 seed with 2-12 bushels per acre of annual rye (3.2 lbs/1000sq, ft.). For the period May I thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 Ibs/1000sq, ft.). For the period November 16 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.

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

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION. AND SEDIMENT CONTROL for additional rates and methods not covered.

## 21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Placement of topsoil over a prepared subsoil prior to establishment of

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

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

- The texture of the exposed subsoil/parent material is no 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 The original soil to be vegetated contains material toxic to plant
- growth.

  The soil is so acidic that treatment with limestone is not feasible For the purpose of these Standards and Specifications, areas having slopes steeper than 2: I require special consideration and design for adequate stabilization. Areas having slopes steeper than 2: I shall have the appropriate stabilization shown on the plans.

#### Construction and Material Specifications

- . Topsoil solvaged 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
- Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy cla loam, loamy sand. Other soils may be used if recommended by an agranomist or 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 II/2" in diameter.
- Topsoil must be free of plants or plant parts such as bermuda grass. quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as
- . 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
- III. For sites having disturbed areas under 5 acres:
- Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization Section 1 Vegetative Stabilization Methods and Materials.
- IV. For sites having disturbed greas over 5 acres:
- i. 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
- 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
- Note: Topsoil substitutes or amendments, as recommended by a qualified agranamist or soilscientist and approved by the
- appropriate approval authority, may be used in lieu of natural
- Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization
- When topsoiling, maintain needed erasion and sediment control
- practices such as diversions, Grade Stabilization Structures, Earth Dikes, Stope 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
- compact to a minimum thickness of 4". Spreading shall be perform n such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or
- iv. Topsoil shall not be placed while the topsoil or subsoil is in a frazen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and
- VI. Alternative for Permanent Seeding Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
- Composted Sludge Material 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 originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Composted sludge shall contain at least 1 percent nitragen, 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 studge shall be applied a rate of 1 ton / 1,000 square
- Composted studge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal time

References: Guideline Specifications, Soil Preporation and Sodding, MD-VA

Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973. MARYLAND DEPARTMENT OF ENVIRONMENT - WATER 14NAGEMENT ADMINISTRATIO G-21-1 thru 3 CONSERVATION SERVICE

## DETAIL 33 - SUPER SILT FENCE - 101 Maximum -SHALL NOT EXCEED 10' CENTER TO CENTER 21/2" DIAMETER WITH I LAYER OF FILTER CLOTH CHAIN LINK FENCING-FILTER CLOTH -LAYER OF FILTER CLOT EMBED FILTER CLOTH ANDARD SYMBO " MINIMUM INTO GROUND \*IF MULTIPLE LAYERS ARE Construction Specifications 1. 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 posts. 2. Chain link fence shall be fastened securely to the fence posts with wire ties The lower tension wire, brace and truss rads, drive anchors and post cops are not required except on the ends of the fence.

- 3. Filter cloth shall be fostened securely to the chain link fence with ties spaced
- 4. Filter cloth shall be embedded a minimum of 8" into the ground
- 5. When two sections of filter cloth adjoin each other, they shall be overlapped
- 6. Maintenance shall be performed as needed and silt buildups removed when "bulges" 7. Filter cloth shall be fastened securely to each fence post with wire ties or stoples at top and mid section and shall meet the following requirements for

Tensile Modulus

50 lbs/in (min.) 20 lbs/in (min.) 75 % (min.)

Test: MSMT 509 Test: MSMT 322

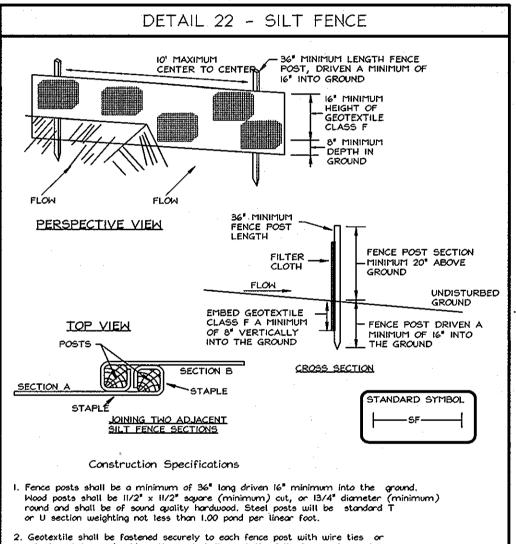
Tests MSMT 509

Test: MSMT 509

Test: MSMT 322

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Test: MSMT 509



50 lbs/in (min.)

20 lbs/in (min.)

75% (min.)

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges

3. Where ends of geotextile fabric come together, they shall be overlapped,

occur or when sediment occumulation reached 50% of the fabric height.

0.3 gal ft / minute (max.)

PAGE E-15-3

CROSS-SECTION 4" OVERLAP OF MATTIN STAPLE OUTSIDE EDGE OF MATTING ON 2' CENTERS STAPLE OUTSIDE EDGE OF MATTING TYPICAL STAPLES NO. II GAUGE WIRE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

DETAIL 30 - EROSION CONTROL MATTING

#### EROSION CONTROL MATTING

#### Construction Specifications 1. Key-in the matting by placing the top ends of the matting in a

- narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
- 2. Stople the 4" overlap in the channel center using an 18" spacing
- 3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil
- 4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center
- 5. Where one roll of matting ends and another begins, the end of the top strip shall overlop the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
- 6. The discharge end of the matting liner should be similarly secured with 2 double rows of stoples.

Note: If flow will enter from the edge of the matting then the area

effected by the flow must be keyed-in. PAGE G-22-2A MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION

# CONCEPTUAL

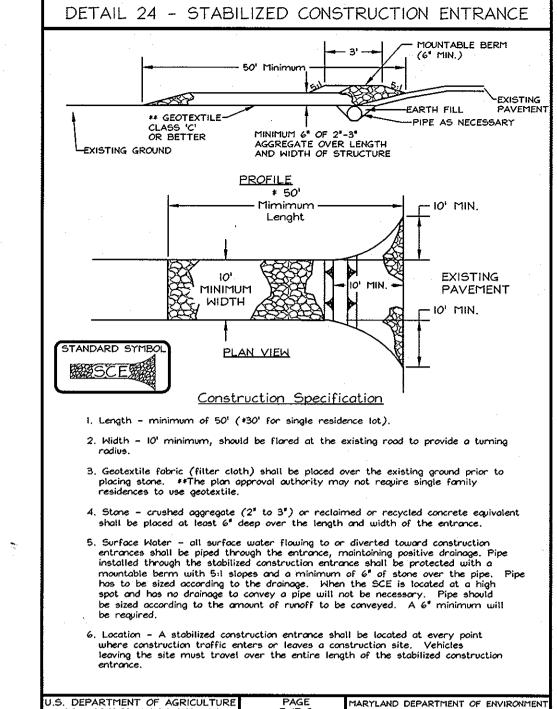
Contractor shall contact the Construction Inspection Division 24 hours in advance of commencement of work at 410-313-1880

SEQUENCE OF CONSTRUCTION

Obtain Grading Permit. - 1 day Stakeout limits of disturbance. - I day Install stabilized construction entrance (SCE) where shown hereon. Driveway should only extend up to the area of Permeable Pavement. Sub soils in the Permeable Pavement area shall not be compacted. Only the construction which can be performed with lightweight, wide tracked

- equipment shall occur in this area to minimize underlying soil compaction. Install super silt fence (SSF) and silt fence (SF) as shown hereon. 2 days Contractor remove existing house, garage, fencing and concrete walks. Existing house demolition should occur from the front and sides of the house if at all possible. Again, only lightweight, wide tracked equipment should be used in the rear of the existing house, to minimize soil compaction.
- Remove trees, clear \$ grub as required. 1 day Begin excavation for house foundation as shown hereon. Material shall be used to backfill existing house and proposed foundation. - I day Grading should occur in accordance with the requirements of the Dust
- Control specifications shown on sheet 3. Daily Begin house construction. Roof Downspouts shall be located and directed as shown \$ detailed on Sheet 4 - 90 days Install water and sewer house connections or extend existing connections
- from existing main (Contract 34-W \$ 10-1602 respectively as shown hereon up to proposed house. - 5 days The Contractor shall inspect and provide necessary maintenance on the
- sediment and erosion control structures shown hereon after each rainfall and on a daily basis. - Daily 12. Upon house construction completion, fine grade around house as shown hereon
- and stabilize with permanent seeding mixture and straw mulch. Front yard / driveway disconnection area shall be graded per the spot elevations hereon. Per the "Disconnection of Non-Rooftop Runoff" practice, and prior to final stabilization, scarify surface or rotatill any compacted soil to a min. depth of 4" to ensure soil permeability. If applicable, tight, clayey soils may require soil amendments. "Disconnection of Non-Rooftop Runoff" area is detailed on Sheet 4. - 2 days
- 13. Upon successful stabilization of the drainage areas with a 2" stand of arass. complete proposed stormwater management facilities: A. Compete construction of the proposed "Permeable Pavement" area of the driveway and its underdrain \$ overdrain pipe outfalls in accordance with details herein, - 4 Days B. Complete construction of the proposed 7.1' x 7.1' x 4' Deep Dry
- 14. With permission from sediment control inspector, remove any remaining perimeter controls and stabilize any disturbed areas with permanent seed mixture \$ straw mulch or sod. - 1 day

Well in accordance with details herein. - I day



# SECTION 30.0 - DUST CONTROL

### 30,0 DUST CONTROL

Definition 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 movernent where or and off-site damage is likely without treatment

# Specifications 5 4 1

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 and 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 which
- may produce the desired effect. 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- Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing 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

### ermanent Methods

1. Permanent Vegetation- See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs mat afford valuable protection if left in place. Topsoiling- Covering with less erosive materials. See standards for

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

References . Agriculture Handbook. Wind erosion Forces in the United States and Their Use in Predicting Soil Loss

2. Agriculture Information Bulletin 354, How to Control Wind Erosion, WATER MANAGEMENT ADMINISTRATION H - 30 - I

# NOTE:

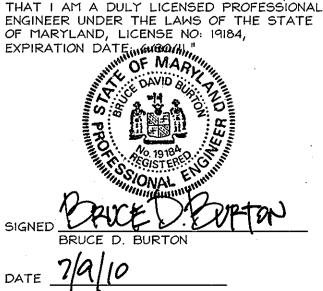
Quantities are provided for informational purposes only and are based upon comparison of existing ground to proposed grades shown hereon. Contractor to make his own analysis prior to placing a bid on grading work / earthwork.

# APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 7/2010 DEVELOPMENT THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DIRECTOR DATE HOWARD SOIL CONSERVATION

ENGINEER'S CERTIFICATE WERE PREPARED OR APPROVED BY ME. AND 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 DEVELOPER'S CERTIFICATE /WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE XONE 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

7-8-2010

SIGNATURE OF DEVELOPER



HEREBY CERTIFY THAT THESE DOCUMENTS

or Geotextile Class F

Tensile Strength

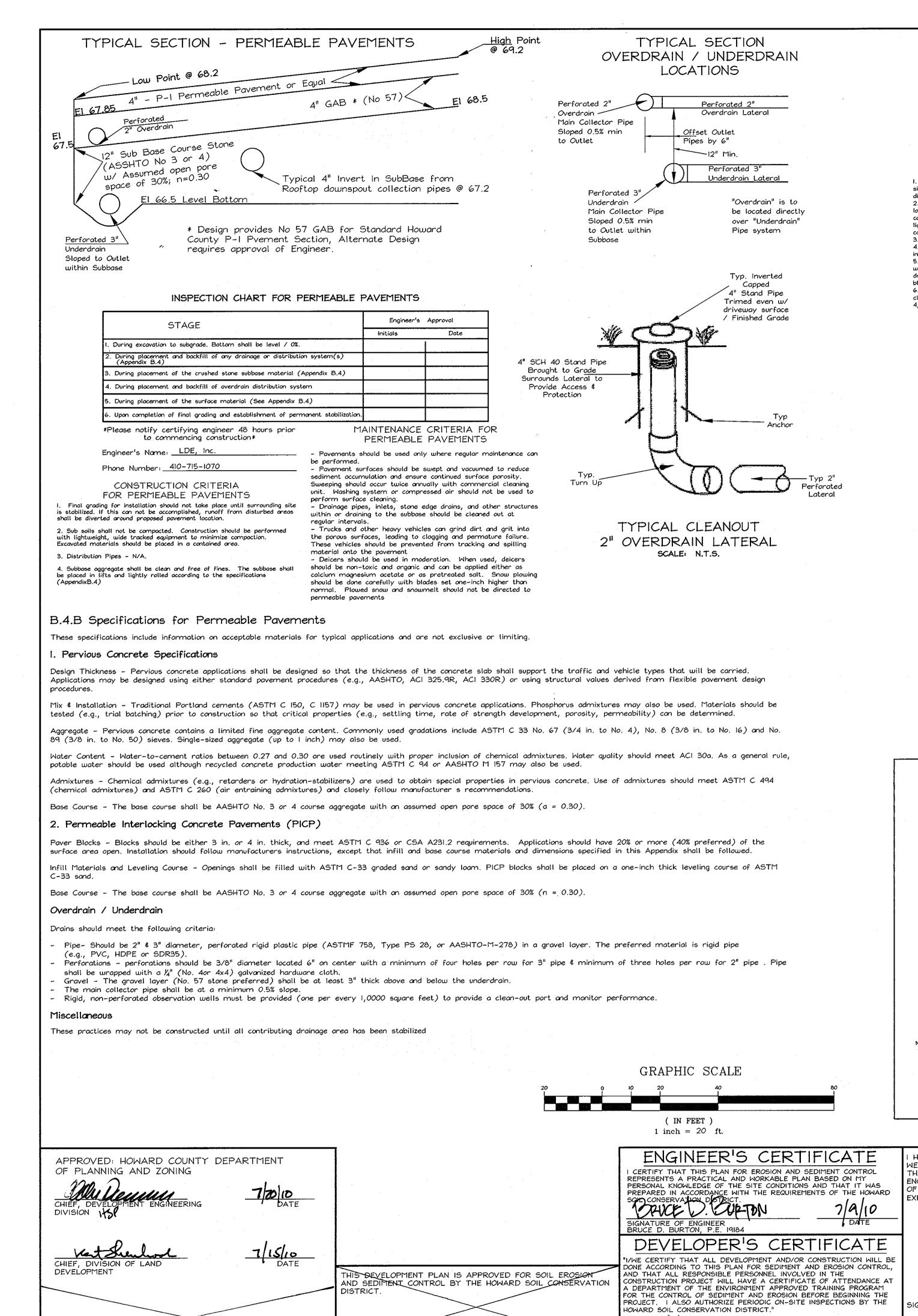
Filtering Efficiency

Tensite Modulus

REVISIONS Description

Engineers, Surveyors, Planners 9250 Rumsey Road, Suite 106 Columbia, Maryland - 21045 (410)715-1070 - (301)596-3424 - FAX(410)715-9540 ENVIRONMENTAL CONCEPT PLAN GRADING, SOIL EROSION & SEDIMENT CONTROL PLAN - DETAILS As Shown GUTIERREZ RESIDENCE LUNN PROPERTY LOT 4 FOR SINGLE FAMILY DWELLING 2 OF 3 6166 MONTGOMERY ROAD CHECKED TAX MAP 37 GRID 4 PARCEL 210 JOB NO. Ist ELECTION DISTRICT HOWARD COUNTY MD 10-001 revious Submittals: F98-091, WP 98-11, F92-145, WP 92-06 BULDER/DEVELOPER: SASLOW HOMES Martin & Cynthia Gutierrez ECP -7520 Main Street, Suite 204 6/2010 6166 Montgomery Road Sykesville, MD 21784 Elkridge, MD 21075-5911 10-010 410-379-1969 410-781-4844

LDE Inc.



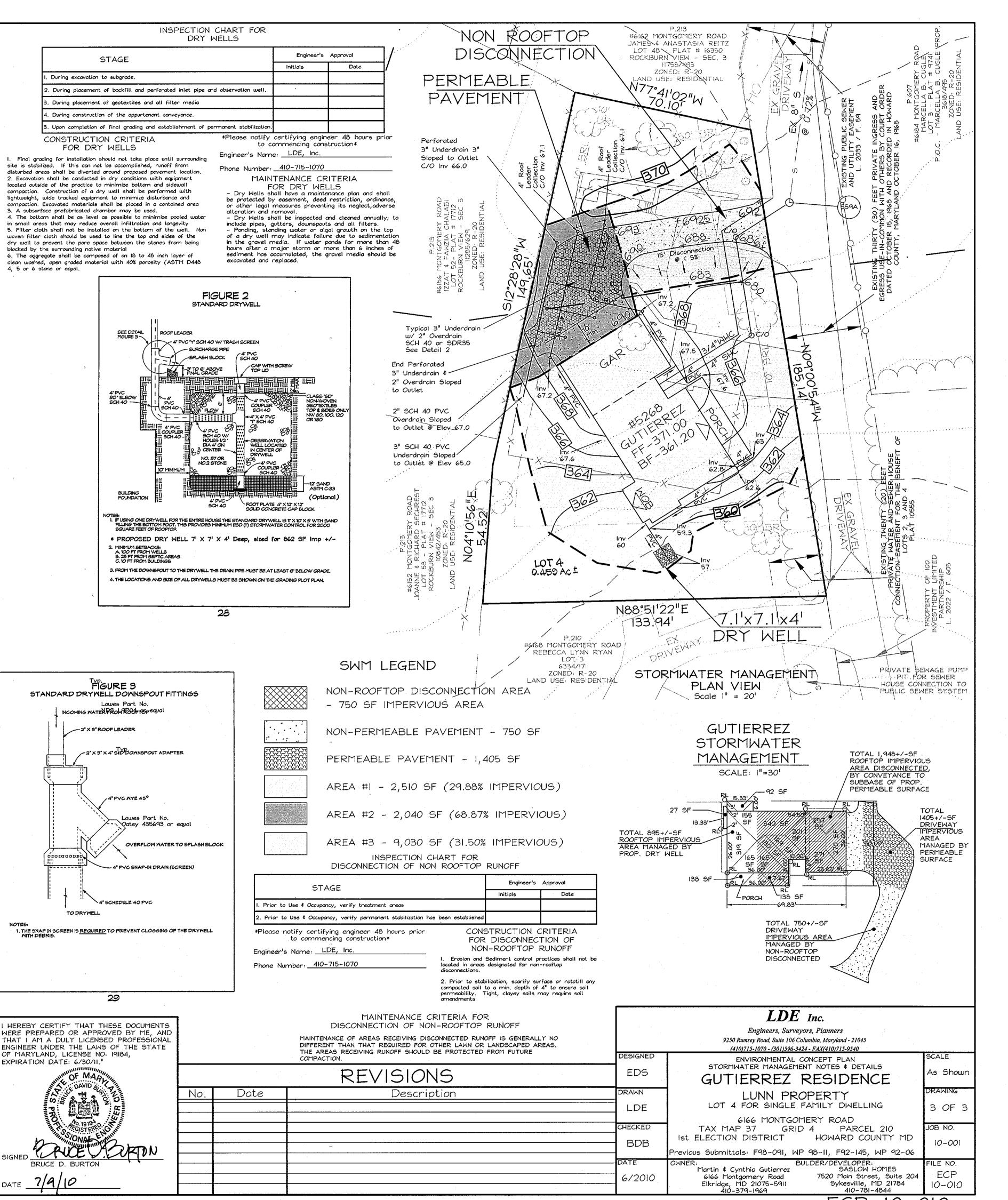
DIRECTOR

DATE

HOWARD SOIL CONSERVATION

SIGNATURE OF DEVELOPER HOWARD SASLOW

7-8-2010



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