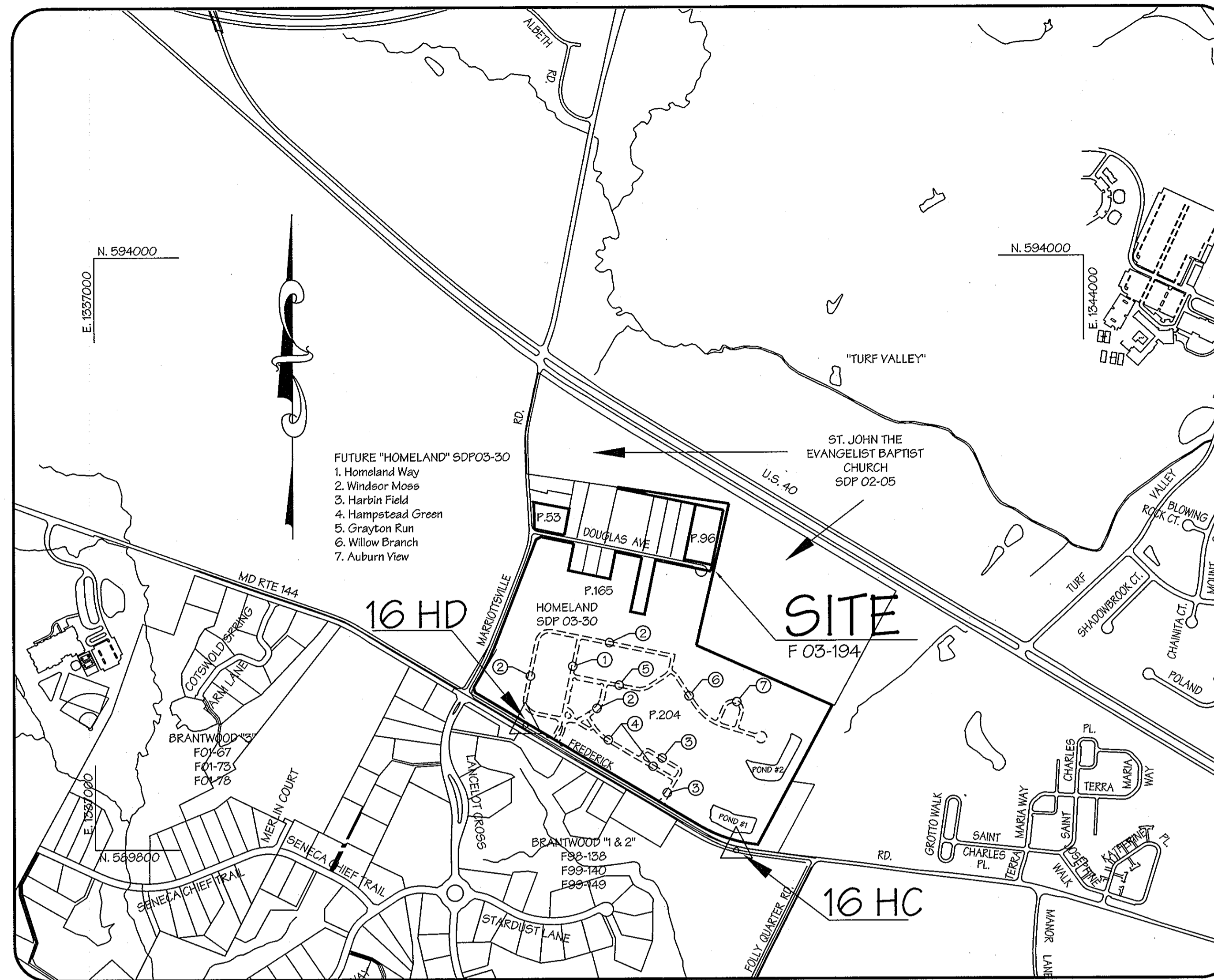


INDEX OF SHEETS	
No.	Description
1	Cover Sheet
2	Douglas Avenue Cul-De-Sac - Plan & Profile
3	Drainage Area Map
4	Grading and Soil Erosion & Sediment Control Plan
5	Grading and Soil Erosion & Sediment Control Plan - Details
6	Road Construction & Grading and Soil Erosion & Sediment Control Plan - Details
7	Landscape Plan

BENCHMARKS

HOWARD COUNTY GEODETIC CONTROL: 16HC
 Elevation: 449.451
 Northing: 569780.908 Easting: 13341530.147
 Station is a standard stamped disc set on top of concrete monument. Located on the southern boundary of Maryland Route 144, 0.1 Mile west of Folly Quarter Road.

HOWARD COUNTY GEODETIC CONTROL: 16HD
 Elevation: 512.208
 Northing: 590674.171 Easting: 1340043.586
 Station is a standard stamped disc set on top of concrete monument. Located 43' east of BGE Pole # 331.656 near the Maryland Route 144 and Marriottville Road intersection. 3' from the edge of Maryland Route 144 paving and 25.5' from the Marriottville Road street sign. Station is flush with surface.

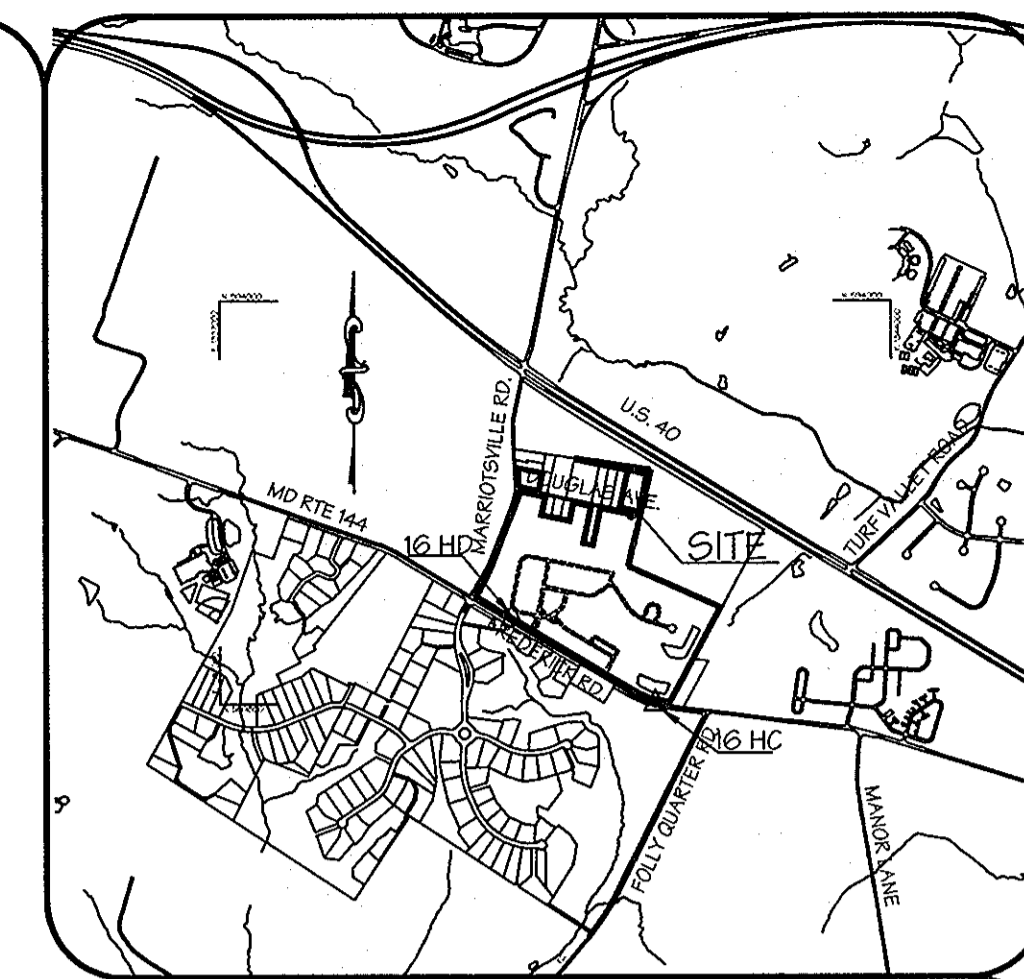


LOCATION MAP

Scale: 1" = 600'

FINAL ROAD CONSTRUCTION PLANS HOMELAND

3rd ELECTION DISTRICT - HOWARD COUNTY, MD



VICINITY MAP

Scale: 1" = 2000'

GENERAL NOTES

- Project Background:
 - Location: Ellicott City, Maryland
 - Tax Map: 16
 - Parcel: 53, 96, 165, and 204
 - Grid: 4
 - Election District: 3rd
- The subject property is zoned RC / DEO (Rural Conservation - Density Exchange Option) per the 10/18/83 Comprehensive Zoning Plan.
- This plan is subject to 5/6/96 Howard County Zoning Regulations and to the 5th Edition of the Howard County Subdivision and Land Development Regulations.
- Deed Reference:
 - Parcel 53: L. 5199 F. 402 - 1.14 Acres
 - Parcel 96: L. 4987 F. 674 - 1.84 Acres
 - Parcel 165: L. 4008 F. 453 - 10.52 Acres
 - Parcel 204: L. 4249 F. 452 - 61.72 Acres
- 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 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 contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- Street light placement and the type of fixture and pole shall be in accordance with the Howard County Design Manual, Volume III (1993) and as modified by "Guidelines for Street Lights in Residential Developments (June 1993)". A minimum spacing of 20' shall be maintained between any street light and any tree.
- The property shown hereon is based on a field run boundary survey performed by LDE, Inc. dated October 1999.
- The topography shown hereon was compiled by Harford Aerial, January 2002 and spot checked for accuracy by field run topography by LDE, Inc. April 2002.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 16 HC and 16 HD were used for this project.
- Water, is an existing public water main, Contract # 44-5480.
- The sewer systems along Douglas Avenue are private septic systems. The future units per SDP 03-30 will utilize the private septic system as shown on the aforementioned Site Development Plan.
- Stormwater management will be accomplished under approved SDP 03-30. The controls will be privately owned and maintained.
- The existing utilities shown hereon are located from field surveys and construction drawings of record. The contractor shall locate existing utilities to his own satisfaction and well in advance of any construction activities. Additionally, the contractor shall take all necessary precautions to protect all existing utilities and maintain uninterrupted service. Any damage incurred to utilities or existing features due to contractor's operation shall be repaired immediately at the contractor's expense.
- There may be additional utilities not shown on these plans. The engineer assumes no responsibility for utility locations not shown and it shall be the responsibility of the contractor to verify the locations of all existing utilities within the limits of construction and notify the engineer of any discrepancies, prior to the start of construction.
- Any damage caused by the contractor to existing public right-of-way, existing paving, existing utilities, etc. shall be corrected at the contractor's expense in accordance with the Howard County Standards and Specifications.
- Deviations from these plans and specifications without prior written consent of the civil engineer may cause the work to be unacceptable.
- All utility poles within the limit of construction shall be braced prior to the start of work. Contractor shall contact Utility Companies prior to bracing, adjustment or relocation.
- Adjustments to the sequence of construction shall be approved by the Howard County Department of Inspections, Licenses and Permits, prior to such adjustments.
- All fill shall be rolled to a minimum degree of compaction of 95% of the dry unit weight as determined by AASHTO T-180.
- The dimensioned distances shall govern if scaled and dimensioned distances on this plan are found to be in disagreement.
- There is no floodplain on this site. The floodplain study for the "Homeland" project was approved under SDP 03-30.
- There are no wetlands on this site. The wetland delineation for the "Homeland" project was approved under SDP 03-30.
- No traffic study is required for this project. The traffic studies for the "Homeland" project was approved under SDP 03-30.
- The Contractor shall maintain vehicular access and utility service to the existing dwelling (#1110 Douglas Avenue) during all phases of construction.
- The Existing Fire Hydrant shall be relocated by Advance Deposit Order (A.D.O.). The contractor shall coordinate this with Howard County Bureau of Utilities.

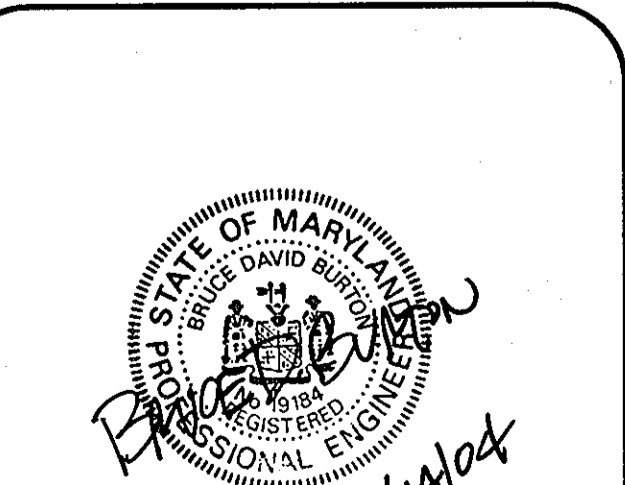
AS-BUILT

By	Date	No.	Description
REVISIONS			

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 2-3-04
 CHIEF, BUREAU OF HIGHWAYS

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.
 [Signature] 1/29/04
 CHIEF, NATURAL RESOURCE CONSERVATION SERVICE

ENGINEER'S CERTIFICATE
 I hereby certify that this plan and specifications represent a practical and workable plan based on the conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 [Signature] 1/14/04
 REGISTERED PROFESSIONAL ENGINEER



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 2/6/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

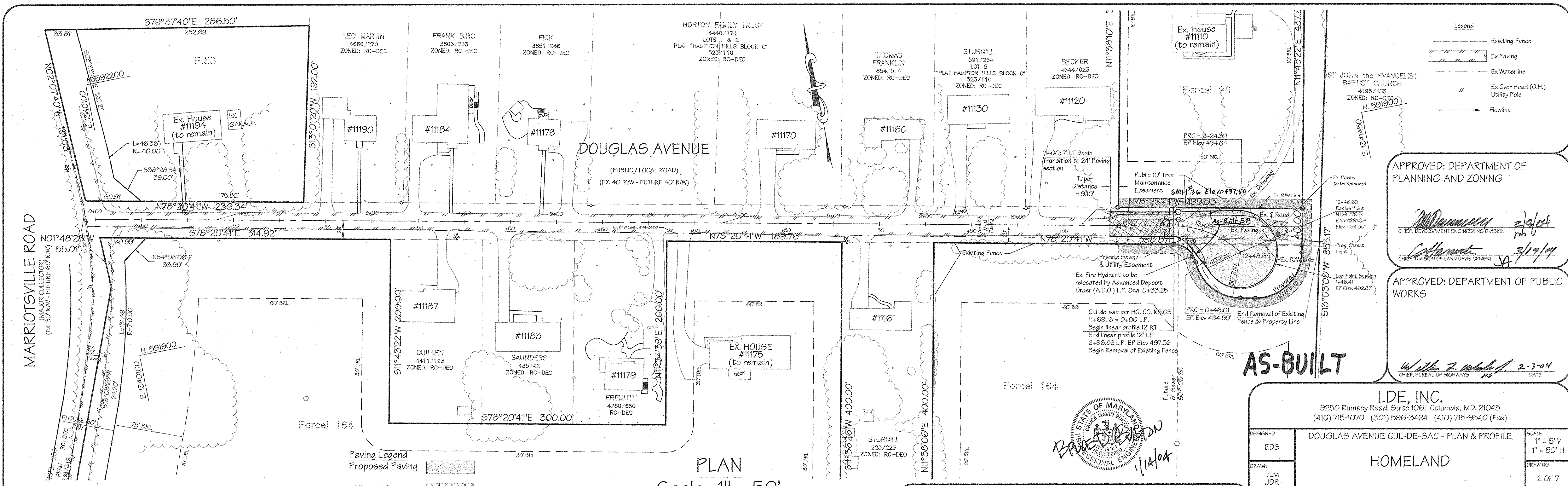
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature] 1/29/04
 CHIEF, DIVISION OF LAND DEVELOPMENT

DEVELOPER'S CERTIFICATE
 We certify that all development and construction will be done according to this plan of development for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspections by the Howard Soil Conservation District.
 [Signature] 1/14/04
 SIGNATURE OF DEVELOPER

OWNERS:
 Parcel 53: Hugh F. Cole Jr. and John F. Liparini, 8835 P Columbia 100 Pkwy, Columbia, Md. 21045
 Parcel 96: Brantwood LLC, 8835 P Columbia 100 Pkwy, Columbia, Md. 21045
 Parcel 165 & 204: Andrew J. & Martha Harbin, 9736 Old Frederick Road, Ellicott City, Maryland 21042

LDE, INC.
 9250 Rumsey Road, Suite 106, Columbia, MD, 21045
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED	EDS	SCALE	AS SHOWN
DRAWN	JLM JDR	DRAWING	1 OF 7
CHECKED	BDB	JOB NO.	99-051.20
DATE	1/2004	PREVIOUS SUBMITTALS: BA 00-52E, WP 03-12B, SDP 03-30	FILE NO.
		DEVELOPER	F 03-194



By	Date	No.	Description
REVISIONS			

Paving Legend

Proposed Paving: [Symbol]

Mill and Overlay: [Symbol]

Existing Paving: [Symbol]

Existing Paving to be Removed: [Symbol]

Note: For Douglas Avenue Cul-de-sac Road Dedication and Right-of-way detail see sheet 6 of 7.

Street Name	Symbol	C Station	Offset	Lamp Type	Fixture Type	Pole Type
Douglas Avenue	[Symbol]	1+80.26	5.0' RT	100 W HPS VAPOR	PREMER POST TOP	30' BRONZE FIBERGLASS

Name & Station	Radius	Delta	Length	Tangent	Chord Bearing & Dist.
Linear Profile - 0+00 - 0+46.01	35.00'	75°19'30"	46.01'	27.01'	N40°40'56"W - 42.77'
Linear Profile - 0+46.01 - 2+24.39	40.00'	255°30'06"	178.37'	-51.66'	N49°13'46"W - 63.25'
CL Road 1+69.18 PC - PT 12+39.10	106.37'	37°39'44"	69.92'	36.28'	N59°20'49"W - 66.67'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 2/9/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 3/19/04
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS

[Signature] 2-3-04
 CHIEF, BUREAU OF HIGHWAYS

LDE, INC.
 9250 Rumsey Road, Suite 106, Columbia, MD. 21045
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: EDG
 DRAWN: JLM, JDR
 CHECKED: BDB
 DATE: 1/2004

DOUGLAS AVENUE CUL-DE-SAC - PLAN & PROFILE

HOMELAND

Tax Map No. 16 - Grid No. 4 - P/O Parcel 165
 3rd Election District - Zoning RC-DEO
 Howard County, Maryland

PREVIOUS SUBMITTALS: BA 00-52E, WP 03-128, SDP 03-30

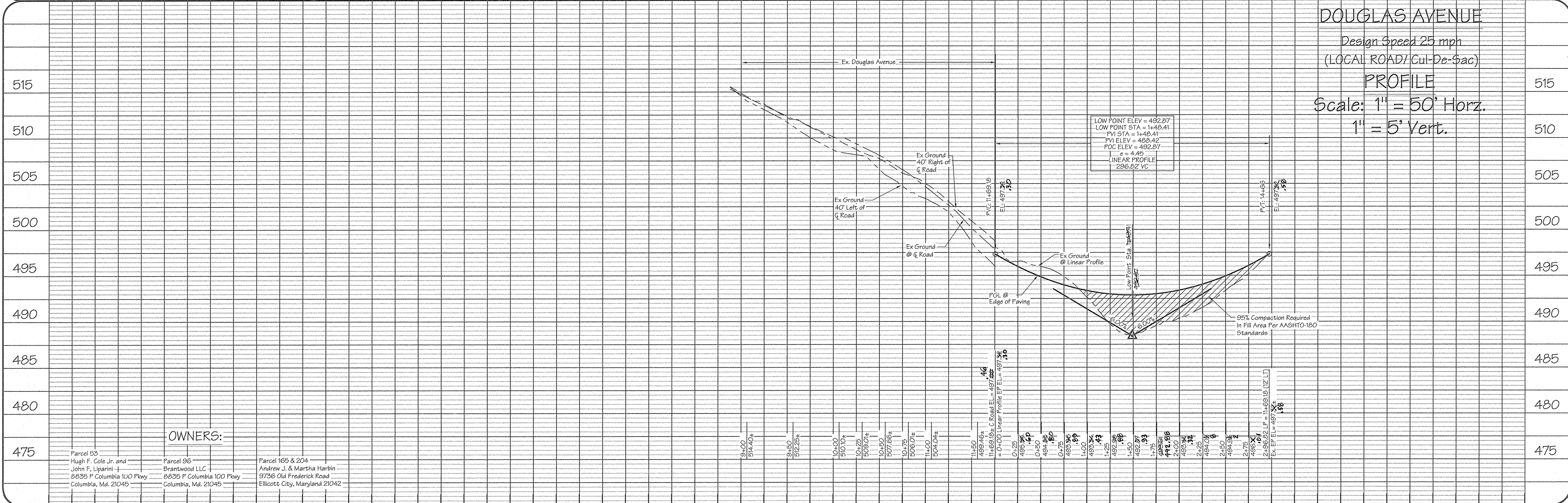
DEVELOPER: Land Source / Brantly, LLC
 8835-P Columbia 100 Parkway
 Columbia, Maryland 21045
 410-730-0810

SCALE: 1" = 5' V
 1" = 50' H

DRAWING: 2 OF 7

JOB NO.: 99-051.20

FILE NO.: F 03-194



DOUGLAS AVENUE
 Design Speed 25 mph
 (LOCAL ROAD/ Cul-De-Sac)
PROFILE
 Scale: 1" = 50' Horiz.
 1" = 5' Vert.

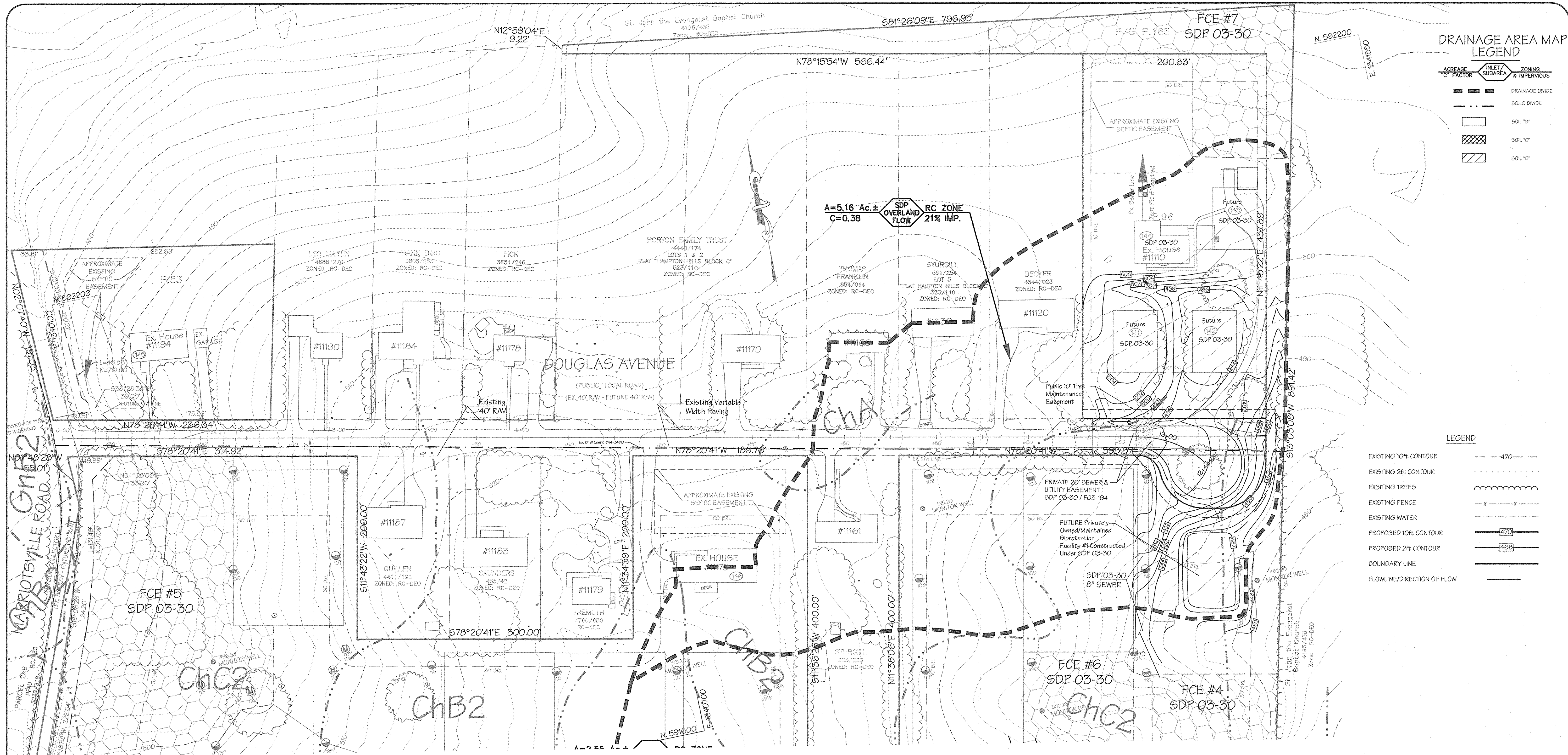
OWNERS:

Parcel 53: Hugh F. Cole Jr. and John F. Liparini - 8835 P Columbia 100 Pkwy Columbia, Md. 21045

Parcel 96: Brantwood LLC - 8835 P Columbia 100 Pkwy Columbia, Md. 21045

Parcel 165 & 204: Andrew J. & Martha Harbin - 9736 Old Frederick Road Ellicott City, Maryland 21042

File and Project: C:\Users\Bjork\My Documents\Projects\Bjork\Plan & Profile_1/14/2004_2:03:35 PM



DRAINAGE AREA MAP LEGEND

ACREAGE C FACTOR	INLET SUBAREA	ZONING % IMPERVIOUS
---	---	---
---	---	---
---	---	---
---	---	---
---	---	---

LEGEND

EXISTING 10ft CONTOUR	---
EXISTING 2ft CONTOUR	---
EXISTING TREES	---
EXISTING FENCE	---
EXISTING WATER	---
PROPOSED 10ft CONTOUR	---
PROPOSED 2ft CONTOUR	---
BOUNDARY LINE	---
FLOWLINE/DIRECTION OF FLOW	---

AS-BUILT

NOTES: 1) This sheet shall not be used for grading purposes.
2) If no Time of Concentration is shown, 5 min Tc was used.

By	Date	No.	Description
			REVISIONS

APPROVED: DEPARTMENT OF PUBLIC WORKS
William Z. White 2-3-04
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
John P. ... 2/9/04
 CHIEF, DIVISION OF LAND DEVELOPMENT

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.
Jim Murray 1/29/04
 USDA NATURAL RESOURCE CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John R. ... 1/29/04
 HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE
 I hereby certify that this plan represents a practical and workable plan based on my professional judgment and that it was prepared in accordance with the requirements of the Professional Engineering Act of 1975.
Bruce D. ... 1/14/04
 REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE
 We certify that all development and construction will be done according to this plan of development for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspections by the Howard Soil Conservation District.
John P. ... 1/14/04
 SIGNATURE OF DEVELOPER

OWNERS:

Parcel 53
 Hugh F. Cole Jr. and John F. Lipari
 8835 P Columbia 100 Pkwy
 Columbia, Md. 21045

Parcel 96
 Brantwood LLC
 8835 P Columbia 100 Pkwy
 Columbia, Md. 21045

Parcel 165 & 204
 Andrew J. & Martha Harbin
 9736 Old Frederick Road
 Ellicott City, Maryland 21042

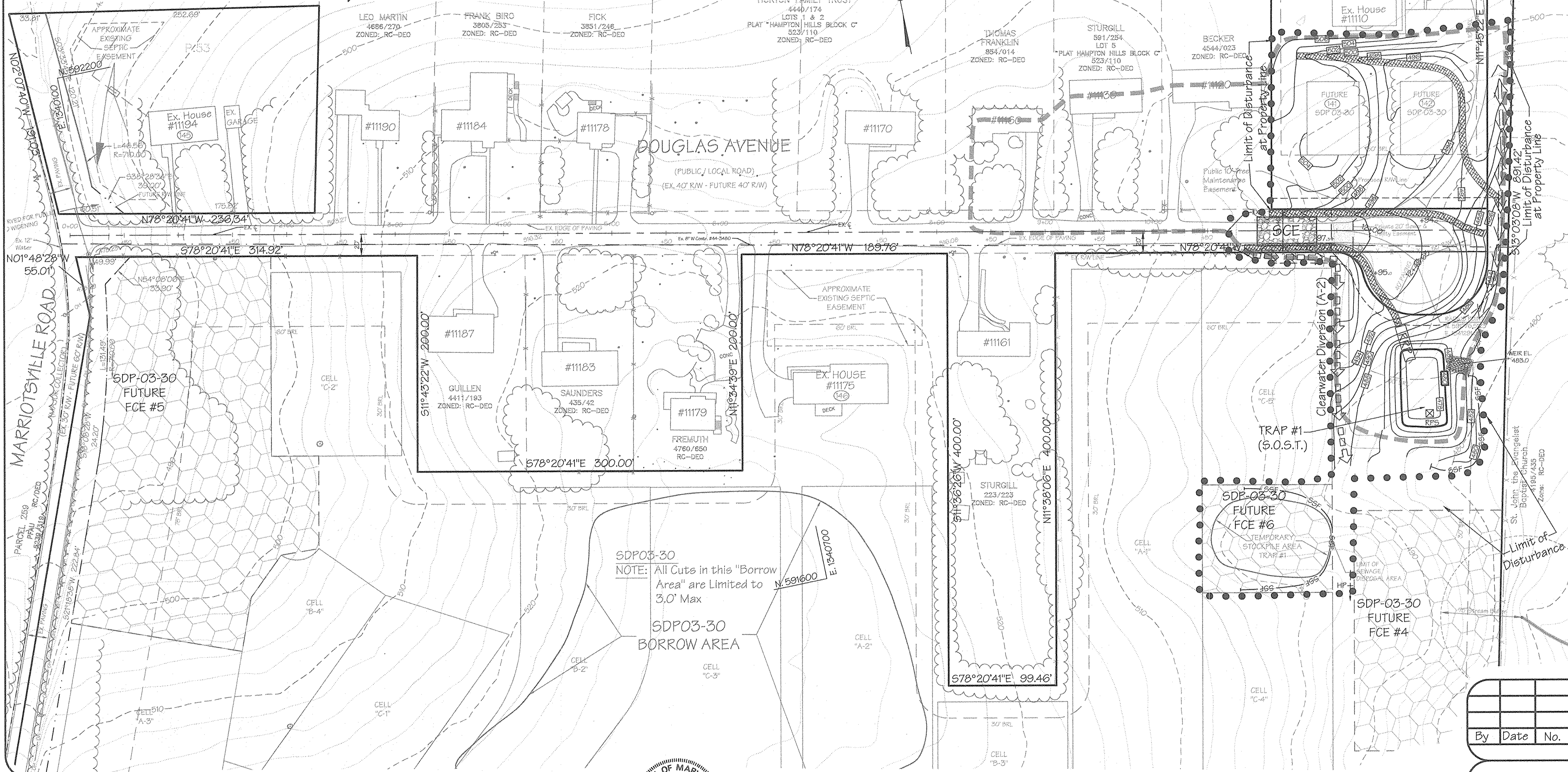
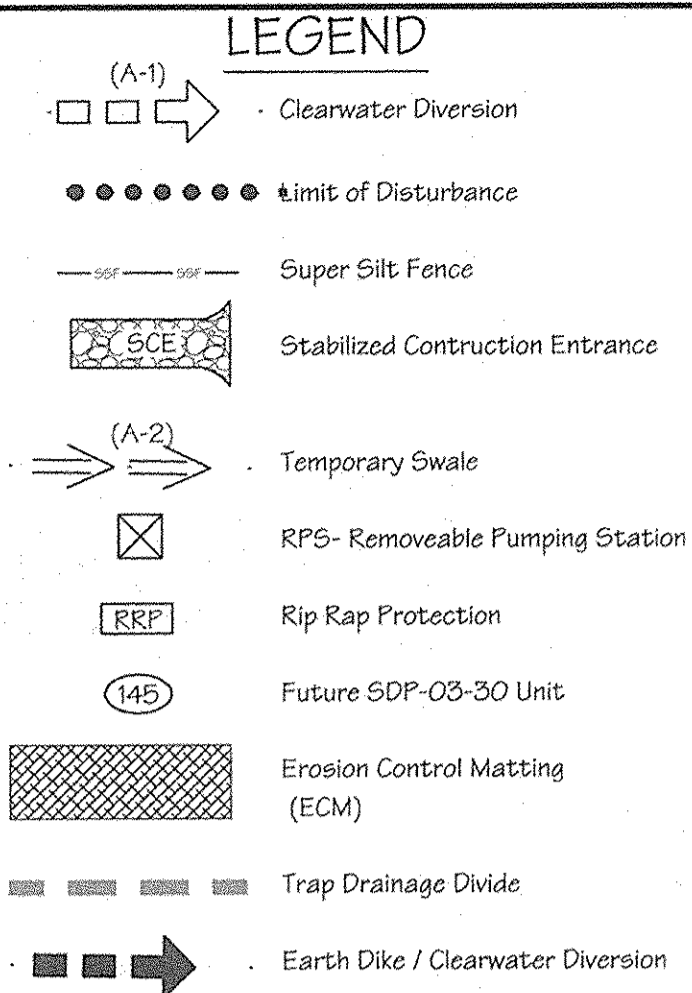
LDE, INC.
 9250 Rumsey Road, Suite 106, Columbia, MD. 21045
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: EDS
 DRAWN: JLM/JDR
 CHECKED: BDB
 DATE: 1/20/04

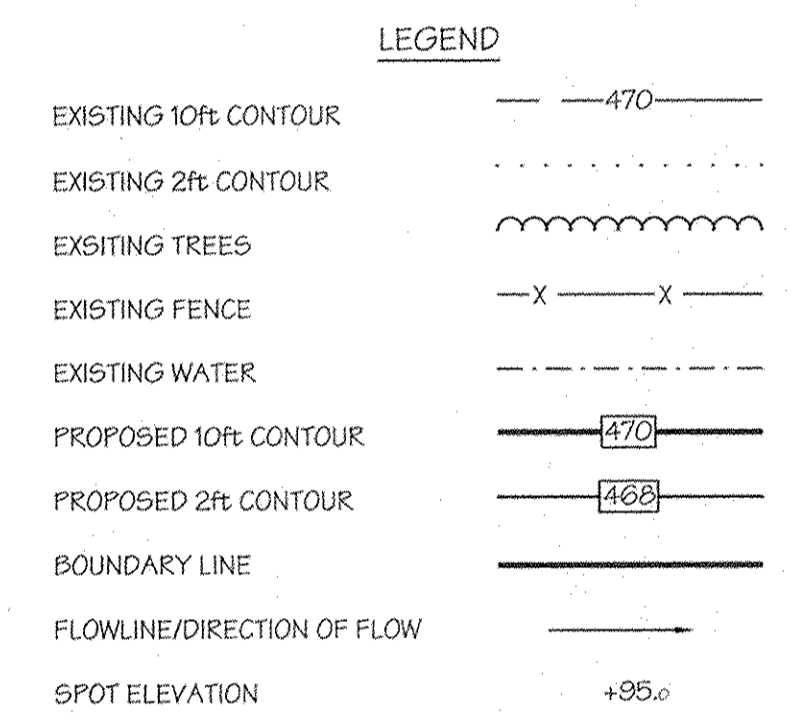
SCALE: 1" = 50'
 DRAWING: 3 of 7
 JOB NO.: 99-051.20
 FILE NO.: F 03-194

Drainage Area Map
HOMELAND
 Tax Map No. 16 - Grid No. 4 - P/O Parcel 165
 3rd Election District - Zoning RC-DEO
 Howard County, Maryland
 PREVIOUS SUBMITTALS: BA 00-52E, WF 03-12B, SDP 03-30
 DEVELOPER: Land Source / Brantly, LLC
 8835 P Columbia 100 Parkway
 Columbia, Maryland 21045
 410-730-0810

TRAP # 1	
Drainage Area	1.98 Acres
Storage Required	7,128 cu. Ft.
Storage Provided	16,256 cu. ft.
Storage Elevation - Wet	481.00
Dry	483.00
Storage Depth - Wet	3.0 ft.
Dry	2.0 ft.
Trap Bottom Elev.	478.00
Cleanout Elevation	479.70
Weir Crest Elevation	483.00
Top Elevation	484.00
Trap Size (Bottom)	30' x 56'
Trap Type	ST - 11



NOTE: CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS AND UTILITY SERVICE TO # THE EXISTING DWELLING (#1110 DOUGLAS AVENUE) DURING ALL PHASES OF CONSTRUCTION.



AS-BUILT

NOTE: 1.) ALL "TEMPORARY SWALES" ARE TO REMAIN AS PERMANENT FEATURES AND SHALL BE STABILIZED WITH EROSION CONTROL MATTING SEED & MULCH.
 2.) THE SEDIMENT TRAP #1 SHALL REMAIN IN PLACE AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE SEDIMENT CONTROL INSPECTOR AUTHORIZES CONVERSION TO A BIO-RETENTION FACILITY UNDER SDP-03-30.

OWNERS:

Parcel 53
Hugh F. Cole Jr. and John F. Liparini
8825 P Columbia 100 Pkwy
Columbia, Md. 21045

Parcel 96
Brantwood LLC
8835 P Columbia 100 Pkwy
Columbia, Md. 21045

Parcel 166 & 204
Andrew J. & Martha Harbin
9736 Old Frederick Road
Ellicott City, Maryland 21042

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature]
 2-3-04 DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.
 [Signature]
 1/29/04 DATE

ENGINEER'S CERTIFICATE
 I hereby certify that this plan was prepared by me or under my direct supervision and that it was prepared in accordance with the requirements of the Professional Engineers and Surveyors Act of 1918 and the Regulations of the Board of Professional Engineers and Surveyors.
 [Signature]
 1/14/04 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature]
 2/9/04 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature]
 1/29/04 DATE

DEVELOPER'S CERTIFICATE
 We certify that all development and construction will be done according to this plan of development for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspections by the Howard Soil Conservation District.
 [Signature]
 1/14/04 DATE

By	Date	No.	Description
REVISIONS			

LDE, INC. 9250 Rumsey Road, Suite 106, Columbia, MD. 21045 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)			SCALE 1" = 50'
DESIGNED EDS	HOMELAND Tax Map No. 16 - Grid No. 4 - P/O Parcel 165 3rd Election District - Zoning RC-DEO Howard County, Maryland		DRAWING 4 of 7
DRAWN JLM JDR	PREVIOUS SUBMITTALS: BA 00-52E, WP 03-12B, SDP 03-30		JOB NO. 99-051.20
CHECKED BDB	DEVELOPER Land Source / Brantly, LLC 8835 P Columbia 100 Parkway Columbia, Maryland 21045 410-730-0810		FILE NO. F 03-194
DATE 1/2004			

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. (303-1855).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", and revisions thereto.
3. Following initial soil disturbance or redistribution, 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, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. 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 grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis:

Total Area of Site	2.00 Acres
Area Disturbed	2.00 Acres
Area to be roofed or paved	0.17 Acres
Area to be vegetatively stabilized	1.80 Acres
Total Cut	5,000 Cu. Yds.
Total Fill	5,000 Cu. Yds.
Offsite waste/borrow area location	SDP 03-30
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 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, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
11. Trenches for the construction of utilities is limited to three pipe lengths or that which can be back filled and stabilized within one working day, 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 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/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 acre 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.

SEEDING -- For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (14 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs per acre (14 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue and 2 lbs. per acre (0.5 lbs/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 210 gallons per acre (9 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 340 gallons per acre (9 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.

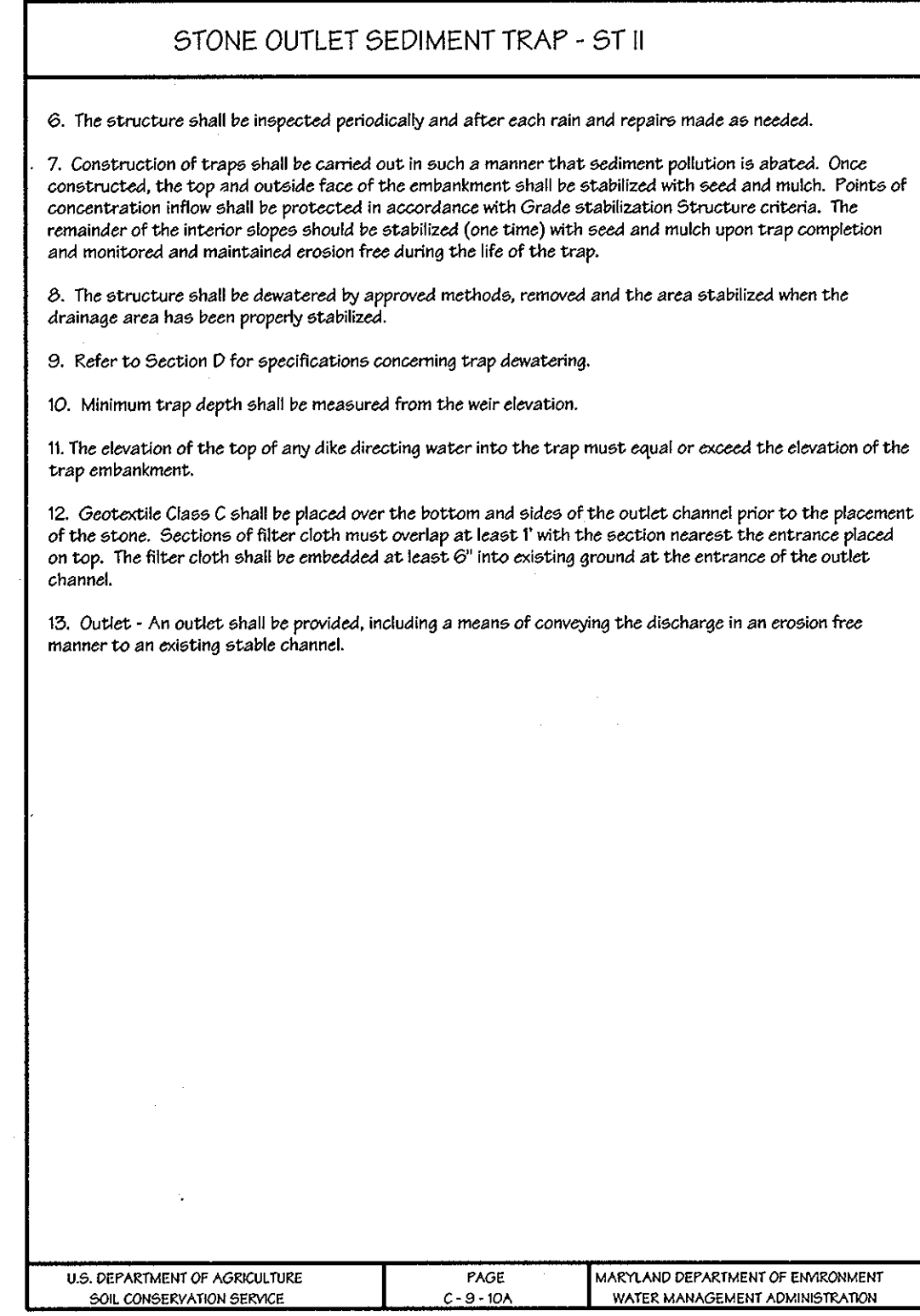
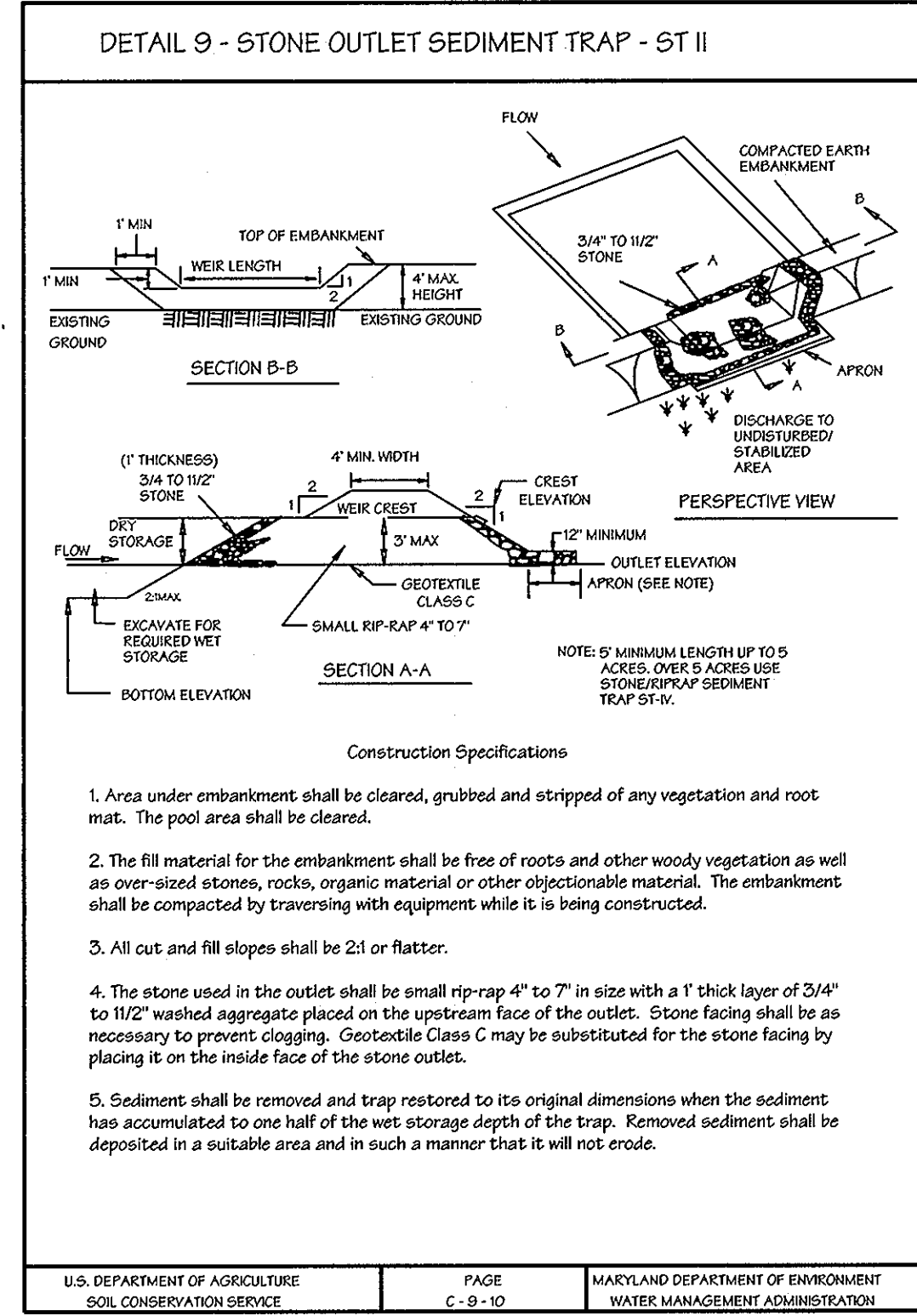
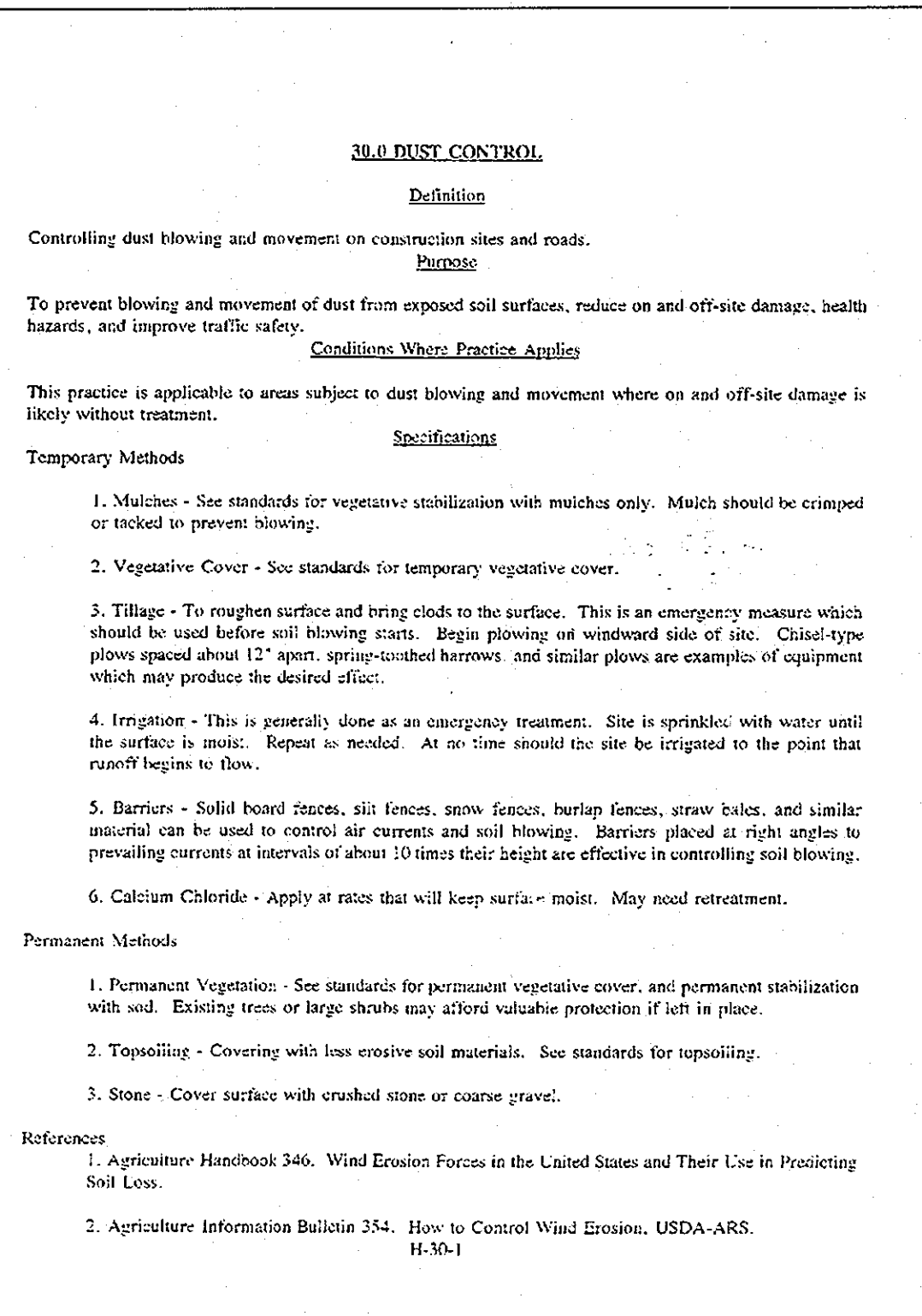
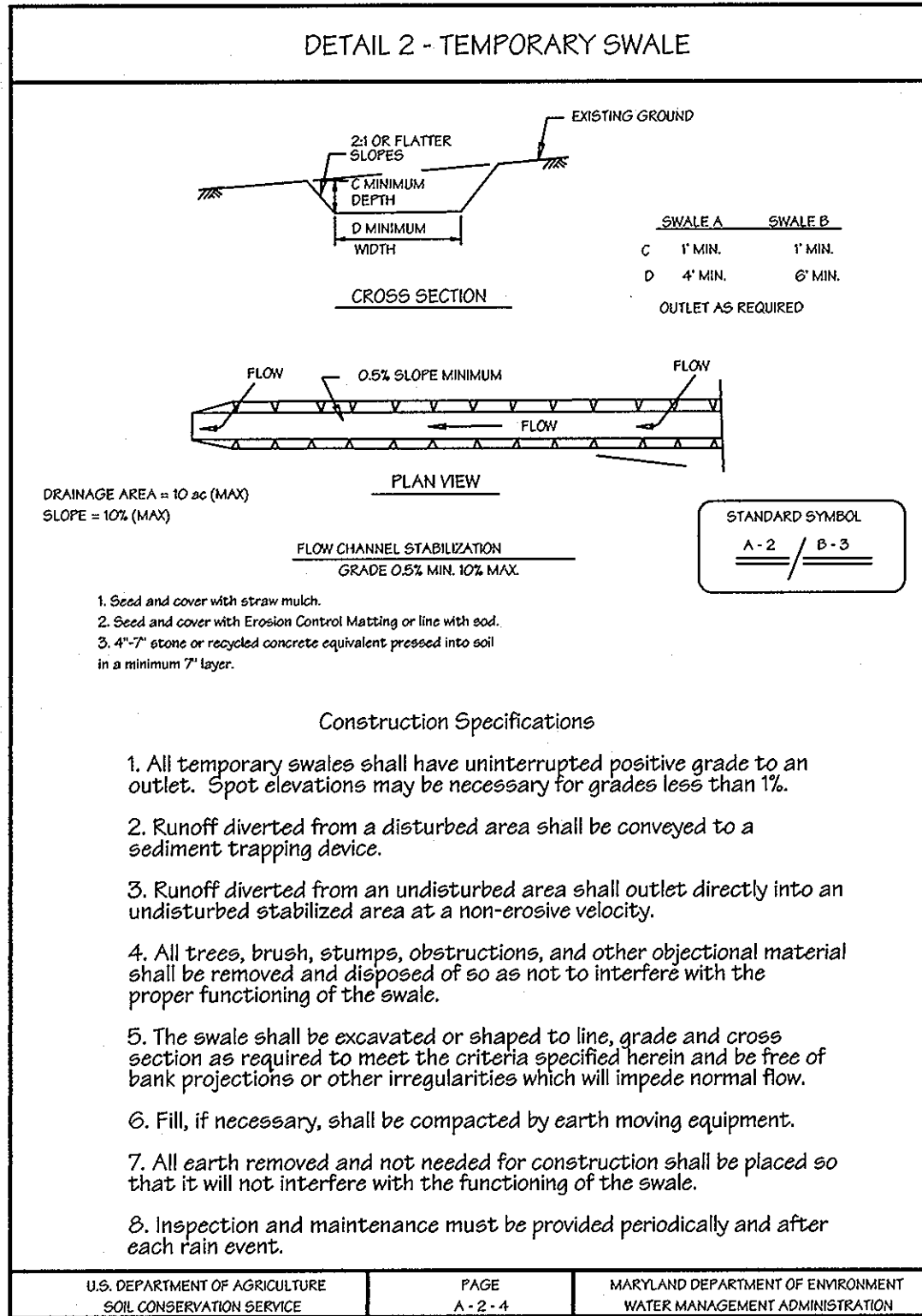
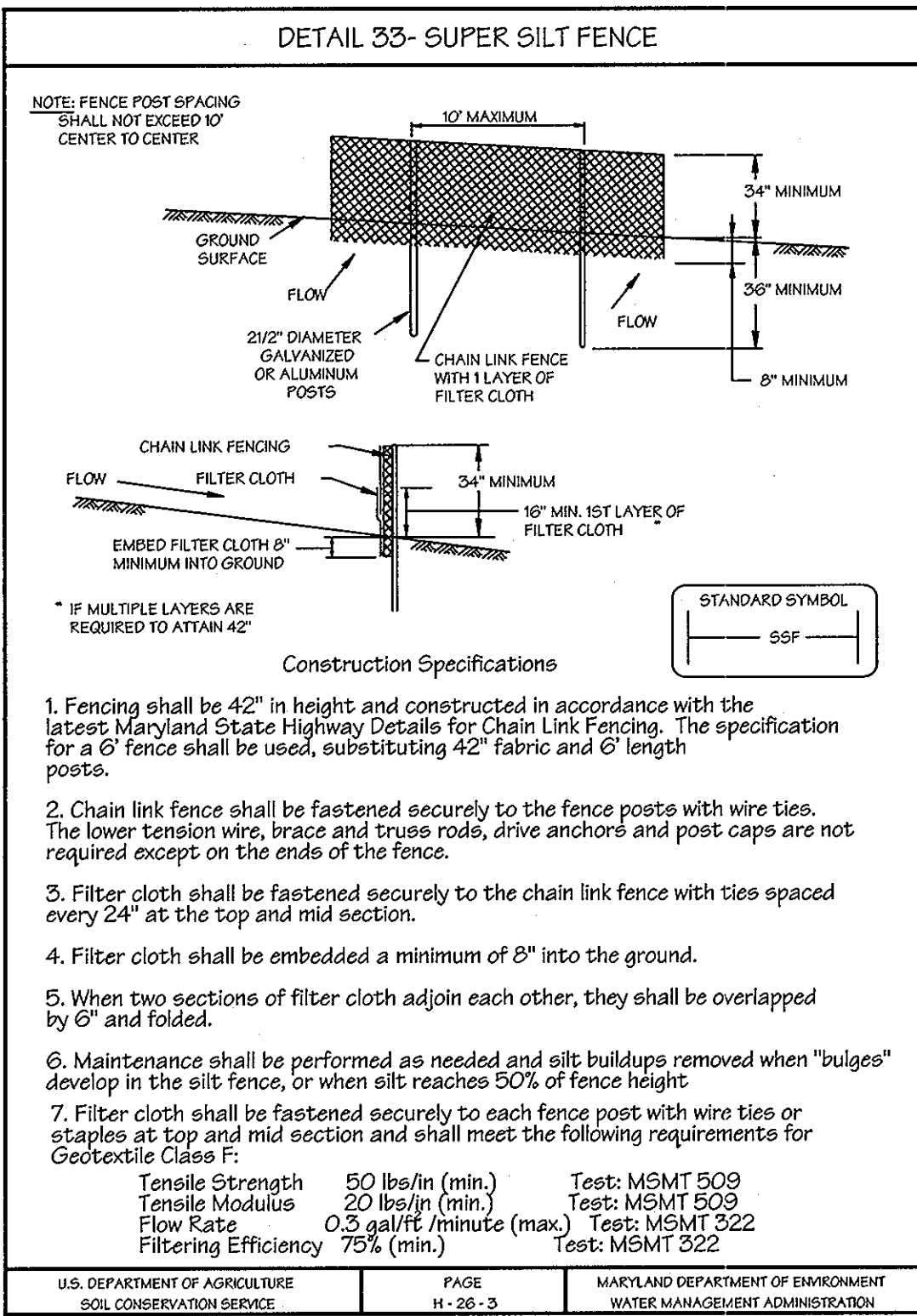
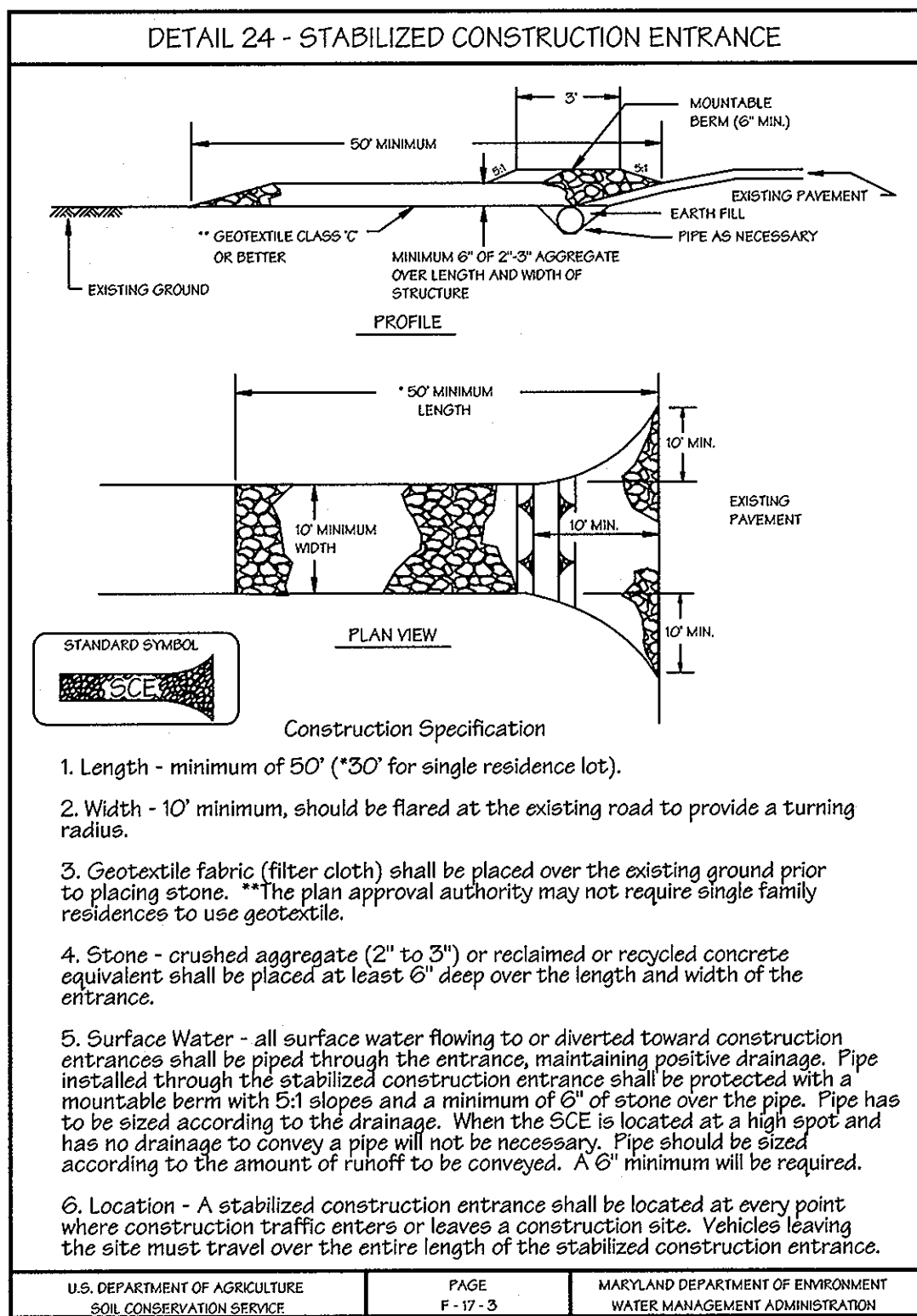
SEEDBED PREPARATION: -- Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.

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

SEEDING -- For periods March 1 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 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 lbs/1000sq. ft.). For the period November 15 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/1000sq. ft.) of unrotted weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gallons per acre (9 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 340 gallons per acre (9 gal/1000sq. ft.) for anchoring.

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



2.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

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 natural topsoil.

ii. Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

V. Topsoil Application

- i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade 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 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.

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:

- i. 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 nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
- ii. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

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

AS-BUILT

APPROVED: DEPARTMENT OF PUBLIC WORKS

 CHIEF, BUREAU OF HIGHWAYS
 DATE: 2/3/04

APPROVED: DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 2/19/04

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

 HOWARD SOIL CONSERVATION DISTRICT
 DATE: 1/29/04

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

 HOWARD SOIL CONSERVATION DISTRICT
 DATE: 1/29/04

ENGINEER'S CERTIFICATE
 I hereby certify that this project represents a practical and workable plan based on my knowledge of the conditions and that it was prepared in accordance with the requirements of the Maryland Soil Conservation District.

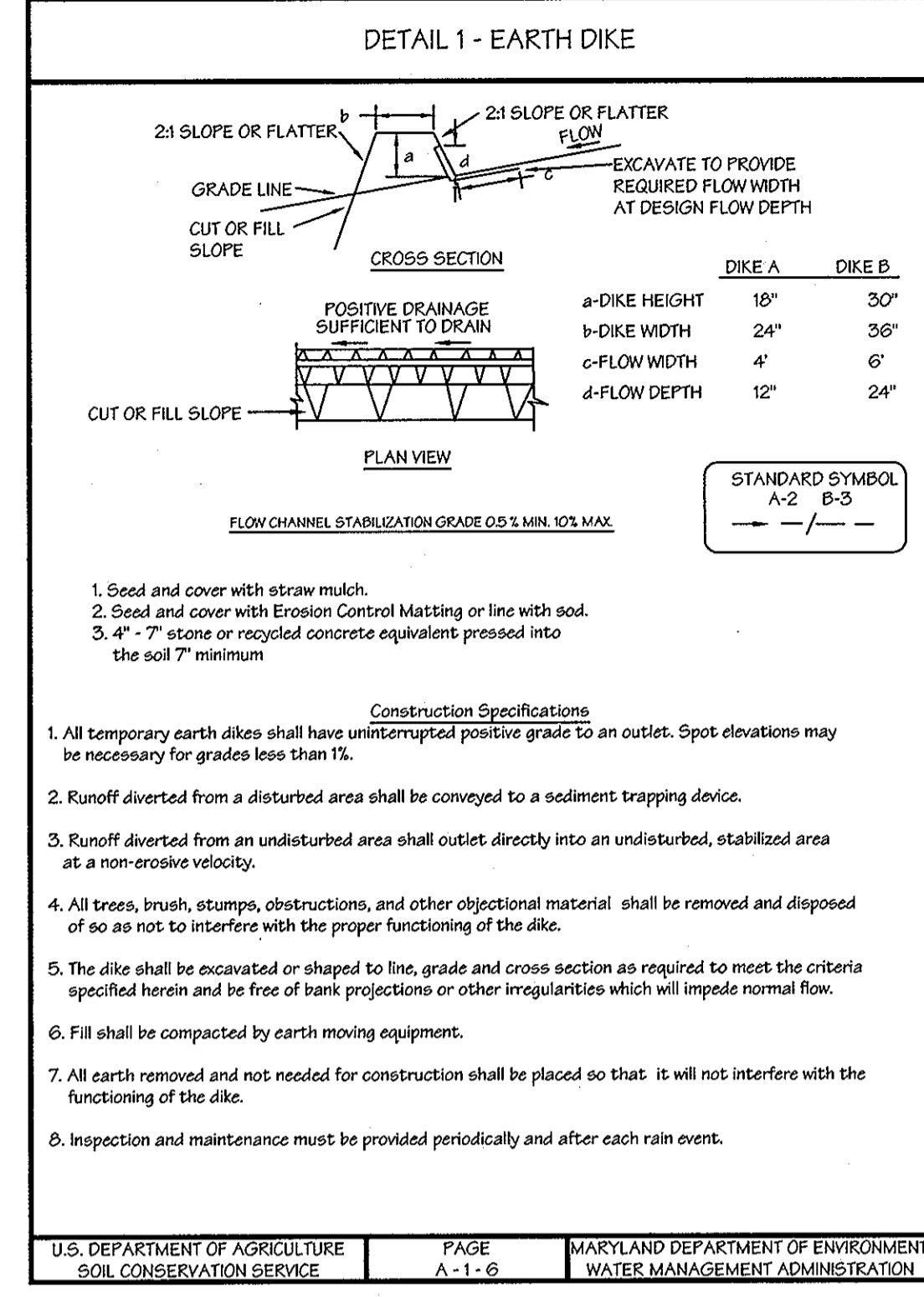
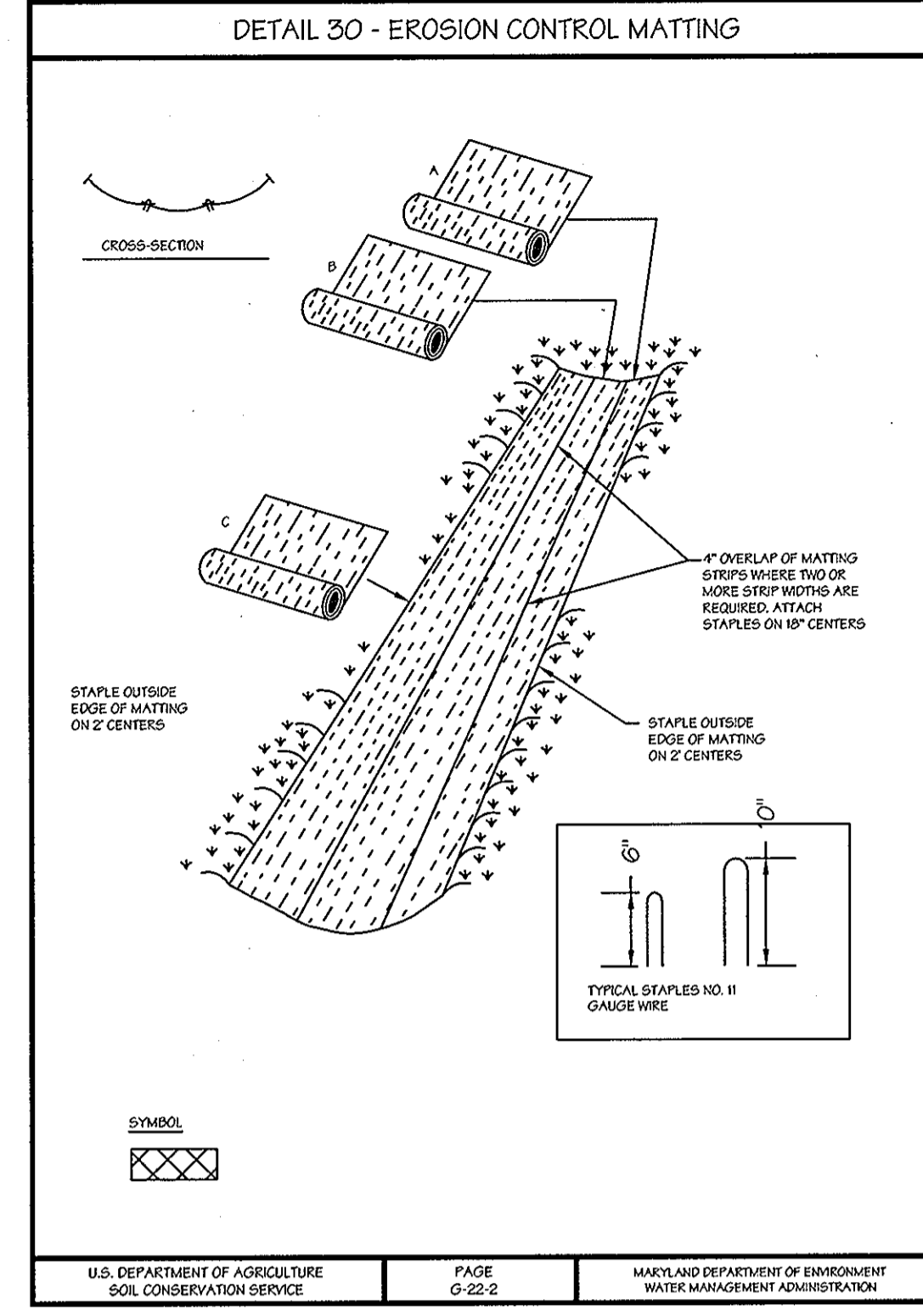
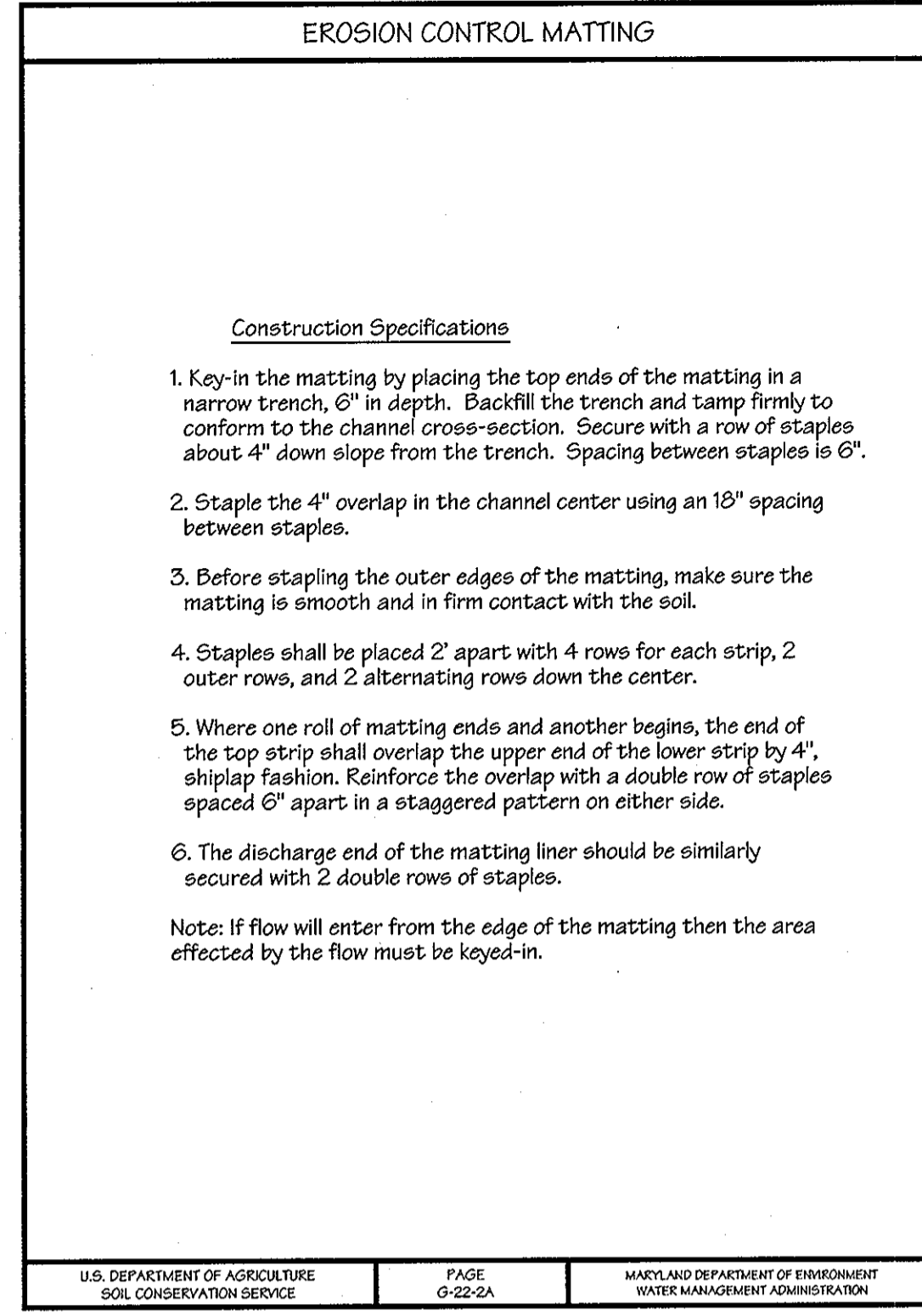
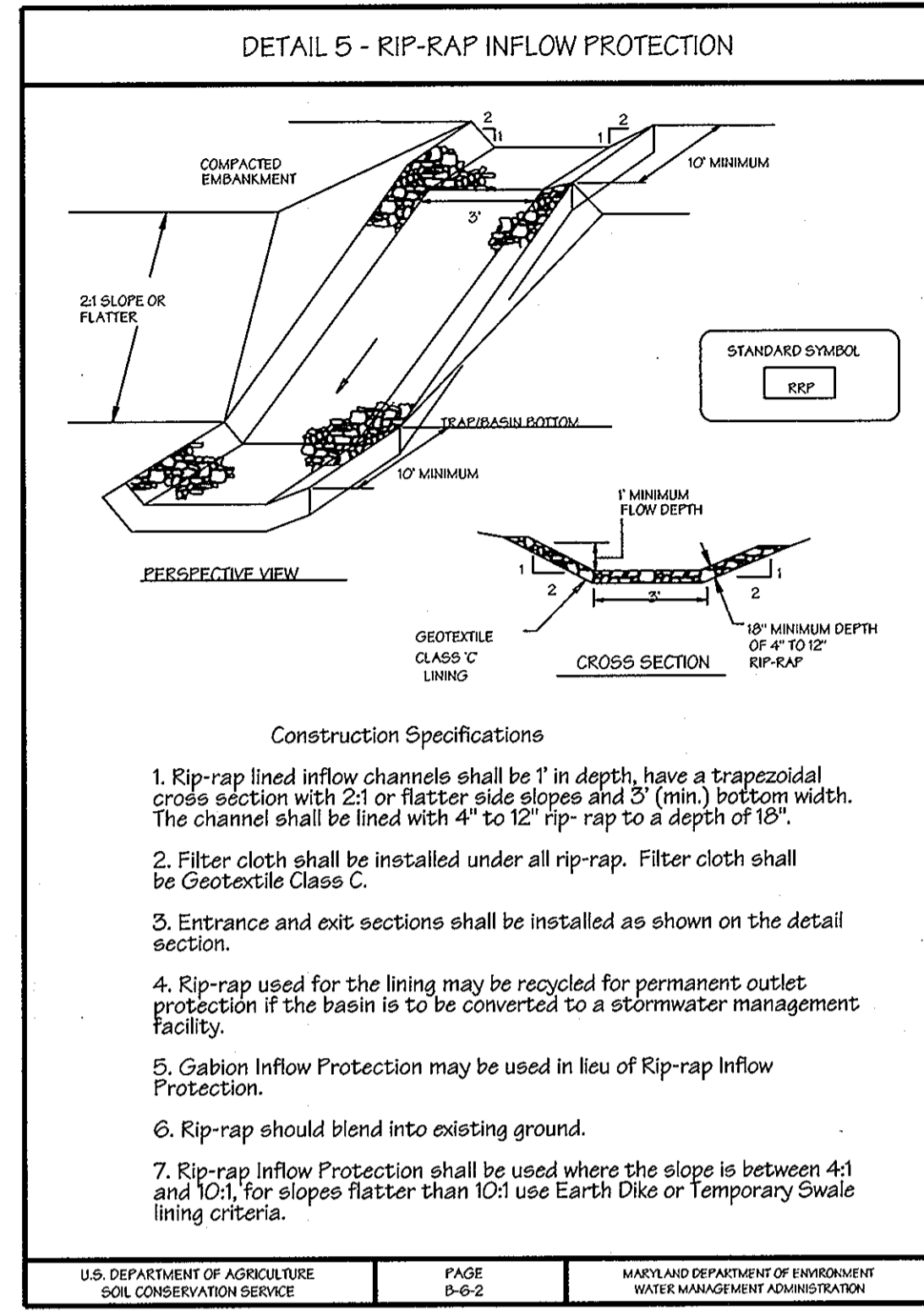
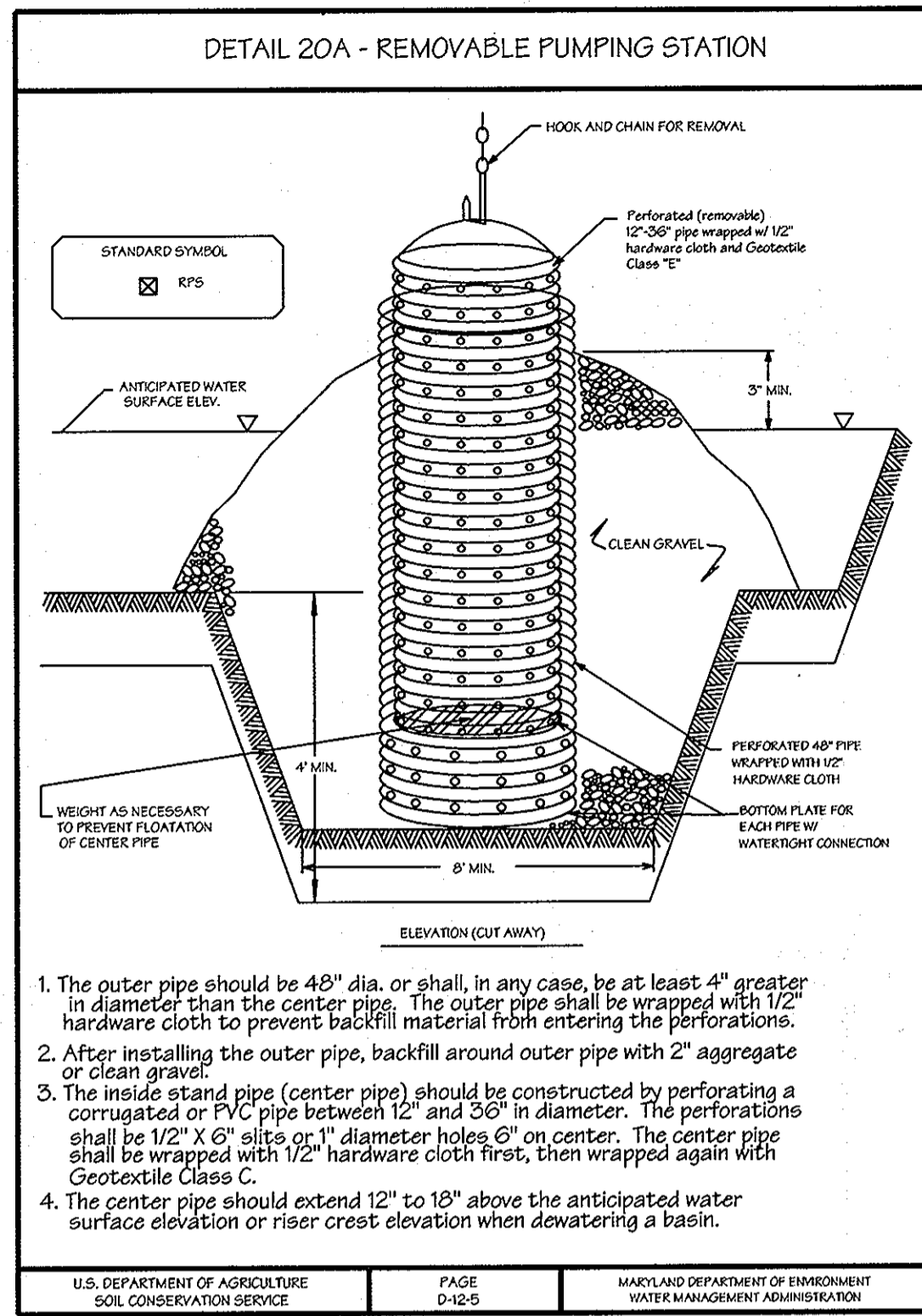
 SIGNATURE OF ENGINEER
 DATE: 1/14/04

DEVELOPER'S CERTIFICATE
 I do certify that all development and construction will be done according to this plan of development for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

 SIGNATURE OF DEVELOPER
 DATE: 1/14/04

OWNERS:
 Parcel 63: Hugh F. Cole Jr. and John F. Liparini, 8835 P Columbia 100 Pkwy, Columbia, Md. 21045
 Parcel 96: Brantwood LLC, 9736 Old Frederick Road, Columbia, Md. 21045
 Parcel 165 & 204: Andrew J. & Martha Harbin, 9736 Old Frederick Road, Ellicott City, Maryland 21042

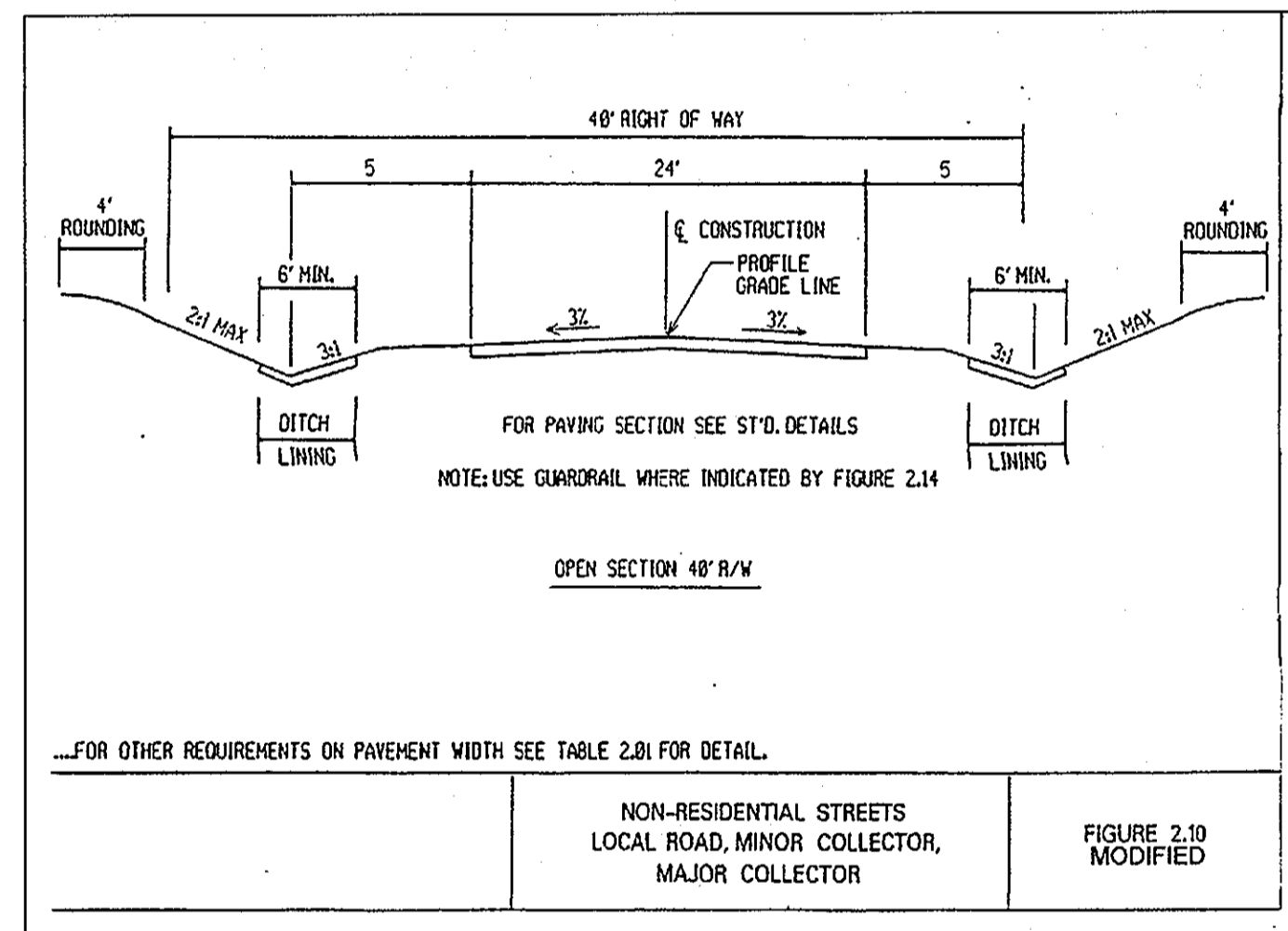
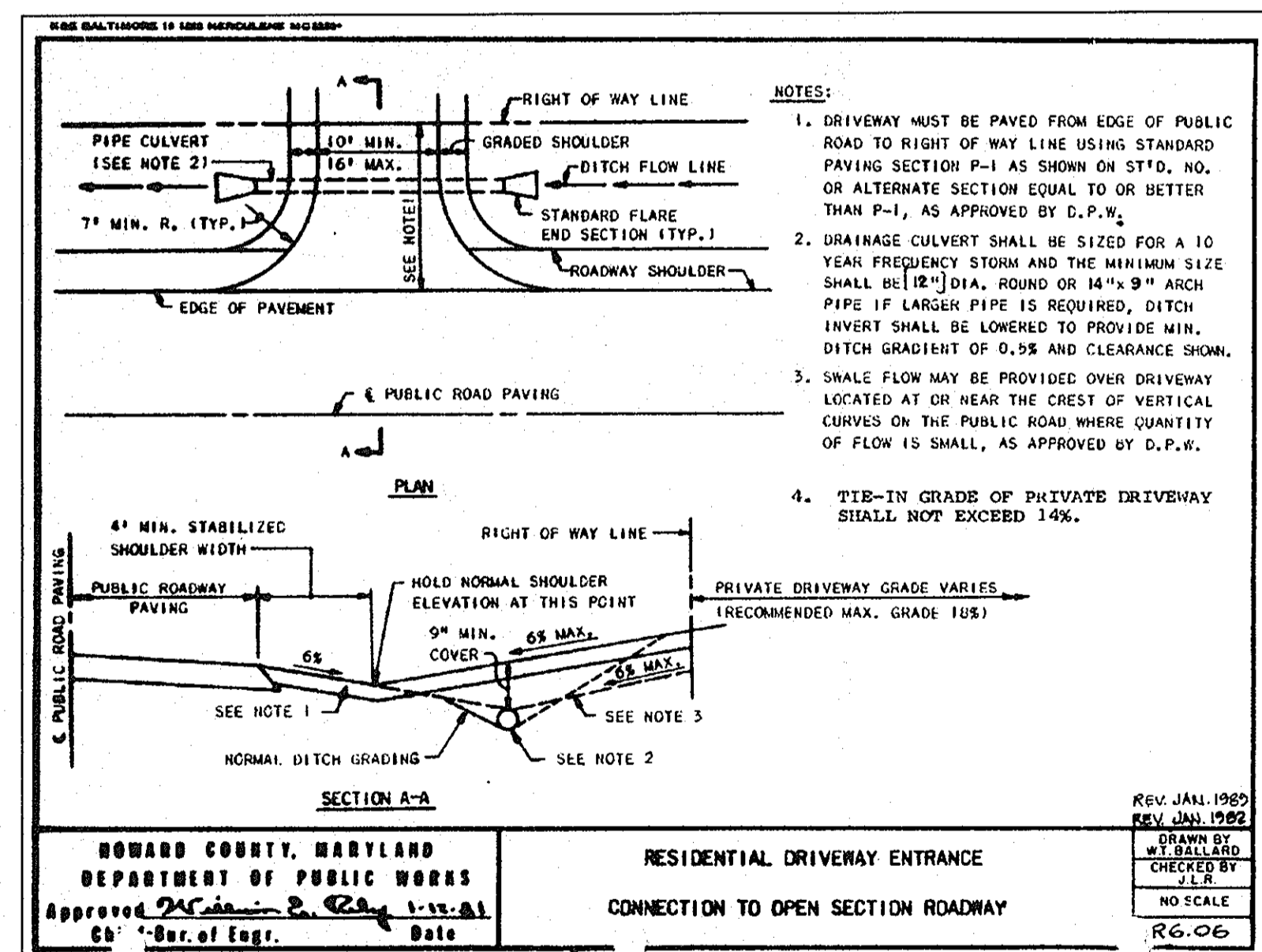
By	Date	No.	Description
REVISIONS			
LDE, INC.			
9250 Rumsey Road, Suite 106, Columbia, MD 21045 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)			
DESIGNED	GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN - DETAILS		SCALE: AS SHOWN
DRAWN	JLM JDR		DRAWING: 5 OF 7
CHECKED	BDB		JOB NO.: 99-051.20
DATE: 1/20/04	DEVELOPER	PREVIOUS SUBMITTALS: BA 00-52E, WF 03-12B, SDP 03-30	
Land Source / Brantly, LLC		FILE NO. F 03-194	
8835-P Columbia 100 Parkway Columbia, Maryland 21045		410-730-0910	



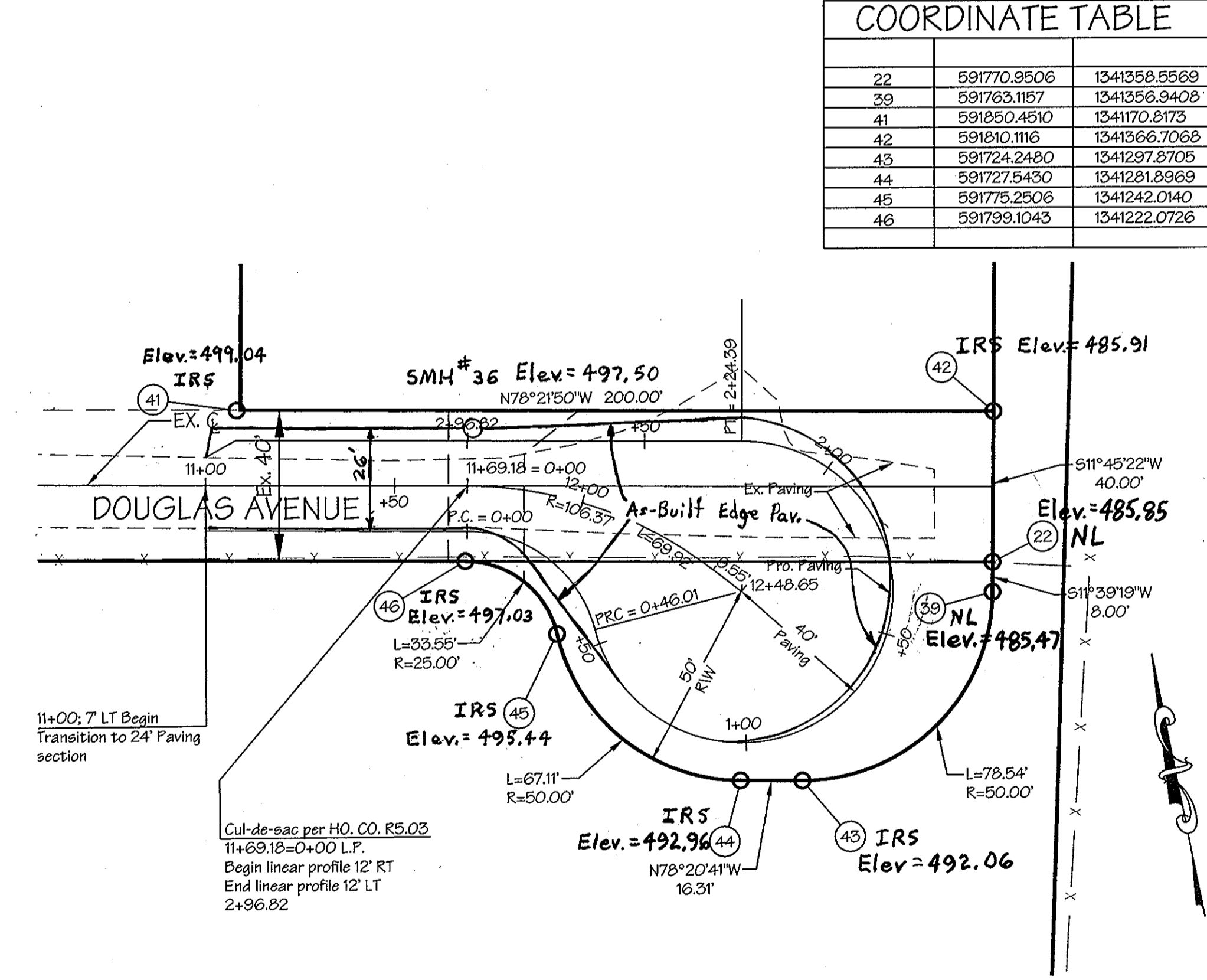
SEQUENCE OF CONSTRUCTION

NOTE: THE CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS AND UTILITY SERVICE TO THE EXISTING DWELLING (#1110 DOUGLAS AVENUE) DURING ALL PHASES OF CONSTRUCTION.

1. Obtain Grading Permit. - 1 day
2. Stakeout limits of disturbance. - 1 day
3. Install stabilized construction entrance. - 1 day
4. Install perimeter controls (SSF) transition to Trap construction. - 1 day
5. Construct sediment Trap #1. Trap to remain in place until converted under SDP 03-30. The Sediment Trap Constructed under this Contract shall remain in place and maintained during all phases of construction until the Sediment Control Inspector authorizes conversion to a Bio-Retention Facility under SDP-03-30 - 2 days
6. The sediment trap shall be dewatered by pumping. The accumulated sediment from the structure shall be placed up grade from the structure in such a manner as not to interfere with construction operations or cause erosion down grade from the structure (See "Temporary Stockpile Areas"). - 2 days
7. The sediment shall be removed from the Sediment Trap when the cleanout elevation has been reached. - 2 days
8. Install remainder of perimeter controls (Earth Dikes, SSF and Temporary Swales) where shown hereon or where directed by the sediment control inspector to direct "dirty" water into TRAF #1. - 3 days
9. All sediment controls are in place prior to beginning construction activity.
10. Remove existing paving within Limits of Disturbance and grade area required for the construction of the Douglas Avenue Cul-De-Sac. Refer to NOTE above. - Daily
11. With site disturbed, take precautions onsite with regards to "Dust Control" see specifications on sheet 6. - 1 day
12. Relocate existing Fire hydrant. Fire Hydrant to be relocated by Advance Deposit Order (A.D.O.) (See SDP-03-30) - 2 days
13. Install private sewer manhole & gravity system under Douglas Avenue - 3 days
14. Install paving and dress existing driveway for Parcel 96 per detail R.6.06 - 2 days
15. Fine grade any remaining road supporting slopes and areas disturbed by road construction activities. Stabilize these disturbed areas with permanent seeding mixture and straw mulch. - 1 day



SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	GRAANULAR BASE ALTERNATES
P-2	RESIDENTIAL ZONES LOCAL CUL-DE-SAC STS. ALLEYS AND PRIVATE ROADS SERVING INDIVIDUAL TRAVELEYS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO MORE THAN 10 NEW TRUCKS PER DAY	1 1/2" BIT. CONC. SURFACE 2 1/2" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 2 1/2" BIT. CONC. BASE 6" GRADED AGGREGATE BASE (GAB)



APPROVED: DEPARTMENT OF PUBLIC WORKS

William F. Mahan Jr.
CHIEF, BUREAU OF HIGHWAYS

2/3/04 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John P. Roberts
CHIEF, DIVISION OF LAND DEVELOPMENT

2/11/04 DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim M. [Signature]
USDA NATURAL RESOURCE CONSERVATION SERVICE

1/29/04 DATE

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

John P. Roberts
HOWARD SOIL CONSERVATION DISTRICT

1/29/04 DATE

ENGINEER'S CERTIFICATE

I hereby certify that this plan and specifications represent a practical and workable plan based on my personal knowledge of the site and conditions and that it was prepared in accordance with the standards and conditions of the Professional Engineering and Soil Conservation District.

Bruce Burton
SIGNATURE OF ENGINEER

1/14/04 DATE

DEVELOPER'S CERTIFICATE

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

[Signature]
SIGNATURE OF DEVELOPER

1/14/04 DATE

STATE OF MARYLAND PROFESSIONAL ENGINEER

[Signature]
1/14/04

Road Name	Station to Station	Class	R/W	Design Speed	Paving Section
Douglas Avenue	11+00 to 12+00	Local	40	25	P-2

OWNERS:

Parcel 53
Hugh F. Cole Jr. and John F. Liparini
8835 P Columbia 100 Pkwy
Columbia, Md. 21045

Parcel 96
Brantwood LLC
8835 P Columbia 100 Pkwy
Columbia, Md. 21045

Parcel 165 & 204
Andrew J. & Martha Harbin
9736 Old Frederick Road
Ellicott City, Maryland 21042

By	Date	No.	Description

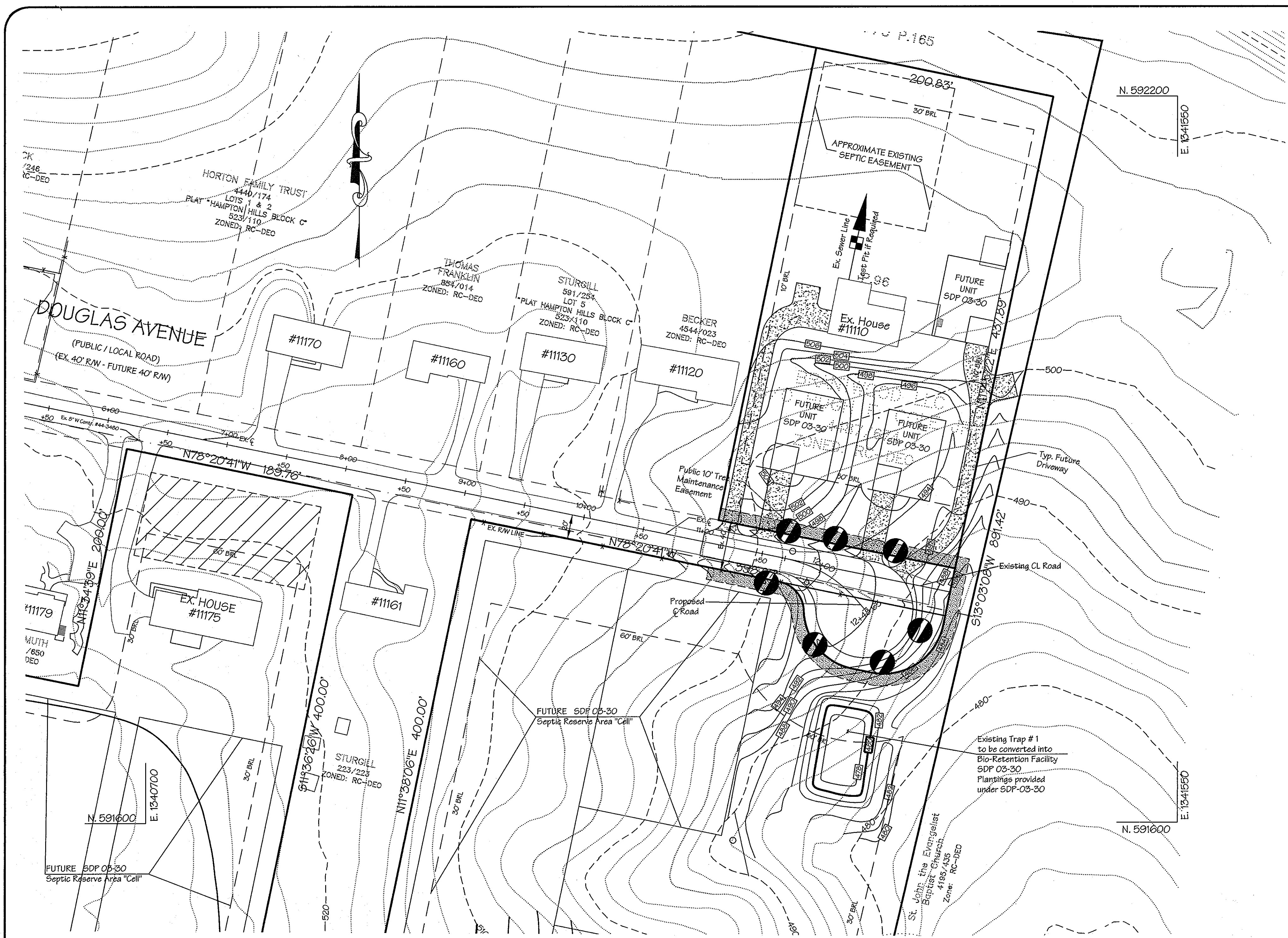
AS-BUILT

LDE, INC.
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED	SCALE
EDS	AS SHOWN
DRAWN	DRAWING
JLM JDR	6 OF 7
CHECKED	JOB NO.
BDB	99-051.20
DATE	FILE NO.
1/2004	F 03-194

PREVIOUS SUBMITTALS: BA 00-52E, WP 03-128, SDP 03-30

Land Source / Brantly, LLC
8835 P Columbia 100 Parkway
Columbia, Maryland 21045
410-730-0810

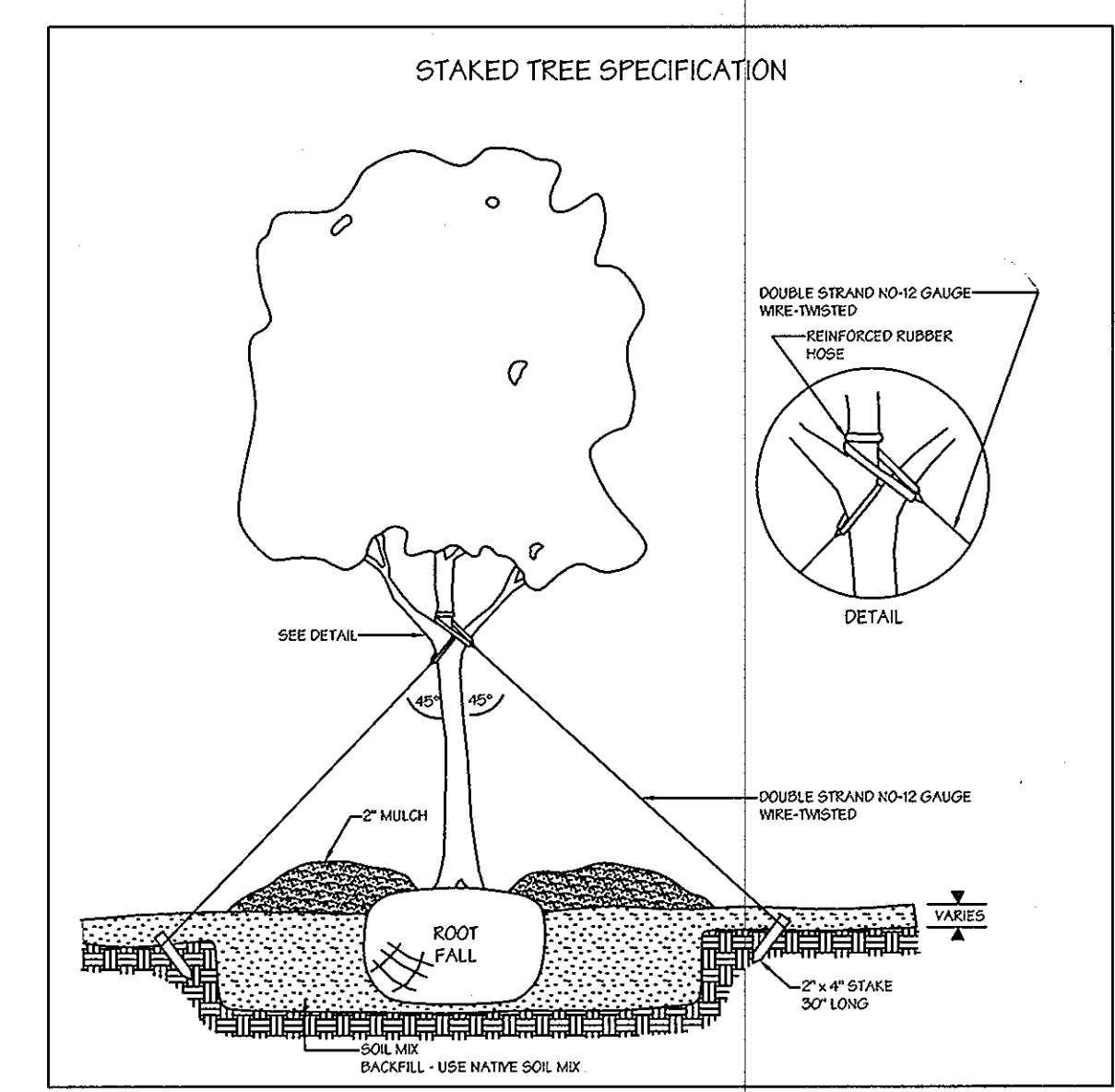


STREET TREE REQUIREMENTS= 1 PER 40'
Douglas Avenue --- 7 Provided

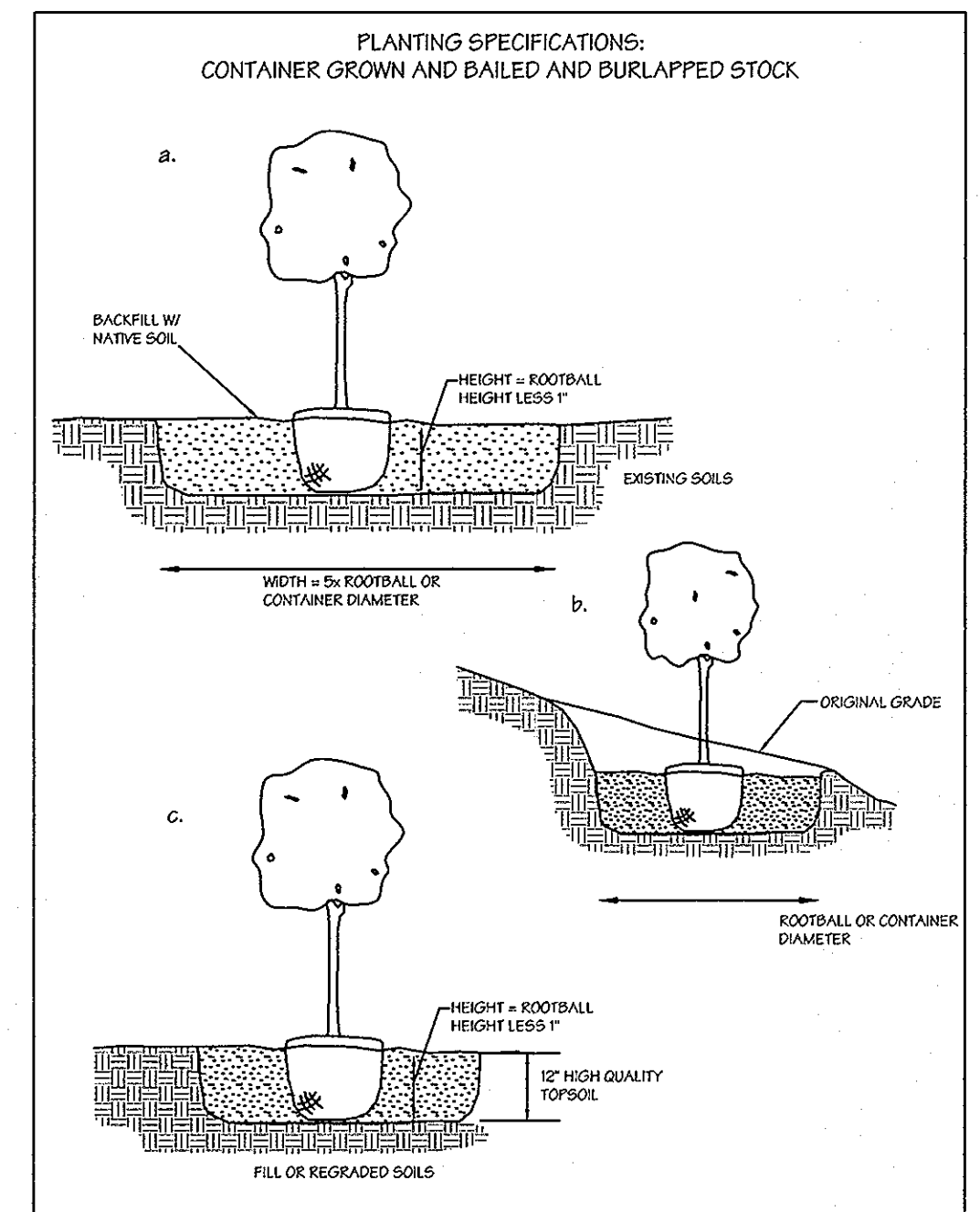
STREET TREE PLANTING SCHEDULE				
NO.	KEY	BOTANICAL / COMMON NAME	SIZE	COMMENT
7	●	Acer rubrum 'October Glory' October Glory Red Maple	2 to 2-1/2" - 3" cal. D&B	
7		Total Street Trees		
7		Proposed Street Trees Along Existing Douglas Avenue		

TREE PLANTING NOTES

Notify "Miss Utility" 72 hours prior to installation of all plant material.
Plant installation must conform to the minimum standards cited in the latest edition of Landscape Specification Guidelines, published by the Landscape Contractors Association.
Plants to be located in the field by the owner or owner's representative. Notify owner 72 hours in advance of planting. A Certification of Landscape Installation is required as per the Howard County Landscape Ordinance.
The number, size, location of plants shall not be changed without the approval of the Landscape Architect. Substitutions must be included in the recommended plant list in the Howard County Landscape Ordinance.
Trees may not be planted within 5 feet of drain inlets, 5 feet of an open space access strip and 10 feet of a driveway.
Balled and burlapped plant material shall not be accepted if ball is cracked or broken before or during planting. Protect all plants from drying by either sun or wind.
Tree pits shall be backfilled with 50% topsoil, 25% peat 25% sand with one pound of 10-10-10 fertilizer per pit.
Top soil shall be sandy loam soil free from noxious weeds or grasses, roots, clay clumps, stones, sticks, etc. Peat moss shall be commercial with pi 4.5 to 5.5, free of woody material or harmful minerals.
All plants shall be watered at planting with weekly watering thereafter for the first 90 days. Watering shall continue bimonthly or as necessary to maintain plants in a healthy condition during the guarantee period.
Maintain the site in an orderly manner. Streets and sidewalks shall be swept clean. All rejected or dead materials shall be immediately removed from the site.
Plant material to be alive and healthy at the time of the guarantee period (one year), as specified in the Howard County Landscape Ordinance.
Maintenance shall begin immediately after planting and continue to the end of guaranteed period.
Maintenance consist of pruning, watering weeding, re-mulching, resetting plants to proper grades as needed and repairing guys and stakes as needed.



Staking of trees may be used only when transplanting in areas of high winds for trees larger than eight feet in height. Stakes and wires should be removed after the first growing season.



- NOTES:**
- This plan has been prepared in accordance with provisions of Section 16.124 of the Howard County Code and the Landscape Manual.
 - Landscape surety is not required for this plan.
 - The Owner / Developer is responsible for the planting of all street trees and plant material required to meet the standards established by the Howard County Landscape Manual.
 - Landscape Obligations for Perimeter Plantings are Not Applicable for this plan. Please refer to SDP 03-30 for the "Homeland" project obligations.

LEGEND

EXISTING 10ft CONTOUR	—470—
EXISTING 2ft CONTOUR
EXISTING TREES	~~~~~
EXISTING FENCE	— — — — —
EXISTING WATER	~~~~~
PROPOSED 10ft CONTOUR	—470—
PROPOSED 2ft CONTOUR	—468—
PROPOSED WATER/WHC	— — — — —
PROPOSED SANITARY SEWER/SWC	— — — — —
BOUNDARY LINE	— — — — —
FLOWLINE/DIRECTION OF FLOW	—————>

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. Williams 2-3-04
 CHIEF, BUREAU OF HIGHWAYS

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.
Jim Meyer 1/29/04
 USA NATURAL RESOURCE CONSERVATION SERVICE

ENGINEER'S CERTIFICATE
 I hereby certify that this plan represents a practical and workable plan based on my original field notes and that it was prepared in accordance with the provisions of the Howard County Code.
Bruce D. Burton 1/14/04
 SIGNATURE OF ENGINEER

STATE OF MARYLAND PROFESSIONAL ENGINEER
John E. Robertson 1/14/04

APPROVED: DEPARTMENT OF PLANNING AND ZONING
John E. Robertson 2/1/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John E. Robertson 1/29/04
 HOWARD SOIL CONSERVATION DISTRICT

DEVELOPER'S CERTIFICATE
 I hereby certify that all development and construction will be done according to this plan of development for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspections by the Howard Soil Conservation District.
John E. Robertson 1/14/04
 SIGNATURE OF DEVELOPER

OWNERS:
 Parcel 53
 Hugh F. Cole Jr. and John F. Liparini
 8835 P Columbia 100 Pkwy
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 Parcel 96
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 8835 P Columbia 100 Pkwy
 Columbia, Md. 21045
 Parcel 165 & 204
 Andrew J. & Martha Harbin
 9736 Old Frederick Road
 Ellicott City, Maryland 21042

AS-BUILT

By	Date	No.	Description
REVISIONS			
LDE, INC. 3250 Rumsey Road, Suite 106, Columbia, MD. 21045 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)			
DESIGNED	EDS	LANDSCAPE PLAN	
DRAWN	JLM JDR	HOMELAND	
CHECKED	BDB	Tax Map No. 16 - Grid No. 4 - P10 Parcel 165 3rd Election District - Zoning RC-DEO Howard County, Maryland	
DATE	1/20/04	DEVELOPER	PREVIOUS SUBMITTALS: BA 00-52E, WP 03-12B, SDP 03-30 Land Source / Brantly, LLC 8835-P Columbia 100 Parkway Columbia, Maryland 21045 410-730-0910
SCALE	1" = 50'	DRAWING	7 OF 7
JOB NO.	99-051.20	FILE NO.	F 03-194