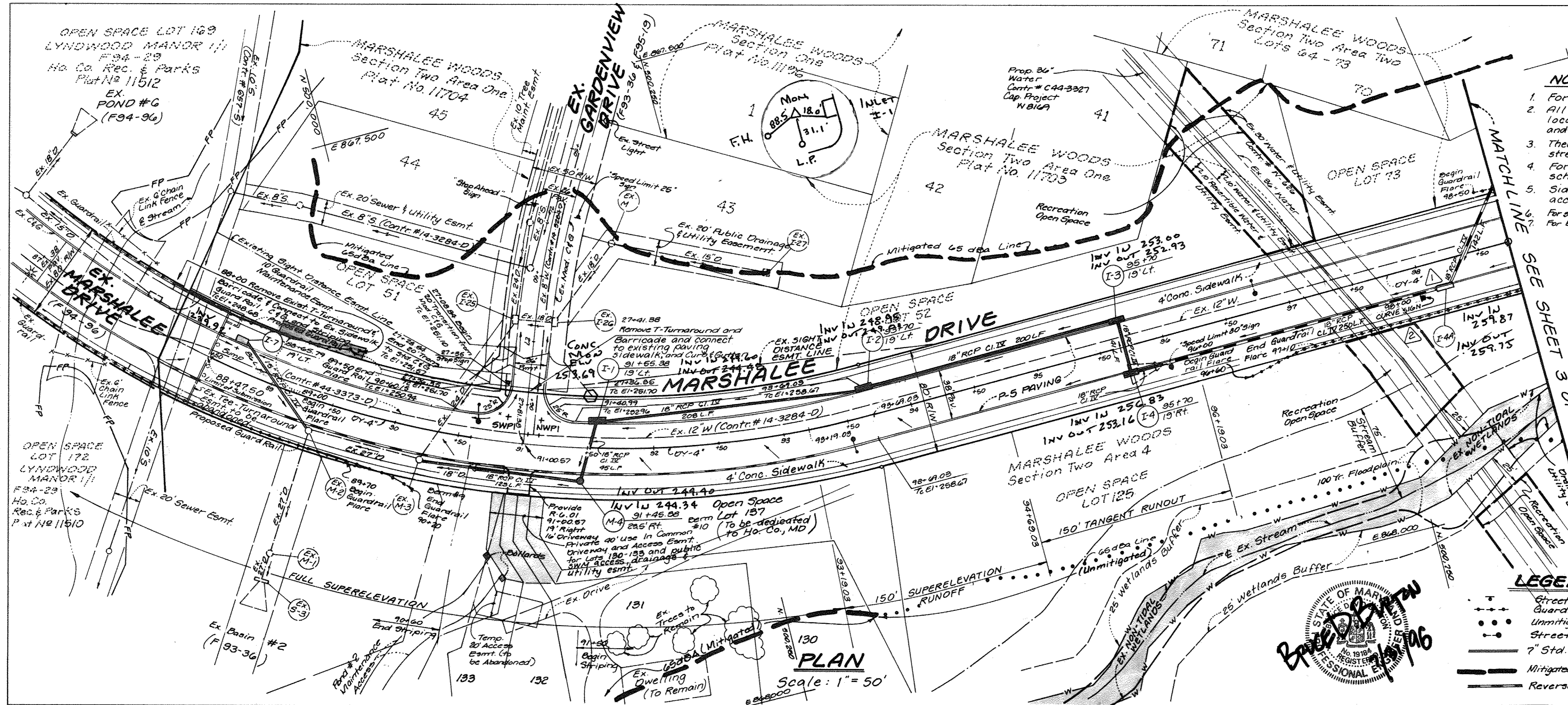




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NAME & STA.	RADIUS	DELTA	ARC	TAN	CHORD	BEARING
Marshalee Dr. 88+47.50 to 98+04.00	741.00'	42°52'30"	564.60'	290.96'	541.66'	N 21°00'33"E

- NOTES:**
- For street tree locations, see sheets 12 and 13.
  - All street trees and/or street signs shall be located 5 feet minimum from proposed drainage and utility structures.
  - There shall be a minimum of 20 feet between street lights and street trees.
  - For storm drain profiles and structure schedule, see sheet 64 of 13.
  - Sidewalks and ramps shall be designed in accordance with ADA requirements.
- For street light and street sign locations, see sheet 4 of 13.  
For berm information, refer to sheet 4 of 13.

STATION	CL ELEVATION	TC RIGHT	TC LEFT
93+78.03	257.76	257.95	257.42
93+76	257.71	257.90	257.37
93+74	257.66	257.85	257.32
93+72	257.61	257.80	257.27
93+70	257.56	257.75	257.22
93+68	257.51	257.70	257.17
93+66	257.46	257.65	257.12
93+64	257.41	257.60	257.07
93+62	257.36	257.55	257.02
93+60	257.31	257.50	256.97
93+58	257.26	257.45	256.92
93+56	257.21	257.40	256.87
93+54	257.16	257.35	256.82
93+52	257.11	257.30	256.77
93+50	257.06	257.25	256.72
93+48	257.01	257.20	256.67
93+46	256.96	257.15	256.62
93+44	256.91	257.10	256.57
93+42	256.86	257.05	256.52
93+40	256.81	257.00	256.47
93+38	256.76	256.95	256.42
93+36	256.71	256.90	256.37
93+34	256.66	256.85	256.32
93+32	256.61	256.80	256.27
93+30	256.56	256.75	256.22
93+28	256.51	256.70	256.17
93+26	256.46	256.65	256.12
93+24	256.41	256.60	256.07
93+22	256.36	256.55	256.02
93+20	256.31	256.50	255.97
93+18	256.26	256.45	255.92
93+16	256.21	256.40	255.87
93+14	256.16	256.35	255.82
93+12	256.11	256.30	255.77
93+10	256.06	256.25	255.72
93+08	256.01	256.20	255.67
93+06	255.96	256.15	255.62
93+04	255.91	256.10	255.57
93+02	255.86	256.05	255.52
93+00	255.81	256.00	255.47

APPROVED: Department of Planning and Zoning  
 Date: 8/20/96  
 Chief, Department and Research

APPROVED: Department of Public Works for Storm Drainage Systems and Roads  
 Date: 8/20/96  
 Chief, Bureau of Highways

PC 93+69.03  
 TC RT 257.81  
 TC LT 257.91

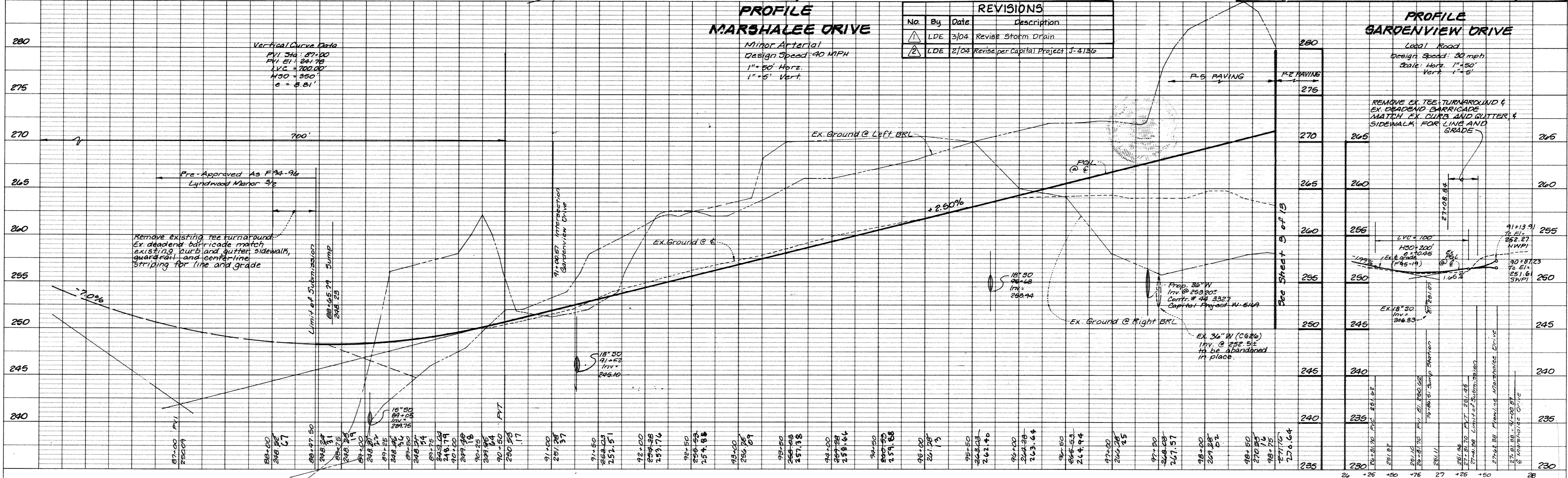
**LDE, INC.**  
 9250 Rumsey Road, Suite 106, Columbia, MD. 21045  
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED T.D./E.D.S.	PLAN AND PROFILE 88+47.50 - 98+75 MARSHALEE DRIVE	SCALE AS SHOWN
DRAWN D.E.I.	<b>MARSHALEE WOODS</b> Section 2 - Area 5 Lots 127 - 137	DRAWING 2 of 13
CHECKED B.D.B.	Tax Map 37 1st ELECTION DISTRICT	JOB NO. 95-022.4
DATE May, 1996	Parcels 593 & 656 HOWARD COUNTY, MARYLAND	FILE NO. F96-66

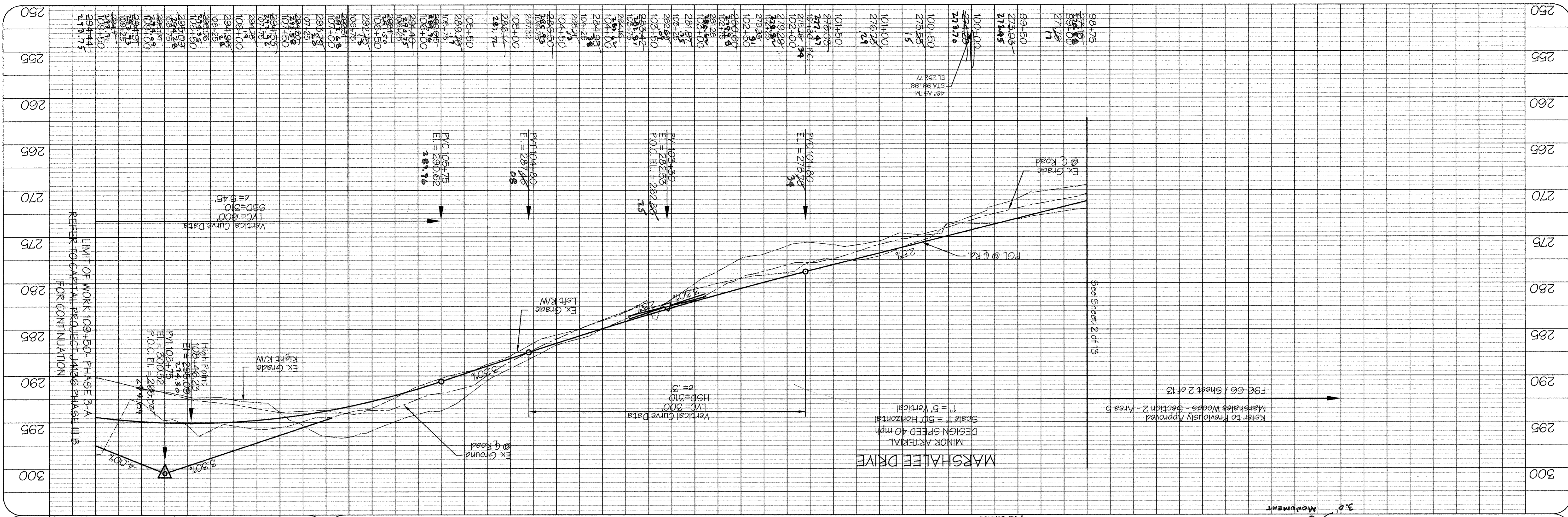
**PROFILE MARSHALEE DRIVE**  
 Minor Arterial  
 Design Speed: 40 MPH  
 1" = 50' Horz.  
 1" = 5' Vert.

No.	By	Date	Description
1	LDE	3/04	Revise Storm Drain
2	LDE	2/04	Revise per Capital Project J-4136

**PROFILE GARDENVIEW DRIVE**  
 Local Road  
 Design Speed: 30 mph  
 Scale: Horz. 1" = 50'  
 Vert. 1" = 5'







**APPROVED: DEPARTMENT OF PLANNING AND ZONING**  
 CHIEF DIVISION OF LAND DEVELOPMENT  
 DATE: 7/1/04

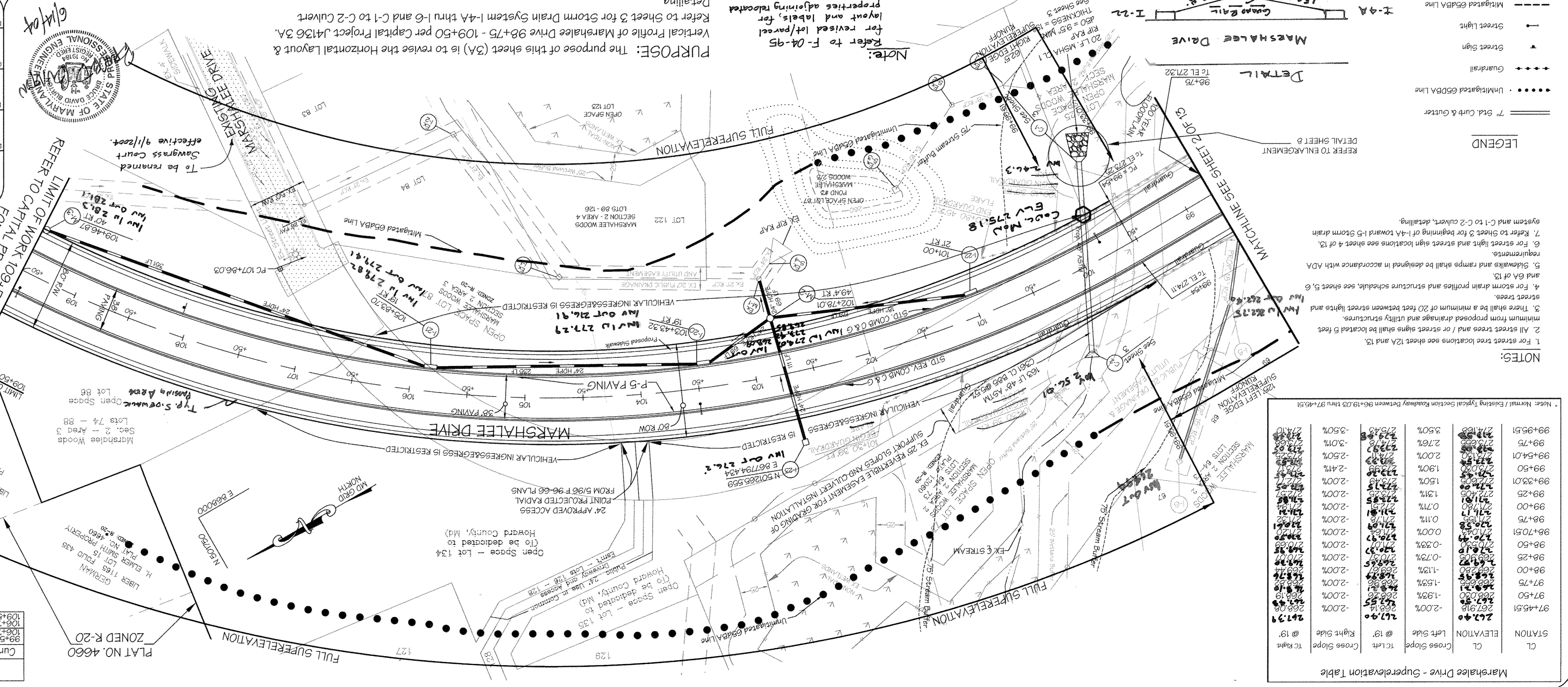
**APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS.**  
 CHIEF DEVELOPMENT DIVISION  
 DATE: 7-1-04

**APPROVED: BUREAU OF HIGHWAYS**  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 7-1-04

**DESIGNED: LDE, INC.**  
 9250 Rumsley Road, Suite 106, Columbia, MD, 21045  
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (fax)

**REVISIONS:**  
 EDS Plan and Profile  
 JDR Section Two - Area Five  
 MJB  
 BDB  
 6/2004

**FILE NO: F96-66**



Marshalee Drive - Super-elevation Table

STATION	ELEVATION	CL	Cross Slope	Left Side	Right Side	TC Right	Cross Slope
97+50	267.91	2.00%	-2.00%	2.00%	2.00%	19.0	2.00%
97+60	267.91	-1.93%	-2.00%	2.00%	2.00%	19.0	2.00%
97+75	267.91	-1.57%	-2.00%	2.00%	2.00%	19.0	2.00%
98+00	267.91	-1.15%	-2.00%	2.00%	2.00%	19.0	2.00%
98+25	267.91	-0.73%	-2.00%	2.00%	2.00%	19.0	2.00%
98+50	267.91	-0.33%	-2.00%	2.00%	2.00%	19.0	2.00%
98+75	267.91	0.07%	-2.00%	2.00%	2.00%	19.0	2.00%
99+00	267.91	0.71%	-2.00%	2.00%	2.00%	19.0	2.00%
99+25	267.91	1.31%	-2.00%	2.00%	2.00%	19.0	2.00%
99+50	267.91	1.90%	-2.00%	2.00%	2.00%	19.0	2.00%
99+75	267.91	2.47%	-2.00%	2.00%	2.00%	19.0	2.00%
99+95.51	267.91	3.50%	-2.00%	2.00%	2.00%	19.0	2.00%

**CURVE DATA TABLE**

Curve	Length	Radius	Chord Bearing	Chord Distance	Delta	Tangent
106+75	274.00'	1000.00'	N49°16'04"	273.11'	15°41'50"	137.65'
106+75	722.00'	1000.00'	N20°44'04"	706.45'	47°22'09"	377.56'
99+50	93.54'	5009.62'	N20°44'04"	92.82'	15°41'50"	47.75'
92+50	607.96'	5009.62'	N20°44'04"	607.96'	15°41'50"	377.56'
92+50	607.96'	5009.62'	N20°44'04"	607.96'	15°41'50"	377.56'
92+50	607.96'	5009.62'	N20°44'04"	607.96'	15°41'50"	377.56'
92+50	607.96'	5009.62'	N20°44'04"	607.96'	15°41'50"	377.56'
92+50	607.96'	5009.62'	N20°44'04"	607.96'	15°41'50"	377.56'
92+50	607.96'	5009.62'	N20°44'04"	607.96'	15°41'50"	377.56'
92+50	607.96'	5009.62'	N20°44'04"	607.96'	15°41'50"	377.56'

**APPROVED: STATE OF MARYLAND**  
 PROFESSIONAL ENGINEER  
 DATE: 6/14/04

**APPROVED: AS-BUILT**  
 DATE: 6/11/04

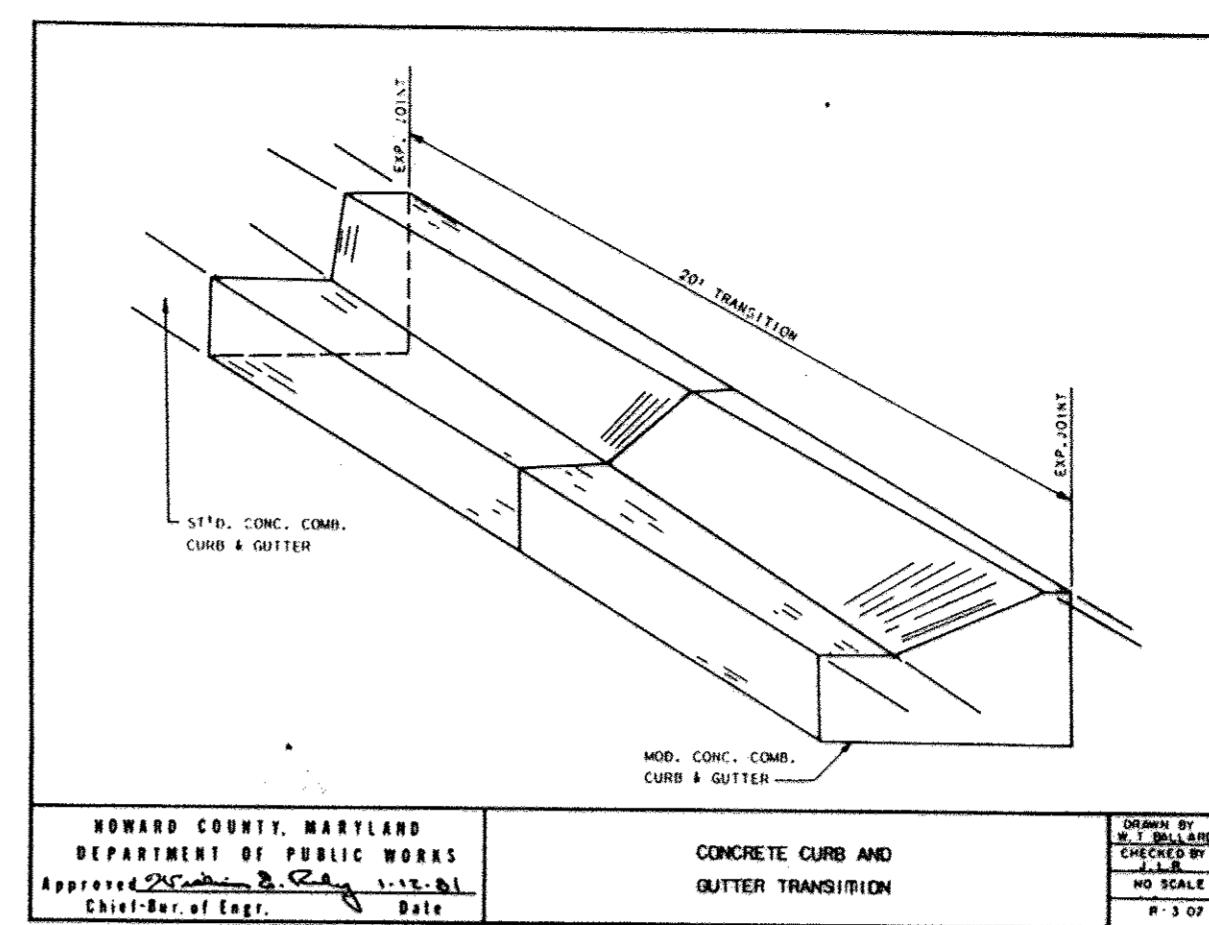
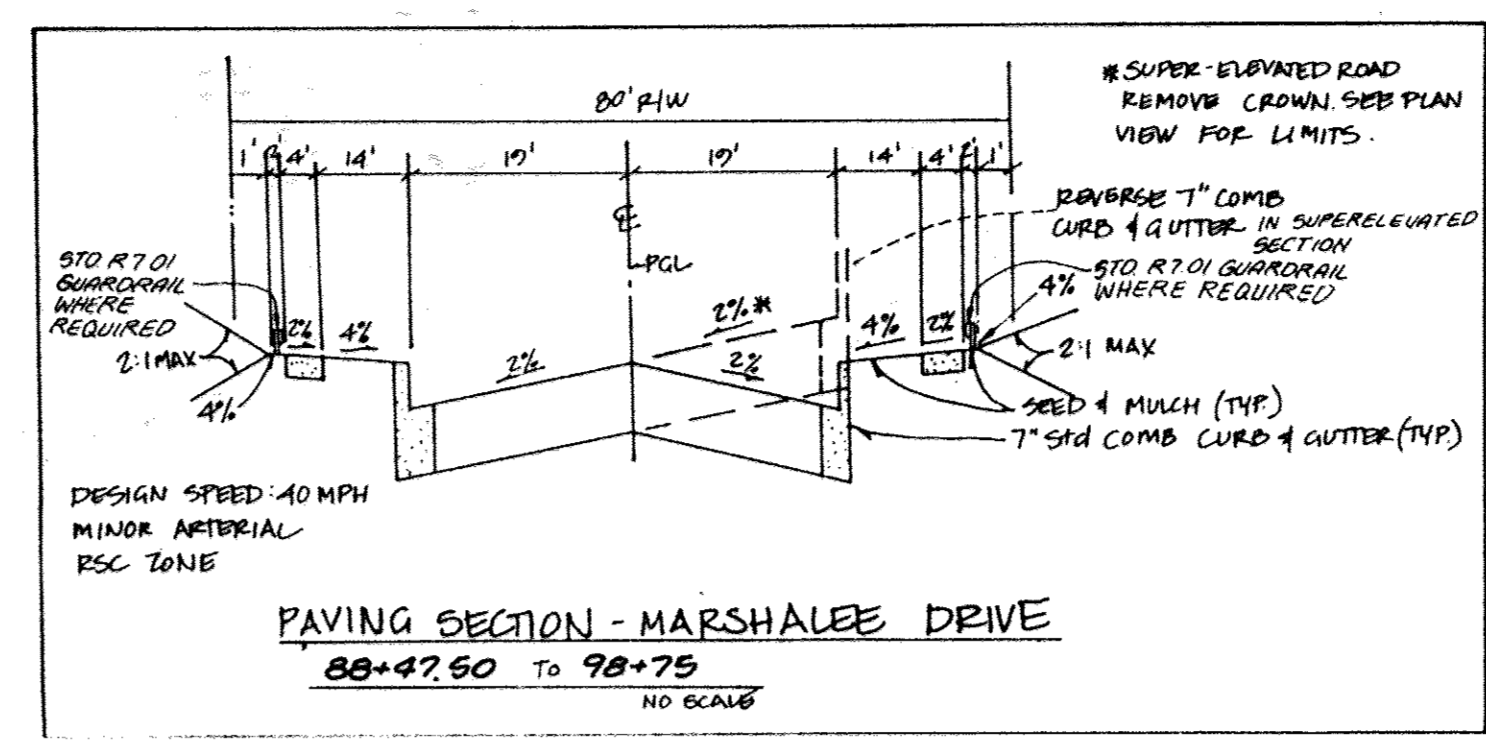
**APPROVED: MARSHALEE WOODS LIMITED PARTNERSHIP**  
 8525 Columbia 100 Parkway Unit F  
 Columbia, Maryland 21045  
 (410) 730-0810

**REVISIONS:**  
 EDS Plan and Profile  
 JDR Section Two - Area Five  
 MJB  
 BDB  
 6/2004

**FILE NO: F96-66**

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATES
P-5	COMMERCIAL-INDUSTRIAL ZONES MAJOR COLLECTOR ALL ZONES MINOR ARTERIAL	1 1/2" BIT. CONC. SURFACE 4 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE 6" Graded Aggregate Base Course (GAB)
P-6	ALL ZONES INTERMEDIATE ARTERIAL	1 1/2" BIT. CONC. SURFACE 2" BIT. CONC. BASE 4" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 2" BIT. CONC. BASE 4" BIT. CONC. BASE 6" Graded Aggregate Base Course (GAB)
P-7	STABILIZED SHOULDER FOR ALL ZONES AND ROAD CLASSIFICATIONS	1 1/2" BIT. CONC. SURFACE 4" CRUSHED RUN BASE COURSE OR 4 1/2" GRADE STABILIZED AGGREGATE BASE COURSE	1 1/2" BIT. CONC. SURFACE 4" CRUSHED RUN BASE COURSE OR 4 1/2" GRADE STABILIZED AGGREGATE BASE COURSE
P-8	PAVED SHOULDER FOR ALL ZONES AND ROAD CLASSIFICATIONS SIDEWALKS & PERSONAL AREAS (PRIVATE) (NOTE: Specifications may be used in lieu of standard concrete sidewalk in off site, privately maintained areas only)	1 1/2" BIT. CONC. SURFACE 3" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 3" BIT. CONC. BASE 4" CRUSHED RUN BASE COURSE OR 3" GRADE STABILIZED AGGREGATE BASE COURSE

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATES
P-1	TRAVELWAY AND COMMERCIAL-INDUSTRIAL ZONES WITH NO HEAVY TRUCKS TRAVELWAYS FOR COMMERCIAL-INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	1 1/2" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 2" BIT. CONC. BASE 4" CRUSHED RUN BASE COURSE OR 4" GRADE STABILIZED AGGREGATE BASE COURSE
P-2	RESIDENTIAL ZONES LOCAL, CO-DE-SEC STS ALLEYS AND DRIVEWAYS SERVING INDIVIDUAL LOTS	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 Course (GAB)
P-3	RESIDENTIAL ZONES LOCAL, CO-DE-SEC STS ALLEYS AND DRIVEWAYS SERVING INDIVIDUAL LOTS	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE 6" Graded Aggregate Base Course (GAB)
P-4	COMMERCIAL-INDUSTRIAL ZONES MINOR ARTERIAL	1 1/2" BIT. CONC. SURFACE 3" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 3" BIT. CONC. BASE 4" CRUSHED RUN BASE COURSE OR 3" GRADE STABILIZED AGGREGATE BASE COURSE

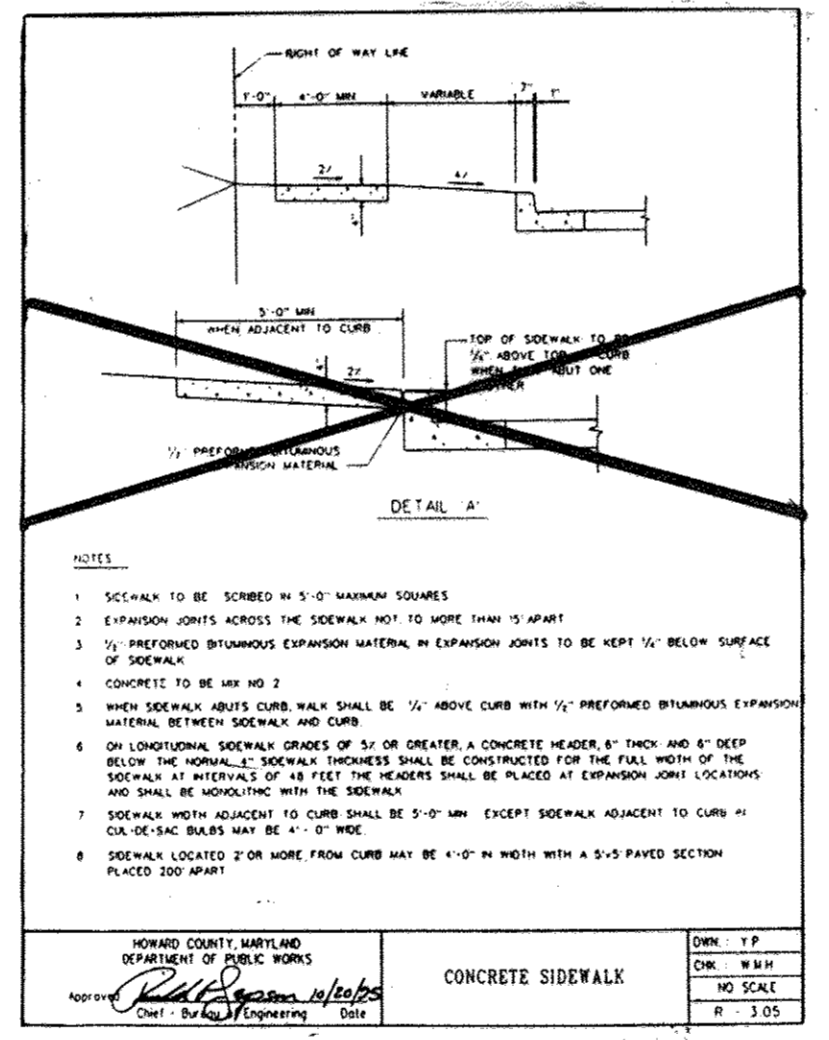
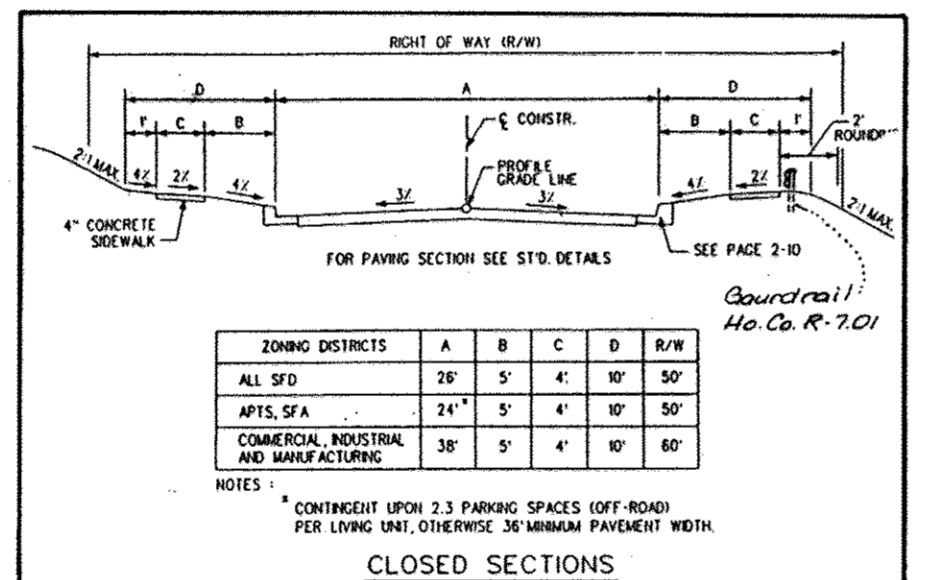
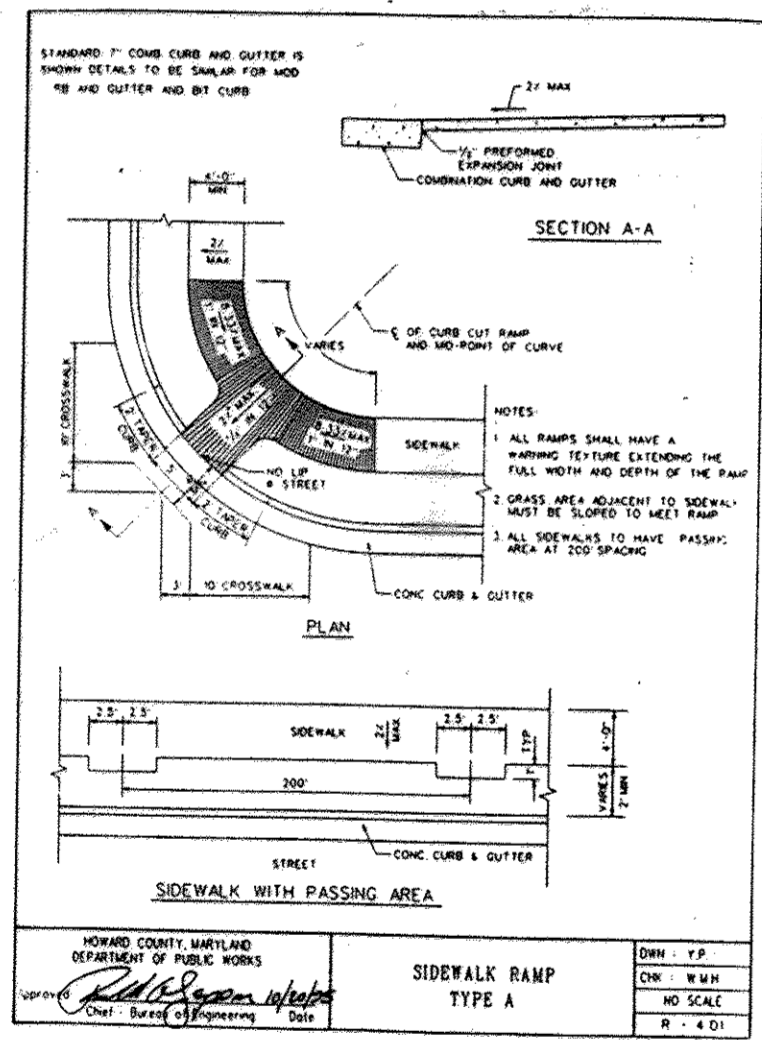
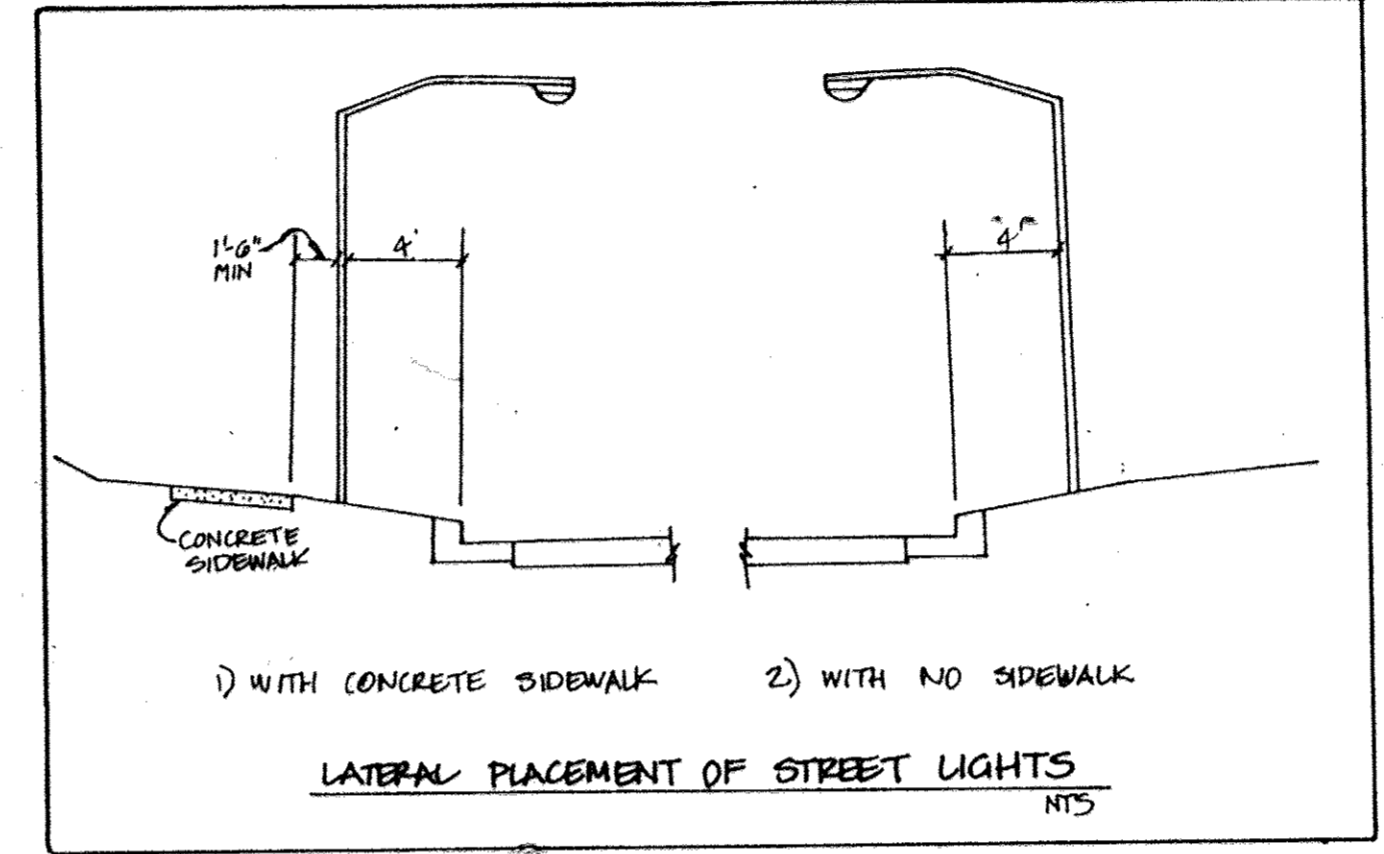
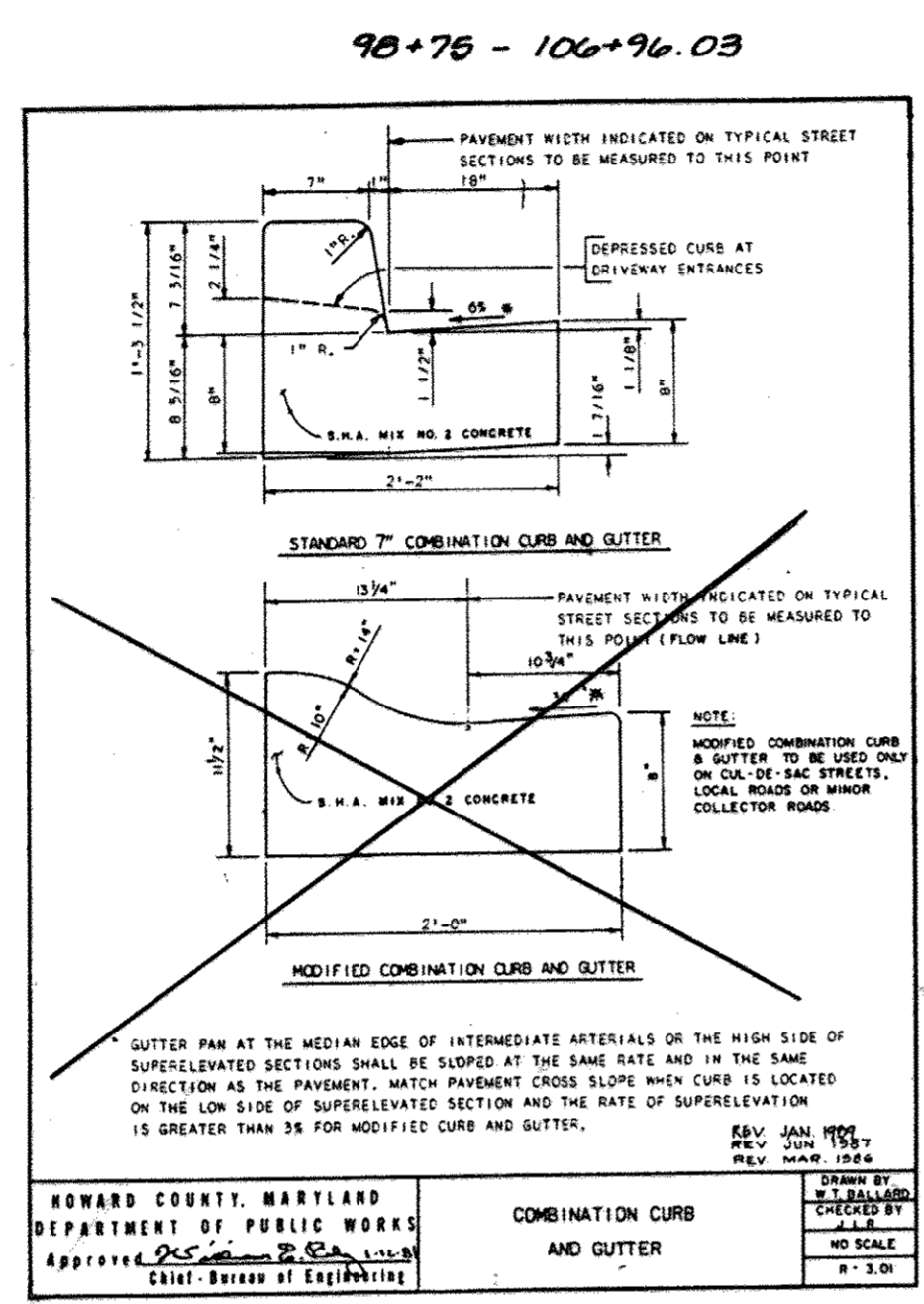
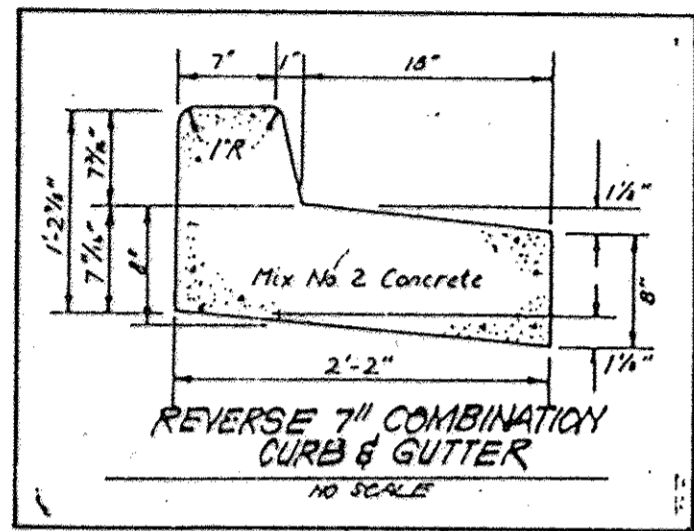


Street Light Legend					
Street Name	Symbol	Centerline Station	Offset	Lamp Type	Post Type
Marshalee Drive	▲	90+49	23' LT	150 Watt HPS	Pendant Fixture
Marshalee Drive	▲	93+50	23' RT	150 Watt HPS	Pendant Fixture
Marshalee Drive	▲	96+75	23' LT	150 Watt HPS	Pendant Fixture
Marshalee Drive	▲	99+80	23' RT	150 Watt HPS	Pendant Fixture
Marshalee Drive	▲	103+50	23' LT	150 Watt HPS	Pendant Fixture

Traffic Control Sign Legend				
Symbol	Street Name	Station	Offset	Type
▲	Gardenview Dr	27+86	16' RT	R1-1, "STOP" Sign 80" x 80" Octagon
▲	Marshalee Dr	101+00	18' RT	W-2R, Curve Sign 80" x 80" Diamond
▲	Marshalee Dr	96+00	24' RT	R2-1, "Speed Limit 20, 30" x 30" Rectangle
▲	Gardenview Dr	26+00	15' LT	R3-1, "Speed Limit 25, 30" x 30" Rectangle
▲	Gardenview Dr	26+00	15' RT	W-3, "Stop Ahead, 36" x 36" Diamond

Note: Micaceous soils subgrades require the use of either of the aggregate base pavement sections as shown on the pavement section tables. Either the full depth bituminous concrete section or the aggregate base pavement sections can be used for all other subgrade soils.

88+47.50 - 98+75

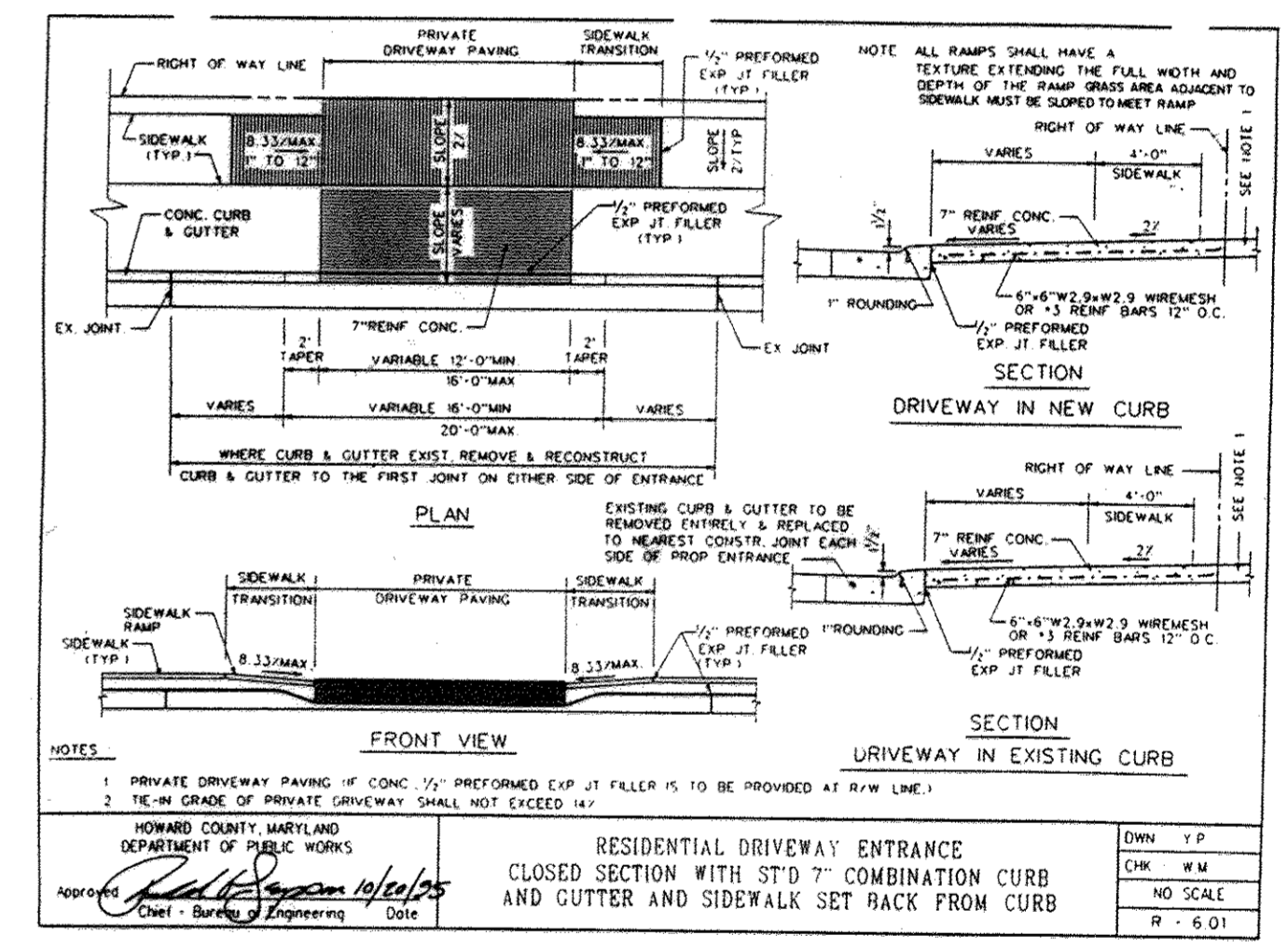


Berm #9			
Centerline Station	Centerline Offset	Top Elevation	Top Width
88+84	58' RT	250	2.0'
90+75	58' RT	256	2.0'
90+89	57' RT	254	2.0'
90+98	58' RT	254	2.0'

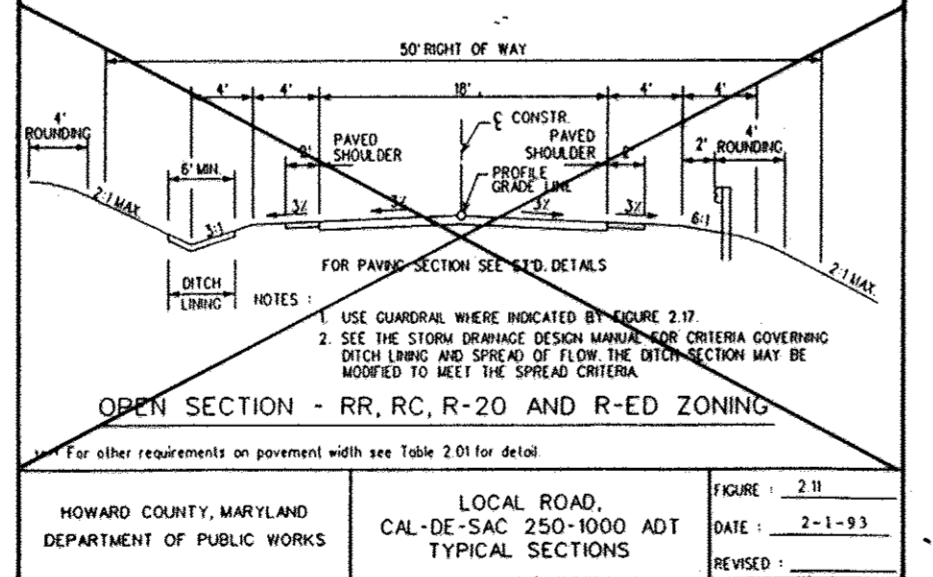
  

Berm #10			
Centerline Station	Centerline Offset	Top Elevation	Top Width
91+12	59' RT	254	2.0'
91+27	59' RT	259	2.0'
91+59	63' RT	263	2.0'
91+84	67' RT	265	2.0'
92+05	70' RT	268	2.0'
93+17	65' RT	269	2.0'
94+57	59' RT	269	2.0'

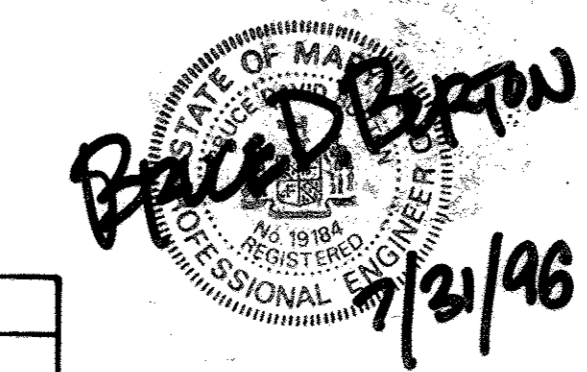
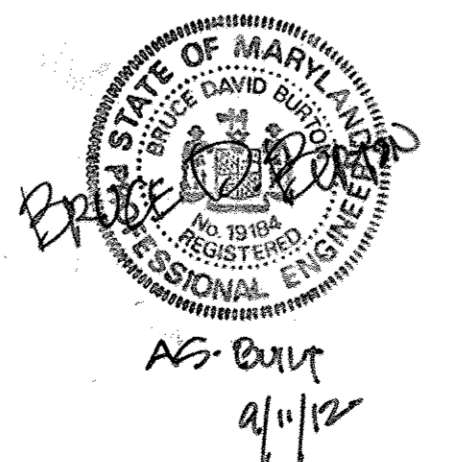
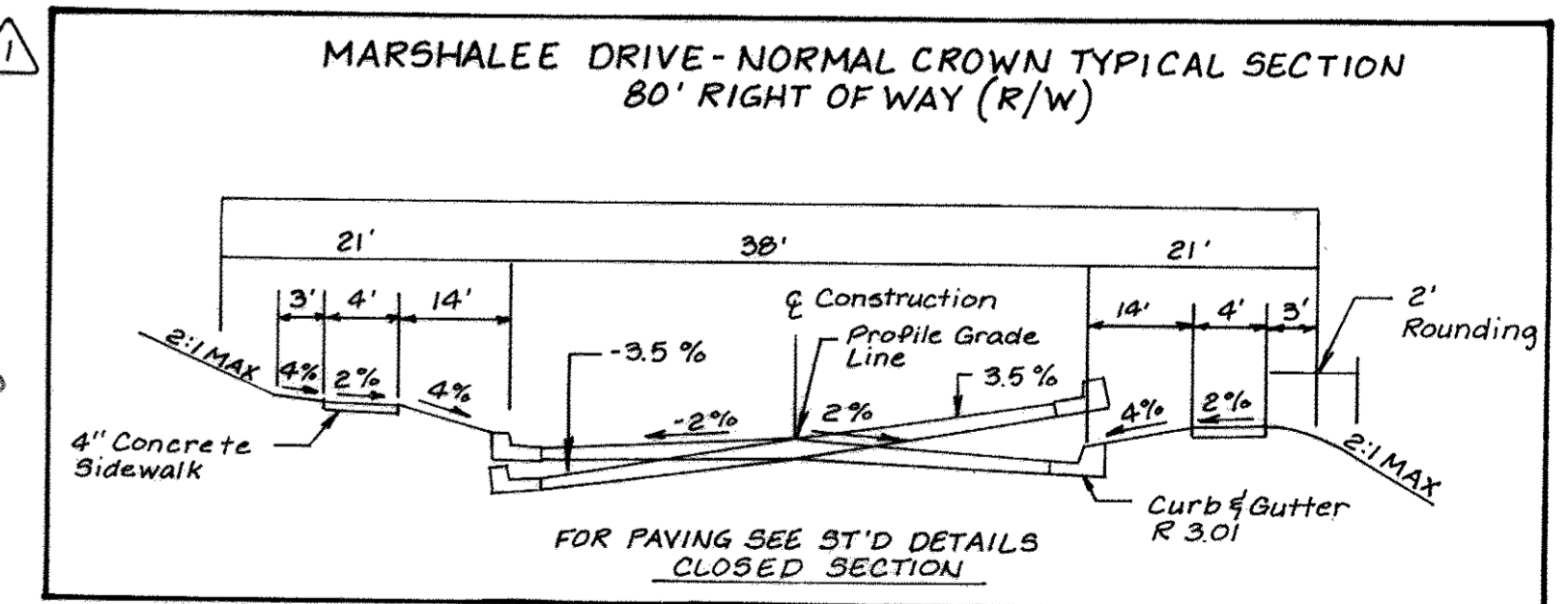
NOISE BERM TABLE  
FOR LOCATION REFER TO SHEET 2 OF 13  
FOR GRADING REFER TO SHEET 7 OF 13



Road Name	Station to Station	Class.	R/W	Speed	Pav. Sect.	Zone	A	B	C	D
Marshalee Drive	88+47.50 - 109+50	Minor Arterial	80	40	P-5	R-20	38	14	4	21
Marshalee Drive	08+75 - 108+38.08	Local	50	30	P-2	R-20	26	6	4	10
Gardenview Drive	27+41.38 - 27+62.38	Local	50	30	P-2	R-20	26	5	4	10



NOTE: GUARDRAIL INSTALLED PER HOWARD COUNTY STANDARD DETAIL R-7.01



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Chief, Division of Land Development and Research  
 Date: 8/20/96

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.  
 Natural Resources Conservation Service  
 Date: 8/19/96

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Date: 8/19/96

ENGINEER'S CERTIFICATE  
 I HEREBY 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 REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: Bruce D. Burton  
 Date: 7/21/96

DEVELOPER'S CERTIFICATE  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINS THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS DEEMED NECESSARY.  
 Signature: [Signature]  
 Date: 11/2/95

NO	BY	DATE	DESCRIPTION
1	LDE	2/20/04	Revisions Per Capital Project J-4130

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

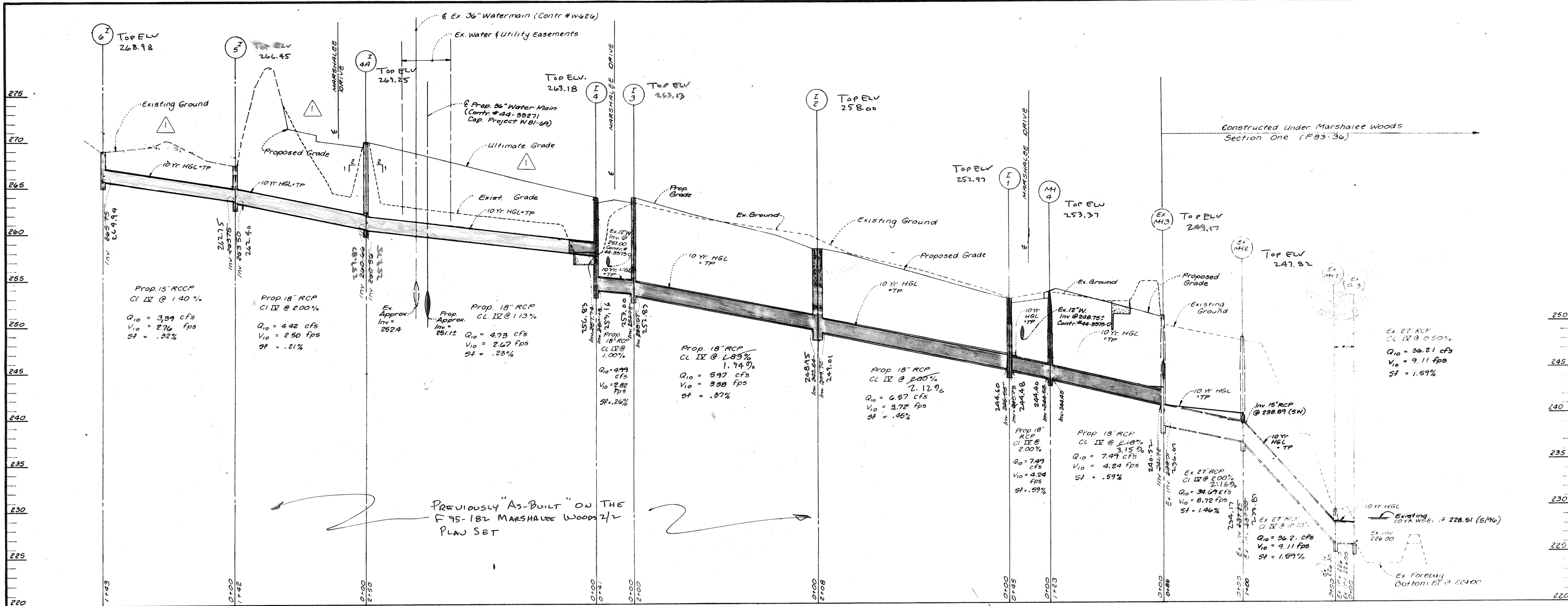
DESIGNED: E.D.S.  
 DRAWN: DEI  
 CHECKED: B.D.B.  
 DATE: May 1996

ROAD DETAILS  
 MARSHALEE WOODS  
 Section Two - Area Five  
 Lots 127 - 137

SCALE: AS SHOWN  
 DRAWING: 4 of 13  
 JOB NO.: 95-022.4  
 FILE NO.: F96-66

Owner / Developer: Marshalee Woods Limited Partnership  
 8835 Columbia 100 Parkway - Unit P  
 COLUMBIA, MARYLAND 21045  
 (410) 730-0810

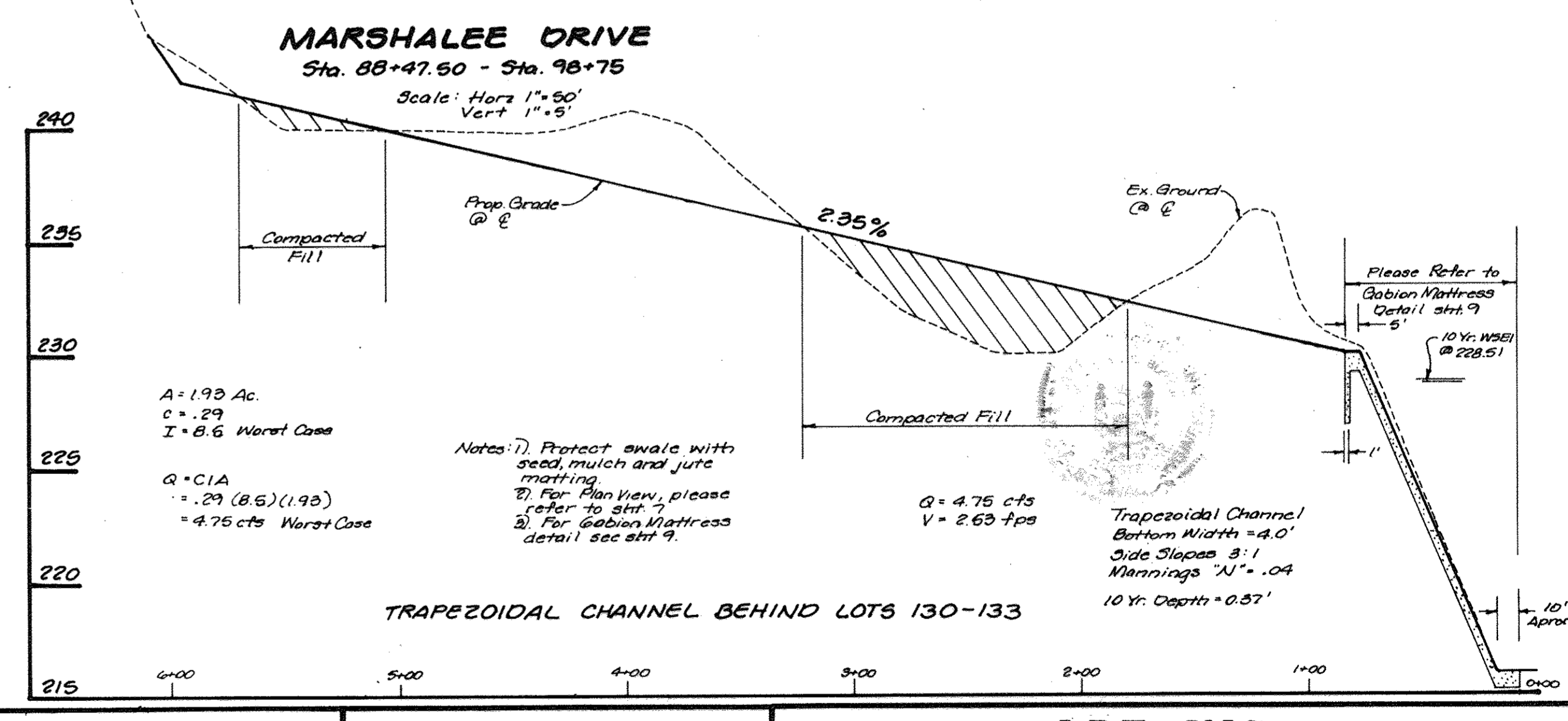
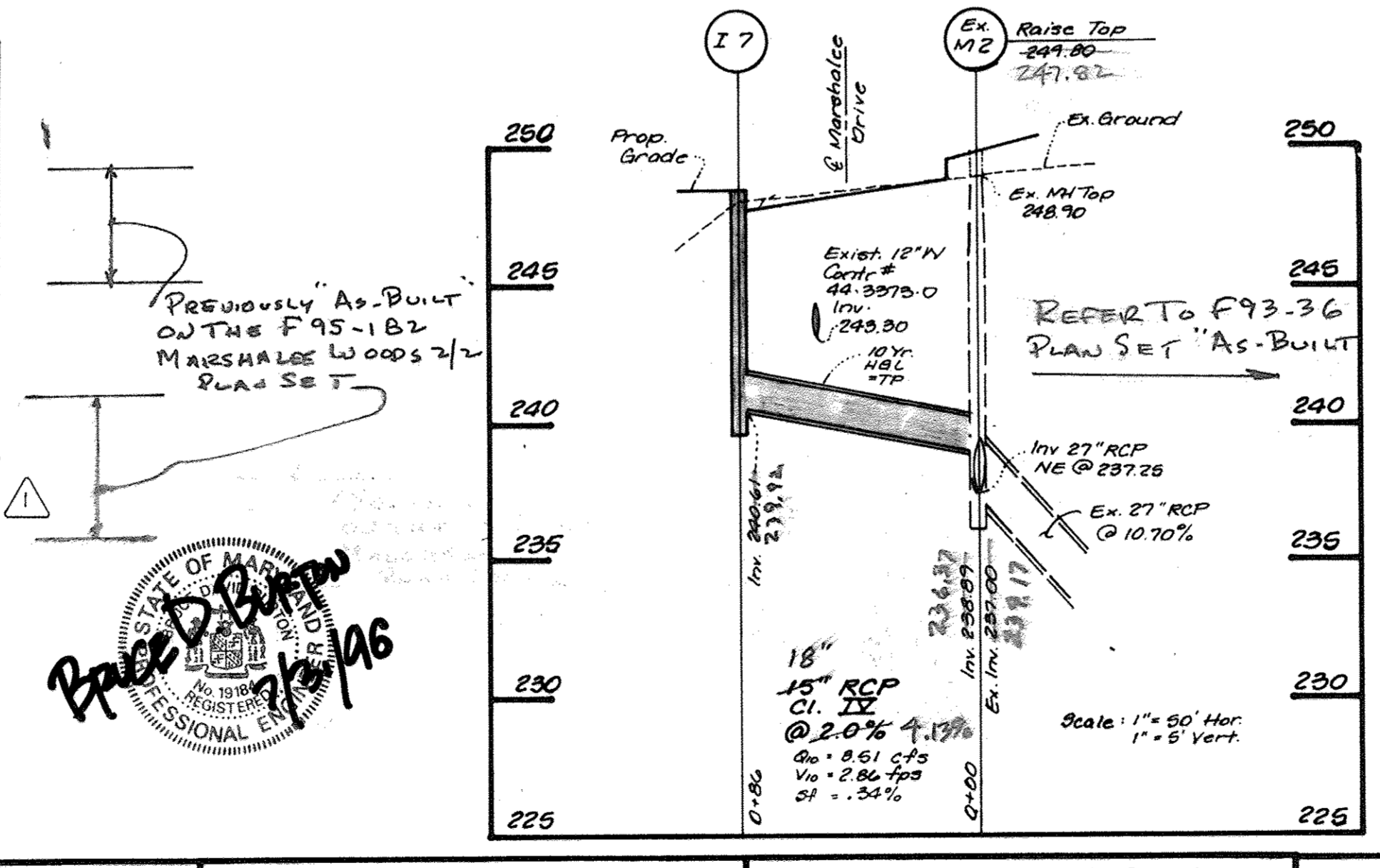
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STRUCTURE SCHEDULE							
NUMBER	TYPE	INV. IN	INV. OUT	UPPER	LOWER	DETAIL	LOCATION
I-1	A-10	245.50	245.48	253.46	253.19	SD 4.02	91+55.38 19' LT Marshalee Drive
I-2	A-10	249.84	249.74	258.83	258.55	SD 4.02	93+70 19' LT Marshalee Drive
I-3	A-10	253.72	253.62	263.83	263.55	SD 4.02	95+70 19' LT Marshalee Drive
I-4	A-10	257.74	254.13	263.93	263.68	SD 4.02	95+70 19' RT Marshalee Drive
I-7	A-10	-	240.40	248.40	248.40	SD 4.02	88+69.79 19' LT Marshalee Drive
			239.92	248.21	248.10		
			236.37	247.17	247.82		
Ex. M-2	STD. Manhole	238.87	237.00	249.80		G 5.12	Existing Manhole (Raise top to fin grade)
M-4	STD. MANHOLE	244.58	244.40	254.17		G 5.12	91+45.38 23.5' RT Marshalee Drive
I-4A	A-10	260.66	260.58	270.08	269.8	SD 4.02	90+20 14' RT Future Marshalee Drive
I-5	"8" Inlet	263.75	263.50	267.50		SD 4.22*	N50089.725 E867715.237
I-6	"8" Inlet		265.75	269.00		SD 4.22*	N500995.475 E867619.203

\* Reticular Grade SD 4.93

No	By	Date	Description
1	LDE	3/04	Revised Storm Drain



**ENGINEER'S 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."

**Bruce D. Burton** 7/31/98  
Signature of Engineer  
Bruce D. Burton

**DEVELOPER'S CERTIFICATE**

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

**[Signature]** 11/2/95  
Signature of Developer

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

**[Signature]** 8/1/96  
Natural Resource Conservation Service

This development plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

**[Signature]** 8/1/96  
Howard Soil Conservation District

APPROVED: Department of Public Works for Storm Drainage Systems and Roads.

**[Signature]** 8-16-96  
Chief, Bureau of Highways

APPROVED: Department of Planning and Zoning.

**[Signature]** 8/20/96  
Chief, Division of Land Development and Research

**AS-BUILT** 9/11/12

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

**DESIGNED** T.D./E.D.S.  
**DRAWN** K.B.W./B.E.I.  
**CHECKED** B.D.B.  
**DATE** May, 1996

**STORM DRAIN PROFILES**

**MARSHALEE WOODS**  
Section 2 - Area 5  
Lots 127 - 137

Tax Map 37  
1st ELECTION DISTRICT

Parcel 593 & 656  
HOWARD COUNTY, MARYLAND

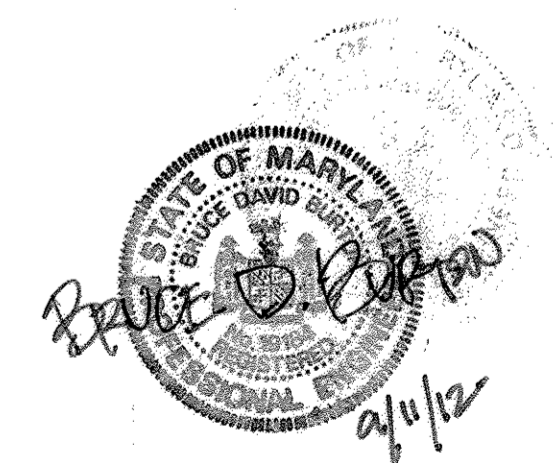
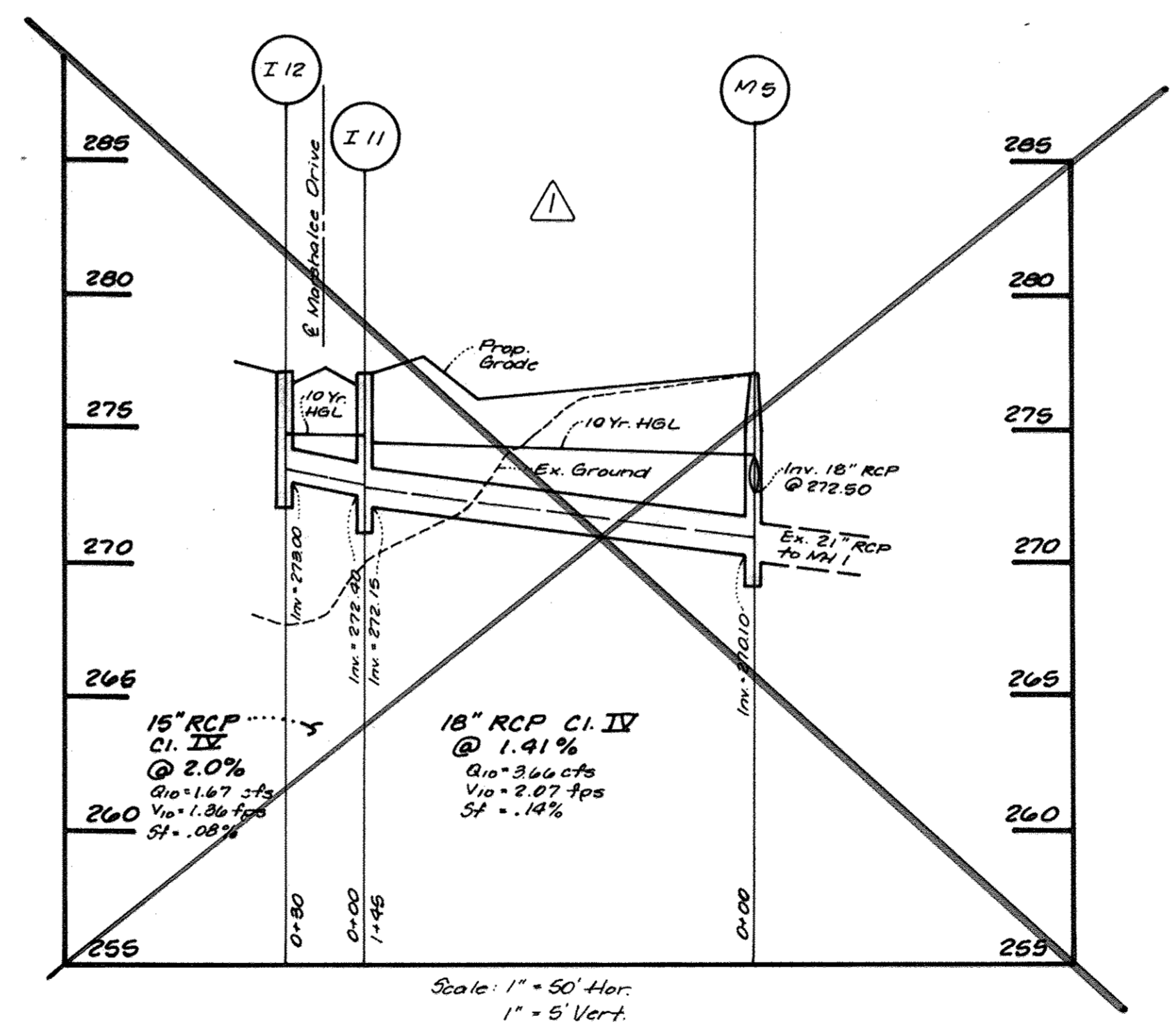
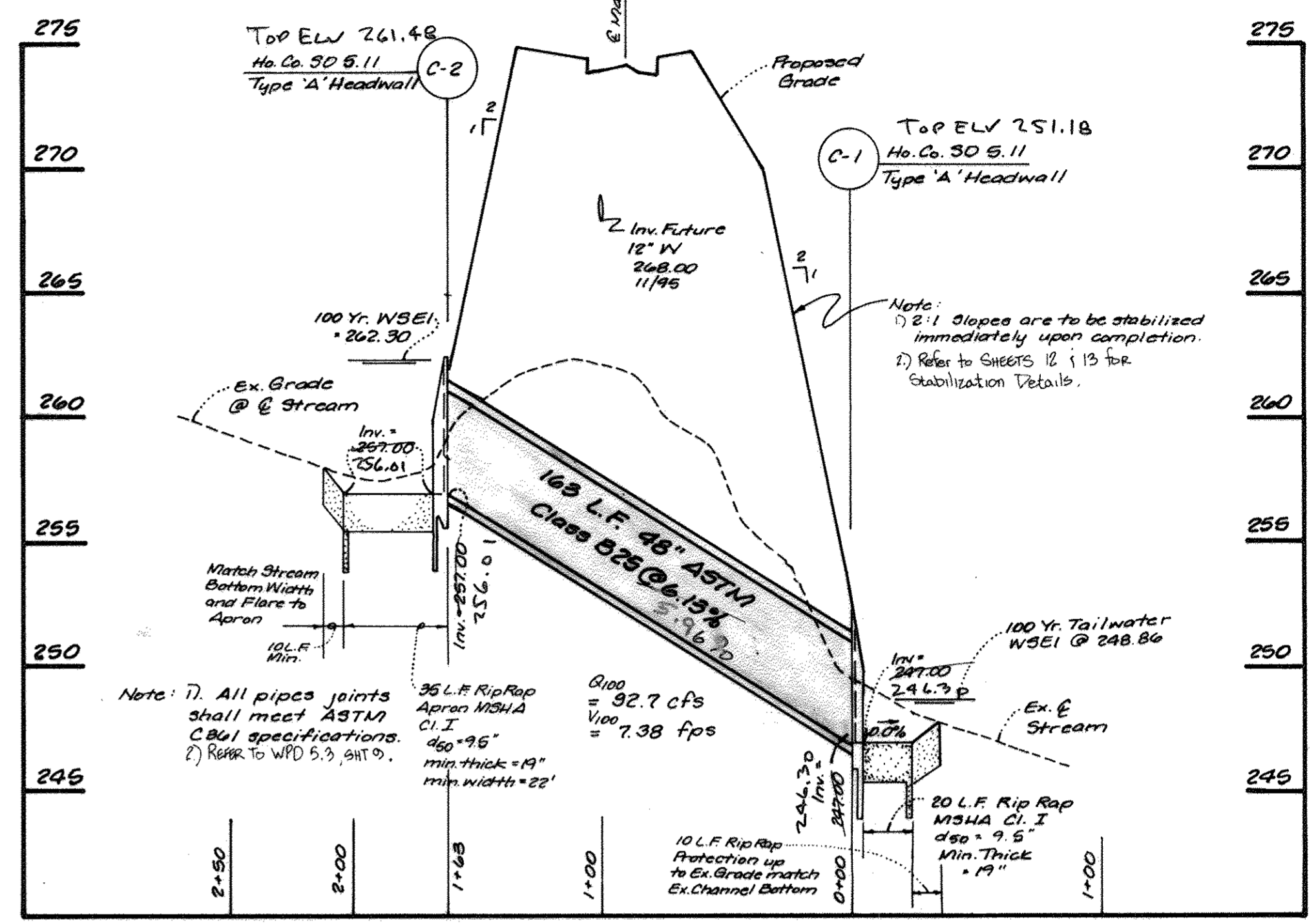
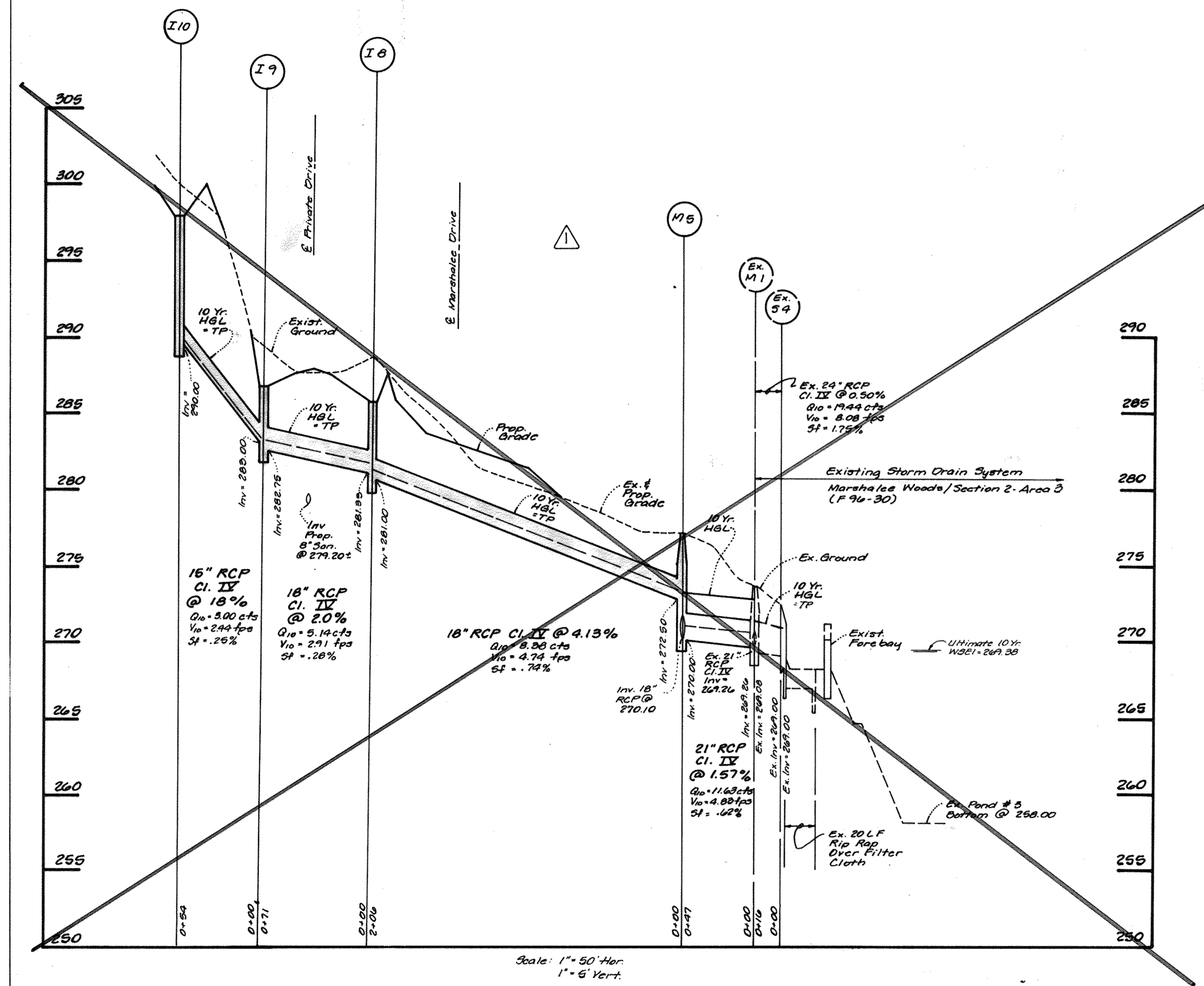
Owner/Developer  
Marshalee Woods Limited Partnership  
8835 Columbia 100 Parkway Unit P  
Columbia, Maryland 21045  
(410) 730-0810

SCALE AS SHOWN  
DRAWING 5 of 13  
JOB NO. 95-022.4  
FILE NO. F96-66

**AS-BUILT** F96-66

STRUCTURE SCHEDULE							
Inlet No.	Type	Inv. In	Inv. Out	Upper	Lower	Detail	Location
I-8	S **	281.33	281.00	286.00	SD 4.02	N 601390.261	E 867701.888
I-9	S **	283.00	282.75	287.00	SD 4.02	N 601452.100	E 867827.303
I-10	S **	290.00	288.00	298.00	SD 4.02	N 601505.504	E 867820.390
I-11	A-10	272.40	272.15	277.21	276.34	SD 4.02	101+05 Marshalee Drive 13' RT
I-12	A-10	273.00	272.75	277.21	276.34	SD 4.02	101+05 Marshalee Drive 13' LT
C-1	Type 'A' HW	247.00	247.00	262.50	SD 5.11	99+59 Marshalee Drive 82' RT	
C-2	Type 'A' HW	257.00	257.00	262.50	SD 5.11	100+32 Marshalee Drive 64' LT	
Ex. M-1	Shallow Manhole	269.26	269.08	273.00	G 5.05	N 501230.296	E 867935.664
M-5	Std. Manhole	272.50	270.80	277.50	G 5.12	N 601210.269	E 867892.808

\*\* Rectangular Grate



A-S-BUILT

1667

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Anna Stannomy* 8/20/96  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

*Chris Jamison* 8/20/96  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

*Andrew M. Prueckel* 8-16-96  
 CHIEF, BUREAU OF HIGHWAYS

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

*L.H. Woodhill* 8/17/96  
 NATURAL RESOURCES CONSERVATION SERVICE

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

*Stephen W. Schmitz* 8/17/96  
 HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

"I HEREBY CERTIFY THAT THE 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 REQUIREMENTS SET FORTH BY THE HOWARD SOIL CONSERVATION DISTRICT."

*Bruce D. Burton* 7/31/96  
 SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

"I HAVE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS DEEMED NECESSARY."

*W.F. Lopez* 11/6/95  
 SIGNATURE OF DEVELOPER

NO	BY	DATE	DESCRIPTION
△	LDE	2/2004	Revisions Per Capital Project J-4130

REVISIONS

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

DESIGNED	E.D.S.	STORM DRAIN PROFILES & CULVERT PROFILE	SCALE AS SHOWN
DRAWN	BEI	MARSHALEE WOODS Section Two - Area Five	DRAWING 6 of 13
CHECKED	B.D.B.	Lots 127 - 137	JOB NO. 95-022.4
DATE	May, 1996	Tax Map 37 1st Election District	Parcels 593 & 656 Howard County, Maryland
		Owner / Developer	FILE NO. F96-66









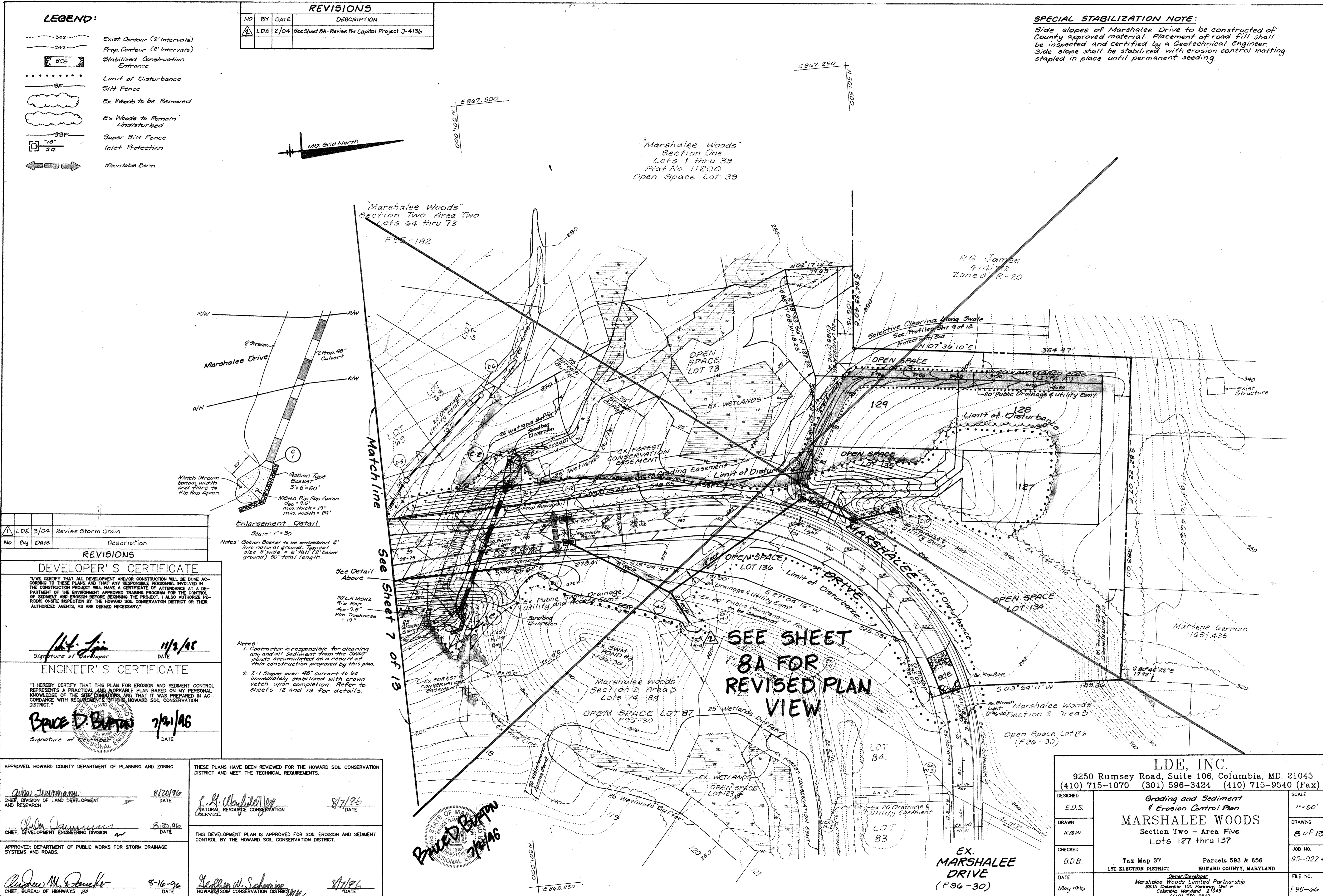
**LEGEND:**

- 34.2 --- Exist Contour (2' Intervals)
- 34.2 --- Prop Contour (2' Intervals)
- ☐ SCE ☐ Stabilized Construction Entrance
- ..... Limit of Disturbance
- SF --- Silt Fence
- ☁ Ex Woods to be Removed
- ☁ Ex Woods to Remain Undisturbed
- 33F --- Super Silt Fence
- ☐ 10" / 30" Inlet Protection
- ←→ Movable Berm

REVISIONS			
NO	BY	DATE	DESCRIPTION
1	LDE	2/04	See Sheet 8A - Revise Per Capital Project J-4136

**SPECIAL STABILIZATION NOTE:**

Side slopes of Marshalee Drive to be constructed of County approved material. Placement of road fill shall be inspected and certified by a Geotechnical Engineer. Side slope shall be stabilized with erosion control matting stapled in place until permanent seeding.



REVISIONS			
No.	By	Date	Description
1	LDE	3/04	Revise Storm Drain

**DEVELOPER'S CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

*Signature of Developer*      11/2/96      DATE

**ENGINEER'S CERTIFICATE**

"I HEREBY 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 REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

*Signature of Professional Engineer*      7/21/96      DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Quinn Zimmerman*      8/20/96      DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

*Chad Zimmerman*      8/20/96      DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

*Andrew M. Danek*      8-16-96      DATE  
 CHIEF, BUREAU OF HIGHWAYS

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

*f. H. [Signature]*      8/7/96      DATE  
 NATURAL RESOURCE CONSERVATION OFFICER

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

*Heather M. Schamine*      8/7/96      DATE  
 HOWARD SOIL CONSERVATION DISTRICT

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

DESIGNED	E.D.S.	Grading and Sediment & Erosion Control Plan <b>MARSHALEE WOODS</b> Section Two - Area Five Lots 127 thru 137	SCALE	1" = 50'
DRAWN	K.B.W.		DRAWING	8 of 13
CHECKED	B.D.B.		JOB NO.	95-022.4
DATE	May 1996	Tax Map 37 1ST ELECTION DISTRICT	Parcels 593 & 656 HOWARD COUNTY, MARYLAND	FILE NO. F96-66

Owner/Developer  
 Marshalee Woods Limited Partnership  
 2835 Columbia 100 Parkway, Unit P  
 Columbia, Maryland 21045  
 (410) 730-0810

10661

**LEGEND:**

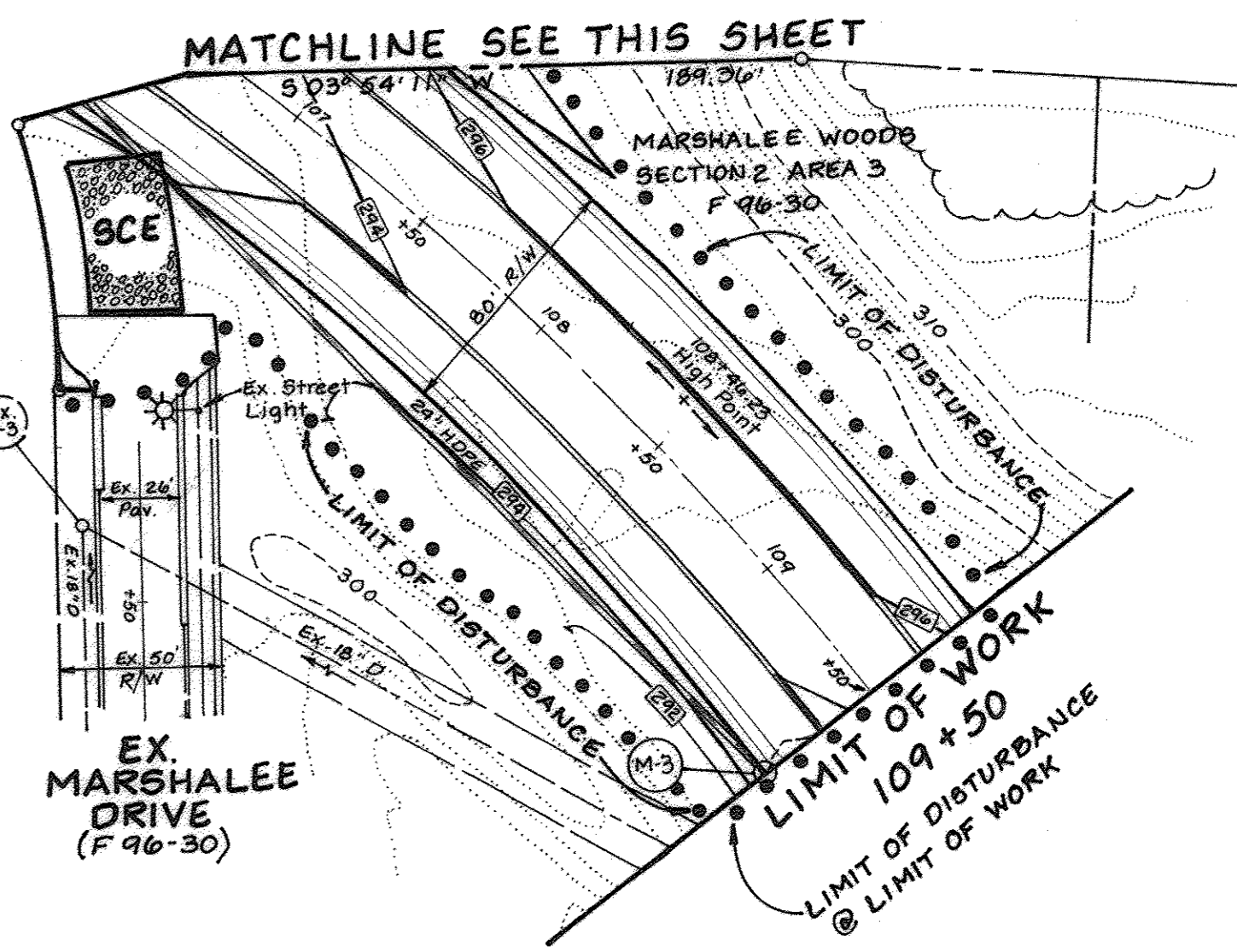
- 2' --- 2' --- Exist Contour (2' Intervals)
- 2' --- 2' --- Prop. Contour (2' Intervals)
- BCE --- Stabilized Construction Entrance
- SF --- Limit of Disturbance
- SF --- Silt Fence
- Ex Woods to be Removed
- Ex Woods to Remain Undisturbed
- 30" --- Super Silt Fence
- 18" --- Inlet Protection
- M --- Movable Berm

NOTE: REFER TO "SPECIAL STABILIZATION" NOTE ON SHEET 7 AND 8.

MATCHLINE SEE THIS SHEET

"Marshalee Woods" Section One  
Lots 1 thru 39  
Plat No. 11200  
Open Space Lot 39

"Marshalee Woods" Section One  
Lots 1 thru 39  
Plat No. 11200  
Open Space Lot 39



EX. MARSHALEE DRIVE (F 96-30)

PG. James  
414/712  
Zoned: R-20

**200 STANDARD AND SPECIFICATIONS FOR TOPSOIL**

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

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

Conditions Where Practice Applies

- I. The practice is limited to areas having 2:1 or flatter slope where:
  - a. The texture of the exposed subsoil 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 forest, containing neither 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.

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 plan.

Construction and Material Specifications

- I. Topsoil salvaged from the existing site may be used provided that it meets the standards 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-GRS in cooperation with Maryland Agricultural Experiment Station.
- II. Topsoil specifications - Soil to be used as topsoil must meet the following:
  - a. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textures and shall contain less than 2% of chert, stones, clay, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1/2" in diameter.
  - b. Topsoil must be free of plants or plant parts such as stems, leaves, twigs, grasses, weeds, roots, etc., unless otherwise specified.
  - c. If the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be applied at the rate of 4 to 6 tons per 1000 square feet prior to the placement of topsoil. Limestone shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedure.

For areas having disturbed areas under 5 acres:

- I. Place topsoil (if required) and apply soil amendments as specified in 200 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

For areas having disturbed areas 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 7.0. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be provided to raise the pH to 6.0 or higher.
  - b. Organic content of topsoil shall be not less than 1% percent by weight.
  - c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
  - d. No seed or seed shell shall be placed in soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min) to permit dissipation of phytotoxic materials.

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

II. Place topsoil (if required) and apply soil amendments as specified in 200 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

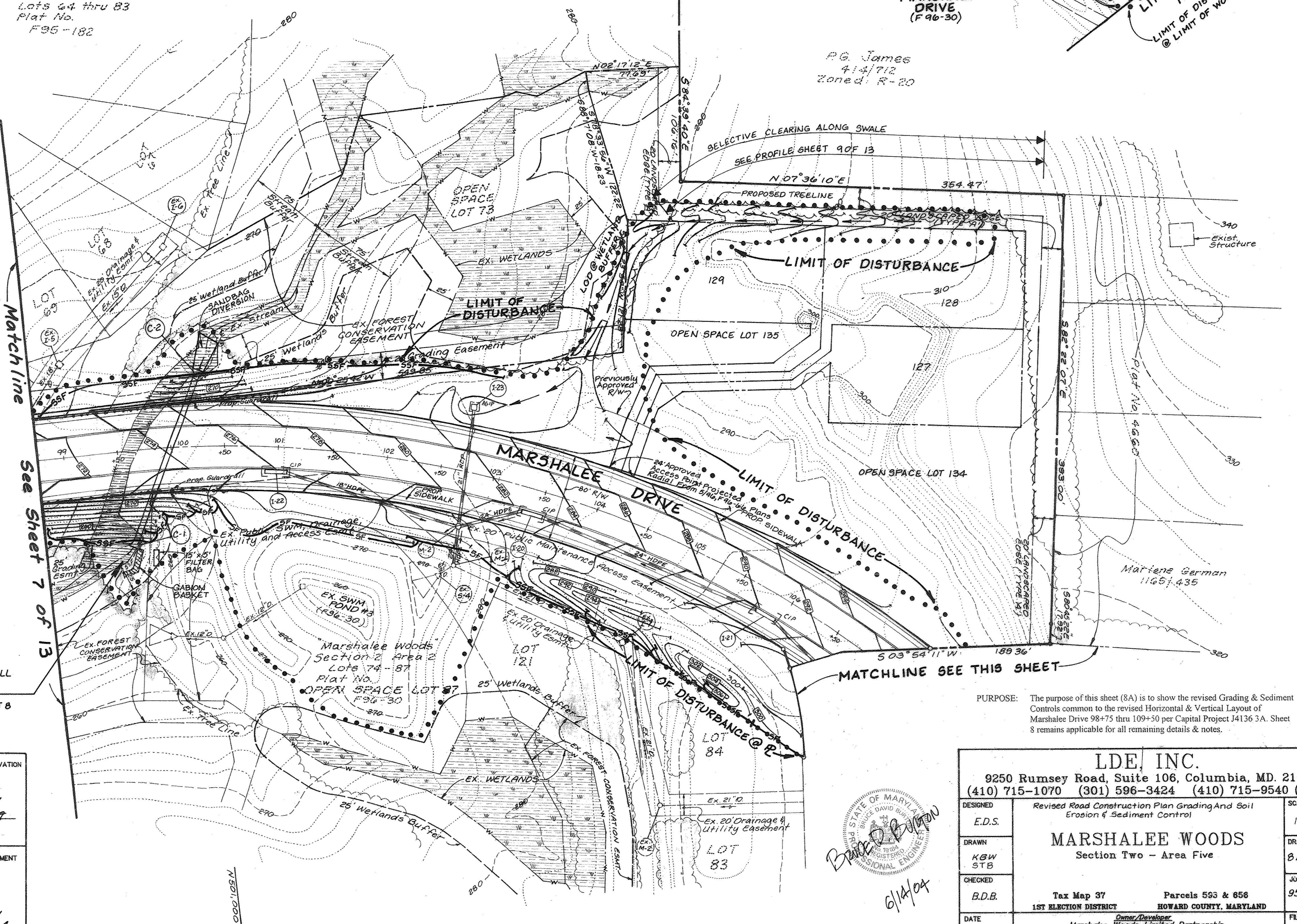
Topsoil Application

- I. When topsoiling, maintain needed erosion and sediment control practices such as diversion, Grade Stabilization Structures, Earth Dikes, Slope Drip Fence and Sediment Traps and Basins.
- II. Grading on the areas to be topsoiled, which have been previously established, shall be maintained, unless 4" - 6" higher in elevation.
- III. Topsoil shall be uniformly distributed in a 4" - 6" layer and tightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that building or sealing 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 puddles.
- 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 be detrimental to proper grading and seedbed preparation.

Alternative for Permanent Seeding - Instead of applying the full amount 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 08.04.02.
  - b. Composted sludge shall contain at least 1 percent nitrogen, 1% 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/1000 square feet.
  - d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 to 6/1000 square feet, and 1/2 the normal lime application rate.

Reference: Guidelines Specifications, Soil Preparation and Seeding, MD-VA, Pub. #1 Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institute, Revised 1975.



SELECTIVE CLEARING ALONG SWALE  
SEE PROFILE SHEET 90F 13

PROPOSED TREELINE

LIMIT OF DISTURBANCE

OPEN SPACE LOT 135

MARSHALEE DRIVE

LIMIT OF DISTURBANCE

OPEN SPACE LOT 134

LIMIT OF DISTURBANCE @ R

MATCHLINE SEE THIS SHEET

**ENGINEER'S CERTIFICATE**  
"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND HONORABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."  
*Bruce D. Burton*  
SIGNATURE OF ENGINEER  
6/14/04  
DATE

**DEVELOPER'S CERTIFICATE**  
"I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS DEEMED NECESSARY."  
*Bruce D. Burton*  
SIGNATURE OF DEVELOPER  
6/14/04  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Chris Hamish*  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
7/26/04  
DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS  
*William E. White*  
CHIEF, BUREAU OF HIGHWAYS  
7-1-04  
DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.  
*Jim Myers*  
NATURAL RESOURCE CONSERVATION SUPERVISOR  
7/26/04  
DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John Volontakis*  
HOWARD SOIL CONSERVATION DISTRICT  
7/26/04  
DATE

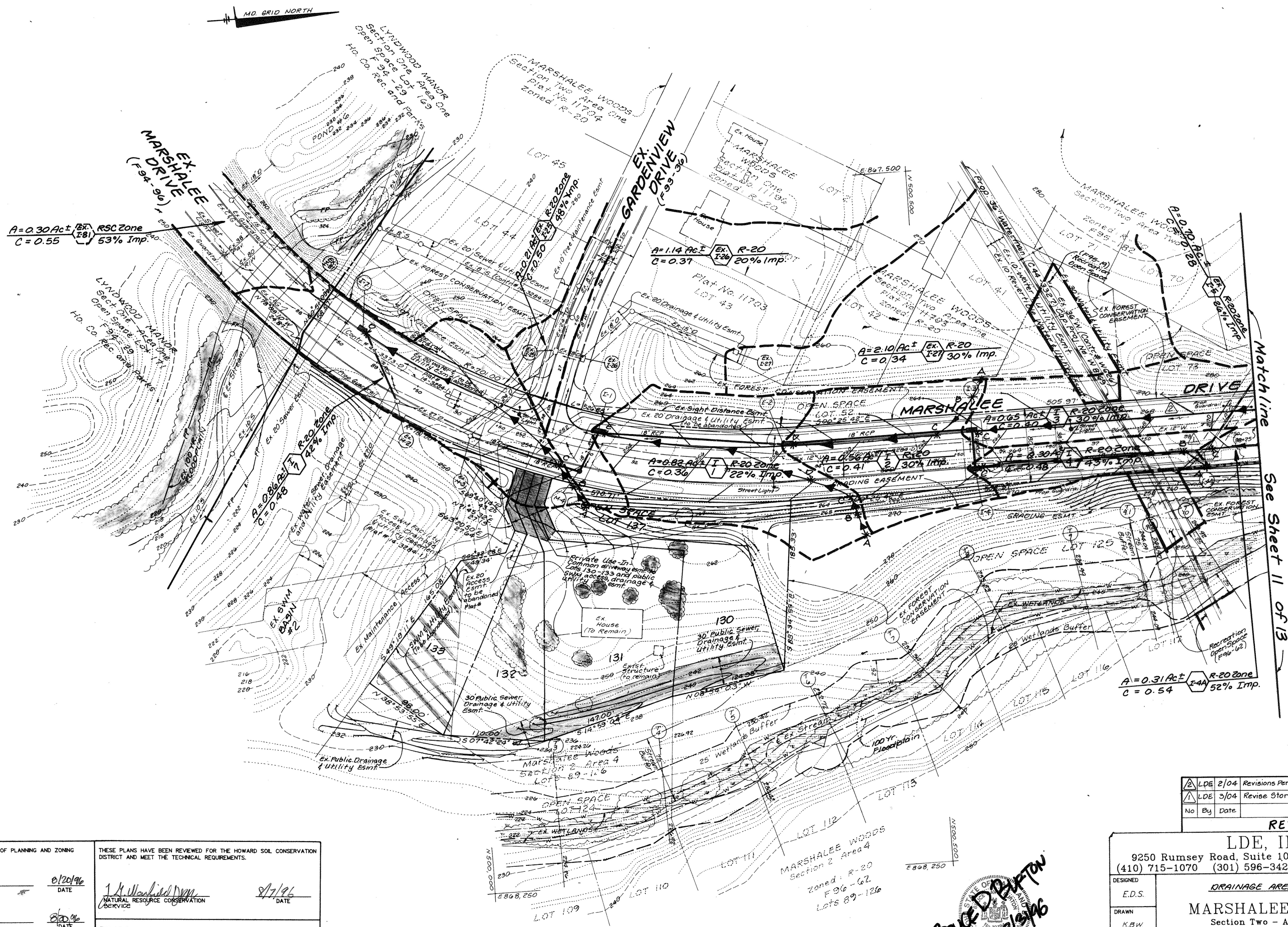
PURPOSE: The purpose of this sheet (8A) is to show the revised Grading & Sediment Controls common to the revised Horizontal & Vertical Layout of Marshalee Drive 98+75 thru 109+30 per Capital Project J4136 3A. Sheet 8 remains applicable for all remaining details & notes.

<p><b>LDE, INC.</b> 9250 Rumsey Road, Suite 106, Columbia, MD. 21045 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)</p>		
DESIGNED	Revised Road Construction Plan Grading And Soil Erosion & Sediment Control	SCALE 1" = 50'
E.D.S.		DRAWING 8A0F13
DRAWN	KBW STB	JOB NO. 95-022.4
CHECKED	B.D.B.	FILE NO. F96-66
DATE	6/2004	
<p>Tax Map 37 1ST ELECTION DISTRICT Parcels 593 &amp; 656 HOWARD COUNTY, MARYLAND</p> <p>Owner/Developer: Marshalee Woods Limited Partnership 8835 Columbia 100 Parkway, Unit P Columbia, Maryland 21045 (410) 750-0810</p>		

1667



1667



Matchline  
See Sheet 11 of 13

No	By	Date	Description
2	LDE	2/04	Revisions Per Capital Project J-4136
1	LDE	3/04	Revise Storm Drain

REVISIONS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Ann Hummer* 8/20/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

*Alan Damman* 8/20/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS.

*Andrew M. Davis* 8-16-96  
CHIEF, BUREAU OF HIGHWAYS

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

*1 H. Wankel* 8/17/96  
NATURAL RESOURCE CONSERVATION SERVICE

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

*Hedley W. Schmitz* 8/17/96  
HOWARD SOIL CONSERVATION DISTRICT

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

DESIGNED	E.D.S.	SCALE	1" = 50'
DRAWN	K.B.W.	DRAWING	10 of 13
CHECKED	B.D.B.	JOB NO.	95-022.4
DATE	May 1996	FILE NO.	F96-66

**MARSHALEE WOODS**  
Section Two - Area Five  
Lots 127 thru 137

Tax Map 37  
1ST ELECTION DISTRICT

Parcels 593 & 656  
HOWARD COUNTY, MARYLAND

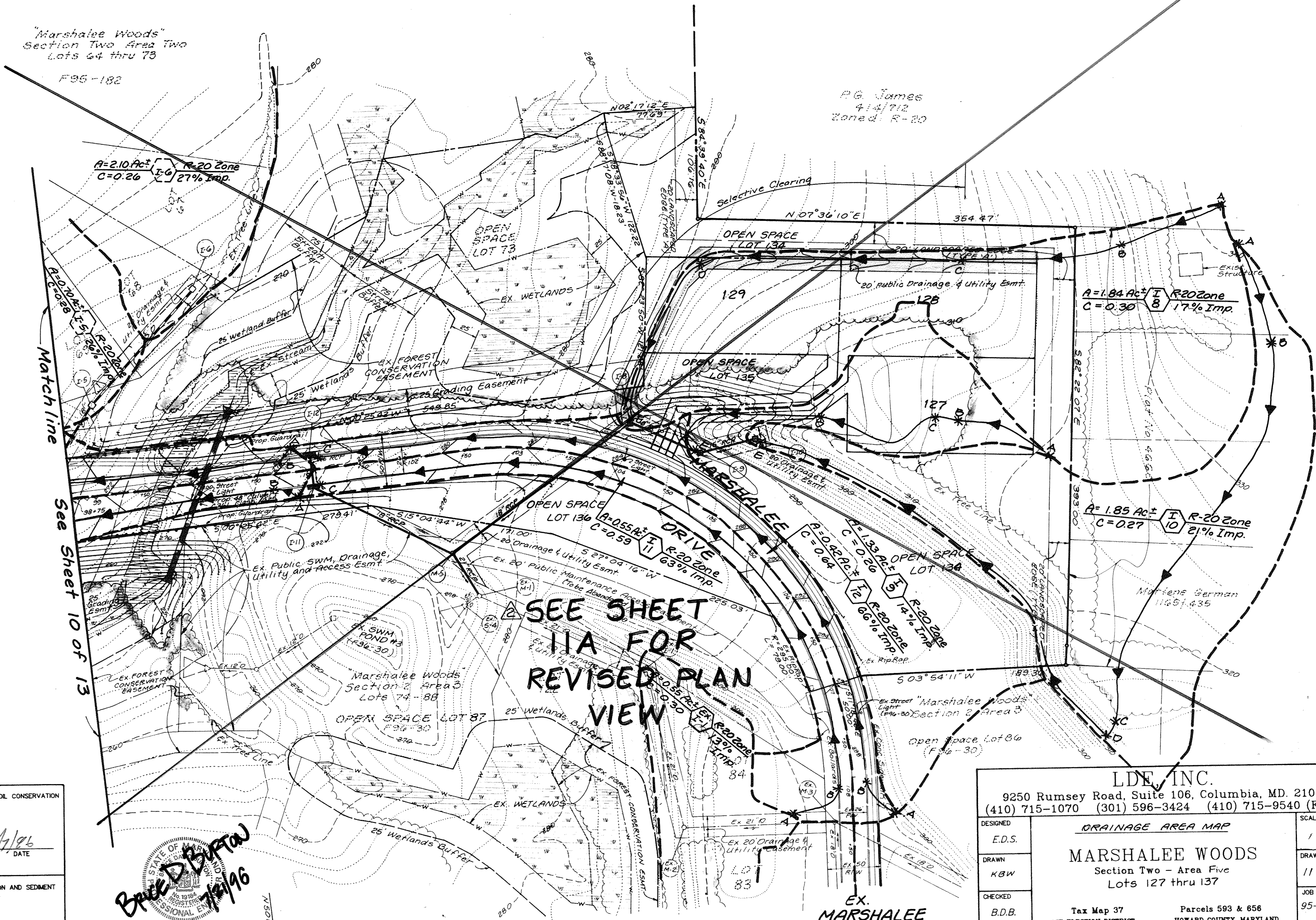
Owner/Developer:  
Marshalee Woods Limited Partnership  
8835 Columbia 100 Parkway, Unit P  
Columbia, Maryland 21045  
(410) 730-0810

*PAUL D. BAYTON*  
7/29/96



"Marshalee Woods"  
Section One  
Lots 1 thru 39  
Plat No. 11200  
Open Space Lot 39

"Marshalee Woods"  
Section Two Area Two  
Lots 64 thru 73



**SEE SHEET  
11A FOR  
REVISED PLAN  
VIEW**

No.	By	Date	Description
△ LDE	2/04		See Sheet 11A- Revisions Per Capital Project J-4130
△ LDE	3/04		Revise Storm Drain

**REVISIONS**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

*Aina Stummam* 8/20/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*J. A. Warfield* 8/7/96  
NATURAL RESOURCE CONSERVATION SERVICE DATE

*J. A. Warfield* 8/7/96  
NATURAL RESOURCE CONSERVATION SERVICE DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

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

*Andrew M. Daniels* 8-16-96  
CHIEF, BUREAU OF HIGHWAYS 16 DATE

*Stephen W. Schomise* 8/7/96  
HOWARD SOIL CONSERVATION DISTRICT DATE



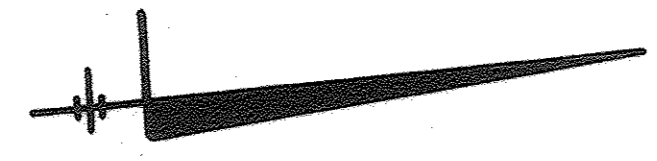
**LDE, INC.**  
9250 Rumsey Road, Suite 106, Columbia, MD. 21045  
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED E.D.S.	<b>DRAINAGE AREA MAP</b>	SCALE 1" = 50'
DRAWN KBW		DRAWING 11 of 13
CHECKED B.D.B.	<b>MARSHALEE WOODS</b> Section Two - Area Five Lots 127 thru 137	JOB NO. 95-022.4
DATE May 1996		Tax Map 37 1ST ELECTION DISTRICT

Owner/Developer:  
Marshalee Woods Limited Partnership  
8835 Columbia 100 Parkway, Unit P  
Columbia, Maryland 21045  
(410) 730-0810

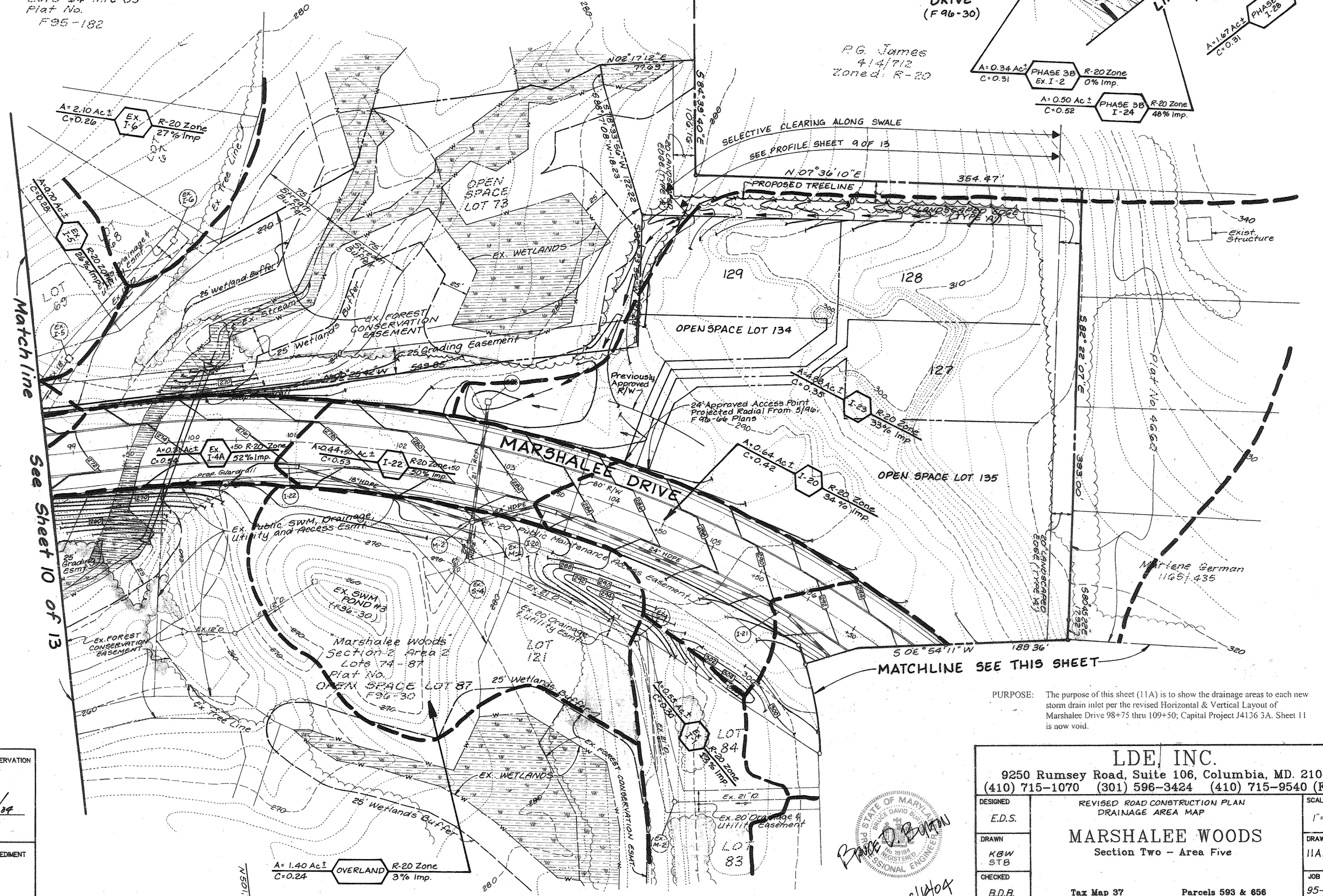
**LEGEND:**

- 2' Intervals --- Existing Contour (2' Intervals)
  - 2' Intervals --- Proposed Contour (2' Intervals)
  - 8CE --- Stabilized Construction Entrance
  - --- Limit of Disturbance
  - SF --- Silt Fence
  - --- Ex. Woods to be Removed
  - --- Ex. Woods to Remain Undisturbed
  - SSF --- Super Silt Fence
  - --- Inlet Protection
  - --- Movable Berm
- Area Zoning Drainage Area  
C Factor # % Impervious
- --- Drainage Divide



"Marshalee Woods"  
Section Two Area Two  
Lots 64 thru 83  
Plat No.  
F85-182

"Marshalee Woods"  
Section One  
Lots 1 thru 39  
Plat No. 11200  
Open Space Lot 39



MATCHLINE SEE THIS SHEET

EX. MARSHALEE DRIVE  
(F 96-30)

LIMIT OF WORK  
109+50

P.G. James  
4/14/712  
Zoned: R-20

A=0.34 Ac ± PHASE 3B R-20 Zone  
C=0.51 Ex. I-2 0% Imp.

A=0.50 Ac ± PHASE 3B R-20 Zone  
C=0.52 I-24 48% Imp.

SELECTIVE CLEARING ALONG SWALE  
SEE PROFILE SHEET 9 OF 13

PROPOSED TREELINE

24' Approved Access Point  
Projected Radial From 5/49  
F 96-66 Plans

OPEN SPACE LOT 135

MATCHLINE SEE THIS SHEET

PURPOSE: The purpose of this sheet (11A) is to show the drainage areas to each new storm drain inlet per the revised Horizontal & Vertical Layout of Marshalee Drive 98+75 thru 109+50; Capital Project 14136 3A. Sheet 11 is now void.

**ENGINEER'S CERTIFICATE**  
"I HEREBY 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 REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."  
Signature of Engineer: Bruce D. Burton  
Date: 6/14/04

**DEVELOPER'S CERTIFICATE**  
"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."  
Signature of Developer: [Signature]  
Date: 6/6/04

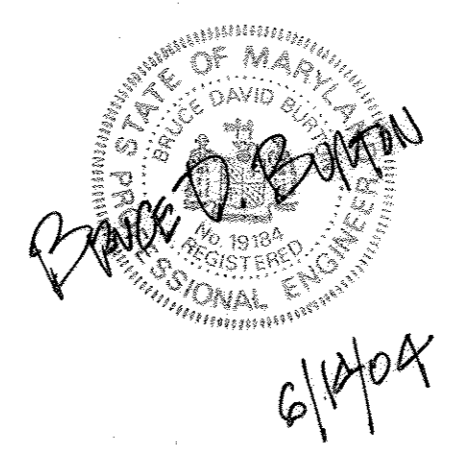
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
Signature: Cindy Hanrahan  
Date: 7/6/04  
Title: CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.  
Signature: [Signature]  
Date: 7/26/04  
Title: NATURAL RESOURCE CONSERVATION DISTRICT SERVICE

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS.  
Signature: [Signature]  
Date: 7-1-04  
Title: CHIEF, BUREAU OF HIGHWAYS

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
Signature: [Signature]  
Date: 7/26/04  
Title: HOWARD SOIL CONSERVATION DISTRICT

<p><b>LDE, INC.</b> 9250 Rumsey Road, Suite 106, Columbia, MD. 21045 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)</p>		
DESIGNED E.D.S.	REVISED ROAD CONSTRUCTION PLAN DRAINAGE AREA MAP	SCALE 1"=50'
DRAWN KBW STB	<b>MARSHALEE WOODS</b> Section Two - Area Five	DRAWING 11A of 13
CHECKED B.D.B.	Tax Map 37 1ST ELECTION DISTRICT	JOB NO. 95-022.4
DATE 6/2004	Owner/Developer: Marshalee Woods Limited Partnership 8835 Columbia 100 Parkway, Unit P Columbia, Maryland 21045 (410) 732-0910	FILE NO. F96-66



1667

STREET TREE TABLE					
SYMB	COMMON NAME	BOTANICAL NAME	QTY	SIZE	REMARKS
⊙	Northern Red Oak	Quercus Rubra	10	2"-2 1/2" Cal B&B	40' o.c.
⊙	Red Sunset Red Maple	"Red Sunset"	4	2"-2 1/2" Cal B&B	40' o.c.
⊕	Marshall's Seedless Green Ash	Fraxinus Pennsylvanica "Marshall's Seedless"	11	2"-2 1/2" Cal B&B	40' o.c.
⊙	Columbia London Plane	Platanus x acerifolia "Columbia"	9	2"-2 1/2" Cal B&B	40' o.c.
⊙	Flameleaf Sumac	Rhus copallina	43	18"-24" HT Cont.	5' o.c.

REVISIONS				
No.	By	Date	Description	
1	LDE	3/04	Revise Storm Drain	

Forest Conservation Technique	Area / sq. ft.	Plant Density	Plants Required	Plants Shown
Landscape option	7880	40 trees / 10,000sf	32 trees	32 trees
Afforestation w/ 1-2 gal. cont. stock	18515	350 trees / ac.	149 trees	149 trees
Afforestation w/ evgn seedlings	13005	700 trees / ac.	209 trees	209 trees
<b>Total Area</b>	<b>39400</b>			

Notes: 1. This plan has been prepared in accordance with the provisions of Section 16.129 of the Howard County Code and the Landscape Manual.  
 2. Financial security for the proposed landscaping has been posted as part of the DFW Developer's Agreement in the amount of \$2000.  
 3. There shall be a minimum of 20 feet between street lights and street trees.

- Landscape Edge**
- 10 Pinus Strobus - white pine 5'-6' ht. B&B
  - 2 Liquidambar styraciflua - sweetgum 2"-2 1/2" cal. B&B
  - 5 Acer Rubrum - Red Maple 2"-2 1/2" cal. B&B
  - 3 Quercus Coccinea - Scarlet Oak 2"-2 1/2" cal. B&B

- PLANTING NOTES - street trees**
- 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.
  - Street tree locations may be adjusted for final location of driveways. Trees to be located a minimum of 10 feet from driveways.
  - Street 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.
  - Street Tree planting must conform to the Subdivision and Land Development Regulations and the Department of Public Works Design Manual of Howard County.
  - 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 80 days. Watering shall continue bi-monthly 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 guarantee period.
  - Maintenance consist of pruning, watering, weeding, re-mulching, resetting plants to proper grades as needed and repairing guys and stakes as needed.

- PLANTING NOTES - afforestation planting**
- Forest Stand Delineation and the Preliminary Forest Conservation Plan prepared by C. Williams, Landscape Architect.
  - Written Documentation including afforestation location, construction protection and management, cost estimate, plant densities, etc. prepared by C. Williams, Landscape Architect, Submission No. P-94-07.
    - A) Construction Protection and Management: Upon completion of the rough grading of the afforestation areas, a protective fence and signs shall be installed. Adjacent landowners will be informed about the existence and importance of these areas.
    - B) Post Construction Protection: After completion and approval of planting, the protective fence shall remain only if construction of Marshalee Drive endangers the viability of the newly planted area. Signs will be removed after the two year maintenance period as directed by the Howard County Forest Conservation Manual.
  - All planting to meet the implementation techniques and practices as described in the Howard County Forest Conservation Manual.
  - There are no existing trees on the site.
  - The hardwood container grown stock should be planted randomly at an average of eleven feet on center in a naturalized pattern. Species should be mixed with no less than three trees of one species in a group. Edge species should be planted on the perimeter of the afforestation area (Amelanchier, Cercis, and Viburnum).
  - Evergreen seedlings should be planted randomly at an average of eight feet on center in a naturalized pattern.
  - The Landscape Contractor will be responsible for general site preparation of the rough graded afforestation areas. The planting areas should be treated by incorporating natural mulch into the top twelve inches of soil. The Contractor will provide needed soil amendments as determined by a soil analysis. Amendments should be natural materials such as organic mulch or leaf mold compost.
  - All disturbed areas within the afforestation area to be seeded with K-31 Tall Fescue (March 1 - April 30 and August 1 - Oct. 15, seed with 60 lbs/acre; May 1 - July 31 use 60 lbs/acre K-31 and 2 lbs/acre of weeping lovegrass; Oct. 16 - Feb. 28 use 60 lbs/acre K-31 and mulch with 2 tons/acre well anchored straw or mulch and seed in the spring.
  - Seeded areas to be hand mulched with 1 1/2 to 2 tons per acre of unrotted small grain straw and non-asphaltic tackifier and left unmulched. All areas between the Site Line Easement and the ROW of Marshalee Drive shall be seeded with K-31 Fescue and mowed once a year.
  - The Landscape Architect will inspect the planting at the end of the construction period and provide to the County a certification that all plantings have been installed and that all protection devices are in place.
  - The Landscape Contractor shall be responsible for management of afforestation areas for a period of two years, including needed watering, removal of dead or damaged material and control of undesirable species, fertilizing if necessary and control of pests, and replacement of plant material as described in the Howard County Forest Conservation Manual.
  - All inspections as required by the Forest Conservation Manual shall be performed by the Landscape Architect.

**FOREST RETENTION AREA**

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

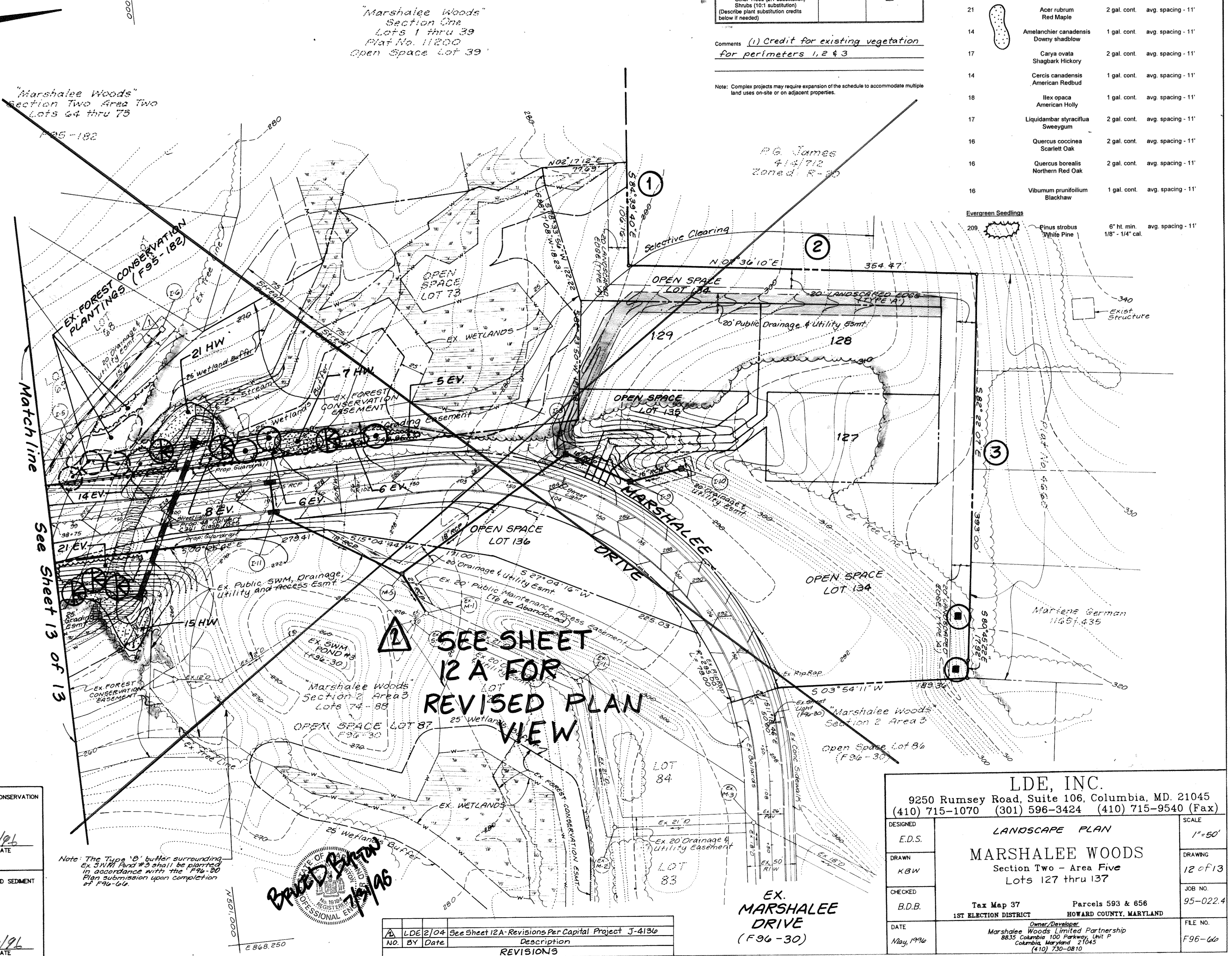
VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM

**SPECIMEN TREE**

DO NOT REMOVE

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM



SCHEDULE A PERIMETER LANDSCAPE EDGE		
Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	---	"A"
Linear Feet of Roadway Frontage/Perimeter	---	878 L.F.
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	---	Yes 783 L.F. (1)
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	---	No
Number of Plants Required	---	2
Shade Trees	---	---
Evergreen Trees	---	---
Shrubs	---	---
Number of Plants Provided	---	2
Shade Trees	---	---
Evergreen Trees	---	---
Other Trees (2:1 substitution)	---	---
Shrubs (10:1 substitution)	---	---
(Describe plant substitution credits below if needed)	---	---

NO.	KEY	BOTANICAL / COMMON NAME	SIZE	COMMENT
<b>AFFORESTATION PLANTING</b>				
<b>Landscape Option (20%)</b>				
10	⊙	Acer rubrum Red Maple	2-2 1/2" - 3" cal. B&B	
4	⊕	Liquidambar styraciflua Sweetgum	2-2 1/2" - 3" cal. B&B	
13	⊙	Quercus borealis Northern Red Oak	2-2 1/2" - 3" cal. B&B	
5	⊙	Quercus coccinea Scarlett Oak	2-2 1/2" - 3" cal. B&B	
<b>One To Two Gallon Containers 149</b>				
21	⊙	Acer rubrum Red Maple	2 gal. cont.	avg. spacing - 11'
14	⊕	Amelanchier canadensis Downy shadblow	1 gal. cont.	avg. spacing - 11'
17	⊙	Carya ovata Shagbark Hickory	2 gal. cont.	avg. spacing - 11'
14	⊕	Cercis canadensis American Redbud	1 gal. cont.	avg. spacing - 11'
18	⊕	Ilex opaca American Holly	1 gal. cont.	avg. spacing - 11'
17	⊕	Liquidambar styraciflua Sweetgum	2 gal. cont.	avg. spacing - 11'
16	⊕	Quercus coccinea Scarlett Oak	2 gal. cont.	avg. spacing - 11'
16	⊕	Quercus borealis Northern Red Oak	2 gal. cont.	avg. spacing - 11'
16	⊕	Viburnum prunifolium Blackhaw	1 gal. cont.	avg. spacing - 11'
<b>Evergreen Seedlings</b>				
209	⊙	Pinus strobus White Pine	6" H. min.	avg. spacing - 11' 1/8" - 1/4" cal.

Comments (1) Credit for existing vegetation for perimeters 1, 2 & 3

Note: Complex projects may require expansion of the schedule to accommodate multiple land uses on-site or on adjacent properties.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Dina Swannomy* 8/20/96  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*John J. Williams* 8/20/96  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS.

*Andrew M. Daniels* 8-16-96  
 CHIEF, BUREAU OF HIGHWAYS DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

*J. L. W. Williams* 8/17/96  
 NATURAL RESOURCE CONSERVATION SERVICE DATE

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

*Heather W. Schomir* 8/7/96  
 HOWARD SOIL CONSERVATION DISTRICT DATE

Note: The Type 'B' buffer surrounding EX SWIM POND #3 shall be planted in accordance with the F96-30 Plan submission upon completion of F96-04.



NO.	BY	Date	Description
1	LDE	2/04	See Sheet 12A - Revisions Per Capital Project J-4136
REVISIONS			

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

DESIGNED: **LANDSCAPE PLAN** SCALE: 1"=50'

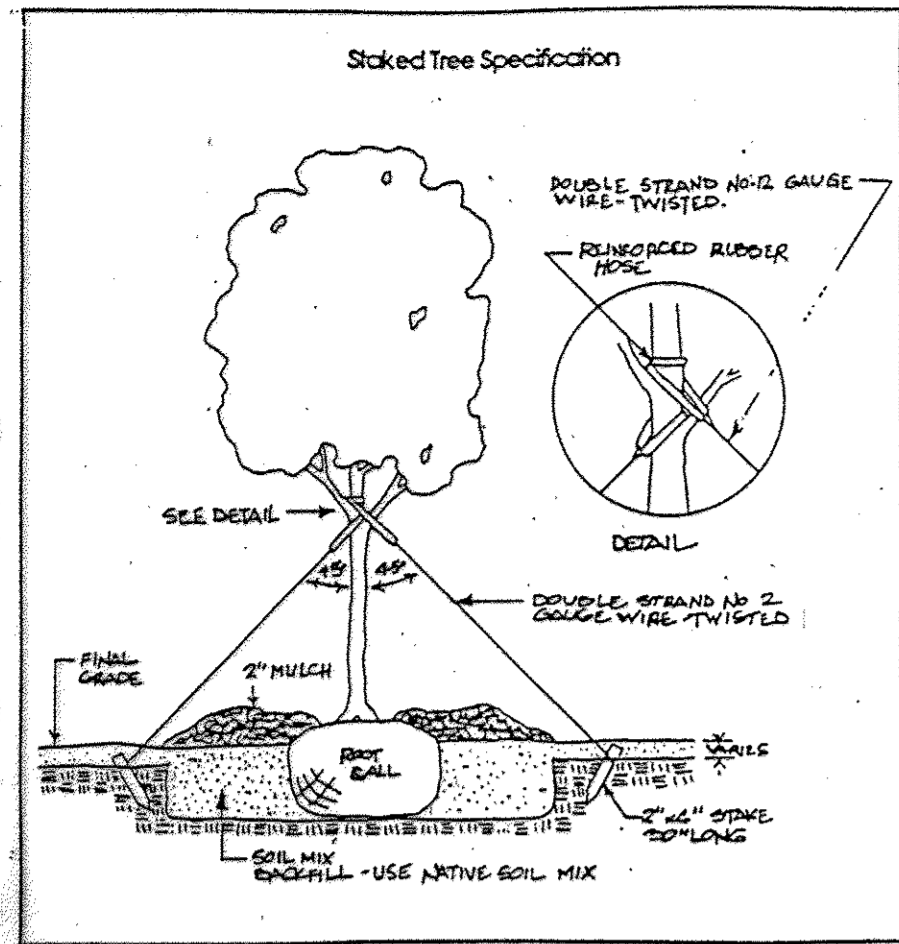
DRAWN: **MARSHALEE WOODS** DRAWING: 12 of 13  
 Section Two - Area Five

CHECKED: **Lot 127 thru 137** JOB NO.: 95-022.4  
 Tax Map 37 Parcels 593 & 856

DATE: May, 1996 FILE NO.: F96-66  
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 Developer: Marshalee Woods Limited Partnership  
 8815 Columbia 100 Parkway, Unit F  
 Columbia, Maryland 21045  
 (410) 730-2110





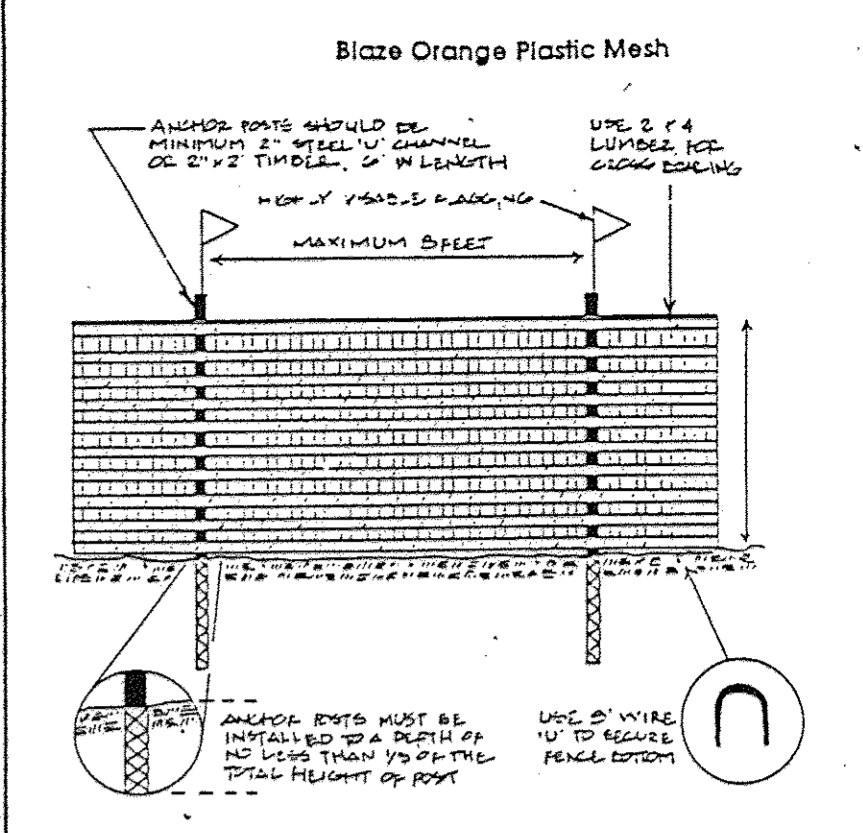
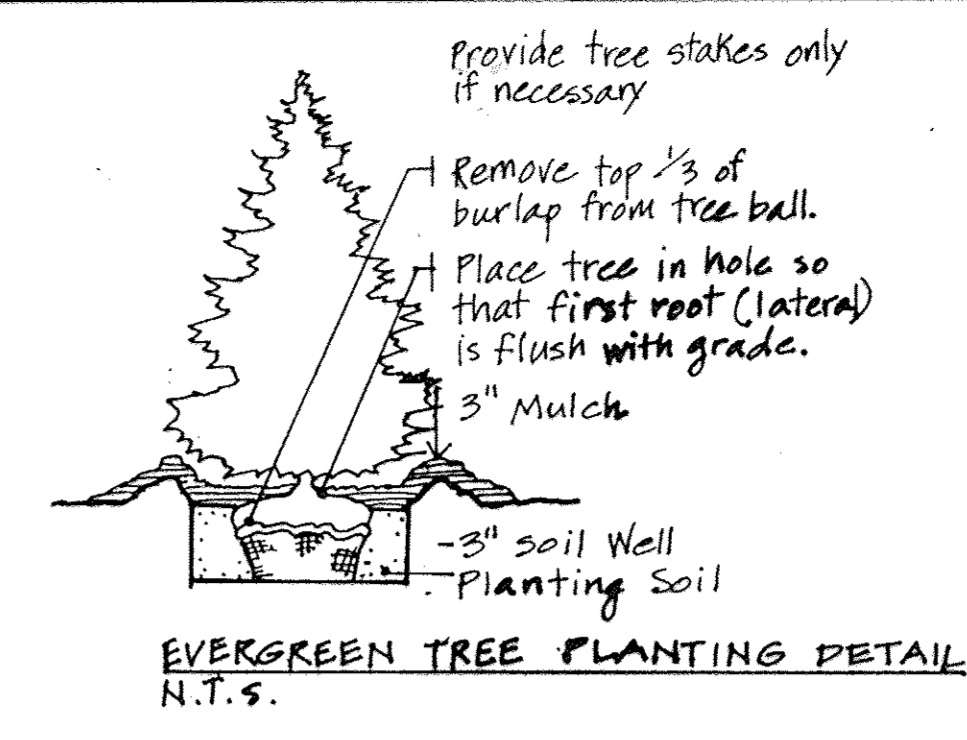
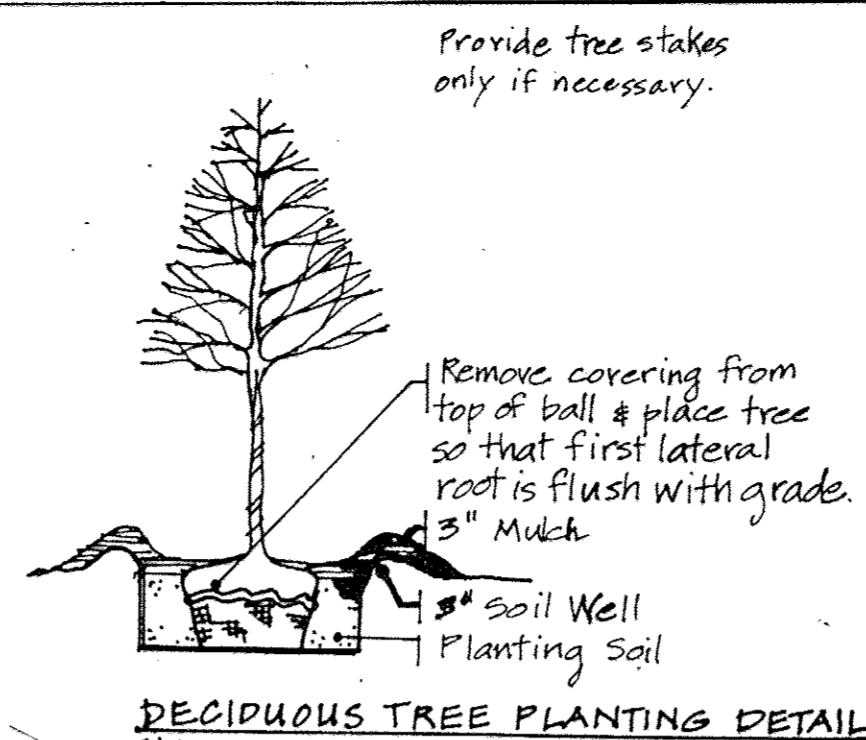
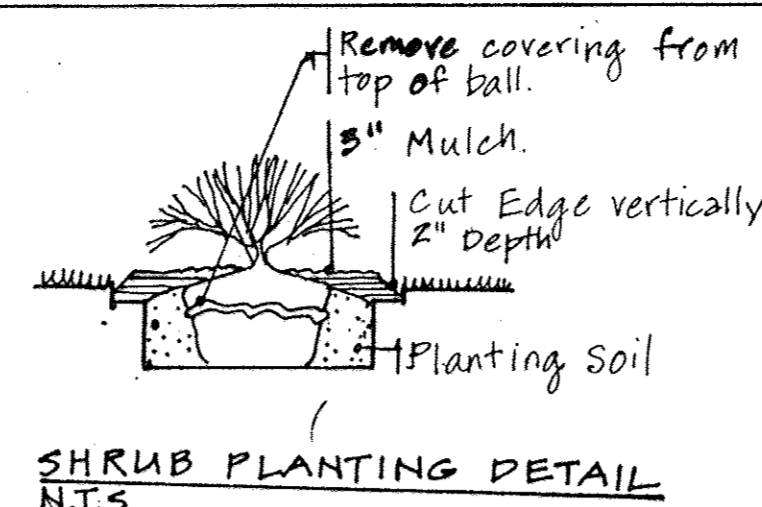


**Critical Area Establishment:** Correct acidity to a pH of 5.5 or higher. Where possible, scarify the soil 2 to 4 inches deep. Apply fertilizer according to soil test, or use at least 500 pounds of 5-10-10 fertilizer per acre.

Apply seed uniformly, cover seed up to 1/2 inch deep, mulch with 1 and 1/2 tons of straw and hold in place. All seed must be inoculated, and scarified.

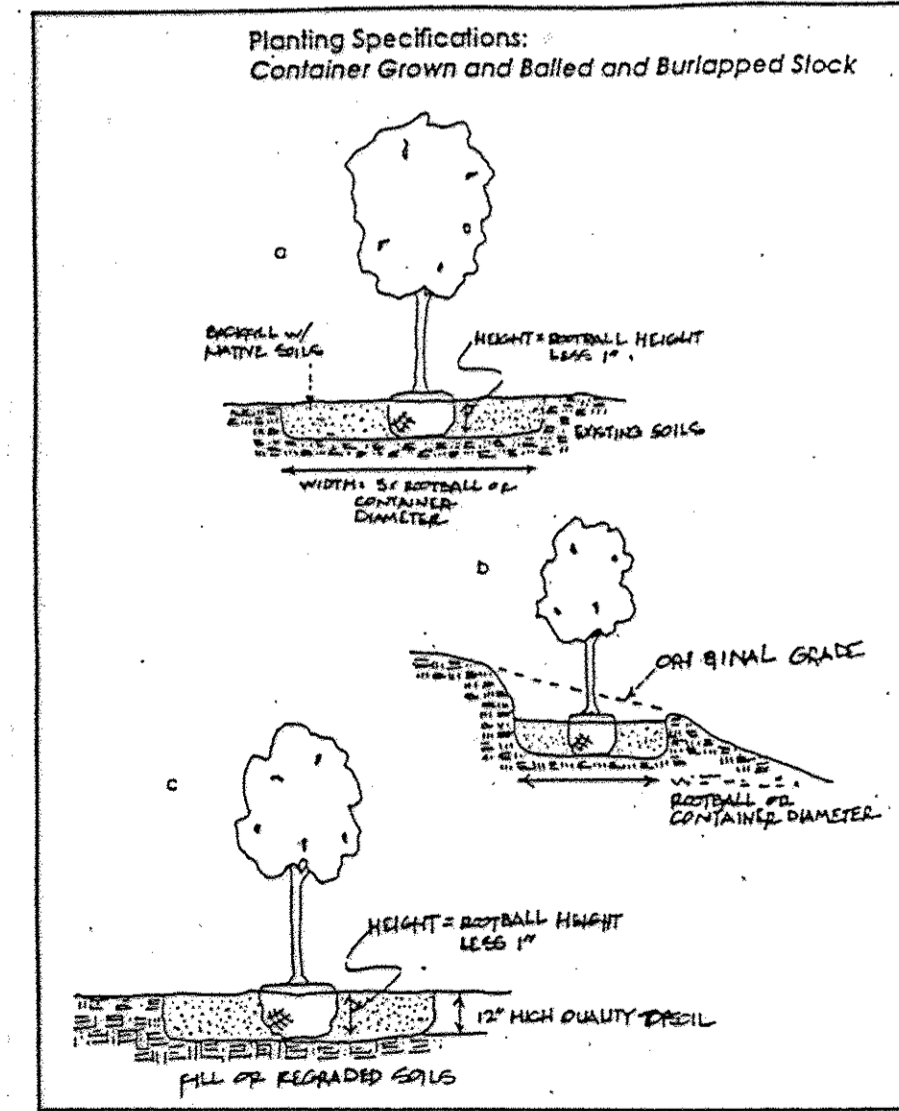
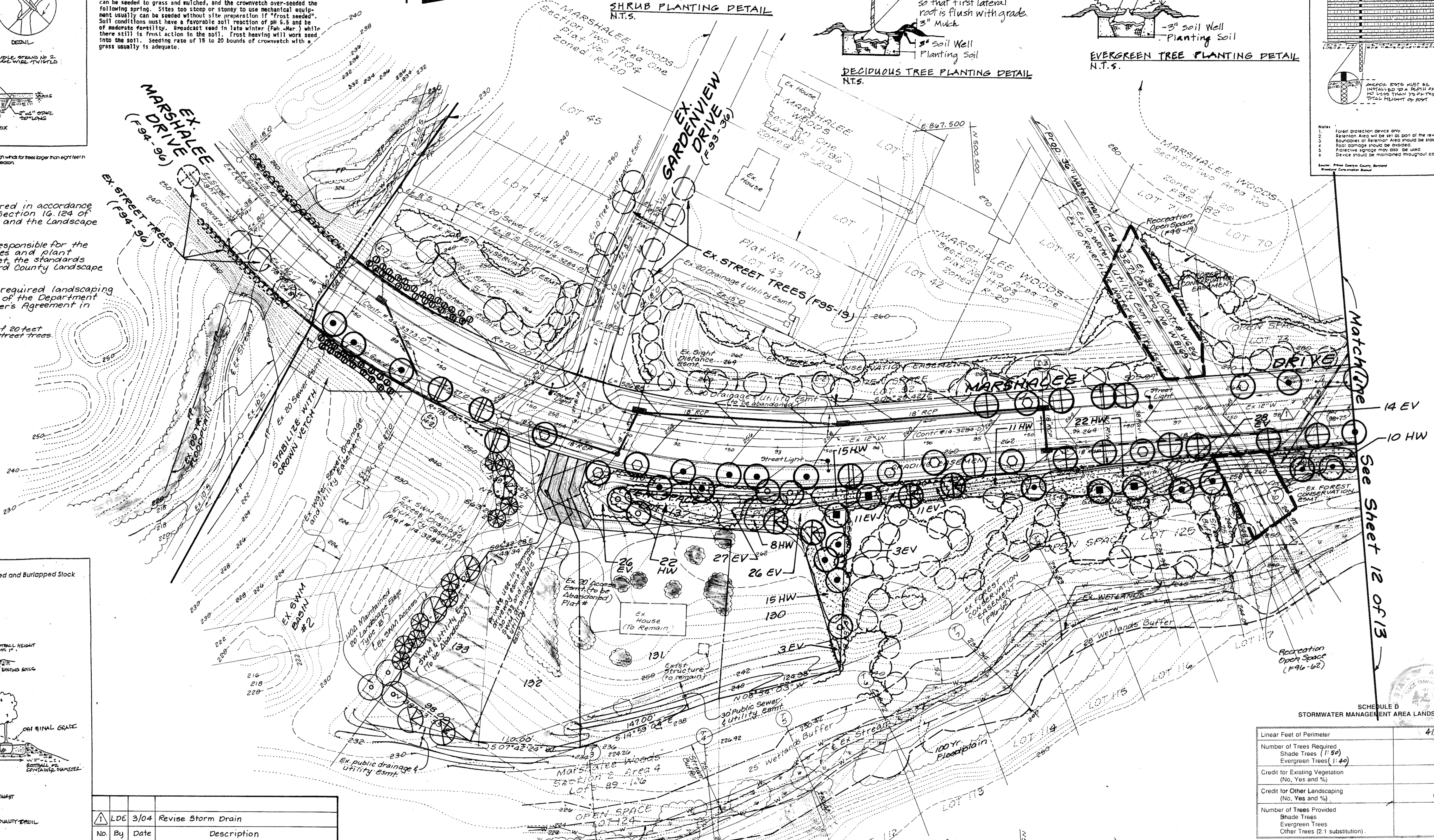
Seed mixtures of 15 to 20 pounds of crownvetch mixed with either tall fescue or ryegrass at 30 pounds per acre. Grass provides quick growth and protects the site while the slower growing legume is getting established. Seeding date in the spring is best. Do not seed after mid-summer. Sites ready for seeding in late summer or fall can be seeded to grass and mulched, and the crownvetch over-seeded the following spring. Sites too steep or stony to use mechanical equipment usually can be seeded without site preparation if "frost seeded". Soil conditions must have a favorable soil reaction of pH 5.5 and be of moderate fertility. Broadcast seed in late winter (Feb-Mar) while there still is frost action in the soil. Frost heaving will work seed into the soil. Seeding rate of 15 to 20 pounds of crownvetch with a grass usually is adequate.

- NOTES:**
- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual.
  - 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.
  - Financial Surety for the required landscaping has been posted as part of the Department of Public Works Developers Agreement in the amount of \$200,000.
  - There shall be a minimum of 20 feet between street lights and street trees.



**Notes:**

- Forest protection device only.
- Retention Area will be 1/2 of part of the review process.
- Boundaries of Retention Area should be staked and flagged prior to installing device.
- Soil gauges should be checked.
- Protective signage may also be used.
- Device should be maintained throughout construction.



No.	By	Date	Description
1	LDE	3/04	Revise Storm Drain

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

*J. H. Washfield* 8/7/96  
NATURAL RESOURCE CONSERVATION SERVICE

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

*Stephen W. Schomig* 8/7/96  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Jim Summerville* 8/20/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

*Mike Damann* 8/20/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS.

*Andrew M. Decker* 8-16-96  
CHIEF, BUREAU OF HIGHWAYS

SCHEDULE D  
STORMWATER MANAGEMENT AREA LANDSCAPING

Linear Feet of Perimeter	411 L.F.
Number of Trees Required	8
Shade Trees (1:50)	10
Evergreen Trees (1:40)	NO
Credit for Existing Vegetation (No, Yes and %)	NO
Credit for Other Landscaping (No, Yes and %)	NO
Number of Trees Provided	8
Shade Trees	10
Evergreen Trees	10
Other Trees (2:1 substitution)	

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

DESIGNED	E.D.S.	SCALE	1" = 60'
DRAWN	K.B.W.	DRAWING	130 of 13
CHECKED	B.D.B.	JOB NO.	95-022.4
DATE	May, 1996	FILE NO.	F96-66

**LANDSCAPE PLAN**

**MARSHALEE WOODS**  
Section Two - Area Five  
Lots 127 thru 137

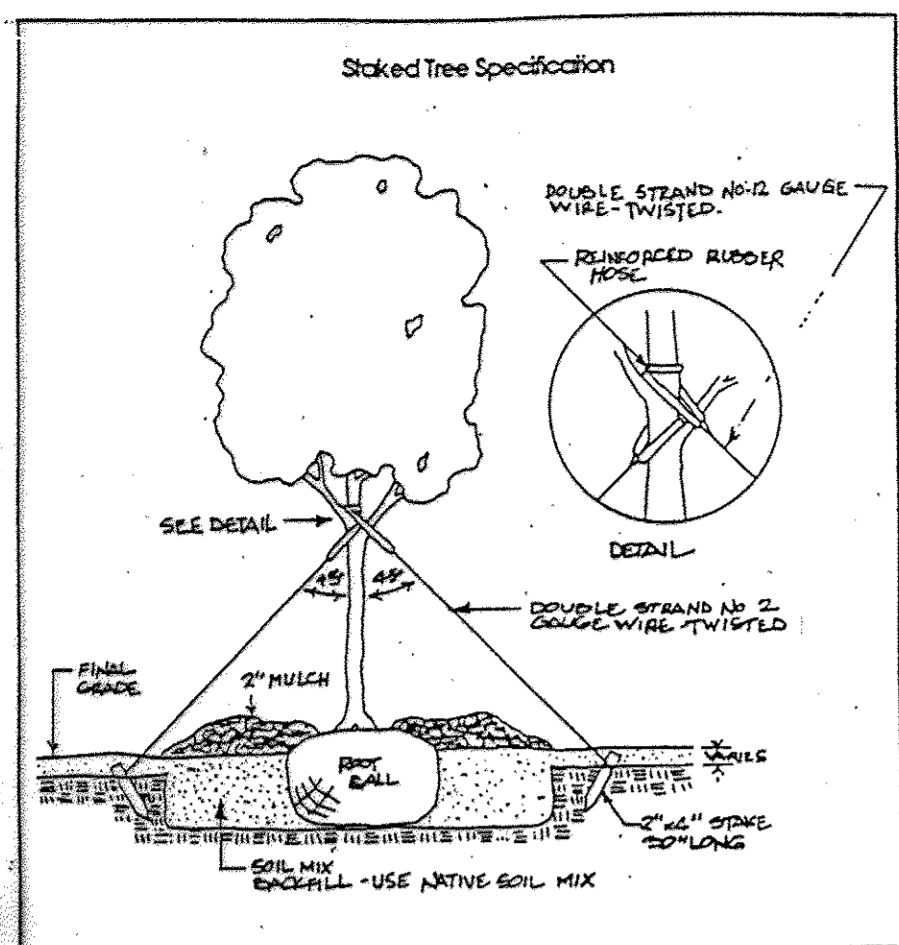
Tax Map 37  
1ST ELECTION DISTRICT

Parcels 593 & 656  
HOWARD COUNTY, MARYLAND

Owner/Developer:  
Marshalee Woods Limited Partnership  
8835 Columbia 100 Parkway, Unit P  
Columbia, Maryland 21045  
(410) 730-0810

BRUCE D. BROWN  
8/7/96

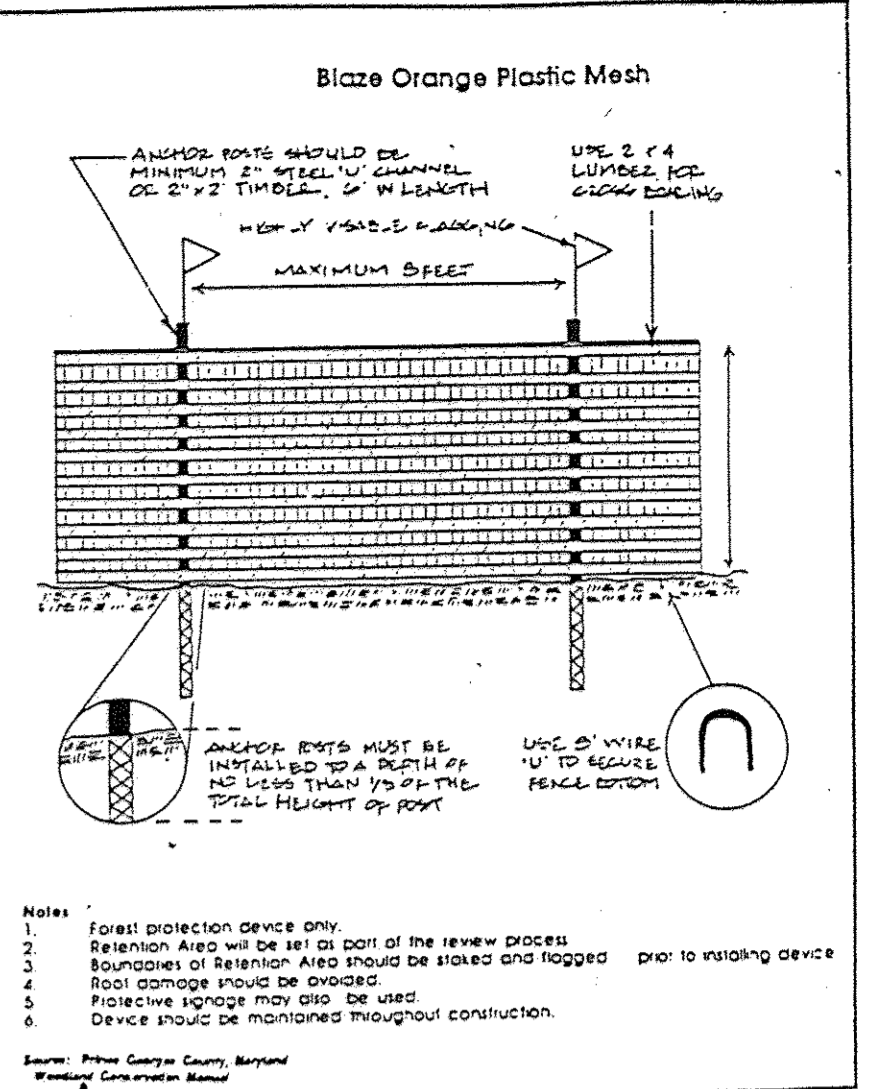
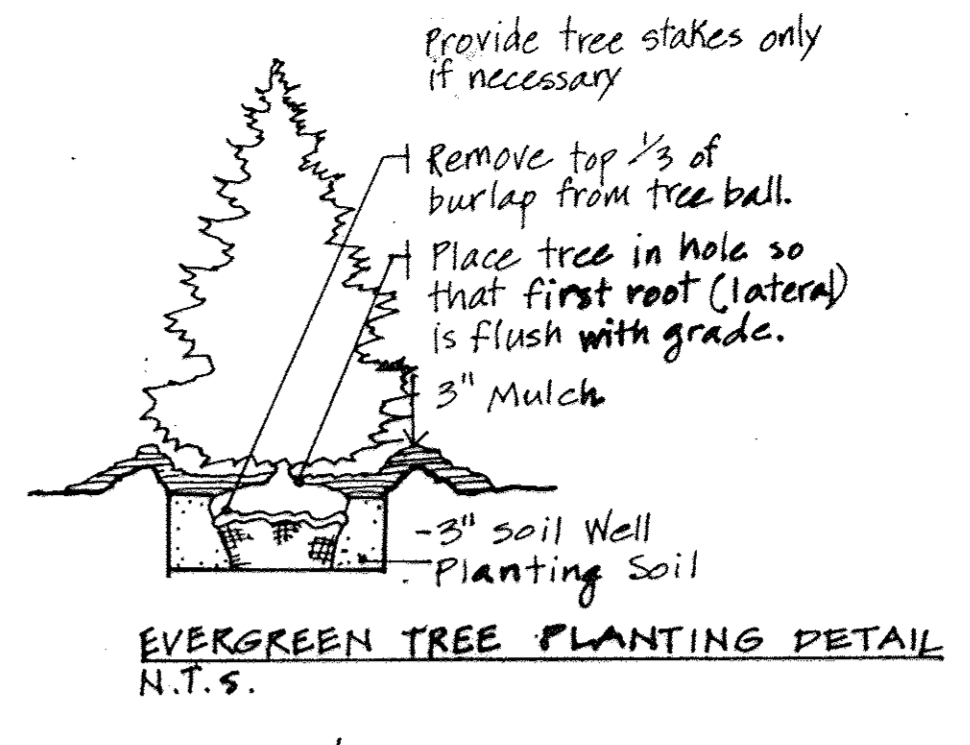
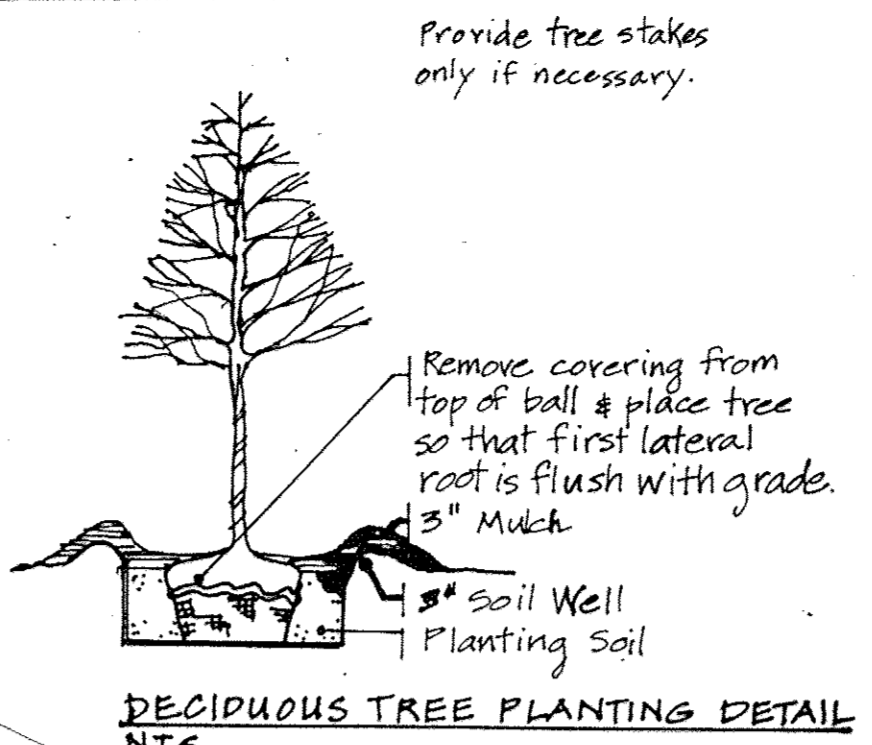
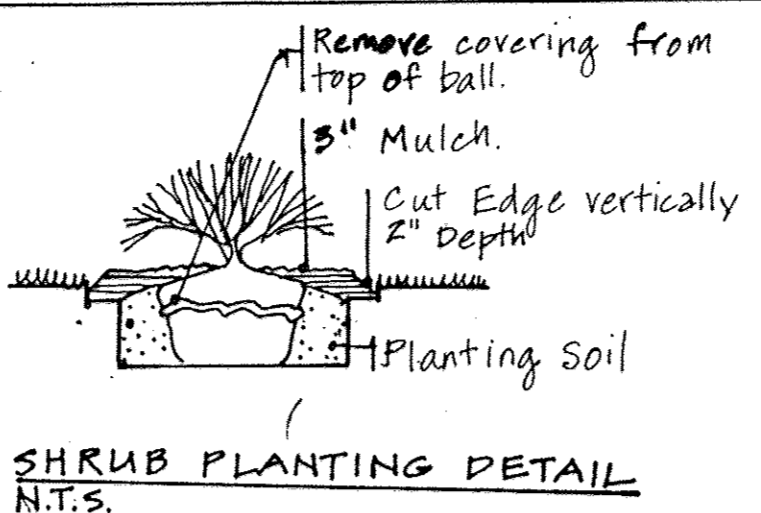
1667



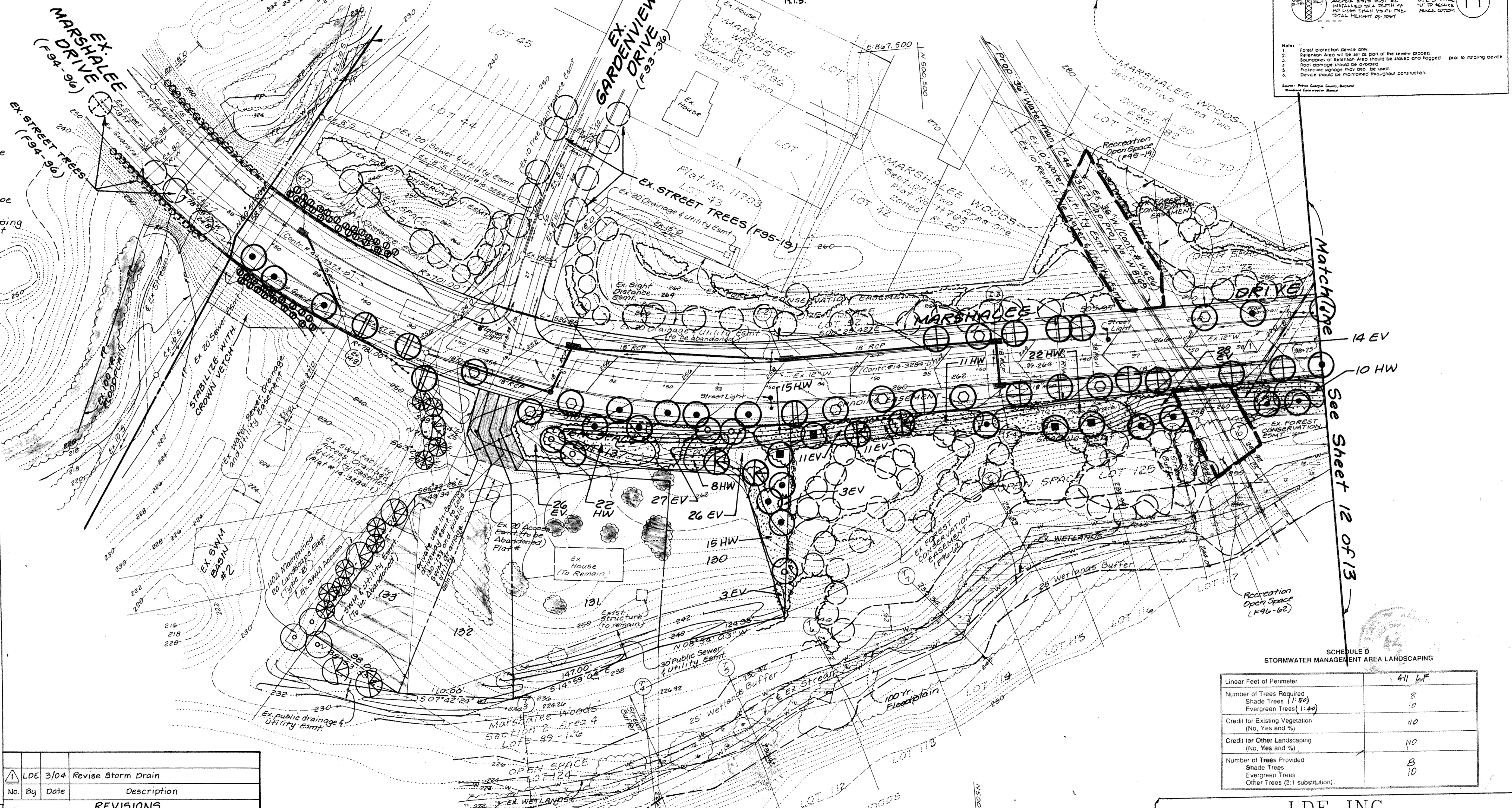
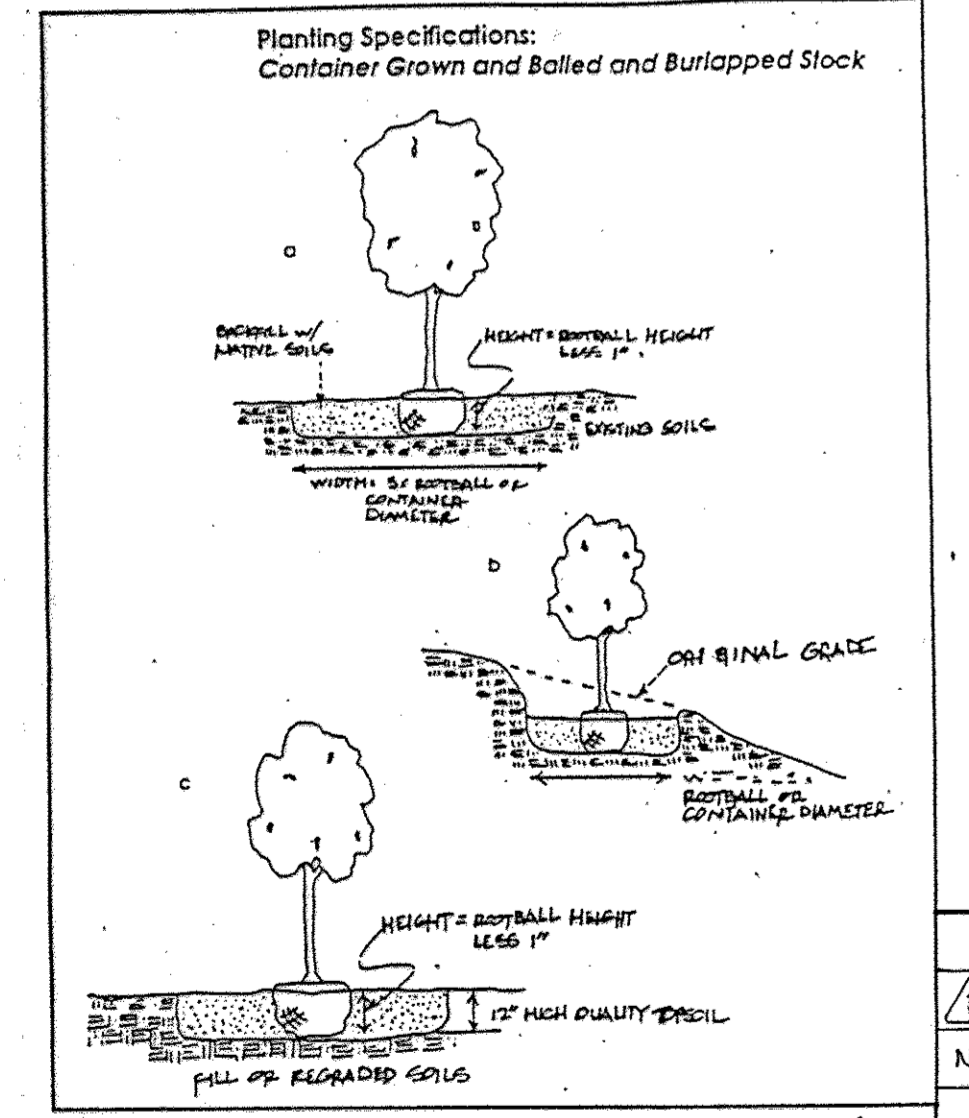
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Apply seed uniformly, cover seed up to 1/2 inch deep, mulch with 1 and 1/2 tons of straw and hold in place. All seed must be inoculated, and scarified.

Seed mixtures of 15 to 20 pounds of crownvetch mixed with either tall fescue or ryegrass at 30 pounds per acre. Grass provides quick growth and protects the site while the slower growing legume is getting established. Seeding date in the spring is best. Do not seed after mid-summer. Sites ready for seeding in late summer or fall can be seeded to grass and mulched, and the crownvetch over-seeded the following spring. Sites too steep or stony to use mechanical equipment usually can be seeded without site preparation if "frost seeded". Soil conditions must have a favorable soil reaction of pH 5.5 and be of moderate fertility. Broadcast seed in late winter (Feb-Mar) while there still is frost action in the soil. Frost heaving will work seed into the soil. Seeding rate of 15 to 20 pounds of crownvetch with a grass usually is adequate.



- NOTES:**
- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual.
  - 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.
  - Financial Surety for the required landscaping has been posted as part of the Department of Public Works Developer's Agreement in the amount of \$2000.00.
  - There shall be a minimum of 20 feet between street lights and street trees.



No.	By	Date	Description
1	LDE	3/04	Revise Storm Drain

**REVISIONS**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.
<i>Anna Summary</i> CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	<i>J. H. Washburn</i> NATURAL RESOURCE CONSERVATION SERVICE
DATE: 8/20/96	DATE: 8/7/96
APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS.	THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
<i>Andrew M. Decker</i> CHIEF, BUREAU OF HIGHWAYS #3	<i>Heidi W. Schmitz</i> HOWARD SOIL CONSERVATION DISTRICT
DATE: 8-16-96	DATE: 8/7/96

**SCHEDULE B  
STORMWATER MANAGEMENT AREA LANDSCAPING**

Linear Feet of Perimeter	411 LF
Number of Trees Required	8
Shade Trees (1"50)	10
Evergreen Trees (1"40)	0
Credit for Existing Vegetation (No, Yes and %)	NO
Credit for Other Landscaping (No, Yes and %)	NO
Number of Trees Provided	8
Shade Trees	10
Evergreen Trees	0
Other Trees (2:1 substitution)	0

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

DESIGNED	<b>LANDSCAPE PLAN</b>	SCALE
E.D.S.	<b>MARSHALEE WOODS</b>	1" = 50'
DRAWN	Section Two - Area Five	DRAWING
K.B.W.	Lots 127 thru 137	13 of 13
CHECKED	Tax Map 37	JOB NO.
B.D.B.	1st Election District	95-022.4
DATE	May, 1996	FILE NO.
		F96-66

*BRUCE DEFFTON*  
7/14/96

1667